Beyond Unwanted Sound
Noise, Affect and Aesthetic Moralism

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Abstract

This thesis uses Baruch Spinoza's notion of affect to critically rethink the correlation between noise, 'unwantedness' and 'badness'. Against subject-oriented definitions, which understand noise to be constituted by a listener; and object-oriented definitions, which define noise as a type of sound; I focus on what it is that noise does. Using the relational philosophy of Michel Serres in combination with Spinoza's philosophy of affects, I posit noise as a productive, transformative force and a necessary component of material relations.

I consider the implications of this affective and relational model for two lineages: what I identify as a 'conservative' politics of silence, and a 'transgressive' politics of noise. The former is inherent to R. Murray Schafer's 'aesthetic moralism', where noise is construed as 'bad' to silence's 'good'. Instead, I argue that noise's 'badness' is secondary, relational and contingent. This ethico-affective understanding thus allows for silence that is felt to be destructive and noise that is pleasantly serendipitous.

Noise's positively productive capacity can be readily exemplified by the use of noise within music, whereby noise is used to create new sonic sensations. An ethico-affective approach also allows for an affirmative (re)conceptualization of noise music, which moves away from rhetoric of failure, taboo and contradiction.

In developing a relational, ethico-affective approach to noise, this thesis facilitates a number of key conceptual shifts. Firstly, it serves to de-centre the listening subject. According to this definition, noise does not need to be heard as unwanted in order to exist; indeed, it need not be heard at all. Secondly, this definition no longer constitutes noise according to a series of hierarchical dualisms. Consequently, the structural oppositions of noise/signal, noise/silence and noise/music are disrupted. Finally, noise is understood to be ubiquitous and foundational, rather than secondary and contingent: it is inescapable, unavoidable and necessary.

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Introduction

> Ideally, for me the word noise (*bruit*) is one that we ought to be able to do without […] Acoustically as well as aesthetically, it is a word that promotes false ideas.
>
> Michel Chion, 'Let's have done with the notion of "Noise"', 245.

In his essay 'Let's have done with the notion of "Noise"', the composer Michel Chion asserts that 'noise' (or rather, its French counterpart, '*bruit*') is no longer a useful concept.[1] On the one hand, it is unclear what 'noise' refers to – the term lacks specificity. Chion points to two, often overlapping, meanings: noise in the sense of unwanted sound, such as music played too loud or too late in the evening; and noise in the sense of non-musical or non-linguistic sound, such as that produced by animals. Yet what constitutes unwanted or non-musical sound can vary drastically according to context. On the other hand, noise relies on a separation of the sonic universe into binary categories of the meaningful and non-meaningful; the desirable and undesirable; and the musical and non-musical. Noise, then, is simultaneously too vague and too 'segregationist'[2] – it is too ambiguous with regard to what it signifies, and too rigid in the distinctions it requires. Consequently, for Chion, noise is only useful for referring specifically to environmental noise pollution. Beyond this, however, he argues that the word should be disposed of and replaced with the more neutral '*son'* ('sound'). This would serve to liberate sounds from the stigma of noise, insofar as *'son*' does not share the former's derogative connotations. To call a sound 'noise' ('*bruit')* is to ascribe to it certain negative values (for example, of 'unwantedness' or 'extraneousness'); whilst referring to sounds as '*son'* allows the communicator to 'designate what is heard without immediately placing it within an

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[1] Noise is not a precise translation of the French term '*bruit*'; indeed, this might be described as a 'noisy' translation. However, many of the problems Chion identifies with the notion of '*bruit'* can still be applied to noise. For more on the translation of '*bruit*' in Chion's work see James A. Steintrager, 'Speaking of noise: from murderous loudness to the crackle of silk', *Differences,* vol. 22/2 (2011), 249-275.

[2] Michel Chion, 'Let's have done with the notion of "Noise"', trans. James A. Steintrager, *Differences,* vol. 22/2 (2011), 240-248, 242.

aesthetic, ethical or affective category.'[3] A segregationist and prejudiced conceptualization of the sonic universe (which rests on a division between 'good' meaningful sounds and 'bad' meaningless noise) can thus be averted.

Though I ultimately argue against his wholesale dismissal of 'noise', Chion's frustration with the term is understandable. Noise is both obvious and evasive. It is something that many of us regularly encounter and yet, as is often claimed, remains stubbornly resistant to theorization.[4] Noise slips between different disciplinary fields: it carries through the walls that separate science, acoustics, economics, politics, art, information theory, and law. What constitutes noise, moreover, can vary considerably between these fields. Noise abatement legislation, for example, primarily defines noise with reference to decibel levels, whilst acoustics ordinarily defines it in terms of non-periodic vibration. It could be said, then, that noise is a 'noisy' concept: it is messy, complex, fleeting, fuzzy-edged and, at times, infuriating.

Indeed, noise's conceptual 'noisiness' means it can be used to talk about almost anything. In 2013, BBC Radio 4 broadcast the thirty part series: 'Noise: a Human History' by media historian, David Hendy.[5] Topics discussed included the conventional 'touchstones' of noise discourse, such as neighbour noise and the babble of Babel. Yet there were also episodes on less obviously noisy subjects, such as the history of the stethoscope, the acoustics of religious buildings, church bells, music's oral traditions, ritualized uses of sounds, and – perhaps most tenuously – the persuasive power of political orators.

An even greater section of the sonic universe is covered in Hillel Schwartz's nine hundred page *Making Noise: From Babel to the Big Bang and Beyond.*[6] Schwartz's mammoth cultural history of noise begins with the myth of 'perfect' hearing, before moving through a vast range of sonic (and extra-sonic) encounters. In the name of

[3] Ibid., 245.
[4] Paul Hegarty, for instance, has suggested that noise is that which always fails to come into definition. See Paul Hegarty, 'Noise threshold: Merzbow and the end of natural sound', *Organised Sound,* Vol.6/3 (2001), 193-200.
[5] David Hendy, *Noise: A Human History* [radio series] (London: British Broadcasting Corporation, 2013). There is now also an accompanying book to the series. See David Hendy, *Noise: A Human History of Sound and Listening* (London: Profile, 2013).
[6] Hillel Schwartz, *Making Noise: From Babel to the Big Bang and Beyond* (New York: Zone Books, 2011).

noise, Schwartz explores the soundscapes of war, the city, suburbia and the countryside; theological constructions of Hell; Greek mythology; echoes; Freudian psychoanalysis; the asylum and sonic depictions of madness; advertisements; the historical evolution of language conventions, body etiquette and social manners; and the sounds, screams and cries of children.

While both Hendy's series and Schwartz's book present fascinating and richly detailed sonic histories, in these accounts noise veers towards becoming everything and – subsequently – nothing. It is evident from the subjects covered by both Hendy and Schwartz that noise is not simply taken to be unwanted or 'bad' sound. Rather, noise and sound become largely synonymous, inasmuch as it remains unclear what it is that makes noise 'noise' and what differentiates noise from sound. Consequently, in these instances, it would seem appropriate to follow Chion's suggestion to replace the negative term 'noise' with the more neutral 'sound'. Indeed, it is unclear what, if anything, would be lost from these historical accounts by doing so.[7]

These studies also point to a resurgence of scholarly interest in noise. In spite of its purported opposition to rigorous or consistent theorization – and against Chion's call to do away with the term – there has been something of a 'noise revival' over the past decade. In the discourses of media and cultural theory, there is a growing sense that noise matters to understandings of our contemporary, highly mediated society, in which noise's presence is suppressed, restrained and combated but – as will be seen – never eradicated.[8] In the digital era of ever-faster connectivity and communication, of high definition imagery and audio recording, it can sometimes seem as if noise has been conquered: that it is no longer a problem for our contemporary technologies. However, while it might not be audible or visible to a perceiving subject, noise

[7] This is perhaps less the case with Schwartz, insofar as he understands noise not to be a solely sonic phenomenon. However, the primary focus of his book is on what he understands to be noise's audible manifestations. It is also plausible that Hendy's BBC series exploits noise's power as a marketing tool – the term 'noise' is perhaps more exciting and attention grabbing than 'sound'. I discuss the use of noise in marketing and advertisement in more detail in the conclusion of this text.

[8] For example, see Mark Nunes (ed.), *Error: Glitch, Noise and Jam in New Media Cultures* (London, New York: Continuum, 2011).; Greg Hainge, 'Of glitch and men: the place of the human in the successful integration of failure and the digital realm', *Communication Theory,* vol. 17/1 (2007), 26-42.; Kim Cascone, 'The aesthetics of failure: 'post-digital' tendencies in contemporary computer music', *Computer Music Journal,* vol.24/4 (2000), 12-18.

always persists, exposing the fallacy of perfect mediation and the impossibility of the 'ideal channel'.

Noise has also gained attention in environmentalist discourses. In this context, noise is understood to matter because it has been responsible for polluting the soundscape and destroying a natural – and 'necessary' – peace and quiet. Many of these environmentalist narratives argue that despite its overwhelmingly audible presence within an industrialized, modern epoch, noise has often failed to be recognized as a force of environmental damage. Consciousness-raising is thus required so that noise and its detrimental effects can be acknowledged and combated collectively.[9]

Finally, the use of noise as an artistic and aesthetic resource over the course of twentieth and twenty-first centuries – particularly the emergence of noise music as a 'post-vernacular' genre in the 1970s and 80s, and the glitch aesthetics of the late 1990s – has contributed to this increase in scholarly attention. This growing interest has led to the publication of a significant number of books and collections grappling with the concept of noise, many of which stem from musicology, sound studies and media theory. These include Paul Hegarty's *Noise/Music: A History*; Steve Goodman's *Sonic Warfare: Sound, Affect and the Ecology of Fear*; Salomé Voeglin's *Listening to Noise and Silence: Towards a Philosophy of Sound Art;* Mark Nume's edited collection: *Error: Glitch Noise and Jam in New Media Cultures*; Garret Keizer's *The Unwanted Sound of Everything We Want*: *a Book About Noise;* Anthony Iles and Mattin's *Noise and Capitalism*; Rosa Menkman's *The Glitch Moment(um);* Grege Hainge's *Noise Matters: Towards an Ontology of Noise; Reverberations: The Philosophy, Aesthetics and Politics of Noise*, edited by Michael Goddard, Benjamin Halligan and Paul Hegarty; and its sister collection *Resonances: Noise and Contemporary Music,* edited by Michael Goddard, Benjamin Halligan and Nicola Spelman – all of which have been published in the past six years.

[9] For example, see Stuart Sim, *Manifesto For Silence: Confronting the Politics and Culture of Noise* (Edinburgh: Edinburgh University Press, 2007).; Garret Keizer, *The Unwanted Sound Of Everything We Want: a Book About Noise* (New York: PublicAffairs, 2010).; John Stewart, Francis McManus, Nigel Rodgers, Val Weedon, Arline Bronzaft, *Why Noise Matters: A Worldwide Perspective on the Problems, Policies and Solutions* (Oxford: Earthscan, 2011).

Beyond Unwanted Sound

This text connects with much of this body of scholarship in critically rethinking what is meant by noise beyond its colloquial definition as unwanted sound; and its acoustic definition as a type of sound or sonic attribute. I describe the former as a 'subject-oriented definition', through which noise is constituted by a listener who judges a sound to be unwanted, undesirable, detrimental or unpleasant; and the latter as an 'object-oriented definition', through which noise is constituted in accordance with particular acoustic qualities.[10] I discuss these two definitional approaches in Chapter One, 'What Noise Has Been: Subject-Oriented and Object-Oriented Definitions'. Here, I argue that a subject-oriented definition of noise is too vague in the sense that noise becomes any sound that a listener hears or experiences as such. Yet it is also too restrictive in the sense that it assumes that noise is only ever experienced negatively. In relying on a constitutive listening subject, furthermore, a subject-oriented definition limits noise to its obviously audible manifestations. An object-oriented definition is too narrow, inasmuch as noise is taken to be an inherent property of certain sounds, irrespective of how, where and by whom they are experienced. Consequently, an object-oriented definition abstracts noise from what it is that noise does.

Both subject-oriented and object-oriented definitions of noise are underpinned by a series of hierarchical dualisms. Through these, noise is negatively defined in relation to that which it is not: it is not wanted, not desirable, not intended, not ordered, not meaningful, and so on. Likewise, on the basis of the divisions between wanted/unwanted, meaningful/meaningless, order/unordered and ultimately good/bad, noise is set in binary opposition to signal, silence and music. Noise is that which detracts from the signal, destroys the 'goodness' of silence, and is to be excluded from the realm of the musical.

In order to move beyond some of the theoretical impasses and limitations that arise from subject-oriented and object-oriented definitions, I use a Spinozist notion of affect to (productively) disrupt the correlation between noise, 'unwantedness' and

[10] By referring to an 'object-oriented' definition of noise, I am not meaning to refer to the philosophical movement of 'object-oriented ontology'.

'badness'. Drawing upon Michel Serres relational figure of the parasite (which is influenced by an informational definition of noise),[11] in combination with Gilles Deleuze's 'appropriation' of Baruch Spinoza's philosophy of affects,[12] I propose a non-dualistic *ethico-affective* definition of noise. Rather than referring to a negative, subjective judgement of sound or a type of sound, noise is understood as a productive, transformative force and a necessary component of material relations. This alternative definition is intended to be broad enough to allow for noise's variable manifestations – loud and faint, audible and inaudible, perceptible and imperceptible – while also avoiding a collapse into a relativist endpoint where noise can be anything to anyone.

The second chapter, 'The Parasite and its Milieu', outlines an understanding of noise as a necessary and productive force, which stems from Claude Shannon's general model of communication; while Chapter Three, 'Thinking of Noise as Affect', connects this understanding of noise to Spinoza's notion of affect. I then consider the implications of this approach for two conceptual lineages: a 'conservative' politics of silence (Chapter Four, 'Acoustic Ecology, Aesthetic Moralism and the Politics of Silence'), and a 'transgressive' politics of noise (Chapter Five, 'Exposure, Sensation and the Transgressive Politics of Noise Music'). Both these lineages, I argue, are partly informed by the assumed correlation between noise, unwantedness and badness. The former is connected to the 'aesthetic moralism' of R. Murray Schafer's acoustic ecology.[13] The term 'aesthetic moralism' has also been used by Jacqueline Waldock to refer to acoustic ecology's 'beauty bias': its prioritization of the natural and 'unspoilt' over the urban and the 'impure'.[14] Though there are undoubtedly connections between Waldock's use of the term and my own, here I use aesthetic moralism to refer to the way in which Schaferian acoustic ecology construes noise as

[11] Michel Serres, *The Parasite,* trans. Lawrence R. Schehr (Minneapolis: University of Minnesota Press, 2007).
[12] While Spinoza's influence can be found in all of Deleuze's work (both his single-authored texts and his collaborations with Guattari), here I primarily focus upon Deleuze's reading of Spinoza as it is found in *Spinoza: Practical Philosophy* (San Francisco: City Light Books, 1988) and *Expressionism in Philosophy: Spinoza* (New York: Zone Books, 1992). The nature of Deleuze's reading of Spinoza is addressed in Chapter Three.
[13] R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Vermont: Destiny Books, 1994).
[14] Jacqueline Waldock, 'Dissertation overview: "The urban domestic soundscape and the community: A new perspective"', *World Forum for Acoustic Ecology News Quarterly,* vol. 10/1 (2013) http://wfae.proscenia.net/library/newsarchive/2013/01_Jan_Mar/pages/5.htm [accessed May 2013].

a ‘bad’ to silence’s ‘good’. I look to radically reconfigure Schafer’s aesthetic moralism and conservative politics of silence, in order to more fully allow for noise’s positive (and silence’s negative) manifestations. By drawing out the ethical dimension of Spinoza’s philosophy of affects, I argue that noise’s ‘badness’ is secondary, relational and contingent, arising as a potential effect of noise as opposed to its constitutive feature. The ethico-affective approach developed here thus allows for a ‘negative’ silence that is felt to be oppressive, destructive or alienating; and ‘positive’ noise that is comforting, serendipitous or generative.

In Chapter Five, I turn to noise’s utilization as a musical resource. While I make reference to a number of artists from around the world, this chapter principally makes reference to Euro-American receptions and conceptualizations of noise and noise music. In other words, it maintains a focus on Euro-American *understandings* of noise, but makes reference to *uses* of noise from around the world that trouble the definitive correlation between noise, unwantedness and badness. For a number of twentieth century avant-gardists, including the Futurist composer Luigi Russolo, noise has the capacity to generate new sonic sensations. From this perspective, noise is not unwanted and undesirable – the enemy of the music – but rather is a force of aesthetic reinvigoration and revitalization. By recognizing that noise has the potential to be ‘good’ as well as ‘bad’, to have positive as well as negative effects, the ethico-affective definition thus allows more fully for noise’s generative capacity in artistic contexts. Equally, the definition of noise developed in this account provides a means of productively reconceptualizing ‘noise music’ – the use of noise in, or as music. In no longer recognizing its unwantedness as constitutive, this ethico-affective definition provides an alternative to a ‘transgressive’ politics of noise that emerges from noise’s association with sonic and social ‘taboo’. Such a view is implicit in Jacques Attali’s Marxian analysis of musical evolution,[15] according to which noise must ‘fail’ when used in music – it can only exist as the once-was-noise. Instead, I look for a ‘living’ noise by turning to Henry Cowell’s affirmative account of ‘The Joys of Noise’. Rather than existing as a paradox, noise music can be understood to foreground or ‘expose’ the noise that always already exists in music but is ordinarily rendered inaudible. Whilst ‘transgressive’ accounts of noise music have a tendency

[15] Jacques Attali, *Noise: The Political Economy of Music,* trans. Brian Massumi (Minneapolis: University of Minnesota Press, 2003).

to reduce it to its most extreme manifestations, I argue that approaching noise music in terms of exposure allows for a broader range of practices and aesthetics. Indeed, noise music may involve what I call the 'full noise' approach of Japanese noise acts such as Merzbow and Incapacitants but it may also involve the quiet improvisations of Tokyo's *onkyô* movement, the droning tape hiss of Reynol's *Blank Tapes*, the abject virtuosity of experimental vocalist Diamanda Galás, the glitching rhythms of sound artist Nicolas Collins' *Broken Light,* or the 'crackle dub' of German electronic musician Pole (Stefan Betke).

The ethico-affective approach to noise developed here facilitates a number of key conceptual shifts. Firstly, it works to de-centre the listening subject. According to this perspective, noise does not need to be heard as unwanted, loud or excessive in order to exist – indeed, it need not be heard at all. Noise, then, no longer 'needs me'[16] – its status no longer relies on a constitutive listener. Furthermore, a de-centring of the listener helps counter the anthropocentrism of a subject-oriented definition and phenomenological accounts of noise, in that allows for the noise that remains hidden out of earshot – be it through habits of listening, thresholds of perception, or through error correction mechanisms that counter noise before it reaches the level of audibility. In doing so, it enables the development of connections between noise's audible manifestations that affect individual and collectives of listening subjects and its other, largely imperceptible manifestations that affect non-human bodies and relations. Indeed, noise's affectivity – its capacity to modulate, perturb and transform – is understood to underline both an encounter with disruptive neighbours and the stuttering outbursts of Yasunao Tone's 'wounded' CDs. An affective approach to noise that no longer rests upon a constitutive listening subject thus helps to draw together noise's social, informational and artistic manifestations.

Noise, then, is not thought of as a solely audible phenomenon. Nor is it conceptualized as a definitively negative phenomenon. By decoupling it from a definitive 'unwantedness' and 'badness', noise is no longer defined by its detrimental capacity to irk, annoy or frustrate; nor its capacity to cause physiological and environmental damage. Rather, noise is understood to have the capacity to have both

[16] See Salomé Voegelin, *Listening to Noise and Silence: Towards a Philosophy of Sound Art* (London: Continuum, 2011), 48.

positive and negative effects: to diminish and destroy; but also to enhance and create. Either way, noise is productive insofar as it is transformative – no matter how minor or fleeting that transformation is. Whether the outcome of that transformation is 'good' or bad'; beneficial or harmful is secondary and contingent.

Furthermore, this ethico-affective approach is non-dualistic. Rather than constituting noise in accordance with a series of binary values – wanted/unwanted, good/bad, intended/unintended – I seek to develop a relational approach that evades these often reductive dichotomies. Here, noise is understood not as a particular object or entity; rather it describes a perturbing, affective relation between entities, or between an entity and its milieu. This approach permits a more nuanced understanding of noise that does not reduce it to particular ethical values (i.e. 'unwantedness' 'badness') or particular aesthetic qualities (i.e. loudness, harshness, abrasiveness). Over the course of these chapters I use this relational framework to rupture and radically reconfigure the structural oppositions of noise/signal (Chapter Two), noise/silence (Chapter Four) and noise/music (Chapter Five).

Finally, noise is understood to be ubiquitous, constitutive and primary, rather than secondary, contingent and intermittent. Noise, I argue, not only disrupts transmission but also is what allows transmission to occur in the first place. In this sense, it is foundational: with no noise, there is no signal. Consequently, noise can never be abated in its entirety: only minimized or worked around. It is inescapable, unavoidable and necessary. The approach that I take thus refutes the notion that noise pertains to the anomalous and secondary disturbance of a principal state of clarity and perfection.

The Parasite, The Middle, The Milieu, The Medium

In the attempts to reconceptualize noise beyond 'unwanted sound', a number of scholars have explored the notion of noise as potential via the Deleuzian concept of 'virtuality'. This approach allows for a theorization of noise that no longer relies on its opposition to something else, such as signal, music or meaning. Christoph Cox, for example, rejects the notion of noise as disruption, inasmuch as it positions noise

as a secondary and derivative phenomenon. In short, noise requires something to disrupt, and thus something must precede it. Noise, when understood as disruption,

> disturbs or interrupts an initial state of calm. It interferes with communication and thought, making it difficult to hear, speak, understand or concentrate […] The discourse of information theory lends scientific support to this everyday position, taking noise to be what interferes with the transmission of messages and signals. For the information theorist, noise is the muck that accumulates on or around a message as it makes its way from sender to receiver. As a practical science, information theory takes as its aim the elimination or suppression of such detritus and a restoration of the message or signal in all its original purity.[17]

Noise as disruption is taken to rely on a structural and hierarchical opposition between noise/signal. Against this conceptualization of noise as a secondary perturbation of the primary signal, Cox pursues the notion of a transcendental and largely imperceptible background noise that is the condition for all music and signal. Unlike noise as disruption, Cox argues that this definition no longer requires noise to be defined in relation to signal. Rather, this transcendental background noise, understood to underline all worldy events as a ceaseless, uninterrupted hubbub, can be conceived in and of itself.

While I draw upon Cox's (and others') transcendental concept of noise, I argue that these two definitions – noise as disruption and background noise – can be productively brought together, rather than simply replacing one with the other. Indeed, I would argue that the philosophical focus on the latter has sometimes resulted in the sidelining of a more parasitic notion of noise – reduced, as Cox characterizes it, to that which is secondary and contingent.

In order to bring these two notions of noise together, I borrow from Serres' etymological play on 'milieu', 'middle', 'means' and 'medium', which is a recurring theme throughout this text. Insofar as the signal has to pass through the material milieu/medium/middle, it is always affected by noise in some manner. In other

[17] Christoph Cox, 'Sound art and the sonic unconscious', *Organised Sound,* vol.14/1 (2009), 19-26, 20.

words, the milieu/medium/middle always exposes the signal to parasitic perturbations. This is also acknowledged in Claude Shannon's general model of communication. Although the *effects* of noise may be countered via redundancy and error correction, noise itself can never be fully eradicated – hence noise's inclusion in Shannon's general model. By conceiving of the largely imperceptible hubbub as a vibrational milieu/medium through which all sound-signal must pass, I argue that background noise necessarily exposes the sound-signal to noise-as-disruption. Consequently, the notion of noise as parasitic disruption and transcendental background noise can be seen as two dimensions of one noise.

The (Re)turn To Affect

Almost contemporaneous with the 'noise revival' has been a resurgence of interest in affect. Indeed, the current scholarly interest in both noise and affect can be seen as symptomatic of a broader turn towards the 'non-representational' dimensions of experience within cultural theory and the humanities more broadly – the move away from questions of representation, identity and signification and towards the material, the embodied, and the sensuous. Emerging alongside late capitalist politics of information and control, and drawing significantly from feminist and queer theory, contemporary manifestations of affect theory have required a reconfiguration of how we understand the relationships between the body (as-subject), bodies (in their broadest, Spinozist sense) and their (technological, political, economic, social, biological) milieux. This occurs without recourse to either a closed notion of 'self' or the dualisms that separate the human from machine, nature from culture, subject from object, science from art, technology from the aesthetic and body from mind. Affect theory thus views human experience as part of a wider field of interactions. As Michael Hardt notes:

> Affects require us, as the term suggests, to enter into the realm of causality, but they offer a complex view of the causal relationship. They illuminate, in other words, our power to affect the world around us and our power to be affected by it, along with the relationship between these two powers.[18]

[18] Michael Hardt, 'Foreword: what affects are good for', in Patricia Clough and Jean Halley (eds.), *The Affective Turn: Theorizing the Social* (Durham: Duke University Press, 2007), viiii-xiii, viiii.

In addressing the body, its affective powers (that is, its capacity to affect and be affected), and its engagements with other bodies, entities and environments, affect theory offers an alternative perspective on sociability, which seeks to (re)consider some of the (perceived) omissions and blind spots of the mainstream intellectual trends of twentieth century critical theory – for example, Lacanian psychoanalysis, structuralism, poststructuralism, deconstruction, semiotics and social constructivism. These modes of analysis – partly symptomatic of the so-called 'cultural' and 'linguistic' turns within the humanities and social sciences – have primarily been concerned with questions of signification and representation; the communication and dissemination of meaning; and how language constitutes socio-political realities. An affective approach, by contrast, deals first with an asignfiying register – the modulations of intensity, sensation and feeling that occur at the level of matter and constitute an encounter, happening or event.[19] However, despite certain polemical overstatements of its 'newness', affect theory is not a straightforward disavowal of these previous modes of understanding – a radical overthrowing of these 'wrong' approaches in favour of a new, 'correct' model. Rather, it seeks to extend beyond, while also drawing from and working alongside, these modes of analysis. Indeed, affect – though functioning according to an alternative logic and requiring a different point of focus – nevertheless remains implicated within the field of representation and signification. As Simon O'Sullivan notes, signification could be understood as a complex affective function, with meaning being the effect of affects.[20] To label affect theory as a 'new' theoretical approach, moreover, is to downplay the longstanding genealogy of feminist, queer and postcolonial thought that shares (or rather, precedes) the contemporary 'affective turn's' concern with embodied

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[19] This critique is pertinent with regard to Simon O'Sullivan's examination of the role of affects in art. He notes that both Marxist accounts of art, which are primarily concerned with interpreting art historically (i.e. in relation to the moment of its production) and deconstructionist accounts of art, which typically address art as a crisis in representation, both entail a rejection of the aesthetic. For the former, the aesthetic, as transcendent and disinterested beauty, is dismissed as an ideological construction; while for the latter, the discourse of aesthetics, translated as a discourse of/on representation, has been readily deconstructed, revealed as a 'broken promise'. However, as O'Sullivan argues, while deconstruction and critique are useful for counteracting a certain type of aesthetic *discourse*, the aesthetic – understood as involving sensation, feeling, and affect – persists: 'after the deconstructive reading, the art object remains. Life goes on. Art, whether we will it or not, still produces affects'. Simon O'Sullivan, 'The aesthetics of affect', *Angelaki: Journal of the Theoretical Humanities,* vol.6/3 (2001) 125-135, 126.

[20] O'Sullivan, 'The aesthetics of affect', 126.

experience, the material transformations of the body, and the role of feeling and emotion in creating and shaping worlds. As Carolyn Pedwell and Anne Whitehead argue: 'While affect theory provides a valuable resource to interrogate long-held assumptions and think social and political life differently, such openings are not framed productively (or accountably) through an elision of the critical and diverse contributions of feminist, postcolonial and queer analysis.'[21]

Pertinent to the aims of this text, affective approaches can be understood to continue the feminist, poststructuralist and deconstructionist critique of normative philosophical and political dualisms that govern the social. Clare Hemmings notes that theories of affect are interested in 'analogue' rather than 'digital' modes of power – the connected and relational over oppositional dichotomies.[22] Indeed, affect does not comfortably fit into binary constructions of power, in that it does not clearly 'belong' to one side or the other. That said, there has been a notable optimism surrounding affect, specifically regarding its capacity to transform, restructure, and, subsequently, facilitate alternative modes of being.

Such optimism is evident in Eve Sedgwick's work on shame and its affirmative potential for generating community and solidarity. In *Touching Feeling: Affect, Pedagogy, Performativity,* Sedgwick criticizes the 'habitual practices' of critical theory: namely, the 'hermeneutics of suspicion', and the dominance of a paranoid epistemology that puts its faith in 'exposure' – the demystification and subsequent revelation of the hidden and historical patterns of violence. She argues that at a time when the violence of hegemonic states, regimes and institutions is anything but hidden (to the point that it is flaunted), the revelation of such violence rarely tells us something new. Against this 'paranoid' approach, and the faith it places in knowledge and truth, Sedgwick proposes a 'reparative' approach for critical theory, which, drawing on Silvan Tomkins' quasi-Darwinian notion of affect, brings with it a renewed attention to inter- or intra- subjective experiences and the creative connections they foster; to pleasure and hope; and to love. Such a theory allows for the surprising, the out-of-the ordinary, and the quirky – in short, those experiential

[21] Carolyn Pedwell and Anne Whitehead, 'Affecting feminism: questions of feeling in feminist theory', *Feminist Theory,* vol.13/2 (2012), 115-129, 118.
[22] Clare Hemmings, 'Invoking affect: cultural theory and the ontological turn', *Cultural Studies*, vol.19/5 (2005), 548-567, 550.

glitches and energizing affects that are ordinarily overlooked by a paranoid approach that is simultaneously anticipatory and retrospective. It is specifically the independence of affects from particular objects and the unpredictability of affective attachments that Sedgwick sees as beneficial for a reparative approach: 'Affects can be, and are, attached to things, people, ideas, sensations, relations, activities, institutions, and any number of other things, including other affects. Thus one can be excited by anger, disgusted by shame, or surprised by joy.'[23]

It is evident that Sedgwick associates affects with an openness and freedom that can help a more optimistic critical theory move beyond the well-traced cycles of paranoid thought. However, as Hemmings notes, such celebrations of affect as a means of reviving cultural and critical theory tend to omit or overlook the 'myriad of ways affect manifests precisely not as difference, but as a central mechanism of social reproduction in the most glaring ways.'[24] There are, for example, the desires and delights of consumerism, the terror, disgust and hatred manifest in racism, the feelings of collective belonging that are present in fascist rallies and patriotic ritual. Affect, then, cannot be simply taken as a 'way out'. While the affective may be surprising or (productively) unpredictable, it can also work to strengthen a hegemonic social order, and to dominate, regulate and alienate certain bodies. In other words, there nothing inherently emanicpatory, radical or resistant about affect, but nor does it always already affirm the dominant modes of social reproduction. Affect, then, is not 'either/or' but rather 'both-and' – *for better and for worse.*

The question remains of what is meant by affect. Like noise, affect is not a singular concept but rather has numerous connotations; some compatible, some conflicted. Consequently – and again, like noise – it is often claimed that affect remains resistant to definition, since affects have no meaning in and of themselves: they are both a-objective and a-subjective, asignifying and a-representational, existing as part of, but never being fully captured by subjects, objects or signifiers. Simon O'Sullivan exemplifies this problematic: 'there is no denying, or deferring affects. They are what make up life, and art […] But what can one say about affects? Indeed, what

[23] Eve Sedgwick, *Touching, Feeling: Affect, Pedagogy, Performativity* (Durham: Duke University Press, 2003), 19.
[24] Clare Hemmings, 'Invoking affect: cultural theory and the ontological turn', 551.

needs to be said about them? […] You cannot read affects, you can only experience them.'[25] It is never really a question of what affect is, then, but what it does. In other words, to paraphrase Freud, affect is not thought or reflected upon; affect *acts*.[26] Perhaps most commonly, affect is associated with emotions, feelings and sensations, as well as their transformation of and transference between bodies.[27] In Spinoza's *Ethics*, affect has a broader definition: it pertains to an entity's capacity to affect and be affected, its modulating powers to act and be act upon. Either way, affect begins with the relation; it pertains to the in-between of the encounters of subjects, objects, and environments.

In many ways, the relationship between noise and affect is immediately obvious. Noise can serve to startle, threaten and annoy; and is often associated with feelings of stress and frustration, however, as shall be seen in Chapter Four, it may also contribute to feelings of belonging and community. It may disrupt our sleep, causing us to shift from a state of inactivity to alertness. The connection between noise and affectivity is even apparent from the term's etymological roots; noise partly stems from the Latin *nausea,* which refers to the sensation of seasickness.[28] However, noise – as well as sound and music – has remained largely absent from affect theory. Likewise, contemporary developments in affect theory have not been substantially drawn upon in the recent scholarship on noise. Connecting noise to notions of affect is thus what primarily distinguishes the approach taken here from pre-existing work.

[25] O'Sullivan, 'The aesthetics of affect' 126.
[26] Sigmund Freud quoted in Gregory J. Seigworth and Melissa Gregg, 'An inventory of shimmers', in Melissa Gregg and Gregory J. Seigworth (eds.), *The Affect theory Reader* (Durham: Duke University Press, 2010), 1-26, 2.
[27] While some theorists consider affect and emotion to be synonymous, for others affect and emotion pertain to two distinct but related points of experience. I deal with the relation between affect and emotion in more detail in Chapter Three. For critiques of the division between affect and emotion see Chapter Three, n12.
[28] Oxford University Press, 'Noise, n.', *OED Online* (2012) http://www.oed.com/view/Entry/127655?rskey=3fdZZa&result=1&isAdvanced=false [accessed July 2012]. It has also been suggested that there is a possible link between the Latin *noxia,* referring to harmful behaviour, which would link *noise* to nuisance, as well as the Catalan *nosa* from the late thirteenth century, meaning bother, hindrance.

Affects Versus Effects

The ethico-affective approach to noise developed here has a number of thematic resonances with François Augoyard and Henry Torgue's ecology of sonic effects. Augoyard and Torgue seek to develop an interdisciplinary classification system that strikes up a middle ground between R. Murray Schafer's soundscape and Pierre Schaeffer's sound object (*objet sonore*), while also avoiding the limitations that accompany both – namely, their insufficiency in considering 'noisy' urban sonic environments.[29] The sound object, as a micro unit of auditory perception, is too narrow: it does not lend itself to analyzing complex or disparate sound sequences. The soundscape, by contrast, as a macro-descriptor of a sonic environment, is imbued with what I describe as a Schaferian aesthetic moralism, which prioritizes values of clarity and precision and thus discredits fuzzy and clamorous urban sound environments. The sonic effect is proposed as an intermediary descriptor, sitting between the elementary (sound object) and the holistic (soundscape). It is described as a relational, processual and contextual approach to sonic experience:

> The sonic effect, sometimes measurable and generally linked to the physical characteristics of a specific context, was not reducible either objectively or subjectively. The concept seemed to describe this interaction between the physical sound environment, the sound milieu of a socio-cultural community and the "internal soundscape" of every individual.[30]

The effect arises with the interaction between a sound and its perceiver, as can be aptly demonstrated with reference to the Doppler effect. Augoyard and Torgue note that a sound does not physically 'change' with the Doppler effect; rather, it is the relation between the sound-producing object and the listener that changes, when either the former or the latter is moving at a sufficient speed.

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[29] Pierre Schaeffer's sonic object can be understood to be a similar size event to the musical note, however it refers to any sound (as opposed to only sounds produced by musical instruments). According to Schaeffer's philosophy of listening, the pure sonic object revealed in the 'acousmatic' experience, which is to 'hear with another ear' – to separate the sound signal from its source and its associative connotations, with the listener 'deliberately forgetting every reference to instrumental causes or pre-existing musical significations.' Consequently, the sound 'of' becomes a sound-itself See Pierre Schaeffer, 'Acousmatics', in Cox, Christoph and Warner, Daniel (eds*.), Audio Culture: Readings in Modern Music* (London: Continuum, 2004), 76-81, 81. For a definiton of the soundscape see Chapter Four.

[30] Jean François Augoyard and Henry Torgue, *Sonic Experience: A Guide to Everyday Sounds* (Kingston and Montreal: McGill-Queen's University Press, 2008), 9.

Augoyard and Torgue's paradigm also pays attention to the affectivity of sounds – their capacity to create 'effects' of astonishment and wonder. The emotional effects of sound, they argue, have been used in every culture, and are present not only in spectacular or exceptional contexts but also within everyday and quotidian sound environments. For a sound to be perceived it must affect the listener in some way. Thus perception always brings with it some form of effect.

Noise, then, could be described as a particular effect of sound. Like the Doppler effect, it could be understood as neither a type of sound nor a subjective judgement of sound but the effect or outcome of a particular relation between (sonic) object and (listening) subject. However, there is a key difference between the notion of noise as sonic effect and noise as affect. Augoyard and Torgue's approach remains tied to a phenomenological tradition and is thus centred on human perception. Consequently, to approach noise as a sonic effect would be to reduce it, once again, to its audible manifestations: to that which is only perceived by and acts upon the human, listening subject.

Whilst Augoyard and Torgue's sonic effect treats the listening subject as primary, the Spinozist approach taken here seeks to move beyond the phenomenological anthropocentrism of much noise discourse and the subsequent primacy of the listening subject, by making allowances for those noises that occur out of earshot, as well as noise's effects upon other, non-human entities and relations. This is due to Spinoza's particular, non-anthropocentric definition of a body. Put simply, a body is constituted by its relations of motion and rest, and its affective capacity – its power to affect and be affected. So an affected and affecting body may be a human body, but it also might be a communications system, a crowd, or a series of sounds. With reference to this Spinozist concept of the body, then, noise is understood to affect not only the body-as-subject, but also collectivities, machines and buildings.

Spinoza's non-anthropocentric notion of affect, moreover, is necessarily bound up with an ethics, insofar as affective encounters increase or diminish a body's capacity to act and be acted upon. In other words, this affective approach to noise is also an ethical approach. From a Spinozist perspective, 'good' and 'bad' are not inherent values but describe the nature of a relational encounter: a 'bad' encounter diminishes

a body's affective capacity, while a 'good' encounter enhances its affective capacity. The shift from a phenomenological noise that 'needs me' to a non-anthropocentric noise understood in terms of affect is thus accompanied by a shift from morals to ethics. I replace a transcendent aesthetic moralism that defines noise as inherently bad (by comparison to a silence that is inherently good) with an experiential ethics of noise (and silence), through which noise's 'badness' or 'goodness' is constituted in relation to an affected body. With this, a space is opened up for noise's positive, generative effects.

An Alternative Framework

The ethico-affective definition I develop is intended to serve as an alternative framework for thinking through noise, which allows for a broader range of its manifestations and potentials. Thus the way in which noise is defined here does not necessarily contradict noise's 'everyday' connotations but looks to add to them, so as to permit a more nuanced understanding of noise that does not reduce it to a series of binary oppositions. In disrupting the constitutive correlation between noise, unwantedness and badness, I do not deny that noise can be 'unwanted' or 'bad' – that it can negatively affect the listening subject, inhibit communication, or be encountered as irritating, excluding or unpleasant – nor do I deny that it can be loud and abrasive, or generated by machines. However, I do argue that these qualities, features and values are not sufficient as ontological qualifiers: just because noise is often felt to be negative does not mean that it is definitively so. What is advantageous about this alternative framework is that pushes further the open-endedness of a subject-oriented definition (in that it allows for noise to be good as well as bad, generative as well as destructive, beneficial as well as harmful, perceptible as well as imperceptible), while also remaining consistent with regard to what noise is and what it does. In other words, it seeks to strike a balance between the vagueness and specificity of noise, as described by Chion.

One of the principal aims of the approach developed over the course of these chapters is to allow more fully for noise's positively productive capacity as it has been readily utilized in music (and without resorting to uncritical celebrations of

noise's 'goodness'). This text thus has at its centre a musicological concern for noise's use as an artistic resource, which stems from its potential to generate new sonic sensations. Indeed, this ethico-affective approach helps to connect noise's use in artistic contexts to its other (social, technological, informational) manifestations. In decoupling noise from a constitutive unwantedness, musical uses of noise are no longer to be considered as anomalous or exceptional – as a making good of noise's inherent badness. Nor are they considered artistic simulations of noise 'proper'. When considered from an affective viewpoint, noise's artistic manifestations are just as 'real' as noise's manifestations as technological error, or neighbourly disruptions.

To end this introduction by returning to where it began: *contra* Chion, this text can be summarized as an argument for the continuing salience of the notion of noise. Rather than seeing it as a reason to do away with the term altogether, the perceived insufficiency of noise's common definitions is taken as an invitation to think critically and speculatively about what noise is and what noise might do – how noise may be defined so as to avoid these pitfalls, while also maintaining some sense of consistency and specificity. In any case, attempts to simply do away with noise in its entirety are destined to fail. There can be no eradication or elimination, only minimization. This text thus embraces noise as a necessary component of material life, of existence within an inevitably parasitic milieu. Spinoza's philosophy of affects postulates that to exist is to be affected. I assert that to exist is to be affected by noise.

Chapter One. What Noise Has Been: Subject-Oriented and Object-Oriented Definitions

NOISE, n. A stench in the ear. Undomesticated music. The chief product and authenticating sign of civilization.

Ambrose Bierce, *The Devil's Dictionary,* 85.

In *The Unwanted Sound of Everything We Want: A Book About Noise*, Garret Keizer claims that '[l]ike Justice Potter Stewart, who famously said that although he could not define obscenity, he knew it when he saw it, most of us feel confident in our ability to identify noise. We know it when we hear it.'[1] Noise, when it is heard, is instantly recognizable. For Keizer, moreover, the way in which noise intrudes on consciousness means that it cannot help but be heard. It grabs hold of the listener, dominating auditory experience. Yet despite these descriptors, the troublesome question remains: what is it, exactly, that makes noise 'noise'?

In this chapter I critically consider four definitional approaches to noise. I first focus on what I call a subject-oriented definition, which recognizes the listening subject as constitutive. As unwanted, unpleasant or 'bad' sound, noise pertains to a value judgement that is made during perception. Consequently, it has to be heard and then judged as negative in order to exist. Through a discussion of neighbour noise and domestic space, I demonstrate how what is heard as noise varies between individuals, as well as according to socio-historical context. Secondly, I describe what I label an object-oriented definition, through which noise is defined in accordance with particular acoustic qualities and attributes. I outline the relation between noise and musical tones, as it is understood by the German physicist Hermann von Helmholtz, before turning to the concept of white noise.

[1] Garret Keizer, *The Unwanted Sound Of Everything We Want: A Book About Noise* (New York: PublicAffairs, 2010), 24.

I then discuss two definitions that overlap with both subject-oriented and object-oriented definitions: noise's definition in relation to particular sound sources, and noise's definition in terms of loudness. With regard to the former, it is shown how noise has been associated with particular 'unnatural' sources, as well as certain bodies deemed 'other'. However, I also show how noise may come from an unknown source, as exemplified by an unexplained sonic phenomenon called 'the hum'. With regard to the latter, I discuss (loud) noise's capacity to cause physiological damage, and its problematic equivocation with technology, modernity and capitalism.

In discussing these four definitional approaches, this chapter draws attention to some of noise's common acoustic, cultural and political associations. It also highlights the limitations of these definitions when they are applied more generally. Defining noise in relation to particular sound sources and qualities is shown to be too limited and too partial in that it does not take into account what it is that noise does; whilst defining noise in relation to a constitutive listening subject would seem too broad, in that it veers towards a relativist endpoint where noise is anything that is perceived as such. To conclude, I situate the ethico-affective approach to noise that I develop over the course of the following chapters in relation to these definitions and their apparent limitations.

Subject-Oriented Noise

Noise is most commonly understood to be an audible problem. It is that which is deemed to be unwanted, unpleasant, or undesirable: it is used to refer to sound that is considered 'bad' for some reason. The British physicist G.W.C. Kaye, adapting the description of dirt as 'matter out of place', defines noise as 'sound out of place' – in space and/or time.[2] In being out of place, noise may inhibit communication, or mask 'meaningful' sound. Alternatively, noise can be sound that is considered meaningless, or whose meaning is disliked – it can be both incomprehensible and

[2] For Kaye, sound can become unhelpfully displaced by its 'excessive loudness, its composition, its persistency or frequency of occurrence (or alternatively, its intermittency, its unexpectedness, untimeliness, or unfamiliarity, its redundancy, inappropriateness, or unreasonableness, its suggestion of intimidation, arrogance, malice, or thoughtlessness […] and so on.' G.W.C. Kaye, 'Noise and its measurement', *Proceedings of the Institution of Great Britain* (1931), 435-488, 443-445.

blasphemous. Noise may be unwanted in the sense that it distorts and degrades an intended signal; in the sense that it is judged to be excessive or degenerate; or in the sense that it may cause physiological and psychological harm. Or noise may be unwanted because it is sound that simply annoys us. As the above entry from Ambrose Beirce's satirical lexicon suggests, as 'a stench in the ear', noise is something that we do not want to be around; that we seek to avoid as much as possible. It is associated with pollution, disorder and destruction. Noise is that which is to be excluded, abated or suppressed – it is to be kept out or driven out.

To describe noise as unwanted sound requires a listener to hear it as such. Sounds become noise when they are heard in a particular way – it is a value ascribed in relation to perception. Consequently, the task of constituting noise lies with the listener. As Paul Hegarty states:

> Noise is not the same as noises. Noises are sounds until further qualified (e.g. as unpleasant noises, loud noises, and so on) but noise is already that qualification; it is already a *judgement* that noise is occurring. Although noise can occur outside of cognition (i.e. without us understanding its purpose, form, source), a judgement is made in reaction to it.[3]

For Hegarty, then, noise is sound that is judged to be negative. The presence of someone – or something – to hear noise is thus essential: 'noise needs a listener.'[4] However, hearing on its own is not enough. According to Hegarty, there are two stages in the constitution of noise. Firstly, there is the perception of sound; and scondly, there is the judgement of sound as unwanted and, by extension, 'bad' – it is received by the listener as irritating, frightening, potentially damaging, inhibitive and so on. Hegarty argues that without these two stages – of perception and valuation – there might be sound but there cannot be noise. From this perspective, then, noise is a status that is added onto sound in perception, rather than an inherent property of the sound itself.

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[3] Paul Hegarty *Noise/Music: A History* (London: Continuum, 2008), 3. This definition of noise perhaps alludes to the distinction that is sometimes drawn between hearing and listening, where hearing refers to a basic act of perception, whilst listening refers to a conscious, attentive and evaluative mode of perception. Noise, as a judgement that requires an assessment and valuation of sounds, would pertain to the latter.

[4] Ibid.

Which sounds are judged to be wanted or unwanted, permitted or unpermitted, acceptable and unacceptable can vary radically between individuals: hence the well-worn axiom 'one person's noise is another person's music'. While some encounter the heaviness and aggression of certain styles of punk, metal and hip-hop as unbearable and intolerable noise, there are others for whom this makes for a highly pleasurable – or even joyous – musical experience. Noise, then, is often viewed as an issue of personal taste. However, judgements of noise can often feel more important than a 'merely' personal matter. Indeed, we often expect others to share our judgements, making appeals to a 'common sense' of what is reasonable and permissible and what is not.

The difference – and tension – between individual judgements of what counts as unreasonable noise often becomes apparent in disputes over 'noisy neighbours'; those who, through their use of sound, traverse the boundaries of what is perceived to be 'our' domestic space – disrupting or disturbing our homely activities in the process. Domestic spaces are particularly sensitive to noise given their cultural associations with peace, privacy and intimacy. A 2002 report for the Department for Environment, Food and Rural affairs (DEFRA), found that the number of domestic noise complaints reported to the local authorities in England and Wales is the equivalent to one in every five hundred people complaining once a year, and that the most common cause of complaint is neighbour noise. The report adds that neighbour noise 'is an almost inevitable consequence of urban living and is highly dependent on standards of behaviour and personal consideration. Consequently it is found to cause problems everywhere'.[5] Similarly, a 2003 MORI report for DEFRA found that neighbour noise 'is one of the most annoying noises when it is heard.'[6] They suggest two reasons are key for explaining this. Firstly, while people seem able to develop a certain degree of 'immunity' to noises from traffic and trains, the irregularity and

[5] Environmental Resources Management, *Noise and Neighbourhood Noise – A Review of European Legislation and Practices* (Environmental Resources Management, 2002) http://archive.defra.gov.uk/environment/quality/noise/research/euroreview/documents/noise_euro_review.pdf. [accessed May 2012], 47. The report notes the important difference between neighbour noise, defined as noise produced by a person's neighbours and noise that is produced in the neighbourhood, such as noise from pubs, commercial or local industry, and construction sites (but not from transportation).

[6] MORI Social Research Institute, *Neighbour Noise: Public Opinion Research to Assess its Nature, Extent and Significance* (London: MORI, 2003) http://archive.defra.gov.uk/environment/quality/noise/research/mori/documents/mori.pdf [accessed May 2012], 6.

lack of utility from neighbour noise suggest this does not apply. In other words, whilst transport noise may be heard as a 'necessary evil' – an unfortunate side effect of an ultimately useful, regular and thus predictable activity – noise from neighbours is heard to be useless and unexpected – there is no good reason for it. Secondly, neighbour noise is thought to be synonymous with a lack of consideration. According to the report: 'this "consideration" factor is critical in understanding the dynamics of disputes and demonstrates the importance of the *social context* of noise as opposed to its purely physical attributes.'[7] Neighbour noise, then, is often infuriating because it is felt to communicate a lack of consideration, care or respect for others.

To return to the axiom of 'one person's noise is another person's music', loud music (along with shouting and banging) is listed as the most frequent cause of annoyance and disturbance. However, the report also found that 'the noise need not be "stereotypical" nuisance noise to cause a dispute […] fairly routine noises (such as vacuuming, washing or closing doors) can be considered inconsiderate if they go on for too long or occur late at night.'[8] These examples resonate with Kaye's description of noise as sound out of place. Neighbour noise can be 'out of place' spatially, in that it invades 'my' home; and temporally, in that it occurs for too much time or at the wrong time. Responses to these quotidian sounds, moreover, show that noise need not be particularly loud in order to cause irritation. Rather, sounds may become noise due to their persistence, invasiveness, or their (perceived) inescapability.

While there are some common themes concerning what noises are considered irritating or disturbing, there are some neighbourly noises that individual listeners are more willing to endure than others. DEFRA's report identifies numerous factors that influence 'thresholds of tolerance', such as the time of day and regularity of the noise. However, it also finds that factors relating to lifestyles or 'life stages' are particularly important in peoples' judgements of noise:

> The ability to empathize with a neighbour, most likely through a similar personal *experience,* increases tolerance to certain types of noise. For example, noise from a baby crying at night is less of an

[7] Ibid.
[8] Ibid., 7.

> issue for someone who has children but a source of annoyance for those who do not.[9]

Whether sonic intrusions from neighbours are endurable or intolerable is partly dependent on the listener's capacity to relate to the sounds in question. A neighbour may still experience the sounds of a relentlessly crying baby as unwanted and irritating. However, being able to empathize with the situation means that this unwanted noise is more likely to be accepted as understandable and thus be endured without complaint. Similarly, whether music is judged to be a tolerable nuisance or an intolerable invasion can be influenced by a listener's familiarity with the type of music being played. The report notes that the music tastes and lifestyles of young people are:

> clearly different from that of older generations. This is one reason why parties are not as annoying for young people as other noises, since the music style is considered a 'normal' social activity. In contrast, modern music among younger ages – particularly the greater emphasis on base [sic.] – is unfamiliar to older generations.[10]

What this suggests (and such sweeping generalizations regarding musical tastes notwithstanding) is that the issue of neighbour noise (as well as which noises are tolerated and which are endured) is significantly informed by a listener's own lifestyle, and its similarity to the lifestyles of their neighbour's – whether they are capable of empathizing with a noisy situation due to their own personal experiences and tastes. Some noises, then, are considered more unwanted than others.

The judgement of particular sounds as bad, unwanted, unpleasant, intolerable and unnecessary is also informed by socio-cultural norms. As Hegarty notes: 'noise is *cultural,* and different groups of hearing machines will process sounds differently.'[11] Socio-cultural changes, moreover, can bring about changes in what sounds are accepted and what sounds categorized as noise. Indeed, the contemporaneous problem of neighbour noise relates to wider social shifts that have occurred over the past two hundred years. When viewed historically, there would seem to be a correlation between a growing (vocalized) sensitivity to the noise of others and a

[9] Ibid., 8.
[10] ibid., 40.
[11] Ibid, 3.

growing desire for individual freedom. This is evident in Alain Corbin's analysis of the role of bells in the auditory landscape of nineteenth-century France. In this, Corbin discusses the rising urban intolerance of church bells, identifying the 1860s as a 'turning point', with which the sound of the bells could no longer be tolerated: 'from this date on there was a greater determination to *lay claim to one's morning sleep*.'[12] Corbin argues that a 'enhanced desire for individual liberty prompted challenges to standardized rhythms'[13] of everyday life, which had been demarcated and regulated by bellringing. The bells – markers of an older way of life – came to clash with modern lifestyle patterns. The gradual modification in nocturnal behaviour, borne out of a number of developments including 'advances in streetlighting, the adoption of Haussmann's approach to urban planning, the reign of the commodity, changes in the modes of display, the circulation of elites within the town and finally, the novel presence of women in public space',[14] led to a increasing need for rest in the morning – a need that was inhibited by the tolling of morning bells. In 1883, the French photographer Nadar sent an open letter to the *minister des Cultes,* declaring war 'upon a *noise* [that is] *excessive,* pointless, and incompatible with every right or with our liberty.'[15] Nadar declared that 'the question of the bells […] is a matter of *general preservation* for all those craving peace and rest' and that this 'brutal noise, idiotic, as every noise is' was an 'infringement upon my liberty to take rest.'[16] The clergy had no right to 'violate my free enjoyment of my sense of hearing'. The noise of the bells was an impingement on the right to leisure, as well as the individual's 'most natural of rights'[17] – the right to silence.

What is interesting about Corbin's account is that it shows how it is not just the sound environment but also the *way* in which a sound environment is heard, categorized and responded to that changes over time. The protests against bellringing were marked by a new attitude, which lowered 'thresholds of tolerance' towards the noise of others and the outside world. This shift in attitude was not accompanied by any modification in sound – it was not that the bells had got louder, or that there had

[12] Alain Corbin, *Village Bells: Sound and Meaning in Nineteenth Century France* (London: Papermac, 1999), 301.
[13] Ibid., 302.
[14] ibid., 302.
[15] Ibid., 303.
[16] Ibid.
[17] Ibid.,304

been a sudden increase in bellringing. In short, the bells became noise not because of changes to the soundscape but because of changing social attitudes and lifestyle patterns.

Corbin's account of the growing intolerance towards bell peals also points towards the broader social shifts that influenced a rising demand to have control over one's own sonic environment – the growing emphasis on the individual's right to silence and the subsequent increase in noise complaints, as well as the right to make sound in one's own home. As the rhetoric of individual rights suggests, this demand for control over one's own sonic environment corresponded with the nineteenth-century expansion of the bourgeoisie. Indeed, the contemporary notion of the domestic as a personal, intimate space that is closed off from the 'outside' world is largely indebted to a bourgeois conception of privacy and the subsequent separation of 'external' working life from 'internal' domestic life. The historian Peter Bailey describes how the bourgeoisie, following the nobility in their partitioning of domestic space, created (with)drawing rooms, studies and parlours, quietly set away from the clamorous work of servants and attendants. Outside the home, private grounds duplicated 'the secure and subdued enclosures of the private house, a noble ideal miniaturized in the innumerable Victorian suburban villas and back-gardens, hopeful invocations of rural peace and strongholds against the sounds of the city.'[18] Brandon LaBelle notes that the bourgeois home came to be 'a place for re-establishing a psychic center.'[19] The private, domestic sphere was a space of individual expression – it 'became a haven, refined through object collecting, interior design, furnishing and a general spatial ordering that might renew a feeling for the material world.'[20] LaBelle argues that in these domestic constructions, a set of values is expressed through an ordering of the soundscape. Family life is 'a ritualized production […] what it aims for is regulated by the notion or image of the individual or family unit, and the expression of values contained therein.'[21] Within the private home, order is equated with quiet, and the maintenance of domestic order with audible regulation. Noise, then, as a sonic intrusion from outside world, marks a transgression of domestic order: 'to

[18] Peter Bailey, 'Breaking the sound barrier', in Mark M. Smith (ed.) *Hearing History: A Reader* (Georgia: University of Georgia Press, 2004), 23-35, 28.
[19] Brandon LaBelle, *Acoustic Territories: Sound, Culture and Everyday Life* (London, New York: Continuum, 2010), 50.
[20] Ibid.
[21] Ibid., 51.

come home is to seek refuge from the harangue of the exterior. Following the movements of this domestic imaginary, the home is heard as a set of signals whose disruption suggests breakdown, neglect or invasion.'[22] In such contexts, noise is judged to be negative in that it is felt to impinge on the liberties of the (bourgeois, sovereign) individual and the (imagined) right to control what is heard in one's own home. From this perspective, noise is that which exists *beyond our control;* it features as an invasion from the outside that threatens to disrupt the domestic order as it has been established by those who belong (i.e. the family unit). Noise, when it breaks the quiet of the orderly home, works to blur liberalism's carefully constructed separation between the private and public spheres – the 'internal' home and the 'external' world.

From a subject-oriented perspective, then, noise is the product of the 'self' as much as the 'other'.[23] It is sound that is judged to be bad and is thus deemed unwanted – it is to be excluded, abated and avoided. This 'badness' and 'unwantedness' is attributed to sound by the listening subject. Noise, then, requires a listener capable of processing, evaluating and judging it. As has been seen, cultural norms and contextual factors, as well as an individual's lifestyle, personal experiences, and thresholds of tolerance influence this judgement. However, the variability in why, what, and for whom sounds are judged to be negative means that it becomes resistant to further generalization.

Object-Oriented Noise

In contrast to (but often implicated within) this subject-oriented definition is an object-oriented definition of noise. Drawing principally from acoustics and physics,

[22] Ibid.

[23] In her historical account of noise, technology and society, Karin Bijesterveld describes how in the early twentieth century, influenced developments in science and psychoacoustics, noise changed from being simply a problem created by the other, to a problem caused (in part) by one's state of mind. She states: 'This new notion of the subjectivity of sound perception made it increasingly difficult to decide which sounds could or could not be treated as a nuisance. It had previously been acknowledged that some individuals were more sensitive to noise than others, but sensitivity was no longer considered a mark of social superiority – rather, it was viewed as something problematic: the result of a troubled personality or a strained mental health.' Karin Bijsterveld, *Mechanical Sound: Technology, Culture and Public Problems of Noise in the Twentieth Century* (Cambridge, Mass.: MIT Press, 2008), 173.

an object-oriented definition understands noise in relation to particular sonic qualities, properties or attributes, rather than in relation to the ear of the beholder. According to the nineteenth-century physicist Hermann von Helmholtz, noise is one of two categories of sound: 'the first and principal difference between various sounds experienced by our ear is that between *noises* and *musical tones.*'[24] Here, noise is defined as consisting of non-periodic (which is to say, irregular, or random) vibration. Consequently, noise lacks a specific pitch. Musical tones, by contrast, are composed of regular periodic vibrations and thus have a distinguishable pitch.[25] Helmholtz writes:

> We perceive that generally, a noise is accompanied by a rapid alternation of different kinds of sensations of sound. Think for example, of the rattling of a carriage over granite paving stones, the splashing or seething of a waterfall or of the waves of the sea, the rustling of leaves in a wood. In all these cases we have rapid, irregular, but distinctly perceptible alternations of various kinds of sounds, which crop up fitfully […] On the other hand, a musical tone strikes the ear as a perfectly undisturbed, uniform sound which remains unaltered as long as it exists, and it presents no alternation of various kinds of constituents. To this then corresponds a single, regular kind of sensation, whereas in a noise many various sensations of musical tone are irregularly mixed up and as it were tumbled about in confusion.[26]

In comparison to definitions of noise as sounds judged to be unwanted or damaging, Helmholtz's acoustic definition lacks overtly negative connotations.[27] Musical tones are heard as simple, specific and distinguishable; whilst noises are heard as complex, confused and irregular. Furthermore, this acoustic distinction between musical tones and noise influences a division between 'pure' musical sounds and 'impure' or

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[24] Hermann von Helmholtz, *On the Sensations of Tone As a Physiological Basis for Music* (New York: Cosimo, 2007) 7.

[25] Helmholtz states: 'The regular motions which produce musical tones have been exactly investigated by physicists. They are *oscillations, vibrations* or swings, that is, up and down, or to and fro motions of sonorous bodies, and it is necessary that these oscillations should be regularly *periodic.* By a *periodic motion* we mean one which constantly returns to the same condition after exactly equal intervals of time.' Ibid., 8.

[26] Ibid., 7-8.

[27] Although noise's 'unwantedness' is primarily associated with a subject-oriented definition, this valuation of noise as 'bad' sound can also bleed into an object-oriented definition, such that musical sounds are prioritized over non-musical noises. As Michel Chion notes, to define non-musical or complex sounds as noise is to associate them with a stigma of being somehow irritating, inferior and extraneous, even if they are heard as pleasant. See Michel Chion, 'Let's have done with the notion of "Noise"', trans. James A. Steintrager, *Differences,* vol. 22/2 (2011), 240-248, 242.

extraneous non-musical noises – the former being produced by musical instruments and the latter produced by extra-musical sound sources. Also belonging to the category of non-musical noise are the extraneous sounds produced by musical instruments that are ordinarily minimized in recording production – for example, guitar fret squeaks, breath sounds, mouth clicks and pops.

