A Sound Takes Place

Noise, Difference and Sonorous Individuation after Deleuze

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Submitted in fulfillment of the degree of Doctor of Philosophy. Architecture, Philosophical Studies, Culture Lab, Newcastle University. March, 2011.

Abstract

This thesis traces an idea of auditory influence or sonorous individuation through three distinct areas of sound-art practice. These three areas are discussed according to a kind of spatial contraction, passing from the idea of auditory influence in acoustic ecology and field recording practices, to its expression in work happening at the intersection of sound-art and architecture, and finally towards headphonic space and the interior of the body. Through these diverse fields and divergent practices a common idea pertaining to the influence of the auditory upon listening subjects is revealed, which itself brings up questions concerning the constitution of a specifically auditory subjectivity in relation to the subject 'as a whole'.

Towards the expression of a theory of sonorous individuation appropriate to practices approaching sonorous matters in the mode of a sonic materialism, the philosophical work of Gilles Deleuze is called upon as a critical framework. This philosophical framework is adopted as it clearly expresses a spatio-temporally contingent theory of individuation. This particular contingency becomes necessary in exploring works wherein the production of acoustic space is understood as being indissociable from a subjective 'modulation' or process of sonorous individuation, in which auditory

individuals or listening subjects are bound within and influenced by acoustic spaces in which a sound takes place and a self takes shape.

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Introduction: The Conditions of Sound

Developed throughout this text is a theory of sonorous individuation, tracing the spatio-temporal relations between sound, subject and individual as well as the field of reciprocal influence that they constitute. This text proceeds according to the sounding of bodies, addressing individuals as such, according to their affective and resonant capacities ahead of a certain symbolic efficacy wherein representation and recognition define the foreground and apparent. The routes followed or lines traced are those mapped out or articulated within the work of a number of contemporary sound artists; amidst a multitude of others, the work of Jacob Kirkegaard, Mark Bain and Alvin Lucier are considered exemplary insofar as they are heard, felt, read and seen to express particular yet differing notions of sonorous individuation. While it would be too simple to say that any of the approaches considered herein could be reduced to a single mode of engagement, it is argued that a particular primacy of material affectivity is expressed in such practices by way of individual, somatic resonant capacities. The problems that the work of these artists present us with—problematic not in the sense of a detrimental negativity but rather in the Deleuzian sense of an 'impersonal field of singularities out of which thought draws its localized solutions' ¹, or

¹ Alberto Toscano, *The Theatre of Production: Philosophy and Individuation Between Kant and Deleuze* (Hampshire and New York: Palgrave Macmillan, 2006), 2.

'the subliminal objects of little perceptions'²—are considered according to the manner in which they address their listening subjects and the faculties to which they appeal. The pieces, performances and ideas under consideration make of their occupants and audience patient subjects; subjects not of a word, voice or name but cast as such by way of an anomalous 'interpellation'—or more properly an individuation—by way of a noise, a sound less displaced than affecting peculiar displacement and a modulation of individuals. Instilled in the individuals addressed as such through intensive sonority is less quietude and contemplation than the excitement of an affective capacity, a resonance between bodies, between objects.

Herein the influence of an idea is traced, an idea of sound, less a concept than a 'genetic' or rather catalytic element of nature that finds its base and ungrounding in a kind of white noise, the site of a generative potential exceeding each instance of audition. As an Idea, noise is positioned as excess, as that which persists despite imperceptibility; to concern ourselves with its influence is to investigate the ways in which sound insinuates itself into the determination of individuals. Here we must note a difference regarding the individual, conceived as the concrete support of the personal and subjective. Louis Althusser conceived of this pre-subjective, concrete individual as an order of being bearing difference and distinction from the subject proper, conceived according to political and symbolic definition.³ For Althusser this individual is nonetheless 'always-already' interpellated, always already a subject insofar as its place in a societal or symbolic network is established ahead of its birth and despite insistence to the contrary. It is around the individual implicated within ideological interpellations determining subjectivity, yet nonetheless existing in excess of that which we call the subject, the personal or the self, that this text orientates itself, focusing upon a particular materialism and an ontology of excess, focusing upon that commonly thought beyond the limit of discrete being and the image of the self. While oscillating around a complex notion of the listening subject, the trajectory followed herein is one that leads beyond this preliminary anchor point, finding it impossible to maintain sole consideration of the body at the expense of a more generalized anybody more adequately taking into consideration the complex apparatus and assemblages of resonant connectivity and capture. The particular limits of the sonic, of audibility,

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² Gilles Deleuze, *Difference and Repetition* (London and New York: Continuum, 2004), 205. The Deleuzian concepts of problems and Ideas is discussed at length below.

³ See Louis Althusser, On Ideology (London and New York: Verso, 2008) 44-51, in particular 48.

determine this site wherein matter is rendered audible as being inescapably somatic. The determination of sound space occurs according to an occupying ear or membrane, determining sounds as such, grounding the audible. What we call sound space refers to and requires the conception of a somatic territory, yet one which extends bodies beyond *the* body, beyond the strictly organic corpus, yet also beyond the body singular, beyond the body considered discrete and as the sole constituent-complex of individual identity. Allied with a particular idea of sound corresponding to an ontology of excess—according to which being and the constituent elements of reality are thought to dramatically exceed subjectivity, individuality and that which appears discrete—is an asserted primacy of the impersonal stating that there is more to being in, or in relation to, sound than appears to the listening subject.

Where sound was considered unbound or found a certain 'liberation' in Brandon LaBelle's Background Noise, his more recent Acoustic Territories can in part be read as accounting for its reterritorialization, detailing his 'perspective on how sound conditions and contours subjectivity by lending a dynamic materiality for social negotiation'.4 Constituting a key relation between LaBelle's work and my own is a central concern for the conditioning of subjectivity according to a 'dynamic materiality'. Difference is to be found in the extent to which, where LaBelle places a specific emphasis upon a set of social conditions, my own is more strongly concerned with a particular materialism and an explicit engagement with determinism, with the notion of a dynamic materiality as the primary field of interactions and a particular site of subjective influence or conditioning. Posited in place of a holistic subject is an impersonal audition considered anterior to the alteritous definition of personal space. Personal space is here taken to be synonymous with a proxemic territory defining alterity—a mutable and mobile territoriality that is culturally, socially and materially contingent—a space set apart from that which is not I.5 Such a personal territory does not necessarily name a proximal intimacy, but rather the maintenance of a minimal distance, as in the space of utmost auditory intimacy—perhaps to be found through the exclusion of all others and extensity in the anechoic chamber—the

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⁴ Brandon LaBelle, *Acoustic Territories: Sound Culture and Everyday Life* (New York and London: Continuum, 2010), xix.

Brandon LaBelle, *Background Noise: Perspectives on Sound Art* (New York and London: Continuum, 2007). ⁵ Much is said of territories in what follows, yet the approach taken herein is perhaps more closely allied with Deleuze and Guattari's thesis on the vicissitudes of territoriality than that which finds expression in Brandon LaBelle's more recent *Acoustic Territories*.

difference within one's self is heard to become other, the sounding of the inescapable proximity of a beyond within.

Recent assertions of an intrinsically, inherently and, most problematically, 'unignorably' relational sonority are taken herein as too simplistic as sound may agitate, put up a wall, mask, saturate and obliterate, deafen and drive apart, sound may be ignored or fall beyond the constitutive and culturally determined thresholds of listening practice.⁶ With the development of audile technique and the training of the ear comes an audition highly capable of scission, of isolating objects, silencing, localization and distinct, alteritous identifications setting the self apart in space—perceptive actions more readily ascribed to an eye opposed to an ear yet nonetheless apparent in the multitudinous examples found in Salter and Blesser's empirical accounts of aural architectures. Despite these capabilities. many of which are described in the most limited and negative definitions of noise, there nonetheless remains a certain inescapable affectivity to the perturbations of the air we label sound after the ear. Sound makes and marks a difference within the self, it finds a resonant capacity between the subject and individual, it is the individual that cannot escape, that does not or has not learned to ignore or tune out the world, that may be forced into relations through the inability to close the ear or hermetically seal off the somatic membrane. Sound may drive apart, mark a distance or territory, yet an affective relation persists despite such alteritous consequences, an inescapable relation that locates a difference within the self. More generally, sound functions as if a driven wedge, appearing in-between, forcing apart while filling, occupying, drawing into new relations. While the individual finds itself interpellated as a subject, enmeshed within a network of symbolic relations, the individual is herein thought to nonetheless persist in excess; the subject sets itself apart, finds definition through alterity, it is the individual that is trapped on every side by inescapable relations and occasionally sinister resonances.⁸ It is the individual that exists in a state of

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⁶ See LaBelle, *Background Noise*, ix and Salomé Voegelin, *Listening to Noise and Silence: Towards a Philosophy of Sound Art* (New York and London, Continuum, 2010), xi-xvii. This criticism does not, of course, summarize nor apply to the totality of the arguments put forward by these authors, but rather identifies a common ideological position regarding immanence, intimacy and immediacy that prevails in many discussions of sound and is taken herein as an oversimplification of both the complexity of sonority and the listening subject.

⁷ Barry Blesser and Linda-Ruth Salter, *Spaces Speak, Are You Listening? Experiencing Aural Architecture* (Massachusetts: MIT Press, 2007).

⁸ Here I borrow the title of David Toop's book *Sinister Resonance: The Mediumship of the Listener* (New York and London: Continuum, 2010), which is notable for more reasons than I am able to summarize here, but particularly for the ambiguity and complexity it affords sound across a broad historical, artistic and social continuum that extends into the inaudible.

unknowable connectivity and utmost intimacy with the noise of the world, that which finds definition according to a resonant and affective capacity anterior to an attunement to, or a tuning out of, those signals more consistently determined according to the efficacy of the symbolic.