From this perspective, noise demarcates the boundaries of the musical – it is chaos to music's order. However, Helmhotlz's acoustic division between regular musical tones and irregular noise becomes untenable when one considers the use of non-pitched, complex sounds in music, such as cymbal crashes. Helmholtz is aware of this, conceding that 'noises and musical tones may certainly intermingle in very various degrees and pass insensibly into one another […] we can easily compound noises out of musical tones, as, for example, by simultaneously striking all the keys contained in one or two octaves of a pianoforte.'[28] Noise – as complex, irregular sound – thus has its place within music. Nevertheless, 'their extremes [musical tones and noise] are widely separated.'[29] Consequently, Helmholtz's division between musical tone and noise is more accurately understood as a sliding scale of degrees, rather than an absolute, fixed opposition.

At the noise endpoint of Helmholtz's acoustic scale, one would find white noise. According to this acoustic distinction, pitched musical tones are 'narrowband' signals, in that their energy is focused on a narrow band of the frequency spectrum, whilst un-pitched noise constitutes a 'wideband' signal, in that its energy is spread out across the frequency spectrum. White noise is a wideband signal at its widest. Taking its name from white light (which is a summation of all colour components), white noise is a summation of all frequencies with equal intensities distributed uniformly across the spectrum. In other words, white noise has a flat frequency spectrum. There are infinite types of white noise because white noise is independent in time. As Bart Kosko explains:

> Time independence explains the peculiar sound of white noise. Each hiss and pop in white noise is technically independent of the hiss and pop preceded it in time and that follows it in time […] the time

[28] Helmholtz, *On the Sensations of Tone*, 7-8.
[29] Ibid., 7.

> independence of white noise holds no matter how infinitesimally close a hiss in time to the next hiss or pop.[30]

In other words, the hisses and pops of white noise are statistically random – there is no correspondence between what has happened previously and what will happen next. Each and every occurrence is singular and unpredictable.

The sound of white noise is often associated with the sound of a detuned radio or waves crashing. However, pure white noise, with an entirely flat frequency spectrum and time independence, can only exist as a mathematical abstraction; if it were to exist physically it would require infinite energy. 'Real' noise signals (as opposed to the white noise abstraction) are thus to some degree 'coloured noise', which is to say that they have a non-flat frequency spectrum across a bandwidth. Consequently, in physical reality, 'white' noise can only ever really be an approximation of the flat spectrum ideal. Indeed, what tends to be labelled white noise is often pink noise. Whilst white noise has an equal energy across all possible frequencies, pink noise by comparison, has equal energy per octave band, with which intensity is inversely proportional to frequency. Pink noise thus has more low frequency components than white noise. There are also a number of other types of coloured noise, including brown noise, blue noise, grey noise and black noise (which consists of mostly silence).

Pink noise and emulations of white noise are also currently used as a means of minimizing the effects of other disruptive noises, with white noise machines, sleep-aids, CDs and smart phone apps readily available. Such devices work to 'mask' potential disturbances. For example, Manna Navai and Jennifer Veitch claim that in office environments constant white noise can be used to hide variations in office noise intensity during the day, creating a consistent acoustic environment, as well as preventing potentially disruptive sounds from carrying through the space: 'sounds from conversations, telephone rings and other office machinery become less salient with the introduction of white noise.'[31] With this, white noise comes to function as a

[30] Bart Kosko, *Noise* (New York: Viking Books, 2006), 69-70.
[31] Manna Navai, and Jennifer A. Veitch, *Acoustic Satisfaction in Open-Plan Offices: Review and Recommendations* (Ottawa: National Research Council Canada, 2003), http://www.nrc-cnrc.gc.ca/obj/irc/doc/pubs/rr/rr151/rr151.pdf, [accessed March 2012], 7.

form of noise abatement. Noise becomes desirable and useful – ensuring (rather than encroaching upon) privacy by preventing others from overhearing, or by preventing sounds from interrupting a conversation.

To summarize thus far, subject-oriented definitions recognize noise as a value judgement relating to a listening subject's experience of sound. According to this perspective, any sound can be noise if it is heard as negative (and thus, by extension, unwanted). Object-oriented definitions recognize noise as a *type* of sound-signal: it is defined according to particular properties or attributes (e.g. complexity, non-periodic vibration, flat power spectral density). Such signals can be thought to have an innate 'noisiness' that exists irrespective of whether they are detrimental to or deemed unwanted by a perceiving subject. Non-periodic, coloured and white noise are deemed 'noisy' because they tend to cover a wide band of frequencies. Whilst a subject-oriented definition places noise in opposition to sound that is wanted, desirable and meaningful, an object-oriented definition places (complex, wideband, irregular) noise in opposition to (simple, narrowband, periodic) musical tones. Consequently, there are a number of tensions between subject-oriented and object-oriented definitions. An object-oriented definition tends to lack the (overt) negative connotations garnered by a subject-oriented definition – pink noise, for example, does not have to be heard as unwanted or be considered a nuisance for it to be recognized as noise. Likewise, while a subject-oriented definition affords primacy to the listening subject (meaning that any sound can potentially be heard as noise) for an object-oriented definition, it is first the sound object (or signal) that is constitutive, irrespective of how it is heard or – as exemplified by white noise – whether it is heard at all.

Noise Sources: The Unnatural and The 'Other'

Overlapping with both subject- and object-oriented definitions are causal definitions, which associate noise with particular sound sources. With regard to an object-oriented definition, I have noted already that musical instruments are associated with musical tones; whilst other, non-musical sound sources are associated with noise.

Likewise, with regard to a subject-oriented definition, unwanted sounds are often thought to be concomitant with unwanted sources. Related to both is the common association of noise with 'unnatural' sources – namely, machines and technological artefacts. Mel Gordon, for example, states:

> The concept of noise was a by-product of the Industrial Revolution. Throughout the jerry-built and already shabby proletarian living quarters and workplaces of Europe in the 1840s and 1850s, there was a constant din of construction and pounding, of the shrieking of metal sheets being cut and the endless thump of press machinery, of ear-splitting blasts from huge steam whistles, sirens, and electric bells that beckoned and dismissed shifts of first generation urbanized laborers from their unending and repetitive days. The normal sounds of rural life – the bleating of domesticated animals the chirping of birds and insects, the ping of hand-held tools shaping wood and stone – whether pleasant or not, were all recognizable. Here, however, the cacophony of sounds in the nineteenth-century street, factory shop, and mine – seemingly random and meaningless – could not be easily isolated or identified. They became novel and potentially dangerous intrusions on the overworked human mind.[32]

It is evident that there are connections here with both the object-oriented and subject-oriented definitions I have outlined. Unlike the distinguishable and clear sounds of the rural soundscape, the new, 'unnatural' noises of the factory and the machine were complex, disordered and irregular. Similarly, these novel new noises are heard to be possibly dangerous or detrimental to the listening subject. The noise of the machine is thus both complex and (potentially) unwanted.

Gordon also makes apparent a noise 'origin myth', which will be explored more fully in Chapters Four and Five. Noise is born with the machine, and is thus the antithesis of 'natural' sound. Noise, then, is something that is separate from nature. Likewise, Dan McKenzie, one of Britain's most prominent anti-noise campaigners of the early twentieth century claims: 'unlike the world of men, the world of Nature is not noisy.'[33] McKenzie does concede that, under particular circumstances, sounds from a natural origin can be a 'weary nuisance' – the braying of donkeys and the barking of

[32] Mel Gordon, 'Songs from the museum of the future: Russian sound creation (1910 – 1930)', in Douglas Kahn and Gregory Whitehead (eds.), *Wireless Imagination: Sound, Radio and the Avant-Garde* (Cambridge, Mass.: MIT Press, 1994), 197-243, 197-198.
[33] Dan McKenzie, quoted in Peter A. Coates, 'The strange stillness of the past: towards an environmental history of sound and noise', *Environmental History,* vol.10/4 (2005), 636-665, 647.

dogs, for example. However, he argues that when all is considered, every sound of nature is in essence 'pleasant and therefore not noise.'[34] With this separation of noise and natural sound (and against the former's common association with unpredictability and lack of control) comes the notion that noise is something that can be controlled, restrained and prevented. In his *Manifesto for Silence*, Stuart Sim argues that the sounds of the nature – while potentially unwanted – cannot be abated and must therefore be endured: there is nothing that that can be done to inhibit the howl of wind or the clap of thunder. These natural noises are thus different from the unnatural and often 'unjustified' noises of (technology assisted) human activity, which could – and often should – be prevented. Noises from natural sources can never be unjustified (even if a listener feels them to be so) because they cannot be helped.[35]

From this perspective, unwanted noise is extraneous to the rules of nature. However, this assumed division between the natural and the unnatural; the (necessarily) tolerable and the preventable, has not always been clear, with certain sounds from 'natural' sources being 'demoted' to the realm of 'unnatural' and abatable noise. In the cities of late-nineteenth-century America, the birdsong of the 'English' (house) sparrow, a species introduced to the United States in the 1850s, was not heard as 'nature's music'. Rather, its calls were considered an objectionable and unpleasant racket, and a source of great irritation for middle-class city dwellers. A 'leading sparrow critic' in Washington D.C. remarked that the English sparrow's harsh jabbering nearly obliterated the 'Comanche yell of the milkman' and the 'black newspaper imps that screech every one deaf on Sunday morning.'[36] Similarly, in her 1885 article 'A Ruffian in Feathers', Olive Thorne Miller complained of the sparrow's calls tarnishing the dawn with its 'indescribable jangle of harsh sounds' that 'harmonizes perfectly with the jarring sounds of man's contriving; the clatter of iron-shod wheels over city pavements, the war-whoop of the ferocious milkman, the unearthly cries of the vendors.'[37] As Peter Coates remarks, citing Miller, this was evidence of the (non-native) bird's unnatural status, since the '"harshest cries" of

[34] Ibid.
[35] Stuart Sim, *Manifesto For Silence: Confronting the Politics and Culture of Noise* (Edinburgh: Edinburgh University Press, 2007), 14.
[36] Coates, 'The strange stillness of the past: towards an environmental history of sound and noise', 649.
[37] Ibid.

"our" [American] native birds, "if not always musical in themselves" invariably were judged congruent "in some way with the sounds of nature."'[38] The sparrow's characterization as a source of unearthly noise 'thus allowed its opponents to evict it from the natural world and lump it together with tainted humanity.'[39] Rather than belonging to the realm of nature's ultimately pleasant sounds, the 'foreign' sparrow chimed in with the unnatural and often unpleasant cacophony of city life.

The noise of the 'non-native' sparrow points to the association of noise with bodies marked as 'other'. There is, for example, the characterization of 'foreigners' as 'noisy', and numerous stereotypes of poor and/or the working classes as 'rough', 'brash', 'loud'. Women have been cast as frequent noisemakers in comparison to the dignified quiet of their male counterparts – they are imagined to talk more, and when they do their talk is meaningless, extraneous and petty.[40] Meanwhile, black musical genres from jazz to hip-hop have been dismissed as incomprehensible and abrasive noise (a pejorative label appropriated by Public Enemy's *Bring the Noise*). Writing about 1960s free jazz and the black arts movement, George Lewis argues with reference to the historian Jon Cruz that the criticism of new (black) music as 'just noise' can be understood as 'a hold-over from antebellum days', when the music of black slaves 'appears to have been heard by captors and overseers primarily as noise—that is, as strange, unfathomable, and incomprehensible.'[41] Noise, in this instance, becomes quite literally a black and white issue. As Cruz points out, for slave owners to hear only meaningless noise is 'tantamount to being oblivious to the structures of meaning that anchored sounding to the hermeneutic world of the slaves'; to hear only 'rude and uncouth', 'rough' or 'wild' noise is to 'remain removed from how slave soundings probed their circumstances and cultivated histories and memories.'[42] Similarly, Lewis notes: 'the noisy anger of the new [jazz] musicians seemed strange, surprising, and unfathomable to many critics, along with

[38] Ibid.
[39] Ibid.
[40] For a discussion of the relationship between noise and cultural constructions of femininity see Marie Thompson, 'Gossips, sirens, hi-fi wives: feminizing the threat of noise' in Michael Goddard, Ben Halligan and Nicola Spelman (eds.), *Resonances: Noise and Contemporary Music* (New York: Bloomsbury, 2013), 297-311.
[41] George Lewis, *A Power Stronger than Itself: The AACM and American Experimental Music* (Chicago: University of Chicago Press, 2008), 44.
[42] Jon Cruz, *Culture on the Margins: The Black Spiritual and the Rise of American Cultural Interpretation* (New Jersey: Princeton University Press, 1999), 48.

the idea that blacks might actually have something to be angry about.'[43] Black music was heard as meaningless and chaotic noise because it used a musical form alien to the ears of oppressors. With this, however, noise garners ideological value as a means of political resistance. As is often imagined to be the case with children, noise is disobedience to silence's obedience: it is the sound of protest, rebellion and uprising. Indeed, the notion of an alternative, black mode of communication that could not be understood by (white) oppressors was considered threatening to the power of slave owners. The noise of black slaves might be meaningless and incomprehensible to their oppressors but its potential meaning to oppressed others makes it dangerous. This can be clearly demonstrated in relation to the use of drums by slaves as a mode of communication. As Megan Sullivan notes, drumming played a critical role in the organization of early slave revolts – they could be used to spread messages in a rhythmic language to orchestrate revolts both on land and on slave ships. When the connection was made between drumming, communication and revolt, however, drums were subsequently banned.[44]

There is a duality, then, to the noise of the social 'other'. On one hand, the dismissal of particular bodies as noisemakers demeans and trivializes – it asserts the inferiority of another who is incapable of meaningful or pertinent comment. To be 'mere' noise is to be worthless, incomprehensible, extraneous, ugly or unpleasant. Yet noise also carries with it the threat of disorder and disruption. Noise is thus unwanted to the ears of the establishment; it threatens to disrupt and transform the power relations of the social.

It has been established, then, that 'unnatural' sound sources and social (economic, gendered, racial, linguistic, ethnic) 'others' have frequently been cast as exemplary noisemakers. However, noise might also be defined in relation to an unidentifiable

[43] George Lewis, *A Power Stronger than Itself,* 44.
[44] Megan Sullivan, 'African-American music as rebellion: from slave song to hip-hop', *Discoveries,* vol. 3 (2001), 21-39, 21. Jon Cruz also describes how noise (understood as meaningless sound) was also incorporated into the system of slave domination, with slaves being forced to make noise by overseers. From their very earliest moments of capture aboard slave ships, slaves were forced to make sounds, to move and to jump in their chains. The 'silent' slave was deemed untrustworthy and thus slaves were required to 'make a noise' during work. Cruz argues that 'sound making was a requisite to appease the discomfort of owners who preferred to know that whatever occupied the slaves mind was not inimical to the well-being of overseers.' Coerced soundings were also designed to limit slave communication, blocking dialogue and displacing talk. See Cruz, *Culture on the Margins,* 51-52.

source: it can be the thing that goes 'bump' in the night. In such instances, the question 'what's that noise?' remains unanswerable. Indeed, the inability of the listener to tell what is generating a noise can make it all the more threatening, irritating or – perhaps – fascinating. Noise becomes sound that is inexplicable – it is that which cannot be accounted for by the listener. Such is the case with a series of elusive phenomena collectively labelled 'the hum' – low frequency sounds from unidentified sources that have been reported worldwide, though most commonly in the UK and the US. Many reports state that the hum is present or most apparent at night and is highly specific in terms of location, often only being audible inside a particular house or street. Some reports claim hearers suffer a variety of physical symptoms, including pain in the ears, headaches, discomfort, trouble sleeping, balance problems and anxiety, fatigue, nausea, nosebleeds, dizziness, and muscle pain.

In 2011, the hum was reported by residents in the village of Woodland, County Durham. The unexplained noise was described as 'throbbing', and on other occasions as 'almost growling'. [45] It affected every resident in the main street, which is surrounded by farmland. One resident, Marylin Grech, described it as:

> A constant very low-frequency humming noise that can be heard between midnight and 4am and it's stopping me from sleeping […] in certain areas of the house you can hear it more loudly. It vibrates through the house, we've turned all the electricity off in the house and we can still hear it, so its not that […] at 4am it's so clear, and because we live in such an isolated place with no traffic, it's heaven. But it leaves a buzzing in your head for the rest of the day.[46]

While no definitive source of the hum has been found, suspected sources range from farm or factory machinery, power lines, tinnitus and electromagnetic phenomena, to

[45] Martin Wainwright, 'On the trail of the mysterious Durham hum', *The Guardian* 9 June 2001 http://www.guardian.co.uk/uk/the-northerner/2011/jun/09/hum-woodlands-durham-hamsterley-bristol-largs-gateshead-newcastle-cakebook-surtees [accessed March 2012].
[46] Ibid.

more outlandish speculations such as aliens and paranormal activity.[47] Irrespective of its actual cause, the unidentifiable noise is often amplified in perception, grasping the attention of the listener. The audiologist David Baguley argues that in such instances, there tends to be an audio-affective 'feedback loop' in place such that 'the more people focus on the noise, the more anxious and fearful they get, the more the body responds by amplifying the sound, and that causes even more upset and distress.'[48] Thus when the hum is heard it generates fear, and this fear in turn causes the listener to focus more intently on it.

As accounts of the hum demonstrate, noise may strike the listener as negative because its cause remains unknown. It might therefore be tempting to say that the hum is 'noise' *because* the sound is unknown. Yet whilst the unknowability of the source may – as noted above – *contribute* to a subject hearing the sound as noise, it is insufficient to label the hum noise in and of itself. Were it to be determined that power lines were the source of the hum, for example, it is still possible that some listeners (using a subject-oriented understanding of noise) would continue to hear it as (unwanted and intrusive) noise. Thus while the hum demonstrates the insufficiency of a source-oriented definition of noise, inasmuch as not all noises (either in the sense of unwanted or 'bad' sounds, or in the sense of complex or unpitched sounds) have known sources, taking the opposite definitional approach (that noise is a sound with an unknown source) is also insufficient.

Noise-as-Loudness

In addition to source-based definitions of noise, the notion of 'noise-as-loudness' also lies between subject-oriented and object-oriented definitions. Although the quietest hum or whirr can irritate those reading in silence and the barely audible bleed of sound from headphones on the bus or train can irk other travellers, noise is

[47] For more on this see British Broadcasting Corporation, 'Who, what, why: why is 'the hum' such a mystery', *BBC News Magazine,* 13 June 2011 http://www.bbc.co.uk/news/magazine-13752688 [accessed March 2012].; David Deming, 'The hum: an anomalous sound heard around the world', *Journal of Scientific Exploration,* vol. 18/4 (2004), 571-595.; James P. Cowan, *The Kokomo Hum Investigation* (Cambridge, Mass.: Acentech, 2003).
[48] James Alexander 'Have you heard the hum?', *BBC News,* 19 May 2009 http://news.bbc.co.uk/1/hi/uk/8056284.stm [accessed March 2012].

frequently associated with a high volumes. At times, this takes the form of an object-oriented definition, through which noise or 'noisy' becomes synonymous with loud sound. Noise, defined as loud sound, is thus placed in opposition to silence. Yet noise-as-loudness can also be linked to a subject-oriented definition of noise. Loud sounds, for example, are likely to travel further and are thus more likely to become audible in places where they are unwanted and unpermitted (e.g. a music festival heard in a house five miles away). Alternatively, a sound that might not ordinarily be heard as noise may be so if it is particularly loud (e.g. 'I wouldn't ordinarily mind the neighbours doing washing at this time of night but the noise of their washing machine is ridiculous.')

To return to noise's association with 'unnatural' sources: loud noises are often assumed to be 'unnatural' inasmuch as they are generated and/or amplified by technology. It is clear from Mel Gordon's description of the 'ear-splitting' blasts of whistles and the clamour and clash of metal that he understands the sonic environment to have grown louder with the Industrial Revolution and the subsequent birth of noise. Indeed, it would seem that what was so new about the noise of the Industrial Revolution, from Gordon's perspective, was partly its volume and intensity. Similarly, in *Capital*, Marx describes the 'noise and turmoil' of the new system of production that came with the birth of machine and modern industry, which for him led to the domination of the senses in the factory-working environment by 'the deafening noise.'[49] Furthermore, some have argued that the deafening noise of the industrial epoch has been matched – if not made louder – by high-intensity noise of the electronic era, with the development and ever-increasing use of amplification technologies. Jamie Kasser, for example, states:

> Although the ear itself is structured to minimize damage from loud sounds, modern electronics introduces a new factor in the history of humankind. It makes readily available the technology for reproducing steady-state and high-intensity impulse stimuli, thus increasing the risks to hearing not only of individuals but of large groups of people.[50]

[49] Karl Marx and Friedrich Engels (ed.), *Capital: A Critique of Political Economy Vol.1 Part 1* (New York: Cosimo, 2007), 304-305.
[50] Jamie C. Kasser, 'Musicology and the problem of sonic abuse', in Linda Phyllis Austern (ed.), *Music, Sensation, and Sensuality* (New York and London: Routledge, 2001), 321-334, 325.

With modern electronic technologies, volume levels that were exceptional within pre-industrialized, rural society become the norm. For Keizer, this is evident from the changes in hearing thresholds: the average 'normal' hearing threshold for a sixty-year-old man in industrialized society is nineteen decibels higher than for a man of the same age living in a non-industrialized society.[51]

There is, however, a tension between such equivocations of technology with noise (as-loudness) on the one hand, and the smooth, silent and seemingly immaterial technologies of the late twentieth century, on the other. The latter is aptly captured in Donna Haraway's 'A Cyborg Manifesto', in which she highlights the turn towards miniaturized, cybernetic technologies in the post-Industrial era:

> Modern machines are quintessentially microelectronic devices: they are everywhere and they are invisible […] Our best machines are made of sunshine; they are all light and clean because they are nothing but signals, electromagnetic waves, a section of a spectrum, and these machines are eminently portable, mobile – a matter of immense human pain in Detroit and Singapore.[52]

For the most part, then, the machine has grown quieter, as the boom and clatter of manufacturing came to be replaced by the clacking of computer keyboards and the endless ringing of call-centre phones. The comparative quietness of new machines, moreover, has become a selling point. There are many who have connected noise to capitalist activity and corporate greed. Stuart Sim, for example, associates noise with the activities of 'big business' (noise for him being produced through the advertisement of commodities and the stimulation of consumption) and, by extension, silence with anti-capitalist resistance.[53] However, in a time of acoustically monitored gated communities, 'monastery chic' retreats and sleek gadgetry, it is

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[51] Keizer, *The Unwanted Sound of Everything we Want,* 30.

[52] Donna Haraway, 'A cyborg manifesto: science, technology, and socialist-feminism in the late twentieth century', in *Simians, Cyborgs and Women: The Reinvention of Nature* (New York: Routledge, 1991), 149-181, 153.

[53] Sim states: 'noise is used extensively as a marketing tool (bars, restaurants, public spaces in general, radio, television, film) as a way of stimulating consumption. Put crudely, noise sells and the corporate world is very aware of this and concerned to exploit it to the full.' There is, for example, the noise created by all-night opening hours and the 'raucous hedonism' that comes with the hugely profitable and noisy combination of alcohol and popular music. Sims offers the caveat that noise has often been on the side of rebellion and resistance, as a metaphor for the disruption of social norms. However, this ethos has been readily exploited 'by the business world for its own, anything but rebellious, ends. The grand narrative of "big business" has a practised ability to commercialise, and thus neutralise, rebellious behaviour and lifestyles.' Sim, *Manifesto For Silence,* 30-31.

evident that it is not (just) noise, but noise abatement that sells.[54] In 2012, Toyota launched its 'Silence the City' advertising campaign for its Yaris Hybrid car, emphasizing its lack of engine noise.[55] As the car drives past, it silences the noisy conversations and complaints of the city's non-human inhabitants: a speed camera, ticket machine, traffic lights, a drain cover, and a streetlight. The car moves without a sound, creating what comes as a blissful silence after the cacophonous racket of the objects' bickering about noise. The portrayal of the car's quietness alludes to its efficiency, while also reassuring the potential consumer that by purchasing the car, they will not be contributing to sound pollution in the city.[56] In making alluring – and thus profitable – the quietness of new machines, such marketing strategies inhibit any crude correlation between noise-as-loudness, technology and corporate activity. This is not to deny that there is a relationship between noise, technology and capitalism; but rather to argue that the relationship is much more complex than Sim's dualistic equivocation of noise with 'bad' corporate greed and silence with 'good' anti-capitalist resistance. I return to this issue in Chapter Four.

As is evident from Kassier's remarks, noise-as-loudness is understood to be negative in that it is capable of causing physical harm and damage to the listening body. It can cause short-term and long-term deafness or – at its most extreme – kill. As Jacques Attali states:

> In its biological reality, noise is a source of pain. Beyond a certain limit, it becomes an immaterial weapon of death. The ear, which transforms sound signals into electric impulses addressed to the brain, can be damaged, and even destroyed, when a frequency of a sound

[54] For more on 'monastery chic' see Sara Lipton, 'Monastery chic: the ascetic retreat in a neoliberal age', in Mike Davis and Daniel Bertrand Monk (eds.), *Evil Paradises: Dreamworlds of Neoliberalism* (New York: The New York Press, 2007), 241-250. The topic of gated communities is returned to in Chapter Four.

[55] See Oliwer Kmiecik, 'New Yaris Hybrid TV ad: "silence the city"', *Toyota Blog*, 2 June 2012 http://blog.toyota.co.uk/new-yaris-hybrid-tv-ad-silence-the-city [accessed May 2012].

[56] There has also been the elaborate 'noise awareness' 2008 marketing campaign by the home appliance company AEG-Electrolux. The campaign involved banners that measure and depicted the local noise levels (measured in decibels) in a number of European cities. Underneath the decibel meter came the tagline: 'in a noisy world, appliances that aren't.' The AEG-Electrolux European brand director Alexander Buhl claimed the 'key aim of this campaign was to create awareness on the issue of noise in and outside of the people's homes and offer AEG laundry products as a solution to minimise it.' Allgemeine Elektricitäts-Gesellschaft, 'AEG-Electrolux – campaigning against noise with giant noise posters', *AEG Noise Awareness Blog* (2008) http://www.noiseawareness.blogspot.co.uk/2008/03/aeg-electrolux-campaigning-against.html [accessed April 2012].

> exceeds 20,000 hertz, or when its intensity exceeds 80 decibels. Diminished intellectual capacity, accelerated respiration and heartbeat, hypertension, slowed digestion, neurosis, altered diction: these are the consequences of excessive sound in the environment.[57]

Alongside noise-induced hearing loss and tinnitus (which can be understood as adverse auditory effects), there have been various empirical studies from psychiatry and medicine that have suggested a link – to varying degrees – between exposure to environmental or occupational noise (which is typically defined in terms of amplitude, duration and intensity) and a range of adverse, *non-auditory* physiological and psychological effects, including nausea, decreased motivation, increased irritability, increased stress levels, depression, and raised blood pressure levels. Yet such studies face difficulty in distinguishing the impact of noise from other contextual factors. In their study on the non-auditory effects of noise, Stephen Stansfeld and Mark Matheson note that adverse symptoms reported by 'industrial workers regularly exposed to high noise levels in settings such as schools and factories include nausea, headaches, argumentativeness and changes in mood and anxiety.'[58] However, they add that studies into the impact on occupational noise from heavy industry are difficult to interpret 'because workers were exposed to other stressors, such as physical danger and heavy work demands in addition to excessive noise.'[59] Consequently, the extent to which these negative symptoms can be attributed to (loud) noise exposure remains ambiguous.

There are also speculations as to whether our sensitivity to high-decibel noises as humans (or even mammals) is due to evolutionary 'hard wiring'. Like many environmentalist accounts of noise, such as that of Jamie Kassier and R. Murray Schafer (see Chapter Four), evolutionary arguments often construct a between a past in which loud sounds were exceptional and a modern era in which loud noise has become a ubiquitous norm. The claim is that our mammalian brains and endocrine systems evolved in low-decibel environments over the course of millions of years and in these environments, high-decibel sounds such as screams or roars, were exceptional stressors that occurred in exceptional circumstances, where survival was

[57] Jacques Attali. *Noise: The Political Economy of Music,* trans. Brian Massumi (Minneapolis: University of Minnesota Press, 2003) 27.
[58] Stephen A Stansfeld and Mark P. Matheson, 'Noise pollution: non-auditory effects on health', *British Medical Bulletin,* vol.68/1 (2003), 243-257, 248.
[59] Ibid.

at risk. Bart Kosko suggests that that the 'modern cost' of this genetic sensitivity to loud noise is that 'more and more people live a life full of noise-induced stress – even before the invention of the iPod and ever more powerful car stereo speakers'[60] Joachim Ernst-Berendt, meanwhile, writes that:

> As soon as volume exceeds 80dB, blood pressure rises. The stomach and intestine operate more slowly, the pupils become larger and the skin gets paler – no matter whether the source of noise is found pleasant or disruptive, or is not even consciously perceived […] unconsciously we always react to noise like Stone Age beings. At that same time a loud noise almost always signified danger […] That is therefore pre-programmed, and when millions of young people hear excessively loud music they register: danger. They become alarmed. That word comes from the Italian Alarm, which in turn leads to all'arme, a call to arms. When we hear noise, we are constantly – but unconsciously – "called to arms." We become alarmed.[61]

What this line of argument suggests is that there is a potential difference in what is consciously registered as alarming or threatening sound, and unconscious or pre-conscious experiences of loud sound. While a listener may react to high-decibel noise as a threat on a pre-conscious register (with, for example, the activation of certain autonomic bodily responses), they may receive such sounds positively on a conscious register (as is often the case with loud live music, for example) or fail to react at all.

Thus far it may seem that noise's loudness is objective, insofar as volume is quantifiable and thus measurable. Drawing on Attali and Ernst-Berendt, it might even be possible to say that sound becomes noise at 80 decibels – the point at which it is loud enough to be capable of causing harm, damage and destruction; or loud enough to register as a threat. However, a distinction can also be drawn between the amplitude and intensity of sound (quantified as decibels and a property of the sound-itself) and loudness as a qualitative perception of sound. Moreover, it is questionable whether loudness as either a quantifiable or qualitative value can be equated with

[60] Kosko, *Noise,* 56.
[61] Joachim Ernst-Berendt, quoted in Steve Goodman, *Sonic Warfare: Sound, Affect and the Ecology of Fear* (Cambridge, Mass.: MIT Press, 2010), 65.

noise, or noisiness. Kryter notes:

> It is generally believed that the louder a sound is, the more unacceptable, or noisy that it is. While this is generally true, it does not follow that measuring the physical energy in a sound is sufficient for predicting the subjective noisiness, or unwantedness of different sounds.[62]

Noise-as-loudness, then, does not necessarily correspond to noise-as-unwantedness. There are situations where loud sounds are experienced as enjoyable and cathartic (irrespective of any potential pre-conscious response), and likewise (as was exemplified in relation to neighbour noise) where quiet sounds can be a source of disturbance, irritation and annoyance. Thus as Hillel Schwartz states:

> Loudness and noisiness enjoy a temperamental marriage in which each is often unfaithful to the other – loudness may not seem noisy, noisiness may not be loud. Cochlear sensations of loudness are often independent of cultural relations of loudness […] what is loud alone may not be loud in a crowd, and what is loud in one ear may not be loud in the other. [63]

While high volume sounds may 'objectively' harm the human body at a particular level and potentially garner certain instinctual physiological responses, whether high volume sounds register as loud sounds and, furthermore, whether loud sounds register as 'bad' sounds (in the sense that they are recognized to be unwanted, harmful, threatening or damaging) tends to vary according to context. As Schwartz also highlights, the perceived loudness of a sound is often relative. The high-pitched buzzing of a mosquito or the sound of a distant car alarm might seem much louder during the night – when it is preventing us from sleeping – than during the day. Similarly, as was seen in relation to 'the hum', an ominous sound may be amplified in perception when a listener focuses on it. Loud noise, then, need not be heard as unwanted noise; unwanted noise need not be heard as loud; and loudness as a qualitative judgement does not necessarily correspond to loudness as a quantitative value.

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[62] Karl D. Kryter, *The Effects of Noise on Man* (Orlando: Academic Press, 1985), 112-113.
[63] Hillel Schwartz, *Making Noise: From Babel to the Big Bang and Beyond* (New York: Zone Books, 2011) 678.

Conclusion: Incompatibilities, Insufficiencies, Impasses

In this chapter I have explored some of noise's multiple definitions, drawing out its acoustic, cultural, political and aesthetic associations in the process. I have principally focused on what I have labelled 'subject-oriented' and 'object-oriented' definitions. According to the latter, noise pertains to a type of sound and is constituted according to particular acoustic qualities. According to the former, noise pertains to a sound that is heard and subsequently judged to be 'unwanted' and thus 'bad'. An object-oriented definition understands noise to refer to a type of sound, whilst with a subject-oriented definition, noise pertains to a negative judgement of sound.

The subject-oriented definition is advantageous in that it remains open to which sounds can become noise: it allows for the variability of noise in terms of its sources – whether they are known or unknown – and sonic qualities – loud and quiet, pitched or unpitched – as well as variation between individual listeners, contexts and cultures as to what sounds are considered noise. As unwanted sound, noise may be loud but it may also niggle at the thresholds of audibility; it may be the sound of traffic or drilling, but it may also be the sound of next door's vacuum cleaners or music. However, understanding noise as a subjective judgement can lead to an unsatisfactory relativist endpoint, where noise can be anything to anyone: 'one person's [wanted] music is another's [unwanted] noise'. Defining noise as a negative judgement of sound made by a constitutive listening subject thus risks being too broad and too vague.

An object-oriented definition is comparatively more specific, in that it defines noise in relation to particular sonic qualities. However, an object-oriented definition divorces noise from its function. Certain types of sound are noise, or noisy, irrespective of what they do, or how they are perceived; whether or not they are heard as unwanted, damaging or 'bad' or even pleasant and enjoyable. It does not take into account the listener's experience of noise, beyond their perception of particular sonic qualities (e.g. lack of discrete pitch). Thus while a subject-oriented

definition is too broad, the object-oriented definition (when it is generally applied) is too narrow and abstract, in that it limits noise to a particular type of sound.

There are also aspects of a subject-oriented definition that are too restrictive. As I explore in more detail in later chapters, noise's constitutive 'unwantedness' can be questioned: just because noise is often felt to be unwanted does this mean it is definitively so? Indeed, defining noise as inherently unwanted or bad fails to sufficiently allow for those instances in which noise is useful, enjoyable or generative, such as when it is used as an artistic resource (see Chapter 5).

The reliance of a subject-oriented definition on a constitutive listening subject can also be questioned. This approach assumes that noise is always heard – or rather, that noise has to be heard and subsequently judged – in order to exist. In the following chapters, I argue that it is problematic to limit noise to that which is obvious to the listener, since there is much of noise that evades the human ear. In centring on a constitutive listening subject, a subject-oriented definition fails to recognize these noises that occur in excess of the thresholds of human perception, or occur within other, non-human registers.

The ethico-affective definition of noise I propose in the following chapters seeks to overcome what I understand to be the shortcomings of subject-oriented and object-oriented definitions when they are applied more generally, avoiding both the relativist endpoint of the former and the restrictiveness of the latter. I look to extend the open-endedness of a subject-oriented definition and the variety it allows in terms of noise's sonic qualities and sources. However, I also challenge its reliance upon a constitutive listening subject and the definitive correlation it draws between noise, unwantedness and badness. With regard to an object-oriented definition of noise, I look to share its lack of (overtly) negative connotations (in the sense that an object-oriented definition does not tie noise to a constitutive unwantedness); but I also reject the notion that certain sounds are innately noisy irrespective of what they do. The alternative approach that I develop builds upon two types of noise that as yet remain undiscussed but will be described in the following chapter: informational noise and background noise.

Chapter Two. The Parasite and its Milieu

Since, ordinarily, channels have a certain amount of noise, and therefore, a finite capacity, exact transmission is impossible.

Claude Shannon, 'The mathematical theory of communication', 48.

What is this sudden dangerous noise at the door that prevents me from finishing and leads me to other actions?

Michel Serres, *The Parasite,* 8.

In the history of recording, the ghostly, distorted voice of Thomas Edison reciting 'Mary had a Little Lamb' is held as a landmark moment. Though the surviving phonograph recording is in fact a re-enactment that took place in 1927 – fifty years after the original event – the sound of Edison's voice still pays testament to major advances in recording technologies that have taken place over the past century. However, it is not just Edison that speaks. The noisy voice of the medium is also present. The crackling of tinfoil wrapped cylinder and the whirring of the machine underline and sometimes distract from Edison's recital. This noisy, lo-fi recording sounds very distant from contemporary recording culture. Indeed, it might appear as if noise is a thing of the past, having been banished to the archives by the ever-greater fidelity of sound reproduction. Yet noise still lurks in even the most (seemingly) perfect of recordings. While its appearance may change, and while its presence may remain unnoticed, noise can never be fully conquered.

It is apparent from this discussion of Edison's recording that I am turning towards a different understanding of noise from those described previously. In this chapter, I consider an informational definition of noise, as found in Claude Shannon's general model of communication. From this perspective, noise is not a judgement of sound (as with a subject-oriented definition); nor a type of sound (as with an object-oriented definition). Rather, noise pertains to a *relation* of interference and perturbation. Drawing upon this informational definition, I outline a relational, non-dualistic

understanding of noise, in order to instigate a disruption of the definitive correlation of noise, 'unwantedness' and 'badness'. I begin by drawing attention to the series of binary oppositions that underline many of noise's definitions. Noise, I argue, is ordinarily taken to be the subordinate term: it is defined in relation to what it is not. In order to break with this binary logic, I change the question 'what is noise?' to 'what does noise do?' In doing so, I seek to move away from a structural-linguistic understanding and towards a materialist account of noise.

Making reference to Shannon's general model, noise is defined as perturbing force that *for better or for worse* induces a change in the message-signal. With this, it is separated from both a constitutive listener and from particular sound qualities or attributes. This understanding of noise is then extended with regard to Michel Serres' notion of the parasite. Noise – as the parasitic 'third term' – takes up a relation to relations. As a productive, transformative force, noise is the guarantor of change; it means that things cannot and will not remain the same. Drawing upon Serres' wordplay between the middle, medium, milieu and means, it is also shown how noise is a necessary component of material relations: there can be no mediation without it. Such a view thus refutes noise's subordinate positioning as accidental, secondary and contingent. Consequently, the hierarchical and dichotomous relationship between signal and noise is complicated.

Following on from this discussion of Serres' parasitic noise, I turn to a different (but connected) conceptualization: that of noise as a transcendental background.[1] This notion is taken up by Aden Evens, for whom noise pertains to an incessant and unending vibrational substrate that imperceptibly fills every silence. It is the ground against which all sound-signals appear, as well as the medium through which all sound-signals travel. Noise, from this perspective, is not just inevitable but is foundational, insofar as it provides the genetic conditions for signal. To conclude, I will outline some of points of connection between these two definitions: noise as a

[1] I am using the term 'transcendental' as it is defined by Deleuze, referring to an impersonal and pre-individual field that provides the genetic conditions for real experience (hence Deleuze's seemingly paradoxical 'transcendental empiricism'). This differs significantly from the Platonic transcendentalism of R. Murray Schafer (see Chapter four), in that it is not positioned atop or apart from the given and the perceptible. Rather the transcendental field (distinct from the transcendent) is in excess of but also entangled with actual, perceptible forms.

parasitic, productive and transformative force; and noise as a transcendental, vibrational substrate.

Noise Beyond the Binary

In the previous chapter it was shown that noise has not one but many definitions. I outlined four main definitional approaches: a subject-oriented definition, which understands noise to be a unwanted or 'bad' sound; object-oriented definition, which defines noise as a type of signal that is the antithesis of musical tones; a causal definition, which defines noise in relation to particular sources; and the definition of noise in terms of loudness. All of these definitional approaches (amongst others) are informed, implicitly or explicitly, by a series of binary oppositions. An incomplete list might include:

Signal	Noise
Music	Noise
Silence	Noise
Wanted	Unwanted
Intended	Unintended
Desirable	Undesirable
Order	Disorder
Natural	Unnatural
Necessary	Contingent
Normal	Accidental
Meaningful	Meaningless
Comprehensible	Incomprehensible
Norm	Taboo
Good	Bad

In the case of a subject-oriented definition, noise is defined according to divisions of wanted and unwanted, good and bad, positive and negative, meaningful and meaningless. An object-oriented definition connects to distinctions between order and chaos, purity and impurity, regularity and irregularity, musical and non-musical. The causal definitions of noise that were discussed are influenced by binary pairings of natural/unnatural, meaningful/meaningless oppressor/oppressed, permitted/unpermitted and self/other. Finally, noise-as-loudness is constituted according to divisions between loud/quiet, dangerous/safe, and nature/machine. Noise, then, is defined in relation to that which it is not.

As with the majority of binary systems, the dyadic relations that constitute noise are asymmetrical and hierarchical, with one side considered subordinate to the other. The signal is more valuable than the noise that stands against it, wanted sound is prioritized over unwanted sound, and meaning is placed above non-meaning. Noise, as the inferior category, can only be secondary and derivative phenomenon. It is always positioned on the side of the 'other', against that which 'belongs', or is understood to be normative. Consequently, it is negatively constituted, only existing as the antithesis of a superior category. As Paul Hegarty states: 'noise is a negativity: defined in opposition to something else, for example, meaning, music, structure, skill, beauty, etc.'[2] From this perspective, noise is defined by a lack – a lack of organization, significance, information, purpose, specificity, desirability and so on. The negative constitution of noise is more obvious when it is defined by its 'un-ness' – as unwanted, unpermitted, undesirable, unintentional or unorganized. Alternatively, noise can be conceived as that which remains when we subtract meaning or signification; in Lacanian terms, it can be understood as that which exists outside of, or in the gaps of, the Symbolic. Such a position is articulated by Salomé Voegelin: 'Noise breaks with the language base […] [it] can only find its way to language by the acknowledgement that it can't.'[3] Noise is the presence of a disturbing and disruptive absence; it marks the emergence of a hole or a void, occupying those moments where language and signification breaks down.

[2] Paul Hegarty, 'Just what is it that makes today's noise music so different, so appealing?', *Organised Sound,* vol.3/1 (2008), 13-20, 13.
[3]Salomé Voegelin, *Listening to Noise and Silence: Towards a Philosophy of Sound Art* (London: Continuum, 2011)*,* 65.

Binary frameworks have been subject to critique by a number of schools of thought, including poststructuralism, postcolonial theory, feminism and queer theory. These disciplinary approaches have challenged the universal and ahistorical applications of binary systems, demonstrating how the most 'natural' of dualisms are cultural constructions. Moreover, many of these schools of thought have argued that binary divisions play a key role in the organization and distribution of power, drawing attention to how the hierarchical divisions between men/women, masculine/feminine heterosexual/homosexual, white/people of colour, Western/Non-Western structure social, political, and economic relations, while serving, privileging and legitimizing the interests of the powerful – namely, those of white, Western, man.

The critique of binary oppositions is famously a key feature of the work of Jacques Derrida. For him, the dualisms that have governed Western metaphysics cannot be undermined simply through a reversal the hierarchy – for example, the prioritization of absence over presence, margin over centre, or, in this instance, noise over signal. Instead, through deconstructive practice, Derrida's work marks out the moments of undecidability or indiscernibility between conceptual oppositions. In other words, it looks to corrupt, rather than invert, binary oppositions. This is approached, in part, through a consideration of concepts, entities and phenomena that fail to conform to either pole of a binary opposition. The hymen, for example, is neither inside nor outside; it lies in-between the inside and the outside of the female body, and refers to both virginity and consummation.[4] Likewise, in his consideration of Plato's *Phaedrus,* Derrida draws attention to the term '*pharmakon',* which refers to both remedy and poison. An understanding of '*pharmakon'* as remedy is thus, inevitably, partial; it remains irreducible to binary distinctions of good/bad, beneficial/harmful, or health/sickness, in that it pertains to both and, consequently, is neither.[5] Revealing the points at which a binary opposition becomes insufficient thus works to delegitimize its authority.

Deconstructions of binary divisions have also been central to much feminist scholarship, insofar as such (constructed) dualisms have historically informed cultural and philosophical articulations of sexual difference; and gendered power relations.

[4] Jacques Derrida, 'The double session', in *Dissemination,* trans. Barbara Johnson (London, New York: Continuum, 2004), 187-237.
[5] Jacques Derrida, 'Plato's pharmacy', in *Dissemination,* 67-186.

With this, the political dimension of binary critique becomes more overt. Luce Irigaray, for example, has sought to expose and disrupt the binary oppositions that have shaped (patriarchal) figurations of the feminine. For her, philosophical and (Freudian and Lacanian) psychoanalytic systems of thought fail to allow for a female subjectivity, inasmuch as the feminine remains trapped within a phallocratic economy that privileges sameness, identity and unity. Consequently, 'woman' does not exist on her own terms; rather, she is defined by a referential opposition to man. The feminine is equated with the subordinate categories of nature, the body, and the object, whilst the masculine is equated with the privileged categories culture, the mind and the subject. From this perspective, the feminine is not so much different as it is different *from,* or rather, a *deviation from* the masculine.[6] For Irigaray, then, the question is how to discover a feminine subjectivity on its own terms, and without its reduction to a series of binary categories. In order to challenge (masculine) characterizations of woman and the feminine, Irigaray engages a methodological strategy of 'mimesis'.[7] This involves playfully and unfaithfully adopting stereotypical characterizations of femininity – informed by phallologocentric dualisms – so to make visible what is ordinarily rendered invisible:

> There is an initial phase, perhaps only one "path", the one historically assigned to the feminine: that of mimicry. One must assume the feminine role deliberately. Which means already to convert a form of subordination into an affirmation, and thus to begin to thwart it […] to play with mimesis is thus, for a woman, to try to recover the place of her exploitation by discourse, without allowing herself to be simply reduced to it.[8]

If to speak as a feminine subject is to remain unheard, and to speak as a masculine subject is to fail to recognize feminine subjectivity and sexuality, then mimesis presents a 'third way', insofar as it involves the infection and corruption of the

[6] See Luce Irigaray, *The Sex Which Is Not One,* trans. Catherine Porter (Ithaca: Cornell University, 1985).
[7] Although Irigaray's strategy of mimesis has some similarities to Derrida's deconstructive practice, Margaret Whitford notes that there are key differences between Derrida and Irigaray's projects. Irigaray's undoing of hierarchy is ultimately aimed at allowing women a space to speak as women. However, this feminist ambition is not immediately present in Derrida (though there have been a number of feminist readings of his work). Indeed, with reference to Derrida's own remarks on feminism, Whitford argues that Derrida sets deconstruction (as the privileged term) in opposition to feminism (which he describes as phallologocentric). See Margaret Whitford, *Luce Irigaray: Philosophy in the Feminine* (London, New York: Routledge, 1991), 127-129.
[8] Irigaray, *The Sex Which Is Not One,* 76.

masculine order. With this, the cracks in the phallologocentric, dualistic conceptualizations begin to show.

Irigaray's work has been influential for much non-dualistic feminist thought, including the 'corporeal feminism(s)' of Rosi Braidotti and Elizabeth Grosz – both of whom have sought to move beyond the mind/body dualism and dichotomous categorizations of sexual difference via a reconfiguration of embodiment, materiality and subjectivity. This involves a complication of a binary logic that divorces nature from culture, mind from matter, and body from machine. Raia Prokhovnik, also drawing upon Irigaray, takes a distinct (though largely compatible) approach in her interrogation of the interdependent dichotomies that render the notion of 'rational woman' paradoxical. For Prokhovnik, there is nothing inherently wrong with dichotomous thinking, when it is one mode of thinking amongst many. Rather, the issue at stake is 'the repressive effect on other modes of thinking that the dominance of dichotomy has exercized over the past two hundred years.'[9] Binary oppositions have not been seen as one mode of relation amongst multiple others but have been *the* mode of relation. Prokhovnik argues that a non-contradictory articulation of 'rational woman' can only be achieved through transformation and non-dichotomous reconceptualization of the pairings reason/emotion, man/woman and mind/matter. Prokhovnik thus develops an open-ended, relational and non-dualistic approach that values difference (rather than 'difference from') and diversity. If a binary relation can be characterized as 'either/or', or 'A/-not A', then the relational mode can be characterized as 'both – and'.

A relational approach, then, emphasizes the interdependence of the categories man and woman; reason and emotion, allowing more effectively for interaction, connectivity and fluidity; and without suppressing individuality, difference and ambiguity. However, Prokhovnik is careful to avoid setting up another dichotomy between relational and dichotomous modes of thought; she warns against equating the dichotomous with the patriarchal and the relational with the feminist.[10] Consequently, she considers a relational approach as one alternative to, rather than the replacement for dualistic modes of thought.

[9] Raia Prokhovnik, *Rational Woman: A Feminist Critique of Dichotomy* (London and New York: Routledge, 1999), 21.
[10] Ibid., 4.

In light of these criticisms of binary oppositions and dichotomous modes of thought, can noise be understood another way? Can noise be conceived as something other than a secondary, derivative phenomenon, dismantling the constitutive hierarchy between signal and noise in the process? One way to critically address this problem is to show that the separation of signal and noise – of wanted and unwanted sound – is a relativist issue. Furthermore, as was also shown in the previous chapter, what counts and noise and what counts as signal; what sound is deemed pleasant and what sound is deemed unpleasant is by no means universal: it varies between cultures, disciplines and historical epochs, as well as between subjects. However, revealing these oppositions to be relative rather than absolute – showing that one person's music can be another's noise – nevertheless fails to a unpick the hierarchy of values that privileges music, signal or meaning over noise. In other words, which sounds may be heard as noise remains open but its negative status remains the same: it is something to be minimized, avoided or abated. Thus while relativist accounts show that what counts as noise is variable, the inferior *value* of noise persists. Consequently, the hierarchical relationship between noise and signal, or noise and music remains intact.

From Noun to Verb: What Does Noise Do?

Although these binaristic conceptions tell us of the properties that noise might have (for example, unwantedness, lack of meaning, ugliness, chaotic) they fail to capture its dynamism; what it is that noise *does*. In other words, the binary logic that governs concepts of noise struggles to understand noise as a verb as opposed to a noun – a 'doing' as opposed to a 'thing'. By considering noise in relation to how it functions – determining what it is through what it does, first as an action or process, rather than as a object, value judgement or aesthetic category – noise is located within a complex network of relations, forces and interactions, which cannot be fully captured by the hierarchical, binary relation between noise and signal and their correlative values as unwanted and wanted, unintended and intended, meaningful and meaningless and so on. What, then, is it that noise does *before* it is deemed unwanted or undesirable? What is it that noise does to *become* unwanted or undesirable? In order to address these questions, this chapter will turn to an informational definition of noise.

In his seminal article, 'A Mathematical Theory of Communication' (1948), Claude Shannon outlined a new, formal model of technical communication (Fig. 1), which aimed to more fully account for the presence and effects of noise in communication systems. Shannon's article is considered to be one of the founding works of information theory and remains highly influential. His general model of communication consists of six key components: (1) an information source, which produces a message; (2) a transmitter, which converts a message into signals; (3) a channel, through which the signals are transmitted; (4) a noise source, which effects transmission; (5) a receiver, which converts the signals into a message, and (6) a destination where the message arrives. Shannon's model was popularized by the mathematician Warren Weaver in their joint publication *The Mathematical Theory of Communication*, which was published the year after Shannon's article. In his introductory essay, Weaver considers the implications of Shannon's model beyond an engineering context. Although it was initially intended to represent the communicative process in relation to radio and telephone technologies, Weaver discusses its broader application:

> The word *communication* will be used here in a very broad sense to include all of the procedures by which one mind may affect another. This, of course, involves not only written and oral speech, but also music, the pictorial arts, the theatre, the ballet and in fact all human behaviour.[11]

In Shannon's model, then, the message may consist of spoken or written words, but it may also be a musical melody or a series of images. The channel may be a wire (as with telegraphy) but it may also be air (as with oral communication). The signal can be digital, consisting of a series of bits, or it can be analogue, consisting of variations in air pressure (as with sound) or an electromagnetic wave (as with radio).

Although Weaver suggests some of its implications for the semantic dimensions of communication, Shannon's general model is not primarily concerned with the meaning or content of a message: 'semantic aspects of communication are irrelevant

[11] Warren Weaver, 'Some recent contributions to the mathematical theory of communication' in Claude Shannon and Warren Weaver, *The Mathematical Theory of Communication* (Chicago: University of Illinois Press 1998), 1-28, 3.

to the engineering problem.'[12] Consequently, it is of little importance whether the message being transmitted is a series of instructions or entirely nonsensical. Rather, Shannon is primarily concerned with the measurability of communication. Noise and signal are both understood to be quantifiable, and their quantitative relation is expressed by the signal-to-noise ratio of a system.

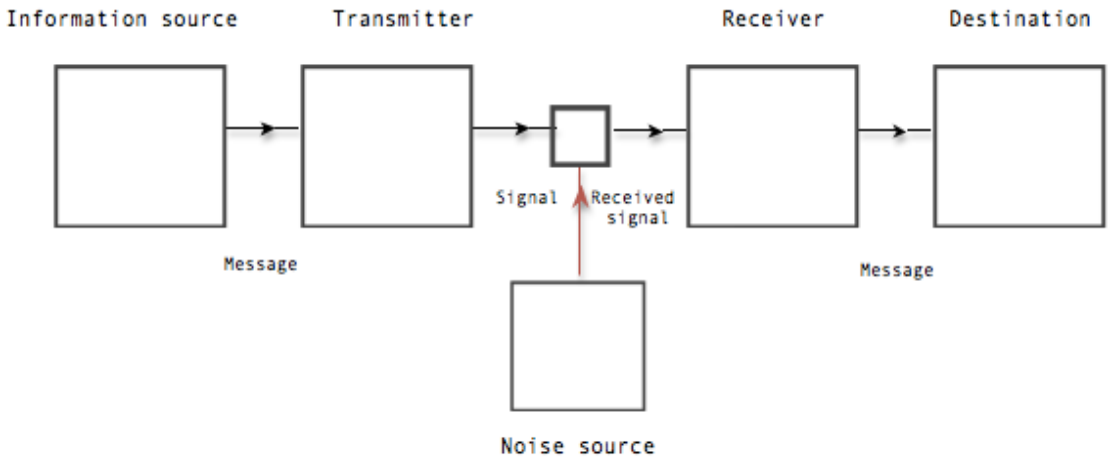

Fig. 1. Claude Shannon's schematic diagram of a general communication system.
See Shannon, 'The mathematical theory of communication', 34

It should be noted that Shannon's general model has faced much criticism with regard to how it represents the communicative process. Firstly, there is the complaint that it does not address issues of meaning (i.e. the content of messages), since it deals with communication only in mathematical terms (as Shannon himself acknowledges). The semiotician Daniel Chandler argues that Shannon's diagram is consequently not applicable to human communication, since meaning and meaning-making play a crucial role in such contexts – how a message is interpreted or how exchangers feel about a message's meaning has a significant impact on the communication process.

[12] Claude Shannon, 'The mathematical theory of communication', in Claude Shannon and Warren Weaver, *The Mathematical Theory of Communication* (Chicago: University of Illinois Press 1998), 29-115, 31.

The content of a particular message (e.g. 'well done') can be interpreted in numerous ways (e.g. as sarcastic, congratulatory, resentful) and how a message's recipient interprets this can influence if and how a communicative exchange continues. Secondly, Shannon's model presents a linear view of communication, where messages are passed one-way from sender to receiver. This fails to capture communication as a multidirectional process. In positioning sender and receiver as discrete positions, Chandler argues that it also does not allow for the fact that communication (in particular, communication between people) tends to involve interlocutors sending and receiving messages at the same time (for example, through speech, body language, voice tone). The relationship between sender and receiver, furthermore, is described as one of activity to passivity – messages are intentionally passed from 'active' sender to 'passive' receiver. Similarly, Chandler claims that Shannon's model typically views message content and meaning as analogous, thus failing to allow for the multiple meanings and interpretations of messages, which are formulated, in part, by the varying attitudes, expectations and understandings of participants. In other words, it recognizes meaning as something determined and fixed by the sender, which is then 'given' to a receiver. Consequently, it fails to account for the 'active' role recipients play in the construction of meaning. Finally, Chandler argues Shannon's general model allows little space for the influence of context (for example, political, cultural, historical, institutional) in communication. Again, this fails to be addressed because Shannon focuses on the mathematical dimension of communication, rather than the meaning and signification of messages. Chandler thus concludes Shannon's model is too reductive, inasmuch as it 'underestimates the creativity of the act of interpretation'.[13]

These criticisms are primarily applicable when considering the meaning of messages and the role signification plays in communication processes. However, Shannon's model remains pertinent when addressing noise. Indeed, none of Chandler's criticisms challenge the way in which noise is characterized by Shannon, instead focusing on the signal and its interpretation.

[13] Daniel Chandler, *The Transmission Model of Communication* (1994) http://www.aber.ac.uk/media/Documents/short/trans.html#D [accessed October 2012]. For a further consideration of the critiques of the transmission model of communication, and their ideological implications, see Steven Maras, 'On transmission: a metamethodological analysis (after Régis Debray)', *Fiberculture Journal,* vol. 12 (2008) http://twelve.fibreculturejournal.org/fcj-080-on-transmission-a-metamethodological-analysis-after-regis-debray/ [accessed October 2012].

If it is to be conceded that noise is that which lies outside of language, as is suggested by Voegelin and Hegarty, then an approach oriented around language and its meaning would seem limited at best. For the purposes of this chapter, noise's meaning – or lack of it – is of secondary importance to what noise does. Thus while Shannon's model may be restrictive when considering the exchange of messages between interlocutors, I would argue that his omission of questions of meaning and interpretation has little impact on how noise is understood to function – on Shannon's understanding of what it is that noise does.

Drawing on Shannon's model, which posits communication as an issue of statistics (instead of semantics), this chapter moves away from a structural-linguistic approach and towards a materialist account, which recognizes noise primarily as an asignifying force. Framing noise in these terms is not quite the same as positing it as the absence of meaning, or as a gap in the semantic. By describing noise as asignifying I am suggesting that noise does not *in and of itself* function in accordance with meaning or signification. Noise – as it is being understood here – operates according to rules other than those of the Symbolic. In other words, I maintain the view that noise is primarily positioned outside of language, meaning and signification, while also looking to push beyond the endpoint of describing noise as non-meaning to a message's meaning. Indeed, this endpoint is revealing of the limited insight that a linguistic approach provides, insofar as describing noise only as non-meaning fails to capture what it is that noise does. This is not to deny that noise can influence or have an impact upon a message's meaning – how a message is heard, understood and interpreted. However, these semantic issues arise as an effect or outcome of noise acting upon a message, rather than being a constitutive feature of noise itself. [14]

Taking the lead from Shannon's model of communication, it can be said that noise, at its most basic, interrupts: it is a disruptive, disturbing and perturbing force. In information theory, noise is understood as that which interferes with and subsequently modifies a signal in its passage between emitter, transmitter and receiver, resulting in a

[14] Warren Weaver notes that while Shannon views the semantic aspects of communication as irrelevant to its engineering aspects, this does not mean that the engineering aspects are necessarily irrelevant to the semantic aspects of communication. See Weaver, 'Some recent contributions to the mathematical theory of communication', 8.

degree of difference between the message received and the message sent. Noise is anything that perturbs the signal during transmission, potentially inducing error or miscommunication in its reception. Shannon differentiates between two types of noise in communication systems. If a given signal produces the same received signal, insofar as the signal always undergoes the same change in transmission, then this is referred to as distortion. In a case where the signal does not always undergo the same change in transmission, noise is understood as a chance variable. The received signal (*E*) is thus understood as a function of the transmitted signal (*S) and* a second variable, noise (*N*). In other words, the received signal is always produced by a combination of transmitted signal and perturbing noise. This process is represented by Shannon's equation $E = f(S,N)$.[15]

This informational approach to noise is clearly distinct from the definitions covered in the previous chapter. If noise is first understood as a function – a force of interference and disturbance – rather than as a type of sound or a qualitative judgement of sound, then noise can have an existence independent of – or rather, not limited to – particular sounds and sources (*contra* a object-oriented definition), and without the need to retort to the relativist endpoint of noise being whatever is heard as such by a perceiving subject (*contra* a subject-oriented definition). Such an understanding of noise allows for its variability not only in terms of source but also its qualitative features. Noise, understood in terms of interruption and interference, need not be loud, harsh or abrasive; it may often be quiet, going largely unnoticed. There is, for example, the barely perceptible crackle on a phone line that, for a brief few seconds, interferes with the sound of the voice being transmitted. Nor does it need be heard at all, insofar as Shannon's model does not assume that noise is a solely audible sensation. Visual, electrical, or electromagnetic signals, for instance, may take up an interfering role within a communication system.

To think of noise as an interrupting force, however, is to only consider part of the process. In interfering with a signal, noise induces a change, or modification. As Weaver remarks: 'if noise is introduced, then the received message contains certain distortions, certain errors, certain extraneous material'.[16] The change incurred by noise

[15] Shannon, 'The mathematical theory of communication', 65.
[16] Weaver, 'Some recent contributions to the mathematical theory of communication', 19.

may involve the signal being accompanied by crackle, hiss or static, or it may result in a distorted or glitching version of the signal being received. In digital systems, noise can 'flip bits', randomly transforming one bits of a message into zero bits and vice versa. Alternatively, noise may change the timing of a message; it can affect when a bit, packet or entire message is received.

By modifying a message, noise results in increased uncertainty or 'information'. Weaver notes: 'it is generally true that when there is noise, the received signal exhibits greater information – or better, the received signal is selected out of a more varied set than the transmitted signal.'[17] As this makes clear, 'information' has a particular meaning in this context that is distinct from colloquial understandings of the term. Put simply, information for Shannon and Weaver is a measure of choice. More information means more uncertainty as to which signal is the intended signal. In communication systems, then, noise is understood to generate information.[18] The greater the presence of noise – which is to say, the more interference, interruptions or perturbations to which the signal is exposed – then the greater the information (uncertainty) in a signal's reception. Conversely, if a message travels through a noiseless channel and is thus entirely predictable (insofar as it is unchanged and unaffected by transmission) then the message includes no information.