Amidst this lack of discretion we find a point of confusion that is considered generative and positively problematic, a site of informative interactions that describes a world saturated with 'incessant vibrations', considered less as that which describes the mechanical or electronic pollution of an auditory environment or soundscape, than the energetic nature of the world. Where a field of incessant vibrations may be taken to define a clamorous and deafening din, it is also understood herein as that constituting a nonetheless imperceptible void, those movements, oscillations, affects and perturbations that persist below the thresholds of perception and saturate that which we call silent, hollow or empty. The listening practice assumed in accordance with such assertions is not, therefore, one that remains satisfied with the phenomenologically apparent or empirically given, nor is its particular force and subjective impression sacrificed towards the efficacy of representation and the symbolic; rather, a listening practice is assumed that gives itself over to a trajectory towards the void, led not so much by the tune of a mysterious piper than by 'the wailing of elements and particles'. 10 Such a listening practice may in some ways be described according to a subterranean audition, listening beneath the surface of expressive objects and events towards their internal and intensive difference that itself finds expression in noise; the practice of creating openings into subterranean, invisible and typically imperceptible fields of noise is an approach that typifies the appeal to power made in the key artworks considered throughout this text. Accordingly, the notion of the void is treated as synonymous with that of an imperceptible spatium more than a sterile and vacuous lack, with the ubiquitous noise of material interactions more than sacred silence.¹¹ Where this noise that persists is ascribed a recursive ontological status it attests to a fundamental notion of ungrounding and the affirmation of an antecedent anti-essentialism that undercuts or exceeds what Seth Kim-Cohen has referred to as the 'dead end' of phenomenological

⁹ R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Vermont: Destiny Books, 1994), 74.

¹⁰ Gilles Deleuze and Félix Guattari, A Thousand Plateaus (London and New York: Continuum, 2004), 274.

¹¹ On this latter point it is not my intention to posit a binary opposition between noise and silence, but rather to say that what we consider silent is overwhelmed with the clamor of imperceptible movements

essentialism. ¹² A particular emphasis is placed upon intensity and sensation, but as events that do not remain within the domain of the phenomenological but lead towards the imperceptible. While phenomenological or empirical models are considered insufficient for the consideration of sonic conditions, it is not my intention to reduce the continuity, intensity and material specificity of the sonorous to extensive linguistic discretion, but rather to direct listening towards the imperceptible beyond, to the conditions of both sound and listening. The discussion of noise according to a catalytic generativity, ascribing it a certain—although nonetheless ambiguous—positivity is not to suggest that we should, in fulfillment of Russolo's dream, fill the earth with what Schafer described as infernal and incessant machines, but that in putting an ear to the ground and listening beyond, less towards the heavens than into the depths rumbling beneath that which appears given to the ear, we create an opening onto intensively different signals forcing audile techniques and the information of individuals. In putting an ear to the ground one listens, beyond given signals and apparent orders, through an opening onto fields of incessant vibrations and noisy, confused individuations residing beyond us, in excess of recognition and given thresholds of perception, to the background noise beyond the consistency and discretion of the identifiable periodicity and the I.

A theory of sonorous individuation is developed herein alongside an assumed fundamental contingency and as such this sonic component that asserts itself into a wider theory concerned with the determination of the being of the sensible, or a sensory individual, is considered to be inseparable from specific spatio-temporal productions, with the individual determined as such in relation to its conditions. The approach taken herein is in many ways aligned with a number of recent texts that have approached sound arts practice, or the practice of sound in the arts, from a perspective of its spatial implications, broadly considering sound in the production of place across space and time.¹³ Where the emphasis placed upon the spatial has perhaps been at the expense of the importance of the

¹² See Seth Kim-Cohen, *In the Blink of an Ear: Toward a Non-Cochlear Sonic Art* (New York and London: Continuum, 2009), xix.

¹³ Such texts include Colin Ripley, Marco Polo and Arthur Wrigglesworth (eds.) In the Place of Sound: Architecture, Music, Acoustics (Newcastle: Cambridge Scholars Publishing: 2007), Mikesch W. Muecke and Miriam S. Zach (eds.), Resonance: Essays on the Intersection of Music and Architecture (Ames: Culicidae Architectural Press, 2007), Ros Brandt, Michelle Duffy and Dolly MacKinnon, Hearing Places: Sound, Place, Time and Culture (Newcastle: Cambridge Scholars Publishing, 2007), Blesser and Salter, Spaces Speak, Are You Listening? Experiencing Aural Architecture. Labelle, Background Noise, LaBelle, Acoustic Territories, John M. Picker, Victorian Soundscapes (Oxford: Oxford University Press, 2003), amongst others considered herein.

durational—as Christoph Cox has suggested, considering the ephemerality of the primary subject matter—what follows identifies an inseparable spatio-temporality within the intensive matters of spatial production.¹⁴ The assumed fundamental contingency finds expression in the asserted spatio-temporal dependencies of the concrete individual and the broader subject matters considered herein.

In accordance with the assumption of a fundamental contingency considered essential to understanding individuation, this thesis is also broadly concerned with the role of sound in the production of diverse spatio-temporal complexes. This concern will be articulated across three broad spatial layers or territories, or according to a three-stage spatial contraction, in the midst of which the individual takes place: the noise of the world, the noise of architecture and the built environment and the noise of the (im)personal individual. Each of these three key sections deals with topics, practices and territories that are in themselves highly complex; the intention here is not to provide a definitive commentary on either, but rather to isolate from each the extent to which a notion of sonorous influence, determination or individuation is articulated. Immediately the proposed structure and situation is rendered problematic, as these three territories do not exist apart from one another, they are neither autonomous nor discrete. In acknowledging this unavoidable confusion, the three spaces with which this text is concerned can perhaps be articulated more generally and concisely as pertaining to intra-, inter- and infra-personal architectonics, territorialities related to the constitutive differences of a complex listening subject more than their clear alignment with the more distinct spaces already mentioned. While the aforementioned distinct spaces are neither autonomous nor discrete there are differences peculiar to each that must nonetheless be dealt with. While we admit their interrelations we are not so naïve as to assume an unproblematic smooth flow of vibrations, matter and influence from one site to another, as at each stage we find a constitutive resistance. The blurring of these distinctions and an acknowledgement of their reciprocal determinations is one of the core concerns of this text, yet in beginning we must assume such distinctions in order to approach the genetic or catalytic sites of the diverse practices considered herein. The three proposed layers or spatio-temporal territories are in many ways engendered by the practices under consideration, as there is, initially at least, an

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¹⁴ Christoph Cox, 'About Time' in *Art Forum*, November, 2007. Cox's remarks refer specifically to LaBelle's *Background Noise* and Alan Licht's *Sound Art: Beyond Music, Between Categories* (New York: Rizzoli, 2007).

intention to address them on their own terms, according to the spatial practices, contexts and metaphors they themselves operate within, to accommodate and contextualize a broad range of practices that are concerned with differing notions of auditory space—as well as to lend a certain structural coherence to the early stages of this argument. The broadest of these layers or territories is, accordingly, the most immediately problematic; in considering the noise of the world in a sense that is distinct from that of more localized architectonics, we consider a world set apart from that which inhabits it, or at least part of it—it is to this overtly romanticized notion of the world that we first turn in dealing with the most 'naturalized' notion of a sonic environment.

Chapter One, 'The Noise of the World', attempts to invert the traditional ideological framework of acoustic ecology or soundscape studies, moving away from centralized ideals of purity, silence and solitude, towards an ideological restructuration around an inclusive and positively problematic noise that negates the necessity of its characterization as the 'enemy of the acoustic community' and its binary opposition to silence, towards an ecological praxis built around a noise that names the world. This repositioning or restructuration is performed in an attempt to move away from an idealized and romantic natural order and towards the more complex notion of an associated milieu, as is required by the contemporary developments of phonography, field recording and acoustic ecology heard within the work of Toshiya Tsunoda, Justin Bennett, Andrea Polli, Stephen Vitiello and Lee Patterson—to name only a small few—whose widely varied practices take the notion of the environmental beyond a narrow conception of the natural. While such practices perhaps jar with the most limited interpretations of the rubric of acoustic ecology, this term is retained herein as the most broadly applicable descriptor of such practices insofar as the ecological is understood to express a broad and dynamic field of interrelations and reciprocal determinations not restricted to purely audible qualities, nor an ethnographic or anthropological practice of documentation. Taken in this expansive and primarily relational sense, the constitutive practices of an acoustic ecology are better understood as expressing a complex and contingent notion of an auditory environment whose components are not limited to the well defined image of the natural; in the words of

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¹⁵ Barry Truax, *Acoustic Communication* (Westport and London: Ablex Publishing, 2001), 66. In the former category I include such texts as Sarah Maitland, *A Book of Silence* (London: Granta Publications, 2008) and George Prochnick *In Pursuit of Silence: Listening for Meaning in a World of Noise* (New York: Doubleday, 2010).

Gilbert Simondon: 'this environment, which is at the same time natural and technical, can be called the associated milieu', a milieu retaining a sense of 'ecological' determination while moving beyond ideals that have colonized the natural.¹⁶

This opening builds upon an equation of noise with difference in an attempt to restructure acoustic ecology around a generative noise rather than a pure silence. This restructuration can be read as an attempt to embed Deleuzian difference at the ideological core of acoustic ecology; taken as the foundation of this critical engagement is Deleuze's statement that 'Difference is not diversity. Diversity is given, but difference is that by which the given is given, that by which the given is given as diverse'. ¹⁷ Given are qualified empirical and phenomenal appearances, recognizable sound events and objects, the generative potential of which is considered to reside in a difference equated with noise. The rubric of acoustic ecology is here maintained in opposition to its obliteration as penance for romantic naturalism, a gesture that would lead only to a fanatical coagulation around unambiguous noise. The critical trajectory taken herein is one of a careful ungrounding, a restructuration from the inside out in an attempt realign acoustic ecology's ideological kernel. In doing so we maintain something of the spatio-temporal relations of sonorous agents studied in acoustic ecology—the expansive and predominantly inhuman populous of Truax's acoustic community—while shedding their subjection to the purity of silence and a romantic natural order. Through this ungrounding we find the relational schema of acoustic ecology more capable of engaging with the contingencies and interactions of a more diverse and problematic field situation, stretching from the earth, through infra-, inter- and intra-personal architectonics, towards the conditions of the individual. This trajectory is followed as it expresses the relational, spatio-temporal contingencies constitutive of the site of sound and the listening subject, while tracing the lines of an affective auditory objectility that is heard, felt and understood to implicate the individual as such within the work of artists considered herein, most notably that of Mark Bain and Jacob Kirkegaard. While the implication of an auditory individuality in excess of the I cannot be thought to provide an exhaustive account of that to which any artworks considered herein appeal, the argument that follows makes an attempt at accounting for that which lies beyond the listening subjects described by the 'social turn', providing both critique and complement to the growing number of texts devoted to the implication of the auditory within the symbolic

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¹⁶ Gilbert Simondon, On the Mode of Existence of Technical Objects, 61.