Shannon proposes that the *effects* of noise – the potential increase of error or miscommunication – can be minimized or countered by increasing the source's rate of redundancy. Redundancy refers to the fraction of the message structure that is determined by the accepted statistical rules of the particular system, as opposed to the free choice of the sender. While redundancy is time consuming, since a greater rate of redundancy means that it takes longer to transmit a message, it allows for errors arising from noise to be more easily corrected. As Weaver notes:

> When there is noise on a channel […] there is some real advantage in not using a coding process that eliminates all of the redundancy. For

[17] Ibid.

[18] Weaver notes that if one forgets that the particular definition of noise used in information theory, then it might seem paradoxical that noise increases information: 'If noise is introduced, then the received message contains certain distortions […] and that would certainly lead one to say that the received message exhibits, because of the effects of noise, an increased uncertainty. But if the uncertainty is increased, the information is increased, and this sounds as though the noise were beneficial!' Ibid.

> the remaining redundancy helps combat the noise. This is very easy to see, for just because of the fact that the redundancy of English is high, one has, for example little or no hesitation about correcting errors in spelling that have arisen during transmission.[19]

At times, however, the division between noise and its effects, or between the initial, disruptive relation between signals, and the modification this relation induces, is not always clear.[20] The effects of interference at one level of relations (i.e. the signal during transmission across a channel) can also become a source of interference in reception – noise and its effects, disruptions and their outcomes can turn into one another. It is in this sense that noise should not be understood as a strictly audible and directly perceivable phenomenon. The glitches, static and crackles that interrupt the radio broadcast, for example, are the effect of noise within another system of relations. The audible noise that is perceived, and that interferes with the reception of a broadcast, is the result of – or the translation of – an inaudible and imperceptible noise that disturbs the signal during transmission and decoding. These inaudible disturbances may arise from electromagnetic phenomena, or thermal noise within the circuitry. The audible noise, then, is one stage in a longer chain of events, many of which remain hidden from direct human perception.

Alternatively, noise may fail to reach the level of audibility, having been 'corrected' during the transmission process. Compact discs, for example, contain a layer of error correction code, which means that even a scratched CD can (potentially) be played without error or glitching. CD error correction codes work by increasing redundancy, so that the digital audio data can be transmitted faithfully across a noisy channel. A CD player reads CD data using a lazer, which is then reflected back to a sensor, which, in turn, detects changes in the beam and translates these changes into digital data. This data is processed and finally converted into sound. A scratch on the CD surface can affect the lazer focus, subsequently disrupting the reading of the CD and introducing

[19] Ibid., 22.

[20] Indeed, there is some ambiguity with regard to Shannon and Weaver's joint publication as to whether noise pertains to the interfering relation, the effects of that relation, or both. As has already been noted, Weaver explains that the introduction of noise can result in the received message being accompanied by distortion, errors and so on. However, he also states: 'In the process of being transmitted, it is unfortunately characteristic that certain things are added to the signal which were not intended by the information source. These unwanted additions may be distortions of sound […] or errors in transmission […] All these changes in the transmitted signal are called *noise.'* Ibid., 8. Noise, then, would seem to refer to both the disturbance of a signal during transmission, and the extraneous sounds and objects that are the outcome of that disturbance.

error into the digital data – ones can be read as zeros and zeros can be read as ones, or may not be read at all. Error correction coding can compensate for damaged or corrupted data, cancelling out the error introduced by a small scratch and thus preventing the CD playback from being affected. In other words, the error induced by interference is corrected prior to the data's conversion into sound. In addition to error correction coding, CD players can also prevent noise or error reaching the level of audibility with the error concealment technique of 'interpolation'. Interpolation works by finding an average based on the 'good' data that comes before and after an error. Since audio waveforms are largely continuous across a short amount of time, the player can use interpolation to 'fill in the gaps' created by a small scratch on the CD surface. Depending on the severity of the scratch (i.e. how much data it has corrupted) the result of successful interpolation can range from the error being concealed entirely (i.e. the CD playback is not audibly affected) or a small glitch being introduced in playback. In these instances, systems can correct noise before it is rendered audible. Interruptions and interferences still induce a change but this is combated by the playback system, so that it remains unheard and unnoticed by a listener. Consequently, the change induced by noise is only temporary. Noise and error, in this context, are pre-empted and controlled; the system and its coding *expects* the disruption and can thus correct it effectively and efficiently.[21]

If noise is defined in relation to Shannon's model of communication, then the question is not just 'what kind' of noise but also 'how much' noise. Shannon's model is primarily a mathematical model, through which noise, signal and communication are understood as quantifiable. Subsequently, following Shannon, noise can be thought of as having qualitative and quantitative dimensions: its qualitative variability is accompanied and shaped by noise's quantitative variability. The difference between a

[21] This is exemplary of a cybernetic approach to noise, where metastability (as opposed to perfection) is the primary aim. With the development of cybernetics, noise became viewed as something that was to be controlled, rather than excluded. As Jussi Parikka notes, cybernetics recognized that there was no ultimate possibility of ridding systems entirely of the intervening effects of noise but there are always ways of examining mapping and constraining noise. Systems can adapt around noise, in order to correct or conceal its effects; cybernetic systems compensate for noise's deviation from a pre-determined purpose. Interfering noise can be continuously monitored and the circuit can be modified in response, as to optimize message intelligibility. See Jussi Parikka, 'Mapping noise: techniques and tactics of irregularities, interception and disturbance', in Erkki Huhtamo and Jussi Parikka (eds.), *Media Archaeology: Approaches, Applications and Implications* (Berkley and Los Angeles: University of California Press, 2011), 256-277, 260 – 263.

glitch and a system crash; between the background hum and the overwhelming roar of the city; between a message being intelligible and unintelligible, is not just one of quality but also quantity: How much disturbance? How much modification? And if noise's interruptions have a quantitative and qualitative variability then so too do the reactions it induces. For example, the noise of traffic that inhibits a conversation may cause an interlocutor to increase the volume of their voice, or use more physical gestures, in order to convey their intended message. The interlocutor may not even be aware that they are raising their voice or that they have increased their gesturing in order to accommodate the interference, and they may not consciously register the traffic's increasing volume. Alternatively, the interruption might be so severe it requires the interlocutors to abandon the space and relocate elsewhere.

When understood as a perturbing force that modifies a particular signal, message or the operations of a system, noise can be thought of as productive in that it generates some kind of change, no matter how minor, imperceptible, or fleeting. It is important to note, however, that to describe noise as productive is not the same as referring to noise as positive or beneficial. Yet nor is it to say that noise's impact can only ever be bad – that it is only productive in the sense that it destructs or destroys. Noise, as it is presented here, is not inherently negative. Indeed, whether noise is judged to be good or bad, beneficial or harmful, is secondary and contingent, insofar as such a judgement is typically made in relation to the change noise induces – whether the modification is considered useful or inhibitive. In order to further account for this, a departure from Shannon is required.

In Shannon's model, noise is understood as a necessary evil. The effects of noise are assumed to be negative: it takes communication off track and thus is understood as necessary but obstructing force. Noise is that which requires minimization, correction or concealment. The French information theorist, cyberneticist and biologist, Henri Atlan, however, revised this classical perspective of noise in order to allow for noise's seemingly paradoxical potential to be beneficial. Atlan argues that while Shannon only sees noise as having a negative or detractive function, it is possible to imagine a perspective from which noise is viewed as constructive and generative, rather than intrusive and damaging. For Atlan, whether noise is considered useful or destructive, good or bad, positive or negative, relates to an observers position within the

communication process. For the sender, noise will result in a deviation from an intended message. However, for the receiver, noise may play an alternative role – it may be a source of new information that is of potential interest.[22] Noise threatens the reliability of the original message by distorting it and thus increasing its ambiguity. Yet in doing so, noise has the potential to unlock new information and interpretations. Likewise, noise can destroy or diminish the functioning of a system, but it can also force self-organizing systems to reorganize with greater complexity and variety. In requiring a system to adapt to its effects, noise helps generate new orders. In such instances, noise's 'positive' role co-exists with alongside its 'negative' role.[23] Thus, according to Atlan, the impact of noise may be good as well as bad; positive as well as negative, depending, in part, on the nature of the system – what kind of noise and how much noise there is to contend with. There is, however, a third option that can be added. If noise is also capable of inducing minute, fleeting changes, then there may be no discernible sense of 'goodness' or 'badness'. Noise may result in ambivalence, having no noticeable impact, or lasting consequence. From such a perspective, noise's 'unwantedness' is not definitive but contextual. One can think of situations where the effects of noise may be dangerous (for example, by rendering a call for help unintelligible) but there are also situations where noise has little or no consequence; or situations where noise's capacity to produce new information is put to use – such as when noise is used as an artistic resource (see Chapter Five).

[22] Steven D. Brown gives the example of slips of the tongue, or unintended deviations from a script – in short, going 'off message' – that may be unintended and disruptive, but nevertheless a source of interest. See Steven D. Brown, 'Michel Serres: science, translation and the logic of the parasite', *Theory, Culture and Society,* vol. 19/3 (2002), 1-27, 7.

[23] Henri Atlan, 'On a formal definition of self-organization', *Journal of Theoretical Biology,* vol. 45/2 (1974), 295-304. See also Henri Atlan, 'Noise as a principle of self-organization', in Stefanos Geroulanos and Todd Meyers (eds.), *Henri Atlan: Selected Writings* (New York: Fordham University Press, 2011), 95-113. Noise's beneficial capacity can also be seen in relation to the phenomenon of stochastic resonance, which refers to instances where a small amount of noise can improve a (nonlinear) system's detection of faint signals. Noise may help boost a signal above a particular threshold. In image processing, for example, the contrast of an image may improve and then degrade as the level of pixel noise increases. There are also a large number of 'natural' examples, in which noise helps in the detection of particular signals. David Russell, Lon Wilkens and Frank Moss have shown that stochastic resonance enhances the normal feeding behaviour of paddlefish. With the optimum amount of electrical noise present, paddlefish were able to locate and capture more distant plankton, than when there were higher or lower noise levels. See David F. Russell, Lon A. Wilkins, and Frank Moss, 'use of behavioural stochastic resonance by paddle fish for feeding', *Nature,* 402 (1999), 291-294.

Parasitic Encounters

Michel Serres could be accurately described as a philosopher of noise. His work is marked by a fascination with translation – he is preoccupied with the crossing and re-crossing of disciplinary borders, and the errors, distortions and mistranslations that may arise. With its emphasis on process, transformation and the fluidity of relations, Serres' work facilitates a more nuanced exploration of the (non-dualistic) relationship between noise and signal.

In his earlier writings, Serres regularly and liberally draws on information theory – including that of Shannon and Atlan, described here – to address interdisciplinary problems, which unexpectedly connect the social to the technological, literature to science, and myth to mathematics. Like Shannon, Serres often creates general models, and then seeks to apply them to a wide range of contexts. However – also like Shannon – Serres' generalizations have garnered criticism. N. Katherine Hayles, for example, identifies a paradoxical tendency in Serres' work (though by no means unique to him), which sees him trapped between the local and the global. Hayles understands this tendency to reflect Serres' 'divided loyalties' to literature and science: 'he is attracted by the promise of universal laws that hold true regardless of local circumstances; at the same time he delights in the refractory resistances of local sites that prevent their assimilation into global theories.'[24] Hayles argues that – *contra* Serres' own championing of flux, local knowledge and difference – his generalizations about turbulent and context-specific phenomena are made through an assimilation of contextual particularities, insofar as global theories require the suppression of local variations. In short, he attempts to universalize the local, at the expense of the latter: the 'noise of difference' is made to speak 'the language of unity'.[25] However, Steven Brown argues that although his general application of models beyond their particular disciplinary context has attracted considerable criticism (including that of Hayles), these critiques are often based on a misinterpretation of what Serres is trying to achieve. Serres' general models are not so much an attempt to discover universal laws or truths; rather, they provide a means of creating (provisional) connections between otherwise disparate phenomena. However, these connections cannot be formed

[24] N. Katherine Hayles, 'Two voices, one channel: equivocation in Michel Serres', *SubStance,* vol. 17/3 (1988), 3-12, 4-5.
[25] Ibid., 11.

without exposure to noise. As Brown states, 'communication runs through these passages, but does so only at the risk of potential distortion, in the course of which messages become transformed.'[26] For Serres, then, the distortion of ideas, models and theories when they are taken outside their disciplinary context is not only a necessary risk but also – more importantly – *a possible source of invention*. The twisting of these disciplinary 'messages' and their application into other fields comes with potentially unexpected insights that may allow alternative ways of understanding phenomena and their operations. In Serres' work, then, noise is both a recurring theme and a strategy of inquiry.

These interests are manifest in *The Parasite* – a complex, multiplicitous text that weaves together information theory, physics, philosophy, fable, economics, biology, theology, and politics, in order to explore the parasitic nature of human relations. *The Parasite* is also, in part, an extended critique of media, which demands the 'third term' of communication is taken seriously. This 'third term' is noise. Serres begins by telling a story of parasitic encounters, based on a fable by La Fontaine. The country rat is invited to dine at the home of the city rat. The city rat feeds off the larder at the home of the tax farmer. The tax farmer has produced nothing: he parasites the fat of the land, using law and power. However, the dinner of the rats is interrupted by the arrival of another parasite - noise:

> The two companions scurry off when they hear a noise at the door. It was only a noise, but it was also a message, a bit of information producing panic: an interruption a corruption, a rupture of information. Was the noise really a message? Wasn't it, rather, static, a parasite? A parasite who has the last word, who produces disorder and who generates a different order.[27]

In French, the word 'parasite' has three distinct but related connotations. It may refer to the parasitic relation of one entity being hosted by another, such as a flea being hosted by a cat. The parasitic organism feeds at the expense of the host but gives nothing in return. By extension, parasite may also be a derogative term for those branded as social scroungers – those who allegedly 'feed off' the state but 'contribute' nothing in return. The social parasite may also be the uninvited guest, who charms

[26]Brown, 'Michel Serres: science, translation and the logic of the parasite', 2.
[27] Michel Serres, *The Parasite,* trans. Lawrence R. Schehr (Minneapolis: University of Minnesota Press, 2007)*,* 3.

their way onto the host's dinner table and who eats for free, taking something for nothing, or, alternatively, who makes an unequal exchange; trading food for stories. The biological and social parasites are types of thief – they take without giving. The third parasite is the informational parasite, which takes the form of static or interference in a channel. Consequently, the parasitic relation connects the biological, the social and the informational. These three parasites – the social scapegoat or uninvited guest, the biological feeder and informational noise – are all thought of as interferences within a system; they interrupt the usual flow of things, disrupting pre-existing relations and, in turn, transforming them. The parasite, Serres tells us, 'invents something new. Since he does not eat like everyone else he invents a new logic. He crosses the exchange, makes it into a diagonal […] He wants to give his voice for matter (hot) air for solid.'[28]

Serres characterizes the parasite as the third person. It is the 'excluded middle'[29] that exists as the intermediary between entities A and B: 'the position of the parasite is to be between.'[30] Thus the parasite does not interfere directly with the sender or the receiver; the country rat or the city rat. Rather, it acts upon the *relation* between these two positions (Fig. 2). Serres, moreover, does not understand the parasite as discrete entity – it is not a type of being or organism. His focus is on *parasitism* as a particular kind of asymmetrical and disruptive relation. Parasites are not a type of organism; rather, organisms are defined as such when they take up a parasitic relation with another organism. Applying this logic to noise (the informational parasite) means that a particular sound or signal is not inherently or *a priori* noise but it becomes noise when it takes up a particular, interfering relation within a system. As the third term, the parasite is neither in the place of the subject nor the object. Instead, Serres conceives of the parasite as an operator, a device; the means by which subject turns into object and vice-versa. The parasite is thus characterized as having a relation to relations – the relations *between* subjects and objects. In the case of the country rat and the city rat, the disruptive noise takes up a relation with the relation between rats: 'the

[28] Ibid., 35.
[29] Here, the excluded middle pertains to Aristotle's 'law of excluded middle', which states that either that proposition is true, or its negation is true (i.e. a statement is either true or false). The truth of the famous statement 'Socrates is mortal', for example, is an either/or selection, it is either true or false – he is either mortal or he is not. In other words, there is no middle ground. I return to the excluded middle in relation to affect in Chapter Three.
[30] Ibid., 230.

banquet is a relation of the two rats […] and the third person intercepts it, parasites it by means of parasitic noise. He makes it stop.'[31]

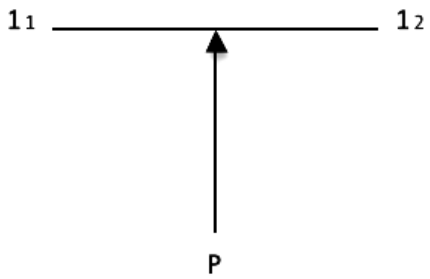

Fig 2. The parasitic relation to relations. See Serres, The Parasite, 53.

In Serres' schema, the system of relations is non-linear and fluid, with entities changing between the positions of sender, receiver and noise; or guest, host and parasite: 'the guest becomes the interrupter, the noise becomes the interlocutor; part of the channel becomes an obstacle and vice-versa […] the same and the other change places with the third.'[32] Consequently, the relationship between hosts and parasites is not always clear: who parasites whom? (Fig. 3) In the case of the rat's feast, for example, there is a chain of parasitic relations: the country rat parasites the city rat, the city rat parasites the tax farmer, and the tax farmer is himself a parasite. The parasites (i.e. the rats) parasite (i.e. the parasitic relation) the parasite (i.e. the city farmer). [33] Both the tax farmer and the city rats are thus simultaneously hosts and parasites, or rather, they occupy the position of host and parasite in a different series of relations; the tax farmer is parasite of the land but a host to the city rat, the city rat is a parasite to the tax farmer and his larder,

[31] Ibid., 51.
[32] Ibid., 53-54.
[33] For Serres, then, the problem of the parasite – of 'parasites, parasites parasites' – is very different from the Hegelian master-slave dialectic; the problem of how the slave becomes the master of the master. Hegel's dialectic describes how the subject becomes the object or vice-versa. However, the parasite is neither subject or object; it is rather, the means by which subjects relate to objects, or how subjects are transformed into objects. It is the operator. See Stephen Crocker, 'Noise and exceptions: pure mediality in Serres and Agamben' *CTheory* (2007) http://www.ctheory.net/articles.aspx?id=574 [accessed January 2012].

but a host to the country rat. This chain of relations, however, is broken by the appearance of another interrupting parasite. This final parasite is thought to be the noise of the tax farmer-parasite: the return of the parasited-parasite:

> Who is the parasite here, who is the interrupter? It is the noise, the creaking floorboards of the floor or of the door? Of course. It upsets the game and the system collapses. If it stops, everything comes back and is reformed and the meal continued. Think of another noise: the chain is broken again and everything vanishes in the bewildered flight [...] Theorem: noise gives rise to a new system, an order that is more complex than the simple chain.[34]

The chain of parasitic relations (the tax farmer parasited by the city rat, the city rat parasited by the country rat) is disrupted as the first host (the tax farmer) counter-parasites his guests, 'not by taking away his food from them […] but by making noise.'[35] The noise interrupts the meal of the country rat and the city rat, changing their relation. The noise startles the country rat, causing it to flee. The city rat, however, remains unfazed by the noise: 'the city rat gets used to it, is vaccinated, becomes immune.'[36] He urges the terrified country rat to return but he cannot bear the noise of the unfamiliar environment: 'Let us go to the country where we eat only soup, but quietly and without interruption.'[37] But the country rat is also responsible, in part, for the disturbing, parasitic noise that frightens it. Noise moves round the tax-farmer's house – the noise of the tax-farmer that disturbs the feast comes because the tax-farmer is disturbed by the noise of the feast. The rats disturb the tax-farmer and the tax-farmer disturbs the rats, both parasite one another. Relations between host and parasite are formed and reformed and one interrupts another but never exactly in the same way.

[34] Serres, *The Parasite,* 14.
[35] Ibid., p.52
[36] Ibid., 14.
[37] Ibid., 3.

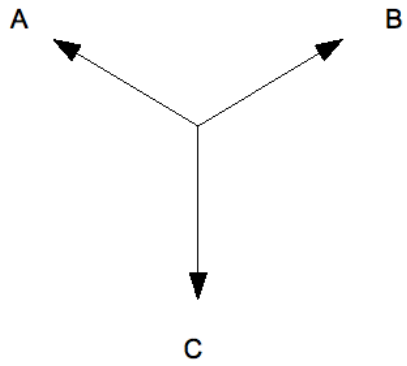

Fig. 3. 'The guest becomes the interrupter; the noise becomes the interlocutor, part of the channel becomes the obstacle, and vice-versa.' Serres, *The Parasite,* 53-54.

Serres notes that there are two primary responses to a parasite's intrusion: incorporation or expulsion. The two parties – guest and host; sender and receiver – may adapt in order to accommodate the parasite's interfering presence. Food portions are re-distributed in order to allow for the presence of the unexpected guest. Or sender and receiver may work through noise by, for example, increasing the redundancy of a message or using gestures to accompany conversation in order to communicate in spite of a high level of background noise. In allowing for the presence of the parasitic noise, a new form of communication is established and the relationship between communicants is transformed. Alternatively, the two parties may work together to cast out the parasite. The farmer chases out the rats; one parasite chases out another. Two diners may work together to expel an uninvited guest. Or sender and receiver may work together to create a more efficient channel, seemingly free from interfering noise. In this instance, an alternative system is formed around the exclusion of the parasite; in working together to exclude the noisy intermediary, the relationship between sender and receiver is once again transformed. The exclusion of the third term can never be complete, however. Serres writes: 'to chase: push out, drive out, uproot, dismiss, purge, repress. We repress what bothers us. What is repressed, *but remains anyway*, still parasites communication.'[38]

[38] Ibid., 77. My emphasis. The French *Chasser* means both hunt and chase. Serres plays on this definition by taking up the parasitic relation of the hare and the gardener: 'the hare is in the third position, and thus, he must be excluded. He must be chased, hunted down. I fear that this is the origin of hunting. The only things that are hunted are those that have to be chased away. In the end, there are two kinds of animals: those that are invited and those that are hunted. Guests and quarry. Tame and wild.' Ibid.

It is not in the parasite's interests to destroy its host system entirely, since that would also destroy the parasite (which is to say, the parasitic relation). The parasite does not simply annul the existing system, with the old being thrown away entirely in favour of the new. Rather, it is through modifications to the existing system that new systems are created. Furthermore, while the association of the parasite with notions of disorder and chaos in Serres' account would seem to suggest a grand overthrowing of order in the establishment of the new, the change that the parasite induces does not have to be radical. Serres notes that 'during the banality of life, life as it is to be confessed, interceptions come and go.'[39] Life is full of small, parasitic noises and the modifications they induce may be barely noticeable, occurring below the threshold of our consciousness. Yet these micro-interruptions can contribute to major disruptions: 'small noises and interruptions increase until a crisis or a catastrophe is reached. The ceiling falls on the table. The floodwaters fill the valley. Cracklings, noise, chaos.'[40]

Either way, and *for better or for worse,* the interrupting parasite is a productive, generative force: whether the noisy third term is incorporated or excluded, it nevertheless induces a modification of relations. The parasite, in inventing a new logic, generates an alternative order; it engineers a transformation by intercepting relations. Steven Brown notes that there are three parts to 'parasite logic': *'analyse* (take but do not give), *paralyse* (interrupt usual functioning) and *catalyse* (force the host to act differently).'[41] Relations end and begin with the parasite – its interruption marks the ending of one structure of relations and the beginning of a new. Systems form (but only ever imperfectly) around the intermediary: the presence of the third term means they remain open-ended and incomplete. For Serres, the parasite is thus a guarantor of change; it means that things cannot and will not remain the same.

Moreover, whether the change that the parasitic noise induces is good or bad, beneficial or destructive is often ambiguous: 'we don't know what belongs to the system, what makes it up and what is against the system, interrupting and endangering it. Whether the diagram of the rats is generative or corrupting.' [42] The parasite can be

[39] Ibid., 135.
[40] Ibid.
[41] Brown, 'Michel Serres: science, translation and the logic of the parasite', 16.
[42] Serres, *The Parasite,* 65. Serres states that 'The noise is a joker. It has at least two values, like the third man, a value of destruction and a value of construction. It must be included and excluded. It is

either a serendipitous or unwelcome visitor depending on one's position within the chain of relations. In a communication system, the sender typically deems noise an unwanted obstruction – it is that which detracts from the message, mutating it into something different. However, as was noted in relation to Atlan, the receiver may not share this perspective. The noise may possess an informational value, in that deviations from the intended message may provide new insights. Stephen Crocker gives the example of the earliest sound recordings of Tennyson reading his poem 'The Charge of the Light Brigade' where the watered down and scratched out sound express to us the enormous passage of time; just as the static-infected voice of Neil Armstrong on the moon expresses something about his physical distance from us and the newness of space technologies in the 1960s. Similarly, as was suggested at the beginning of this chapter, the noise of Edison's recording pays testament to the major advances in recording technologies since the phonograph's invention. As Crocker notes, there are countless other cases in which the noise of the medium mixes with the intended message to produce a new effect, not intended by the sender but taken as new information by the receiver.[43] In these instances, the parasitic interference can become entwined with the intended signal – it sticks to the host. Rather than being simply that which stands against the message, or a thing that is to be discounted, noise becomes part of the message.

The Excluded Middle Included: Noise as Necessary

Although Serres is at pains to emphasize the fluidity of relations – the parasite becomes the host, the host becomes the parasite, noise becomes part of the message and the message becomes noise – he nevertheless argues that the parasite is always positioned *behind* its host; the relation between sender and receiver precedes the parasitic relation, inasmuch as the parasite takes up a relation with relations. In other words, an interruption requires something to interrupt: 'The host is in the row in front the parasite behind him […] the host comes before and the parasite follows.'[44] This would seem to suggest that the parasitic relation is secondary and contingent, whilst

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both the story of the rats and that of a complex system. Computer science and anthropology are joined together.' Ibid., 67.

[43]Crocker, 'Noise and exceptions: pure mediality in Serres and Agamben'.

[44] Serres, *The Parasite,* 14.

the host relationship is primary. The relationship between A and B comes first, with the parasitic third relation coming after. Noise is secondary to the relationship between sender and receiver; the parasitic noise only exists in relation to pre-existing relations. If the relationship between host and parasite is posited this way, then the hierarchy between accidental noise and necessary signal is maintained.

There is, however, a second word play integral to Serres' model of relations, based upon the etymological connection between the 'milieu', 'mediate', 'intermediary', 'means' and 'medium', which prevents the parasitic, third relation from simply being positioned as secondary and subordinate.[45] A milieu is literally the middle, or mid-place. However, as Steven Connor notes, in its more common usage in both French and English, a milieu refers to an environment or context; a set of framing circumstances that envelops a stance, or a standing point.[46] The medium is the middle – the milieu that necessarily stands between sender and receiver, and any other relation between seemingly free and discrete entities.

In communication, messages pass through a material middle. It is this material middle that constitutes mediation, by standing in the way of immediacy. The material middle – the medium – is the third position; the excluded middle that must be included. If, in the context of communication, noise is understood as that which interferes with and induces a change in the signal, then the medium is always noisy, insofar as the medium generates effects that modify the message. In other words, the signal can never be transmitted without some change being incurred.

The parasitic third term – the noisy medium – interferes with the signal, disrupting its passage between A and B. Indeed, in Shannon's diagram (Fig. 1) the channel is noisy by definition. Noise is understood to be basic attribute of communication systems – hence the inclusion of noise in Shannon's general model alongside sender, receiver, transmitter and signal. However, bearing in mind Serres' wordplay, the medium of communication is not only that which messages pass though and across but also refers to the environment – the milieu – within which communication occurs (or fails to). As

[45] 'A trunk, the tail the head: the trunk of the relation between head and tail. The milieu, the mediate. What is between, what exists between. The middle term. The means and the means to an end. The means and the tool; the tool and its use; the means and its use.' Ibid., 65.
[46] See Steven Connor, 'Michel Serres's milieux', *ALBRALIC 'Meditations' Conference,* Belo Horizonete, July 23-26 (2002) http://www.stevenconnor.com/milieux/ [accessed March 2011].

Connor states: 'the milieu mediates between channel and environment.' Serres posits the medium/milieu as a space of transformation, and, as such, 'represents channels of communication as complex locations, as involutions of time and space, rather than simply movements between poles or positions in a stable place.' [47]

The medium/milieu necessarily impacts upon signals and messages – they cannot pass without encountering the transformative forces of the medium and the wider milieu. Transmission, in other words, has to involve transformation. Communicators, then, must do battle with the effects of the noisy milieu/medium in order for communication to take place. However, the noisy medium must exist for there to be any passage at all. With no middle, medium, or milieu – without context or environment – there can be no communication, no relation: 'as soon as we are two there is a medium between us.'[48] For communication to take place a signal-message must move; it must pass through a material middle, be it consisting of wires, airwaves, or a combination of forms. But movement, no matter how minute imperceptible, introduces noise. As Susan Ballard notes: '[a]s soon as something moves it picks up traces of dust and dirt, glitches, mistakes and error. Without movement there is no information, and without noise there is nothing to hear.'[49] The medium, then, is not smooth and transparent – a passive carrier – but rather, a turbulent, dynamic and transformative space that necessarily impacts upon the signal, exposing it to noise. Serres writes:

> Systems work because they do not work. Nonfunctioning remains essential for functioning. And that can be formalized. Given, two stations and a channel. They exchange messages. If relation succeeds, if it is perfect, optimum and immediate; it disappears as a relation. If it is there, if it exists, that means that it failed. It is only mediation. Relation is nonrelation. And that is what the parasite is. The channel carries the flow but it cannot disappear as a channel, and it brakes (breaks) the flow, more or less. But perfect, successful, optimum communication no longer includes any mediation. And the canal disappears into immediacy. There would be no spaces of transformation anywhere. There are channels and thus there must be noise […] The best relation would be no relation.[50]

[47] Ibid.
[48] Serres, *The Parasite,* 70.
[49] Susan Ballard, 'Information, noise, et. al.', in Mark Nunes (ed.), *Error: Glitch, Noise and Jam in New Media Cultures* (London, New York: Continuum, 2011), 59-79, 60.
[50] Serres, *The Parasite,* 79.

If there is to be a relation, there must be a medium, and so there must be noise. In other words, noise constitutes the relation: 'the parasite is the essence of the relation'.[51] It is not possible to isolate a transmitted signal from its inherently noisy medium, unless we are to insist on an ideal, immediate and immaterial form of communication, in which the signal is subject to no transformation. Relations always take place within a context or environment, and therefore must be exposed to the noisy third term: 'we are surrounded by noise. And this noise is inextinguishable […] we are in the noises of the world, we cannot close our door to their reception.'[52] In this sense, the third position comes prior to the second; the noisy medium comes before the connection between sender and receiver: ' A third exists before the other […] I have to go through the middle before reaching the end.'[53]

The parasitic interruption makes the medium/milieu appear, pointing to the wider context within which relations take place. The noise of the tax farmer that disturbs the two rats indicates the broader context of the feast. Likewise, interference on a phone line points to the means through which communication is taking place. Yet it is not simply that these parasitic noises invade an internal order from an external position. Noise is a necessary condition of communication; it comes from *within* the communicative process. As Steven Connor argues:

> Interference comes about not just because the apparatus of communication is too dull to convey the subtleties of our thought and voice, but also because it is too sensitive, too easily inflected by the medium through which it should travel indifferent. Without the sensitivity and responsiveness of the wire which renders it apt to act as a carrier of the voice or the word, there could be no passage or message at all. Its risk, its exposure to interference, is what makes it work.[54]

The materiality of the medium – the informational milieu – necessarily impacts upon the message in a particular way. A recording played from a vinyl record is different to a recording played from a compact disc, partly because of the alternate ways in which the noises of the different media interfere with and modify the signal. Yet these noises may not be heard directly in and of themselves. Rather, the noise of the medium gives

[51] Ibid.
[52] Ibid., 126.
[53] Ibid., 63.
[54] Connor, 'Michel Serres' Milieux'.

a sound a specific feel or timbral quality that, from the perspective of the receiver, cannot be divorced from the intended 'message'. As was shown in relation to Shannon, the signal-message the listener receives is formed as a function of both transmission and noise; it is shaped by the noisy middle through which it passes.

Serres' *The Parasite* thus recognizes noise as something other – and something more – than an extraneous thing that needs to be subtracted from an intended signal-message. Rather than being a secondary and unnecessary nuisance, or a disruption of a pre-existing calm, the parasitic noise – occupying the third position – is an ineradicable and constitutive element of any communicative process, and of relations more broadly. The parasitic noise is integral to the patterns of communication insofar as transmission is always imperfect and never immediate. No matter how fast and smooth the exchange of information may seem, so long as there is mediation there is noise – each new media innovation that promises to minimize noise inevitably generates its own new brand of clamor.[55] Such an understanding of noise thus allows for a fuller dismantling of the hierarchical relationship of signal and noise, firstly by understanding the relational positions of sender, receiver and noise as interchangeable (the host becomes the parasite and the parasite becomes the host) and secondly, by recognizing noise as an essential component of the communication process (the parasite is constitutive of the relation). Noise, for Serres, is not simply accidental or contingent – a 'bad' interrupting a signal's 'good' – nor is noise simply destructive; it does not render communication inert but allows communication to occur in the first place.[56]

The Noise Before The Noise

To summarize thus far, three important notions regarding noise can be emphasized in relation to Serres' thesis in its interpretation of Shannon and Atlan. Firstly, there is the distinction Serres makes between relations, and the entities that occupy those

[55] Ibid.
[56] Serres' understanding of noise in *The Parasite* marks a significant departure from its theorization in earlier works, such as *Hermes*. Prior to *the Parasite,* Serres primarily recognizes noise as the enemy of communication. Variations and errors in communication are extraneous and require removal. See Michel Serres, *Hermes: Literature, Science, Philosophy* (Baltimore: John Hopkins University, 1982).

relations. Noise – as the parasitic third term – is not defined as a type of sound or a reaction to sound but rather is first and foremost a mutative function of relations – the relation precedes being. Just as various entities can occupy the position of sender or receiver, or as host, various entities can take up a relation as noise. Secondly, there is the understanding of noise as a productive and transformative force, rather than as a lack or absence or something – for instance, meaning, desirability, beauty, intention or organization. Whether the transformation noise induces is experienced as good or bad; beneficial or corrupting largely depends on the position occupied within the system. Thirdly, some degree of noise is inevitable, since relations cannot and do not exist in isolation, closed off from the wider milieu/medium within which they occur. If there is a relation to be had between sender and receiver (i.e. if a channel is to be formed) then there must be noise.

The inevitability of noise – its persistent presence – and also its productivity can be seen from alternative perspective, which complements Serres' notion of a parasitic noise, whilst further countering the hierarchy between necessary signal and contingent noise. In addition to the relational understanding of noise as an interference or interruption that induces a change, noise can also be understood as a backdrop – a continuous background hubbub – that is positioned independently of and anterior to a signal. Rather than being a particular signal (or series of signals) that takes up an interfering role, noise, defined in this way, consists of a chaotic mass of signals that are indiscernible from one another. In this sense, this continuous background noise might be considered similar to white noise as it was defined in the previous chapter, as the summation of all possible frequencies. Moreover, while noise is often thought of as distracting, insofar as it diverts attention away from a particular activity and towards itself, in this instance, it typically goes unnoticed, overshadowed by the presence of discrete signals.

It is this noise that is famously at stake in John Cage's *4'33"* (1952), which exemplifies the impossibility of absolute silence by drawing the listener's attention to the background noise that occupies every silence, or rather, *is* silence. Cage's piece works to highlight the soundworld that hearing usually suppresses or ignores but which accompanies every sound. Contrary to popular belief, music cannot begin in silence because, as Cage demonstrates, the concert hall is already full of sound – there

is, for example, the sound of the wind outside, the gentle hum of an air conditioning unit, or the drone of distant traffic. However, the Cageian notion of 'silence' (which is also to say 'noise') pertains to two distinct concepts. As Christoph Cox notes, Cage initially takes silence/noise to be a type of sound – namely, 'background noise' as it is colloquially understood. During *4'33"* the subtle murmur of background noise is foregrounded; the piece draws attention to that which is usually ignored and, in doing so, shifts the listener's attention from one field of sound to another: from foreground to background, from figure to ground. It is this noise that Cage points to in his 1937 essay, 'The Future of Music: Credo': 'Wherever we are, what we hear is mostly noise. When we ignore it, it disturbs us. When we listen to it, we find it fascinating. The sound of a truck at fifty miles per hour. Static between the stations. Rain.'[57] As Cox argues, however, Cage also understands silence/noise to be something imperceptible, and not just in the sense that it consists of sounds that are usually ignored or suppressed, but insofar as it refers to the dimension of sound that exceeds audibility. For Cage silence/noise is also 'the perpetual sonic flux of the world that is the condition of possibility for any audibility of sound.'[58] This second, 'transcendental' component to background noise exists out of earshot – as what Cage refers to as 'non-sound'[59] – but nevertheless shapes the audible. It is 'transcendental' in the sense that background noise, as non-sound, remains external to but also provides the conditions of the perceivable sound-signal. As Cox describes it: 'noise is a set of sonic forces that are capable of entering into differential relations with one another in such a way that they surpass the threshold of audibility and become signal.' Thus 'noise is no longer merely one sound among many […] Rather it is the ceaseless and intense flow of sonic matter that is actualized in, but not exhausted by, speech, music and significant sound of all sorts.'[60] Understood in this way, noise is not only that which interrupts or underlines a signal but it is also that which allows

[57] John Cage, 'The future of music: credo [1937]', in *Silence: Lectures and Writings.* (London: Marion Boyars Publishers, 2009), 3-6, 6.
[58] Christoph Cox, 'Sound art and the sonic unconscious', *Organised Sound,* vol. 14/1 (2009), 19-26, 23.
[59] 'A sound does not view itself as thought, as ought, as needing another sound for its elucidation […] it is occupied with the performance of its characteristics […] urgent, unique, uninformed about history and theory, beyond the imagination, central to a sphere without surface, its becoming is unimpeded, energetically broadcast. There is no escape from its action. It does not exist as one of a series of discrete steps but a transmission in all directions from the field's center. It is inextricably synchronous with all other sounds, non-sounds, *which latter, received by other sets than the ear, operate in the same manner.* A sound accomplishes nothing; without it life would not last out the instant. John Cage, 'Experimental music: doctrine [1955]', in *Silence: Lectures and Writings* (London: Marion Boyars Publishers, 2009), 13-17,14. My emphasis.
[60] Cox, Sound art and the sonic unconscious', 22.

the sound-signal to audibly exist in the first place. In other words, there is noise before there is any signal to interrupt. Consequently, noise precedes the division between signal and parasitic disturbance.

A transcendental concept of noise is also suggested by Serres. In *The Parasite,* he also points to a Cagean background noise that is present in addition to or alongside the noisy perturbations of the parasite: 'rigorously speaking, there is never silence. The white noise is always there. If health is defined by silence, health does not exist.'[61] In *Genesis* (1982)*,* which was published two years after *The Parasite,* Serres further peruses this noise before the (parasitic) noise, stating: 'background noise is the ground of our perception, absolutely uninterrupted, it is our perennial sustenance […] the residue and cesspool of our message.'[62] Noise is the ubiquitous base, which inaudibly fills the silence of the absent signal:

> Background noise may well be the ground of our being […] The background noise never ceases; it is limitless, continuous, unending, unchanging. It has itself no background, no contradictory. How much noise must be made to silence noise? […] Noise cannot be a phenomenon; every phenomenon is separated from it, a silhouette on a background, like a beacon against the fog, as every message, every cry, every call, every signal must be separated from the hubbub that occupies silence in order to be perceived, to be known, to be exchanged. As soon as a phenomenon appears it leaves the noise; as soon as a form looms up or pokes through, it reveals itself by veiling noise. So noise is not a matter of phenomenology, so it is a matter of being itself. It settles in subjects as well as in objects, in hearing as well as in space, in the observers as well as in the observed, it moves through the means and the tools of observation, whether material or logical, hardware or software, constructed channels or languages; it is part of the in-itself, part of the for-itself, it cuts across the oldest and surest philosophical divisions, yes, noise is metaphysical.[63]

Noise, from this perspective, is not phenomenological but ontological. It is not just necessary in the sense that it is inevitable (that is, a signal will inevitably encounter interference) but necessary in the sense that it is foundational. There is no escaping background noise; it cannot be abated – it has no outside, no antithesis, no contrary: 'the background noise is permanent, it is the ground of the world, the backdrop of the

[61] Serres, *The Parasite,* 78.
[62] Michel Serres, *Genesis,* trans. Geneviève James and James, Nielson (Ann Arbor: University of Michigan Press, 2005), 7.
[63] Ibid., p,13

universe.'[64] Nor is noise, understood as a transcendental category, defined in opposition to signal but rather, exists in-itself: as noise-itself. For Serres, noise is not signal's antithesis but rather its precursor: 'noise is the originating rumor and murmuring.'[65] From this metaphysical perspective, it is noise that is continuous and signal (and its perception) that is intermittent.

The Vibrational Medium

This notion of an imperceptible background noise has been further explored in relation to music and sound art by a number of scholars, including Aden Evens, Steve Goodman, Will Schrimshaw, Christoph Cox, Brian Massumi and Greg Hainge.[66] Drawing implicitly or explicitly from Gilles Deleuze's philosophy of transcendental empiricism, they posit (in varying formulations) background noise as an imperceptible substrate that provides the genetic conditions for sound and music. The inaudible but ever-present background noise is thus described as productive or generative, insofar as it the source of the new – new signals, new sounds, new information, new music, and new sensations.

In *Sound Ideas: Music, Machines, Experience,* Aden Evens uses the notion of an insensible and imperceptible background noise to critique the ideological rhetoric of high fidelity, which recognizes noise as the enemy of sound reproduction and prohibitive of the accurate emulation of 'live' musical performance. *Contra* the anti-noise rhetoric of audiophiles, noise as understood by Evens drives music's sensibility; it gives music its force and pushes it forward. This comes, in part, with Evens insistence that within live musical contexts the 'intended' vibrations of an instrument (i.e. 'sound') cannot be cleanly distinguished from the 'unintended' vibrations that always already occupy a space (i.e. 'noise'); at a certain point, musical and non-

[64] Ibid., 62
[65] Serres, *Genesis,* 13.
[66] Examples of this can be found in Cox, 'Sound art and the sonic unconscious'; Aden Evens, *Sound Ideas: Music, Machines, and Experience* (Minneapolis: University of Minnesota Press, 2005).; Steve Goodman, *Sonic Warfare: Sound Affect and the Ecology of Fear.* (Cambridge, Mass.: MIT Press, 2010).; Brian Massumi, 'Floating the social: an electronic art of noise', in Michael Goddard, Benjamin Halligan, and Paul Hegarty (eds.), *Reverberations: the Philosophy, Politics and Aesthetics of Noise* (London, New York: Continuum, 2012), 40-57.; Will Schrimshaw, *A Sound Takes Place: Noise, Difference and Sonorous Individuation After Deleuze,* unpublished doctoral dissertation (Newcastle upon Tyne: Newcastle University, 2011).; Greg Hainge, *Noise Matters: Towards an Ontology of Noise* (New York: Bloomsbury, 2013).

musical vibrations become indiscernible from one another. For Evens, then, noise is not simply that which inhibits music; rather, it has a significant role in shaping its timbral and expressive qualities.

Echoing Serres' notion of noise as an ontological base, Evens describes noise as 'the inarticulate confused mass of vibration, in which sound relaxes or dissipates […] Perception contracts sound into sense, but noise is the uncontracted. Imperceptible, insensible and sense-less, noise is the depth that gives to be contracted.'[67] For Evens, perceptible and sensible sound is the modulation of imperceptible and insensible noise. Conversely, sound becomes noise when it fades into inaudibility but silently persists:

> Vibrations do not disappear but dissipate, echoing all the while, for energy is conserved. Every vibration, every sound, hangs in the air, in the room, in bodies. Sound spreads out, they become less and less contracted, they fuse, but still they remain, their energy of vibration moving the air and the walls in the room, making a noise that still tickles the string of a violin playing weeks later.[68]

Noise punctuates the presence of the sound-signal, existing between and underneath perceptible (i.e. contracted) vibrations: 'each beginning and each ending is a noise: the moment when the blackbird starts or stops whistling, the leading sound of the string plucked, or a column of air beginning to vibrate, the plosive *p* at the parting of lips.'[69] As sounds dissipate into inaudibility, they remain resonant but imperceptible, rejoining the energetic substrate from which they emerged and that fills every space. Evens describes this noise – the continuous and intensive reservoir of vibrational matter – as a 'cosmic echo', a universal history of sound. This vibrational history of sound, moreover, is implicated in all emergent sonic events, insofar as they pertain to the modulation and contraction of noise.

This vibrational backdrop means that absolute silence is impossible. Even the most silent spaces are already buzzing; the air is never at total rest. Thus a sound-signal does not emerge with the vibration of a pre-existing stillness (i.e. silence) but rather, the sound-signal is the vibration of the vibration; the space through which it moves is

[67] Aden Evens, *Sound Ideas,* 14.
[68] Ibid., 13.
[69] Ibid., 29.

always already moving, filled with the vibrational energy of past and future sounds: 'every string plucked, every throat cleared vibrates a vibration, modifies an existing difference without dampening it or squelching it. Sound is a modulation of difference, a difference of a difference.'[70] When a new sound reverberates, it ripples the vibrational reservoir that is background noise, forming a crest. With this, it is 'explicated', standing out against the obscure noise. Yet Evens argues that there is always something of the imperceptible noise, of the vibrated vibration that is 'implicated' in sound: 'explication only goes so far and the contraction that draws clarity from noise drags along a residue of obscurity, lines of relaxation that anchor every sound to the noise it came from.'[71] This tether that connects sound and noise – a perceptible crest and imperceptible depths – is what is implicated in sound, giving sound its sense.

For Evens, however, the vibrational noise substrate is not just the substance or matter of sound. Sound, as the vibration of vibration, is not simply noise given form. Noise, rather, is the imperceptible medium that sound emerges from and through. Evens echoes Serres' remarks on the necessarily noisy middle/milieu/medium when he argues that physicists have it the wrong way round when they insist that the formal relationship between noise and signal is one where noise modulates an otherwise calm and consistent signal: 'Though it is often the case that signal overwhelms noise, it is noise that binds the signal, that serves as a medium, a baseline, a plane of relief against which signal stands out.'[72]

However (as is made clear by Shannon, Atlan and Serres) the medium is never a neutral and passive carrier. Instead, it is a turbulent and dynamic space, which inevitably transforms a signal. In short, the medium not only carries, but also modifies the sound-signal. Likewise, Evens' background noise, as the imperceptible and insensible medium of sound, is not only a condition for sound's emergence but also shapes the (perceptible) sound-signal. Evens writes: 'though sense-less and

[70] Ibid., 14.
[71] Ibid., 14.
[72] Ibid., 14. Massumi further emphasizes Even's description of noise as a 'plane of relief' arguing that Evens is invoking a geological, rather than a visual, image. Massumi suggests that in Evens account, signal stands in relation to noise as a mountain rises from a continually shifting ground. The mountain is an expression of the past action of geological forces, of tectonic shifts. Likewise, the signal stands out against the generative and regenerative forces of its own tectonic formation. See Massumi, 'Floating the social: an electronic art of noise', 46.

insensible, [background noise] makes sense or gives sense to sound by providing sound with its direction and by focusing it to a point of clarity.'[73] Just as Shannon understands the received signal to always be a combination of the original signal and transmission noise, Evens understands background noise to be an ingredient within every new sound. The emergent vibration of the vibration resonates with the background buzz, or forms patterns of interference with it; tiny interruptions chip away at the sound-signal, giving it its timbre, texture or undertone. Indeed, Evens remarks that the timbre of a violin tone involves not only the wave components issued by the violin, but also all the incidental vibrations that already animate a space.[74] It is in this sense that no clear line can be drawn between what belongs and what does not, between the vibrations that constitute noise, and the vibrations that constitute sound. In short, noise gives sound its qualitative particularity. Consequently, though it is imperceptible and inaudible in itself, background noise does have perceptible and audible effects. In other words, background noise can be sensed (inasmuch as it is implicated in audible sound) but only indirectly. The effects of noise point to the dimension of sound that remains unheard – the persistent vibrations that occur in inaudibility but impact upon audible sound-signals nonetheless. Noise, as it is implicated in sound, reveals that what we hear is only a fragment of a sound's existence; it points us to the hidden depths of vibration that can only be experienced through its effects.

If noise is that which gives sound its sense, then for Evens, it is a key component within musical performance; noise, as the basis of sound – as that which both occupies the absence of sound and gives sound its timbral quality – is what musicians have to play *with* and not just *against*. Music, if it is to be played live, operates within and through noise. Performance involves working with both the contracted sound but also the relaxed space around it: 'the performer plays her instrument, she plays the music, but in so doing she also plays the noise. She uses her instrument to play the noise, shaping it, contracting it as demanded by the musical material but also by the noise itself.'[75] In order to play expressively, the performer must demonstrate a sensitivity to the background, so that she can 'draw from this silence the appropriate

[73] Evens, *Sound Ideas,* 14.
[74] Ibid., 6.
[75] Ibid., 21.

contraction, just the right sounds'[76] A distinguished performance, for Evens, is not just about playing the correct notes. It also involves creating something new out of the old notes, by teasing out the 'implicated' – the insensible but transformative depths of noise – so to bring something yet unheard and unfelt into perception. For Evens, too much explication (which is to say too much clarity) leads to a performance sounding too robotic, too sterile; too much is given away. Yet equally, if a performance involves too much implication, then it is overcome by expression, so nothing becomes clear: such instances do not draw the implicated into perception but leaves the unhearable unheard.[77] For Evens, then, musical expression is about gaining a balance between the connected poles of explication and implication, clarity and obscurity, technicality and feeling, and thus, of (perceptible) sound and (imperceptible) noise. Successful musical performances thus involve not selecting either/or but harnessing 'both-and'.

For Evens, this continuity between the musical performance and its noisy milieu, between perceptible and imperceptible vibration, is what inhibits recordings from satisfactorily re-creating live experiences. It is not that Evens is simply 'against' recorded music, viewing it as subordinate to 'the real thing'. Rather, he takes issue with the high fidelity rhetoric which posits the recording as a precise documentation and emulation of a live musical experience: 'schematically speaking, according to the audiophile community, every good recording should sound like Beethoven played live: fidelity = *Fidelio.*'[78] Once music is recorded, though, the continuity between audible sound and the largely imperceptible but influential background of performance is eradicated. Recording cuts the performance from its vibrational milieu: it fails to capture in its entirety the continuous, underlying noise of a performance, which shapes how the music sounds. This is because recording media, such as the compact disc, focuses on the accurate reconstruction of the musical signal – the accurate emulation of a perceptible sound's frequency. Consequently, the frequencies outside the range of human hearing (20Hz – 20 kHz) are discarded. In short, the CD captures the explicated notes – their frequency and duration - but not the subtleties of the underlying and implicated noise. Celebrations of the purported 'warmth' of 'noisy' analogue record, in contrast to the 'coldness' of the digital CD, allude to what

[76] Ibid., 16.
[77] Ibid., 20.
[78] Ibid., 6.

is missing; whilst the spaces between the notes on the record are filled with the noises of the medium – the hisses, pops and crackles – the spaces between the notes on the CD are largely silent. But even the record misses something. Indeed, for Evens, the sonic event is singular; musical expression can never be the same thing twice because of its intimate connection to the specificities of the vibrational milieu at a particular moment in time: 'implication is specific to the event and is easily lost in any reproduction but especially in one that does not heed noise.'[79] Consequently, experiencing live music, inescapably embedded within its noisy milieu, is necessarily different to experiencing recorded music.

With this argument, Evens veers dangerously close to romanticizing the noise of the live performance. Likewise, he seems to champion the analogue and its capacity to preserve the 'fuzzy boundaries' of live performance, over 'cold and clinical' digital. Indeed, Evens' characterization of CD medium can be questioned. If the CD marks an increase in fidelity and accuracy of recording and comparative reduction of media noise, then it perhaps has an *increased* capacity to capture the minute details of the live performance. Mark Katz, for example, notes that with digital sampling, the 'sonic aura surrounding the sound' can be captured in recording. Katz describes this aura as 'the reverberation that imparts a sense of space, and the slight but constant ambient noise – a patina, perhaps – that is the bi-product of imperfect recording fidelity.'[80] While expressed in different terms, Katz's 'sonic aura' and Evens' background noise are similar. The difference is that for Katz, digital recording processes are able to more efficiently capture the noise of the room as well as the signal, whereas for Evens the continuity between noise and signal is lost. There is also a danger that Evens can be read as delineating the analogue (which pertains to both recording and live performance) from the digital according to a division between the noisy and the noise-free. However, as has been repeatedly emphasized throughout this chapter, the material medium is always already noisy, and this applies to both analogue *and* digital

[79] Ibid., 22.
[80] Mark Katz, *Capturing Sound: How Technology has Changed Music* (Berkley: University of California Press, 2004), 141. A similar argument is made by Greg Hainge, who also argues against Evens' characterization of analogue systems. He warns against the notion that analogue recording creates an identical physical analogue of its source when received at its destination. To suggest that there is an indexical relation between the sonic event and its documentation overlooks the mediation and conversion that occurs in analogue recording. See Greg Hainge, 'Of glitch and men: the place of the human in the successful integration of failure and the digital realm', *Communication Theory,* vol. 17/1 (2007), 26-42.

recording technologies. Evens himself makes reference the 'digital noise' of the CD, although he argues that this noise is often not suited to the music it documents. Indeed, he suggests that it might be that 'the "noise of the analog" meshes better with much music than does the "noise of the digital."'[81]

Despite these potential shortcomings, Evens' underlying point remains important. His argument is not so much that live music is 'better' than recorded music but that live music and recorded music are simply incomparable: what live music does and what recorded music does is different. It could be added that the noise of live performance and the underlying noise of the recording medium is also different, just as the noise of the LP and the noise of the CD is different. The mistake is to believe that the recording – whether analogue or digital – can ever truly document and reproduce the live musical moment, complete with background noise. It cannot, not because recording is inferior but because it is – and does something – different. Evens thus argues that we should not ask a recording to reproduce the experience of live music; rather, we should look for recordings to create new modes of expression, new sensations and new sonic worlds particular to its function.

Conclusion: From The Parasitic To The Transcendental

Over the course of this chapter, noise has been examined from two different perspectives: noise as parasitic peturbation and noise as transcendental. The former posits noise as an interruption that induces a change. While this interruption may involve a radical transformation of relations, it may also be largely unnoticeable to a perceiver in its intervention, subtly modulating the operations of a system. The latter posits noise as an imperceptible, continuous and ubiquitous backdrop which provides the genetic conditions for a sound-signal.

There are a number of commonalities between these two perspectives. Both recognize noise as a productive force. The parasitic noise is productive insofar as its presence requires things to change, with it either being (partially) abated or accommodated. Its inevitable presence means that relations cannot and will not remain the same. The

[81] Evens, *Sound Ideas,* 22.

inevitable presence of the noisy parasite means that systems must remain open-ended: it forces the continual formation and reformation of relations, but never in quite the same way. From the perspective of the signal, the inevitable presence of (parasitic) noise means that the signal is always modified in its transmission from sender to receiver. Its movement through a medium means that the received signal will always be different from that which is sent; transmission necessarily involves transformation. The transcendental background noise is productive in the sense that it is that which allows the emergence of new sound-signals; it is that which a sonic event emerges from and through. As Evens' account highlights, the qualitative specificity of the sonic event is formed in accordance with the particularities of the background noise in a particular space and moment in time. Since background noise is constantly changing with the contraction and dissipation of sound, the sonic event can never be reproduced in its entirety: the continually emerging background that is sound's generative source prevents identical repetition.

In recognizing noise as a productive force, both parasitic and transcendental perspectives trouble the purported opposition between a 'good' signal and 'bad' noise. Now understood as a productive force, noise is no longer simply an unwanted thing to be discounted. Instead, both perspectives recognize signal and noise to have a more complex and interactive relation with one another. In Serres' account, what constitutes noise and signal, and whether or not it is 'good' or 'bad', depends on one's position within a system. Noise and signal, sender and receiver, are not substantial entities but relational positions, roles or functions that can be taken up by different entities. In other words, noise is not a thing but a relation. What prevents the parasitic model from being a reassertion of the relativist notion of 'one person's signal is another's noise' is Serres' insistence that noise – the third term – is a necessary relation. In Serres' model of the parasite, as with Shannon's general model of communication, noise is recognized as a necessary component in the exchange of information; it is what allows the transmission of a signal to occur. If there is to be communication, there must be noise.

When viewed as transcendental, noise is not the enemy of the signal but is its sustenance; it is that which allows the signal to exist in the first place. Noise is thus positioned anterior to the signal: with no noise, there can be no signal. From this

perspective, it is noise that is constant, and signal that is intermittent. Each signal begins and ends in noise – the imperceptible plane in which signal and noise are indiscernible from one another.

Neither the parasitic nor the transcendental understanding of noise recognizes the listener as constitutive – they separate noise from the necessity of human perception. Cox, Serres and Evens all emphasize that background noise, as the condition for sound, remains largely imperceptible in itself. However, this inaudible and insensible noise nevertheless has audible and sensible effects; noise goes by unheard but remains transformative.

This separation of noise from perception is perhaps less obvious from a parasitic perspective. However, by defining noise as that which interrupts a system of relations and subsequently producing a change, it does not follow that this interruption or change is audible to a human listener, or noticeable more generally. As I have noted, it can be difficult to distinguish between noise (as a perturbing relation) and the effects of noise. For instance, the audible glitch is the effect of an inaudible interruption at another stage in the transmission process. To accept these inaudible and imperceptible interruptions as part of noise is to understand noise as functioning as a larger, more complex process – a chain of events traversing the divisions between non-human machines and human listeners. In short, it is to recognize that there is more to noise than meets the (conscious) ear.[82]

There are, then, a number of significant commonalities to be found between noise understood as a parasitic interruption and noise understood as an absolute and continuous backdrop. Yet these similarities notwithstanding, it would seem that there are ultimately two discrete types of noise at stake: one that pertains to a type of relational function, and one that is the base or background against which relations take place. There is, however, another connection that may allow these noises to be

[82] It is important to remember that the roles within Serres' parasitic systems do not have to be fulfilled by human actors; as a general model, it can be applied to both organic and inorganic systems; to mechanical and digital relations, as well as social and human relations. Indeed, as was noted earlier, Serres' model is influenced by Henri Atlan's work on cybernetic systems, which recognizes system regulation and feedback as a transdisciplinary characteristic present in, for example, social, cognitive, mechanical, physical and biological systems.

thought together. This potential bridge comes through Serres' notion of the medium/milieu.

As was discussed earlier, the medium, for Serres, is not only that which messages pass through and across but also refers to the context or environment – the milieu – within which communication takes place. The medium/milieu is what exposes the message to interfering and interrupting noise; a message cannot pass without encountering some interfering and transformative forces. Again, this is consistent with Shannon's model, in which noise is depicted within his general model of communication. More generally, relations are exposed to interference and interruption because they exist within a wider context. The neighbour's music that disturbs our domestic activities, for example, points to the broader milieu we exist within, and that stretches beyond the walls of our home, beyond the space that we understand to be under 'our' control. As Serres notes in *The Parasite:* 'We are surrounded by noise. And this noise is inextinguishable […] We are in the noises of the world, we cannot close our door to their reception and we evolve, rolling in this incalculable swell.'[83] Existence takes place within a milieu, and so existence necessarily involves remaining open to interruption and interference.

Evens' account of an imperceptible background also invokes the notion of an invariably noisy medium. Whilst Serres understands the medium/milieu to always expose a message-signal to noise, for Evens, noise *is* the medium: it is the vibrational plane that sound emerges from, but also travels across and through. As has been shown, this vibrational medium/milieu that a sound-signal moves through, also shapes the sound-signal by forming patterns of interference.

Following Serres' claim that the medium/milieu exposes the signal to noise, and Evens' argument that background noise functions as a vibrational medium/milieu, then the latter (background noise) can be understood to expose a signal to the former (parasitic interruption). The noisy vibrational medium/milieu is turbulent and transformative; it exposes the emergent signal that it creates and carries to interference and interruption. Thus, because sound must take place within this vibrational medium/milieu it will always be exposed to other interfering vibrations, signals and

[83] Serres, *The Parasite,* 126.

sounds. These interferences and interruptions may inhibit the audibility of the signal – it can, for example be difficult to hear a discrete sound against the background roar of the city milieu – but, as Evens shows, interferences and interruptions may also give a sound its timbral specificity. Understood in this way, these different understandings of noise can be connected to one another, so that they are seen as two distinct dimensions of one noise.

Chapter Three. Thinking Noise as Affect

> The existence of noise implies a mutable world through an unruly intrusion of an other, an other that attracts difference, heterogeneity and productive confusion; moreover, it implies a genesis of mutability itself. Noise is a world where anything can happen, including and especially itself.
>
> Douglas Kahn, *Noise, Water, Meat: A History of Sound in the Arts,* 22.

In order to move beyond the limitations of both subject-oriented and object-oriented definitions, I have developed a materialist understanding of noise, with which it is posited as a productive transformative force. To describe noise in these terms has resonances with certain theoretical configurations of affect. Thinking noise through affect is useful inasmuch as the latter encourages a relational, non-dualistic and process-oriented perspective, focusing on the formative and transformative influence of the relations between entities (both human and non-human, subject and object), backgrounds and environments. As with noise, however, affect pertains not to a single concept but a myriad of theoretical approaches. It has multiple and sometimes conflicting definitions within various disciplinary fields, including psychology, philosophy, cultural studies, neuroscience, computer science, geography, biology, feminist theory, and queer theory. Affect thus shares noise's conceptual messiness – its complexity and ambiguity.

This chapter aims to make apparent the connections between the definition of noise developed thus far and notions of affect. I begin by considering how noise relates to intra- and inter-subjective conceptualizations of affect that focus on the feelings, sensations and somatic encounters of bodies-as-subjects. With reference to Paul Hegarty, Salomé Voegelin and environmental noise discourses, I highlight the ways in which noise is understood to influence – and is constituted in relation to – the affections of the listening body. However, in the previous chapter, I argued that there much of noise that exceeds direct human perception. In order to allow for those

parasitic disruptions that occur out of earshot, evade consciousness or can only be sensed indirectly, I turn to an alternative, non-anthropocentric notion of affect, which can be found in the work of Seventeenth century Dutch philosopher, Baruch Spinoza, as 'appropriated' by Gilles Deleuze. I outline Spinoza's philosophy of affects, contextualizing it in relation to Descartes' philosophy and the Cartesian subject, so as to make clear the key differences between these two thinkers. Indeed, as is made apparent over the course of the next two chapters, (Deleuze's appropriation of) Spinoza facilitates a departure from a dominant Western philosophical (idealist) lineage that connects Plato, Descartes, Kant and Hegel. Drawing upon Spinoza's particular conceptualization of the body, I show that noise can be understood as an affective relation between entities, or between entities and their milieux. Such a definition thus allows for – but is not limited to – the affections of the listening body-as-subject.

Just as the parasitic relation can be understood to occur in biological, social and informational registers, an affective view can help connect technological, informational, social, artistic and acoustic notions of noise. I explicate an affective approach to noise in relation to two different examples. Firstly, I return to the affective 'microdisruptions' that occur at the level of the material medium. The medium, I suggest, stores information but also leaves a noisy trace upon it. I will then explore how media noise and the question of 'what a medium can do' have been utilized by three artists – Christian Marclay, Maria Chavez and Yasunao Tone. For Marclay, Chavez and Tone, the noise of the medium is a source of creative potential – a means of discovering new sonic expressions. Secondly, I consider the 'macrodisruptions' of sonic weapons that are intended to disrupt – and thus diminish – the collective power of crowds, groups and populations through the creation of 'bad vibes'. This affective logic connects the use of sonic booms in Gaza to subtler means of audio-social control, such as the Mosquito device and the broadcasting of classical music at public transport stations. While these two examples draw from very different contexts, neither the noise of the medium nor the noise of sonic weapons can be fully grasped through a consideration of the personal affections of a listening body-as-subject. Rather, they show noise to be affective in the broadest sense – of one entity acting upon another. An affective understanding of noise, then,

can allow for a fuller range of perturbations that range from the barely noticeable to the overwhelming.

'The Ordinary and Its Extra-'

Over the past two decades, there has been a growing sense that affect is central to social, technological and political life. It is implicated within the micropolitical exchanges of the everyday, as well as larger events, circulating in both the quotidian and the spectacular. The production and dissemination of affect has been understood as central to the nature of work under post-Fordist capitalism, with which the domination of manufacturing and industry has come to be replaced by information and service economies. Affect is considered integral to care work, as well as kin work and unwaged domestic labour.[1] It can be oppressive, inasmuch as it can be a tool of domination, serving to restrict and regulate bodies (as with, for example, the affective dimensions of racism).[2] Alternatively, it can be viewed as potentially emancipatory, insofar as it is involved in the spontaneous, the unexpected and the not-yet-known.

More generally, the transdisciplinary turn to affect as a critical object and framework has contributed to a renewed interested in the body, its relations and its potential (what it might do); the connections made and disrupted through feeling, sensation and emotion; and the non-signifying, non-representational and qualitative dimensions of experience. This 'turn' has been accompanied by a noticeable shift away from questions of identity, discourse, and epistemology, and towards a consideration of acts, agency, materiality and ontology. However, this is shift does

[1] Much of the work on 'affective labor' (or 'immaterial labor') has stemmed from Italian autonomist-feminism, including the work of Silvia Federici, Mariarosa Dalla Costa and Selma James. The term has also been used by political theorists and feminist scholars such as Kathi Weeks, Antonio Negri and Michael Hardt. See Silvia Federici, *Wages Against Housework* (Bristol: Falling Wall Press, 1973).; Kathi Weeks, 'life within and against work: affective labor, feminist critique, and post-fordist politics', *ephemera*, vol.7/1 (2007), 233-249; Michael Hardt, 'Affective labour', *Boundary 2,* vol. 26/2 (1999), 89-100.

[2] See Clare Hemmings, 'Invoking affect: cultural theory and the ontological turn', *Cultural Studies*, vol.19/5 (2005), 548-567.

not pertain to a clear division, insofar as feeling is often implicated in knowing and materiality interacts with the discursive.[3]

There are a number of basic structural parallels that can be drawn between affect and the materialist account of noise outlined in the previous chapter. Affects, as they are being understood here, concern movement, process, change – they are asignifying and transformative forces of becoming. Like Serres' parasite, affect occurs in the middle of things. As Greg Seigworth and Melissa Gregg argue in *The Affect Theory Reader:* 'affect arises in the midst of *in-between-ness*: in the capacities to act and be acted upon. Affect is an impingement or extrusion of a momentary of sometimes more sustained state of relation *as well as* the passage (and the duration of passage) of forces or intensities.' [4] This structural connection with noise – understood by Serres as 'the third person' or 'third term' of communication – becomes closer still with Brian Massumi, who considers affect to be 'a third state, the excluded middle, prior to the distinction between activity and passivity: affect.'[5] Since it starts with the in-between, occurring in the middle of things – between the disintegration of one state and the construction of another – affect can be firstly understood as relational; it can be thought of in terms of the transitional moment of confusion or indiscernibility between determinable states.

If to think affectively is to think relationally, then this turn to affect is congruent with a non-dualistic approach to noise. Indeed, affect theory can be seen as connecting with a poststructuralist project, in that it seeks to radically traverse binary oppositions and philosophical dualisms. In particular, affect requires a reconsideration of the longstanding dichotomies of subject and object, and – as shall be discussed in greater detail later – body and mind. Affects connect the 'both-and'; they move between subjects and objects, 'natural' and 'unnatural', 'human' and

[3] Clare Hemmings, for example, has noted that 'feeling through knowing' has been a central tenet of feminist theory; whilst Karen Barad's notion of the 'material-discursive' highlights the influence of materiality on meaning and discourse. See Clare Hemmings, 'Affective solidarity: feminist reflexivity and political transformation', *Feminist Theory,* vol 13/2 (2012), 147-161.; Karen Barad, 'Posthumanist performativity: towards an understanding of how matter came to matter', *Signs, v*ol. 28/3 (2003), 801-831.

[4] Gregory J. Seigworth and Melissa Gregg, 'An inventory of shimmers', in Melissa Gregg and Gregory J. Seigworth (eds.), *The Affect theory Reader* (Durham: Duke University Press, 2010), 1-26, 2.

[5] Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Durham: Duke University Press, 2002)*,* 32.

'non-human'. Consequently, affect can be thought to encourage a more complex, networked and dynamic view of relations, interactions and power.

Affects are often understood to be synonymous with force, or forces of encounter. However, Seigworth and Gregg are careful to note that affect is often not particularly *forceful*.[6] It may be overwhelming, resulting in a radical shift or transformation but it also permeates the unnoticeable and often mundane micro-transformations of the everyday. Similarly, in the previous chapter, it was argued that noise has not just a qualitative but also a quantitative variability. The effects of noise, then, range in scale. It may infect a message with a barely perceptible crackle, or plunge a message into indiscernibility. It may be overwhelming but it may also go unnoticed. It may lead to a radical shift in relations, or 'just' a momentary and temporary modulation. As Douglas Kahn suggests: 'in a predictable world noise promises something out of the ordinary, and in a world in frantic pursuit of the extraordinary noise can promise the banal and quotidian.'[7] Affect is thus a useful means of conceptualizing noise in that it allows for a spectrum of encounters and their effects. Insofar as it is implicated within both 'the ordinary and its extra-',[8] affect helps articulate a connection between parasitic disruptions that occur on a micro-level, inducing tiny (and often imperceptible) modulations, and the larger-scale perturbations that affect listening subjects and collectivities with potentially more longstanding outcomes.

Feel The Noise: Affect and the Body-As-Subject

In its more anthropological guises, affect typically concerns the pre- or non-conscious autonomic transformations of the body-as-subject: 'Affect […] is the name we give to those forces – visceral forces beneath, alongside, or generally *other than* conscious knowing […] that can serve to drive us toward movement, toward thought and extension.'[9] Affect is involved in a body's fluctuations of feeling and sensation, its intensive rhythms and cycles, while also connecting the body to its wider milieu.

[6] Seigworth and Gregg, 'An inventory of shimmers', 2.
[7] Douglas Kahn, *Noise, Water, Meat: A History of Sound in the Arts* (Cambridge, Mass.: MIT Press, 2001), 22.
[8] Seigworth and Gregg, 'An inventory of shimmers', 3.
[9] ibid., 2.

Seigworth and Gregg describe it as 'persistent proof of a body's never less than ongoing immersion in and among the world's obstinacies and rhythms, its refusals as much as its invitations.'[10] Indeed, as Teresa Brennan argues, affect ensures no rigid distinction can be made between the 'individual' and 'environment', since the body (as-subject) is not 'affectively contained': 'we are not self-contained in terms of our energies'.[11] Affects can be transmitted between bodies – one may pick up on the negative 'vibes' of another. Alternatively, affects may come from no body in particular – bodies can enter a room and just 'feel the atmosphere'. In such instances, 'the "atmosphere" or the environment literally gets into the individual'.[12] In doing so, it induces certain bodily changes – some of which are brief, some of which may be longer lasting: 'Physically and biologically, something is there that was not there before, but did not originate *sui generis*: it was not generated solely or sometimes even in part by the individual organism or its genes.'[13] Affects, then, do not pertain to an internal or interior register – the inner life of the (Cartesian) subject – but, rather, imply an opening-up of the body to shared and collective registers of the experiential.

When used to refer to somatic modulations and sensuous encounters of the body-as-subject, affect may be viewed as synonymous with mood (both individual and collective), feeling or emotion. For others, however (including Brian Massumi and Silvan Tomkins), affect is implicated within – though remains distinct from – these categorized experiences. Drawing on Tomkins and Massumi, Eric Shouse outlines a distinction between affect, feelings and emotions, which correspond with a distinction between the intensive; the personal and biographical; and the social. Feelings and emotions can be understood as a point of capture –the point at which affects are pinned down and qualified in consciousness. In other words, feelings and/or emotions are induced by affect, and are particular, qualified expressions of an affective state. For Shouse, a feeling 'is a sensation that has been checked against previous experiences and labelled. It is personal and biographical because every person has a distinct set of previous sensations from which to draw when interpreting

[10] Ibid.,1.
[11] Teresa Brennan, *The Transmission of Affect* (New York: Cornell, 2003), 6.
[12] Ibid., 10.
[13] ibid., 1.

and labelling their feelings.'[14] In the case of emotion, this expression can be understood as outward facing, with emotion understood as the projection of feelings into the social domain, to be picked up by and impact upon other bodies. Unlike feelings, emotions can be genuine or feigned: 'We broadcast emotion to the world; sometimes that broadcast is an expression of our internal state and other times it is contrived in order to fulfil social expectations.'[15] Consequently, feelings (understood as affect qualified in consciousness) and emotions (understood as the expression/projection of feelings into a wider milieu) can be thought of as personal, inasmuch as feelings and emotions are 'had by' or 'belong to' someone. As Jonathan Flatley emphasizes: 'where *emotion* suggests something that happens inside and tends toward outward expression, *affect* indicates something relational and transformative. One *has* emotions; one is affected *by* people or things.'[16]

There is an intimate connection between noise and affect as it pertains to the somatic, sensuous and inter-/intra-subjective experiences of the body-as-subject. Noise has the capacity to modulate the listening body's affective state and consequently, to influence moods, sensations, feelings and emotions. In disrupting our everyday activities, noise may make us feel stressed and irritated. In such instances, 'noise annoys'. When disruptions are unexpected, they may induce a startle response, making our hearts pound, our skin prickle and leaving us feeling anxious, uneasy or fearful. Indeed, noise's 'unwantedness' typically pertains to a negative affective response from a listening body: noise is unwanted because it adversely affects the listener, inducing unpleasant or unhappy feelings. This correlation between noise, unwantedness and affect is highlighted by Garret Keizer:

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[14] Eric Shouse, 'Feeling, emotion, affect', *M/C Journal,* vol 8/6 (2005) http://journal.media-culture.org.au/0512/03-shouse.php [accessed Feburary 2012].

[15] Ibid. This distinction made by Massumi between affect and emotion has been questioned by a number of scholars. Clare Hemmings has questioned the purported 'freedom' of Massumi's 'pre-social' and autonomous affect in comparison to conscious and qualified emotion. With reference to critical race theory, Hemmings argues that affect often travels along pre-determined cultural lines. Sara Ahmed, likewise, has questioned the separation between emotion, sensation and cognition. She suggests that if contact with an object generates feeling, then emotion and sensation can only be separated analytically and in abstraction. The impression of an object, for Ahmed, involves a mixture of perception, cognition and emotion, whose 'parts' cannot be easily distinguished. See Clare Hemmings, 'Invoking affect: cultural theory and the ontological turn', *Cultural Studies,* vol. 19/5 (2005), 548-567; Sara Ahmed, *The Cultural Politics of Emotion* (Edinburgh: Edinburgh University Press, 2004).

[16] Jonathan Flatley, *Affective Mapping: Melancholia and the Politics of Modernism* (Cambridge, Mass.: Harvard University Press, 2008), 12.

> To human beings, some sounds are just noise. Some sounds interrupt their sleep, damage their hearing, raise their blood pressure, slow their children's progress at school, and banish the sweet thoughts and tender feelings they harbor towards sex. Those sounds are unwanted.[17]

For Keizer, then, noise is unwanted because of its detrimental affective impact upon the listening body; it is the label for those sounds or sonic encounters that induce bad moods, negative feelings and poor health.

Noise's influence on the affective registers of the body-as-subject is perhaps most commonly articulated in relation to environmental noise, which is understood to have adverse psychological and physiological effects. Environmental noise studies understand noise to function as a stressor. Consequently, it can induce 'unwanted aversive changes in affective state' such as annoyance, anxiety and distress.[18] As was noted in Chapter One, a number of studies have suggested that there is also a connection between environmental noise in the workplace or home and a range of non-auditory health effects and certain autonomic responses, which may then develop into symptoms and potentially, over an extended period of time, illness. A summary of effects by Stephen Stansfeld and Mary Haines identify a connection between noise exposure and acute physiological responses associated with stress, including raised catecholamine secretion (hormones secreted from the adrenal glands), increased heart rate and blood pressure, and vasoconstriction.[19] When exposure to noise is brief, rapid habituation occurs and so noise's impact is only temporary. Habituation to prolonged noise exposure is less certain, however. While there is (limited) evidence supporting an association between chronic noise exposure

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[17] Garret Keizer, *The Unwanted Sound of Everything We Want: A Book About Noise (*New York: PublicAffairs, 2010), 44.

[18] Stephen A. Stansfeld and Mary Haines, 'Environmental noise and health: A review of non-auditory effects', *IEH Report on The Non-Auditory effects of Noise* (Leicester: Institute for Environment and Health: Leicester 1997), 7-64, 9. A number of studies have suggested that these noise-induced affective states may influence behaviour towards others. Kenneth Mathews and Lance Canon's study investigated the willingness of participants to help someone who had dropped some materials. Within the laboratory, participants exposed to 65dB(A) of noise were more likely to help than participants exposed to 85dB(A) of noise. In a field setting, participants were less likely to help when accompanied by the sound of a loud motorized lawnmower. The addition of an arm cast to the person in need of assistance increased the likeliness of participants to help under ambient conditions but not under noisy conditions. Kenneth Mathews and Lance Canon, 'Environmental noise level as a determinant of helping behaviour', *Journal of Personality and Social Psychology,* vol.34/4 (1975) 571-577.

[19] Stansfeld and Haines, 'Environmental noise and health: A review of non-auditory effects', 7-64.

and increased risk of cardiovascular disorders (primarily hypertension and coronary heart disease), findings between studies are inconsistent and conflicted.[20] Furthermore, with many of these studies, there is lack of specificity regarding what is being understood as 'noise'. All the studies referenced here consider noise to function in terms of volume, insofar as noise exposure is described (and varied) in perceived decibel level (dB[A]). Beyond this, however, little further information is provided regarding the acoustic nature of the noise – whether, for example, chronic noise consists of a number of sudden, regular or irregular disruptions (as would presumably be the case with aircraft noise); or an uninterrupted and consistent drone (as would be presumably the case with some types of machine noise). More detailed descriptions of the acoustic features of noise beyond volume would seem important for any significant correlation to be determined between noise and longstanding non-auditory effects.

In addition to environmental noise studies, noise's affective influence over the listening body is articulated in philosophical accounts. In Paul Hegarty's *Noise/Music: A History,* for example, noise's negative affectivity – primarily its capacity to intimidate or threaten – is taken as definitive. In Chapter One, it was noted that Hegarty views noise as sound which is perceived as negative by the listener: noise is 'something we are forced to react to, and this reaction, certainly for humans, is a judgement, even if only physical.'[21] The listener's judgement of a particular sound or set of sounds as noise is accompanied by 'a negative reaction, and then, usually, a negative response'.[22] Noises, then, are sounds that are perceived as

[20] A cross-sectional study of 1101 female workers in a Bejing textile factory by Zhao et al. found a correlation between noise levels (understood in terms of perceived volume [dB(A)]) and increased predisposition to hypertension. The prevalence of hypertension within the group exposed to noise levels of 75-80 dB(A) at work was at 5.1%, rising to 15.2% in the group exposed to noise levels of 104dB(A). Similarly, a study of community exposure to aircraft noise by Rosenlund et al. found a higher prevalence of hypertension in participants exposed to noise from Stockholm Arlanda airport at an average of at least 55dB(A) when compared to participants drawn from other parts of Stockholm county. However, a study of 2197 white, male South African miners by Hessel and Sluis-Cremer found no consistent association between occupational noise exposure and blood pressure. See Zhao Yiming, Zhang Shuzeng, Steve Selvin and Robert C. Spear, 'A dose response relation for noise induced hypertension', *British Journal of Industrial Medicine* vol. 48/3 (1991), 179-184; M. Rosenlund, N. Berglind, G. Pershagen, L. Järup, G. Bluhm, 'Increased prevalence of hypertension in a population exposed to aircraft noise', *Occup Environ Med,* vol. 58/12 (2001), 769-773; P.A. Hessel and G.K. Sluis-Cremer, 'Occupational noise exposure and blood pressure: longitudal and cross-sectional observations in a group of underground miners', *Arch Environ Health* Vol.49/2, (1994), 128-134.

[21] Paul Hegarty, *Noise/Music: A History* (London: Continuum, 2008), 3.

[22] Ibid.

dangerous to the functioning of the listening body – they are judged to be (potentially or actually) threatening, painful, damaging or harmful. Consequently, when heard, noise can induce feelings of fear, unease and anxiety. For Hegarty, however, this danger is neither innate nor solely determined by biological factors. Rather, noise's 'danger' is also influenced by social and cultural norms. Nor is noise's danger synonymous with its loudness: 'Many organic hearing machines, will split the world into loud sounds that are fine and dangerous sounds that are noise, whose reception must be avoided, and this is as much to do with learned social behaviours as physical pain, or the threat of the same.'[23] Noise, then, is something that negatively affects – or is perceived as having the capacity to negatively affect – the listening body, and this perceived affective capacity is both biologically and socially informed.

Noise's connection to affect is also highlighted in Salomé Voegelin's phenomenological account of noise, outlined in *Listening to Noise and Silence: Towards a Philosophy of Sound Art*. For Voegelin, noise – like all sonic experiences – is first and foremost sensuous. With noise, however, the sensuality of sound is foregrounded; 'the innocent and play-full [sic] sensate sense of sound […] attains a sharper focus.'[24] Noise works by dominating sensorial experience, disrupting the perception of other sounds by the listening body-as-subject. It is exclusive and excluding – a 'direct confrontation'.[25] Referencing the sensorial experience of a rave, Voegelin describes noise's power to take over the listening body-as-subject:

> Noise does not demand my attention but grasps it literally to the exclusion of all other sensorial possibilities. It works as an anaesthetic in its loud or quiet intensity. However, this is not a desensitized position, but the position of acute sonic-ness [...] in noise *I* am the body falling out of the tower block window onto the hood of the car […] the body of the sound has moved so close that it *is* my body […] As if taken over by alien forces noise usurps me and presents me back to myself as the mirror of its insistence.[26]

Here, noise is that which overpowers; it takes over bodies and spaces. When noise is received as a negative intrusion (such as when a neighbour's music spills over into

[23] Ibid.
[24] Salomé Voegelin, *Listening to Noise and Silence: Towards a Philosophy of Sound Art* (London: Continuum, 2011), 45.
[25] ibid., 44.
[26] Ibid., 47.

'our' home) its 'exclusivity' – its domination of sensory experience – can work to isolate and alienate the listener:

> My space starts to shrink as the enjoyment of my own environment vanishes […] the imposing nature of this disturbance does not invite me to listen to the sounds as much but pushes me out of the track, pushes me inside myself, to isolate and close down. […] My living room is increasingly saturated with *their* sound. This invisible layer litters my room and overpowers the design of my space. Filling it ever more, this noise becomes an inert block of solid auditory material, impending my movements, my thinking and my feeling […] My anger and resentment are intense.[27]

For Voegelin, then, it is noise's exclusivity – rather than its perceived negativity – that is taken as constitutive. Noise occurs through a sensorial hijacking of the listener's body. It 'ingests me because it works on my body. When I am not there my neighbour's stereo is not noisy. Noise needs me, but demands of me more than any other sound my undivided attention and my abandonment to its materiality.'[28] It is this hijacking that connects the ecstatic experience of the listening body saturated by sound during a rave to the aggravated and alienated listening body suffering the unwanted disturbance of a neighbour's music. In both instances – the former assumed to be pleasurable and the latter unwanted – noise overwhelms body and mind, sensuousness and consciousness, feeling and thinking. The dominance of noise can received as inhibitive, causing feelings of anger, resentment and frustration but it may also generate feelings of joy and euphoria – 'an ecstasy of freedom in the besieged but autonomous body.'[29] Either way, the affective power of noise is primary.

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[27] Ibid.. 44.
[28] Ibid., 48. Voegelin's description of noise has complementary resonances with Julian Henrique's Spinozist notion of 'sonic dominance'. For Henriques, sonic dominance is a phenomenon common to crowds, raves political demonstrations, certain religious rituals and his leading exemplar, the reggae soundsystem and Jamaican dancehall culture. Sonic dominance is 'hard, extreme and excessive' but it is also 'soft and embracing and it makes for an immersive and intense experience. The sound pervades, or even invades the body, like smell.' (451-452). In overwhelming the listening body, sonic dominance can serve to block out rational thought and displace vision as the dominant sense: 'with sonic dominance, sound has the near monopoly of our attention.' (452) See Julian Henriques, 'Sonic dominance and the reggae sound system session', in Michael Ball and Les Back (eds.), *The Auditory Culture Reader* (Oxford: Berg, 2003), 451-480.
[29] Voegelin, *Listening to Noise and Silence,* 47.

Non-Anthropocentric Affects

In Paul Hegarty's and Salomé Voegelin's accounts, the affected, listening body-as-subject is positioned as central – noise 'needs me' in the sense that it acts upon and is subsequently judged by a listener. Noise, then, is something that makes the listening body *feel* a particular way and it is with reference to those feelings that it is defined as such. In short, noise is known through feeling. For Hegarty, noise is judged as unwanted because it is perceived as threatening or dangerous to the listening body and so induces fear, anxiety and discomfort. In other words, it is noise's perceived capacity to negatively affect the listening body that is taken as constitutive. For Voegelin, it is noise's domination of sensuous experience that is taken as constitutive, its capacity to inhibit the formation of other affective and informational relationships. For both Hegarty and Vogelin noise is obvious to the listener – be it dominating, threatening or both.

The approach to noise I developed in the previous chapter counters such a perspective, in that it no longer takes the affected listener to be constitutive. Drawing upon an informational definition, I described noise as acting in a broader network of relations, involving both human and non-human components. I argued that what the listener perceives of it (aurally or otherwise) is often part of a larger process of interference and transformation. At its limit – as a vibrational substrate, the medium and source of all signal – noise remains inaudible but nevertheless affective, giving the sound-signal its qualitative specificity. In other words – *contra* the anthropocentric notion that noise 'needs me' – there is much of noise that operates in excess of the conscious, perceptual registers of listening body-as-subject. Indeed, as Greg Hainge makes clear, noise is something that the perceiver all too frequently misses, inasmuch as s/he comes to see through or hear through the necessary noise of the medium. This can be demonstrated in relation to 'nostalgic' uses of older, 'realer' and seemingly more physical writing media. These nostalgic returns are faced with a paradox.[30] Hainge notes that media noise, despite being connected to process and flux, is that it is often associated with less transitive, more stable modes of

[30] Greg Hainge, 'No(i)stalgia: on the impossibility or recognising noise in the present', *Theory, Culture, and Society,* vol. 46/1 (2006), 1-10, 7.

production.[31] Noise provides older technologies (or emulations of older technologies) with their sense of physicality and 'oldness' – it is what marks them as being 'of the past'. So there is the carefully designed ink splatters of typewriter style computer fonts, or the ruptures of the handwritten text that take the form of crossed out words, comments and arrows. However, though the characteristic noise of the medium carries significance for current users of older technologies, its presence would not have been noticed (at least to the same degree) by their original users – just as the 'noisiness' of contemporary technologies tends not to be perceived by current users. The desire to get to the meaningful content of a written text means that the reader ordinarily 'sees through' the material presence of noise, just like a viewer who does not want to see the glass in front of a painting.[32] Nostalgic emulations of older media technologies thus render the text noisy and opaque when it was only ever intended to be silent and transparent. Media noise is always present but is 'only recognized after the fact, and thus nostalgia is turned on its head; for no longer being simply a return to the past it becomes a premonition of the future also, a noisy proclamation that today's PC is tomorrow's typewriter.'[33] The characteristic noise of the medium only truly comes into view or earshot (though not into existence) when present technologies become outmoded. It is not known quite how noisy a cassette tape is until it is heard in comparison to a CD, just as the extent of the noise of a two megapixel image is only really seen when it is brought into relation with a five megapixel image.

The listening body-as-subject, then, is not always a reliable judge of noise. While in some instances noise may be obvious to the listener in that it is overwhelming, or generates feelings of fear and dread; for the most part, it is ignored or overlooked – the effects of its perturbing presence are heard (or seen) through. In order to develop further the understanding of noise outlined in the previous chapter, whilst also maintaining noise's independence from a constitutive listening subject, I will now turn to an alternative, non-anthropocentric notion of affect that can be found in the work of Baruch Spinoza – particularly as it is read by Deleuze. It is important to note, however, that Deleuze's reading of Spinoza is not a straightforward restatement

[31] Ibid.,3.
[32] Ibid., 7.
[33] Ibid., 9.

of Spinoza's philosophical approach. Rather, his is an 'appropriation' of Spinoza, through similarly idiosyncratic readings of Henri Bergson and Friedrich Nietzsche.[34]

From the perspective of this Spinozist-Deleuzian framework, affects involve – but are not limited to – the affections of the human body. Consequently, the affective encounters of the body-as-subject are no longer to be considered primary. Taking up Spinoza's notion of affect requires a move away from a terminology of moods, feelings and emotions and towards a terminology of becomings, powers and relations – of capacities to act and be acted upon. Central to this terminological shift is Spinoza's particular definitions of the 'body' and 'nature', both of which dispense with the distinction between 'organic' and 'inorganic' entities. Affect in its Spinozist conception thus pertains to a broader web of interactions, involving what might be called the human and non-human, subjects and objects, beings and things.

In taking up this Spinozist approach, the affective view of noise can be extended beyond a consideration of its influence over the affections of the listening body-as-subject. This is not undertaken in order to simply contradict Hegarty's and Voegelin's focus on the affected listening body, insofar as it can still allow for noise's affective influence over the body-as-subject – its capacity to harm, threaten or dominate. Rather, this approach is advantageous in the sense that it allows for the noises that do not 'need me'; it facilitates a consideration of noise's affectivity with regard to non-human registers. This approach, then, does not discard but de-centres the listening subject of noise.

Deleuze's Spinoza: *Affectus, Affectio* and Mind-Body Parallelism

In his 1978 lecture on Spinoza, Deleuze identifies a crucial distinction between two (interconnected) dimensions of affect that can be found in Spinoza's *Ethics*: *affectus* and *affectio.* In earlier translations of Spinoza's work, these terms had been conflated, referring to 'affection' or 'emotion'. For Deleuze, *affectus* should be

[34] Tony Burns has argued for a conceptual distinction to be maintained between interpreting and appropriating texts, with which he holds Deleuze and Foucault as exemplary 'appropriators'. See Tony Burns, 'Interpreting and appropriating texts in the history of poltical thought: Quentin Skinner and poststructuralism', *Contemporary Political Theory*, vol. 10 (2011), 313-331.

properly translated as affect and *affectio* as affection. *Affectus* refers to the continuous variation of a body's capacity to act and be acted on – its power to affect and be affected. The body's affective encounters with other bodies shape this intensive scale of power, its quantitative increase or diminution. *Affectus* is the 'continuous variation of the force of existing' – to exist is to have some capacity to act or be acted upon.[35] Conversely, death (which is to say non-existence) can be equated with unaffectivity – it is to be entirely without power, unable to act or be acted upon.[36]

If *affectus* or affect is a body's intensive capacity to affect or be affected, then *affectio or* affection can be summarized as how a body is affected. It indicates the state of a body as it is acted upon and thus modified by another, affecting body. In other words, *affectio* is 'a mixture of two bodies, one body that can be said to act on another, and the other receives the trace of the first.'[37] Consequently, it does not 'belong' to one body – it can be distinguished from the notion of a personal feeling or sentiment. In order to demonstrate *affectio,* Deleuze gives the example of feeling of the sun on one's body as an affection of the body. The affection is not the sun itself but the action of the sun and its effect on one's body – the affective trace that is left as the sun-body and our body mix. Similarly, the melting of wax or the hardening of clay through its exposure to the sun are affections of the affected wax-body or the affected clay-body. This melting or hardening arises from the relation between the body of the wax, or clay, and the body of the sun.[38] *Affectio,* then, marks the relational encounter of the affecting body on the affected. Yet how a body is affected is also shaped by its capacity to be affected: in order for the clay body to

[35]Gilles Deleuze, 'On Spinoza', *Les Cours de Gilles Deleuze* (English translation) http://www.webdeleuze.com/php/texte.php?cle=14&groupe=Spinoza&langue=2 [accessed March 2012]

[36] This connects with the definition of death offered by Bruno Latour. He describes how at a conference he asked participants to offer an antonym for the term 'body'. He was intrigued by the response of 'unaffected': 'to have a body *is to learn to be affected* […] If you are not engaged in this learning you become insensitive, dumb, you drop dead.' Bruno Latour, 'How to talk about the body: the normative dimension of science studies', *Body and Society*, vol.10/2-3 (2004), 205-229, 205. However, this boundary between life/death and affectivity/unaffectivity is not always clear. Indeed, while a human body is thought to die when a heart ceases to beat for an extended amount of time, this deceased body continues to change; its relations decompose as it is affected by the forces of the milieu until eventually it becomes something new, that is to say a new series of relations. In other words, the human body dies as it can no longer maintain its key relations but, as matter, it also lives on; it becomes a new type of body, with different affective powers and capacities.

[37] Deleuze 'On Spinoza'.

[38] Ibid.

harden and the wax body to melt, they must have the capacity to be affected in such a way. This capacity to affect and be affected, furthermore, is defined by a body's relations with other bodies – the ways in which it affects and is affected. When a particular, affective relation between bodies is beneficial, then an increase in the body's power to act follows. Conversely, if a particular affective relation is destructive or damaging to the affected body, then this results in a diminution in the body's power to act. In other words, positive or beneficial affections result in an increased power of *affectus,* destructive or damaging affections result in a diminished power of *affectus.* In this sense, one affective power flows through the other: *affectio* – how a body is affected by its relational encounters with other bodies – shapes and is shaped by *affectus* – the boy's continuous variation in its power to affect and be affected.

In referring to wax and clay as bodies that undergo affections (and thus, as bodies that possess an affective power), Deleuze makes clear that Spinoza's affected and affecting body is not restricted to the transformative encounters and experiences of the human body-as-subject. Rather, Spinoza's notion of affectivity pertains to a particular, non-anthropocentric concept of the body.

In order to understand Spinoza's concept of the body and its affects, it is useful to consider how it relates to the Cartesian subject, which has served as the dominant paradigm of subjectivity in modern Western philosophy. Indeed, Spinoza's *Ethics* can be read as a critical response to the philosophical dualism of Descartes – specifically with regard to his system of the substances. A substance is defined as an existent thing that requires nothing but itself in order to exist. According to Cartesian ontology there are three fundamental substances: one infinite substance, which is God, and two finite substances that rely on God in order to exist – *res cogitans,* which refers to immaterial, thinking substance and *res extensa,* which refers to extended substance, or matter. These two finite substances delineate the distinction between body and mind; the mind (or soul) pertains to thinking substance, while the body pertains to extended substance. The body thus occupies the physical, material realm and the mind occupies the immaterial, incorporeal realm.

While mind and body are distinct substances (insofar as they can be conceived independently of one another) they do, nevertheless, interact causally. Changes in the mind can generate changes in the body and vice-versa. The ideal and immaterial mind, however, is afforded primacy over the material body inasmuch as it forms the basis for consciousness and, as such, is constitutive of one's existence. To be able to think about the nature of one's own existence, or speculate about whether one exists is itself proof of our own existence, insofar as something – 'I' – must exist in order to think. This thinking 'I' necessarily precedes all beliefs, all judgments and all deceptions, hence Descartes famous first principle: *cogito ergo sum,* or 'I think, therefore I am'.

In order to refute Descartes' triadic conception of the substances, Spinoza begins *Ethics* with a logical analysis of the infinite: a monistic substance labelled by Spinoza as 'God' or 'Nature'. Like Descartes, Spinoza understands substance to be that whose existence is self-sufficient: 'By substance I understand what is in itself and is conceived through itself, that is, that whose concept does not require the concept of another thing, from which it must be formed.'[39] Substance is *causa sui*: it is the *cause of itself, in itself and through itself*.[40] It is not created by anything else, and thus nothing can lie outside of it – it is absolute and responsible for all being. Since one substance cannot produce another substance, and since substance is necessarily infinite (insofar as a finite substance would be limited by something external and thus would require the concept of another thing), Spinoza concludes that there is only one substance. Spinoza thus shows Descartes' three-substance system to be insufficient, in that the notion of a finite substance is a contradiction – if the substance of matter and the substance of minds rely on the continuing existence of another, infinite substance, then they cannot be true substances.

It is important to note that Spinoza's 'God' differs significantly from dominant conceptualizations of religious deities. The term does not refer to a transcendental figure that oversees the activity of the world he created. Rather, Spinoza's God is an immanent and impersonal God that is not just the creator of the world, but *is* the world. All that exists is derived from and contained within the singular, absolute

[39] Benedict de Spinoza, *Ethics,* trans. Edwin Curley (London: Penguin Books, 1996), I/D3, 1.
[40] Gilles Deleuze, *Expressionism in Philosophy: Spinoza* (New York: Zone Books, 1992), 162.

substance. Indeed, the term 'God' is at times used interchangeably with the term 'Nature' in Spinoza's *Ethics.* Moreover, Spinoza's immanent God is also an impartial God – it does not act with a goal or ends in mind, since it has neither Intellect nor Will. Thus substance – which is to say God/Nature – is infinite, immanent, impartial and unique.

In Spinoza's ontology, the infinite and immanent substance has infinite 'attributes', which are 'what the intellect perceives of a substance, constituting its essence'.[41] In other words, the (infinite) attributes constitute the essence of (a single) substance. While the attributes express the same, infinite substance, they are distinct. No attribute needs another (nor to refer to another) in order to be conceived: an attribute is conceived in itself and through itself.[42] Although there are infinite attributes, (i.e. infinite expressions of substance), human beings are only aware of two of these attributes: thought and extension.

The third key concept for Spinoza's ontology is that of the 'modes' which are: 'the affections [modifications] of a substance; that is, that which is something else and is conceived through something else'.[43] The modifications of the attribute of extension are movement and rest, while the modifications of the attribute of thought is intellect. These modes are infinite and have neither beginning nor end. Each infinite mode also generates an infinite number of finite modes. Where the infinite mode is movement, the finite modes take the form of bodies, and where the infinite mode is thought, the finite modes take the form of minds. Spinoza's ontology (as it is appropriated by Deleuze) thus provides a model of univocal being, insofar as all that exists is a modification of a singular substance (God/Nature), which is expressed in an infinity of different modes.[44]

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[41] Spinoza, *Ethics,* I/D4, 1.
[42] Gilles Deleuze, *Spinoza: Practical Philosophy* (San Francisco: City Light Books, 1988), 51-52.
[43] Spinoza, *Ethics,* I/D5, 1. In Deleuze's terms, the modes can be understood as a second level of expression – an expression of expression – insofar as the monistic substance of god/nature 'first expresses itself in its attributes, each attribute expressing an essence. But then attributes express themselves in their turn: they express themselves in their subordinate modes, each such mode expressing a modification of the attribute.' Deleuze, *Expressionism in Philosophy,* 14.
[44] it is important to note that univocity is not synonymous with unified; it is not that substance totalizes or unifies the modes, nor is a numerical division to be drawn between the one (substance) and the many (modes). A numerical distinction cannot be applied to substance, since this would imply some external cause, insofar as number involves limitation. See Michael Hardt, *Gilles Deleuze: An Apprenticeship in Philosophy* (Minneapolis, London: University of Minnesota Press, 2007), 60.

At this point, the divergence from the Cartesian subject becomes clear. For Spinoza, body and mind exist as two distinct modifications (or modes) of a single substance, rather than pertaining to two discrete substances. In turn, the dualism of the Cartesian subject and the subsequent mind-body split is replaced in Spinoza's ontology with a parallelism, which recognizes the body and mind as belonging to two equal but separate planes: the former corresponding to the rules of extension while the latter corresponding to the rules of thought. While Descartes understands body and mind to causally interact (such that when the body acts, the mind is acted upon, and vice versa),[45] there is no such interaction for Spinoza's thinking being. A body can only affect and be affected by another body insofar as they are both expressions of the attribute of extension; and a mind or idea can only affect or be affected by another mind or idea insofar as they are both expressions of the attribute of thought. Consequently, 'the body cannot determine the mind to thinking, and the mind cannot determine the body to motion, to rest, or to anything else (if there is anything else).'[46] Instead, an action in one realm of the thinking being is also expressed in the other – actions and passions of the mind are necessarily actions and passions of the body. Thus, while from a Cartesian perspective a body experiencing the affection of pain *causes* the mind to have the thought 'pain', from a Spinozist perspective the body's experience of the affection of pain is *accompanied* by an idea of that pain. Spinoza's body and mind are autonomous but are locked in correspondence with one another: the body exists as the object of the mind, while the mind exists as an idea of the body, both of which are an expression of substance under different attributes. Indeed, the affective encounters of the body delineate the boundaries of the mind's knowledge of the body. As Deleuze and Guattari argue in *A Thousand Plateaus*:

> We know nothing about a body until we know what it can do, in other words, what its affects are, how they can or cannot enter into composition with other affects, with the affects of another body, either to destroy that body or to be destroyed by it, either to

[45] This is articulated by Descartes in *The Passions of the Soul.* Article 1 states: '[t]hat what is a Passion with respect to a subject is always an Action in some other respect' whilst article 2 states: '[t]hat in order to Understand the Passions of the soul we need to distinguish its functions from those of the body.' In article 2, Descartes also states that 'we notice no subject that acts more immediately upon the soul than the body it is joined to, and that consequently we ought to think that what is a Passion in the former is commonly an action in the latter.' René Descartes, *The Passions of the Soul,* trans. Stephen H. Voss (Hackett Publishing Company: Indiana, 1989), 18-19.
[46] Spinoza, *Ethics* III/ P2, 71.

> exchange actions and passions with it or join in composing a more powerful body.[47]

The more a body affects and is affected, then, the more our perceptual knowledge of the body is extended.

What Can a Body Do?

So far it has been shown that a body, as Spinoza understands it, pertains to the attribute of extension, which expresses itself through the modes of motion and rest. A body is not controlled by a mind, nor does a body control a mind; rather a body only affects and is affected only by other bodies. For Spinoza, then, a body is defined in accordance with two principles, which what Deleuze refers to as 'longitude and latitude'. The longitude of a body can be understood as the structural composition of dynamic relations. As Spinoza states: 'bodies are distinguished from one another in respect of motion and rest, quickness and slowness, and not by reason of substance.'[48] A body, irrespective of size, is a composite of an infinite number of particles. These particles, which can be understood as simple bodies, exist in relations of motion and rest, of speed and slowness.[49]

A body's latitude, as Deleuze refers to it, is its affective capacity: its power to act and be acted upon by other bodies and the affections of which it is subsequently capable. Different bodies have different affective powers, and this is informed by its dynamic composition: the more complex a body (in terms of its dynamic relations), the greater its power to affect and be affected, in a greater number of ways. As Deleuze explains: 'A horse, a fish, a man, or even two men compared one with the other, do not have the same capacity to be affected: they are not affected by the same things, or not affected by the same things in the same way.'[50] This explains why a type of food can be pleasant for one body (thus inducing a positive affection) but it can be

[47] Gilles Deleuze and Felix Guattari, *A Thousand Plateaus* (London and New York: Continuum, 2004), 284.
[48] Spinoza *Ethics* II/L3, 41.
[49] The mind, as an idea of the body, consists of the innumerable ideas of the simple bodies that constitute a larger, composite body. In other words, the structure of the body, as a complex relation of dynamic parts is similarly mirrored in the structure of the mind, as a composite of the ideas of simple bodies.
[50] Deleuze, *Expressionism in Philosophy*, 217.

poisonous for another body (thus inducing a negative affection). Similarly, ultrasonic frequencies may not (noticeably) affect a human body inasmuch as they exist outside the range of audible frequencies for humans, but they are affective for a number of other animal bodies that have a different hearing range. In *A Thousand Plateaus*, Deleuze and Guattari identify the three affects of the tick (which is to say the three things a tick-body can do). Firstly, a tick is attracted by light so will pull itself up a branch in order to move towards it; secondly, a tick is sensitive to the smell of mammals, and will let itself fall from the branch when it senses one pass by; thirdly a tick will dig into the skin of the least hairy part of an animal. The rest of the time, the tick sleeps, indifferent to all that goes on around it.[51]

Two questions thus govern the existence of the Spinozist body: (1) what is the structure of a body (which is to ask, what is the composition of its relations?)? (2) What can a body do (which to ask what is its affective capacity – how and to what extent can it affect and be affected by other bodies?)? Subsequently, the Spinozist body is enmeshed within a network of relations: its affective capacity and dynamic structure are constituted by its extensive and affective relations with other bodies. In other words, the individual body – its structure and its power to act and be acted upon – is defined by its engagement with its wider milieu.

It is clear then, that the Spinozist body differs greatly from that of the bordered, autonomous body-as-subject, whose interior existence – its mind, or will – are constitutive of its individuality. A body is not a fixed unit, or structure. Rather, the Spinozist body, perpetually engaged in the world, is open-ended and relational. It is continually affected (and thus transformed) by other bodies. In other words, what is called a body is only a temporary, stable relationship between parts.

Crucially, for Spinoza, there are no definitive answers to the two questions that govern the existence of a body: what is the structure of a body and what its affective capacity. In short, we do not yet know what a body can do, the extensional or affective relations of which it may be capable:

> For indeed, no one has yet determined what the body can do, that is, experience has not yet taught anyone what the body can do from the

[51]Deleuze and Guattari, *A Thousand Plateaus,* 257.

> laws of Nature alone […] No one has yet come to know the structure of the body so accurately that he could explain all its functions – not to mention that many things are observed in the lower animals which far surpass human ingenuity, and that sleepwalkers do a great many things in their sleep which they would not dare to awake. This shows well enough that the body itself, simply from the laws of its own nature, can do many things which the mind wonders at.[52]

The more ways in which a body is affected, the more that is known about what a body can do. Yet this knowledge of what a body can do cannot precede its affectations. It is the unknown of the body, moreover, with which Spinoza's ethical project begins – it is not yet known what power a body may have; the ways it may be affected. The affected and affecting body is engaged in a process of discovery. The more different affective encounters a body has, the more that is known about what a body can do; what affirmative or adverse relations it can form. Conversely, a body that remains in the same cycles of affectivity – only encountering the same things in the same ways – will not discover any more about its affective powers.

Spinoza, then, does not define bodies by abstract notions of genus or species. From the perspective of affect, 'a racehorse is more different to a workhorse, than a workhorse is from an ox.'[53] Nor does it take the body to be 'natural' or organic. Nature is not 'natural' but rather it is the widest field of interactions; it consists of all bodies, engaged in extensive and affective relations. It is always variable and is continually changed as bodies are composed and recomposed by and with other bodies. As Deleuze notes:

> [t]he plane of immanence, the plane of Nature that distributes affects, does not make any distinction at all between things that might be called natural and things that might be called artificial. Artifice is fully a part of Nature, since each thing, on the immanent plane of Nature, is defined by the arrangements of motion and rest into which it enters, whether they are artificial or natural.[54]

Affect and extension traverse the imagined distinction between the organic and non-organic, the natural and artifice, inanimate 'things' and animate 'beings'. A body is

[52] Spinoza, *Ethics,* III/P2 Schol. 71-72.
[53] Deleuze and Guattari, *A Thousand Plateaus,* 257.
[54] Deleuze, *Spinoza: Practical philosophy*, 124.

not simply that of the human or an animal, nor is it a fixed, immutable unit. Rather, it is that which exists in dynamic, affective and only temporarily stable relationships. As Deleuze states: 'A [Spinozist] body can be anything; it can be an animal, a body of sounds, a mind or an idea; it can be a linguistic corpus, a social body, a collectivity.'[55] A body can also be understood as a heterogeneous composition of different types of bodies. The heart of the human body, for example, can be understood as a body, in that it exists of a composite of parts that exist in relations of movement and rest and has a certain capacity to affect (by, for example, beating faster or slower) and be affected (by, for example, oxygen and carbon dioxide levels). But the heart is also part of the more complex, composite body that is the circulatory system, which is, in term part of a larger, composite body that is the human body. This human body, in turn, could be part of a larger, composite body that constitutes a crowd. This crowd-body, again, exists in relations of motion and rest, and can act and be acted upon. At each level, the individuality of the body is defined by its longitude and latitude – its dynamic and affective capacity – and at each level, the composite body is constituted by the relations between smaller bodies (which, in themselves are composed of an infinity of small or simple bodies). Likewise, inasmuch as Spinozist bodies need not be composed of fleshy matter, a computer network, a telecommunications channel, or a sound system could be understood as a composite body of smaller bodies that exist in relations of motion and rest and can each 'do' a particular thing (or things). Even a single sound can be conceived of as a body, in that it is composed of dynamic relations of motion and rest (i.e. the movement of the air particles [or another medium] in a particular pattern) and has a certain capacity for modification (by, for example, other sounds and vibrations).

The Affective Parasite

As has been shown, to take up Spinoza's philosophy of affects involves some key theoretical shifts in relation to a Cartesian philosophical tradition. It entails a move from a philosophy of transcendence to a philosophy of immanence; from a discussion of subjects, objects and essences to one of modes and attributes; and from a prioritization on the mind and ideas to a renewed focus on bodies (*any* body, not just

[55] Ibid.,127.

the body), movement and materiality. A Deleuzian reading of Spinoza, moreover, works to draw out an emphasis on process, transformation and relationality, with the question of what an entity does preceding the question of what it is. These points of emphasis are pre-empted by the approach taken in the previous chapter, influenced by Serres' relational concept of the parasite.

With reference to Spinoza's notion of affect, noise can be understood as particular, perturbing relation between affecting and affected bodies that leads to a transformation of the latter, no matter how minor or imperceptible. In other words, a particular, affective relation between bodies, entities and their broader milieu constitutes noise. Thinking of noise in terms of affect thus helps further articulate an alternative to the object-oriented and subject-oriented definitions of noise, and, subsequently, a means of moving beyond the insufficiencies of and impasses between these definitions. Indeed, as Greg Seigworth notes, since affects arise in the encounters between bodies – the perpetual transformation of entities as they act and are acted upon by their surroundings – they can be thought of as 'a-subjective/a-objective, or […] maybe it is less that affect has no place than that it is potentially there in every place, immanent: half subject, half object, and so, immanently inter-sub-objective.'[56] Noise, then, understood in terms of affect, does not 'belong' to the listening subject or the sonic object, but rather emerges with the encounters between subjects and objects, or between bodies more generally.

Building on the structural similarities between affect and noise that I identified earlier in this chapter, it is useful to further consider the relationship between the Spinoza's philosophy and the definition of noise outlined in the previous chapter, which saw it as a productive, transformative force. Firstly, there are clear resonances with Serres' figure of the parasite, inasmuch as relations between entities are understood to be constitutive. The parasite – along with host and guest, sender and receiver – are relational positions within a system, as opposed to substantial entities. In other words, 'parasite' and 'noise' are not *a priori* definitions but relate to particular roles in a system. From a Spinozist viewpoint, these relational positions – guest, host and parasite; sender, receiver and noise - could be understood as specific affective

[56] Gregory J. Seigworth, 'Fashioning a stave, or singing life', in Jennifer Daryl Slack (ed.) *Animations of Deleuze and Guattari* (New York: Peter Lang, 2003), 75-105, 80.

functions or roles, insofar as relations imply affectivity. As a variation on Deleuze's tick, moreover, the parasite can be understood to have three primary affects – as was noted in the previous chapter, it does three things: it analyzes (i.e. it takes but does not give), paralyzes (i.e. interrupts usual functioning) and catalyzes (i.e. forces a host to act differently).[57] The parasite – the noisy intermediary – acts upon the relation between sender-body and receiver-body; host-body and guest-body and consequently transforms it. To put this in Spinozist terms, it induces a new affective state or affection: a new order of relations in created.

This structural similarity between noise and affect can also be seen in relation to Shannon's informational definition of noise. For Shannon, noise is anything that perturbs the signal in transmission, leading to a degree of difference in what is sent and what is received. In other words, noise anything that affects the signal, subsequently modifying it. This modification may include distortions, errors, glitches, and extraneous materials, which may in turn disrupt the interpretation of a message. From a Spinozist perspective, Shannon's informational diagram depicts noise as one body (noise source) acting on another (signal). What is received, then, can be understood as a particular affection of the signal – the effect of the noise source acting upon the sent signal, creating a modified set of relations. Likewise, the affective power, or capacity of the noise source – its quantitative intensity in relation to the signal – determines the resulting signal-affection. If noise in the channel is minimal, then only a small degree of distortion will occur. However, at a critical level, noise can severely distort (and thus radically transform) a message-signal. Yet this transformation is not always negative. In transforming the signal (or by adding something to it) noise can provide new information to the receiver. Noise, then, as it pertains to an affective, transformative relation, generates something new.

In order to demonstrate this affective approach, I will now turn to consider two different examples of noise. The first of these deals with the affective 'microdisruptions' that (necessarily) occur at the level of the material medium. I consider the work of three artists – Christian Marclay, Maria Chavez, and Yasunao Tone – which uses noisy 'microdisruptions' as part of an exploration of what a

[57] Steven D. Brown, 'Michel Serres: Science, Translation and the Logic of the Parasite', *Theory, Culture and Society* vol.19/3 (2002) 1-27, 16.

medium-body can do. Their work helps to demonstrate the non-human dimension of a Spinozist notion of affect, as well as re-emphasizing noise's independence from a constitutive listening subject. The second example considers the use of noise as an audio-affective weapon, which serves to disrupt, disperse and subsequently weaken targeted demographics, groups and collectivities. This affective logic connects the use of sonic booms in Gaza; the Mosquito device; and the deployment of classical music as a deterrent. In using these two very different example – the 'microdisruptions' of the medium, and the 'macrodisruptions' of sonic weapons – I hope to draw attention to the way in which affect can connect social, technical and artistic manifestations of noise.

Microdisruptions: Cassettes, Bitrot and Wounded CDs

In the previous chapter, it was shown the signal is always affected by noise in its passage from A to B, insofar as it has to pass through a necessarily transformative material milieu/medium. While the presence of the material medium often remains unnoticeable, overshadowed by the symbolic or meaningful content of a message, it is nevertheless influential. The medium always leaves a noisy 'trace' on the information it contains.

I have noted that in its Spinozist conception, affect is no longer limited to the exchanges and relations of human bodies. Rather, it is understood in the broadest sense of an entity (which is to say, a composite of relations) acting and being acted upon by another entity. Consequently, Spinoza's philosophy of affects allows for the activity and affectivity of other, non-human bodies. Natural bodies and technological artifacts; animate 'beings' and inanimate 'things', are all understood to have an affective power: a capacity to act, as well as be acted upon. In other words, affect connects bodies; it is what a human, a flea, a CD player and a ball of wax have in common.

From a Spinozist perspective, then, the medium is affective: it does something, as well as having something done to it. It pushes back, modifying that which it carries or contains. Noise is what marks this affective interaction between medium and

content, between the signal transmitted and the material means. Different media act upon the information they store or carry in particular ways, according to their affective capacity: what a medium is or is not affected by; what relations it can or cannot form with other bodies; and which impressions it may or may not retain.

The noisy affectivity of the medium can be seen in relation to cassette tape recording. All recording processes involve a modification of the medium. In the case of cassette tape recording, audio-signals are translated into electro-magnetic fluxes, which then magnetize the oxide surface of the tape. As a series of sounds is recorded, these fluxes affect and thus modify the surface of the tape, arranging the magnetic particles in a particular order of relations (i.e. a particular affection). However, the tape surface is never perfect – the size and nonuniform distribution of the magnetic particles means that some degree of noise is inherent to the tape, even if it is blank (hence the familiar sound of tape hiss). The affective process of recording, then, does not only work one way, with sound-signal transcribed onto the medium. When the sound-signals are recorded to the surface of the tape, they are also affected in return by the material medium. This medium exposes the translated sound-signal to innumerable microdisruptions, interferences and perturbations arising from the uneven magnetic surface of the tape. Some of these will infect the recording with audible pops, warbles and crackles; others, however, will remain unnoticeable.[58] Consequently, what is heard in playback, (as noted by Shannon) is the sent signal after it has been exposed to, affected by and combined with noise. Spinoza's philosophy of affects, then, can be used to articulate the manner in which recording is not simply a one-way process, but rather involves an affective interaction between signal-bodies and medium-bodies. The recorded sound-signal modifies the medium, inscribing its surface with a particular order of magnetic fluxes; whilst the medium also modifies the recorded signal, so that there is a difference between what is recorded and what is played back. The medium-body transforms and is transformed – it affects and is affected by the signal-body.

[58] As is clear from the previous chapter, the sound-signal is affected by noise at every stage of the recording process in that it has to travel through a medium that transforms it. Exposure to noise would occur, for example, with the transmission of sound to a microphone; in its translation from sound into electromagnetic pulses; and in its translation from electromagnetic pulses to sound.

Returning to Serres' etymological play on the medium/milieu/means, it is not just the material medium that infects the recorded sound-signal with noise. In the previous chapter it was shown that relations take place within a wider, transformative milieu; and that to exist within a milieu is to be exposed to noise. Noise, then, also marks the interaction between relations and milieux – just as the medium affects as well as it is affected, entities do not just act in an environment; environments act upon entities. Over time, the magnetic tape of the cassette changes as it affected by environmental forces such as heat, moisture, dust and dirt. This slow decay of the medium-body introduces additional warbles, pops and crackles to playback, further affecting the recorded signal. From a Spinozist-materialist perspective, this 'decay' should not simply be understood in terms of subtraction – the reduction of fidelity and the loss of meaningful information. Rather, it can be understood (perhaps more neutrally) in terms of modification – the gradual morphing and mutating of matter over time, as it is acted upon by its milieu. The sound-signal is affected by the medium and the medium is affected by the wider milieu. While particular medium-bodies are affected to a greater or lesser extent by the conditions of their environment (shellac records are more durable than the fragile tinfoil cylinders of the early phonograph, for example) no medium remains unchanged forever. Despite the rhetoric of perfection that surrounds digital technologies (see Chapter Two) both analogue and digital media face this transformative process of slow decay or 'bit rot', insofar as information is stored as variations in the structure of material objects. As the material of the medium changes composition over time, data is erased and errors introduced. As Paul DeMarinis notes, this process of degradation – the 'bleeding out of readability' – means that CDs and zip drives are rendered unreadable 'not only by obsolescence but by contagion.'[59] A medium's capacity to retain and read information decreases in time as its relational composition is modified.

The medium's material degradation is often assumed to be negative, in that it often leads to a loss of (intended and/or meaningful) information, as well as an increase in noise; the effects of which include the introduction of new sounds – pops, hisses, crackles and glitches – distortion and errors. However, this affective relation between

[59] Paul DeMarinis, 'Erased dots and rotten dashes, or how to wire your head for preservation', in Erkki Huhtamo and Jussi Parikka (eds.), *Media Archaeology: Approaches, Applications and Implications* (Berkley, Los Angeles: University of California Press, 2011), 211-238, 211.

milieu and medium, and medium and content has also been 'positively' utilized in a number of media artworks. Through an investigation of the transformative capacities of media noise, these projects pose the Spinozist question of 'what can a medium-body do?' – what is its potential? What sounds and noises might it be capable of? What are the ways in which it can function? In what ways can it affect the recorded content?[60]

These interests are evident in the work of turntablist and sound artist Christian Marclay, who has frequently been engaged in discovering what the noise of a 'damaged' record can do. Marclay began by using skipping records to provide rhythm tracks in a performance duo in the late 1970s with guitarist Kurt Henry, before going on to develop sound collages from multiple turntables and second hand records.[61] In these, Marclay sought to foreground the 'extraneous' noise of the medium, emphasizing its material presence:

> I realized that when I listened to a record, there were all these unwanted sounds, clicks and pops, because of the deterioration of the record, the surface noise, scratches. Instead of rejecting these residual sounds, I've tried to use them, bringing them to the foreground to make people aware that they're listening to a recording and not live music. These sounds make people aware of the medium, of the vinyl, a cheap slab of plastic [...] We usually make abstractions of the medium. For me, it was important to have this awareness and underline it, to give it a voice. *It has an expressive power in itself*. When something goes wrong, like when the needle skips, something unpredictable happens, that wasn't the intention of the recording artist. In that incident, something new and exciting happens. For me, it has creative potential. [62]

Here, Marclay emphasizes that the medium is not passive or abstract; it has the capacity to act and, in doing so, can produce something new and potentially interesting. The noisy affectivity of the vinyl record (positively) transforms the sonic content when played. It may work to modify the flow of music by jumping and skipping, or introduce new, unusual combinations of sound.

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[60] Indeed, the exploration of 'what a body can do' (be it an instrument-body, a medium-body, a performing-body) would seem definitive of many experimental arts practices.
[61] Jason Gross, 'Christian Marclay: Interview', Perfect Sound Forever (1998) http://www.furious.com/perfect/christianmarclay.html [accessed March 2012].
[62] Ibid., My emphasis.

The temporal degradation and 'expressive' capacity of the medium-body is central to Marclay's *Record Without a Cover* (1985).[63] As the title suggests, the release consisted of a recording of a Marclay DJ set, sold without any protective covering and thus totally exposed to the affective, transformative forces of the milieu as it is stored and used. Marclay's record thus challenges the convention of preserving sounds with minimal interference. It is not conceived of as a document of a live performance but rather as 'a record that could change with time, and would be different from one copy to the next.'[64] These noisy 'battlescars' that arise from exposure are intended to transform the recording over time, so that each pressing is unique. The markings of the record – the traces of its particular affective encounters – give rise to a noise that ensures that no two records can be the same. It is these noises, furthermore, that draw attention the underlying materiality of the record. As Marclay notes: 'With *Record Without a Cover* you can't ignore the medium. You can't ignore that you are listening to a recording. There is confusion between what is intentionally recorded and what is damage to the surface of the disc.'[65] In this instance, then, noise and its effects are not simply extraneous or detractive. Rather, they partly determine the music heard – the (intended) sonic content of *Record Without a Cover* exists as a combination of sounds selected, produced and recorded by Marclay; and the effects of media noise.

The noise of the vinyl record takes on a similar function in the work of improvisatory turntablist, Maria Chavez. Like Marclay, Chavez utilizes the affective potentials of 'damaged' records in order to discover new sounds. She describes her practice as considering the creative possibilities of the vinyl record, of unlocking previously unconsidered modes of expression: 'As a 21st century artist I feel l'm listening to vinyl in a different manner, in a different language, and I'm bringing out specific characteristics that people […] maybe don't think about or […] wouldn't consider

[63] Christian Marclay, *Record Without a Cover* (Recycled Records, 1985).
[64] Rob Young and Christian Marclay 'Don't sleeve me this way', *The Guardian,* 14 February 2005 http://www.guardian.co.uk/music/2005/feb/14/popandrock [accessed March 2012].
[65] Michael Snow and Christian Marclay, 'Michael Snow and Christian Marclay: a conversation', in Jean-Pierre Criqui (ed.), *Replay Marclay* (Zurich: JRP Ringier, 2007), 126-136*,* 129.

even existed within the realm of vinyl.'[66] Unlike *Record Without a Cover,* however, which is sold as a record, Chavez's uses scratched and worn records as a component of her live performances. As a turntablist, she looks to draw a wide range of sounds and textures from a limited number of records in various conditions ranging from 'immaculate' to 'ruined'. For Chavez, scratches and noise are markers of the record's ongoing mutability as it affects and is affected by other entities. She describes the destruction of her records as a 'very organic process'. Though she has some records that have been intentionally scratched or 'damaged' by others, Chavez notes that she does not use those records very often. Rather:

> The records that I actually use the most are ones that have been naturally ruined on their own. Because I keep them all in my backpack without their sleeves, so they're in and out, they move around, they touch each other. So there's always new scratches. Sometimes I'll leave them outside, or leave them in the car, just so they can kind of mould into each other. Some will stay out, some will warp around it.[67]

Chavez's creative practice thus draws upon the noisy, affective relations between the environment, medium and sonic content. As the material record is transformed over time by the forces of the milieu (for example, the heat that warps the plastic) and the encounters it has with other material bodies (records touching and rubbing against one another, gathering of dust and dirt), the record will move differently in playback. The scratches of on the surface can cause the record to skip, or allow locked grooves to develop so that the same short segment of recorded sound is repeated. In this context, then, these affective relations between milieu, medium and sonic content are not seen as inhibitive or degrading, insofar as they result in a corruption or loss of information, or prevent 'normal' playback. Rather, for Chavez, this processual approach to the material record and the noises that arise ensures that there is always something new to be heard; new sounds textures and rhythms are generated as the record is 'damaged' by the forces of the world.