¹⁷ Deleuze, Difference and Repetition, 280.

structures of the interpersonal.

Bain's work explicitly expresses an architectonic contingency, a reciprocity between spatial materials, sonic matters and listening subjects, concerns that appear in the work of a number of artists discussed in chapters two and three. In chapter two—'Architectonic Noise'—we will follow the production of auditory space in and around the architectural as a means of developing a historical framework for the auditory ideas put into practice in the work of contemporary practitioners that are of primary interest to this thesis. In addition to the historical context provided within this chapter, attention is devoted to the ontological implications of practices built upon diverse notions of auditory spatial production, specifically the identification of matter as always being in motion—beyond apparent and often visible stability—that extends from the sonorous excitation and saturation of space.

Chapter Three attempts an explicit outline of a theory of sonorous individuation appropriate to the works considered herein, an essential spatio-temporal contingency constituting the ground of such a theory having been prepared in the former two chapters. Here attention is given to the notion of the individual as being distinct from or in excess of the subject, a distinction that is necessary for considerations of auditory influence according to a primarily affective impression rather than explicitly symbolic operations. It is through focusing upon a distinction that acknowledges difference within the self that we arrive at a notion of the individual appropriate to an affective theory of sonorous individuation, a theory that I believe finds praxical expression in the work of a number of artists exploring the spatial implications of auditory production. This theory is built upon the philosophy of Gilles Deleuze, and in particular the theory of individuation developed in Difference and Repetition. Adherence to Deleuzian philosophy guides the methodology applied within this thesis, a method which operates according to critical interpretation of the complex or 'problematic' spatio-temporal situations produced through the sonic expressions of the artists considered herein. The argument to be presented is less concerned with fidelity to the intensions of the artists whose work is of primary concern than with the consequences and impacts of their sonic expressions, adhering to what is perhaps best described as a functional infraesthetics. This approach is in many respects concomitant with the attention given to sonority by Deleuze and Guattari in A Thousand Plateaus, yet the bulk of this thesis attempts to avoid much of the terminology developed in this text in an attempt to enable critical engagement with ideas that are often obscured by the crippling repetition of

Deleuzo-Guattarian terms at the expense of the generative difference they were intended to inject into the world of critical discourse. This third and final chapter concludes with an attempt to reconnect with the work of Deleuze and Guattari in order to draw upon the specifically sonorous implications of their work while enabling critique of its application within the specifically sonic arts. While this thesis attempts to provide a critical interpretation of the problems concerning audition and auditory experience to which Deleuzian terminology is most readily applied—most notably issues of immanence, relation and connectivity—in critical and 'reflective' discussion, Deleuzian philosophy is nonetheless considered to most suitably account for the expression of a praxical theory of sonorous individuation that I believe to be evident in the key works considered herein. Through the application of this philosophical framework to the works considered herein I believe that we uncover a common image of the auditory individual and the means of its acoustical influence, determination and reciprocal implication within acoustic space.

In what remains of this introduction I wish to broadly situate the argument presented herein within the context of contemporary 'sound studies' or 'auditory culture' while addressing some of the key concepts and terms that will be deployed and developed throughout this thesis.

A Notable Absence

The body of this text bares an absence, yet an absence that lends definition to the trajectory that is to be taken through sound art practice: the absence of Xenakis. While in some senses emblematic of a relationship between architecture and sound—in particular the production of sonic space more than the sonic production of space—it is the nature of this relationship that is brought into question and redressed in many contemporary practices that focus upon the spatial implications of sonic expressions. The relation this thesis bares with the work of Iannis Xenakis is complex in a manner that is characteristic of both Xenakis and the matter under consideration. For each resonance there is an overarching dissonance, frequently foregrounded yet often acting quietly in the background, preventing the smooth integration of concepts at the most fundamental level. The conception of sound and the sound object active in Xenakis' practice is of importance to that presented here; at all levels Xenakis conceives of sound in terms of a multiplicity, at a micro level as a collection of elementary

particles and at a macro level a single event is recognized as 'a cloud of sounds'. 18 Yet where there is an intimate proximity there is the hushed presence of an antithetical praxis. The importance of a particular model of architecture—which is now, within architectural theory, almost routinely subject to criticisms of hylomorphic assertions, hegemonic prescription and delusions of autonomy—to Xenakis's work is at the core of this absence. 19 It is precisely Xenakis' metaphysics that is brought into question and in many cases inverted by the work considered in this text, work that is focused on space defined according to emergent form over geometrical prescription. It is not with metaphysics per se that I take issue here, but rather with the assertion of a metaphysics of prescription over one of contingency and generative interaction. The antithetical nature of this most intimate of relationships is heard most clearly in the call to 'free oneself, as much as possible, from any and all contingencies', as such a call is, as far as the argument presented here is concerned, contrary to ontological foundations of sound. 20 The definition of architecture as we find it in Xenakis' work must be brought into question; this architecture presents itself as a function of a metaphysical practice built upon a perceived purity found in mathematics, a practice which engendered, from common formulations, both the architectural and sonic forms of the polytopes, a praxis which makes clear the structure or influential hierarchy of Xenakis' thought that is behind his claim that 'everything that is said here on the subject [of music] is also valid for all forms of art (painting, sculpture, architecture, films, etc.)'. 21

The trajectory that this text follows through sound art practice requires that we address a definition of architecture and of architectonic space that is not universal but of particular relevance to the practices and materials under consideration. The architectures presented herein are primarily architectures that depend; these are contingent, ephemeral

¹⁸ Iannis Xenakis, Formalized Music: Thought and Mathematics in Music (New York: Pendragon Press, 1992), 31.

¹⁹ The idea of autonomy in architecture comes under fire from a number of directions within contemporary architectural theory. Fernández-Galiano, for example, has criticized the idealization that abstracts architectonic space from its use, occupation and degradation. The work of Jonahan Hill and Jane Rendell draw use towards the foreground by focusing on issues of architectural appropriation, deformation and the positioning of the 'user'. Jeremy Till's *Architecture Depends*, calls for an architectural practice which takes greater account of, and influence from, societal, historical and ethical contexts. Mostafavi and Leatherbarrow have produced a text which, by focusing upon the effects of weathering upon buildings, seeks to more openly include temporal deformations and material contingencies within architectural considerations. Within a more philosophical framework John Protevi has developed a clear Deleuzian critique of hylomorphism with a particular focus upon architectural practice see *Political Physics: Deleuze, Derrida and the Body Politic* (London and New York: The Athlone Press, 2001), 7-14.

²⁰ Xenakis, Formalized Music, xi.

²¹ Ibid., 5.

and ambiguous spaces that are perhaps more precisely discussed in the terms of Lefebvre's notion of spatial production.²² This is a position that once assumed yields a consequential inversion of the traditional architectural relationship between formal definition and material organization. Such a notion displaces spatial organization in terms of prescription and geometry-centric design in favour of an understanding of space as something produced through use, as being environmentally and contextually contingent, as having identity and function only to the extent that it is dialogically determined. Space emerges as space in action through interactions; such an assertion is, in this instance, built upon the fundamental agitations expressed as sounds to bolster discussion of its role in spatial production. Yet more generally this implies space as the product of bodies in motion and therefore invokes a broad field of productive vibrations, collisions and interactions, appealing to practices operating beyond the bandwidth of audibility that nonetheless help delimit its diffuse territoriality. The focus placed upon architecture as spatial production shifts the discourse of spatial determination away from design and towards notions of appropriation and occupation; design is not disavowed but rather placed in a more dialogic structure with use, abuse, decay and weathering. Yet this emphasis upon use is not a call for a celebration of the 'creative user', as a shift in the focus of architectural discourse towards that of the user does not go far enough. While such positions open debate towards use and appropriation, by maintaining the concept of the user they protect and distinguish the position of the architect in equal measure. The matter under consideration herein requires that this be a discussion of agents, subjects and individuals rather than one of users. Only through considering the agents and subjects of spatial production is this necessary reciprocity addressed.

Intimacy, Audition and the "Tyranny of the Visual"

The focus of this text is placed upon the sonorous, considered as a particular bandwidth of vibrations amidst a larger vibrational continuum. Despite the emphasis being placed upon sound, the eye is not herein opposed to the ear in the somewhat tired rehearsal of an 'ocular tyranny' or the superiority of 'the senses', discussed as if sight were not one such

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²² On this point of architectural dependence in practice see Jeremy Till, *Architecture Depends*, (Cambridge and London: MIT Press, 2009).

sense, an assertion that seems only to affirm its elevated position. Admittedly, we must acknowledge the transparency commonly ascribed to sight, as that which renders true, consistent and identifiable common empirical events, a transparency that has helped solidify a hierarchy of the senses based around the attainment of certitude and identification. There is no doubt as to the prominence of 'visual culture' over other areas of sensory or 'sensual culture', and the rigidity with which this hierarchical structuring of the senses has come to condition global—although not universal—cultural perceptions should of course be challenged in order to better understand and appreciate the nuances of the sensory complex. My aim, however, is not necessarily to champion one sense over another, but rather to render problematic the senses and perception in general, to make repeated attempts at establishing a trajectory towards the imperceptible, to a ground constituting the conditions and potentials of the perceived. While this text does, of course, bear a bias towards audition and sonority, it is not my intention to contribute to critiques of the 'tyranny of the visual', as is prevalent in many texts on sound and 'auditory culture'. While sound may indeed have suffered a lack of attention in many fields, to set one's argument out in opposition to a 'great ocular tyranny' appears somewhat naïve or misguided. Assumed by such critiques are a number of ideals of the sonorous, such as that of intimacy, opposed to the 'distance' of vision, a sensuousness that is lost in the 'rationality' and discretion of the visual. While such ideals constitute the starting point of my own interest in sound and the direction this thesis is to take, these ideals are not taken as the privilege of sound or hearing, nor perceptual states that cannot be attained through vision. I believe this to be a question, not of necessarily redressing a hierarchy of the senses or righting the great disservice done to sound throughout human history, but more one of *material intensity*.

Perhaps the clearest account of this uncritical and idealized engagement with audition and perceptual hierarchies can be found in Salomé Voegelin's *Listening to Noise* and *Silence* wherein detailed accounts of engagement and auditory experience are given over to somewhat romantic idealization. For Voegelin:

Sound's ephemeral invisibility obstructs critical engagement, while the apparent stability of the image invites criticism. Vision, by its very nature assumes a distance from the object [...] The visual 'gap' nourishes the idea of structural certainty [...] By contrast, hearing is full of doubt [...] Hearing does not offer a meta-position; there is no place where I am not simultaneous with the heard. However far its source, the sound sits in my ear. I cannot hear it if I am not immersed

in its auditory object, which is not the source but sound as sound itself.²³

While there are a number of resonances between Voegelin's approach to sound and my own—an interest in notions of 'sound itself', auditory objects and resonant intimacies, as well as the semblance of stability or solidity—we should question this setting of hearing against seeing, of sight against sound, or rather, as appears to be the case, of sound against seeing. The contrast enforced here is one between an intimacy of audition and the distance of sight, yet it is only clearly articulated where sound, as the medium of hearing, is contrasted with sight and not its equivalent medium: light. Not considering light in this juxtaposition undermines the auditory privilege Voegelin is trying to establish. As sound passes into the ear and into the body, light passes into the eye, and while one can be closed and the other cannot—except, perhaps, where the ears are plugged or stopped up with wax to guard against desire for audile temptations leading to death, to the void and to oblivion this does not change the necessarily immersive nature of the medium. There is little in the above, regarding the question of intimacy and distance that cannot be said of sight insofar as light—and not only sight—is taken into consideration. Should such qualities be thought the preserve of the sonorous, we need only make reference to the work of James Turrell, whose light installations focus on upon the medium of sight, upon its material possibility, as much as an object to be perceived. In Turrell's work, what is to be seen is the possibility of seeing, the problem to which the eye appears as a response, the material intensity of light considered not as transparent medium but as a saturating, distorting opacity informing experience. The object of Turrell's work is light itself, not simply as invisible medium at the service of vision and identification, but as itself a material objectivity. In much of Turrell's work, the viewer encounters light itself, abstracted from its use as a means of spatial or ecological perception, allowing for an emphasis to be placed upon the intensity and sensory experience of light. The means of such presentation lead to what we might consider a spatial distortion; the perception of distance is particularly problematized in Turrell's work, light and colours saturate a space to the point of a dissolution of perspective, such as the use of blue in Ganzfeld: Tight End (2005) within which one is forced to take slow steps in order to avoid collisions with the walls which one can only assume must be present. In other instances the appearance of a wall is just that, a

²³ Voegelin, Listening to Noise and Silence, xi-xii.

phantasmic apparition produced through the interaction of colours, presenting a thickness or solidity to the eye and the sensation of its anticipation in the body at large, as is manifest in *Wedgework V* (1974). Here we might also think of *Gray Day* (1997) which presents us with both an absolute surface and an incomprehensible depth, yet a thought would not be enough, as the intensity of the situation constructed through light itself becomes evident only in the confusing intimacy of experience. The dissolution of distance in such works is an absolute necessity insofar as one it to be able to perceive light as material objectivity and not simply as that which allows one thing to see another, where one is to perceive not the colour of a thing but colour itself. This dissolution of distance performs a dissolution of referentiality and object recognition, objective form and distance having been exploded in the intensive experience of light itself.

The dissolution of distance or a 'visual gap' is also performed in Luke Jerram's Matrix, wherein visual forms or retinal images are not strictly produced according to artistic prescription or external objective qualities, but by the internal conditioning and organic means of visual perception. Upon entering an almost pitch-black room, the viewer focuses upon a dim red light. Matrix then produces a visual impulse response; flashes of white light—light containing all visible frequencies—excite both the space occupied by the installation and the physiological means of visual perception. The forms and colours perceived are those produced within the organism as opposed to that which is presented by an object. Where the object of Turrell's work is light itself, that presented in Matrix is seeing, the means of visual perception. In other words, one sees seeing; one does not perceive an external object but the internal apparatus and sensations of visual perception, that which is either thought to be 'transparent' or is erased from conscious perception in the representation and perception of objects. Matrix brings to attention an intensive experience of seeing attained only through the abstraction of sight from the recognition of objects; seeing becomes an event in-itself rather than the means by which we see something, an act of recognition that entails the erasure of both the mechanism and influence of perception. It is in this way that Jerram's Matrix can be said to bring the invisible or otherwise imperceptible to sight.

To focus, however briefly, upon such examples is not to undermine my own argument, but rather to point out that arguments which attempt to label sensory proximities, intimacies or intensities as the reserve of audition or hapticity participate in a certain sensory romanticism, fighting the corner of the long suffering perceptual 'underdog' of

audition, pinned down and oppressed by the 'tyranny of the visual'. While examples of perceptual intensity—such as those experience in the work of Turrell and Jerram—can be found within the visual arts, of particular concern are examples from the sonic arts. The neglect or submission of the sonic to the visual can here be understood as serving a particularly useful purpose; being concerned with the intensity of sensation and perception as something attained through a distortion of recognition, an act of separating out the act or means of perception from the identity or form of an object to be perceived, that we—those of us with sight—might be less accustomed to auditory means of identification allows for the exploitation of a certain opening, the possibility of a subtle influence, of being caught out or unaware. It is perhaps partly due to a certain neglect of the auditory that it serves as a particularly good example of the contingency and malleability of perception, while allowing events to slip in 'under the radar', according to a certain 'unconscious' or background perception. Yet even here we submit to a certain romantic ideal, as the development of a highly refined audile technique in blind individuals, musicians, medical professionals (practicing mediate auscultation), sound and acoustic engineers, amongst a far greater field of practitioners who take audible signals to be their object of study and means of expression, highlights the critical ear and the extent to which the ear and the audible, even where concern lies outside of linguistic communication, can serve analysis, recognition, recollection and representation.

While seeking to avoid romantic ideals according to which a peculiar uncritical intimacy is conceived to be a privilege of sound, there remains, of course, a particular specificity of sound that is behind my reasons for focusing upon it within this study and the privileged position it occupies herein. It is perhaps due to a certain confusion made possible by the bandwidth it occupies that an exclusive romanticized intimacy is ascribed to audible vibrations. It is around the lower threshold of audibility, where contractions and rarefactions in the air approach the infra-sonic, that this confusion is most clearly felt. At this point the distinction between the audible and the haptic becomes blurred and distance becomes problematic, not only the flesh but the inner organs and tissues, constituting a resonant membrane, report non-localizable excitations and agitations, sensations that do not appear to be referring to events happening 'over there' but to events occurring 'in here' at the surface and within the depths of the somatic spatium. It is perhaps this not uncommon sensation—which can sometimes be felt while standing between a wall or a glass facade and an idling train, bus or lorry, the oscillations of its engine exciting infrasonic resonances

within the occupied space—marking a feeling of the threshold of audibility, that lies behind the romantic and somewhat misguided notion that audible vibrations penetrate the body or are capable of establishing intimacy—or rather, to use an excellent Lacanian term referring to a simultaneous interiority and exteriority, *extimacy*—in a way that other vibrations do not.

The Expanding Field

The phrase 'sound in the expanded field' will, after the work of Rosalind Krauss, be taken as a means of delimiting an expansive and expanding territory of sonic practice, considered within the context of a field that now exceeds that delimited in Krauss's expansions and extensions.²⁴ It is not, of course, suggested that this phrase and the following argument constitutes the definition of sound art—nor that coming up with such a definition is of particular importance outside of market driven taxonomies—but merely that this phrase lends a certain definition to the work and approach to sound considered herein, work that considers the impact of the inaudible both within 'sound itself' and in its subjective impressions. One solution, of course, cannot be expected to render clear and distinct the entire problematic field of sound art, yet we should nevertheless be content insofar as it succeeds in lending clarity to a small portion of this field. Sound in the expanded field means to suggest that we include within our considerations that which is beyond sound, or that which is not sound, yet exists in relation with it; perhaps more precisely, it is suggested that in our considerations of sound we place a certain emphasis on its conditions. The extension of the sonic field has, of late, received notable attention; Seth Kim-Cohen's 'noncochlear' notion of sonic art focuses on a textual reading of sonic practices and its sociocultural impressions, and Steve Goodman's 'unsound' seeks to account for the affectivity of the sonic continuum beyond that which is clearly defined as audible. 25 Yet, more than the positions presented by these two authors, I am in agreement with Christoph Cox in assuming a definition and a position that opens sound up to what we might call its

²⁴ I will return to a discussion of Krauss's famous discussion of the expanded field below, as I use it here in a sense taken out of context, applying it beyond its original and primary concern for critical and explicitly Post Modern aesthetics.

²⁵ Kim-Cohen, *In the Blink of an Ear*.