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[66] Kelly Armendariz, 'Words of the artist: Maria Chavez and Jen Liu', *Splatterpool,* 24 October 2010 [online video] http://www.youtube.com/watch?v=vEYUilNWgg0&feature=related [accessed January 2012].
[67] Tara Rogers, *Pink Noises: Women on Electronic Music and Sound* (Durham: Duke University Press, 2010) 98.

In comparison to Marclay and Chavez, who explore the potentials of an 'outmoded' medium that is already noisy to contemporary ears, Yasunao Tone's experimentations with compact discs in the 1980s used – and abused – state-of-the-art technology. At the time of its emergence, the CD was advertised as a near noiseless technology, with Sony promoting the new medium under the tagline 'Perfect Sound Forever'. The effects of noise and errors were countered by an error-correction system, before they could reach the ears of the listener. It is these hidden noises that Tone sought to unlock, by overriding the error-correction system of the CD player. By modifying the surface of the disc, the CD began to act differently in playback in ways that had not been intended by is designers:

> A new technology, a new medium appears, and the artist usually enlarges the use of the technology [...] Deviates [...] The manufacturers always force us to use a product their way [...] However people occasionally find a way to deviate from the original purpose of the medium and develop a totally new field.[68]

In 1984, Tone started using scotch tape with pinholes to affect the playback of Compact Disc recordings. His first attempt involved a recording of Debussy's *Preludes*. The modification of the CD surface affected the pitch, rhythm and speed of the original recording, as well as introducing a stuttering effect that was different with each playback of the CD. Tone recalls: 'I was pleased with the result because the CD player behaved frantically and out of control. That was a perfect device for performance.'[69] Tone's first release involving modified CDs was the 1986 *Music for 2 CD Players,* for which he used 'famous music, so you recognized parts of Beethoven and Tchaikovsky tunes but very much distorted.'[70] This was followed in 1997 with the recorded release *Solo for Wounded CD.* [71] This was a studio version of Tone's 1995 performance of *Musica Iconologos* (1993) – a media-specific piece created for CD.[72] Tone had wanted to perform *Musica Iconologos* live, without

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[68] Yasunao Tone, quoted in Caleb Kelly, *Cracked Media: the Sound of Malfunction* (Cambridge, Mass.: MIT Press, 2009), 238.
[69]Ibid., 236.
[70] Chris Buck, 'Yasunao Tone: random tone bursts', *The Wire* (2011) http://www.thewire.co.uk/in-writing/interviews/yasunao-tone_random-tone-bursts [accessed January 2013].
[71] Yasunao Tone, *Solo For Wounded CD* (Tzadik: TZ 7212, 1997).
[72] Tone's compositional process for *Musica Iconlogos* involved translating the characters of two Chinese poems – 'Jiao Liao Fruits' and 'Solar Eclipse' in October' into sound. Tone chose images that he considered to represent the characters of the poems' script. These were then translated using an 'optical music recognition' program. For more on this see Kelly, *Cracked Media,* 241.

simply replaying what already existed on the disc. In order to do this, Tone prepared the CD of the piece using his scotch tape technique, which produced an indeterminate and unpredictable outcome (Fig. 4). The transmission of information between medium, machine and output was disrupted, causing the disc to indeterminately stutter, jam and glitch during live performance, 'remixing' *Musica Iconologos* in the process.

Fig. 4. Yasunao Tone's prepared compact disc. Photo by Gary McGraw. Taken from Brandon LaBelle, *Background Noise: Perspectives on Sound Art,* 223.

Tone's prepared discs work by disrupting the communication process between the CD and the playback device. The scotch tape was carefully placed where the lazer hit the disc surface, resulting in a modified reading of the digital signal. This distortion of information not only created unpredictable sounds. It also disrupted the CD player's control function, so that the progression of the CDs was unpredictable – both sound and playback order were affected by the interruption of the CD surface. However, as Caleb Kelly notes, there is an irony to Tone's wounded CDs, in that

getting the disc to skip is a very delicate operation. The marks on the disc surface have to be placed in precise positions, or error correction will 'catch' the modified data or simply fail to play at all.[73] Tone's experiments sought to evade both the CD system's 'normal' functioning – the usual, repeated affective cycles of CD and playback system – and system failure, in which the CD is unaffective and unaffected in that it cannot be played.

While Marclay understands noise to be part of the expressivity of the medium-itself, and Chavez views it as part of an ongoing, 'organic process' of material interactions, for Tone, noise is an issue of 'de-control'. Whilst the process of 'wounding' is precise, once modified, the effects it may have in terms of both the functioning of the machine and its sonic output is for the most part unknown: 'the sound I generate does not come from my conscious mind or a projection of my mind. I do not know what will come out beforehand.'[74] Tone's prepared, or 'wounded' CDs thus transform a technology designed to re-produce a recording with near perfection into a highly entropic and indeterminate system producing sounds that had not been heard before; revealing, in the process, the noise that is always there but rarely reaches the listener's ears.

Though taking different approaches, Marclay, Chavez and Tone's practices depart from the notion of the master-composer controlling and manipulating a dumb, material and passive 'thing'. Rather, the medium and media noise are viewed as having some kind of creative capacity or 'liveliness', in that they partly generate what is heard in playback and performance. Such a view is complemented by the Spinozist emphasis on material bodies and their transformative relations. While the composer may engineer the conditions in which the medium acts, it is viewed as having an affective capacity in and of itself. This, in turn, is determined by its material-affective relations with a playback system; its functioning within a larger media network.

[73] Kelly, *Cracked Media*, 217.
[74] Jared Davies and Yasunao Tone, 'Yasunao Tone interviewed by Jared Davies', *Un Magazine*, vol. 2/2 (2008), 12-15, 14.

Macrodisruptions: Noise As Weapon

Here, I move from 'de-control' to extreme-control; from the creative and generative to the torturous. Noise's affectivity – its capacity to disturb, disrupt and transform, resulting in an increased or diminished capacity of a body to act and be acted on – can be demonstrated in relation to the weaponized uses of sound and vibration. In these instances, acoustic force is deployed as a means of disrupting, dispersing and ultimately weakening the power of groups, collectivities and populations. These themes are explored by Steve Goodman's *Sonic Warfare: Sound, Affect and the Ecology of Fear*. For Goodman, acoustic force frequently functions as a means of inducing fear, dread and anxiety; in short, it helps create a 'bad vibe'.[75] In Goodman's exposition, these affectations pertain not only to the individual body-as-subject's emotions or feelings but also to the collective moods or ambiences of crowd-bodies and population-bodies. In these instances, the sounds of sonic weapons are designed to affectively function as noise – they are meant to induce a transformative disruption that involves a weakening of the targeted body's capacity to act.

This affective logic underlines the Israeli Defence Force's use of sonic force against 'enemy' bodies. Since (at least) 2005, the IDF has indiscriminately deployed 'sonic booms' against the civilian populations inhabiting the Gaza Strip. The booms, which typically occur at night, are the result of low-flying Israeli Air Force fighter jets breaking the sound barrier over the densely populated strip, sending shockwaves through the territory. It was reported that over the course of a single week in 2005, twenty-eight sonic booms were deployed, sometimes at hourly intervals through the night. According to affected Palestinians, these sonic booms are often indiscernible from the sound of a missile strike or bomb explosion. They describe the experience as being hit by a wall of air that is painful to the ears, that 'leaves you shaking inside'. Stress, panic attacks, heart problems and nosebleeds were also attributed to the booms.[76] Children were said to be particularly affected by the attacks, with

[75] The term 'vibe', as Goodman uses it, marks the connection between vibration and affective atmosphere. So 'bad vibes' refers to both negatively-affecting vibrations and an negative collective affect, dominated by feelings of fear and dread.
[76] Chris McGreal, 'Palestinians hit by sonic boom air raids', *The Guardian,* 3 November 2005 http://www.guardian.co.uk/world/2005/nov/03/israel [accessed October 2012].

reported symptoms including bed-wetting, anxiety attacks, concentration problems, loss of hearing and breathing difficulties.[77]

Israeli and Palestinian human rights groups described such attacks as the 'collective punishment' of civilians and constituted a breach of international law. However, Israeli officials have denied the severity of such tactics, insofar as they are not thought to cause any 'real' or lethal damage – in short, sound bombs are considered preferable to 'actual' bombs.[78] In 2005 *The Guardian* cited an anonymous Israeli intelligence source as stating the attacks were designed to encourage civilians to withdraw their support for armed Palestinian groups: 'We are trying to send a message in a way that doesn't harm people. We want to encourage the Palestinian public to do something about the terror situation […] What are the alternatives? We are not like the terrorists who shoot civilians. We are cautious. We make sure nobody is really hurt.'[79] The claim that sonic booms are preferable to 'actual' attacks is echoed by Rannan Gissin – an advisor to Ariel Sharon: 'the inconvenience that it [sonic booms] causes the Palestinian population cannot be measured against the question of life or death for Israelis on the other side.'[80] Sonic booms, then, were argued to be less 'damaging' than a physical attack: while they may negatively affect the bodies of victims, this 'discomfort' was deemed temporary.

Both Israeli and Palestinian accounts understand sonic booms to disturb, disrupt and negatively affect targeted civilians – though, as is clear, the extent to which civilians

[77] Associated Press, 'Human rights groups sue to stop Israeli sonic booms over Gaza', *Haaretz* (2005) http://www.haaretz.com/news/human-rights-groups-sue-to-stop-israeli-sonic-booms-over-gaza-1.173053 [accessed January 2013].
[78] See Goodman, *Sonic Warfare,* xiv.
[79] McGreal, 'Palestinians hit by sonic boom air raids'. A similar logic is applied to that of the weaponized use of music as a form of so-called 'no touch torture'. The premise behind such practices is that it is not 'as bad' as 'real' torture. Suzanne G. Cusick and Branden W. Joseph have highlighted how the use of music as a torture device against Muslim detainees in Guantanamo bay both trivializes torture, ('how can listening to music you don't like be that bad?') while reasserting the cultural borders that separate 'us' from 'them' ('they' don't like the music because of 'their' culture). They note that the use of acoustical bombardment may seem insignificant – a 'weaker' or less severe option compared to waterboarding, for example –because of how everyday exposure to unwanted music/noise can seem. Exposure to unwanted music/noise, and also temperatures that are to hot and too cold and sleep disruption are commonplace Euro-American experiences, that can occasionally make life miserable. These everyday nuisances, present in ordinary life have been recognized as 'pushable across an invisible line', across which 'ordinary experience becomes extraordinary, horrible and capable of breaking your very subjectivity.' Suzanne G. Cusick and Branden W. Joseph, 'Across an invisible line: a conversation about music and torture', *Grey Room* 42 (2011), 6-21, 11.
[80] Wilf Dinnik, 'Israel's sonic booms terrifies Gaza children', *ABC News*, 29 December 2005 http://abcnews.go.com/WNT/story?id=1453692 [accessed October 2012].

are negatively affected is disputed. In 2005, Israel's prime minister Ehud Olmert claimed that: 'thousands of residents in southern Israel live in fear and discomfort, so I gave instructions that nobody will sleep at night in the meantime in Gaza.'[81] The logic behind the use of sonic booms, then, was to (re)create an atmosphere of 'fear and discomfort' through the disturbance and disruption of a population's lives, consequently inhibiting the usual functioning of the social. More generally, the purpose of sonic booms is to weaken the morale of populations – to (in Spinozist terms) decrease their capacity to act through the induction of a particular collective affectation. By indiscriminately disturbing smaller bodies – of individuals, families, schools, and local communities – sonic booms act upon the larger, collective, Palestinian population-body, giving rise to a general ambience of fear and anxiety. However, as Goodman notes, the deployment of sonic booms 'threatens not just the traumatized emotional disposition and physiology of the population but the very structure of the built environment.'[82] Following the 2005 attacks in Gaza, there were reports of broken windows, cracked walls and structural damage to buildings. Sonic booms, then, not only disrupt and subsequently (negatively) transform the lives of individual and collective civilian bodies but also transform the broader, architectural milieu.

In addition to these more obvious, overtly militarized uses of sound and vibration as a weapon, the deployment of sound as a way to affectively police social space through the targeting of 'enemy' bodies has been used in 'everyday' power struggles that occur on the high street, in bus shelters and outside of libraries. In 2006, the 'Mosquito' device became audible (to some) in what might have once been considered public spaces. Operating according to similar principles as ultrasonic pest controls, this 'anti-loitering' device emits an uncomfortable, pulsing high-pitched frequency around 17khz, at a 35-40 metre range, and at a maximum volume of 108dB. It aims to dispel socially 'undesirable' groups of young people and prevent them from congregating in particular areas (such as outside shops, building foyers and housing estates) without the need for face-to-face confrontation. The Mosquito targets a particular demographic according to age and affective capacity. The high

[81] B'Tselem, 'The sonic booms in the sky over Gaza', *B'Tselem,* (2010) http://www.btselem.org/gaza_strip/supersonic_booms [accessed October 2012].
[82] Goodman, *Sonic Warfare,* xiv.

frequency sound is designed to only be heard by those under twenty-five, since the higher bandwidth of audible frequencies deteriorates with age. For those who are able to hear it, the Mosquito makes a space uncomfortable to occupy for a sustained period of time. Those who cannot hear it (i.e. those over twenty-five, or those whose hearing bandwidth has sufficiently deteriorated) remain unaffected by the device. The Mosquito's 'power' does not come from the 'inherently' noisy frequency it emits. Rather, it is intended to affect targeted bodies *as* noise – it is designed to interfere in its target's lives, making a place uncomfortable to occupy, and, in turn, interrupt the formation of crowd-bodies. In other words, the device negatively affects both the individual body of a young person under the age of twenty-five and the composite body of 'youths' that it seeks to dispel.[83]

The deployment of the Mosquito device has been controversial and has faced significant opposition – namely, because it indiscriminately affects children and young adults and is argued to impinge on their human rights.[84] Consequently, a subtler audio-affective deterrent has emerged that no longer relies on generating physical discomfort in order to inhibit the occupation of particular social spaces. Since 2010, Compound Security Systems – the original manufacturer of the Mosquito device – has been offering a 'Music Player' device for those who feel they are no longer able to use the Mosquito device due to 'local public youth pressure.'[85] Rather than emitting loud and uncomfortable high frequency tones, this system plays either 'royalty free Classical or Chill-out music.'[86] The premise behind the device is simple: 'youths', 'hoodies' and other 'loiterers' are understood to find classical music unpleasant or irritating. Subsequently, playing it outside shops, at public transport stations or even in library foyers deters them from occupying those spaces.

[83] The Mosquito device has also been innovatively appropriated by its target demographic. In 2006, it was reported that schoolchildren had adapted the frequency used by the Mosquito device into a mobile phone ringtone that could only be heard by students and not teachers. Consequently, students could hear phone call and text message alerts in class without teachers noticing. See Valerie Strauss, 'The Mosquito ringtone: kids hear it, adults can't' *The Washington Post,* 19 March 2010 http://voices.washingtonpost.com/answer-sheet/student-life/the-mosquito-ring-tone-kids-ca.html [accessed October 2012].

[84] The joint campaign 'Buzz off', which involves Liberty and the National Youth Agency has called for the Mosquito device to be banned. See http://www.liberty-human-rights.org.uk/campaigns/buzz-off/ [accessed July 2013].

[85] Compound Security Systems Limited, 'The CSS music player', *Compound Security Systems* http://www.compoundsecurity.co.uk/sites/default/files/css-music-player-03.pdf [accessed October 2012].

[86] Ibid.

The use of classical music as an affective deterrent in fact predates the Mosquito. North East England's Tyne and Wear Metro became one of the first companies in the UK to employ such tactics, broadcasting Fredrick Delius' incidental music for the play *Hassan* (1923) at their stations in 1997. Speaking in 2005, Mike Palmer, the General Director of Tyne and Wear Passenger Transport Executive (Nexus), claims that the introduction of the music is not intended to soothe and calm passengers, 'but to provide a background of music that people who we are aiming at ['troublemakers'] don't actually like and so they move away.'[87] The music was principally understood to target 'low level antisocial behaviour', including swearing and smoking at stations, which was largely responsible for generating *fear* of crime (as opposed to 'actual' crime). Tom Yeoman, a spokesperson for Nexus states that 'even if they [loitering 'youths'] didn't have a violent agenda, they looked like they might have.'[88] The groups congregating in stations were felt to be menacing by some passengers and so inhibiting their presence, via music, was understood to make passengers feel more secure. Furthermore, like the mosquito, the piped classical music is thought to only target a certain demographic. In a BBC report, Melissa Jackson states: 'it's a win-win situation. Troublemakers have been driven out, but the music continues by popular demand because passengers say it helps pass the time while they are waiting for their train.'[89] The piped music, then, is thought to only be disturbing for menacing social 'undesirables', whilst the 'right' clientele remain unaffected insofar as they find the music pleasant. Indeed, as Theo Kindyis notes, the organization of social space through such tactics - the attraction of certain bodies and the repelling of others according to age and social status – can be thought of as a form of 'low-intensity class warfare',[90] with which the music of a (old, white, male) elite is deployed against the young, the poor and the bored.

The disruptive, transformative functioning of all three of these examples of audio-affective control – sonic booms in Gaza, the Mosquito devices of UK streets, and the

[87] Melissa Jackson, 'Music to deter yobs by' *BBC News Magazine* (2005) http://news.bbc.co.uk/1/hi/magazine/4154711.stm [accessed January 2013].
[88] Ibid.
[89] Ibid.
[90] Theo Kindynis, 'Weaponising classical music: waging class warfare beneath our streets', *Ceasefire Magazine* (2012) http://ceasefiremagazine.co.uk/weaponising-classical-music-class-warfare-waged-beneath-cities-streets/ [accessed January 2013].

piped classical music of bus stops and metro stations – cannot be sufficiently captured in relation to the individual body-as-subject. Though they undoubtedly affect individuals, these sonic weapons primarily target the composite-bodies of a particular demographic or populace; they are intended to interrupt, fragment and thus weaken the relations of collectivities. In other words – and remaining consistent with the definition of noise that I have developed thus far – It is not just that these sonic weapons generate negative affections for an individual listening subject, nor that they are experienced as unwanted sound. Rather, these weapons are designed to be disruptive (and subsequently destructive) to the formation and functioning larger, compound bodies. In doing so, they seek to reduce their affective power: the power and ways in which a composite body can act and be acted upon. In this context, then, noise not only affects individuals, but also groups, crowds and even the built infrastructure of an environment (as is the case with sonic booms). The affective approach to noise taken here (which no longer relies upon a constitutive listening subject) thus makes it possible to consider noise's impact upon and within a broader field of relations.

Conclusion: Affective Connections

In this chapter, I have connected the materialist understanding of noise outlined in the previous chapter to a Spinozist notion of affect. I have suggested that noise, understood as a productive, transformative force and a necessary component of material relations, has clear resonances with Deleuze's appropriation of Spinoza's philosophy and its emphasis on materiality, mutability and relationality. In connecting this understanding of noise with Spinoza's philosophy of affects, noise is taken to be a perturbing, affective relation between entities, or between entities and milieux.

At first glance, it would seem unlikely that skipping records and sonic weapons would have much in common. However, these examples helpfully demonstrate this affective approach to noise. For Marclay, Chavez and Tone, the disruptive, transformative relations between milieu, medium and sonic content generates new creative potentials, allowing the artist (and their audience) to discover more of what a

(medium) body can do. For the collective-bodies targeted by sonic booms, mosquito devices or even classical music, noise is also disruptive and transformative. However, in this instance, the transformation involves a weakening of a collectivized enemy or opponent – a diminishment of what its body can do. Neither of these examples, moreover, can be grasped by thinking of noise in terms of a subjective, personal event – as something that happens to a listener. Rather, they require us to take affect in its broadest, Spinozist sense – of one entity acting upon another: be it an engagement between two signals; the milieu, medium and its content; or the relationship between a mass of vibrations and a population. Thus, just as Serres understands there to be a relational connection between social, biological and informational parasites, affect can be used to connect the noise that occurs on informational, artistic and socio-political registers, while also allowing for the aesthetic, ethical and contextual differences between these manifestations.

The affective understanding of noise developed over the course of these two chapters assumes no correlation between noise and unwantedness; it does not suppose that noise only induces 'negative' effects, or affections. As has been shown, while the noise of the medium can lead to an unwanted corruption or loss of data, within artistic contexts (for example) it is also a source of creative potential. In short, from the perspective of affect, noise can be 'both-and': destructive and creative, innovative and banal, 'good' and 'bad'. Either way, and for better or for worse, noise remains productive.

Connecting noise to a Spinozist notion of affect allows for the development of a relational ethics appropriate to this viewpoint, insofar as affective encounters are also understood as ethical encounters. In the following chapters I will draw out the ethical dimension of this affective approach to noise and consider its implications for a conservative politics of silence and for a 'transgressive' politics of noise; both of which assume a correlation between noise, unwantedness and 'badness'.

Chapter Four. Acoustic Ecology, Aesthetic Moralism and The Politics of Silence

Noise is the chief enemy of the acoustic community.

Barry Truax, *Acoustic Communication*, 58.

He who sleeps in continual noise is wakened by silence.

William Dean Howells, *Pordenone* IV.

In this chapter, I consider the implications of the affective approach to noise developed thus far for the definitive correlation of noise, 'unwantedness' and 'badness'. I have already noted that this approach no longer recognizes noise's 'unwantedness' as definitive. Rather, noise is understood as a productive, transformative force that *for better or for worse* produces a change. Furthermore, this affective approach serves to disconnect noise from constitutive binary oppositions, instead facilitating a more nuanced, relational understanding. Expanding upon these themes, I will demonstrate how an affective approach can be used to disrupt a conservative politics of silence. This is characterized by a dualistic 'aesthetic moralism', which positions noise as 'bad' to silence's 'good'. R. Murray Schafer's praxis of acoustic ecology is taken as exemplary of this view, insofar as he conceives of silence as a rare and precious phenomenon that has been destroyed by a vulgar and polluting noise. For Schafer, noise is equated with a negative affectivity; it is considered detrimental and damaging to individual listeners, social relations and the natural environment. I look to radically reconfigure this Schaferian aesthetic moralism by drawing out the ethical dimension of Spinoza's philosophy of affects.

In the first section of this chapter I discuss the ideological basis of Schafer's aesthetic moralism. I begin by outlining the 'origin myth' that features in his book *The Soundscape: Our Sonic Environment and the Tuning of the World*, which details how, with the birth of the machine and electronic amplification, the soundscape has

shifted from ‘quiet’ to ‘noise’. In this narrative, noise is characterized as a perturbing force that upsets a ‘natural’ sonic order. In the past, a balance was maintained between sound and silence. Today, however, a constant cacophony dominates the acoustic environment. While Schafer’s text might be dismissed as outdated (it was originally published as *The Tuning of the World* in 1977), it nevertheless remains highly influential within contemporary discourses about the soundscape, and for a significant number of contemporary artists and researchers. I will also draw upon more recent Schaferian-inspired accounts – namely those of Ursula Franklin and Stuart Sim – to demonstrate how silence (*contra* noise) is associated with a positive affectivity. Whilst noise is characterized as damaging and destructive, silence is afforded a healing, reviving and rejuvenating capacity.

The aesthetic moralism of Schafer’s account is further enforced by a Platonic transcendentalism, which believes a perfect and unbroken silence to underpin all worldly activity. I explore the relationship between Schafer’s pure, ideal and inaudible silence and the fundamentally impure, material and imperceptible background noise referred to in Chapter Two, before discussing the limitations of this Schaferian approach to noise and silence. I will critically consider examples that run contrary to Schafer’s affective characterizations of acoustic environments: the ‘negative’ silence of solitary confinement, and the ‘positive’ experiences of neighbour noise revealed Jacqueline Waldock’s soundscapes project based in Liverpool’s Welsh Streets.

Returning to Spinoza’s philosophy of affects (as appropriated by Deleuze), the final section argues for a shift away from a transcendental moral order, and towards a more nuanced, ethical understanding of noisy encounters. Against Schafer’s aesthetic moralism, I argue that there is nothing inherently ‘good’ or ‘bad’ about noise; rather, such categorizations are secondary, relational and contingent. This is not to deny that noise can – and does – have negative effects, but nor is it to deny that noise can – and does – sometimes play a beneficial role. In other words, my argument is not that understanding noise as negative is necessarily incorrect, but rather that noise’s negativity has been overstated. By drawing on the ethical dimension of Spinoza’s philosophy of affects, this chapter transforms the affective approach outlined thus far

into an *ethico-affective* approach, which serves to further rupture the correlation between noise, unwantedness and badness.

The Loss of Silence

In the introduction to *The Soundscape: Our Sonic Environment and the Tuning of the World,* R. Murray Schafer boldly announces that the soundscape has 'reached an apex of vulgarity in our time.'[1] More and larger sounds have come to dominate in all corners of the soundscape, resulting in an imperialistic and incessant cacophony. The acoustic environment is sick, ravaged by the disease of noise. Left untreated, Schafer warns, this sickness could result in a 'universal deafness'. Indeed, it is precisely because we no longer listen sensitively that the noise disease has got this far: noise pollution is what happens when the world no longer listens carefully. Schafer is not satisfied with noise abatement legislation as a response to this problem, since he understands this to be a reactionary and negative strategy, dealing only with specific and quantified symptoms rather than the broader, root problem. Instead, Schafer proposes a positive, didactic and qualitative approach, centred on the listening subject who must develop a learnt appreciation and respect for their acoustic environment: 'Which sounds do we want to preserve, encourage, multiply? When we know this, the boring and destructive sounds will be conspicuous enough and we will know why we must eliminate them.'[2] If this cacophony has been allowed to continue because the listener has become de-sensitized, then Schaferian acoustic ecology's solution lies with a re-sensitization of the listener to the sounds of their surroundings. Through the collection and analysis of sound recordings, information databases and community surveys; and through pedagogical workshops, listening exercises, sound walks and musical compositions, acoustic ecology seeks to re-open the listener's ears to the world so to raise awareness of the positive and detrimental effects of sound upon humanity.

Schafer understands his proposed field of soundscape studies – the exploration of the listener's relationship to the sounds of their environment – to occupy a middle

[1] R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Vermont: Destiny Books, 1994), 4.
[2] Ibid., 4.

ground between science, society and the arts. Acoustics and psychoacoustics bring an awareness of 'the physical properties of sound and the way sound is interpreted by the human brain'; social analysis reveals 'how man behaves with sounds and how sounds affect and change his behaviour'; and the pedagogical values of arts – particularly music – teaches us 'how man creates ideal soundscapes for that other life, the life of the imagination and psychic reflection.'[3] For Schafer, these three disciplinary strands lay the foundation for what he refers to as 'acoustic design: an interdisciplinary field in which musicians, acousticians, psychologists, sociologists and others would study the world soundscape together in order to make intelligent recommendations for its improvement at both local and global registers. This collaborative approach would involve the assessment of sound's influence and impact upon the behaviour of listeners within a particular milieu – for example, acoustic design would study 'the effects of new sounds before they were released into the environment', as well as 'human behaviour patterns in different sonic environments in order to use these insights in planning future environments for man.'[4] Central to Schafer's model of acoustic ecology, then, is an affective understanding of environmental sound and a consideration of its capacity to harm or uplift, disturb or comfort, or to encourage or inhibit thought and contemplation. Consequently, environmental sound is taken to be an active component in the formation of social, political and cultural relations; it influences the way in which a society or community takes shape and the behaviour and activities of its inhabitants. Similarly, Schafer considers a society's soundscape – the prominence, frequency and order of certain sounds and the absence of others – to be an indicator of the social conditions that produce it; it can reveal the sickness or wellbeing of a society. An ordered and harmonious soundscape reflects an ordered and harmonious society, whilst a disordered and dissonant soundscape are revealing of social disorder and disharmony: 'When the rhythms of the soundscape becomes confused and erratic, society sinks to a slovenly and imperilled condition.'[5]

For Schafer, the deafening cacophony of our contemporary soundscape is of the latter – it is both a damaging force within and a marker of our destructive, urbanized

[3] Ibid.
[4] Ibid.
[5] Ibid., 237.

epoch. From a bottom-up perspective, the noise of the urban milieu shapes the ways in which inhabitants behave and engage with the world. From a top-down perspective, the prevalence of noise within contemporary life communicates the (purported) decline in social and moral values. With the establishment of an 'imperialist urbanism', moreover, comes the death of a 'natural' quietness. Schafer laments the loss of, sonically speaking, a better time, during which silence was prevalent within everyday life:

> In the past there were muted sanctuaries where anyone suffering from sound fatigue could go into retirement for recomposure of the psyche […] At one time stillness was a precious article in an unwritten code of human rights. Man had reservoirs of stillness in his life to restore the spiritual metabolism. Even in the hearts of cities there were dark, still churches and libraries, or the privacy of drawing room and bedroom. Outside the throb of cities, the countryside was accessible with its lulling whirr of natural sounds. There will still times too. The holy days were quieter before they became holidays. In North America, Sunday became Fun-day. The importance of these quiet groves and times far transcended the particular purposes to which they were put. We can comprehend this clearly only now that we have lost them.[6]

This statement makes apparent certain ideological dualisms that organize the relationship between noise and silence in *The Soundscape*. Noise is heard as the product of urbanization and capitalism – it is aligned with the city and industry. Silence or quietness, by contrast, is imbued with a spiritual naturalism – it is what characterizes the acoustic territories of the church and the countryside. In Schafer's account, silence is equated with tranquillity; tranquillity is equated with the natural; and the natural is equated with the good. It is romanticized as belonging to a lost, better time unbroken by the sounds of machines, the presence of anti-social teenagers and the outpourings of twenty-four hour entertainment. If silence is a 'human right', noise is what inhibits that right.

It is evident that Schafer's acoustic ecology carries with it a nostalgic and at times puritanical naturalism. In this sense, Schafer can be understood to reflect what Zsusi Kovacs et al. have identified as a 'beauty bias' inherent to many ecological practices, with which 'positive' and 'negative' environments are delineated according to

[6] Ibid., 254.

aesthetic notions of beauty and ugliness. This is enforced by the marked preference in ecological practices for 'pristine', 'remote' and 'wild' locations – virgin forests, undisturbed wetlands and ungrazed grasslands – that remain untouched by human activity or development. By contrast, urban and human-dominated landscapes have only recently been recognized as an important point of focus for ecology and have typically have been viewed as inferior to 'natural' environments.[7] However, it would be too simplistic to suggest that Schafer's puritanical naturalism arises from an exclusive focus on 'natural' sounds, or a straightforward categorization of organic sounds as good and inorganic sounds as bad. Indeed, there are certain machine sounds that Schafer sees as worthy of preservation, such as the 'rich and characteristic' sounds of early steam locomotives and the whistle of the Canadian Pacific Railway train.[8] Rather, the prioritization of silence over noise (and correspondingly the rural over the urban, the natural over the synthetic, the human over the machine) has a more nuanced articulation through Schafer's analytical classifications of hi-fi and lo-fi soundscapes.

Just as a hi-fi system possesses favourable signal-to-noise ratio, Schafer's hi-fi soundscape 'is one in which discrete sounds can be heard clearly because of low ambient noise level. The country is generally more hi-fi than the city; night more than day; ancient times more than modern.'[9] In a hi-fi soundscape, sounds overlap and interrupt one another less frequently; sounds are uncrowded, separated from one another by pools of silence. The quietness and clarity of the hi-fi soundscape is conducive to an attentive and detailed listening: 'from the nearest details to the most distant horizon, the ears operated with seismographic delicacy.'[10] Without inhibiting levels of background noise, the listener is able to hear farther into the distance, just

[7] Zsuzsi I. Kovacs, Carri J. LeRoy, Dylan G. Fischer, Sandra Lubarsky and William Burke, 'How do aesthetics affect our ecology?', *Journal of Ecological Anthropology,* vol.10 (2006), 61-65. In order to reveal the problems with ecology's beauty bias, Zsuzsi Kovacs et al. give the example of wildfires. The 'ugliness' and negative connotations of burnt forest landscapes were a driving factor in the suppression of forest fires. However, it is now recognized that the suppression of forest fires can be an ecological disaster. Despite their usual association with destruction and damage, wildfires are a positive and necessary component of many forest ecosystems. The relationship between Nature, the 'natural' and ecology has also more recently been debated within philosophical accounts, some of which draw upon Deleuze's Spinoza. See for example, Anthony Smith, *Ecologies of Thought: Thinking Nature in Philosophy, Theology and Ecology,* unpublished doctoral dissertation (Nottingham: University of Nottingham, 2011).
[8] Schafer, *The Soundscape,* 81-82.
[9] Ibid., 43.
[10] Ibid., 44.

as the viewer is able to see further into the distance in the countryside. Even the slightest sound or disturbance can communicate vital or interesting information – Schafer describes humans as possessing an 'animal alertness'. Indeed, the implications of sound are well known to the open and trained ears of the hi-fi soundscape. For the characters of the rural landscape of the past – the shepherd, the woodsman, or the farmer – the minutest sounds had significance, providing clues to the changes in the environment. For Schafer, these qualities pertain to the 'original', or 'natural' soundscape of the ancient and pre-modern world. This was a time at which humans lived largely in isolation or in small communities. Life, then, was generally quiet and tranquillity was the status quo, apart from in exceptional circumstances – such as the outbreak of war, or religious celebration. These outbursts – the aberrational noise of war or the sacred noise of religious activity – stood in direct and purposeful contrast to the minimal sounds of everyday life.[11]

The antithesis of the hi-fi soundscape is the lo-fi soundscape. If the former is characterized by silence, stillness and clarity, then the latter is characterized by noise, messiness and confusion. Schafer states that in a lo-fi soundscape 'individual acoustic signals are obscured in an overdense population of sound.' Discrete sounds -– 'a footstep in the snow, a church bell across the valley or an animal scurrying in the bush' – are 'masked by broadband noise. Perspective is lost.'[12] In comparison to the distance afforded by the hi-fi soundscape of the pre-modern, rural milieu, the modern city 'abbreviates this facility for distant hearing (and seeing), marking one of the more important changes in the history of perception.'[13] And whilst the hi-fi soundscape allows both foreground and background, this distinction is eradicated in the lo-fi soundscape: 'on a downtown street corner of the modern city there is no distance; there is only presence. There is cross-talk on all the channels, and in order for the most ordinary sounds to be heard they have to be increasingly amplified.'[14] The loss of perspective due to information overload means that the lo-fi environment is often alienating. Expanding on Schafer's framework, Barry Truax argues that the lack of clarity, distinction and discretion of lo-fi soundscape leads to the listener feeling 'cut off' from the world. Whilst the hi-fi environment encourages

[11] Ibid., 51.
[12] Ibid.,43.
[13] Ibid.
[14] Ibid.

participation and engagement, reinforcing 'a positive relationship between individual and environment', the loss of perspective, eradication of distance and the overwhelming presence of sound in the lo-fi soundscape paradoxically leads to the listener feeling separated and isolated: 'the person's attention is directed inwards, and interaction is discouraged by the effort to "break through" that is required.'[15] The noise of the lo-fi soundscape requires the listener to fight against the sounds of their environment in order to make sense of the world.

With the historical transformation of the landscape from rural to urban, the 'original' hi-fi soundscape has lost its clarity and sound-signals have lost their significance. Noise has upset the 'natural' order of things, disturbing a holistic equilibrium that allows all sounds to be heard clearly. The soundscape has gone from being rich with information to incomprehensible: 'today the world suffers from an overpopulation of sounds; there is so much acoustic information that little of it can emerge with clarity. In the ultimate lo-fi soundscape the signal-to-noise ratio is one-to-one and it is no longer possible to know what, if anything, is to be listened to.'[16] For Schafer, this chaotic, lo-fi soundscape was introduced during the Industrial Revolution and further amplified by the 'Electric Revolution' that followed. The new sounds of machines and technology had 'unhappy consequences for many of the natural and human sounds which they tended to obscure'.[17] Schafer argues that the domination of the auditory environment by amplified and synthetic sounds has led to the creation of an incessant and relentless racket that suppresses the audibility and qualitative particularity of unamplified sounds: 'Just as there is no perspective in the lo-fi soundscape (everything is present at once) similarly there is no sense of duration, with the flat line of sound.'[18] Schafer argues that these machine sounds no longer obey the 'normal' rhythms of existence, insofar as they are disconnected from a human energetic capacity – because the machine does not stop, nor does the sound: 'We may speak of natural sounds as having biological existences. They are born,

[15] Barry Truax, *Acoustic Communication* (Norwood, New Jersey: Ablex Publishing Corporation, 1984), 20.
[16] Schafer, *The Soundscape,* 71.
[17] Ibid., 71.
[18] Ibid., 78

they flourish, they die. But the generator or the air-conditioner do not die; they receive transplants and live forever.'[19]

Against the 'dynamic hedonism' of the contemporary, lo-fi soundscape, Schafer seeks to rediscover a more harmonious acoustic environment, in which each sound can be heard clearly without interruption or interference from a clamorous background. According to Schafer's principle of mediation, an improved, well-balanced soundscape will also lead us to an improved, well-balanced society, insofar as the soundscape shapes and is shaped by social, political and cultural relations. The political task of acoustic ecology, then, is to retune the soundscape; it is to promote and, where possible, preserve the clarity and precision of the hi-fi soundscape through a reduction of the obscuring noise of the lo-fi. In other words, Schafer's acoustic ecology looks to keep the communication channels of the acoustic environment clear, subsequently allowing for the smooth transmission of sonic information between listener and milieu. By cleaning up the polluted soundscape and by reducing the levels of background noise, allowances will be made, once again, for silence.

Silence's 'Goodness'

In Schaferian and Schaferian-inspired narratives of acoustic ecology, silence – counter to the destructive and damaging influence of noise – is characterized as having a beneficial and reviving effect; it has the power to rejuvenate the body, mind and soul of the listening subject. It is construed as fundamental to the wellbeing of the individual and, by extension, to the wellbeing of a society. However, this prioritization of silence as the 'good' is largely reactionary – it is often claimed that the benefits of silence (and its necessity for the wellbeing of the listening subject) have become most apparent with its destruction. Ursula Franklin, for example, claims that there is a need for silence within a community just as there is a need for other basic, uncontaminated resources: 'Silence possesses striking similarities with those aspects of life and community such as unpolluted water, air or soil, that were once taken as normal and given, but have become special and precious in

[19] Ibid., 78.

technologically mediated environments.'[20] Drawing upon the spiritual use of silence within Quaker meetings, she argues that collective silence is 'an enabling condition that opens up the possibility of unplanned and the unprogrammable happenings'.[21] Silence allows the unexpected to emerge and in doing so allows listeners (or worshippers) to get in touch with themselves. Silence leaves our ears open to something new. However, this enabling silence, which once belonged to the commons and was experienced as a common good, is at odds with the privatized, social values of the modern technology: 'present technological trends drive us towards a decrease in the space – be it in the soundscape, in the landscape and in the mindscape – for the unplanned and the unplannable to happen.'[22] Just as 'the commons' of the land has been destroyed through privatization – with areas that were once shared and were available to all becoming privatized and owned – the common availability of silence has been 'privatized' by the amplified sounds of technology. The monotonous, programmed noise of our contemporary technologies inhibits this potential for the unplanned, inasmuch as it destroys the potential for silence. For Franklin, technology, 'apart from some isolated cocooned individual situations', requires conformity. Technological creativity can only take place within a narrow set of parameters, and so 'as the world gets more and more structured by technology, the possibility of the unexpected is reduced. The nooks and niches in which things can happen become more constrained.'[23] Franklin thus proposes that we need stand up for the 'common good' of silence by fighting to preserve the quietude of natural spaces and by undertaking 'small initiatives' to make silence audible within our everyday lives.

Alongside spiritual meditation and auditory openness, silence is also understood to be a necessary condition for thought. In his *Manifesto for Silence* (published thirty years after Schafer's *The Tuning of the World*), Stuart Sim argues that thought and silence have a symbiotic relationship; silence is what affords us time and space to

[20] Ursula Franklin, 'Silence and the notion of the commons', *Soundscape: The Journal of Acoustic Ecology,* vol.1/2 (2000), 14-17, 14.
[21] Ibid., 15.
[22] Ibid., 15. It is interesting to note that Franklin's claims for silence echo some of the claims that have been made for noise. With reference to information theory and cybernetics, noise is what ensures that something new can emerge. Noise, it has been suggested, can open up new, unexpected avenues and serendipitous encounters. In this sense, it might be understood to relate to the unplannable and unpredictable.
[23] Ibid., 17.

think and reflect, and so is a requirement for concentration and clarity of ideas. Silence should occupy the moments between the articulation of and response to a thought-provoking question – it gives the respondent the necessary time and space to formulate their ideas without interruption. Noise, conversely, is what blocks thought, or rather, 'proper' thought. For Sim, thought 'is an essentially silent activity and is difficult to sustain in a noisy society – and certainly is likely to become superficial when competing with other stimuli. This cannot be good for our collective cultural health.'[24] Whilst silence allows us to gather and focus our thoughts, noise disrupts and distracts us from them, placing us in a state of inattentiveness and limiting our capacity to take in or mentally process information.[25] Yet noise not only inhibits thought: for Sim, it is also a sign of thoughtlessness. It shows a lack of care for the needs and desires of others: their need for sleep, their need for reflection and – ultimately – their need for silence. This 'need', Sim argues, is what defines us as human, insofar as machines and non-human entities do not require silence in the same way.[26]

In comparison to the 'thoughtlessness' of noise, silence is taken to be a marker of respect for the voices and desires of others. While noise dominates, inhibiting the transmission of thought and conversation, and ultimately silencing them, silence, by contrast, facilitates democratic engagement; it allows for one to be heard and for one to listen. The political implications are clear – while noise is viewed as an imperialist force that cuts off the listener from the world, silence promotes egalitarian participation in the world. In Schafer's hi-fi soundscape, voices remain uncrowded and uninterrupted; and there is space between the sounds for reflection. In other

[24] Stuart Sim, *Manifesto For Silence: Confronting the Politics and Culture of Noise* (Edinburgh: University of Edinburgh Press, 2007), 39.
[25] For Sim, the necessity of silence for thought and contemplation, and the detrimental impact of noise on the activities of the mind can be exemplified by the changing soundscape of libraries and the debates that have ensued. In 2005, the British Library in London began to allow the admission of what Labour MP Tristam Hunt referred to as 'the Undergraduate masses' into its reading rooms. Hunt argues that this change in policy has led to a 'catastrophic collapse in its working environment' to the detriment of scholarly activity. The inclusion of the 'masses' has been accompanied with growing complaints regarding noise. As Hunt argues: 'the studied calm of the reading room has given way to a hum of mobile phone ringtones, chit-chat and pubescent histronics.' Sim notes that the fate of the British Library room is symptomatic of a broader trend, in which the quiet of libraries is negatively affected by new technologies. Again, as with Schafer, this betrays a nostalgia for an (imagined) quieter time that has been lost to a disobediently noisy present that is full with the disturbing and distracting sounds of new technologies. See Tristam Hunt, 'Scholarly squeeze', *The Guardian,* 29 May 2006 http://www.guardian.co.uk/commentisfree/2006/may/29/comment.highereducation [accessed Feburary 2013]; Sim, *Manifesto for Silence* 51.
[26] Sim, *Manifesto for Silence*, 168.

words, and to return to Franklin's terms, a collective respect for silence *enables* everyone to have the opportunity to be heard and also to listen. For Schafer, this notion also applies to sound events; there is a need to regain silence 'in order that fewer sounds can intrude on it with pristine brilliance.'[27] Silence encourages clear and careful listening (what he calls 'clairaudience'). Without sufficient silence the communicative significance and affectivity of sound is lost.

While Schafer, Franklin and Sim argue in support of the beneficial and fundamental role silence plays in the life of the listener, they note that it is silence – rather than noise – that is often felt to be unwanted and undesirable by the modern listener. Schafer argues that the failure to preserve silence is partly due to the negative connotations it has in Western society and the feelings of fear, isolation or terror it may induce for the listener unfamiliar with its presence. In a world of ceaseless sound, where noise has been able to reign supreme, the 'Western listener' has come to be scared of silence.[28] Of particular significance is the association of silence with death. Schafer argues that the fear of silence is the fear of death: 'man fears the absence of sound as he fears the absence of life [...] Since modern man fears death as none before him, he avoids silence to nourish his fantasy of perpetual life.'[29] The presence of sound reassures the modern listener that they are – and remain – connected to the world and others that occupy it. Consequently, when the listener is plunged into silence, they desperately try to find sound. Within the anechoic chamber, famously utilized by John Cage in his pursuit of silence, '[t]he ears stain to pick up evidence that there is still life in the world.'[30] Cage famously discovered he could hear two sounds: the high frequency sound of his nervous system in operation, and a low frequency sound of his blood in circulation. For Cage, this encounter revealed the continual presence of sound in life: 'until I die there will be sounds. And they will continue after my death. One need not fear the future of music.'[31] Schafer

[27] Schafer, *The Soundscape,* 259.
[28] Schafer specifically references the 'Western Man' in his fear of silence, as well as referring to 'Western art' and 'Western lexicography'. It remains unclear, however, who and what is included and excluded by Schafer's notion of 'the West' and 'Western culture' – what are the geo-political limitations of the West/non-West. Given his references to what he refers to as 'Eastern' accounts of 'positive' silence (e.g. ancient Hindu texts, Indian Yogi), I would suggest that Schafer's binary of 'good silence/bad noise' also corresponds to the (also highly problematic) dichotomy 'East/West'.
[29] Ibid., 256.
[30] Ibid.
[31] John Cage, 'Experimental music [1957]', in *Silence: Lectures and Writings* (London: Marion Boyars Publishers, 2009), 7-12, 8.

argues that the inexhaustible possibility to always hear something allows the listening subject to reassure themselves that silence is relative, since the contemplation of an absolute silence strikes the listener as a terrifying prospect: 'When man regards himself as central in the universe, silence can only be considered as approximate, never absolute.'[32] So long as the listening subject considers their hearing to be the judge of silence – as definitive of the presence or absence of sound – total silence will be impossible.

As opposed to simply understanding silence as a negative phenomenon – as the absence or abatement of sound – Schafer proposes the recovery of a positive silence, through a revival of the spiritual value of stillness. Indeed, for Schafer, if there is to be an improvement to the soundscape, then this will only be possible once silence has been (re)discovered as a positive force within our lives: one that preserves mental wellbeing and facilitates thought and reflection. Schafer argues that in our modern epoch, contemplation has been lost as a habit and a skill, since it is inhibited by noise. If silence is necessary for contemplation, then a 'recovery of contemplation would teach us how to regard silence as a positive and felicitous state in itself, as the great and beautiful backdrop over which our actions are sketched and without which they would be incomprehensible, indeed could not even exist.'[33] Thus, with the move from a negative silence understood as the absence or suppression of sound to a positive silence that facilitates contemplation and thought, another concept of silence emerges – one that is no longer demarcated according the threshold between noticeable and unnoticeable sound; the sounds we listen to and the sounds we ordinarily ignore. Rather, underneath the clamour of the perceptible soundscape lies an absolute, unbroken and ideal silence.

The Ideal Channel

At the heart of Schafer's ideological framework lies a belief in the ultimate hi-fi soundscape, within which a sound-signal exists entirely unaffected and unchanged by background noise. Here lies a Platonic, transcendent realm of a pure, ideal sonority, which (paradoxically) exists as undisturbed and eternal silence. This pure

[32] Schafer, *The Soundscape,* 256.
[33] Ibid., 258.

and silent sonority pertains to an 'unstruck' sound that exists apart from a material field of interferences, distortions and perturbations; and which constitutes an inaudible 'Music of the Spheres' – a harmonic structure expressing the fundamental ordering of the world, which is heard only by the Gods and spirits. It is this pure, perfect and undisturbed silence that Schafer understands to be the great universal backdrop to all material, earthly interactions; indeed, insofar as it expresses the mathematical basis of the Universe, it is what allows them to exist in the first place. Schafer's silence, then, is the ultimate and non-perturbing ground of signal; an eternal purity that the sounds of the material world aspire to approach: 'just as man strives for perfection, all sound aspires to the condition of silence, to the eternal life of the Music of the Spheres.'[34]

The notion of a pure and perfectly transmitted sound-signal that is entirely undisturbed by noise lies in opposition to the way in which mediation has been characterized in the previous chapters. With recourse to information theory and Serres' model of the parasite, I have argued that exposure to noise is an inevitable and necessary component of transmission; a signal has to travel through some form of material medium and this medium will always modify the signal in some way. Whilst Schafer also recognizes the necessity and inescapability of the transformation incurred through noise exposure. For him, it is taken to be a negative divergence from the perfection of a transcendent, harmonic order:

> The Music of the Spheres represents eternal perfection. If we do not hear it, it is because we are imperfect […] Distortion results the moment a sound is produced, for the sounding object first has to overcome its own inertia to be set in motion, and in doing this little imperfections creep into the transmitted sound. The same is true of our ears. For the ear to begin vibrating, it too has to overcome its own inertia, and accordingly it too introduces more distortions. All the sounds we hear are imperfect. For a sound to be totally free of onset distortion, it would have to be initiated before our lifetime. If it were also continued after our death so that we knew no interruption in it, then we could comprehend it as being perfect. But a sound initiated before our birth, continued unabated and unchanging throughout our lifetime would be perceived by us as – *silence.*[35]

[34] Ibid., 262.
[35] Ibid., 261-262.

The purity of sound within an ideal, transcendent silence – a music of unstruck sounds, immutably transmitted – can only accessed by the perfect audition of the Gods. By contrast, the inherent 'imperfections' of a struck sound – its inevitable infection with noise as it is brought into being – marks the limit of imperfect and finite, earthly beings. Noise is an inevitable consequence of sound's material existence: a degree of distortion is simply something that has to be tolerated as sound travels within the earthly, material field of clashes, frictions and mutations. Schafer's transcendent silence, then, works to reassert the alignment of noise with negative impurity and silence with positive purity. Just as the lo-fi soundscape marks a deviation from the 'natural' hi-fi soundscape, noise detracts from a perfect, silent and ideal sonority – the purity of a sound that does not need to be struck in order to be heard. It is on this basis, furthermore, that the clarity of signal perception; and the purity and simplicity of tone are prioritized as original and normative, whilst noisy, complex or confused tones are considered to be inferior. However, there is a way in which the mortal listening subject can move beyond the impurity of noise and towards perfection of the Spheres:

> Can silence be heard? Yes, if we extend our consciousness outward to the universe and to eternity, we could hear silence […] When the Indian yogi attains a sense of liberation from the senses, he hears *anãhata*, the "unstruck" sound. Then perfection is achieved. The secret Hieroglyph of the Universe is revealed. Number becomes audible and flows down filling the receiver with tones and light.[36]

Through achieving a stillness of the mind, the meditative listening subject can begin to dislocate from their senses and the distractive, affective clamour of the impure, material world; moving their attention away from the everyday, perceptible foreground and towards the transcendent, silent background of perfection and fulfilment that sustains all worldly activities.

Initially, it would seem that Schafer's transcendent silence is the antithesis of the transcendental background noise described in Chapter Two. While the former can be characterized as the ideal hi-fi environment, the latter can be thought of as the ultimate lo-fi environment, where the noise to signal ratio exists as 1:1. Schafer's

[36] Ibid., 262.

silence – the silence before the noise – is described in terms of purity, perfection and stasis; it expresses a permanent, universal and immaterial order that is the foundational basis for all existence. By contrast, background noise – the noise before the noise – is fundamentally 'impure' and resolutely material; it is understood as a ceaseless and ubiquitous flux of vibrational interactions that is continually changing as signals emerge and dissipate. Against Schafer's pure and eternal form, the noise before the noise consists of a lively, mutable and generative base from which all signal emerges from, travels through and dissipates into.

There is, however, a structural commonality between Schafer's silence and the notion of background noise outlined here. The former occupies a position synonymous to an inherently 'impure' and mutative background noise, insofar as both are understood to formulate the ground and conditions for all signal. Furthermore, both remain largely imperceptible to the listening subject. For Schafer, this is due to the imperfections of material subjects; we cannot usually hear the perfect silence of the universe, because of our own imperfections – both physical and moral. The inevitable noise in the channel inhibits access to this transcendent realm; it stands between our material world of clamorous interactions and the perfectly silent realm of the Gods. Background noise, too, remains largely imperceptible; however in this instance it is because it is too present, too familiar, too ubiquitous; its persistent omnipresence cause it to become silent, dwelling under the threshold of perceptions, hidden below and between those immediate, foregrounded sensory experiences.

A crucial difference remains, however, between Schafer's imperceptible silence and an imperceptible background noise. Schafer's ideal silence is fundamentally *unaffective*, inasmuch as it allows the 'unstruck' sound-signal to be 'perfectly' transmitted without modification. By contrast, the material background noise is fundamentally *affective*; it inaudibly and continually shapes the signal, exposing it to a field of perturbing, vibrational forces. From this perspective, the 'impurities' and 'imperfections that background noise inevitably introduces are taken to be positively productive, contributing to a sound's spatio-temporal specificity. By substituting Schafer's ultimate hi-fi soundscape (the ideal, unaffecting channel) for an ultimate lo-fi soundscape (where nothing can be heard discretely for noise) the ontological

coupling of noise and negativity can begin to be productively disturbed. To further pursue this, I will now move away from the noise as an imperceptible, transcendental and resolutely ambiguous background and return to the perceptible, parasitic encounter.

The Universal and The Particular

To critically question the definitive correlation between noise, 'unwantedness' and 'badness' is not to deny acoustic ecology's valid concerns for the destruction of the environment and the negative effects of sound pollution. My intention here, then, is not to refute the damaging impact that urbanism has had on certain environmental conditions, nor the detrimental effects that continuous and omnipresent sounds can have on listeners. However, it is not just noise pollution that is at stake – in Schafer's framework it would seem that noise (as interference or perturbation) and noise pollution (as it pertains to damaging and destructive levels of environmental sound) are conflated, so that virtually all manifestations of noise within the contemporary soundscape are taken to be a problem. Yet there is an important but sometimes subtle difference between a noted, evaluative focus on the damaging effects of noise pollution, and acoustic ecology's recognition of all noise as damaging. Indeed, Schafer's negative valuation of noise as it is outlined in *The Soundscape* is not so much based upon an in-depth empirical analysis of the social, psychological and physiological effects of rising levels of environmental sound but on an overarching, ideological and moral division between a pure and positive silence and an impure and negative noise. Within the framework of Schaferian acoustic ecology, then, noise can only ever be that which is to be abated, insofar as it is equated with negative transformations, affections and effects – be it 'imperfect' sound, damaged environments, or universal deafness. Admittedly, there is some acknowledgement that affective responses and reactions to noise are often 'subjective' and contextual, with many listeners adapting or habituating to noisy environments. As noted above, Schafer understands noise to pertain to those 'bad' sounds that the modern subject has chosen to ignore or learnt to live with; whilst Sim offers the caveat that noise consciousness differs significantly between individuals, with some being more

sensitive to noise than others.[37] However, from the perspective of Schaferian acoustic ecology, those who do not respond negatively to the noise (or do not notice it) are ultimately failing to notice the damage it is causing due to their learned failure to 'listen properly'. In other words, even if habitation and adaptation mean that noise is not felt to be a problem, this does not change its inherent 'badness'. Schaferian acoustic ecology thus leaves little space for noise to play a beneficial or positively productive role within the soundscape; or for the nuanced and complex ways in which individuals and communities encounter, relate to, and are affected by disturbances and perturbations within urban environments.

In resting upon an overarching ideological distinction between a positive, pure and natural silence that is therefore good; and a negative, unnatural and impure noise that is therefore bad, Schafer's politics of silence clashes with his own pragmatic and pedagogical approach to acoustic environments. There is a contradiction between the underlying and universalizing belief in a transcendent, harmonic order, which is the primary origin or 'truth' of all sound; and Schafer's documentation and analysis of context-specific sounds and their transformation over time. Indeed, Schafer emphasizes that acoustic ecology's assessment of the soundscape should not take place within an abstract laboratory, but that an assessment of the effects of the acoustic environment upon its inhabitants must occur within the milieu itself, insofar as the affectivity and significance of sonic events can only be understood as they happen within a particular time and space, embedded within a wider series of relations. Yet this approach – which recognizes the soundscape as a complex field of interactions – is countered by a fundamentally ahistorical (and theological) construct that determines not only what sonic environments are positive and negative; beneficial and harmful; but also what it means to be human and, by extension, what it means to listen.[38] This tension between the particular and the absolute, the dynamic

[37] Sim, *Manifesto for Silence,* 4.

[38] In Schafer's account, human hearing and listening are treated as an unchanging given. He writes: 'the human hearing threshold has been set conveniently just beyond a level that would introduce a continuous recital of air molecules crashing together. The quiet efficiency of all body movements is another stroke of genius […] God was a first-rate acoustical engineer. […] The perfect machine would be a silent machine: all energy used efficiently. The human anatomy, therefore, is the best machine we know and it ought to be our model in terms of engineering perfection.' Ibid., 207. Jonathan Sterne, however, rejects the notion that the way in which we listen has remained the same throughout history. Rather, he views modes of listening as cultural practices that develop in relation to social, economic and technological changes. See Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham: Duke University Press, 2003).

and the static, the material and the ideal, and the ahistorical and the contingent means that while *The Soundscape* is steeped in a wealth of historical information from a wide range of particular, cultural contexts – from the street criers of Elizabethan England, the telegraph drummers of the Lokele tribe of the Congo, to the changing sounds of North American sirens – this is nevertheless used to construct a general narrative in which the soundscape of the world has gone from quiet to noise, from harmony to dissonance, from clarity to confusion, from the human to the machine, and from good to bad. Consequently – and against acoustic ecology's own ambitions – the complexity, heterogeneity and mutability of the soundscape is reduced to a series of simplistic, binary divisions.

Acoustic ecology's moral underpinning of a 'good' silence and 'bad' noise also inhibits further – and potentially undermining – questions regarding agency and context – who is the bringer of noise for whom? Where do the differences lie between silence and silencing? Who and what is to be kept silent? Is it the 'noisy' foreigners? The 'gossiping' women? Who are its gatekeepers and regulators? Who is it that silence abates? Is silence elective or oppressive? The silence of transcendental thought or the silence of protest? For whom is silence a 'human right' and for whom is silence a violation of those rights?

These questions can be raised in relation to weaponized and disciplinary uses of silence. While there has been much attention paid to the use of noise within torture practices and as acoustic weapon (see Chapter Three), there is also the torturous silence of solitary confinement. Given Franklin's remarks on Quakerism's 'positive' uses of silence above, it seems pertinent that the practice of solitary confinement in prisons can be traced back to these Quaker principles: it was initiated as part of a series of prison reforms that were introduced, in part, due the activist work of the Society of Friends, which sought more humane means of discipline by comparison to the practices used at the time. It was understood that prisoners would serve sentences in isolation, not simply for the sake of punishment, but so that they could commune with and seek forgiveness from God.[39] However, this latter premise was often lost in the implementation of solitary confinement. In 1821, Auburn Prison, New York,

[39] Orlando F. Lewis, *The development of American Prisons and Prison Development Customs 1776 To 1845* (Whitefish, Montana: Kessinger Publishing LLC, 2005), 14-28.

instated this new system of 'silence and solace' as humane alternative to the death penalty. It was described by the Governors in the following words:

> The end and design of the law is the prevention of crimes, though fear of punishment, the reformation of offenders being of minor consideration […] let the most obdurate and guilty felons be immured in solitary cells and dungeons; let them have pure air, wholesome food, comfortable clothing, and medical aid when necessary; cut them off from all intercourse with men; let not the voice of a friend ever cheer them; let them walk their gloomy abodes, and commune with their corrupt hearts and guilty consciences in silence, and brood over the horrors of their solitude, and the enormity of their crimes, without the hope of executive pardon.[40]

The use of 'silence and solace' continues today within prisons and detention camps. Notably, solitary confinement is frequently used to manage 'non-compliant' detainees held at Guantánamo bay, contributing to short-term and long-term psychological problems.[41] In such contexts, silence can induce the negative affective responses typically ascribed to noise. For the prisoner incarcerated within the 'hi-fi' cell, silence is experienced – and is intended to be felt –as unpleasant, disturbing, alienating and even terrifying.

In his *Manifesto for Silence,* Stuart Sim briefly concedes that – in the context of solitary confinement – silence has a sinister potential. For him, however, this constitutes an exceptional and anomalous instance, in which silence's goodness is undermined through its misuse. By contrast, he considers noise to be 'inherently aggressive' and can thus be more effectively weaponized. This appeal to the innate qualities of noise and silence – noise's inherent aggression and silence's benefits to psychological wellbeing – allow Sim to make the seemingly baseless judgement that the silence of solitary confinement is less severe than weaponized uses of sound and noise:

> When noise can so easily be transformed into a weapon, then it must be deemed to have that potential to [negatively] disturb and disrupt in all its 'civilian' uses too, whether that is the intention or not. With

[40] Ibid., 81.
[41] Center for Constitutional Rights, *Solitary Confinement in Guantanamo Bay* (2012) http://ccrjustice.org/learn-more/faqs/solitary-confinement-guantanamo-bay [accessed March 2013].

> the exception of solitary confinement, silence can never take on that characteristic, and unpleasant though it must be to experience it as a prisoner over any length of time, solitary confinement is a relatively benign treatment compared to sound bombs, sonic bullets and Shock and Awe.[42]

From the Schaferian perspective, such uses of silence run against its 'true' character, capitalizing on the negative but ultimately false connotations of silence within Western society. However, while Sim's manifesto is undoubtedly polemical in parts (its explicit purpose being to speak up for the need for silence) it does not seem satisfactory to dismiss such utilizations of silence as exceptional 'misuses'. Indeed, even in more everyday scenarios, silence may elicit responses of fear and unease. There are, for example, those who use sound and music to (borrowing from Muzak) 'fill the deadly silences' of a dauntingly empty house.[43] There are even those who prefer to sleep with sound – as testified by the abundance of 'sleep sound' devices, CDs and Smartphone apps marketed as helping the listener fall asleep and combating insomnia by inducing a state of relaxation and calm.[44] Along with the predictable repertoire of 'natural' soothing sounds – whale song, rainforest sounds, waves crashing, stream sounds – many of these devices allow the listener to select sounds that are altogether 'unnatural', and might typically be thought of as a hindrance to sleep – the sound of fans, highway traffic and air conditioning units, for example. A more satisfactory approach, then, would be to suggest that both silence *and* noise have the *capacity* to negatively affect listening subjects, and this capacity is actualized in certain situations and contexts.

The contradictions and limitations identified here do not require a wholesale dismissal of acoustic ecology. Indeed, there is much in Schafer's project that can be seen as compatible with my approach, inasmuch as it recognizes the influential nature of a listener's milieu and the active and affective role noise plays in shaping the social. It should also be recognized that challenges to Schaferian acoustic ecology's naturalist bias and reductive analytical dualisms have come from those drawing from Schafer's ideas and soundscape practices. The Positive Soundscapes

[42] Sim, *Manifesto for Silence,* 60.
[43] See Anahid Kassabian, 'Ubiquitous listening and networked subjectivity', *ECHO,* vol.3/2 (2001) http://www.echo.ucla.edu/Volume3-issue2/kassabian/index.html> [accessed October 2012].
[44] For more on this, see Anahid Kassabian, 'Music for sleeping' in Marie Thompson and Ian Biddle (eds) *Sound, Music, Affect: Theorizing Sonic Experience* (New York: Bloomsbury, 2013).

project, for example, has sought to move beyond acoustic ecology's overwhelming focus on negative noise and the unhealthy and inimical effects of the urban sound environment by putting its efforts into researching what sounds people enjoy, and emphasizing the importance of positive sound environments in urban planning.[45] The project, led by Peter Cusack and Angus Carlyle, was a multidisciplinary investigation involving University of Salford, Manchester Metropolitan University, London College of Communication, Warwick University and Lancaster University, which ran from October 2006 to September 2009. Against Schafer's proscriptive approach, the project involved working with communities to identify the positive and negative components of their acoustic environment, subsequently developing a terminology for the expression of auditory appreciation for particular sound environments. The project thus develops Schafer's call for a positive approach to the soundscape through an engaged and analytical listening practice, while also looking to undermine his rigid, ideological hierarchies and his nostalgic idealism. It builds upon the pedagogical aspect of his work at the expense of his moral claims. Similarly, Peter Cusack's Favorite Sound's Project, initiated in London in 1998 as a radio show for Resonance FM, looks to gather information about what people find positive about their everyday sound environment, and discover the particular sounds from the cityscape that people enjoy. Favourite sounds listed for London include Portabello Street market, the rumbling escalators of Kings Cross railway station, and the sound of traffic when stood under a flyover in Hackney Wick; while favorite sounds from Manchester included Metro horns, pied wagtails and skateboarders.[46] The idiosyncratic mix of sounds which contributors describe as pleasurable significantly challenges Schafer's idealist dichotomy that differentiates the 'good' sounds of natural, or human sources, from the 'bad' sounds of machines.

The Noise of Belonging

Schaferian acoustic ecology's aesthetic moralism and the attendant politics of silence also fails to sufficiently recognize that some bodies, communities and demographics

[45] W. Davies, M.D. Adams, N.S. Bruce, R. Cain, A Carlyle, P.Cusack, K.I. Hume, P. Jennings, C.J. Plack, 'The positive soundscapes project', *19th International Congress on Acoustics,* 2-7 September 2007 http://usir.salford.ac.uk/2460/1/Davies_ICA_2007_soundscapes_paper_v3.pdf [accessed February 2012].
[46] http://favouritesounds.org/ [accessed February 2012].

are exposed to and affected by noise more than others. This is not simply meant in terms of varying psychological dispositions – that certain listening subjects have a greater sensitivity to or awareness of noise than others. Rather, exposure to noise, as well as access to silence is informed, in part, by issues of social, political and economic power. In other words, a Schaferian politics of silence fails to link exposure to noise to other socio-political struggles, of which it may be considered symptomatic. Gerret Keizer argues that noise can be seen as a marker of social inequality inasmuch as it disproportionately affects the socially and politically 'weak': the elderly (who find it more difficult to discern speech from background noise by comparison to younger contemporaries), children, the sick (Keizer notes that chemotherapy patients are often more sensitive to high levels or sudden bursts of noise), racial minorities ('blacks in the United States are twice as likely, and Hispanics 1.5 times as likely as whites to live in homes with noise problems'), neurological minorities, prisoners and the poor (who are more likely to inhabit noisy environments, close to roads, train lines and airports).[47] These politically (and I would add economically) 'weak' groups are more likely to work in, live in or occupy noisy spaces. Silence, by contrast, is still an option – a luxury item, even – for those who can afford it.

While Schafer, Franklin and Sim (implicitly or explicitly) associate the rise in noise and the corresponding loss of silence with the rise of capitalism and the prioritization of private interests over public interests, none of their accounts relate a call for resistance to the damaging effects of noise with an overtly anti-capitalist politics. Despite gesturing towards capitalism as the driving force of ever-increasing noise levels, the methods they suggest for tackling this – careful listening practices and the re-introduction of silence and quietude into everyday life – are ameliorative.[48] I would thus argue (*contra* Shafer) that these accounts only really seek to address a

[47] For an explanation of how each of these social groups are more likely to be exposed to noise see Gerret Keizer, *The Unwanted Sound of Everything we Want: A Book About Noise* (New York: PublicAffairs, 2010), 5.

[48] While Sim, Schafer and Franklin suggest a fight for silence that centres on the actions of the individual, silence has also been a powerful tool in collective political struggles. For instance, silence has played a key role in the mobilizations of the Zapatistas (EZLN). The performative silence of the Zapatistas pertains both to the silence imposed on the indigenous peoples of the Americas and their 'silent' organisation of community and resistance. For more on this see María Josefina Saldaña-Portillo, 'Reading a silence: the "Indian" in the era of the Zapatismo', in Saurabh Dube and Ishita Banerjee-Dube (eds.), *Unbecoming Modern: Colonialism, Modernity, Colonial Modernities* (Jor Bagh, New Delhi: Esha Béteille, 2006), 32-58.

'symptom' (i.e. excessive levels of noise) rather than the 'root problem' (i.e. the structures and ideological values of capitalism).

These accounts by Schafer, Franklin and Sim also fail to engage with how silence is bought and sold. Indeed, it is not just noise that sells, but silence too. In Chapter One, I explored how silence has been used as a marketing strategy for the Toyota Yaris hybrid car. Such instances would seem to undermine – or at least complicate – Sim's proposed subversive politics of silence, which understands silence to be oppositional to and a mode of resistance against corporate interests and activities.[49] If it is to be accepted that silence and quietness has become increasingly scarce with growing urbanization, then I would suggest that this has also allowed silence to become a lucrative commodity.

This relation between exposure to noise, access to silence and socio-economic power can be clearly exemplified in relation to housing and neighbourhood noise. In Chapter One, it was noted that noise from neighbours was one of the most common causes of noise complaints. Neighbour noise is taken to be a problem insofar as it undermines the boundaries of the private and the public – it comes from outside the carefully regulated system of the home and serves to disturb and disrupt. Consequently, it is often described as an intrusion or invasion, a violation of privacy. This 'outside', however, is not simply the exterior to the homes interior, but can also be thought of as pertaining to the wider milieu that the home is situated within. The interfering noises of others can shape our actions and activities; they can take us from one activity and lead us to the next – from being asleep to being awake (and subsequently annoyed), from daydreaming to listening intently, from reading to looking out the window for the source of the disturbance. These noises may even encourage us to reach for the volume knob on our stereo and engage in a 'noise war', as we attempt to counter-disturb our neighbour in order to express our discontent: the parasite is parasited in return.

[49] Sim states that: 'It is not in our best interests for noise to become our destiny, and we should actively be resisting those forces which are striving to make it so, turning urban life into a constant trial for those with any sensitivity at all to their environment. Silence takes on a subversive quality as a result aand opting for it a refusal to be driven purely by the profit motive, or to live a life of perpetual sensual bombardment aimed at eradicating our individuality in the name of passive consumption.' Sim, *Manifesto for Silence,* 170.

The unexpected and unplanned intrusion of noise into the home and the consequent transgression of the (ideal) boundary that separates private from public space raises the issue of control. Schafer sees noise as undermining the rights of private property owners: 'A property-owner is permitted by law to restrict entry to his private garden or bedroom. What rights does he have to resist the sonic intruder? [...] at the moment a man may own the ground only'.[50] Noise threatens the authority of the homeowner, invading and transforming their sonic environment against their will. It is able to 'break in' to the home without any encroachment upon the physical parameters of property. In this context, the 'right' to silence often becomes aligned with property ownership; a homeowner has the 'right' to control and regulate the sounds made and heard within the private, domestic milieu, so long as it does not impeach on the acoustic environments of other property owners. In the UK (amongst other places), the desire to escape the intrusions of noise and assert sonic control over one's own home can be seen to inform a hierarchy of dwelling types. Detached houses are seen as most desirable in that they facilitate the greatest privacy; whilst flats are taken to be the least desirable, inasmuch as neighbourly noise comes from three or four directions – through the ceiling, through the floor, and through the walls (potentially on either side of the property).

For those wealthy enough, the 'quiet' suburbs, marked by an ideology of separation and domestic privacy, provides a means of disconnecting from the noises of the world as much as possible (Fig. 5). As Brandon LaBelle notes, the withdrawal from uncontrollable and unplanned noise of the world – from the flows of interference that characterize the city milieu – marks a suburban desire to secure against the unexpected.[51] Consequently, the boundaries of privacy are audibly delineated with reference to the decibel register.

[50] Schafer, *The Soundscape,* 214.
[51] Brandon LaBelle, *Acoustic Territories: Sound Culture and Everyday Life* (London, New York: Continuum, 2010), 56.

Fig. 5. Emilio Leopoldo Tafani, 'Ruislip for the quiet English countryside [1916].' © TfL from the London Transport Museum collection. Ruislip is a suburban area of North West London that was developed with the expansion of the Metropolitan railway and the opening of Ruislip station in 1904.

In the suburbs, Schafer's auditory values of clarity, order, and fidelity are preserved or – more accurately – policed. LaBelle gives the example of the affluent suburban development of Valencia, California, which began in the 1960s and now has a population of more than 50,000 people. According to the city's noise ordinance, sound levels within residential zones must not reach over 65 decibels during daytime and 55 decibels during night-time. The most frequent breaches of this legislation are parties, with the police department receiving 20 to 45 calls during an average weekend. Consequently, two police patrol cars have been put on duty within the area during the weekend period, specifically to monitor noise levels and to shut down parties when necessary. In addition, an amendment to the ordinance in 2009 enables police enforcement officers to cite the homeowner rather than the noise offender.[52] As LaBelle notes, this change clearly suggests that the loud parties shut down are often those being thrown by teenagers whilst their parents are away; the amendment means that the homeowner is served the fine, presumably alerting parents to the activities of their children. For LaBelle, the 'confrontation' of the loud party, and its parasitic disturbance of the hi-fi suburban soundscape, reveals those who are excluded from the quiet order of the suburbs; the teenagers left to occupy a 'left-over zone where boredom is rife.'[53] While the (adult) majority might feel suburbia's quiet atmosphere to be positive, insofar as it constitutes a mark of respect for one's neighbour and allows inhabitants to remain undisturbed by others, this serenity is maintained through the suppression and policing of particular activities that deviate from the acoustic norms of suburbia and thus threaten to disturb the peace.

The quiet and controlled atmosphere of the home, however, remains a luxury for those who can afford it. As Gerret Keizer provocatively claims: you do not need a philosopher to tell you the value of silence, its capacity to replenish and revive, to allow the listener to hear the sounds of nature, or to converse without raised voices: '[a] real estate agent will do.'[54] A house is likely to lose its economic value if an airport or a quarry open up nearby. However, as Keizer notes, it is those who already live in socio-economically deprived neighbourhoods who are more likely to have an airport open up next to them. Such neighbourhoods are also the least likely source of

[52] Ibid., 58.
[53] Ibid.
[54] Keizer, *The Unwanted Sound of Everything We Want,* 54.

political resistance to noise-producing developments, insofar as they are less likely to have access to information, influential connections to social and political figures, and the leisure time or recourses to organize.[55] Indeed, it is undoubtedly the urban poor who are most exposed to neighbourhood noise – those who cannot afford double-glazing or a detached house; or those who cannot afford to buy their home at all. In short, the people who most frequently encounter sonic disturbances are those who already have the least control over where they live (with regard to both their housing and their broader surroundings). Furthermore, for those living in close proximity to others – both physically and sonically – a tension emerges between the rhetoric of neighbourly consideration and domestic privacy. Every sound-producing activity that takes place within one's own home – quietly watching television, conversing with a friend, or even walking across a room – can carry through to another's home.

Thus while suburban ideology characterizes noise from neighbours as an exceptional and transgressive breach of the peace, for many of those living in smaller and poorly soundproofed housing, these disturbances are an inevitable and inescapable part of domestic life. Keizer warns against naive generalizations - the 'callous and condescending assumption' – that those living in poorer neighborhoods are happy with the levels of noise: 'it's what "those" people do'; 'it's "their" culture'; 'their ears are different'.[56] Yet equally, it is important to consider what happens – or what might happen – when the 'unwanted' interrupting sounds of neighbours become a familiar part of everyday life.

Jacqueline Waldock's research into Liverpool's sound environment goes some way in addressing this question. She has found that within certain communities, disturbances and disruptions from neighbours are not always experienced negatively. Her work considers how urban and domestic sound environments contribute to a sense of place and community, particularly within the areas of Liverpool that have been prone to social change. Such auditory sites, she suggests, have been ordinarily excluded from acoustic ecology's praxis, due to its underlying 'beauty bias'. Waldock has worked with communities in producing sound diaries and portraits, for which residents have provided their own commentary and analysis. Her approach,

[55] Ibid., 56.
[56] Ibid.,101.

moreover, seeks to avoid proscriptive assumptions of what sounds should be heard as significant and how they should be understood, instead focusing on what sounds are selected, valued and considered meaningful by participants from local communities.[57]

Crucially, Waldock's work engages with a demographic that typically remains unheard within participative and interactive soundscaping practices such as online soundmapping, where contributors upload their own recordings of sounds and soundscapes (as is the case with Cusack's *Favourite Sounds*). Waldock notes that participation in such projects is often gendered – the vast majority of contributors for participatory soundscape research projects such as *UK Soundmap* and University of Salford's *Sounds Around You* being men between the ages of twenty and fifty.[58] If and how this disparity of gender influences the recording data gathered from such projects remains unknown, insofar as soundmaps remain male-dominated, and the recordings by women contributors will inevitably be influenced by the types and styles of recordings that are already precedent. Economic factors also influence project participation, insofar as contribution requires access to recording technologies and the internet. As Waldock is careful to note, online access to a soundmap does not make it universally accessible to all. As with the issue of gendered participation, this economic delineation may subtly influence the types of sound that are recorded, or indeed, the type of sounds considered worthy of recording.

Waldock argues that these participatory research projects rarely contain recordings that are from the 'private' and personal domestic setting. Instead, submitted recordings often featuring the sounds of 'public' spaces, such as parks or transportation. This notable emphasis on the 'public' as opposed to the 'private' is amplified by the 'impersonal' quality of the vast majority of the recordings; for example, the recordists very rarely feature in recordings, taking great care to eradicate or limit their audible presence. Waldock's work, which engages primarily

[57] See Jacqueline Waldock, 'Dissertation overview: "The urban domestic soundscape and the community: a new perspective"', *World Forum for Acoustic Ecology News Quarterly,* vol. 10/1 (2013) http://wfae.proscenia.net/library/newsarchive/2013/01_Jan_Mar/pages/5.htm [accessed May 2013].
[58] See http://sounds.bl.uk/Sound-Maps/UK-Soundmap [accessed February 2013]; http://www.soundaroundyou.com/ [accessed February 2013].

with female participants from areas of urban depravation, thus potentially uncovers alternative perspectives on sound and sound environments that typically remain hidden.

This has been the case with Waldock's sound project based around the Welsh Streets in Toxteth, which has revealed how certain sounds can become normalized within domestic settings, significantly altering a listener's relationship with these sounds *contra* generalizations regarding 'good' and 'bad' sounds within a home's sonic environment. The Welsh Streets is an area of around 450 terraced houses and is considered to be an area of urban deprivation. In 2003, the area was condemned under the Housing Market Renewal initiative and was placed under a Compulsory Purchase Order – a legal power given to local authorities in England and Wales to buy private land that is not for sale by the owner. Usually this power is used to buy houses that are due to be demolished to make way for new roads, railway lines and other infrastructural developments deemed to be in the public interest. However, the street where Waldock's participants lived had been served with a Compulsory Purchase Order because the council considered the houses to be 'not conducive to modern living.' Many residents have chosen or have been forced to sell their homes, although some remain and are fighting the demolition proposals. During Waldock's project, some participating members of the community were forced to leave their homes. Participant Mrs T had lived in the Welsh Streets all of her life until she was relocated to 'better' housing. During the project, she had sold her house to the council under the Compulsory Purchase Order and moved to one of the newly built properties.

One of the primary issues the council identified with the Welsh Streets homes was the thickness of the walls, which the council believed to be too thin. The new properties for Welsh street residents were required to have thicker, better-insulated walls, marking an improvement in accommodation. However, Waldock's participant Mrs T provides an alternative perspective. Waldock states that when she asked Mrs T if she liked her new house, Mrs T responded by telling her how nice it was to have a new garden and new kitchen. Then she talked about how things had changed. She noted that she could no longer see or hear other people anymore:

> I always used to hear the neighbours through the walls. I could hear them, and they could hear me. It made me feel safe knowing that someone would hear me if I fell or they would check on me if they couldn't hear me moving or I would check on them if I heard a thump or a scream.[59]

For Mrs T, the noises travelling through the wall were not a source of irritation; they did not mark an invasion of the domestic sphere by an unwanted other. Rather – against the suburban ideology of separation and control – being heard and hearing others provided a sense of comfort and reassurance. If necessary, such disturbances (or lack of) could alert a neighbour's attention to a potential problem. Similarly, participant N, when asked about a recording she had made of her neighbour making sounds through the walls, commented stating: 'is the sound of community and sharing.' Thus, as Waldock argues, the participant's relationship with the sounds of their neighbours 'differs greatly from the assumed norm of annoyance at neighbours who invade the private domestic space of others.'[60]

By exploring certain classed and gendered perspectives that are often overlooked by soundscape studies, Waldock's project points to the problematic nature of generalizations regarding 'positive' and 'negative' acoustic environments and, by extension, the potential dangers of acoustic ecology's aesthetic moralism. In this case, the ideology of the quietness and sonic control as that which is desirable within a home becomes questionable, insofar as disturbances from others contribute to a sense of belonging. For Waldock's participants, the noises that seep into the home from the wider milieu stitch inhabitants into their community. Once these neighbourly noises were lost, so was the sense of connection to others – while the council viewed the new properties to have an 'improved' acoustic environment, in that they corresponded to the norm of domestic privacy, the unfamiliar and uninterrupted quiet of Mrs T's new home made her feel cut off from others. Such affective associations, then, counter Truax's characterizations of noisy environments as alienating and isolating.

[59] Jacqueline Waldock, 'Soundmapping: critiques and reflections on this new publicly engaging medium', *Journal of Sonic Studies,* vol 1/1 (2011) http://journal.sonicstudies.org/vol01/nr01/a08 [accessed May 2012].
[60] Ibid.

However – and bearing in mind Keizer's concerns – these perspectives should not be used to construct a crude generalization that claims that all of those living in inner city areas 'like' the noises of their neighbours, or that these encounters of neighbourly noise are constituted by a working class identity. Nor am I suggesting that these participants 'like' all the noises of their neighbours, irrespective of context or timing. For example, one can imagine that loud music late at night would still be experienced as annoying or stressful. Nevertheless, a consideration is needed of how these 'positive' affective attachments to neighbourly noise can be accounted for, without recourse to the relativist endpoint that one person's noise is another person's sound.

From a Schaferian perspective, the acceptance of noise marks a habituation process, through which listeners 'get used' to interruptions and interferences. Barry Truax, for example, sees habituation arising out of helplessness, apathy, and denial: 'At first they [listeners] notice an intruding sound, probably find it annoying but too much trouble to do anything about, and before long they grow accustomed to it and accept its presence. Essentially they *deny* its intrusiveness.'[61] This habituation to noise requires desensitization: listeners come to tolerate noise by learning to blank it out. In other words, they adapt to the parasitic presence by failing to respond to it, so that the noise is no longer a source of annoyance. However, habituation does not sufficiently explain the positive values ascribed to neighbourly disturbances by Mrs T and N. In this instance, the noises of neighbours are not merely ignored or tolerated, nor have the participants become desensitized to the interruptions. Rather, they help create sensations of comfort and belonging – they affirm connections with a wider community. Likewise (and Keizer's warning notwithstanding) it would seem equally condescending to dismiss the affective attachments of Waldock's participants as a kind of sonic 'Stockholm syndrome', through which inhabitants 'irrationally' come to hear annoying and unwanted noise as positive and desirable. This would seem to be the only explanation that can be offered by Schaferian acoustic ecology – its aesthetic moralism means that such affective attachments to noise are, at best, viewed as an anomalous deviation from a seemingly a-historical

[61] Truax, *Acoustic Communication,* 90.

norm. Subsequently, the overarching dualism between a noise that is bad and a silence that is good remains intact.

Undermining Aesthetic Moralism

The case of the Welsh Streets residents challenges the notion that noise is always already unwanted, disturbing the assumed correlation between noise, 'unwantedness' and 'badness'. In response to this, it could be suggested that such disturbances lose their status as noise when they take on a positive function. This would be the conclusion of a subject-oriented definition of noise – the disturbances and disruptions that carry through neighbourly walls are not experienced as negative, therefore they are not noise. However, according to the definition of noise I have developed thus far, the 'positive' neighbourly noise of the Welsh Streets can still be classified as noise, insofar as noise's 'unwantedness' is no longer taken as constitutive; rather, noise is principally approached as a productive perturbation, stemming from the medium/milieu. It does not follow that all disturbances are negative, nor does it follow that all the changes that they induce are 'bad'. Indeed, in the previous chapter I discussed how the noisy affectivity of the medium is put to use in the sound art practices of Christian Marclay, Maria Chavez and Yasunao Tone. In such instances, media noise is positively appropriated as a generative force that can create new sonorities, rhythms and textures.

In order to allow more fully for these complex attachments to neighbourly noise and for the other, 'positive' uses of noise, there is a need to depart from the rigid, dualist structure of aesthetic moralism, which inscribes noise and silence with an inherent, pre-determined value. Instead, I seek to formulate an ethical model that allows for noise and silence's demonstrated capacity to be both 'good' and 'bad'. LaBelle proposes a similar move, with reference to the characterization of noise as acoustic violence. For him, such a characterization of noise fails to recognize the potentially violent performances of silence, as well as the tensions that arise between general noise abatement legislation and specific manifestations of noise. Consequently, he argues that a less rigid, more dynamic framework is needed in order to account for the complex and nuanced ways in which noise and silence are bound up with modes

and exchanges of power. LaBelle proposes an approach based around the philosophy of Emmanuel Levinas, which focuses on the ethical relation of responsibility and that associates noise with the demand of the Other. Although noise may deafen and destroy, LaBelle argues (also drawing on Serres) that noise also allows a relation to emerge between self and stranger. In other words, the ways in which noise functions are more varied and ambiguous than is permitted by the equation of noise and badness.

I am in agreement with LaBelle's implication that the aesthetic moralism which distinguishes noise from silence is too reductive. However, whilst LaBelle articulates an ethics of noise via the Levinasian relation between Self and Other, here I want take an alternative, non-anthropocentric route that accounts for but is not limited to the relations between listening subjects. For this, I return to affected and affecting Spinozist body, proposing an ethics of noise that remains applicable to the technological and informational contexts explored in previous chapters, as well as to the social manifestations of noise (and silence) I have explored in this chapter. Rather than pertaining to an overarching division between good and bad, I argue that the affective definition of noise is fundamentally or ontologically indifferent, inasmuch as noise's 'goodness' or 'badness' are secondary, relational and contingent. In other words, 'positive' and 'negative, 'goodness' and 'badness' are understood as descriptions of the relational *effects* of noise as opposed to innate values.

There are a number of key differences that are useful to summarize between Schafer's approach and Spinoza's non-Cartesian philosophy. Firstly, as was seen in the previous chapter, Spinoza's philosophy brings with it a particular conception of nature. In contrast to Schafer's understanding of nature as an organic or 'natural' holistic equilibrium that is opposed (and indeed threatened) by the 'inorganic' realm of machines and technology, Spinoza's nature recognizes no such division between organic and inorganic entities. Rather, nature describes an infinite, all-encompassing and ever-changing field of interactions that all entities – 'natural' and 'unnatural', 'organic' and 'artificial' – are part of, without contradiction. Unlike Schafer, then, Spinoza's philosophy does not prioritize the organic or the human. For Schafer, the human body is the closest body to perfection, since it functions almost silently: 'God

was a first-rate acoustical engineer. […] The perfect machine would be a silent machine: all energy used efficiently. The human anatomy, therefore, is the best machine we know.'[62] However, from a Spinozist perspective, it cannot be said that the human body is the near-perfect body, for it is not yet known what a body (be it the human body or any other body) can do; what affects it might be capable of and relations it might form with other bodies.

Underlining both these differences in concepts of nature – and crucial for the move from morals to ethics – is the distinction between Schafer's Platonic transcendentalism and Spinoza's philosophy of immanence. As has been shown over the course of this chapter, Schafer understands the 'struck' sound of material reality to be imperfect copy of a perfect 'unstruck' sound that exists in silence and can only be heard by the Gods. This transcendental principle informs the notion of perfect silence as the ultimate good insofar as it pertains to a foundational order, which is the basis for all that exists. In Spinoza's philosophy, however, there is no such foundational order. In Chapter Three, I described Spinoza's 'God' (or 'Nature') as impartial and non-judgemental. As immanent and infinite substance, Spinoza's God/Nature has no agenda or plan; nor does it intervene or act, since it has no intellect or will. Consequently, Spinoza's philosophy does not recognize universal moral values of Good and Evil, as defined by the judgement of God. The removal of the laws and judgement of God, however, does not result in a moral relativism. Rather, Spinoza favours an experiential ethics over a proscriptive (and restrictive) morality.[63]

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[62] Schafer, *The Soundscape,* 207.

[63] There are clear resonances here with a Nietzschean position that looks to go 'beyond Good and Evil'. Indeed, it has already been noted that Deleuze appropriates Spinoza via Nietzsche. *Spinoza: Practical Philosophy* begins with Nietzsche, with Deleuze claiming that 'Nietzsche understood, having lived it himself, what constitutes the mystery of a philosopher's life.' Gilles Deleuze, *Spinoza: Practical Philosophy* (San Francisco: City Light Books, 1988), 3. As this demonstrates, Deleuze understands Spinoza and Nietzsche to have a special connection. Yet Nietzsche, too, was aware of this. In a letter to Franz Oyerbeck he writes: 'I am utterly amazed, utterly enchanted! I have a *precursor*, and what a precursor! I hardly knew Spinoza: that I should have turned to him just *now*, was inspired by "instinct." Not only is his overall tendency like mine – namely to make all knowledge the *most powerful affect* – but in five main points of his doctrine I recognize myself; this most unusual and loneliest thinker is closest to me precisely in these matters: he denies the freedom of the will, teleology, the moral world-order, the unegoistic, and evil. Even though the divergencies are admittedly tremendous, they are due more to the difference in time, culture, and science.' Friedrich Nietzsche and Walter Kaufmann (ed.), *The Portable Nietzsche* (New York: Viking, 1954).

Moral laws are proscriptive insofar as they take the form of 'you must' or 'you must not do': they comply with a given, pre-determined understanding of what an entity *is* – its possibilities and its limitations. From this moralistic perspective, noise is always already bad: it is damaging, destructive or harmful. Yet if morality stems from the pre-existing knowledge of the body, then it cannot tell us anything new about what the body can do. As Deleuze argues: 'Law, whether moral or social, does not provide us with any knowledge; it makes nothing known.'[64] In dictating what a body is and thus what it must and must not do, moral law inhibits new knowledge. New affective encounters produce new knowledge, and so in restricting a body's encounters to the already known, moral law inhibits further discoveries of a body's affective potential. A Spinozist ethics, by comparison, asks what a body might be able to do, what relations it can form, how it can act and be acted upon. As Deleuze states: '*We do not even know of what a body is capable* […] That is *We do not even know of what affections we are capable, nor the extent of our power.* How could we know this in advance?'[65] A Spinozist ethics thus entails a process of experimentation and discovery: it suggests an explorative approach to bodies and their affective and relational potential. With this, the moral system based around the oppositional values of 'Good'/'Evil' is replaced by the ethical modes of 'good'-'bad'.

For Spinoza, 'good' and 'bad' ultimately describe the effect of one body on another. All affective encounters between bodies thus have an ethical dimension: an affective encounter is also an ethical encounter. In Chapter Three, it was noted that each affection (*affectio)* that arises from an encounter between an affecting and affected body is accompanied by a modification in affect (*affectus),* pertaining to the continuing line of variation that marks an increase or decrease in a body's affective capacity. What is called 'good' is an encounter that enhances or preserves the power of the body to act (thus having a positive effect). 'Good' thus refers to an agreeable and compatible relation between bodies. What is called 'bad' is a destructive or damaging encounter that diminishes the power of the body to act (thus having a negative effect). For Spinoza, all phenomena that are described in terms of evil, illness or even death are bad encounters that result in a relational decomposition, as is the case with poisoning or intoxication. Such a decomposition weakens the body's

[64] Deleuze, *Spinoza: Practical Philosophy*, 24.
[65] Gilles Deleuze, *Expressionism in Philosophy: Spinoza* (New York: Zone Books, 1992), 226.

affective power: its capacity to act and be acted on. Death, then, is simply the decomposition of a body's constitutive relation. What is good is experienced by consciousness as a joy and what is bad is experienced by consciousness as sadness – good encounters are joyous encounters and bad encounters are sad encounters. Both good and bad encounters involve a change in relations; the former characterized principally by composition and the latter by decomposition. For Spinoza, a good life involves discovering how to maximise those joyous encounters that increase a body's affective power, and minimize those sad encounters that are restrictive and damaging.

A Spinozist ethics thus sees good and bad as relational and partial. The former describes that which agrees with a body, increasing its power to affect and be affected; whilst the latter pertains to that which disagrees with a body, decreasing its power to affect and be affected. Consequently, a particular entity is not innately good or evil; rather the affective relation between entities is understood to good or bad from the perspective of the affected body and in relation to an increase or diminishment in power.

This distinction between good and bad entities and good and bad affective relations can be clearly demonstrated with reference to food. In Chapter Three it was noted that Spinoza's affective approach can account for why a particular type of food can be pleasant for one body and poisonous for another. Take, for example, an apple. On the one hand, the apple-body may have a positive relation with the feeding body; as the apple-body is consumed, compounding it with the eating body, it provides energy and nourishment. Consequently, it increases the feeding body's power, inasmuch as the apple-body and the feeding-body's powers combine. Alternatively, upon consuming it, the feeding body may have a negative affective encounter with the apple-body. As it consumes the apple-body, the feeding body may have an allergic reaction. In such instances, the apple-body functions as a poison, causing the relations of the feeding body to deteriorate. In doing so, it disrupts the ordinary functioning of the body, weakening the capacity to act and be acted upon. However, while the apple might function as either nourishing food or dangerous poison, there is nothing *inherently* good or bad about the apple, irrespective of the benefit or harm it may cause. Rather, whether or not the apple is 'good' or 'bad' (that is, beneficial or

harmful, compatible or damaging) is determined by its relations with other bodies as an encounter unfolds; whether it results in an increase or decrease in power.[66]

In addition, and more closely related to the themes of this text, Spinoza's ethics have also been used to reassess the constitutive negative values ascribed to 'bad' bodies, such as viruses. From the perspective of an anthropocentric moralism, viruses are often taken to be bad or 'evil'; they are associated with sickness, ill-health and death. Such descriptions, however, can be reconfigured by a less proscriptive, ecological viewpoint pertaining to encounters and interactions between bodies – both human and non-human. A Spinozist re-evaluation of the virus is aptly (although seemingly unintentionally) articulated by the film director David Cronenberg:

> To understand physical process on earth requires a revision of the theory that we're all God's creatures – all that Victorian sentiment. It should certainly be extended to encompass disease, virus and bacteria. Why not? A virus is only doing its job. It's trying to live its life. The fact that it's destroying you by doing so is not its fault. It's about trying to understand interrelationships among organisms, even those we perceive as disease. To understand it from the disease's point of view, it's just a matter of life. It has nothing to do with disease. I think most diseases would be very shocked to be considered diseases at all. It's a very negative connotation. For them, it's very positive when they take over your body and destroy you. It's a triumph. Its all part of trying to reverse the normal understanding of what goes on physically, psychologically and biologically to us.[67]

What Cronenberg highlights is the issue of bodily perspective inherent to Spinoza's ethics. From the viewpoint of the infected human body, the virus is typically considered bad or detrimental, inasmuch as it results in a decomposition of the body's relations and a decrease in its power. However what is felt to be a detrimental

[66] Deleuze, drawing upon Spinoza's example, describes how the apple acts as a poison for Adam in the biblical origin story. Whilst Adam understands God's command of 'Thou Shalt not eat of the fruit' as a prohibition, these words refer to a body that will poison him if he eats it. Adam, ignorant of causes, believes God to morally forbid him from eating the fruit. However, God only reveals the natural consequence of consuming the fruit. See Deleuze, *Practical Philosophy,* 22.

[67] David Cronenberg, 'Interview with David Cronenberg*', Mondo2000* http://www.davidcronenberg.de/mond2000.html [accessed May 2012]. Jussi Parikka has also used a Spinozist ethics and ethology to examine what a computer virus can do; what affects it might be capable of. Such an approach allows for a much more nuanced consideration that goes beyond an understanding of computer viruses as bad or damaging. Rather, computer viruses are seen to have the capacity to create new connections and sensations – a notion that is complementary to the use of viruses in software art practices. See Jussi Parikka, 'Ethologies of software art: what can a digital body of code do?', in Stephen Zepke and Simon O'Sullivan (eds.), *Deleuze and Contemporary Art* (Edinburgh: Edinburgh University Press, 2010), 116-132.

relation by the human body might in fact be a positively productive relation for the virus-body. From the perspective of the virus, the decomposition of the human body can lead to an increased capacity to affect and be affected – to spread and to thrive. Conversely, when the human body begins to fight a virus, perhaps with the help of antiviral drugs, this relation might be considered positive or beneficial from the perspective of the human body, insofar as it corresponds to an increased affective capacity, resulting in recovery. However, for the virus, the recovery has a necessarily detrimental or weakening effect: it inhibits the virus from exercising its affective power, leading to its diminishment.

For Spinoza, what is bad *for us* as human beings should not be confused with an innate badness or imperfection:

> If all things have followed from the necessity of God's most perfect nature, why are there so many imperfections in Nature? Why are things corrupt to the point where they stink? So ugly that they produce nausea? Why is there confusion, evil and sin? […] Those who argue in this way are easily answered. For the perfection of things is to be judged solely from their nature and power; things are not more or less perfect because they please or offend men's senses, or because they are of use to, or incompatible with human nature. [68]

Here, the sharp contrast between Spinoza's ethics and Schafer's anthropocentrism becomes apparent once again. An entity or process is not be judged in relation to a prioritized human sensibility; its impact on the human senses or its compatibility with human relations – whether it delights or repulses, enhances or destroys – has little significance with regard to its ontological status. Rather an object or process should only be judged according to its composition and affective capacity; the connections and expressions it is or may be capable of. Consequently, even if noise were always destructive or damaging to human listeners, its status as 'bad' would still be relational and specific rather than constitutive and general.

Deleuze notes that Spinoza's good and bad are 'doubly relative': firstly in the sense that they are expressed in relation to one another, and secondly, in the sense that both

[68] Benedict de Spinoza, *Ethics,* Trans. Edwin Curley, (London: Penguin Books, London, 1996), 31.

good and bad emerge in relation to an existing mode.[69] However, the relativity of Spinoza's ethics should not be confused with a moral relativism. Where moral relativism typically pertains to a judgement made by the individual (Cartesian) subject, Spinoza's 'good' and 'bad' describe the nature of a bodily relation. The description of something as 'good' or 'bad' (or any degree between) is partially objective, insofar as they are the effects of an increase or diminishment of a body's power. Moral relativism also typically pertains to an anthropocentric perspective, whilst – as I have shown – Spinozist ethics pertain to an ecological viewpoint that involves both human and non-human entities, and the affective relations between those entities.

If an affective encounter is also an ethical encounter then noise, as an affective relation between entities, or an entity and its milieu, involves an ethical interaction. In other words, an affective approach to noise is also an ethical approach to noise – the latter is implicated in the former. This ethical dimension is perhaps more obvious with reference to noise's negative manifestations. As was seen in Chapter Three, when used as a sonic weapon, noise can be used to deteriorate the relations of crowds, collectivities and populations, inhibiting them from acting. From the perspective of the targeted body, this would constitute a negative encounter; the relation between the affected crowd body and the affecting military body entails a weakening of the former. Likewise, in the context of torture, noise can be used to weaken the affective power of a captive – their power to act, to resist or to respond. This negative affectivity and corresponding 'badness' of a relation can also be demonstrated with reference to more everyday encounters with noise. When the persistent sound of a car alarm disturbs or inhibits a body's sleep, this can be understood as a negative encounter (from the view of the sleeping body). By inhibiting much needed rest, noise reduces the body's power to act. The sleep-deprived body may struggle to go about its day-to-day activities – it may become more erratic, or suffer feelings of unhappiness or stress. While these bad encounters with noise may seem more familiar, I have highlighted the possibility of good affective encounters with noise; instances where noise is felt to be joyous, empowering or affirmative. Such is the case for Waldock's Welsh Streets participants, for whom neighbourly and neighbourhood noise are felt to generate

[69] Deleuze, *Practical Philosophy,* 71.

feelings of connectivity, belonging and comfort. These 'happy' affects can be understood as pertaining to a compatible affective relation, insofar as a positive encounter between bodies is associated with joyous feelings.

A Spinozist ethics can also be applied to encounters with silence. When silence serves to relax, calm or rejuvenate by facilitating rest or contemplation, then this can be understood as a good encounter, insofar as it increases the listening body's power to act and be acted upon in the world. Conversely, the silence of solitary confinement works to diminish a body's power to act; it is associated with feelings of sadness, helplessness and detachment. Similarly, the authoritative silence of the suburbs is maintained through the diminishment of certain body's affective powers: a limitation and suppression of the ways in which they may act. Thus, like noise, silence can involve encounters that are positive and negative, good and bad, beneficial and harmful.

Given that I have sought to move beyond dualistic understandings of noise, it would seem paradoxical to then implement a dualist ethics. According to this Spinozist perspective, encounters are either good or bad depending on whether they preserve, increase or decrease an affected body's power. These ethical descriptions, however, are best understood as limit points on a scale of qualitative differences, rather than mutually exclusive and oppositional values. In actuality, it can be much more difficult to discern the ethical character of an encounter, in that they tend to involve a combination of compatibility and incompatibility – they may bring about both the composition and decomposition of relations. This resonates with the description of noise given in Chapter Two, in that it might be recognized as both inhibitive to and necessary for the transmission of information. Whilst noise may serve to diminish a signal's power and composite relations – so that it is no longer properly discernible – a degree of noise is also necessary to the transmission process. In this sense, it might be understood as a positive or empowering presence. Likewise, what is recognized as an incompatible or bad relation between signal and noise by the sender (in that noise takes a message off track, obscuring its content) might be taken to be a positive relation by the receiver in that it provides new information. In such instances, what is empowering or disempowering, what is generative and what is destructive might be ambiguous.

Following a Spinozist ethics, then, space emerges for noise's positively productive capacity that does not require its 'good' manifestations to be reduced to the anomalous or the exceptional. Like the apple or the virus, there is nothing *inherently* evil, torturous, violent or fascistic about noise, irrespective of the rhetorical force it is afforded or the means that it may be put to. Noise may annoy us and infuriate us; or it may damage a body by inhibiting much needed sleep and causing stress, yet it may also instil us with a sense of community and belonging, or expose us to new sounds or information. Noise is like Derrida's *Pharmakon* (see Chapter Two) – is it poison or is it cure? Both, perhaps, depending on how it is taken. To be sure, Attali notes that while noise has often been thought of as a weapon of death, as a source of pain, violence and destruction (which is to say, a means of inducing relational decomposition) it has also long been considered to possess a curative potential: 'noise has always been perceived as a source of exaltation, a kind of therapeutic drug capable of curing tarantula bites, or according to Boissier de Sauvages (in his *Nosologica metholodica*) 'fourteen forms of melancholy.''[70]

Although what I am suggesting here might seem to veer close to a moral relativism, the notion that noise can have both positive and negative effects – that it can be both good and bad, beneficial and harmful – differs significantly from the notion that noise can be anything to anyone. The latter assumes that noise is that which a listening subject judges to be bad, and what is found to be bad differs from person to person. Noise is thus is equated with unwantedness. What I am arguing is that the changes that noise induces can be good *as well as* bad. From this perspective, noise's unwantedness is secondary, relational and contextual rather than constitutive. Whilst Schafer's aesthetic moralism sees noise's 'badness' as an inherent property of noise itself, the Spinozist, ethico-affective approach developed here recognizes 'goodness' and 'badness' as pertaining to the effects of a relational encounter. While a moral judgement precedes an encounter or event, Spinoza's ethical categorization comes after. Subsequently, there is a fundamental ambiguity about noise – an inherent indifference. However, it is important to emphasize (once again) that to describe noise as ambiguous is not to deny the damage that noise can – and does – cause.

[70] Jacques Attali, *Noise: A Political Economy of Music,* trans. Brian Massumi (Minneapolis: University of Minnesota Press, 2003).

Rather, the claim here is that noise should not be *reduced* to these damaging and destructive relations; although noise negatively frequently has a negative impact upon bodies (and some bodies more than others), its 'goodness' or 'badness' is still relational and contingent.

Conclusion: From Aesthetic Moralism to an Ethics of Noise

This chapter has sought to further disconnect noise from a constitutive negativity, replacing an aesthetic moralism that delineates silence and noise in terms of 'goodness' and 'badness' with a Spinozist ethics that treats noise as fundamentally ambiguous. Such an aesthetic moralism has been identified within the narratives of Schaferian acoustic ecology, in which noise remains tied to a negative affectivity. In these accounts noise is primarily constituted by its capacity to destroy, damage and destruct – in Spinozist terms, it is always already detrimental to the relations of a body, be it the individual listener, or the collective body of the social. Silence, by comparison, taken as the empirical and metaphysical antithesis of noise, is instilled with an inherent 'goodness' – a positive affectivity. Silence its taken to be fundamental to the wellbeing of the listening body-as-subject and society as a whole; it has the capacity to heal, revive and uplift, as well as providing the necessary conditions for thought and meaningful sonic encounters. This division between the positive affectivity of silence and negative affectivity of noise informs and is enforced by a number of correlative dichotomies that separate past from present, organic from the synthetic, human from the machine and hi-fi from the lo-fi. Silence is equated with an originary natural order, and this natural order is equated with goodness, openness and rejuvenation; noise is equated with the inorganic machine and technology, the inorganic marks a deviation from the natural order, and this deviation is equated with badness, destruction and oppression.

In Chapter Two, I argued that definitions of noise which rest on a series of binary divisions (for example, wanted/unwanted, order/chaos, intended/unintended) are insufficient, insofar as they fail to capture what it is that noise does and the complex roles it may play within different environments. In short, binary definitions of noise are taken to be too reductive and simplistic. This criticism also applies to Schafer's

narrative. Despite attempting to recognize the complexity, heterogeneity and (historical, spatio-temporal and cultural) specificity of the sonic milieu, Schafer's underlying aesthetic moralism – enforced by a Platonic metaphysics – organizes the soundscape according to a series of rigid divisions. This chapter has critiqued this approach on both a metaphysical register (through revisiting the notion of an imperceptible yet affective background noise that fills the silence of inaudibility) and with empirical examples. These examples reveal silence's capacity to invoke negative affections, as is the case with solitary confinement; and noise's capacity to invoke positive affections, with neighbourly noise shown to induce sensations of belonging, security and connectivity.

The shift in focus away from a stable dichotomy between an optimal silence and a noise that detracts from it; and towards an often marginalized perspective reveals the particular and creative ways in which urban inhabitants formulate relations with the perturbing noises of their domestic milieu – against normative, proscribed ideals and values. This is not to suggest that noise is good rather than bad, or that the way in which noise is experienced is determined by the identity of a listener. Rather, it points to a fundamental ambiguity that underlines noise; its capacity to be both 'good' and 'bad', and to induce 'positive' and 'negative' affections. By taking up the ethical approach inherent to Spinoza's concept of affect, noise's 'badness' (and by extension, silence's 'goodness') is understood to be relational and contingent; an effect, rather than an innate property. This Spinozist ethics makes it possible to think of noise not only as a damaging and detrimental force but as a harbinger of creative outcomes. And this positively productive capacity has been readily explored within the arts.

Chapter Five. Exposure, Sensation and the Transgressive Politics of Noise Music

It's no good objecting that noise is simply loud and disagreeable to the ear. It seems to me pointless to enumerate all the graceful and delicate noises that afford pleasant acoustic sensations.

Luigi Russolo, 'The art of noises: a futurist manifesto', 135.

Be noise or music. Either/or. This makes me want to LEAVE.

Note from unknown audience member to Kira Kira performers, Star and Shadow Cinema, Newcastle-upon-Tyne, 2 April 2011.

In John Bowers' *Edison's Residue* (2006), the landmark recording of the phonograph inventor's voice takes on a new life as the base material for a series of six improvised pieces. It is not Thomas Edison's recitation that is the focal point of the work: rather, as its title suggests, *Edison's Residue* foregrounds the noise of recording that is often hidden from earshot – through production techniques or listening habits. Using noise reduction software, the meaningful 'signal' (the voice of Edison) is stripped away, rendering the inventor absent. The residual media noise remains and is combined with other noises ordinarily suppressed in 'good' recording practice: the sounds of handling microphones, feedback, switch clicks and so on. Reflecting the way in which the piece foregrounds that which is normally overlooked, the six variations are not dedicated to Thomas Edison; but to Charles Cros, the French poet and inventor who came close to inventing the phonograph prior to Edison (Cros had written up a description of his 'Paleophone', but had not got round to constructing it).[1]

Bowers' piece (alongside the practices of Marclay, Chavez and Tone explored in Chapter Three) demonstrates noise's positive, generative capacity as an artistic resource. Here, I further explore this capacity with reference to 'noise music', while also critically considering what this term might mean. Just as an ethico-affective

[1] See J.M. Bowers, '*Edison's residue* by J. M. Bowers', *Onoma Research* http://www.onoma.co.uk/jmbowers.html [accessed June 2013].

approach to noise was used to move beyond a conservative politics of silence in the previous chapter, in this chapter I use an ethico-affective approach to reconfigure a 'transgressive' politics of noise music. While Chapter Two disrupted the dualism of noise and signal and while Chapter Four disrupted the dualism of noise and silence, this chapter looks to (productively) disrupt the dualism of noise and music. By separating noise from a constitutive unwantedness, noise music need does not need to be thought of as a making 'good' of a noise's 'bad'. Indeed, it no longer needs to be considered ontologically paradoxical. Consequently, I will propose a move away from the rhetoric of failure, taboo and contradiction, while maintaining noise's capacity to generate new sonic affects and sensations.

In the first half of this chapter I discuss how, in the discourses of avant-garde and experimental music, noise has been celebrated as a means of generating new sonic affects and sensations. The Futurist composer Luigi Russolo hears the turn to noise in the arts as necessary if the composer is to excite the modern listener. By unlocking new sensations, noise is understood to reinvigorate music. Similarly, for the French political economist Jacques Attali, noise heralds the new: it ruptures and transforms musical orders, anticipating social change. For both Russolo and Attali, noise is understood as the antithesis of music – it is that which lies outside the realm of ordered, musical sound. Composers who utilize noise are thus portrayed as 'crossing the line' between musical sound and extra-musical noise.

This notion has been reinforced and extended by a politics of transgression, according to which the line between music and noise corresponds to a line dividing the taboo-protected norm (music) and its transgression (noise). Consequently, noise is taken to be aesthetically radical – it has a capacity to shock, offend and disturb. However, with reference to the Tokyo *onkyô* movement, I argue that the association of noise with notions of transgression can be reductive, in that it tends to limit noise and noise music to its most extreme manifestations, drowning out its quieter and subtler forms. Furthermore, according to this dualistic understanding, noise music is characterized by failure – when noise is brought into the realm of music it must cease to be, insofar as music-as-norm and noise-as-transgression are understood to be mutually exclusive and mutually dependent.

The second half of this chapter can be understood as a reconfiguration of this 'transgressive' narrative. Drawing upon the composer Henry Cowell's essay 'the Joys of Noise', I argue for noise music to be understood as an act of 'exposure'. I demonstrate this understanding in relation to two musical examples: Reynol's *Blank Tapes*, which draws out the noise of the medium-itself and Diamanda Galás' noise-infected vocal performances. From this perspective, noise music foregrounds the noise that is always already within the techno-musical system. Moreover, this viewpoint helps to allow for a broader range of practices, in that it no longer limits noise music to its harshest, most extreme manifestations. Following Cowell, I suggest that noise music, through exposure, can reveal 'hidden delights' of sonority, texture and rhythm. This is exemplified by the use of glitch in the music of Nicolas Collins and within contemporary electronic dance music, where the exposed noise of the material medium serves as a force of rhythmic mutation. To conclude, I argue that noise's capacity to unlock new sonic sensations relies on an evasion of the generic. I suggest that noise music is most effective when it does not repeatedly emulate a tired and predictable 'full noise' approach – which is ultimately what has come to be expected of noise music – and instead harnesses noise for the creation of subtler, more idiosyncratic transformations.

The Art of Noise (and The Noise of Art)

The 'Joys of Noise' as the composer Henry Cowell puts it, has been one of the dominant themes of twentieth and twenty-first century aesthetics. Noise, in all its material and conceptual guises, has been utilized in music ('popular', 'Western art', 'avant-garde', 'experimental'), sound art and art more broadly.[2] Artistic explorations of noise have involved numerous strategies, including the musical use of sounds typically deemed non-musical, ugly or undesirable; the pursuit of ever-more abrasive, dissonant, and 'noisy' sonorities and timbres; the (conceptual and empirical) employment of notions of damage, destruction, shock, violence and

[2] Noise as a concept, methodology, force and artefact has also informed visual, literary and digital media arts practices. There is, for instance, GX Jupitter-Larsen's 'noise novels' (e.g. GX Jupitter-Larsen, *Adventure on the High Seas* [London, ON.: Enigmatic Ink, 2010].), Randomflux's collection *The Book of Noise: Visual Interpretations of Noise* (Kent Town: Avance, 2008); Rosa Menkman's video glitch art (e.g. *The Collapse of PAL,* [2011]) and Ed Ruscha's painting *Noise* (1963). Here, however, I will be concentrating on noise's use within the sonic arts.

abjection; the development of unconventional and 'extended' techniques for conventional musical instruments, to generate complex and distorted timbres; the creative 'misuse' of 'malfunctioning' technologies; and the embracement of anomalous, erroneous or extraneous sounds of the recording media. These strategies have resulted in a variety of sonic outcomes and effects – from quiet and persistent hums, minute crackles and subtle pops and glitches; to overwhelming walls of squalling feedback, deafening white noise, extremes of frequency and pounding bass. As I will show, however, quieter manifestations of noise have often been overlooked due to a prioritization of the louder, harsher end of the noise-spectrum.

In the digital (or 'post-digital') era, the varying and often overlapping concepts of noise have remained influential for sonic art practices. Kim Cascone's now canonical essay 'The aesthetics of failure: "post-digital" tendencies in contemporary computer music' describes the use of 'digital detritus' in electronica towards the end of the twentieth century, particularly the noisy effects generated by the malfunctioning or 'failure' of digital technology: glitches, clipping, distortion, quantization noise and so on.[3] For Cascone, the exploitation of these anomalous or erroneous noises and the processes that generate them by artists such as Royji Ikeda, Oval, Mika Vainio and Carsten Nicolai (Alva Noto) serves to remind us that the perfection of the digital and our control over technology is an illusion: they reveal that digital tools are 'only as perfect, precise, and efficient as the humans who build them.'[4] Cascone argues that the breakdown of digital operations has produced new techniques, enabling producers to explore the creative potentials of systemic error or failure, which are ordinarily suppressed before reaching the threshold of perceptibility.

Noise has also been a constitutive aspect of a number of genres and/or practices, including industrial music, power electronics, harsh noise wall, free jazz, free improvisation noise rock, no wave, lo-fi, circuit bending (the creative customization of circuits, ordinarily of inexpensive, household electronics such as children's toys and radios), hacking (the manipulation of electronic systems using code) and glitch. These practices, genres and movements are often placed within the quasi-idiomatic

[3] Kim Cascone, 'The aesthetics of failure: 'post-digital' tendencies in contemporary computer music', *Computer Music Journal,* vol.24/4 (2000), 12-18.
[4] Ibid., 13.

category of 'noise music'. Although it is sometimes viewed as a genre in and of itself (often taken to be synonymous with harsh noise or the heterogeneous Japanese noise scene[5]) noise music, as I am using it here, refers to number of geographically, historically and stylistically disparate practices that share common terrain in utilizing noise (as interference, disruption, loudness, background sound) concepts of noise (for example, unwanted, abject, shocking, overwhelming, extraneous) and noisy sounds (complex sounds, irregular sounds, non-musical sounds, coloured noise) as a primary resource. Noise music, then, does not pertain to one generic lineage but rather has come to characterize a diverse and idiosyncratic spectrum of practices.

Histories of noise music typically begin with Futurism – particularly Luigi Russolo's proposed art of noises – and its pursuit of an aesthetic revolution in the early twentieth century. With the publication of the poet Filippo Tommaso Marinetti's founding manifesto in 1909, Futurism announced that the consecrated, bourgeois ideals of art and beauty were to be overthrown and replaced with a radical aesthetic that celebrated the contemporary urban landscape of modernity. For Marinetti, the 'contemplative stillness, ecstasy and sleep' of literature was to be broken by an exaltation of the violent and chaotic: 'there is no beauty that does not consist of struggle. No work that lacks an aggressive character can be considered a masterpiece.'[6] The deathly institutions that sought to preserve the memories and artefacts of the past – the library and the museum – were to be destroyed in an attempt to scission the unknown of the present from the restrictive weight of that which has come before: 'we intend to know nothing of it, nothing of the past – we strong and youthful *Futurists*!'[7] Repetitive imitations of the already known and obedience to the pre-existing rules of art were to cease, while bold and energetic explorations of the new were to be encouraged. Against transcendental aspirations, art was to be reunited with life, drawing inspiration from its dynamic fluxes and

[5] For example, Paul Hegarty states that 'in many ways it only makes sense to talk of noise music since the advent of the various types of noise produced in Japanese music, and in terms of quantity this is really to do with the 1990s onwards […] There is, if you like, more noise in Japanese noise music, whether in terms of volume, distortion, non-musicality, non-musical elements, music against music and meaning.' Paul Hegarty, *Noise/Music: A History*, (London: Continuum, 2008), 133. As I discuss later, this association of noise music with harsh noise and Japanese noise music is perhaps also influenced by the canonical importance afforded to Merzbow.
[6] Filippo Tommaso Marinetti, 'The founding and manifesto of Futurism' [1909]', in Lawrence S. Rainey, Christine Poggi and Laura Wittman (eds.), *Futurism: An Anthology* (New Haven: Yale University Press, 2009), 49-53, 51.
[7] Ibid., 52.

flows. Futurism sought to capture the beauty of speed and movement, technology, science, industrialism, warfare and aggression. It aestheticized the triumph of man [sic.] and machine over nature: 'We intend to glorify war – the only hygiene of the world – militarism, patriotism, the destructive gesture of anarchists, beautiful ideas worth dying for, and contempt for woman.'[8]

These themes are evident in Marinetti's sound poem *Zang Tumb Tumb*, in which the onomatopoeic prose and kaleidoscopic typesetting evokes the clamorous, disruptive soundscape of the Balkan Wars:

> O my people of senses see hear smell drink everything everything everything **taratatatatata** machine guns cry writhe under 1,000 bites blows **traak-traak** thrashes lashes **pik-pok-poom-toomb** juggling clowns' leaps in mid-air 200 m. high its gunfire Down below bog's guffaws laughs buffalo carts goads horses stamping caissions splish splash **zong-shaak-shaak** rearing pirouettes **pata-traak** spattering manes whinnying eeeeeeee hubbhub jingling 3 Bulgarian battalions on the march **krook-kraaak** (SLOWLY DOUBLE TIME) shumi Maritsa o Karvavena officers' cries clash copper plates pom here (QUICK) pok there **boom-pom-pom-pom-pom** here there there farther all around up high watch out good-god on the head **shaaak**[9]

Marinetti's poems infect the flow of language with the eruptive and destructive noises of military conflict. The sonic environment of the battlefield spills over into even the more straightforward passages, inhibiting any sense of a stable, linear narrative or metre. Further interruptions are introduced in the visual layout of *Zang Tumb Tumb.* (Fig. 6) The continual shifts in typeface, the fragmentary arrangement, and the interjection of musical and mathematical signs, alongside the onomatopoeic outbursts give rise to the fractured, turbulent atmosphere of war.

[8] Ibid., 51.
[9] Filippo Tommaso Marinetti and Luce Marinetti, *F.T. Marinetti: Selected Poems and Related Prose* (New Haven: Yale University Press, 2002), 75.

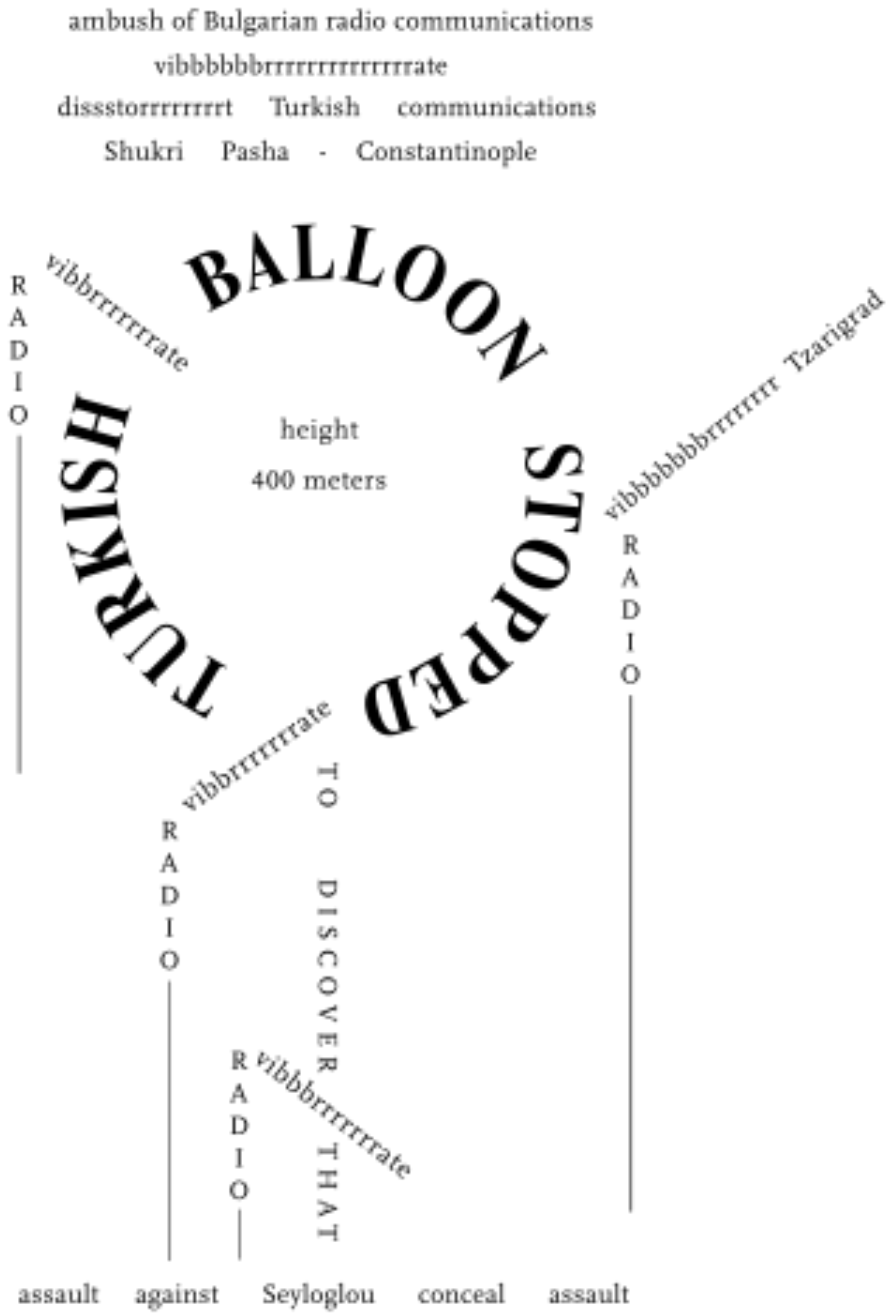

Fig. 6. Excerpt from 'Bombardment', the final section of Filippo Tommaso Marinetti's *Zang Tumb Tumb.* Taken from Lawrence S. Rainey, Christine Poggi and Laura Wittman (eds.), *Futurism: An Anthology* (New Haven: Yale University Press, 2009), 431.