Steve Goodman, Sonic Warfare: Sound Affect and the Ecology of Fear (Massachusetts and London: The MIT Press, 2010).

transcendent conditions, a definition of sound art as 'that which tends to focus on the conditions of possibility of audition and the noisy substrate of significant sound'. 26 This notion of a 'noisy substrate' goes some way towards defining the territory of sound's transcendent conditions; contrary to the normative sense of the transcendent as the domain of conceptual reason and even eternal spirit, the term is used here in the Deleuzian sense of that which constitutes the ontogenetic conditions of things, of bodies, events or objects. Taken in this sense the transcendent is distanced from the realm of the eternal spirit, defining the conditions that give rise to such things, their determining factors and events. The consequent ontological structure sees the transcendent not as that which floats atop a material support but as being in excess of, surrounding and intertwined with actualized and recognizable forms, the state from which things emerge and the means by which they continually change.²⁷ In light of the ontological implications of this (re)positioning of the transcendental, we will see how the notion of a 'noisy substrate' of sound can be considered as sonority's transcendent conditions, as constituting an originary murmur, vibrational continuum and field of interactions out of which significant sounds emerge. In the notion of such a 'noisy substrate' we find a particular equilibrium with the concept of difference.

Noise and Difference

Brandon Labelle concisely draws attention towards and adopts an 'equilibrium between the concepts of *noise* and *difference*', yet we must do more than state this in the manner of a fact simply given, we must question the nature of this difference with which we are to equate noise. ²⁸ This equation presents itself as an incredibly complex one, stretching beyond what I am able to address in this thesis. For now we must suffice with a very brief but nonetheless necessary summary of a few key areas wherein difference is closely associated with noise. Perhaps the most striking example of this equation with reference to societal politics is to be found in Jacques Attali's famous *Noise*, in which the clamorous music of a broadly defined musical avant-garde is heard as the harbinger of political and social change. The economic structures of emergent musical practices and communities are

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²⁶ Christoph Cox, 'Sound Art and the Sonic Unconscious', Organized Sound, 2009, 14/1: 24.

²⁷ The transcendental field in Deleuzian philosophy receives significant attention in later sections of this text.

²⁸ LaBelle, *Acoustic Territories*, 61. Emphasis in original.

heard to profess the coming of new social, political and economic orders, grouped by Attali into four broad epochs defined by sacrifice, representation, repetition and composition, respectively analogous to the transmission and transaction of music according to performance and oral recitation, its representation and circulation through scores, mechanical reproduction and distribution according to late global capitalism, and what amounts to a kind of return to the sacrificial, not as strict repetition but as simulacra, through the establishment of independent 'D.I.Y' networks that constitute what is in many ways a 'counter cultural' and global underground. More profoundly, this epochal framework is directly related, according to Attali, to the operations and desires of political power:

When power wants to make people *forget*, music is ritual *sacrifice*, the scapegoat; when it wants them to *believe*, music is enactment, *representation*; when it wants to *silence* them, it is reproduced, normalized, *repetition*. Thus it heralds the subversion of both the existing code and the power in the making, well before the latter is in place. Today, in embryonic form, beyond repetition, lies freedom: more than a new music, a fourth kind of musical practice. It heralds the arrival of new social relations. Music is becoming *composition*.²⁹

Noise constitutes the becoming of social order and organization, it is heard by Attali as fluid yet nonetheless abrasive and agitative movements of social change, this is a flux that is not strictly smooth. It is in this sense that noise has, for Attali, both generative and revolutionary potentials with regard to socio-political structures, being both harbinger and to a certain extent a catalyst of change. Noise is here heard as an intensive force which individuates social organization. Considered from the perspective of aesthetics and *style*, the actions and sonorous productions of a particular avant-garde are easily labeled as noise from the position of an established and dominant order, being that which is both marginalized and threatening. The equation of noise with difference in this instance appears grossly structural in its resolution, referring to the difference of that which is marginal and marginalized within society, defined as such according to the vicissitudes of political economy.

This equation builds upon a well defined relation of noise with alterity, drawing from the sense of an agitative noise of the other. The language, music and broad sonic

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²⁹ Jacques Attali, *Noise: The Political Economy of Music* (Minneapolis and London: University of Minnesota Press, 1985), 20.

productions of 'others' and all that is foreign is all too easily ridiculed or dismissed as noise or nonsense, as interference and mere irritation. In this sense the equation of noise with difference remains limited, restricting its scope and potential in being considered destructive or as mere annoyance from the position of a well defined and organizing conservatism. While we remain interested in the definition of noise at a 'molar' or purely socio-cultural level, such an argument is perhaps best articulated in the words of Dick Hebdige for whom:

subcultures represent 'noise' (as opposed to sound): interference in the orderly sequence which leads from real events and phenomena to their representation in the media. We should therefore not underestimate the signifying power of the spectacular subculture not only as a metaphor for potential anarchy 'out there' but as an actual mechanism of semantic disorder: a kind of temporary blockage in the system of representation.³⁰

Hebdige here defines noise in a typical manner, as interference within transmission, as a means of disorganization and confusion within systems of representation. Yet it is this focus upon representation—the means of which being responsible for the equation of noise with difference according to the organization of discrete identities and acceptable discursive expression from the perspective of a well defined social order, a definition which again limits difference through its restriction to the 'macro' level of differences between defined and discrete identities—that serves to undermine, from the point of view of the generative potential in noise equated with difference that we are currently trying to draw out, the potential in noise as the site of a continuous production of difference. Where the equation of noise with difference constitutes a political marginalization, we remain restricted to its representation, a noise that is thought to merely represent rather than be fully equated and synonymous with difference; in this sense difference is limited to being understood as divergence, as that which diverges from the norm, as that which is different only insofar as it is not normal. This limitation of difference is insufficient insofar as it serves, through its restriction to divergence, to maintain societal norms and the definition of recognized identities. Hebdige's understanding of noise is limited insofar as it limits its producers to effectuating its representation, a restriction which leaves these producers easily subject to the operations of repetition understood, in Attali's sense of the word, as a means of both commodification and silencing. Noise understood as only the representation

³⁰ Dick Hebdige, Subculture: The Meaning of Style (London and New York: Routledge, 1979), 90.

of difference as divergence is easily silenced. Yet within Hebdige's account, despite restriction to representation necessitated by his focus upon signifying cultural practice, we find an invitation to consider noise not only according to its external representation, as 'a metaphor for potential anarchy 'out there', but as 'internal' differential production, inviting potential anarchy 'in here', as a distorting influence within the limits and thresholds delimiting socio-cultural, subjective and impersonal territories. This potential is recognized in the identification of noise as an 'actual mechanism of semantic disorder', its 'blockage in the system of representation' being taken here as the stoppage of a broadly Attalian repetition, the forcing of a continuity and composition through the disruption of symbolic discretion. Through this blockage of representation the equation of noise and difference acquires a truly productive generativity in escaping restriction to divergence.

The symbolic and organizational discretion limiting noise to the marginal and divergent extinguishes 'internal' difference, that which is different not only from the point of view of representation or an established order, but different within the different itself, a productive and generative difference which constitutes both a threat to and the possibility of representation. It is in this sense that difference considered as divergence provides only an extremely limited understanding of the generative potential it is capable of accounting for. In its equation with noise, the internal constitutes a kind of elemental difference, accounting for the productive tensions between different interacting objects, the movements, impacts and frictions determining vibrational and sonorous productions. It is in this sense that we borrow from Deleuze, concisely summarized by Alberto Toscano, an understanding of 'determination conceived precisely as difference'. 31 It is in precisely this manner that I wish to express an equation or equilibrium between noise and difference, noise taken as the productive internal difference of sonority and not only the marginal status or identity of a defined practice or group of people. Noise, in the terms of an internal difference, is considered to be generative and determining, as both the foundational ground and the ungrounding dissolution of defined and clearly recognizable sonority. Difference, then, marks a productivity of the manner in which one thing differs from another, a difference between things or individuals that produces or enforces apparently discrete identities according to an 'external' determination or framing. Yet more profoundly, a thing, insofar as it is understood to necessarily differ within and from itself, is understood

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³¹ Toscano, *Theatre of Production*, 161.

to be the product of an internal differing. This internal difference or differing is to be considered as that which drives a thing more than maintaining it, the catalysis of its temporal or processual deformation, its morphological development or degradation, processes which are not to be strongly opposed when considered from the perspective of a general elementary composition. Internal difference names the potentials of a necessary variation and development to be found in the constituent oscillations which remain simple or invariant only in purely synthetic circumstance. It is this generativity of internal differences or differings that describes the productivity of noise as the constant and sufficient variability of audible and perceptible form.

(non)-sound

The emphasis I am keen to place upon the conditions of sound is necessarily a focus beyond sound, on that which is not sound yet is in it and gives shape to it. The inclusion of the 'not-sound' within sound art is, as stated above, assumed as one of its defining gestures. Yet, in order to accommodate the needs of the collection of works under consideration within this text, and in order to account for the fundamental contingencies of sound, this inclusion and heightened importance of the inaudible in sound art should be carefully considered. In defining what is not sound the tendency is to strip away layers until we reach an ever purer sense of sound itself. This approach can be recognized in the electroacoustic tradition in which visual stimuli are often considered to distract attention away from the 'sound itself', leading to a tendency for the performance of pieces to be carried out in darkened auditoriums amid an array of loud speakers. This sensibility is also clearly present in the work of Francisco López, where during performance the audience will wear blindfolds and sit in concentric circles facing outwards from the centre in which López performs—an arrangement mirroring the analogy which likens the propagation of sound waves through space to the ripples of a pond into which a stone has been dropped. This structure, which positions López at the causal centre of the unfolding sound events, also serves to direct the listeners attention away from such a cause, away from the processes behind the production of sound and towards sound itself. How, in terms of a theatrical architecture of perception, does such an arrangement of audience, event and performer structure their interrelation and organize perception? The most basic architecture of the

spectacle, the spatial organization by which the many observe the few, is here inverted, the audience turned away from the site of performance in a reorientation of attention. Blindfolded, the audience are discouraged from observing each other, or anything other than sound itself, this organization striving for a certain individualized perception and, in particular, audition. The situation is orientated towards an individual encounter with sound amidst a multitude of listening subjects. Such a structure builds upon developments in the acousmatic tradition, constructed around the hidden, absent or invisible source of sounds, focusing attention upon sound itself. The exclusion of that which is not sound leads towards the heightened awareness of the audible, granting increased attention to that which can only be heard, to the particular power of the audible. The consequence of such a particular focus is a tendency to think the often abstract purity of sound itself. In orienting perception towards that which can only be heard, to the particularity of the audible, we should at the same time be careful of casting off that which is not sound in our appreciation of it, for such a move leads one into the most obvious of Schaefferian traps, those of abstract sound objects and a practice of reduced listening that discards rather than includes the not-soundin-sound, collapsing the site of its complex contingencies and associations. Such an ontology of sound leads to a grounding of that which is not sound in a certain 'impure' negativity—a consequence borne in the acknowledged sonic purism of López's work and his aversion to the impacts of process and causality upon aesthetics and perception—as opposed to the 'affirmative' opening out onto and implication of a transcendent substrate in sound.

Yet it would also be too simple to criticize López purely on the grounds of his apparent modernism and phenomenological essentialism, oversimplifying what is a complex approach to sound. There is a particular complexity and power in his performance of the sound object and fidelity towards Schaefferian ideals, a power that is lost when subject to commonsensical critique. It is for this reason that I believe there is something of the particularity of the sound object that must be rescued from itself, yet rescued from a self that it never had, if we are to do justice to the power of this particular principle. Concomitance with a contingent and contextualizing model of sound art outlined above is far from suggesting an accordance of the senses—on the contrary, there are works, considered within and of particular importance to this text, which explicitly manipulate

divergences and confusions between the senses.³² Opening up to material contingencies and 'extra-sonic' properties does not suggest a trajectory towards common sense, accordance between what we see, feel or smell, against the reality of the fact that what we hear frequently goes unseen; it remains one of my concerns that descriptions of perceptual events according to a common sense, a harmony of the senses, can lead to a stripping away of the *particular* power of the sensible, the force located in that which can only be heard, seen, or smelt, that evades summation and identification according to commonsensical operations. The inaudible conditions and extensions of sound can of course be drawn out in sound art practice without need of visual reference, as is evident in López's own work which serves as an example of sonic contingencies, as Christoph Cox highlights in reference to López's *Wind*:

The piece as a whole focuses on the very medium of sonic transport—air—and highlights the fact that sound is simply the result of pressure changes in that medium. Its subject matter—wind—is the most primeval sonic stuff [...] To focus on it is to transcend the limits of our ordinary ontology, composed as it is of relatively stable visible objects.³³

Here Cox places the focus of *Wind* beyond its immediate sonic materiality in a manner that points towards an inescapable contingency, an inherent failure of the Schaefferian sound object that nonetheless constitutes its particular power and importance. Emphasis is placed upon the physical conditions of sound as much as sound itself through focusing awareness on 'the very medium of sonic transport'. Any criticism of the notion of the sound object or purely sonic is to be primarily articulated towards any sense of purity that inheres within acousmatic pursuits; it is my intention to stress an inherent impurity of sound that expresses its complex interactions and inaudible extensions, connecting it's appearance up with its transcendent conditions as much as its extension in reception and interpretation. What we perhaps come across in the work of López is an exercise in mapping the limits or potentials of the acousmatic, a striving for a certain abstraction, for a listening that attempts to unbind itself from recollection and association. Any successes are fleeting, being retroactively underwritten by memory and identification, assailing reductive audition by way of association. To this extent there is a certain futility in such exercises, yet the potential for

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³² For example the works of Jan Peter Sonntag which frequently manipulate the divergences between auditory and visual senses towards the internal production of senses of movement and nausea.

³³ Christoph Cox, 'Sound Art', 25.

catching one's self out nonetheless remains. Yet this futility is acknowledged by López, if outside of his written polemics. We find the clearest and most obvious example of this, as expressed above, in Wind, the causal event of the sound immediately referenced, scuppering the potentials for a typically 'objective' or reduced listening. Yet here there is a particular tension created between an attempted abstraction, an attempt that undermines itself in nomenclature, that foregrounds the internal contradictions of the sound object. This tension was again foregrounded in performance during an event entitled 'Sonic Materialities', a performance that was part of Sheffield's Lovebytes festival in 2010. López's provocative Schaefferianism submitted itself to a peculiar self critique on this particular evening. His complex ecological, ethological and often entomological audition found itself subject to a synthetically extended, rather than objectively reduced, listening. Situated within the overtly artificial exoticism of Sheffield's Winter Gardens-with speakers nestled amongst the carefully contained Eucalyptus and Bamboo—the site forced an identification and context upon the sounds being played back, associations drawing the sounds out-of-themselves towards the fabrication of a kind of hyper-saturated jungle simulacrum. An ersatz rain forest atmosphere presented an almost comic, fauxrecontextualisation of López's ordinarily 'objectified' acoustic textures and intensities, their origins appearing somewhat overstated. Their remains, however, a sense of striving for the ideals of the sound object, for sound taken 'in itself', an affectivity that exceeds recognition, despite the prevalence of recollection and association. It is this striving by which one attempts to catch one's self out, to hear despite oneself, a striving directed towards the potentials for a productive and generative confusion in that which can only be heard, yet directs the listening self beyond. Practices exploring such potentials or openings are charted throughout this text, practices in which something of the sound object lingers, despite a Schaefferian spectre, practices which grapple with an openly problematic sound object, an object that extends beyond itself, beyond a self that it never had.

In grappling with this problematic object it is associations with notions of a pure sound, of sound treated in abstraction, an abstraction that treats all associations as impure distractions, that are challenged. Such essentialism leads to a negative positioning of both the conditions and extensions of sound, extensions that lead beyond sound. It is an understanding of sound as fundamentally impure and always already leading beyond itself that is adopted herein. The negative positioning of the not-sound-in-sound, its conditions and associations, is to be avoided if we are to understand sound as emerging from a

complex spatium of material interactions rather than as emerging from a barren void. In avoiding the implication of negativity, and by extension impurity, upon the conditional origins of sound we can, in developing this ontology of sound, refer to an aspect of Deleuzian ontology in calling the not-sound-in-sound more simply (non)-sound. In moving away from negativity as an ontological category Deleuze conceives of (non)-being as the inclusion of a certain excess, or that which is beyond or more than a being, in being:

Being is also non-being, but non-being is not the being of the negative; rather, it is the being of the problematic [...] For this reason non-being should rather be written (non)-being or, better still, ?-being [...] This (non)-being is the differential element in which affirmation, as multiple affirmation, finds the principle of its genesis.³⁴

Here we relate Being, or that which is in excess of an actualized instance, to the ground, the transcendent conditions or 'noisy substrate' from which a sound, an actualized and recognizable thing or being, emerges. The importance of (non)-being to the ontology of sound undergoing development here is two fold: Being and being, or in reference to our specific concerns, a sound and its transcendent conditions, are not to be thought of as strictly discrete and distinct but rather as reciprocally determined; while Being or (non)being is conceived in terms of ground, the noisy substrate from which a defined and recognizable being (a sonorous body) emerges, its status as a genetic 'differential element' situates it as being included within the being of which it is the transcendent condition. In referring to an ontology that conceives of (non)-being, by extension we conceive of the notsound-in-sound as (non)-sound, as the inaudible and imperceptible interactions that form the background which inheres in sonorous qualities. As opposed to the exclusivity of 'not sound', (non)-sound should be thought of as being inclusive, referring to conditions and the material contingency of sound. 'Not sound' characterizes the acousmatic approach to extrasonic contingencies insofar as it focuses attention on 'sound itself'; (non)-sound should be thought of as being characteristic of a sound art practice that seeks to open sound up to its transcendent conditions, its complex interconnections and to the not-sound-in-sound.

In focusing upon an inaudibility which inheres in sound, upon the importance and ontological status of (non)-sound, reference should be made to the work of Seth Kim-Cohen, whose 'non-cochlear' approach places a particular focus on the inter-textual

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³⁴ Deleuze, *Difference and Repetition*, 76-7.

extensions of sound, on the socio-cultural conditions and impacts of sonic practices, but also upon a notion of sound as text. His trajectory beyond the audible is one of a flight from the notion of the in-itself that is manifest in the Schaefferian notion of the sound object. Kim-Cohen suggests that an abandonment of the sound object and a decentralization of sonic materiality are necessary, as both threaten to lead sonic practice down the 'dead-end' of phenomenological enquiry abandoned by the visual arts with the birth of postmodernism as an overtly conceptual practice. Sonic practice, he argues, must catch up. In moving away from the sound object, Kim-Cohen outlines various trajectories through artistic practice leading away from a central matter or phenomenological essence, a route that leads not only away from the center but away from centrality in general. This approach to the inaudible is one that can be seen to pick up where sound left off, a practice beyond the envelope of the audible, a symbolic continuity after sound. Where López positions his audience in the wake of the sound event, in concentric circles emitting out from the centralized point in which he stands, Kim-Cohen positions his readers just beyond the point at which these ripples fall silent, yet nonetheless continue to disperse. Yet what we soon find is that this schema appears as all too simplistic; in the abandonment of an irritable and centralized object, little is done to challenge or engage with its problematic status. The perhaps traumatic status of the object is left largely untouched and therefore continues to haunt the exposition of Kim-Cohen's non-cochlear approach.