Marinetti's poetic emulations of militaristic noises were a source of inspiration for painter and musician Luigi Russolo. In 1913, he published 'The Art of Noises: A Futurist Manifesto', in which he proposed a Futurist music fitting for the modern ear. In alignment with Marinetti's founding manifesto, Russolo understood conventional musical sounds to be outmoded within the context of twentieth century modernity, whilst noise – as that which lies outside of the rules and conventions of music – was seen as a reservoir of new artistic potentials. Consequently, musical sounds and traditional instrumentation were to be eschewed in favour of an 'art of noises' that drew inspiration from the immanent and ubiquitous noise-sounds of the world.

Russolo begins his manifesto with a history of noise, which largely mirrors that of R. Murray Schafer outlined in the previous chapter. For Russolo (as with Schafer) noise (or rather, a new, more prominent noise) arose in the nineteenth century with the birth of the machine. In previous centuries, life was generally quiet, while loud, unmuted sounds were exceptional occurrences. The evolution of the machine produced a great palette of exciting new noise-sounds, to the point that clean, 'pure' sounds were rendered feeble and monotonous in comparison. By the beginning of the twentieth century 'noise is triumphant and reigns supreme over the sensibility of men.'[10] While Schafer understands this 'triumph' (the establishment of a near ubiquitous, lo-fi soundscape) to be a problem (in that it has a negatively affected both the individual listener and society as a whole) Russolo hears the cacophonous noisescape of modernity as a source of new acoustical pleasures for the listener. Noise, rather than being heard as unwanted or extraneous, has the capacity to produce new sonic sensations; whilst established musical conventions – the repetition of traditional timbres, structures and gestures – no longer provide any real depth of experience, since they look to invoke the often felt and often known. Russolo argues that musical sound is outmoded because it no longer significantly affects the listener – it strikes the ear as stale and unmoving:

> Let us go together, as Futurists, into one of these hospitals for anemic sounds. Listen to it: the first bar wafts to your ear the boredom of the already-heard and gives you a foretaste of the

[10] Luigi Russolo, 'The art of noises: futurist manifesto', in Lawrence S. Rainey, Christine Poggi and Laura Wittman (eds.), *Futurism: An Anthology* (New Haven: Yale University Press, 2009),133-138, 133.

> boredom to follow in the next. Let us savor, from one bar to the next, two or three species of pure boredom, forever waiting for the extraordinary sensation that never comes. Meanwhile, one is struck by that repugnant mixture which is created by emotional monotony and the cretinous religious excitement of the listeners, Bhuddhistically intoxicated by the thousandth repetition of their spurious and snobbish ecstasy.[11]

While the Futurists once loved the works of the 'great masters' – 'Beethoven and Wagner have stirred our hearts and nerves for many years' – their music can no longer compete with the excitement and intensity of the noise of the modern era; 'we derive far more pleasure from ideally combining the noises of trams, internal combustion engines, carriages, and noisy crowds than from rehearing, for example, the "Eroica" or the "Pastorale".'[12] Whilst music remains stuck repeating the same, familiar affective cycles, noise unlocks something new for the listener. Russolo thus urges the Futurist composer to disrupt music's repetition of clichéd affectations by 'breaking out' of the restricted realm of already-heard musical sound, and embracing the 'infinite variety' of noise-sounds.

For the most part, Russolo employs an acoustic or 'object-oriented' definition of noise, pertaining to complex, irregular and non-musical sounds. Yet there are also connections between the philosophical dimensions of Russolo's argument and the ethico-affective approach to noise I have developed. Russolo characterizes noise as being unknown, in the sense that it cannot be said what noise might do – the sensations it may generate. Yet in its partiality, noise is also familiar, recalling the conditions of existence. To exist in the immanent, material world is to emit noise, and so noise, when heard, can evoke life itself. Russolo describes what could be understood as a kind of noise vitalism:

> Every manifestation of life is accompanied by noise. Noise is therefore familiar to our ears and has the power of immediately reminding us of life itself. But sound is alien to life, is always musical and a thing unto itself, an occasional and not an essential element, and it has become for our ears what a too familiar face is to our eyes. Noise, instead, comes to us in a confused and irregular way

[11] Ibid., 35.
[12] Ibid.

> from the irregular confusion of life; it never reveals itself entirely to us and keeps innumerable surprises in reserve.[13]

Noise's familiarity, then – its capacity to remind the listener of life itself – relates to its indiscernibility, complexity and unpredictability. The never-fully-knowing of noise – what effects and responses it may produce, what orders it may generate – mirrors the never-fully-knowing of life. By exceeding the already known, noise has the potential to generate what Russolo hears as 'innumerable surprises'. Noise, in never fully revealing itself to us, has hidden depths – we do know yet know what sounds and affectations it may unlock, what surprises it may hold for the listener. This 'noise vitalism', which takes noise to be immanent and unfolding, would seem similar to the notion of noise as a generative background, from which all signal emerges. Indeed, Russolo can be read here as having complementary resonances with Spinoza's ontology, which pertains to a dynamic, processual conceptualization of life (see Chapter Three).[14]

In keeping with Marinetti's founding principles, Russolo's proposed Futurist noise music is to draw inspiration from the noises of war, the machine and industry. Yet Russolo warns that the art of noises is not to restrict itself to the 'imitative reproduction' of the exciting but already-heard noise-sounds of Modernity, nor is it to seek the orchestral simulation of the clamour and clash of the city and the battlefield using traditional instrumentation. Consequently, to put his art of noises into practice, Russolo (in collaboration with Ugo Piatti) designed a series of *intonarumori* ('noise-tuners') to generate and modify noise-sounds. Each of the twenty-seven *intonarumori* was named in relation to the noise-sound effect generated – howlers, thunder, buzzers, bursters, cracklers and so on – and allowed the performer to control parameters such as dynamic and pitch. These new devices were to form the basis of a Futurist orchestra, replacing the tired musical instruments that could only truly awaken the ears of the past. With them, the composer could begin to explore the sensuous potentials of as of yet-undiscovered noises.

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[13] Ibid, 137.

[14] There is a connection between Deleuze's reading of Spinoza and the Futurists insofar as both influenced by the work of Henri Bergson, including his concept of *élan vital.* For more on the connection between the Futurists and Deleuze see Helen Palmer, *Manifesto for Nonsense: The Futurist Drive in Deleuze's Poetics*, unpublished doctoral dissertation (London: Goldsmiths University, 2012).

Despite his grand ambitions, Russolo's art of noises remained significantly more radical in theory than in practice. While his manifesto called for the pursuit of an infinite range of noise-sounds, and the generation of the new and the unheard, Russolo's *intonarumori* did not move far beyond the imitation of the common environmental sounds of the modern age – the reproduction the sounds of machines, sirens, automobiles and so on. The composer Edgard Varèse rejected the Futurists for restricting their noise music to the imitation of the banal and quotidian: 'Why, Italian Futurists, do you reproduce only what is most superficial and boring in our daily lives?'[15] Despite the efforts of Russolo and other Futurists to produce new noise-making instruments so to extend the compositional palette available, for Varèse, the Futurist art of noises failed, in practice, to create a new means of expression, insofar as it was not sufficiently future-facing; rather than bringing forth the new, it instead limited itself to the simulation of the already known sounds of industrial civilization.

Moreover, the premise behind the *intonarumori* was to enable noise to be controlled according to the demands of the composer – they allowed noises to be regulated harmonically and rhythmically. The art of noises, then, was still to use musical parameters, despite Russolo's (rhetorical) insistence that it would involve a 'breaking out' of the musical sphere. Instead of embracing its infinite potential, noise – in keeping with Marinetti's proto-fascist and ultra-masculine agenda – was something to be dominated and controlled by the Futurist composer. In short, noise's potential was to be determined by the composer's imagination. Yet despite the failure of Russolo's compositions and performances to match up to his rhetorical radicalism and his restrictive propositions regarding the use of noise in accordance with musical parameters, the ideas of his manifesto and his conceptualization of noise as a generative force that can revitalize and reinvigorate artistic expression have nonetheless been and remain highly influential for a broad range of composers, practitioners and theorists. Indeed, despite the differences in how noise is conceptualized, this latter point is to be maintained throughout this chapter: noise has the capacity to generate new sonic sensations.

[15] Edgard Varèse quoted in Jean-Claude Risset, 'The liberation of sound, art-science and the digital domain: contacts with Edgard Varèse', *Contemporary Music Review,* vol. 23/2 (2004), 27-54, 34.

While the Futurists – along with John Cage – are often treated as the principal founding figures of artistic explorations of noise, there are other, earlier examples of the use of noise or 'noisy' features in music. Russolo himself notes the evolution of what he calls 'musical noise' that historically precedes the emergence of 'noise-sound'; namely, the growing use of dissonance and harmonic complexity in orchestral music during the late nineteenth and early twentieth century. He understands the evolution of both musical noise and noise-sounds to be conditioned by socio-historical factors, arguing that the emergence of an art of noise had not been possible previously, as the eighteenth-century listener could not have coped with the 'dissonant intensity' of the modern orchestra. In comparison, the early twentieth-century listener – accustomed to the abrasiveness and intensity the industrial soundscape – takes pleasure in the high volume and dissonance of modern orchestral forces. For Russolo, however, this musical noise is not enough: the modern listener demands 'an even greater range of acoustical emotions.'[16] With its reliance on traditional instrumentation, musical noise remains too limited in its timbral variety. It is only by abandoning the musical (although, as has been seen, the extent to which Russolo aspired to do this can be questioned) that the composer can seek to satisfy the modern listener.

In *Noise/Music: A History,* Paul Hegarty makes a similar distinction between two historical and conceptual trajectories. Western art music has at times used dissonant or unfamiliar features, which are referred to as 'noisy' (what Russolo would call musical noise) – the quotation of folk songs in Stravinsky and Bartók, the dissonance of Beethoven's *Grosse Fugue*, or the dismantling of tonality by the Second Viennese School, for example. However, there remains a strategic difference between the inclusion of noisy elements into pre-existing forms and structures as a means of reinvigorating or renewing Western art music (Hegarty cites Schoenberg's reassurance that his experiments with atonality simply continued the project of Western art music: 'nothing essential changes in all this!'[17]); and the use of noise for the purposes of a holistic transformation and/or dismantlement of the structures and conventions of the Western art music tradition. While both sides of this division are seen as in some way using noise to advance music, Hegarty contests that the noisy,

[16] Russolo, 'The Art of Noises', 134.
[17] Arnold Schoenberg quoted in Paul Hegarty, *Noise/Music: A History*, 12.

dissonant elements of Western art music are only noise in terms of their historical newness – their unfamiliarity at a particular point in time – whilst the experimentations with noise by figures such as Russolo, Erik Satie, and Kurt Schwitters, sought to create 'a world where the arrangement of musical notes is secondary'.[18] While the former seeks to incorporate noise-sounds *in* music using standard or traditional instruments, the latter approaches noise-sounds as an alternative *to* music, and seeks to utilize extra-musical or non-musical sonorities.

The understanding of noise in terms of historical newness also points to a third conceptual distinction related to the use of noisy elements in music: music *as* noise; or rather, musical works with dissonant and unfamiliar features being (negatively) received by audiences as unwanted and disturbing noise. Stravinsky's *Rite of Spring* notoriously induced a riot at its premier in 1913; Bartok's *The Miraculous Mandolin* caused scandal at its Cologne premier in 1926 and was consequently banned; while Beethoven's *Grosse Fugue* was received as incomprehensible and repellent. These historical – and often mythologized – events lend weight to the association of noise with an aesthetic radicalism, through which noise is ascribed the power to shock, disturb, and 'challenge' listeners. Such associations have served to support a transgressive politics of noise, which I will discuss later. However, as with Russolo's proposed art of noise, claims of noise's radicalism tend to be much grander in theory than in practice.

Crossing The Line

Hegarty's account is exemplary of a significant proportion of contemporary noise discourse, which focuses on the structural, discursive and ontological relationships

[18] Ibid. Adam Collis makes a similar differentiation between three historical trends of noise in music. First, through composers such as Luigi Russolo, John Cage and Pierre Schaeffer, 'noise' became 'musicalized' and subsequently, became a viable compositional resource. Secondly, Collis labels the 'noisification of music' through the use of conventional instruments in unconventional ways – the use of throat tones in jazz, or the use of feedback by guitarists, for example. Thirdly, there is the use of the sounds of the audio system itself, that is, the noise between transmission and consumption. This is evident in, for instance, the nostalgia for 'imperfect' analogue recordings over 'colder' digital versions, or the use of glitch within electronica. However, these three strands are by no means mutually exclusive; it is evident that composers who sought the 'musicalisation of noise' have also utilized instruments and technologies in unconventional ways. See Adam Collis, 'Sounds of the system: the emancipation of noise in the music of Carsten Nicholai', *Organised Sound,* vol.13/1 (2008), 31-39, 32-33.

between noise and music, as well as the historical evolution of those relationships. These accounts typically follow the quasi-Hegelian trajectory famously articulated by Jacques Attali, in which noise (ordinarily understood in such contexts as synonymous with non-musical sound) is pulled into music over time, transforming music in the process. Consequently, the notion of 'crossing the line' has been central to descriptions of noise as an artistic resource, particularly in relation to Modernism.

Operating within a similar framework, Douglas Kahn highlights the mutability and contingency of the line that distinguishes music from noise. He argues that in the context of Western art music, noise-sounds are not inherently extra-musical; rather, they are simply the sounds that cannot be used musically in a particular historical moment. The divisional line that separates music from noise, and musical from the extra-musical is not determined 'in a hard and fast materiality' but has been constituted, negotiated, and re-negotiated through 'the power of musical practice and discourse'.[19] The exploration, critique, and traversal of the line between music and its others – noise, sound, extra-musicality – have become central to a canonical lineage of avant-gardist and experimental music practices. For Kahn, experimenting with this line provided the avant-garde with 'a heraldic moment of transgression and its artistic raw material, a border that had to be crossed to bring back unexploited resources, restock the coffers of musical materiality and rejuvenate Western art music.'[20] Indeed, many of the early to mid-twentieth century avant-garde have joined the Futurists in seeking to traverse this line between music and extra-musical noise in order 'break out' of the musical status quo and expanded the palette of sonic materials available to artists.

A similar border-crossing is outlined by Brandon LaBelle in his analysis of Cagean experimental music. For him, Cage is situated within an experimental music legacy that evolves away from the overtly musical (i.e. the score, harmonic relations,

[19] Douglas Kahn, *Noise Water Meat: A History of Sound in the Arts* (Cambridge, Mass.: MIT Press, 2001), 68. This task of drawing the distinguishing line between music and noise also became a project of scientific inquiry with the development of acoustics in the mid-to-late nineteenth century. As shown with reference to Helmholtz in Chapter One, acoustics seeks to discern noise (complex, irregular and fuzzy sounds) from music ('clean', pure tones) on the basis of visual depictions of sound. Although their trajectories sometimes differed, Kahn argues that both Western art music and acoustics were both concerned with determining what sounds counted as music and what was extraneous noise.

[20] Ibid, 69.

terminologies of consonance and dissonance) and towards a contextual, conceptual and 'extra-musical' framework. This turn to the phenomenal and non-representational world of noise by experimental music practices can be seen as connected to a broader, Modernist shift away from the symbolic and representational. Echoing Hegarty's distinction between Western art music's 'noisy' elements, and the use of noise as a primary artistic resource, LaBelle argues that the unpredictability, uncontrollability and worldliness of noise was embraced as part of an alternative, process-oriented paradigm that took up a distinct material and conceptual terrain from that of Western art music. Against the latter's focus on harmonic structures, melodic lines, rhythmic organization – the ordering and combination of musical tones into a totalized work produced by the composer, then (re)articulated by the performer and received by the listener – experimental music was primarily concerned with sound as it was found within 'the everyday environment of noise, the procedures of a music of the moment.'[21] A noise-based experimental music thus defines itself by standing against, or at least apart from the norms and conventions of musical practice.

Whilst these accounts emphasize that the categorization of sonic materials as either music or extra-musical noise is historically contingent, by describing experimental music as 'crossing the line', they (as with Russolo and Cage) rest upon a constitutive distinction between noise and music. Noise is defined as that which lies 'outside' of music – as extraneous, disordered, or insignificant. It is the antithesis to music's thesis. Furthermore, these structural conceptualizations typically position noise as intrinsically radical or even revolutionary, insofar as it has capacity to threaten, disable or overthrow established socio-musical orders.

In Attali's *Noise: the Political Economy of Music*, noise's radicalism is extended to a clamorous, noise-oriented avant-garde, insofar as it is heard to herald socio-economic and political changes. In recognizing noise as a transformative force, Attali's argument is to some degree compatible with my own. For Attali, however, this transformative power ultimately rests upon a series of binary oppositions – his argument is exemplary of dualist definitions of noise that I am looking to move

[21] Brandon LaBelle, *Background Noise: Perspectives on Sound Art* (London:, New York Continuum, 2006), 9.

beyond. Attali posits noise as a violent freedom that lies external to but nevertheless threatening to social order. In an inversion of the base-superstructure methodology of 'vulgar Marxism', music stands as a prophetic expression of socio-economic orders. Established musical codes are taken to reflect contemporary socio-economic organization, while shifts in musical values, functions and modes of production are understood to anticipate future socio-economic orders. Noise, understood as uncoded disorder, threatens and disrupts established musical orders. However, noise's violent destruction of the old also prefigures the constitution of the new – a new musical and socio-economic order emerges from the scrambling of established codes. Thus 'despite the death it contains, noise carries order within itself; it carries new information.'[22]

This process of socio-musical evolution is documented in relation to four primary chronological stages of production. (1) Music becomes ritual 'Sacrifice', when power wants listeners to 'forget' the violence of the social. (2) When it wants listeners to 'believe' music becomes 'Representation' and is (re)enacted by professionals. (3) When power wants listeners to be silenced – as in the era of broadcasted sound – music becomes 'Repetition'. These three stages roughly correspond to oral transmission and recitation of music, the representation and circulation of music through scores, and the mechanical reproduction and global distribution of music within late capitalist society. Attali understands the fourth musical-social order, labelled 'Composition' (though it could perhaps be more accurately described as 'Improvisation'), to be in a fledgling state. In this mode, individuals – against the 'grey world' of repetition – create and perform music for themselves.

In this fourth stage, the consumer becomes the producer, and the listener becomes the composer-performer, bringing about the death of the virtuosic specialist. Attali sees this fourth stage as emerging with the questioning of repetition's codes and values – concerns that underline Russolo's noise experiments. Of more significance, however, is John Cage's *4'33",* which Attali describes as a 'blasphemous' act of

[22] Jacques Attali, *Noise: A Political Economy of Music,* trans. Brian Massumi (Minneapolis: University of Minnesota Press, 2003), 33.

disruption.[23] In opening up the concert hall to the noises of the world, Cage enacts a criticism of the code and the network of music in the era of repetition. In remaining silent as the performer, he gives the right to speak – to make noise –to those who do not want it, that is, the 'silenced' audience. Attali understands Cage as announcing the disappearance of the commercial site of music: the concert hall becomes redundant as music is shown to be everywhere, and thus is something that can be produced and listened to by anyone who wants to in any way they wish. However, although Cage's silence reveals 'a rupture in the process of musical creation', it is 'not a new mode of musical production, but the liquidation of the old.'[24] In other words, Attali sees Cage's *4'33"* as a criticism of the old, rather than a successful establishment of an alternative musical-social order. Beyond this Cagian rupture, Attali speculates about the emergence of a radically different audio-social space, 'within which a different kind of music and different social relations can arise. A music produced by each individual for himself, for pleasure outside of meaning, usage and exchange.'[25] Rather than trying to recreate pre-existing musical codes, music-making individuals invent new codes and communication becomes an act of creation rather than exchange. In this alternative, socio-musical order, participation and engagement, rather than the creation of an object, are taken as primary. Music remains in flux and open-ended, with new orders being continually formed and re-formed.

In recognizing noise as the driving force of musical and socio-economic transformation, Attali's thesis has significant resonances with the ethico-affective approach that I have developed here, which sees noise as a (necessary) perturbation that – for better or for worse – induces a change. The notion of noise as generative of new orders of relations – in that with its perturbation of the old comes the production of the new – also resonates with Michel Serres' figure of the disruptive, transformative parasite. Noise is a force that scrambles socio-musical codes, driving the movement from one order of relations to the next. However, unlike Serre's

[24] Ibid., 137.
[25] Ibid. In the section on 'Composition' Attali seems to commit a sleight of hand, insofar as music is no longer expected to predict new social orders but enact them. For example, he states that 1960s free jazz failed to create a truly alternative mode of production, despite its attempts to break away from the normative economic systems of music; ultimately, free jazz failed to break with repetition. However, Attali had not previously suggested that it was music's role to establish a new order; rather, it was pre-emptive of alternative orders.

parasitic third term (the necessary relation to relations), Attali's noise perturbs musical orders from an external position. Despite recognizing noise and music as having a dynamic relationship – in that the former disturbs and is eventually absorbed by the latter – Attali's account remains resolutely dualist: it rests upon a series of binary oppositions that separate inside and outside, music and noise, order and chaos. Noise is first defined as violent, uncoded disorder that lies external to social order. It has the power to disrupt precisely because it comes from outside an established structure and thus its presence cannot be accounted for within that structure. However, once it is accumulated into the socio-musical order, it loses its status as noise; 'noise is a weapon and music, primordially, is the formation, domestication, and ritualisation of that weapon.'[26] In other words, noise necessarily loses its noisiness as it is channelized into socio-musical orders over time, disarmed of its disruptive, transformative potential. The closest music gets to an 'untamed' noise is within the clamorous experiments and 'unmusical' music of a broadly defined avant-garde, which herald the arrival of new social and musical orders; the emergence of a new evolutionary cycle. Nonetheless, noise, if it is to exist in, or rather, *as* music, has to be sacrificed. As it is brought in from the outside, noise becomes a shadow of itself. The binary distinction between music and noise is thus maintained: the new music is the once-was-noise.

Noise Music, Taboo and Transgression

Depictions of noise practitioners as 'crossing the line' and including what is usually (or should be) excluded have contributed to a transgressive politics of noise, which has both enforced and amplified noise's status as a dangerous and excessive 'outside'. Indeed, noise's relationship to taboo and transgression is apparent in Attali's account, where noise, as the threat of violent freedom, belongs to the realm of taboo. For Georges Bataille, the primary function of taboo is to exclude violence and protect social order. When the taboo is obeyed it fades from perceptibility: 'if we submit to it, we are no longer conscious of it.'[27] It is only with the act of transgression that the taboo truly comes to the fore: 'in the act of violating it [the taboo] we feel the anguish of mind without which the taboo could

[26] Attali, *Noise,* 24.
[27] Georges Bataille, *Eroticism* (London: Marion Boyars, 2006), 36.

not exist: that is the experience of sin.'[28] From this perspective, noise music, in looking to 'break out' of established and accepted musical orders, is an act of transgression. Indeed, inasmuch as the divisional line that separates musical sound from extra-musical noise has been central to the early to mid-twentieth century avant-garde, the line formulated by the taboo has been aesthetically and conceptually pertinent for a number of more contemporary manifestations of noise music. Music is thought to belong to the realm of the taboo-protected norm, whilst noise (and, by extension, noise music) enacts its transgression. When viewed as transgressive, noise and noise music are imagined to be 'shocking' for the listener – they reveal that which ordinarily hidden and suppressed in the name of order and stability. The 'shocking' status of noise is reinforced by the association of 'sonic transgressions' with social transgressions. Disruptive soundscapes, 'non-musical' playing and extremes of frequency and/or volume are frequently coupled with graphically violent, fascistic and pornographic imagery and acts: from the public sexual displays of Tokyo collective the Gerogerigegege; Justice Yeldham's glass-induced bloodbaths; to the sadomasochistic dominatrix depicted on the album cover of Nurse with Wound's *Chance Meeting on a Dissecting Table of a Sewing Machine and an Umbrella* (1979).[29]

In relation to this paradigm of transgression, artistic uses of noise can be thought of as acts of musical blasphemy. On one hand, they curse and disavow aesthetic and social norms. Yet the transgressive act of blasphemy relies on going against what one holds dearest. For an atheist to curse God is meaningless, a powerless act, for the name of God has no sacred or divine signification for her. Blasphemy's transgressive power –

[28] Ibid. In 'Preface to Transgression', Michel Foucault draws upon Bataille's notion of transgression, as well as the work of Sade and Nietzsche. Foucault argues that with the societal shift towards secularism, the older dualism of the 'sacred' and 'profane' has been replaced by the dualism of 'transgression' and what he calls the 'limit'. The limit and transgression are dependent on one another: 'a limit could not exist if it were absolutely uncrossable and, reciprocally, transgression would be pointless if it merely crossed a line composed of illusions and shadows.' In other words, the limit and transgression (as with Bataille's taboo and transgression) continually affirm and re-affirm one another – it is with transgression that the limit comes into view. See Michel Foucault, 'Preface to Transgression', in Michel Foucault and Donald F. Bouchard (ed.) *Language, Counter-Memory, Practice* (New York: Cornell University Press, 1977), 29-52, 34.

[29] Nurse With Wound, *Chance Meeting On A dissecting Table of a Sewing Machine and An Umbrella* (United Dairies: UD01, 1979/2001). By pointing to this 'transgressive' connection, I do not mean to eradicate the aesthetic and conceptual differences of these artists. The Gerogerigegege are a now defunct punk-noise collective from Tokyo. A primary theme of their recordings and performances is masturbation. Some documented live performances notoriously involve S&M performer Tetsuya Endoh (AKA. Gero 30) masturbating on stage. Justice Yeldham is the alter-ego of the Australian sound artist Lucas Abela. He performs using contact microphones attached to sheets of glass that he rubs his face against, breaks over himself, or even consumes. Nurse with Wound were a band and now is the main recording name of Steven Stapleton. Their early work was influenced largely by free improvisation and surrealism.

the fear and anguish that arises from it – lies in the significance that is instilled in the name of God. Attempts at transgression, then, are governed by failure, inasmuch as transgression relies on the taboo remaining in place. In other words, the transgressive act remains tied to the prohibition it seeks to break free from, since it derives its value from the tension that arises between the taboo-protected norm and its transgression.

Thus, despite descriptions such as 'anti-music' (as the UK industrial band Throbbing Gristle labelled themselves) and 'pure noise' (the stated aim of Japanese harsh noise duo Incapacitants), noise-as-transgression remains bound to the socio-musical norms and conventions it seeks to oppose. By extension, noise music – understood as a combination of mutually exclusive terms – can never truly exist; it is a paradox that cannot succeed. If noise is constituted by its opposition to musical values – undesirable to desirable, chaos to order, taboo to norm – or, alternatively by a listener who judges noise to be unwanted, then when it becomes art, or music, it is always destined to fail. As Hegarty, echoing Attali, argues:

> 'Failure' is what defines noise in its encounter with music, for noise must fail to be noise if it is accepted, and of course it fails if not heard as well. This failure is where noise resides, the fate it selects for itself, or has selected for it. Noise must be only as if it were music, not as a new musicality.[30]

In other words, if noise music 'succeeds' as noise, maintaining its taboo status, then it fails as music. Likewise, if it 'succeeds' as music, then it must, in part, fail as noise – noise that comes to be music loses its taboo status and becomes the norm. Thus, when framed in terms of transgression, the noise within noise music can only ever be a simulation of noise 'proper' – a shadowy representation of its former, transgressive self.

Transgression has undoubtedly been aesthetically and conceptually influential for a number of noise genres, and for this reason I am reluctant to dismiss it in its entirety. However, the notion of noise music as transgression tends to dominate contemporary noise theory, becoming a clichéd paradigm that has served to reduce noise's productive potential to a capacity to shock or offend. Indeed, the mythologized

[30] Paul Hegarty, 'Just what is it that makes today's noise music so different, so appealing?', *Organised Sound,* vol.13/1 (2008), 13-20, 15.

'radicalism' of noise and the 'shock tactics' of noise music as transgression have been readily critiqued. In the introduction to his anthology *Bring the Noise,* Simon Reynolds points to the problem in assuming that those who will find noise music transgressive are there to encounter it in the first place. Reynolds argues that the noise artists aiming for 'ye olde "shock effect", their pure noise laden with content of tediously "transgressive" nature' fail to recognize 'the blindingly obvious fact' that no-one who is likely to be shocked or feel the anguish of the broken taboo is within earshot: 'there's no real disruption or challenge in these scenes, because they're screeching to the converted.'[31] For Reynolds, then, noise music as transgression fails not so much in the sense that it seeks to take up a paradoxical existence but rather in the sense that it fails to shock the listening subjects present – if noise is to be transgressive, then it needs to be experienced as such by a listener/viewer. The shock and horror tactics of Industrial music and other 'transgressive' noise practices have become tired and predictable, in that they have become (paradoxically) the generic status quo. As Reynolds notes in his historical account of post punk, Throbbing Gristle's 'Slug Bait' (which details a psychopath cutting open a pregnant woman's stomach and biting off the baby's head) may have been shocking when it was released in 1977 (at least inasmuch as there was very little like it in rock music at the time).[32] However, in our contemporary musical era, 'after the schlock-horror tactics of death metal and third-wave industrial (Throbbing Gristle's grandchildren), 'Slug Bait' seems almost tame.'[33] In short, the supposedly transgressive content of these practices has become the norm; it is now expected and anticipated, serving as a predictable generic marker, rather than a source of shock or disturbance.

Noise theory's predominant focus on the 'transgressive' also means that noise music is often discussed solely in relation to its most sonically extreme and excessive manifestations, with noise being taken to be synonymous with loud, harsh or excessive sound. Many discussions of noise music have centred on prolific output of Merzbow (Masami Akita), who has been active since the late 1970s, releasing over three hundred recordings. Merzbow has come to be viewed as the patriarch of

[31] Simon Reynolds, *Bring the Noise: Twenty Years of Writing About Hip-hop and Rap* (London: Faber and Faber, 2007), xii.
[32] Slug Bait features on Throbbing Gristle's *The Second Annual Report of Throbbing Gristle* (Industrial Records: IR0002, 1977).
[33] Simon Reynolds, *Rip It Up and Start Again: Postpunk 1978-1984* (London: Faber and Faber, 2006), 234.

contemporary noise, taking a central position in the 'noise canon'. While his output is varied, his signature style is the creation of harsh, dense and extremely loud walls of distorted sound. It is this kind of noise performance that Salomé Voegelin invokes when she describes noise as dominating sensorial experience (see Chapter Three). When performed, Merzbow, or Merzbow-influenced harsh noise is felt as well as heard: it bombards the listening body, perturbing the internal organs, the skin and even the eyes. Harsh noise performances transform the sensory registers of the listening body by turning the stomach into an ear.[34]

The equation of noise music with harsh noise, however, drowns out subtler manifestations of noise that do not correspond to its aesthetic and conceptual values of excess. Indeed, there is a sense from within the fragmented Japanese noise music scene itself that the pursuit of noise in terms of loudness and extremity has reached its limit, with the emergence of quieter practices such as *onkyô* (or *onkyôkei*).[35] The term *onkyô* remains largely untranslatable, a kind of noise in cross-cultural communications. Broadly speaking, it simply means sound, although its second character '*kyô'* also refers to reverberation or echo.[36]

Emerging in the early 2000s in connection with small, core group of improvisers, largely led by the composer-performer Ôtomo Yoshihide, the *onkyô* genre can be heard as a move away from a maximalist to a minimalist aesthetic of noise. In stark

[34] For a similar account of noise music and the listening body see Paul Hegarty, 'Brace and embrace: masochism in noise performance', in Marie Thompson and Ian Biddle (eds.), *Sound Music Affect: Theorizing Sonic Experience* (New York: Bloomsbury, 2013), 133-146.

[35] Michel Henritzi describes this move towards a quieter mode of expression as a 'third phase' of the Japanese noise scene, following on from a first phase characterized by a lo-fi approach and a second characterized by experiments with saturation and overdrive. This third phase, including artists such as Ryoji Ikeda, Sachiko M and Sakata Nosei, refers to the turn towards 'the infinitesimal and the inaudible', and typically involves experimentations with recording technologies - for example, no input techniques, or, *apropos* Otomo Yoshihide, the use of record players without records. See Michel Henritzi, 'Extreme contemporary – Japanese music as radical exoticism', in Frank Stofer (ed.), *Japanese Independent Music* (Bordeaux: Sonore, 2001), 31-37.

[36] As David Novak argues, the term *onkyô* has ambiguous connotations within a Japanese cultural and linguistic context. The dominance of Western musical taxonomies in Japanese popular music cultures means that generic terms are often translations of English terms (eg. *rokyu, jyazu* for 'rock' and 'jazz'). To use a Japanese conceptual term to refer to a style of popular music would usually connote vernacular, folk music or even pre-modern music. However, as Novak states: 'because *onkyô* is such a generalized and coldly technical reference to sound, it does not connote such a relationship to traditional Japanese culture. And yet, simply by virtue of its Japanese-language genre name, *onkyô* is ideologically separated from the broader sphere of popular music in Japan. It becomes a strange untranslatable object, a subject of difference for both foreign and Japanese logics of classification.' David Novak, 'Playing Off Site: the untranslation of onkyô', *Asian Music,* vol. 41/1 (2010), 36-59, 44.

contrast to the 'wall of noise' approach of other internationally recognized Japanese noise artists such as Merzbow, Masonna or Incapacitants, *onkyô* pushes the art of noise into near silence. The *onkyô* style is characterized as free improvisation using microsounds, subtle musical gestures and large stretches of silence and stillness. There is an intense focus on the sounds themselves, their attributes, durations and evolution. *Onkyô* prioritizes sonority over structure, slowly letting singular sound events emerge from and decay into the background noise. Performances are quiet and persistent, and ordinarily draw no distinction between intentional and unintentional sounds – between the sounds created by performers and would-be interruptions coming from outside the space. Instead of seeking to play against or in spite of it, or acting to exclude or minimize its inevitable presence, *onkyô's* performers improvise *with* the noise of the milieu. As improviser Nakamura Toshimaru states:

> When I play with other musicians, I don't play with them, I play with the space including this musician—not directly human to human. If you're a musician, okay, let's play together. But I don't play with you—I play with all of the elements around you, around us. So I don't really confront you as one individual—you are part of many other elements in the space around you. [37]

As this suggests, improvisers (and their instruments) are not viewed as the only (nor even as the principal) creative force in an *onkyô* performance. Rather, *onkyô* – complementing a Spinzoist, non-anthropocentric perspective –involves a holistic approach to the performance space, where the everyday (and possibly banal) noises of the environment are afforded an affective agency in generating and shaping improvisations. Instead of invoking its imagined loudness or abrasiveness, *onkyô* works with noise as a process (what it is that noise does) and as an inevitable presence within live performance. This environmental approach is coupled with an experimental approach to electronics and recording technology. Nakamura, for example, improvises using a no-input mixer – a mixer which is connected so that the signal input comes in the system rather than from an external source (i.e. by connecting the 'output' channel to the 'input' channel) and consequently generates an output consisting of feedback loops and system noise that can be modified by the

[37] Ibid, 46.

mixer's controls. A similar strategy is employed by Sachiko M, who performs using an 'empty' sampler (Fig. 7). Such an approach – which involves playing with both the noises of the environment and the noise of the technological system – resonates with Michel Serres' wordplay around the middle/medium/mediation/milieu; in *onkyô* the parasitic presences of both the technological medium and the environmental milieu are brought to the fore.

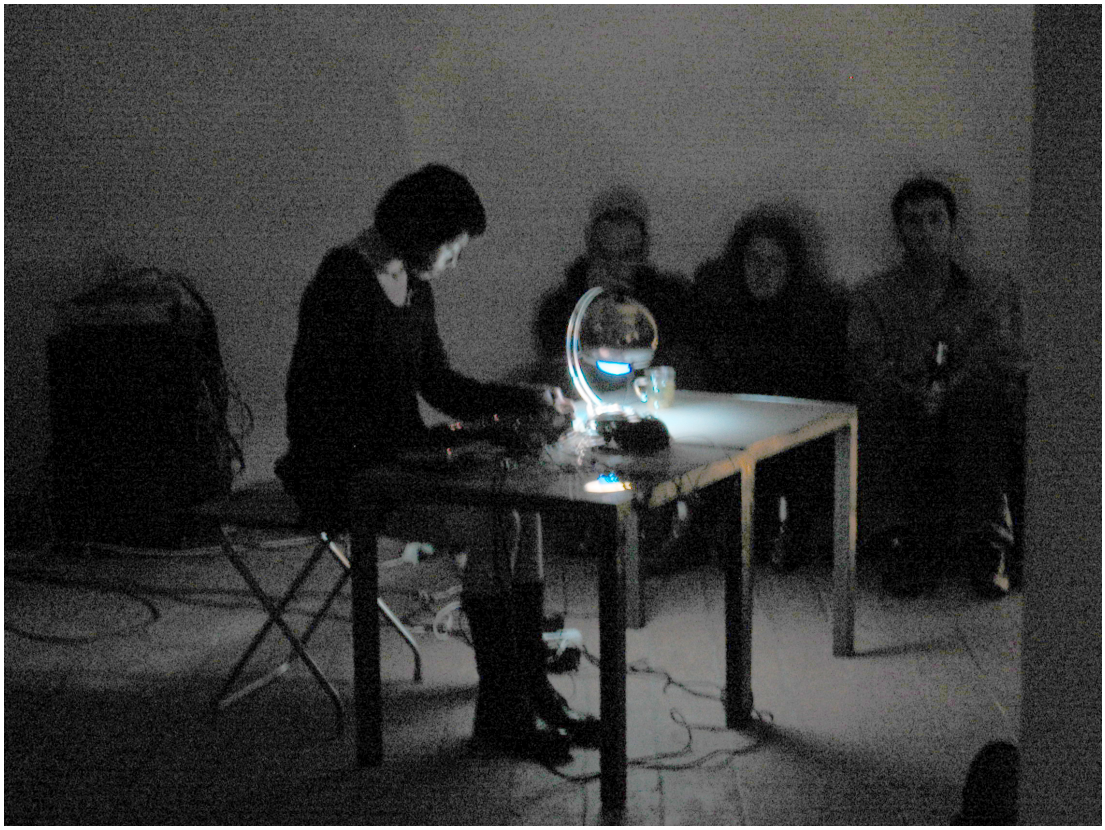

Fig. 7. Sachiko M at Raum Bologna, 2005. Used with permission from XING.

The emergence of *onkyô* is also connected to a specific site of origin: Tokyo's Off Site, a small venue (or 'live-house'), in which the initial *onkyô* performances took place. Indeed, while the aesthetics of *onkyô* have complex and multiple roots, *onkyô* improvisers have suggested that the style has been shaped, in part, by the architectural properties of Off Site. The venue is a source of physical limitation: it is a small, basic white walled room, approximately six by twelve metres with a

capacity of about fifteen people. The proximity of the venue to residential dwellings and its thin walls allow the noises of the world to leak into the street-level space. Yet the 'quiet noise' approach of *onkyô* also helps prevent noise, or rather, complaints about noise – if the performances were louder the sound would potentially disturb the venue's neighbours.[38]

Onkyô's quietness, however, has at times been met with the kind of reaction that purveyors of noise-as-transgression could only dream of. During the 2002 'Japan-o-Rama' tour, an audience in England responded to the extended silences and minimal sounds of Sachiko M and her sampler without samples by shouting and throwing objects at the stage. Similarly, during an Italian tour the same year, *onkyô* musicians were surrounded by an angry crowd who blocked the passage of the car, beating their fists on the roof. David Novak suggests such reactions were due to a dissatisfaction concerning the 'newness' of *onkyô* when it was taken beyond Off Site. Some European and North American audiences felt that *onkyô* was too similar to pre-existing, minimalist sub-genres of improvisation, irrespective of its generic title. In short, *onkyô* was heard as not avant-garde enough, despite its reputation as a new and 'challenging' approach to performance.[39]

Such quiet utilizations of noise within improvisation seem radically divorced from notions of transgression and the rhetorical radicalism that has often dominated discourses of noise music. Nor does *onkyô* comfortably fit within Attali's dialectical model of absorption, insofar as *onkyô's* noise need not be 'domesticated'. Rather than bringing the noise of outside into music (sacrificing noise in the process) *onkyô* can be heard to demonstrate the permeability of distinctions between noise and music, inside and outside. In other words, it is not so much a crossing of the line, but a blurring of the line, such that categories on either side are destabilized. What remains, however, is the sense that noise is positively generative, in that the parasitic noises of the milieu influence the improvisatory process and its outcomes. Consequently, just as it has been beneficial to develop an understanding of noise that allows for a broader range of its manifestations (both 'good' and 'bad', audible and imperceptible) it is useful to develop an alternative understanding of noise music – of

[38] Ibid, 39.
[39] Ibid, 55.

what it is that noise music does – that allows more fully for these quieter, subtler practices that make use of noise's productivity.

Noise Music as Exposure

A transgressive politics of noise as it has been described here relies on two interconnected assumptions. Firstly, it assumes noise to be the antithesis of music: noise is unwantedness to music's wantedness; badness to music's goodness; chaos to music's order and so on. Secondly, it assumes noise to be definitively unwanted, bad or negative: it is that which is to be excluded by the taboo-protected norm. By breaking with a constitutive 'unwantedness', 'badness' or negativity, the relational, ethico-affective definition of noise can be used to disrupt the assumed structural opposition between noise and music – as with the structural opposition between noise and signal (Chapter Two) and noise and silence (Chapter Four). Indeed, from this perspective, noise's presence within music no longer needs to be seen as paradoxical, in that the ethico-affective approach takes a relational rather than dualist viewpoint: noise's opposition to music need not be constitutive, nor does its unwantedness or badness to music's wantedness and goodness. With this, noise in noise music need not be limited to a simulation of sounds judged to be noisy, nor does noise need to be 'sacrificed' – noise can 'live' within music. By extension, this relational, ethico-affective approach can be used to help formulate an alternative understanding of noise's use within musical and sonic art practices that moves away the language of transgression, failure and contradiction, while also maintaining the notion of noise as a positively productive force that is articulated by both Russolo and Attali.

I have argued that an ethico-affective approach to noise, which focuses primarily on what noise does, renders it autonomous from particular sonic qualities. Noise is no longer characterized by its loudness or harshness. Rather, a broader spectrum of noise's manifestations – from the barely audible pop and the crackle, to the sudden, attention-grabbing blast – can be considered. This more nuanced perspective is useful when considering the utilization of noise as an artistic resource as it allows for a move beyond what has been described as a restrictive focus upon noise as it pertains to 'extreme' or 'transgressive' sound. Indeed, despite his seeming fixation

with the noisy sounds of machines and war, Russolo himself warned against limiting noise to its loud and disagreeable manifestations, since to do so would deny those subtler, more delicate noise-sounds that strike the listener as pleasant or enjoyable.[40] Thus, while the approach taken to noise taken here differs significantly to that of the Futurists (in that the latter utilizes an object-oriented approach) it nonetheless complements Russolo's call to recognize and utilize the 'infinite variety' of noise's sonic effects.

At this point, it is useful to draw attention, once again, to noise's proposed autonomy from the ear of the beholder. When noise music is understood in terms of transgression, it is assumed that its 'noisiness' arises (in part) with sound being felt by the listener as negative, unwanted, shocking, frightening, extreme and so on. Indeed, noise music's status as transgressive relies on the responses and judgements of a listener: it is the audience that is to be shocked by it. However, according to the non-anthropocentric approach to noise taken here, noise is no longer constitutively bound to such responses: a listener need not judge noise as negative. Thus, in keeping with the de-centring of the listening subject of noise, a distinction can be drawn between noise as it refers to sounds that are 'noisy' (more in keeping with an object-oriented definition of noise), and noise as a productive process of transformation. The former can be thought of as a qualitative timbral descriptor for sounds that are heard as abrasive, messy, or distorted. For the purposes of this chapter, noisy sounds can be thought of as the audible sonic outcome or effect generated by noise as an affective process of disruption, interference and transformation. For example, the sound of a guitar played through a distortion pedal can be described as noisy, in that the signal has audibly (and intentionally) been transformed by noise. However, when a sound is described as 'noisy', this is not to say that it necessarily functions, or is experienced by the listener as noise: the sound of the distorted guitar need not serve as a source of disruption or interference for the listener, just as the atmosphere of boredom generated by a Harold Pinter play need

[40] Russolo, 'The Art of Noises', 135.

not be experienced as boredom by the viewer.[41] In short, the noise of noise music need not affect the listener as such.

What would be left of the narratives that depict noise musicians as 'crossing the line', as 'breaking out' of the musical status quo into new sonic terrain, or of Attali's paradigm in which noise dies in order to live as music, if it was discovered that noise always already existed *within* music, rather than lying outside musical orders? In Chapter Two, I argued, with reference to Aden Evens, that the largely imperceptible but affective background noise is both implicated in and works to shape sound-signals. It is this noise that affords the violin tone its qualitative specificity within a particular performance space. Noise gives sound its sense; it is a key ingredient, providing sound with its direction and clarity. For Evens, musical expression thus requires a performer to not only work with the musical materials (as directed by a score, for example) but also to play the noise of the room. A musical performance is about getting the correct balance between explicated, audible sound and implicated, imperceptible noise.

These claims regarding noise's function within music have a number of resonances with those made by the composer (and tutor of John Cage) Henry Cowell. In his essay, 'The Joys of Noise', first published in 1929, Cowell argues that the 'time-honoured axiom' dictating that noise and music are opposites – with music taken to be good and noise to be bad – misses the potential of noise as a musical resource: 'it remains a much-used but almost unknown element, little developed from its most primitive usages, perhaps owing to its ill-repute'.[42] However, according to Cowell, a turn to noise would not require an abandonment of the musical – there need not be a traversal of the imagined border that distinguishes music from its other. Rather, he argues that the discursive binary separating noise from music is inaccurate, given that in its material reality, 'the "disease" of noise permeates all music'.[43] For Cowell, the 'noise disease' is an epidemic – it has a near ubiquitous but largely undiscussed presence within music: 'although existing in all music, the noise-element has been to

[41] This is the example Claire Colebrook gives in her introduction to Deleuze, in order to demonstrate the autonomy of affect from particular subjects and objects. See Claire Colebrook, *Gilles Deleuze* (London: Routledge, 2001), 23.
[42] Henry Cowell, 'The Joys of noise', in Christoph Cox and Daniel Warner (eds.), *Audio Culture: Readings in Modern Music* (London, New York: Continnum, 2006), 22-24, 23.
[43] Ibid.

music as sex is to humanity, essential to its existence, but impolite to mention, something to be cloaked by ignorance and silence.'[44] Just as Schafer observes that all struck sounds are to some degree rendered 'impure' in transmission, Cowell argues that all sounds – including musical sounds – have in some way been affected, or rather, infected by noise:

> Most shocking of all is the discovery that there is a noise element in the very tone itself of all our musical instruments. Consider the sound of a violin. Part of the vibrations producing the sound are periodic, as can be shown by a harmonic analyser. But others are not – they do not constantly re-form in the same pattern and consequently must be considered noise. In varying proportions all other instruments yield similar combinations. A truly pure tone can only be made in an acoustical laboratory, and it is doubtful whether, by the time the tone has reached our ear, it has not been corrupted by resonances picked up on the way.[45]

From this quote it is evident that there are two, seemingly connected types of noise within Cowell's argument: an acoustical definition of noise referring to non-periodic vibrations (what may be referred to as 'noisy' sounds) and a more parasitic notion of noise referring to corruption in transmission. For Cowell, all musical sounds are to some extent noisy, insofar as some degree of corruption (and thus transformation) is inevitable in transmission. In other words, Cowell reminds us that the material milieu/medium through which the sound-signal is transmitted is always affective; it always modifies (i.e. 'corrupts') the sound-signal to some degree. Consequently, the edges of even the 'purest' sounding tones are fuzzy. Cowell thus ruptures the acoustical distinction between musical sounds ('pure' tones) and complex, non-periodic noise-sounds. Unlike Attali's sacrificed once-was-noise, moreover, Cowell's noise can be thought of as living: it flows throughout sounds of music, modulating and distorting sonorities. Consequently, noise is taken to be an active component within musical modes of expression.

As well as infecting all musical sounds, Cowell argues that noise has had a presence within most 'musical' forms, in the guise of percussive moments of disruption, climax and change: 'noise-making instruments are used with telling effect in our

[44] Ibid., 24.
[45] Ibid., 23.

greatest symphonies, and were it not for the punctuation of cymbal and bass drum, the climaxes in our operas would be like jellyfish.'[46] Likewise, the noise element of musical sound is integral to dynamic variation; as musical sound builds towards a dynamic climax its noise element is brought to the fore, obscuring its tonal dimension. In these instances, Cowell hears the noise of music as responsible for crucial modulations in the listener's affective and emotional state: 'under the best circumstances, the emotions are aroused by musical noise and lulled by musical tone.'[47] Thus, given the ubiquity of the 'noise disease', the inevitability of infection, and its capacity for generating moments of musical excitement, Cowell concludes that 'the only hopeful course is to consider that the noise-germ, like the bacteria of cheese, is a good microbe, which may provide previously hidden delights to the listener, instead of producing musical oblivion.'[48] As I show later, noise's generation of 'hidden delights' have proved significant for artistic explorations of noise, fulfilling Cowell's hope that, once it is accepted that noise is no longer the enemy of music, a more rigorous compositional exploration of the potential joys of noise will occur.

It can be inferred from Cowell's more affirmative perspective that noise music does not have to pertain to a making good of noise's bad through the medium of music: it is not simply a case of using the negative positively. If noise has a presence (albeit one that is normally repressed or ignored) in all musical systems – be it recorded or live, acoustic or electronic – inasmuch as music is necessarily transmitted via a material medium/milieu – be it through the quietly noise-filled space of a concert hall, or through a subtly noisy hi-fi system – then noise music can be heard to *foreground* and *expose* the inevitable, underlying noise element of music (and sonic modes of expression more generally). By exposing and amplifying the noise element that is always already within the system, noise music emphasizes the inherently mediated and material dimension of sound and music. Hegarty briefly makes a similar argument for noise music in relation to the lo-fi quality of The New Blockaders' CD release *Gesamtnichtswerk,*[49] a '20th antiversary antiology', on which tape hiss remains audible throughout, becoming part of the recording: 'Noise music is always an attempt to re-

[46] Ibid.
[47] Ibid.
[48] Ibid.
[49] The New Blockaders, *Gesamtnichtswerk: 20th Antiversary Antiology* (Hypnagogia: TNB20, 2003).

assert the material over the musical, and this means not hiding the process of production as digital sound attempts/claims to do.'[50] When understood in terms of exposure, noise music can be heard to make audible the noisy presence of the material milieu/medium that typically evades perception.[51] This imperceptibility may be due to habits of listening (as with Cage's *4'33",* which, in drawing attention to the largely ignored background noise that inhabits 'silent' concert hall, exposes the parasitic third that lies between musical performance and audience), perceptual thresholds (a notion that resonates with Christina Kubisch's *Electrical Walks* project, which renders audible ordinarily inaudible electromagnetic interference within urban environments[52]), production conventions (as with The New Blockader's use of the noises that arise during the recording process), or error correction (as with Yasunao Tone's experiments with 'wounded' CDs*,* which were discussed in Chapter Three).

While it may not correspond to the transgressive rhetoric of shock, anguish and transcendence, exposure is not without its critical power. In his essay on the filmmaker Pier Paolo Pasolini, Michael Hardt outlines a Spinozist and erotic notion of exposure, which he describes as an exploration of an immanent and intensive materiality. Like transgression, the act of exposure negates the taboo-protected norm. But whilst transgression's negative, dialectical movement relies on the maintenance of the norm (since the transgressive act derives its value from the feeling of anguish that arises from the tension between the taboo and the taboo-breaking act), exposure operates according to 'a purely positive logic of emanation'.[53] It involves a casting off, or emptying out of that which is positioned as external to material existence, and a consequent intensification of that materiality. Exposure also opposes and negates

[50] Hegarty, 'Just what is it that makes today's noise music so different, so appealing?', 18.
[51] A similar view is highlighted by Michael Goddard in his analysis of New Zealand's industrial, experimental and noise music labels, bands and scenes. He cites Matthew Bannister's description of indie rock music as questioning the relationship between music and mediation. Goddard notes that while Bannister is in fact looking to privilege 'the more commercial "jangly" pole of independent music, he nevertheless articulates what is interesting in more drony and noisy forms of this [New Zealand experimental] music, namely a foregrounding of technological mediation in which "a multitude of possible, possibly phantasmagorical voices" can be heard.' Michael Goddard, 'Noise from nowhere: exploring 'Noisyland's' dark, noisy and experimental music', in Michael Goddard, Benjamin Halligan, and Nicola Spelman (ed.), *Resonances: Noise and Contemporary Music* (New York: Bloomsbury, 2013), 134-152, 147.
[52] For more on this see Christoph Cox and Christina Kubisch, 'Invisible cities: an interview with Christina Kubisch', *Cabinet Magazine,* Issue 21 (2006) http://www.cabinetmagazine.org/issues/21/cox.php [accessed June 2011].
[53] Michael Hardt, 'Exposure: Pasolini in the flesh', in Brian Massumi (ed.), *A Shock to Thought: Expression After Deleuze and Guattari* (New York: Routledge, 2002), 77-84, 80.

norms of propriety, but unlike the act of transgression its effect does not rely on the tension between the taboo and its negation. Instead, Hardt argues that exposure turns its back on the norm: 'that is its great offence'.[54] It operates in ignorance – or in spite of – the norm; 'the negation is secondary, an afterthought, an accident.'[55] Exposure thus conducts the destruction of the norm. It does so not by seeking to cross the line – by moving from one side to the other (and thus enforcing the position what it seeks to escape) – but by dissolving the line. Exposure refuses the effects of separation, the discontinuities that structure the relations between self/other, body/mind in order to facilitate an affirmative, joyous and immanent existence. By dismantling the divisions that structure lived encounters, exposure brings about 'both a intensification of experience and an undifferentiation of matter.'[56] It reveals a material continuum, upon which bodies and things cannot be easily held apart. Exposure, then, violates the norm not by going against or beyond it but by dissolving the structural separations that afford the norm its position.

Drawing from Hardt, noise music, understood in terms of exposure, works to dissolve and ultimately render arbitrary the dualism that separates noise from music. It discards a divisional line in favor of a continuum that connects music to noise; the implicated with the explicated; the background with the foreground; and the confused, parasitic milieu with the distinct, discrete signal. Instead of seeking to move beyond musical norms by attempting to cross the line between the musical and the extra-musical; or by posing as an anti-music that is always destined to fail, noise music as exposure refuses the 'time-honored axiom' that holds apart music from noise. Instead it remains embedded in musical practice, drawing out, extending and expanding the noise that is to be found within music – be it the ordinarily imperceptible background noise of the milieu, or the sonic effects resulting from the interferences and interruptions of material medium. Whilst noise music as transgression turns its ear to a transcendent and chaotic outside, as exposure it seeks a transformation of music from within. In this context, however, exposure is not simply an act of revelation but rather is a fundamentally creative act – an exploration of sonorous and affective potentials (we know not yet what noise can do).

[54] Ibid.
[55] Ibid.
[56] Ibid., 83.

The notion of noise music as an act of exposure – a foregrounding of the perturbing forces in the technological-musical system and their audible effects, which are ordinarily minimized or silenced – is applicable to a diverse range of examples. The Argentinean band Reynols, for example, take The New Blockaders' inclusion of tape hiss to the extreme with their 2000 CD release *Blank Tapes*.[57] As the title suggests, *Blank Tapes* uses digital and analogue processings of a selection of blank cassette tapes dating from between 1978 and 1999 – some very expensive, some very low-quality (Roberto Conlazo has stated that the more inexpensive tapes sounded better than the expensive tapes because of the range of noises they generated[58]) – as its only source material. Far from being a recording of near silence, the album is extremely varied; despite the minimal material, the album constantly shifts and mutates throughout its duration. It begins with around three and a half minutes of quiet tape hiss before morphing through a monochromatic rainbow of soundscapes. Over the course of the fifty-minute recording, hisses, screeches and pulsing rhythms emerge and fade from the ever-transforming sea of fuzz; while the overall character of the treated tape-noise varies from quiet ambience to outright aggressive. Track 4, for example, evokes the movement of the ocean, with tape noise quietly and gradually fading in and out. This draws a sharp contrast with the following track (5), which is more akin to the howling bedlam of Merzbow, with its piercing frequencies and relentless wall of distorted noise. There is little dynamic variation in sound or texture; there is no fade in or fade out, with the track cutting off as suddenly as it begins.

By foregrounding the background noise of the cassette – the noise without a signal – and by making audible the magnetic fluctuations that precede and underline recorded content, *Blank Tapes* gives voice to the material medium itself: the medium, quite literally, is the message. Such a perspective clearly resonates with Christian Marclay's use of vinyl noise as a means of exploring the expressivity of the record in and of itself, as discussed in Chapter Three.[59] However, it is also evident that *Blank Tapes* is

[57] Reynols, *Blank Tapes* (Trente Oiseaux: TOC002, 2000).
[58] Dan Warburton, 'Reynols: Interview', *Paris Transatlantic Magazine* (2003) http://www.paristransatlantic.com/magazine/interviews/reynols.html [accessed March 2012].
[59] Both Marclay and Reynols can be thought to approach what Marshall McLuhan calls the non-representational 'character' of the medium, which is typically obscured by the representational or symbolic 'content' of the medium. For McLuhan, the medium's character also pertains to its affective capacity – the way in which it 'shapes and controls the scale and form of human

not a documentation nor a re-presentation of the media noise of different cassettes. There is, as with all artistic acts of exposure, a creative compositional dimension. The tape noise constitutes the base material, which is then modulated using basic filters and frequency controls. Across six tracks the tape noise moves between various degrees of abstraction. In its opening minutes, the faint hiss is recognizable and familiar as tape noise (albeit noticeably divorced from its original medium, given that *Blank Tapes* is a CD release). However, over the duration of the recording, the sound slips in and out of recognizability – 9 minutes in to track 2, for example, sounds more like a plague of cicadas than a blank cassette. Indeed, the group stated themselves that the premise behind the project 'was to use all the possibilities, a lot of different frequencies.' [60] *Blank Tapes*, then, works to transform the parasitic third term – the underlying noise of the musical medium/milieu – into the primary sonic content. The noise without a signal becomes noise *as* signal, as it is abstracted and transformed in the recording process.[61]

A very different act of exposure can be heard in the monstrous, shape-shifting vocalizations of the composer-performer Diamanda Galás. Like The New Blockaders, Galás can be heard to make audible the typically inaudible noises that arise in the production process. In this instance, however, it is the embodied technology of the voice that is exposed as the primary source of parasitic noise. Despite sharing a number of aesthetic concerns with transgression-inspired noise acts, Galás' work does not comfortably correspond to the generic features of the industrial and/or harsh noise inspired lineages of noise music. Rather, her work can be more accurately described as bringing together a diverse mixture of influences, aesthetics, concepts and musical styles. Commenting upon her practice, Galás states: 'I don't respect the boundaries of any art form; I certainly don't respect music's boundaries.'[62] Galás' diverse repertoire weaves between a number of genres, traditions and practices, stitching together blues, opera, Greek lament, *bel canto* singing, ballads, spirituals, and avant-garde composition. Indeed, while never truly

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association and action.' See Marshall McLuhan, *Understanding Media: The Extensions of Man* (London: Routledge, 2001), 9.

[60] Warburton, 'Reynols Interview'.

[61] Reynol's debut release, also (humorously) exposes the necessity of the noisy, material medium, albeit in a much quieter manner to *Blank Tapes. Gordura Vegetal Hidrogenada* (self-released, 1995) is a CD of Reynol's 'dematerialized' music, which consists of an empty CD case.

[62] Diamanda Galás and Andrea Juno, 'Diamanda Galás: Interview', in Andrea Juno and V. Vale (eds.), *Angry Women* (California: Re/Search Publications, 1991), 7-22, 17.

separable from one another (insofar as she frequently slips between them) – Galás' voice contains within it a number of different voices that can be foregrounded – compare, for example, the blues/jazz voice of *The Singer* (1992) and *Guilty! Guilty! Guilty!* (2008) with the more rock-oriented voice of *The Sporting Life* (1994) – a collaboration with former Led Zeppelin bassist John Paul Jones. Of primary interest here, however, is the extreme and highly virtuosic voice (itself multiplicitous) that Galás is perhaps best known for.

The noisiness of Galás' 'extreme' vocal performances is immediate and obvious. She often makes use of abrasive, dissonant, or harsh sonorities, evoking notions of incomprehensibility, ugliness and excess. She also uses her vocals to construct disruptive and unsettled soundscapes, where multilayered voices interrupt and interfere with one another, and structural progression remains indiscernible. These techniques are used to create performances that are intended to be disruptive, disturbing and, at times, threatening to the listener. Indeed, Galás' performances are highly affective; they are underlined by an aesthetic commitment to notions of abjection, horror, madness, suffering and despair – those affective and emotional experiences that serve to rupture the sense of unified self. Galás herself has remarked that her music is not *about* something – a representation of description of horror or fear – but that it *is* that something: it is the 'thing itself […] the sound of the plague, the sound of the emotions involved.'[63] Galás, then, treats the voice primarily as a sonic force – a means of affective contagion – rather than as a carrier of language.