The sound object, having been abandoned, nonetheless lingers in Kim-Cohen's text as a fearful monument or totemic presence, a relic of a past civilization—specifically that of Scheaffer and the GRM—that continues to both fascinate and haunt the present within which he writes. As such, the problematic and even traumatic status of the object cannot be shed and is, to the contrary, maintained in order to support an assertion of opposition to it; such is the all too simplistic binary structure of Kim-Cohen's argument. While his critical opposition to the sound object on the grounds of its essentialism is valid, his critique does not go far enough to challenge it, and it is precisely the assumed opposition to the object that sustains it. For much of Kim-Cohen's argument to hold, he must impose or force an essential purity upon a number of contemporary approaches to sonic matters—he is, in other words, driven to repeatedly call upon straw men in order to add weight to his thesis. Perhaps the most striking case of this is his account of Christina Kubisch's *Electrical Walks*. Kubisch's *Electrical Walks* involve participants donning headphones equipped with electro-magnetic receivers and following routes through towns and cities that Kubisch has

devised along lines of electromagnetic intensity coursing throughout urban environments. The headphones render audible the otherwise inaudible electromagnetic fields, tapping into the ubiquitous waveforms and frequencies that—largely—imperceptibly saturate urban centres. Kubisch's headphones make perceptible the ordinarily imperceptible noise of electrical equipment, power lines, screens, wireless networks and so on. In doing so the site or territory that each irradiating object occupies is recognized as extending beyond that which can be seen into an invisible and largely intangible hinterland of blurred boundaries. Rendered audible, such irradiating fields and electromagnetic territories are revealed in a manner which can be both alarming and intriguing, attracting attention while potentially repelling the listening subject. A new topology of the city is revealed and mapped out according to zones of varying electromagnetic intensity; movement through such spaces comes under new influence according to these ephemeral fields of both attraction and disquiet, either due to prescription—following Kubisch's map and instructions, themselves a response to these zones of intensity—or according to personal audile intrigue, listening subjects in search of new signal content. Kim-Cohen—quoting and excerpt from Rilke found in Kittler's Gramophone, Film, Typewriter—suggests that 'Christina Kubisch's Electrical Works propose that it is possible to encounter a phenomenon—in this case electromagnetism—and to "complete ... and then experience it, as it makes itself felt, thus transformed, in another field of sense." This is not a wholly bad summary, accounting for the transposition of waveforms into the audible range, phenomena that only after such a process of transformation or translation are made available to the senses. Yet the problem here is with the extent to which Kim-Cohen is putting Rilke's words into Kubisch's mouth. It is with the suggested completion that we should take issue, as the tendency to identify completeness, wholeness, self-same identity and essentialism in work where there is little evidence of such qualities is a recurring theme in Kim-Cohen's text. Revelation of an otherwise imperceptible phenomena to the senses does not necessitate nor constitute, as is Kim-Cohen's reading suggests, the provision of a final link in the constitution of a holistic and wholly present environment, as the audible space revealed nonetheless maintains varying degrees of obscurity, as only particular qualities of the environment and objects rendered audible are revealed. Kim-Cohen will go on to state that 'just as with Rilke, this longed-for completeness is a fantasy', yet this fantasy could be said to be more Kim-

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³⁵ Kim-Cohen, In the Blink of an Ear, 109.

Cohen's than Kubisch's, whose work aims more at uncovering new layers of complexity and detail in the environment than necessarily conveying it as a whole. 36 As opposed to a holism, such practices reveal a radical and impersonal alterity, degrees of difference within the complexity of the material world. Yet Kim-Cohen fails to recognize this: 'contrary to a phenomenological conception in which these systems and their Kubisch-revealed sounds are adumbrated perspectives of a single entity with a consistent essence, I cannot imagine or name a body to which both would belong'. This 'consistent essence' is Kim-Cohen's straw man, invoked in order to support binary opposition to it. Having stated that he is unable to imagine a body that could support such a unitary and consistent essence he goes no further in his investigations and walks away from the notion of the body, of any body, as contingent multiplicity. The completeness that Kim-Cohen ascribes to the phenomena rendered audible in the *Electrical Walks* is indicative of his broader tendency to ascribe or assume a consistency and stability of identity in matter. This underestimation of the potentials for complexity, morphology, contingency and anonymity in materials leaves Kim-Cohen forced to recurrently posit and assume an essence that he is at pains to negate. In providing a choice of either essentialism or symbolism both terms remain intact and simply result in championing one over the other. This dualism opens up a fissure which annihilates the potential for the identification of an influential continuum between blunt matter and symbolic meaning that could be capable of accounting for the complex interactions between them. This limited and pacifying understanding of material agency is made clear in the unproblematic purity ascribed to noise: 'contrary to apparent understanding, only noise is capable of purity. Signal, a product of traces and difference, is always impure, always shot through with the impurity of the other. Signal is never selfsame, never in absolute proximity to itself'. Here I am in agreement with these reflections on the nature of signal, yet I would argue that we can ascribe a similar description to that of noise and need not treat signal as necessarily synonymous with signs. We are able to conceive of noise as pure insofar as it is equated with pure difference, insofar as it is taken as difference in itself, an informal chaos. Kim-Cohen's mistake is to ascribe a self to the pure selflessness of noise, neglecting that noise too is never self same but always different. The position I will be defending is one that assumes the purity

³⁶ Kim-Cohen, In the Blink of an Ear, 110.

³⁷ Ibid., 111.

³⁸ Ibid., 100.

identified by Kim-Cohen yet does not adhere to the consistency ascribed to it. A further point of concordance is on the absolute proximity of noise to itself, yet only insofar as the 'itself' of pure noise is utterly selfless. Purity is admitted insofar as it is a pure difference and that any 'absolute proximity' that such purity may embody marks the impossibility of their being any self to speak of, as both self and signal require a critical distance, disconnection and alterity. In place of any essence a fundamental absence of essence and self-similarity is posited in noise. The 'absolute proximity' of noise 'in itself', the great communicator connected on every side is pure only insofar as it marks a pure absence of identity, a ceaseless flow incapable of signal, symbol or sign. Contrasting with the approach taken by Kim-Cohen, the one that is to be taken herein does not pass over this unspeakable and inaudible 'purity' in silence. The tautological difference in intensity that such a conception of noise poses remains imperceptible from the position put forward by Kim-Cohen which binds itself too tightly to a purely symbolic register and therefore limits the scope of its argument to an essentialized linguisticism. The extent of this limitation can be seen in the suggestion that 'a more productive distinction might be that between textual engagements with works of art versus engagements focused on material or perception'. 39 The inhibition that such a distinction posses is made clear in a discussion of Lucier's *I am* Sitting in a Room. The encounter with Lucier forces Kim-Cohen to momentarily to reflect upon the inseparable reciprocity that the piece establishes between auditory phenomena, architectural and acoustical determinants, the essential contingency of the resonant frequencies exposed and-most importantly for Kim-Cohen-speech and text. The complexity of this piece is, for Kim-Cohen, better reduced to its conceptual schematic, as identified in the centralized essence of the text. On this point we find Kim-Cohen in a position that mirrors the 'fundamentalism' he locates and critiques in the work of Francisco López, except in this instance sound is replaced with text. 40 While attention is centralized upon the conceptual concerns performed in I am Sitting in a Room, there appears to be either an unwillingness or inability to say what these are beyond the vaguest outline of the pieces broadly 'interdisciplinary' or 'intermediary' concerns. It is this complex of concerns realized in Lucier's work that appears to pose the biggest problem to the primacy of a symbolic and intertextual framework that Kim-Cohen is attempting to establish, the

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³⁹ Kim-Cohen, In the Blink of an Ear, 112.

⁴⁰ See Kim-Cohen, *In the Blink of an Ear*, 123-9 for his critique of Francisco López' neo-Schaefferian approach to sound.

complicated interrelations of matter and voice, object, event and text that resist the reduction towards a set of keywords and references to which Kim-Cohen subjects them.

Rigorously conceptual approaches to sonic practice is, of course, to be championed, yet need not be limited to yielding simple binaries. Driven from the centralized position of a traumatic sound object, Kim-Cohen's conceptualism attempts the transcendence of purely sonic concerns, yet this transcendence does not go far enough in remaining wholly insubstantial. The scope and trajectory of this conceptualism is somewhat stifled by its linguistic overcoding. This limitation arises from an approach that abandons the site of the object, leaving its status bereft of critical engagement and its conditions unchallenged. It is somewhat obvious that in a necessary response to phenomenological essentialism we need not limit ourselves to being for or against it, the simplest reduction of this latter position leading only to the matters for which it stands being rendered silent from the position of a dissociated semantic register. The alternative to this either-or situation is one which moves beyond the essentialized site of the object not in flight from it, a gesture akin to turning a blind eye, but via passage through it. In doing so, we find in the object itself the means of its own undoing: its fundamental or essential contingency. Whereas the abandonment of the site of the object leaves its ground untouched and unchallenged, a closer examination of the supposed consistency of the object—a critique of the in-itself in-itself—reveals sound-initself to be in fact nothing, an in-itself that is not one. In the utmost proximity of the object we arrive at its qualitative dissolution, its fundamental selflessness, the absence of a consistent, unitary or selfsame identity. In the in-itself we find only an absence of self, a solidity and consistency revealed as contingent and in flux. To arrive at this dissolution the line followed need not be one of flight but one of descent through the object to the point of its 'transcendent conditions'. In a critical trajectory through the 'central site' of the sound object we disclose the inaudible noise of a multitude of centres, singular events that constitute the conditions of a sound capable of being perceived as objective.

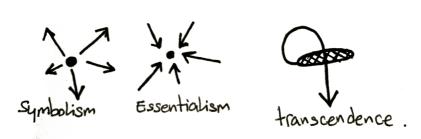


Figure 1: Symbolism, Essentialism, Transcendence

Beneath the abstracted appearance of a sound's coherent objectivity resides its conditions, a multitude of bodies, ears, organs, collisions, agitations and mediums—the expanse of a larger vibrational continuum. Such material conditions are not considered discrete nor autonomous and must be considered in terms of their interactions and reciprocal determinations, material practices that are in themselves efficacious and generative. As such, we find amidst the conditions of the object its supportive subjects, faculties, institutions, cultures and sub-cultures that make possible the determination of its boundaries and distinction. It is only in this trajectory through objectivity to its conditions that its autonomy is challenged; the desire to transcend the essentialism of objectivity requires a descent into its depths. As is surely obvious, a movement beyond the object and sound-in-itself need not mean that we limit ourselves to purely symbolic operations, but, rather, that the contingency of the symbolic is mirrored in degree if not in kind in the material conditions constituting the fundamental contingency of the in-itself.