Such a voice can be heard on Galás' unnerving recording debut, *The Litanies of Satan* (1982), where her use of extreme vocal techniques – screams, shrieks, grunts, growls, multiphonics, and exaggerated vibrato – assisted by electronic processing, twist her words and blur their comprehensibility.[64] On the titular opening track, which is based upon the poetry of Charles Baudelaire, Galás uses tape and electronics to multiply her voice. Resolutely unstable, vocal lines flow and morph into each another, sometimes dominating, sometimes supporting and often interfering with one another. Throughout the track, seemingly innumerable overlaid voices fade in and out to create a

[63] Ibid., 14.
[64] Diamanda Galás, *The Litanies of Satan* (Mute: IS01CD, 1982/1998).

disorienting soundscape. The effect is one of crosstalk in the channel, with growling, gibbering vocal lines gaining some clarity, only to fade into the background of confused, layered voices. This sonic effect is particularly evident approximately fifteen minutes twenty seconds in, where the prominent vocal line becomes highly distorted, and becomes mostly indiscernible against the overcrowded backdrop. A similar technique is also used in the opening seconds of the track, when a mass of gibbering, swirling, and distorted voices fades in. After thirty seconds a screaming voice comes into focus but the noisy background continues to distort its clarity; it remains audibly attached to the confused. After fifty seconds, the screaming-voice and the interfering background of layered vocals are both suddenly disrupted by a drum blast, which prompts Galás to begin a furious monologue, the clarity of which sharply contrasts with the confusion and obscurity of the preceding section. The clarity of Galás' monologue, however, is lost once again as other vocal lines and electronic sounds emerge from the background, and as her voice is distorted and mutated by electronic processing and effects. At one point Galás uses EQ and tone control to lower her register, producing a muffled, alien voice. With her voice fading in and out of perceptibility and comprehensibility, combined with the sudden interferences and monstrous sonority, Galás' vocal performance is effectively disorienting; it is unclear where the listener is to be taken next.

By comparison to her more obvious use of noise or noisy elements – the abrasive noise-sounds and the disruptive and disturbing soundscapes – Galás' work also makes use of a more subtly perturbing mechanism in her extreme vocal performances that corresponds with the notion of exposure outlined here. The second track of *The Litanies of Satan,* 'Wild Woman With Steak-Knives (the Homicidal Love Song for Solo Scream)', as well as tracks such as 'Cunt' (from *Schrei X* [1996]), bring to the fore the noise of the body-in-action that are typically excluded from vocal recordings but nevertheless lie behind the production of the voice. In both these *a cappella* works, Galás voice audibly cracks, strains and squeaks, while the gargling sounds of the larynx, tongue, lips and saliva are amplified. These noises point to a residual materiality that necessarily infects speech and song, insofar as these parasitic interferences are derived from the physical-corporeal apparatus of the voice – Galás' cracks and squeaks serve to remind of the singing voice's necessary mediation. Yet there is nothing *natural* about Galás' noise-infected voice. Her vocalizations are not

a return to an imagined, pre-symbolic and pre-social state – an evocation of the 'untrained' or 'uncontrolled' voice. Although her vocalizations are riddled with what would be conventionally understood 'flaws', there is nothing accidental or erroneous about these noises – they are not extraneous to but an integral part of Galás' vocal performances. These corporeal interferences (combined with the use of sound processing and effects) work to radically distort and corrupt Galás' voice, contributing to its tone and texture. As Freya Jarman notes, Galás' use of vocal 'flaws' – those sounds that are usually to be omitted – contributes to a monstrous vocality that is 'at once intensely bodily – when we hear orgasmic squeaks, squashed throaty groans, and breathy whispers – and intensely alien, as those sounds are so beyond what is normally expected from the voice.'[65] Galás, then, can be understood to maximize the noise-element of the voice by amplifying the effects of the corporeal vocal medium, in order to push beyond the conventions and expectations of vocal expression.

The sonic characteristics of Reynols' *Blank Tapes* and Galás' 'Wild Women with Steak Knives' are very different – *Blank Tapes* is comparatively slow moving and constant, generating a hazy, meditative soundscape; whilst Galás' extreme vocal performances are resolutely unsettled and unnerving. However, despite their stylistic differences, both can be heard to expose the underlying, affective yet ordinarily suppressed noise of the musical-technological medium. In the case of Reynols, the noise exposed is that of the meaningless but affective material base that underlies recorded content. Galás' noise takes on a more parasitic formulation. The noisy 'third term' is exposed via the effects of the medium; the way it has audibly modified the vocal-signal, introducing cracks, gargles and squeaks. In making audible what is typically rendered inaudible either through the overbearing presence of recorded content, or through the normative modes of vocal production, Reynols and Galás both work to reveal the 'hidden delights' of noise: the generation of new sonic sensations.

[65] Freya Jarman, *Queer Voices: Technologies, Vocalities and the Musical Flaw* (Basingstoke: Palgrave Macmillan, 2011), 144.

'Hidden Delights'

Thus far, I have proposed an alternative means of understanding noise music. Against a dualist conceptualization of noise music, I have argued for considering noise music in terms of exposure, with which the immanent and inevitable noise of the techno-musical system is foregrounded. In revealing the noise that is always there but often goes unnoticed, these practices might be understood as a critique of the (seemingly) noiseless 'perfection' of media. However, exposure also involves experimentation with noise's affective capacities – what it is that noise might do, and what transformations it might induce. Following Russolo, Attali and Cowell, noise music can be heard as an exploration of noise's potential to generate new sonic effects, rhythms, and textures.

If noise music is understood to amplify and expand the inevitable operations of noise within music, then a problematic ontological question remains: what, precisely, is being recognized as music? It has already been noted that some artists within the quasi-idiomatic field of noise music have sometimes rejected the term: Throbbing Gristle described themselves as 'anti-music', whilst Incapacitants' refer to their improvised, screeching masses of feedback as 'pure noise'. Indeed, the rejection of the term 'music' has been a recurring thematic throughout the histories of avant-gardist experimentation. In addition to Russolo's distinction between music (a descriptor laden with conventions, traditions and historical value) and his proposed art of noises (which was conceived as a break from the former), Cage famously argued for the replacement of the term with a more appropriate descriptor for twentieth century experimental practice: 'lf this word, music, is sacred and reserved for eighteenth- and nineteenth-century instruments, we can substitute a more meaningful term: organization of sound.'[66] Yet what is accepted as music has changed significantly since Cage and Russolo's time of writing. This is true not just of a vanguardist elite but also of more mainstream perspectives. In our contemporary epoch, where artists can be simultaneously influenced by Xenakis and techno; where the works of the Futurists are displayed in the institutions they so despised; where the boundaries of the musical have been readily tried and tested, with Cage's

[66] John Cage, 'The future of music: credo [1937]' in *Silence: Lectures and Writings.* (London: Marion Boyars Publishers, 2009),3-6, 6.

experiments now a curricular staple; and where 'mainstream' music regularly makes use of 'extra-musical' sonorities, weird tonalities, Cyborgian vocals and fuzzy timbres, it would seem that music has moved beyond the traditional, constitutive parameters of harmony, melody and rhythm; or rather, what is included within these parameters has changed drastically. Nevertheless, although there has been significant musical evolution since the time in which Cage was writing, there remains a need to identify where, exactly, music can be found amongst Incapacitants' mass of feedback and distortion.[67]

The ontological status of music has been a longstanding source of aesthetic debate – the details of which cannot be sufficiently covered here. However, without wanting to shy away from the question, for the purposes of this chapter it can be answered sufficiently (albeit not particularly imaginatively) by turning to Cage's alternatively descriptor: 'organization of sound'. While it may have many other features, qualities and functions, music (as it is being understood here) is defined as organized sound. Its compositional dimension is thus key. Composition, here, however, does not necessarily pertain to its notated formats, nor is it synonymous with the individual genius-creator. Free improvisation, for example, should still be understood as a compositional practice –the immediate and/or responsive ordering of sounds. Thus, composition may involve indeterminacy or spontaneity (as is the case with *onkyô),* or technologies that produce random or unpredictable sounds (such as circuit bent instruments, or Tone's 'wounded' CDs).[68] Furthermore, following Greg Hainge (who outlines a similar ontology), it can be added that the representational content and connotations of music are ultimately secondary and contingent, in the sense that they do not pertain to an ontologically unifying condition. So while music may have lyrics, or may emulate the sounds of bird-song, engines or sirens, these representational components are not necessary for it to be music. For Hainge, this is what differentiates music from speech (and also poetry, to some extent) – the structure of speech is governed by semantics, whilst the structure of music is, for the

[67] For an example of Incapacitants' musical style see Incapacitants, *Quietus* (Alchemy Records, ARCD-059, 1993).
[68] In critically considering on the use of noise as a musical resource, I have primarily focused on the role of producer/performer/composer. However, this notion can be suitably adapted so to include the listener (as an active producer). For instance, the listener might be understood to 'create' noise music when they purposefully focus on (and consequently foreground) the noise of the medium when listening to an old blues record.

most part, syntactical.[69] Attali makes a similar point when rejecting linguistic theories of music; he states that music 'is not a "myth coded in languages instead of words", but rather "a language without meaning". It has neither meaning nor finality.'[70] Finally, echoing both Hainge and Attali once again, music is not a-historical nor transcendent; rather music's organizational structures and the sounds it utilizes are influenced by social, historical, and technological conditions. Thus music is a mode of expression that stems from this world: it is immanent and cultural rather than transcendent and autonomous.[71]

According to this definition, the screeching feedback of Incapacitants, the minimal crackling of Sachiko M's performances, and Galás' vocal terror can all be understood as music, in that they involve the organization of sound. Indeed, in defining music as the organization of sound, no assumption is made regarding the acoustical nature of these sounds, nor the means of their production – it could consist of sine tones, percussion, or drones; or be produced by guitars, junk percussion, a home-made synth or a modified child's toy. Incapacitants' 'pure noise' and Throbbing Gristle's 'anti-music', then, are stylistically, rather than ontologically oppositional – they stand against commonly held assumptions of what music is imagined to sound like, rather than marking a genuine escape from the musical field.

Noise's capacity to generate sonic effects and sensations is often discussed in terms of sonority and timbre – the production of distorted sounds, for example. This is perhaps because many of the canonized exemplars of noise music are most audibly formulated around parameters of texture and tone. Indeed, following the likes of Merzbow, noise music may invoke stylistic characterizations of immersive, free-form and densely-layered soundscapes – a description that could be applied equally to the guitar-haze of My Bloody Valentine and the action-based performances of The Haters.[72] This is not to say that these works do not have rhythmic components –

[69] Greg Hainge, *Noise Matters: Towards an Ontology of Noise* (New York: Bloomsbury, 2013), 250-251.
[70] Attali, *Noise,* 25.
[71] According to this ontological definition of music, Cage's *4'33"* remains problematic. For Hainge this work is not actually music, given that the sonic material is not organized or composed. See Hainge, *Noise Matters*, 53-59. Conversely, it might be argued that the listener is responsible for organizing or ordering the experience. In this sense, the listener becomes the composer.
[72] The Haters are a Californian performance collective that have been active since 1979, whose performance aesthetics revolve around processes of entropy, decay, destruction, materiality and

pulses and flickering rhythmic patterns emerge and fade from the droning fuzz of Reynol's *Blank Tapes*, for example, while techno-influenced genres such as 'power noise' are characterized by the use of highly distorted beats – but rather that texture is often the primary mode of compositional organization, or the musical parameter through which the effects of noise are most detectable. So with power noise, for example, noise affects the timbral quality of the beats rather than their rhythmic organization. However, there have also been instances where noise's affective capacity has been used to generate new rhythms, as can be seen in relation to the use of glitch.

As compact discs became the dominant musical medium in the 1990s, the sound of the high pitched, rapid 'tick' or 'glitch' caused by a CD 'skipping' also became a familiar phenomenon, shattering Sony's promise of 'Perfect Sound Forever'. Caleb Kelly effectively captures these moments where the ordinarily inaudible presence of the medium comes to the fore with the anecdotal encounter of the 'skipping' CD in the café.[73] The music playing was intended to remain in the background, creating a particular ambience or 'vibe'. However, the stuttering CD disrupts this, moving into the fore. With this, the CD goes from having an inconspicuous presence to being the centre of attention. The repetitive glitching causes customers to break off their conversations and look around for someone to fix the problem, to skip the stuttering track or to change the CD. The parasitic presence of the CD must be excluded, so conversations can continue undisturbed. The affective atmosphere of the café is transformed, turning from one of calm and relaxation to one of urgency and frustration.

However, while it might be most recognizable as such, a glitch is not simply a sonic artefact. As Rob Young notes, the term itself invokes movement. In German, the verb 'glitschen' means to glide, slide or slip; while in mechanics, glitch refers to a sudden irregularity or malfunction. It recalls a slippage of gears or wheels as well as a nick in a smooth surface. Etymologically speaking, then, there is a duality

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professional wrestling. For more on this see Amy Young and GX Jupitter-Larsen, 'Haters: GX Jupitter-Larsen interviewed by Miss Amy Young', *Caution,* 2 (1999) http://www.tif.org/caution/interviews/interview-haters.html [accessed March 2013].

[73] Caleb Kelly, *Cracked Media* (Cambridge, Mass.: MIT Press, 2009), 211.

embedded in the word – of skidding and catching.[74] However, whilst a scratched vinyl record (as the analogue equivalent of the CD glitch) may move in this way, the glitching CD does not itself skip or stutter –the noise does not arise from an irregular movement. Rather, as has been seen in previous chapters, the glitch is the result of data corruption and information errors; it points to a rupture at the level of code. The corruption of the disc data is ordinarily due to damage or imperfections on the disc's surface – for example, dust, scratches, and fingerprints – that interfere with the laser reading the disc. Like the scratched record, however, the glitch warps time, functioning as a temporal wrinkle. It disrupts the flow of sonic information, creating strange, rhythmic articulations. Thus, as Young argues, the sonic artefact of the glitch is secondary to a process of disruption that works to mutate time:

> On its own, a glitch does not amount to much. It accumulates power by insertion, by its irruption in a flow of events. It is the random factor, the spark that ignites the primordial soup, the flash that illuminates the status of music as phantasmagoric time, not a utilitarian time keeper.[75]

In other words, the glitch's potential relates to what it disrupts. It is not just a sound but a transformative relation to relations.

The glitch's capacity to generate new rhythms in its disruption of sonic information – its ability to mutate the flow of temporal events – has made it an appealing resource. Alongside Yasunao Tone*,* one of the earliest practitioners to experiment with the texture-rhythmic potentials of glitching, stuttering CDs was the composer Nicolas Collins. Like Tone, Collins wanted to bring out the noise of the seemingly flawless system: 'I looked at the CD player as a challenge […] I took it upon myself to try to corrupt this "perfect" medium.'[76] However, whilst Tone's compositional experiments involved damaging the disc so to overload the error correction system, Collins approach was to modify the CD player. Collins argues that while he was influenced by Tone's experiments ('I loved the sound – the odd juxtaposition of ultra-hi-fi

[74] Rob Young, 'Worship the glitch: digital music, electronic disturbance', in Rob Young (ed.), *Undercurrents: The Hidden Wiring of Modern Music,* (London, New York: Continuum, 2002), 45-55, 54.
[75] Ibid.
[76] Nicolas Collins and John L. Waters, 'Nicolas Collins: Interview', *Unknown Public* (1995) http://audiolabo.free.fr/revue1999/content/collins2.htm [accessed February 2013].

recordings with the harsh digital errors'[77]), hacking the playback system – as opposed to the information carrier – allowed him to control the CD player and its noisy outcomes more directly. In particular, it enabled him to emulate turntable techniques such as cuing and scratching. Indeed, although there has been a focus on white, Western 'high-art' lineage in glitch discourses (which I discuss later), Collins states that he was principally inspired by hip-hop DJs and turntablism. He had initially tried to imitate turntable techniques in his composition *Devil's Music* (1985), which used inexpensive sampling pedals to loop, mix and retrigger samples from radio broadcasts: 'essentially DJing with radio'.[78] However, with the emergence of portable CD players in the late 1980s, Collins began to experiment with the circuitry of the Sony Discman in order to produce similar effects.

Collins was particularly interested in what was going on when the CD player was paused. He identified that during 'unmusical' operations (i.e. when the CD was paused, or loading) the audio output was muted by the system. In other words, the lazer continued to read information on the disc when the disc was paused, yet this information was 'hidden' by a particular playback function. Collins removed the 'mute' pin within the CD player's circuitry, allowing these silenced sounds to be heard. The system read all information as audio, including the noise usually countered by error correction: 'starting and stopping the disc was accompanied by a brief, loud squawk; pressing "next track" (>>|), especially in "shuffle" mode, evoked a needle being dragged violently across an LP […] "pause", by contrast, isolated short fragments of material from the CD in lilting loops.'[79] Unlike the metronomic skipping of a vinyl record, the paused CD created a swinging, irregular rhythm that Collins felt had a distinctly musical feel. Switching between pause and playback functions allowed Collins to progress slowly through the disc's sonic material in a series of 'off-kilter', stuttering loops.

With these effects, the modified CD player could be used to ultimately 'remix' any disc, imposing a new, indeterminate form of rhythmic organization. For Collins, this process was particularly effective in relation to Baroque or Early music:

[77] Nicolas Collins, *Hacking the CD Player* (2009) http://www.nicolascollins.com/texts/cdhacking.pdf [accessed January 2013]
[78] Ibid.
[79] Ibid.

> The pause loop froze the flow of the counterpoint into modal chords reminiscent of certain styles of 1960s jazz; the glitches that the error correction occasionally threw onto the loops' seams contrasted beautifully with the lush sound of the period instruments, adding floating rhythmic accents that I dubbed "digital claves. The overall feeling reminded me vaguely of Terry Riley's *In C*, updated for the digital era.[80]

This repertory formed the basis for Collins' 1991 composition, *Broken Light.*[81] The piece combines his modified CD player 'remixing' a disc of Baroque concerti grossi by Corelli, Torelli and Locatelli with a live string quartet. The quartet members used footswitches to control the CD player – they could 'scratch' across the disc to generate the 'needle-drag' effect identified by Collins, call up specific tracks, or nudge the paused disc forward through a series of looped phrases. The latter forms the rhythmic and harmonic basis of the piece for the quartet to improvise around (according to specific guidelines designated by the score) meaning that the CD thus functions as an interactive and indeterminate backing track. Although the performers know the tonal content (i.e. the key) of each of the tracks, it is not certain what section of the track will play as the performer skips forward. The live quartet and CD player form a feedback loop: the performers control (to some degree) the CD player, and respond to its indeterminate output. For the listener, however, there are times that the recorded and 'live' sounds become indiscernible from one another; it is unclear what sounds are produced by the quartet and what sounds are the recorded strings, mutated by Collins' CD player.

In Collins' work, then, the skipping, glitching disc and the ordinarily suppressed noise within the CD playback system become a means of rhythmically 'remixing' recordings. Around five years after Collins' *Broken Light,* 'glitch' became a generic label, as it and other micro-sounds of digital 'malfunction' were taken up by a number of artists. Most of these experiments with glitch initially occurred outside of academic institutions, existing on the periphery of electronic dance music, including its generic forms of techno, drum'n'bass, house and IDM ('Intelligent Dance Music'). The German group Oval were among the first to take up the micro-sounds

[80] Ibid.
[81] Broken Light features on Collins' album It Was a Dark And Stormy Night (Trace Elements Records: TE019, 1992).

of the malfunctioning CD, combining luscious 'clean' textures with the rhythmic ticks of a skipping disc.[82] Oval generated their glitches by drawing on the disc's surface with a non-permanent marker pen. However, unlike Tone and Collins, the sounds of the (temporarily) damaged disc were then sampled, looped and sequenced. In other words, Oval's glitches were not a 'live' disruptions but 'caught' and carefully ordered. By the turn of the twenty-first century, the glitch had infiltrated a wide range of musical styles, even featuring on Madonna's 'Don't tell me'.[83]

Steve Goodman has discussed the 'viral' nature of the glitch's infection and spread throughout digital music cultures. Picking up on Rob Young's description of the influence of glitch as a kind of 'effluenza' virus, Goodman tracks the glitch's transformation as it came to infect the dancehalls of electronic music from 'acoustic anomaly' to 'ubiquitous strain'.[84] However, there has been a tendency for glitch theorists to dismiss the glitch's infestation of dance musics as lacking in interest and potential. William Ashline, for example, argues that:

> It was only a matter of time before an electronica solely servile to the dance floor would become conceptually and aesthetically boring, where the need to rediscover its origins and histories in the forms of musique concrète, minimalism, experimentalism, in short, in the avant garde, would become manifest.[85]

To this, Ashline adds that as the glitch was quickly 'reterritorialized' in popular electronica. He argues (in language almost parodying the excessive masculinity of the normative avant-gardist lineage he references) that '[t]here was a effective detumescence [sic.] of the hyper-intensity that accompanied its discovery.'[86] These remarks exemplify a clear desire to connect the glitch to a select, avant-gardist history (Cage, *musique concrète*, Terry Riley, Steve Reich) while also dismissing the glitch's manifestation in more popular forms as lacking in artistic interest. Yet as Collins remarks on his own practice suggest, there is good reason to connect the glitch to

[82] See Oval, Systemisch (Mille Plateaux: MPCD9, 1994).
[83] Madonna, *Don't Tell Me* (Maverick, Warner Bros. Records: 93 62 44946 2, W547CD1, 2000).
[84] Steve Goodman, 'Contagious noise: from digital glitches to audio viruses', in Jussi Parikka and Tony D. Sampson (eds.), *The Spam Book: On Viruses, Porn and Other Anomalies from the Dark Side of Digital Culture* (New York: Hampton Press, 2009), 125-140, 128.
[85] William L. Ashline, 'Clicky aesthetics: Deleuze, headphonics and the minimalist assemblage of "Aberrations"', *Strategies: Journal of Theory, Culture, and Politics*, vol.15/1 (2002), 87-101, 87.
[86] Ibid., 89.

alternative lineages of popular music, including, for example, the scratch DJ of hip-hop.

The glitch's infestation of (and gestation from) more popular forms has also been dismissed on the basis that, once it is recorded, the glitch loses its mutative potential. Instead, it becomes an interchangeable sonic effect. In other words, once recorded, the glitch no longer functions as noise and, subsequently, fails to generate anything new. Greg Hainge, for example, argues that Oval's recorded glitches 'no longer deploys the resistant qualities of noise […] far from problematising the categorical distinction between noise and music, the glitch here passes over fully to the side of music'.[87] With this, the glitch becomes overdetermined; rather than pertaining to a productive process of systemic failure and breakdown, it becomes one sound amongst others.

However, as Goodman argues, such criticisms of the recorded glitch – combined with the focus on glitch's avant-gardist influence – typically overlook the its transformative impact upon 'rhythm and its cultures.' He states: 'Recorded and re–sequenced, glitch, instead of resulting in a mere recuperation, instead functioned as a probe, prospecting rhythmic mutation in future host bodies. Here, capturing the glitch increased its potential for contagion.'[88] The recorded glitch was not merely utilized as a sonic flavour but rather became a parasitic agent of rhythmic transformation. Indeed, for Goodman – and *contra* Ashline's dismissal – the glitch has had its greatest potency when aimed at the moving bodies of the dancehall. In this context, the glitch's 'hidden delights' come to act as a force of affective mobilization, snagging and snaring dancing bodies in new ways.

The glitch's asymmetric and irregular swing and stutter have been used to knock off balance the regular 4/4 beat of 'host' dance music genres. The 'crackle dub' of Pole's (Stefan Betke) first three albums (*1*, *2*, *3*), for example, sets delicate polyrhythms consisting of the crackles, pops and clicks of a damaged Waldorf 4-Pole

[87] Hainge, *Noise Matters,* 137.
[88] Ibid.,132.

filter against dub basslines and waves of static.[89] Although the rhythmic irregularity of the glitch is preserved, the effect in Pole's music radically different to both Tone's combination of 'clean' sounds with harsh burst error noise, and Collins' stuttering strings. Patterns continually evolve, while the tension between the syncopated bass and the molecular texture-rhythms creates a subtle push and pull. For example, 'Karussell' (from *3)* features a syncopated 4/4 bassline that is skewed by a multitude of clicks and pops. Like Tone and Collins, moreover, Pole remains aesthetically very different from generic descriptors of 'extreme' noise music. His work can perhaps be described as sharing something of *onkyô's* gentle minimalism. The noise of Pole is not extreme or abrasive; rather it is expressed through micro-sounds (the irregular snaps, crackles and pops) and quiet fuzzy static – the effect of which creates a hazy, lo-fi quality not dissimilar to the sound of a worn vinyl record.

It is evident, then, that noise music as exposure can still be understood to generate new sonic sensations, as is suggested by dualist conceptualizations of its practices, including those of Russolo and Attali. Artists such as Nicolas Collins and Pole can be thought of not so much as bringing noise *into* music – thus crossing a divisional line which maintains the mutual exclusivity of the terms – but as drawing *out* the immanent noise of music and its material means/medium/milieu. Through this, new sonic potentials are discovered, and some of noise's 'hidden delights' are revealed. These new sonic sensations, however, do not necessarily correspond to a radical overthrowing of the old and an establishment of an entirely new order as with the Futurists; rather, they can arise from subtler generic mutations. Both Collins and Pole bring the generative force of noise into a relation with pre-existing musical styles. With the former, the glitch is used transform the rhythmic flow of Baroque *concerto grosso*; with the latter, the glitch knocks off kilter otherwise straightforward, repetitive dub rhythms. These artists, then, can be heard to make use of – and, in doing so, exemplify – noise's positively productive capacity.

[89] Pole, *1* (Kiff SM: KIFF012, 1998).; Pole, *2* (Kiff SM: Kiff014, 1999).; Pole, *3* (Kiff SM: KIFF017, 2000).

Conclusion: Evading The Generic

In this chapter I have characterized the use of noise within music as principally experimental and explorative. By foregrounding and extending the inevitable, transformative but largely inaudible noise of the techno-musical system, noise music (as it is defined here) can serve to generate new sonic sensations. However, if noise is to continue fulfilling this function within artistic modes of expression, then this relies on an avoidance of the generic. With this, I am not seeking to echo Russolo's polemical claim that noise music should avoid all that has come before and boldly attempt to instate radically new forms of artistic expression. Nor am I saying that noise music should not utilize generic musical forms. Rather, my argument is that noise music – or artistic approaches to noise – should not become generic, as happens when they are reduced to a single mode of exploration. If noise music is to generate new 'acoustical sensations', then it should embrace the 'infinite variety' of noise's manifestations and potential relations – remaining open to what it might be that noise can do.[90]

Despite the characterizations of noise as 'anti-genre', I have noted that noise music is often taken to be synonymous with the extreme 'full noise' approach of figures such as Merzbow and genres such as Harsh Noise Wall, partly due to the conceptualization of noise in terms of transgression. While such performances can result in highly sensuous encounters – and for many remain an enjoyable experience – this approach has acquired conservatism, in that it has come to be what is expected

[90] In arguing that noise music should evade the generic, I echo Ray Brassier's essay 'Genre is Obsolete'. For Brassier, 'noise' has (paradoxically) come to be used as a generic label for anything that is perceived to defy or subvert generic classification. Noise, Brassier argues, oscillates between functioning as 'a proper name' and 'a concept; it equivocates between being a nominal anomaly and conceptual interference.' Some 'more adventurous' noise practitioners have evaded the repetition of noise music's generic clichés and stock gestures by making use of noise's generic indeterminacy; transforming it into 'an enabling condition for work which effectively realises 'noise's' subversive pretentions by ruthlessly identifying and pulverising those generic tropes and gestures with which confrontation so quickly atrophies into convention.' By 'forcefully short-circuiting incommensurable genres', practitioners can 'engender the noise of generic anomaly.' In other words, for Brassier, a more radical and subversive 'noisiness' arises in the monstrous hybridisation, interrogation and destruction of generic markers, rather than through appeals to (aesthetic, sonic or cultural) notions of 'extremity' and 'transgression'. See Ray Brassier, 'Genre is Obsolete', in Anthony Iles and Mattin (eds.) *Noise and Capitalism* (Sebastián: Gipuzkoako Foru Aldundia-Arteleku, 2008), 60-71. My position differs to that of Brassier insofar as I am utilising a different understanding of noise and noise music. Whilst Brassier understands noise music to be that which subverts and defies generic logic, I have argued for an understanding of noise music as that which foregrounds the presence of noise – defined as a material force, rather than as conceptual interference and/or distortion – within music.

of noise music.[91] My argument, then, is not so much that the 'full noise' approach moves too far away from music, nor that it results in noise instead of music. Indeed, I have shown how the recordings and performances of artists such as Merzbow and Incapacitants remain musical, insofar as music pertains to organized or composed sound. Rather, it is to note that the 'full noise' approach been endlessly repeated and is often predictable in its sonic-affective structure (e.g. extremely dense textures, with a dynamic progression of quiet-build to loud-fade to quiet; or loud-extremely loud-loud). It might be argued the repetition of the harsh noise style is the point. The 'excessive' approach to sound is mirrored by an excessive number of recordings and releases, so to ensure that there is always too much to hear.[92] However, the question inevitably remains: how does one go beyond full volume, beyond sonic overload? Over the course of these chapters I have argued for a definition of noise that allows for a broad range of its manifestations – audible and inaudible – without reducing it to particular sonic characteristics (eg. loudness, complexity) and without reaching the relativist endpoint where noise is anything to anyone. Likewise, I would argue that noise music (again, taken here in its broadest sense) should not be reduced to the 'full noise' approach, particularly if noise is to be understood as a means of generating new sensations, of revealing 'hidden delights'.

I have also noted how a section of the (heterogeneous) Japanese noise scene has moved towards quieter utilizations of noise. On this point, it is worth noting that Merzbow – for many the patriarch of noise music – has also moved towards more conventionally musical markers with, for example, the use of beats.[93] It may be, then, that noise's capacity to generate new sonic sensations is more effective when a subtler approach is utilized, which allows noise's affective impact to come to the

[91] There are resonances here with Deleuze and Guattari warning that in these 'concerts of noise' sometimes: 'One over does it, puts too much in, works with a jumble of lines and sounds […] one lapses back into a machine of reproduction that ends up reproducing nothing but a scribble effacing all lines, a scramble effacing all sounds […] one ends up reproducing a scrambling that prevents any event from happening. All one has left is a resonance chamber well on the way to forming a black hole.' However, their argument is ultimately different to mine, insofar as they understand such instances to move too far away from music and too close to noise. See Gilles Deleuze and Felix Guattari, *A Thousand Plateaus* (London, New York: Continuum, 2004), 379.

[92] Paul Hegarty makes a similar argument in relation to the excessive output of Merzbow. See Paul Hegarty *Noise/Music: A History,* 157-158.

[93] See for example Jamie Saft and Merzbow, *Merzdub* (Caminante Recordings: CAMI003, 2006).; Merzbow, *Merzbeat* (Important Records: imprec-004, 2002). Some of Merzbow's recent live performances have also involved a live drummer.

fore; such as when noise is used to perturb and warp pre-existing generic orders. I have outlined this capacity for noise in relation to the use of the glitch as a force of rhythmic mutation. Nicolas Collins brings the transformative noise of the medium into relation with recognizable musical styles, in order to 'remix' the familiar into something new. Pole, meanwhile, uses the micro-noises of a damaged filter to create delicate polyrhythms that skew a sense of rhythmic regularity. It is these styles and approaches that risk being drowned out if noise music is reduced to a case of 'he who shouts the loudest'. They might also be overlooked because they remain more obviously musical: the work of Collins or Pole cannot be accurately described as music attempting (and inevitably failing) to be noise, as might be the case with Merzbow or Incapacitants. I would argue, then, that noise music is – and should remain – as diverse as noise itself. While notions of taboo and transgression remain aesthetically and conceptually important for a number of noise-based genres, I have argued that approaching noise in terms of exposure helps to prevent the reduction of noise music to that which is deemed loud, shocking or abrasive. In no longer viewing noise to be ontologically or even aesthetically opposed to music, this approach thus helps to allow for a wider range of artistic uses of noise.

Conclusion

All that is not information, not redundancy, not form and not restraints – is noise, the only possible source of *new* patterns.

Gregory Bateson, 'Cybernetic explanation', 32.

Noise is ubiquitous. It is present in every space, every milieu. It infests every medium, modifies every sound-signal, takes part in every musical event. It is an inescapable, unavoidable, inextinguishable component of material existence. By describing noise in such terms, I am not meaning to invoke the aesthetic moralist narratives of Schaferian acoustic ecology, in which a ubiquitous and inescapable noise has polluted the soundscape, resulting in the death of silence. The ubiquitous noise of the milieu to which I refer remains for the most part unheard, inaudible yet affective, exposing all relations to the transformative, parasitic third term. From this perspective, silence pertains to a threshold of perception, rather than an absence of vibration – even silence is filled with noise. Viewed in this way, noise is something more – and something more important – than a type or judgement of sound.

Over the course of these chapters, I have sought to liberate noise from a constitutive 'unwantedness' and 'badness' so as to allow for a broader range of its manifestations, effects and potentials – its capacity to be destructive, inhibitive and harmful *as well as* its capacity to be generative, comforting and aesthetically interesting. To describe noise as unwanted sound, I have argued, is to limit noise to the former. Furthermore, this 'subject-oriented' definition of noise – alongside an 'object-oriented' definition, which takes noise to be a type of sound or sonic quality – rests upon a series of hierarchical binaries that separate, for example, wanted from unwanted, desirable from undesirable, periodic from non-periodic, 'good' from 'bad'. I have argued that constituting noise in accordance with a series of philosophical dualisms is insufficient: noise is too complex, too messy and too evasive to be grasped by neat, binary oppositions. However, this account is not simply a poststructualist critique of dualist understandings of noise. Rather, the

insufficiency of these definitions has prompted the development of an alternative approach, which permits a more nuanced understanding of noise: of what it is, what it does, and what it might do. Drawing upon Michel Serres' philosophy of noise in combination with Deleuze's appropriation of Spinoza's philosophy of affects, I have outlined a relational, ethico-affective definition of noise. Instead of understanding noise to be a type of sound or judgement of sound, it has been described as a productive, transformative force: an affective relation between entities or between an entity and its milieu.

This conceptualization of noise stems from two definitional approaches: noise as a parasitic interruption, interference or disturbance that induces a change and noise as a largely inaudible yet affective vibrational milieu/medium that every signal emerges from and passes through. I have suggested that although this would seem to describe two very different types of noise – the first pertaining to noise as it is defined in information theory and the second to the notion of background noise – there is in fact a connection between the two, insofar as the latter (necessarily) exposes (social, informational, sonic) relations to the former. With this, the hierarchical relationship between primary signal and secondary noise is complicated, in that there can be no signal without noise – no mediation without interference. Noise, then, is not the secondary and anomalous disturbance of an original state of calmness, clarity and perfection. Rather, it is that which is anterior to, shapes, and succeeds the signal. It is primary, necessary and foundational.

I have described the ethico-affective approach to noise developed here as non-anthropocentric; *contra* subject-oriented definitions and the phenomenological accounts of those such as Salomé Voeglin and Paul Hegarty, it involves a de-centring (though not a disposal of) the listening subject, insofar as noise need not be heard as such – or even heard at all – in order to exist. Consequently, this approach allows for those noises that evade direct human perception but are transformative nonetheless. There are, for example, those parasitic noises of the CD system that are ordinarily prevented from reaching the registers of audibility through error correction software, or the media noise that audiences hear (and see) through. However, just because its presence is not registered does not mean that noise is not there. According to this definition, then, noise no longer 'needs me'. Nor is noise tied to particular sonic

qualities: it need not be loud or abrasive. While there have been a number of recent conceptualizations of noise working to assert its sublime grandeur – its ability to overwhelm and dominate the listening subject – these accounts tend to miss the smaller, banal noises that shape our day-to-day encounters. An ethico-affective approach allows for those dramatic and overwhelming encounters, as well as the everyday experiences of noise – the barely noticeable (but nonetheless transformative) interruptions, or the familiar noises of the milieu to which we have become accustomed. An ethico-affective approach thus allows for a broader range of noise's manifestations – perceptible and imperceptible, large and small, the ordinary and its extra-.

Spinoza's conceptualization of affect is advantageous for approaching noise in that it remains bound to a relational ethics, so that an affective approach to noise is also an ethical approach to noise. I have argued that a Spinozist ethics provides a means of countering the aesthetic moralism that underlines Schaferian acoustic ecology's conservative politics of silence, in which noise is construed as a 'bad' to silence's 'good'. Although Schafer's Platonic narrative affords attention to noise's affective power – its potential to influence both the behaviour of individuals as well as the nature and organization of social relations – this affective capacity is taken to be inherently negative. Noise is that which destroys community, encourages selfishness and alienates listeners: it is a marker of a 'sick' society. This aesthetic moralism, however, fails to allow for those contexts in which silence is felt to be oppressive and alienating, and those in which noise provides a sense of belonging and community – as was exemplified in relation to Jacqueline Waldock's research into the soundscape of Liverpool's Welsh Streets. From the perspective of a Spinozist ethics, noise is no longer taken to be innately 'bad'; it is not attached to negative affectivity. Rather, noise's 'badness' (and, by extension, silence's 'goodness') is understood to be secondary, relational and contingent – it is a potential effect or outcome of noise rather than its constitutive feature. In other words, there is nothing *inherently* good or bad about noise (or silence) – it has the capacity to be both. Whether noise is 'good' or 'bad', generative or detrimental is defined by the nature of the relation from the perspective of that which is affected. I have argued that to apply a Spinozist ethics to noise is not the same as reverting to a moral relativist position. The moral relativist position that a subject-oriented definition veers towards still assumes noise to be

definitively ‘bad’ or ‘unwanted’; it suggests that what is judged to be unwanted sound by one listener may not be judged to be unwanted sound by another. In this sense, an ethico-affective approach to noise is even more open-ended, in that it permits noise's capacity to be positively productive. Rather than pertaining to a negative judgement made by an individual listening subject, noise’s ‘goodness’ or ‘badness’ is defined in accordance with a body's (in its broadest, Spinozist sense) increased or decreased affective power. This correlative relation means that there is an objective dimension to a Spinozist ethics of noise, while also maintaining that what is bad, destructive or damaging for one body (again, in its broadest, Spinozist sense) may not be so for another. However, as I have noted, many encounters involve a mixture of both ‘good’ and complementary relations and ‘bad’ or destructive relations. Good and bad, then, are not understood as a binary opposition but a qualitative continuum. Spinoza’s ethics thus permits a more nuanced understanding of noise that helps facilitate the 'messiness of the experiential'.[1] It allows space for noise’s quotidian, repetitive and predictable manifestations; as well as its potential to be serendipitous, anomalous and out-of-the-ordinary.

Since noise is an interdisciplinary concept, in this text I have felt it necessary to take an interdisciplinary approach. I have drawn upon a wide range of disciplines, including cybernetics, information theory, soundscape studies, philosophy, cultural theory and media studies. In doing so, I have sought to create new, productive connections between previously unconnected ideas and concepts. Most obviously, I have brought together a Spinozist notion of affect with noise; it introduces noise to affect theory and vice-versa. It also brings this ethico-affective definition into a perturbing, parasitic relation with more longstanding discourses of noise, so to rupture and transform a conservative politics of silence and a ‘transgressive’ politics of noise. However, although it might not be obvious throughout, there is ultimately a musicological objective underlining the approach to noise I have taken. In decoupling noise from notions of ‘unwantedness’ and ‘badness’, I have sought to facilitate an alternative understanding of noise’s use as a musical resource – one that breaks away from the already well-rehearsed tropes of failure, contradiction and

[1] I take this phrase 'messiness of the experiential' from Sara Ahmed's work on happiness, which refutes the correlation of happiness and 'goodness'. See Sara Ahmed, ‘Happy objects’, in Melissa Gregg and Gregory J. Seigworth (eds.), *The Affect Theory Reader* (Durham: Duke University Press, 2010), 29-51.

transgression. Indeed, the ethico-affective approach presented here (which views noise a productive, transformative force) is perhaps most closely related to the ways in which noise has been conceived of and discussed by composers and practitioners such as Christian Marclay, Maria Chavez, Yasunao Tone, Henry Cowell and (to some extent) Luigi Russolo.

Noise music (as it has been understood here) helps exemplify noise's positively productive potential – its capacity to generate new sonic sensations. It demonstrates noise's capacity to be something other – or more – than unwanted sound. The ethico-affective approach I have developed also provides an alternative to narratives of noise music as transgression, with which noise music works to 'cross the line' between the musical and the non-musical, the norm and the taboo. These narratives – exemplified by Paul Hegarty and Jacques Attali – assume noise and music to be mutually exclusive terms. Consequently, noise, when it is brought into the realm of music is thought to cease to exist as such; it becomes the once-was-noise. Drawing upon Henry Cowell's 'The Joys of Noise', I have proposed an understanding of noise music in terms of exposure. From this perspective, noise music foregrounds and extends the noise always already present within the techno-musical system for the purpose of generating new affects and sensations. I consider the notion of noise music as exposure to be preferable to a 'transgressive' politics of noise, in that it helps prevent the reduction of noise music to its most 'extreme' manifestations – to the loud, abrasive or 'shocking'. With this, I have sought to acknowledge noisy musical practices that occur outside the 'full noise' approach of the likes of Merzbow and Incapacitants. Furthermore, I have suggested (somewhat speculatively) that noise's affective capacity – its transformative potential – becomes clearest when it is brought into relation to more familiar musical markers. This is exemplified by Nicolas Collins' *Broken Light,* which uses noise to 'remix' recordings of Baroque *concerto grosso*. In this instance, the noise of the techno-musical medium (i.e. a CD player) converts the old into the radically new.

There are, of course, limitations to this understanding of noise music, and it would seem to be more immediately suited to some practices more than others. Given my focus on informational definitions of noise, it is most obviously germane to those practices that utilize the noise of the material medium. I have argued that noise music

pertains to a diverse set of sonic art practices that aesthetically, conceptually and practically engage with noise's multiple definitions. Noise's other connotations and meanings thus continue to be important for understanding certain practices. For example, despite my criticisms of the notion of noise as transgression, I acknowledge that this has been and remains aesthetically important for a number of artists. Merzbow's oeuvre, likewise, can be considered in relation to many different ideas of noise, including noise-as-loudness, noise-as-excessiveness, noise-as-threat, noise-as-relentless, noise-as-dominance, as well as noise-as-interference and noise-as-potential. Although his work can be viewed in terms of exposure, this approach will inevitably fail to capture all the ways in which concepts and aesthetics of noise are explored in his music. Thus while I seek to move away from the rhetoric of failure, transgression and contradiction, those notions remain important for certain practices that seek to engage noise in those terms.

Thematic Connections

This critical exploration of noise contributes to a variety of recent developments and 'turns' that have taken place across numerous academic fields. I have already noted that there has been something of a 'noise' revival over the past few years, much of which has stemmed from media studies, musicology and sound studies. This resurgence of interest in noise may itself be connected to a broader, transdisciplinary turn – particularly within digital media studies – towards the 'dark side' of media culture.[2] This 'dark side' pertains not only to that which is ordinarily perceived to the 'bad' or 'evil' (e.g. spam, internet crime, viruses, hacking) but also to those media objects, processes and events that have remained in the dark within media and cultural studies due to a focus on questions of signification and representation. This 'turn' has prompted a critical consideration of the role that the erroneous, anomalous and extraneous – glitches, crashes, system errors, digital waste and so on – play in shaping and transforming media networks and the social more broadly. A reassessment of these objects and events has shown that they are not simply 'bad' abnormalities but that they partake in a much more complex relation to techno-

[2] Jussi Parikka and Tony D. Sampson (eds.) *The Spam Book: On Viruses, Porn and Other Anomalies from the Dark Side of Digital Culture* (New York: Hampton Press, 2009).; Matthew Fuller and Andy Goffey, *Evil Media* (Cambridge, Mass.: MIT Press, 2012).

cultural norms. For example, in *The Spam Book: On Viruses, Porn and Other Anomalies from the Dark Side of Digital Culture*, Jussi Parikka and Tony D. Sampson describe how anomalies are 'continuously processed and rechanneled back into the everyday of network culture […] Anomalous objects, far from being abnormal, are constantly made use of in a variety of contexts across numerous scales.'[3] The billion-dollar security industry, for example, is economically dependent on anomalies, inasmuch as the development of virus software is driven by the emergence of new viruses. Systems are designed around the pre-emption and containment of the anomaly. The anomaly, then, partly determines how we engage with digital cultures. In light of this, Parikka and Sampson argue that there is a need to instigate new conceptual strategies that allow us to move beyond the binary impasse between 'normal/abnormal'. This account of noise can be understood as (amongst other things) a response to this call for the development of alternative pathways in addressing the anomalous.

Although I have been cautious to emphasize that noise is not an exclusively sonic phenomenon, this study could be understood as part of a larger and ongoing project exploring the relationship between sound and affectivity. I would suggest that affect studies and sound studies are two fields that can be productively thought together, given the primary role of affect within sonic experiences. I have suggested that the relationship between noise and certain configurations of affect is somewhat obvious, in that it is commonly associated with feelings of irritation, unease or discomfort. The relations between sound and/or music and affect are similarly immediate. If affect theory seeks to explore the parts of the experiential that are omitted by hermeneutic and discursive modes of analysis, then the sonic and the musical – as those which are so frequently resistant to semantic interpretation – provide ideal contexts from which to consider the implications, influences and effects of affectivity. There are, for example, those familiar sounds that put as at ease, or those ominous, out-of-place sounds that call us to alert, filling us with a sense of dread. Likewise, music is frequently used to encourage or emphasize a particular mood or create a general ambience: there are pre-party soundtracks, romantic-night-in mix tapes, chill-out compilations and our personalized gym playlists that help us run

[3] Jussi Parikka and Tony D. Sampson, 'On anomalous objects and digital culture: an introduction' in Parikka and Sampson (ed.) *The Spam Book,* 1-18, 4.

faster for longer. Meanwhile, advertisers and marketing companies have been finding ever more effective ways to use sound as a means of getting under their target audience's skin and sucking them in before they can realize what is happening to them. Yet the idea that sound and music are capable of influencing the ways in which listeners act and feel is by no means new. Though expressed using different terminology, the affective capacity of sound and music has been recognized since Antiquity. Plato, for example, expressed anxiety at the degenerative influence of certain musical sounds: whereas 'simple music' was thought to encourage 'temperance', complex sounds and particular modes, rhythms and instruments were understood to weaken the spirit and encourage meanness, corruption and promiscuity.[4] Such music was thus considered a threat to the moral cohesion of society. This Platonic notion of music's affective power and subsequent social influence is echoed both by R. Murray Schafer (for whom a good and harmonious soundscape mediates the good and harmonious relations of a society; and a noisy, dissonant soundscape mediates the bad and degenerative relations of a society), and the use of classical music as an affective deterrent (see Chapter Three). However, despite these connections, sound has been frequently overlooked in theories of affect, while sound studies and musicology have, for the most part, failed to pick up on contemporary developments in affect studies.[5] This text has pointed to a way in

[4] Plato writes: 'When a person allows the music of culture to charm him and make his ears a channel for his mind to be flooded with the modes we described […] as enchanting and soft and the ones we described as plaintitive and spends his whole life humming and entranced by song, then at first he softens his passionate side, like an iron in a forge, and makes it useful, instead of useless and intractable; but if he goes on and on, and never lets up, but is beguiled, then the result is that he dissolves and melts his passionate side, until it becomes completely fluid and he has, so to speak, cut the sinews out of his mind and made himself a 'feeble fighter' […] if right from the start he was endowed with a mind which lacked passion […] then it doesn't take long for this to happen; but if he had a passionate mind, then he weakens the passion and destabilizes it, so that even trivial matters make it quickly blaze up and die down again. People like this have exchanged passion for peevishness and irritability and are seething with discontent.' Plato, *The Republic,* trans. Robin Waterfield (Oxford: Oxford University Press, 1993), 133.

[5] There are, of course, a number of notable exceptions. I have repeatedly made reference to Steve Goodman's *Sonic Warfare: Sound, Affect and the Ecology of Fear* (Cambridge, Mass.: MIT Press, 2010), which proposes a vibrational ecology of affects so to consider the circulation of 'bad vibes' through the military-entertainment complex. There is also Anahid Kassabian's work on ubiquitous listening and distributed subjectivities (see Anahid Kassabian, *Ubiquitous Listening: Affect, Attention and Distributed Subjectivity* [Berkley, CA: University of California Press, 2013]); and Lawrence Grossberg's exploration of popular music and fandom (see 'Another boring day in paradise: rock and roll and the empowerment of everyday life', *Popular Music*, 4 [1984], 225–258.) I have also co-edited the collection *Sound, Music, Affect: Theorizing Sonic Experience* (New York: Bloomsbury, 2013) which seeks to draw together affect studies and sound studies. For more on the absence of sound and music from affect studies see Marie Thompson and Ian Biddle, 'Introduction: somewhere between the signifying and the sublime', in Marie Thompson and Ian Biddle (eds.), *Sound, Music, Affect: Theorizing Sonic Experience* (New York: Bloomsbury, 2013), 1-24.

which these two fields can be usefully connected. I have argued that an affective approach to noise is advantageous, in that it begins with what noise does rather than what noise means. Likewise, this exploration of noise has drawn attention to the affective power of sound: its capacity to frighten, disperse and alienate but also to generate feelings of belonging, excitement and community.[6]

In developing a materialist and non-anthropocentric approach to noise, there are thematic resonances with two, related intellectual trends that also connect with both the contemporary interest in the 'dark side' of media culture and the affective turn: new materialism and posthumanism. 'New materialism' (or 'neo-materialism') can be understood as distinct from dialectical materialism, typically drawing from a lineage that connects Spinoza-Bergson-Whitehead-Deleuze-Irigaray-Haraway-Barad-Grosz-Braidotti, rather than Hegel-Marx-Adorno.[7] On the one hand, new materialism can be understood as a response to calls for attention to be (re)turned to the body, materiality and matter; on the other, it can be connected to a 'long genealogy' of materialist feminism that deals precisely with these thematics.[8] As Rick Dolphijn and Iris Van der Tuin argue, new materialism 'explores a *monist* perspective, devoid of the dualisms that have dominated the humanities (and sciences) until today, by giving special attention to matter, which has been so neglected by dualist thought. Cartesian dualism, after all, has favored mind.'[9] Rather than understanding matter to be inert and passive, new materialism has suggested that matter can be thought of as vibrant, active and affective.

[6] While it principally draws upon Deleuze's reading of Spinoza, this text can also be viewed as attempting to negotiate a middle ground between the philosophical and metaphysical lineage of affect primarily led by Deleuze and Brian Massumi, and the lineages stemming from queer theory, feminist theory and cultural studies which seek to address embodied/somatic experiences of the body-as-subject. I do so by perusing a non-anthropocentric definition of affect that includes but is not limited to the experiences of the listening body. Chapter Four, for example, was more focused on the way in which neighbourly noise and the silence of solitary confinement affects the listening body-as-subject, whereas the notion of (immanently) transcendent background noise is more closely aligned to Deleuze and Massumi's understanding of affect as potential. A fuller consideration of the tensions and possible connections between these two affective lineages is potentially a future avenue for exploration.
[7] See Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010), xiii.
[8] Carolyn Pedwell and Anne Whitehead, 'Affecting feminism: questions of feeling in feminist theory', *Feminist Theory,* vol.13/2 (2012), 115-129, 118.
[9] Rick Dolphijn and Iris Van der Tuin, *New Materialism: Interviews and Cartographies* (Ann Arbor: Open Humanities Press, 2012), 85.

The emergence of new materialism might be understood as a contemporary manifestation of 'posthumanism': indeed, Diana Coole and Samantha Frost describe 'the avowed posthumanism' of new materialist ontologies to be one of their 'distinctive characteristics.'[10] Like affect theory and new materialism, posthumanist thought looks to challenge the positioning and values ascribed to the liberal (Cartesian) subject and the primacy afforded to the human and human experience. As Cary Wolfe argues, it refutes the 'fantasies of disembodiment and autonomy inherented from humanism'.[11] Often drawing upon Donna Haraway's figure of the Cyborg, posthumanism presents a reconsideration of the dualisms of human/machine, human/animal and mind/body.

Posthumanism and new materialism, then, share my concern for de-centring the body-as-subject, choosing to recognize its 'imbrimbircation in technical, medical, informatic networks.'[12] As with much posthumanist and new materialist thought, I have sought to think of the human as that which is not so much opposed to but operates *with* and is affected *by* nonhuman others. Noise, I have argued, points to this entanglement of entities and their environments. If silence (*apropos* Schafer) is what characterizes an ideal transcendentalism, then noise is the marker of a material, mutative and immanent milieu from which affected and affecting bodies – including (post)human bodies – cannot be disconnected.

Future Directions: A Parasitic Politics

Describing noise in terms of perturbation, transformation and relationality would seem to point to an underlying political dimension that could be fruitfully developed. Noise has been understood as that which assures that things keep changing; it interrupts and transforms relations, and, in doing so, generates something new.

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[10] Diana Coole and Samantha Frost (eds.), *New Materialisms: Ontology, Agency and Politics* (Durham and London: Duke University Press, 2010), 20.
[11] Cary Wolfe, *What is Posthumanism?* (Minneapolis: University of Minnesota Press, 2010), xv. While the terms are sometimes used interchangeably, I am drawing a distinction here between posthumanism and transhumanism, insofar as the latter can be understood as seeking an extension of the Cartesian liberal subject and – relatedly – a transcendence of embodiment. For more on this see N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies and Cybernetics* (Chicago: University of Chicago Press, 2008).
[12] Cary Wolfe, *What is Posthumanism?* xv.

Conversely, a (hypothetical) noise-free system would remain predictably stuck – there would be no variation, no potential, no information (as the term is used by Claude Shannon and Warren Weaver). Noise, then, is that which produces the future; it brings about new relations and connections. A Spinozist approach also makes noise an issue of power, inasmuch as every affective encounter is associated with an increment or diminishment in a body's power to affect and be affected, to act and be acted upon. There are good and bad encounters with noise, in the sense that noise increases or decreases a body's affective power. So noise can produce good or bad futures; it can lead to serendipitous as well as unwanted outcomes.

By describing noise in such terms – as that which transforms relations and, in so doing brings about the new – it becomes tempting to connect noise with efforts to bring about the end of a capitalist era from which the future has disappeared from sight. Nevertheless, I am keen to avoid uncritically associating noise with an emancipatory politics. I have noted that noise has often been ascribed an inherent radicalism, particularly within musical discourses, with which noise music's (purported) aesthetic radicalism is equated with a progressive politics. From the Futurists' celebration of noise as a means 'breaking out' of the stale and tawdry realm of musical sounds; the marriage of the sonically abject with the socially abject in the 'anti-music' of Throbbing Gristle; to the dismissal and/or affirmation of 'rebellious' musical genres such as hip-hop as 'noise' or 'noisy', noise is never far away from proclamations of its ability to unsettle, uproot or overturn established musical orders and socio-political codes. As Anthony Iles suggests: 'there is a strong field of attraction to the cultural space of noise for the politicized musician – a music that does not have a set code or form nor an expected mode of behaviour. Those packing a liberatory politics with their music often turn up here.'[13] Noise, as that which lies as a dangerous 'outside' to musical orders, has the capacity to blow minds and shock bodies; it is imagined to be transgressive, subversive, anti-capitalist, anti-bourgeois, anti-convention, anti-skill and anti-establishment.

In addition to Simon Reynolds' noted criticisms of noise music's transgressive capacity, I would argue that an oppositional politics that equates noise with political

[13] Anthony Iles, 'Introduction', in Mattin and Anthony Iles (eds.), *Noise and Capitalism* (Sebastián: Gipuzkoako Foru Aldundia-Arteleku, 2008), 9-17, 15.

resistance fails to account for the predatory nature of capitalism. Rather than perturbing the socio-economic status quo, noise is heard to be cool, edgy and, most importantly, profitable. As it has gained popularity, noise music (as a genre) has come to be blighted by a tension between its rhetorical and aesthetic radicalism (noise as resistance) and its commercial recuperation as another 'extreme' product (noise as commodity). Rare and limited edition releases become collector's items, commanding high prices amongst noise connoisseurs. The excessive number of noise music releases that ensure the consumer's collection will never be complete helps drive a desire to purchase the next new noise. Likewise, the notion that noise music may unlock new sensations, or reawaken the senses of the listener who has already heard too much, gives it a market appeal. As Nick Smith notes, 'Rather than entering the market kicking and screaming, noise plays along as well as Pokémon cards and Beanie Babies.'[14] Perhaps the ultimate expression – or parody – of noise music connoisseurship is Merzbow's *Merzcar*. The one-off release consisted of a Mercedes Benz with a copy of Merzbow's 'Noise Embryo' rigged to CD player. When the car was started the CD would begin and would become impossible to turn off. The Mercedes, then, was essentially extravagant (and expensive) CD packaging. Outside of noise music too, noise's association with a profitable 'coolness' have seen it become something of a brand or 'buzzword'. This is helpfully exemplified by Manchester's charity NOISE, which describes itself as 'Europe's only one stop shop any community for emerging creative types who want to break into the creative industries, learn the tricks of the trade and build up a wow-factor online portfolio on their journey to the top.'[15] Thus while I do not wish to dismiss wholesale the possibility of a radical politics of noise or noise music, it is evident that uncritically aligning noise with notions of resistance is highly problematic.

An alternative (and arguably more nuanced) theorization of noise's emancipatory potential is also apparent in the recent digital media scholarship on error, malfunction and anomaly. This formulation is more akin to Serres' parasitic politics; there is a sense that erroneous and anomalous objects and events may harbour some kind of political potential, in that, like the parasite, they mark an opportunity for

[14] Nick Smith,'The splinter in your ear: noise music as the semblance of critique', *Culture, Theory and Critique,* vol. 46/1 (2005), 43-59, 54.
[15] See http://www.noisefestival.com/ [accessed March 2012].

transformation that comes from within the system itself. Unlike many accounts of noise music's political potential, moreover, the discourse of noise-as-error takes into account the mechanisms and operations of a post-Fordist 'network' or 'control' society. As Mark Nunes argues, this era is governed by what Jean-François Lyotard calls a 'logic of maximum performance': a cybernetic ideology of informatic control driven by aspirations of an error-free world, which is entirely efficient, accurate and predictable.[16] From a cybernetic viewpoint, the aim is not to eradicate noise, since this can never be entirely successful. Rather, the aim is to predict, pre-empt and counter noise's effects. Thus noise is not excluded as such, but is to be controlled and contained within a system. As Nunes states with regard to system error: 'the logic of maximum performance demands that error is either contained as a predictable deviation "captured" by those all-too-familiar error messages of everyday life, or nullified as an outlying and asignifying event.'[17] However, there are those occasions where the erroneous evades systemic control and slips through – the moments, for instance, when CD error correction software fails to counter the effects of noise, allowing it to slip into the registers of audibility. Nunes argues that on these occasions, 'error calls attention to its etymological roots: a going astray, a wandering from intended destinations. In its "failure to communicate", error signals a path of escape from the predictable confines of informatic control: an opening, a virtuality, a *poiesis*.'[18] For Nunes, then, the related concepts of noise and error provide the possibility of 'way out'; as destabilizing events they provide an opportunity to evade the predictable and already-known cycles of control.

I would thus suggest that it could be potentially useful to develop the political implications and potentials that come with an ethico-affective approach and consider how this relates to these two, identified political trajectories of noise – the notion of noise music as aesthetic-political resistance and critique; and a cybernetic notion of noise-as-error, with which the parasitic glitch in the system might allow for a pathway that evades the confines of control.

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[16] Mark Nunes, 'Error, noise and potential: the outside of purpose', In Mark Nunes (ed.), *Error: Glitch, Noise and Jam in New Media Cultures* (London, New York: Continuum, 2011), 3-23, 3; Jean-François Lyotard *The Postmodern Condition: a Report on Knowledge* (Manchester: Manchester University press, 1984).
[17] Ibid.
[18] Ibid.

There are also a number of other possible lines of development stemming from this account that could be explored in future work. While reference is made to artists from around the world, I principally draw upon Euro-American discourses of noise and noise music. Another area for future development, then, would be to consider how the approach to noise taken here relates to noise discourses from other geo-cultural backgrounds. For instance, it could be questioned whether subject-oriented and object-oriented definitions can be found in Japanese histories and discourses of noise, or whether the 'common sense' definition of noise as unwanted sound also holds true within other languages.

The approach to noise explored here could also be applied in a more extensive analysis of musical works. Indeed, there are plenty of other artistic examples that could be examined using this approach – the examples I have covered here are only a very small segment of a noisy universe of music and sound art. Similarly, this approach could be used to analyse instances of noise within other artistic practices, such as media art, poetry, theatre and literature, so as to gain a greater insight into what noise may do and what it may serve to generate in these particular contexts.

What Noise Might Do?

Whether good or bad, generative or destructive, overwhelming or unheard, noise, I have suggested, is always affective. Indeed, affect can be understood as the connecting thread that underlines noise's informational, social and aesthetic manifestations. Noise's affectivity is as central to encounters with noisy neighbours as it is to Yasunao Tone's glitching and stuttering wounded CDs; to crackling telephone conversations as it is to the quiet improvisations of *onkyô.* Noise's positively productive manifestations in music and sound art, then, are to no longer be reduced to the anomalous or exceptional: a making 'good' of noise's 'bad'. Rather, by disconnecting noise from a constitutive negativity, I have sought to formulate a more satisfactory account of the relationship between noise and noise music. More generally, I have provided an alternative framework for noise that allows for a broader range of its manifestations and effects and which no longer views the notion of 'good' noise as paradoxical or contradictory. However, in taking the notion of

noise beyond unwanted sound, I have also looked to maintain a sense of definitional consistency. In other words, an ethico-affective approach looks to provide a specific understanding of noise that also embraces noise's variability and multiplicity.

By somehow trying to grasp noise, this text was always going to fail in the sense that it was never going to be able to capture everything that noise is, does or can be. However, in keeping with the Spinozist spirit, I would assert that we know not yet what noise can do – what affects and effects it may serve to generate. I have sought to leave space for these not-yet-known possibilities, as well as allowing for noise's more familiar manifestations. To be sure, if noise is anything it is 'both-and': it is both surprising and banal; both spectacular and unremarkable; both obvious and unknown; both digital and analogue. It is both a threat to and an integral part of the system. This text, then, is by no means the last word. Nevertheless, I hope to have made clear that there is much more to noise than what greets the ear as unwanted sound.

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