This critical framework requires that we open our approach onto that of a presymbolic affectivity, a generative status of matter that gives towards that which is taken as given. Neither symbolic nor material efficacy can—insofar as their respective determinations are thought to remain unilateral—suffice, and what we, in our symbolic actions, pass over *as* silent should not be passed over *in* silence; the operations of material affectivity must be aloud to broach the surface, to pose a problem in opposition to the sufficiency of the symbolic. This suggested continuum stands in contrast to the exclusivity of the symbolic framework treated as sufficient in Kim-Cohen's approach wherein it is stated that:

if, as some would have it, there are experiences that could be characterized as pre-linguistic, then the minute we think or speak them, we rip them from this "pure" state, corrupting them with language. This is problematic on two fronts [...] this inevitable linguistic corruption [...] would locate most of human experience in falsity or impurity [...] Second, if some stimuli actually convey an experiential effect that precedes linguistic processing, what are we to do with such experiences? [...] If there is such a strata of experience, we must accept it mutely. It finds no voice in thought or discourse. Since there is nothing we can do with it, it seems wise to put it aside and concern ourselves with that of which we can speak. 41

Having previously assumed an inherent impurity and alterity in significant symbolic content, we here find a certain resistance to this same notion in rebuking affronts to the purity of human experience defined, by Kim-Cohen, as primarily linguistic. Again, it would appear that these convictions are not taken far enough as the impurity and alterity that he identifies in symbolic efficacy are not permitted to stray from what can be considered true, a reluctance that falls short of the importance of a kind of 'falsity' identified as being at work within social and symbolic registers in the Lacanian notion of the 'fundamental fantasy', or, in a very different way, the 'impurity' identified in Deleuze's account of the process of actualization and explication that marks the transition from a differential intensity in-itself to that which can be named and of which we might begin to speak. 42 This exclusion of the pre-linguistic fails to grasp that which 'finds no voice in thought' as that which forces thought in the reality of an encounter—an encounter that is not limited to purely symbolic operations—yet is, admittedly, ordinarily 'cancelled' in thought insofar as its perception is fused with recollection. The encounters with which we are concerned, defined by the work to which attention is to be turned, are to be distinguished from that of the quotidian, of default positions and common sense, and so it is the potential they pose for a forcing of thought that we are concerned with.

The 'expanded field' of which we are beginning to speak must, in accordance with what has been expressed so far, not only expand in one direction, that leading toward a scission between the semantic and the material towards a sufficiency of terminological, inter-textual referentiality and juxtaposition; it must be an expansion in all directions at

⁴¹ Kim-Cohen, In the Blink of an Ear, 111-2.

⁴² This notion of a 'fundamental fantasy' is described well by Slavoj Žižek who states that 'for Lacan, fantasy is on the side of reality—that is, it sustains the subject's 'sense of reality': when the phantasmic frame disintegrates, the subject undergoes a 'loss of reality' and starts to perceive reality as an 'unreal' nightmarish universe with no firm ontological foundation; this nightmarish universe in not 'pure fantasy' but, on the contrary, that which remains of reality after reality is deprived of its support in fantasy'. See Slavoj Žižek The Ticklish Subject: The Absent Centre of Political Ontology (London and New York: Verso, 1999), 51. The Deleuzian concepts of actualization and explication will be returned to in some detail below.

once that in doing so runs the risk of pulling itself apart. The risk must be taken as a trajectory that leads out of phenomenological essentialism towards symbolic sufficiency, far from being a radical development leads down what is now a well trodden path. Such a singular route makes progress only towards practices now well defined according to market taxonomies, practices grouped under the rubric of Post-Modernism. Too eager a leap into semantic 'anti-essentialism' would, rather than a progression, be something of a step backwards or rehearsal of steps being taken some—at the time of writing—fifty years ago. The assumption that sonic practice must 'catch up' with the conceptual or linguistic turn is to suggest that there is but a singular route out of Modernism and into Post-Modernism to which all practices should seek to adhere. What is proposed instead is the adoption of a notion of conceptual practice that is increasingly permeable and somewhat more loosely bound to language that would prevent a subjugation of sonic practices to the visual—or perhaps 'post-visual' conceptualism—and the assumption of a singular trajectory or progression that inheres in the unfolding of histories of art. An over zealous attempt to define contemporary practices through what Krauss describes as 'the universe of terms that are felt to be in opposition within a cultural situation, at the expense of 'material, or, for that matter, the perception of material', is to turn one's back on the contingent dynamics of materials and the reciprocity that defines their perception and the potentials they give to be thought.43

This position does not suggest that a focus upon material affectivity attains a sense of purity in being beyond socio-cultural determinations which are of secondary importance to a 'neo-modernist' artistic practice; rather, it is suggested that there is a cultural inclination concerned with the investigation of its broad continuum of conditions and influences, assuming a primacy of materials in the absence of positivism, an acknowledgement of the 'purity' ascribed to its materialist orientation above but on the condition that this purity is a pure absence of essence and the self same: a pure difference. Such practices that assert a primacy of materials are, nonetheless, defined less according to a notion of sound-itself as qualitative or phenomenological essence than according to the contingencies of the audible and audition, an orientation that finds a particular conclusion in the notion that sound-initself is nothing.

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⁴³ Rosalind Krauss, 'Sculpture in the Expanded Field' in Hal Foster (ed.) *The Anti-Aesthetic: Essays on Postmodern Culture* (New York: The New Press, 1998), 46-7.

1. The Noise of The World: An Opening

The home: idealized as a place of quietude guarding the consistency of self, the individual or the family name, where the sounds present are those of one's choosing, the records one plays to help structure a day, a meal, lending to the building, to the place, dynamics that resonate with the soul or its desires. Sounds known, noises familiar, the creak of that loose floor board just outside the toilet, the handle of the bathroom door noticeably different from that of the bedroom, that pan landing on that hob, the clangs and gurgles of a central heating system that emerges from the background noise that is perhaps an annoyance and at the same time a comforting drone. Such noises are known, recognized, rarely threatening, they become the signal components and support of an identity, of a place, a territory that is not only ours or mine but a part of me, propping me up, lending me support and consistency through their repetitions, their punctuations, marking time, events, entrances, exits, the welcome audible affirmations of familiarity, of a life. Beyond this place, this home, this ideal, outside resides difference, the noise of the world. Such is the all too simple distinction between noise and signal, interiority and exteriority, self and other, that guards an oscillatory and fragile threshold, a domesticated territory; yet in such ways sound nonetheless structures space, constructs place, at the very least it lends consistency and a particular definition. Where we talk of and are engaged in sonic spatial productions we invoke a practice synonymous with territorial productions insofar as we are talking of sounds that take place, that in their oscillations and resonances relate bodies to one another

in the extensions and contractions of a broad somatic complex. This extension and resonance influences and informs space, performing a certain determining function in its disturbances, distortions and drawing of attention. In this sense these territories are not exclusively political or subjective insofar as their claims or taking of place is not primarily concerned with the expression of an identity or self awareness. The territoriality evoked is perhaps disempowered in this ambiguous structuration, in distancing or rather expanding its conception beyond that of political and subjective territoriality. Such an orientation, however, does not seek to negate such a political or macro-territorial orientation, nor challenge its importance, but rather suggests that such concerns are well addressed elsewhere and that the subject matter of this text requires attention to a more localized and particular territoriality, that of an affectivity of objects and events according to a vibrational materialism. It is in this sense that a certain objective territoriality is discussed insofar as objects influence one another, making and taking place, beyond yet impinging upon subjective perception. This is not an appeal to an 'objective truth' in the sense of something irreducible and undeniable, it is, on the contrary, an attempt to broach a fundamental contingency and affirm difference, to undermine essentialism and purity and acknowledge affectivity beyond the empirically given or perceptible. A territory is not simply that which we make of it, nor that by which it is simply given; it is towards the influence of materials upon territorial formations that we will constantly return throughout this thesis, to spatial productions active beyond yet simultaneously efficacious within intention or that space which is claimed according to the laying of lines. What we may call the sounding of space is synonymous with a praxical definition and delimitation of territories according to this ontological contingency and apparent ambiguity, territorial delimitation or production being thought as primarily complicit with material affectivity. In listening, the sounding of space is latched onto, inscribed, repeated; according to such operations it becomes individualized according to a listening practice or audile technique that affects a resonance and impression throughout a somatic complex. The 'performativity' of a waveform, hosted as well as expressed, defines the particular territoriality we are presently concerned with, and so we must concern ourselves not only with those sounds made familiar through their repetition, defining domestic territory and personal space, but extend our listening practice into an expanded field where sound may be considered a found—as much as a crafted—object.

This expanded sound space, a field of interactions whose objects and occupying bodies extend beyond the audible, constitutes what Emily Thompson has referred to as the physical aspects of a soundscape: 'The physical aspects of a soundscape consist not only of the sounds themselves, the waves of acoustic energy permeating the atmosphere in which people live, but also the material objects that create, and sometimes destroy, those sounds'. 44 In this conception we find an understanding of the soundscape extending beyond the audible, taking into consideration the material complex which constitutes its conditions. Sonic spatial productions relate bodies beyond themselves and individuals beyond their selves, sympathetic resonances that relate the body to bodies in general, the body repositioned amidst a global anybody, somatic membranes taken, through relation, out from under themselves, the body referred elsewhere in sound and vibration. While the sonority of space requires occupation by the ear, such spaces referring to a body in general defer the strictly subjective in a referral beyond the perceptible, to bodies out of sight, out of sound, and out of mind. Acoustic space, while necessarily occupied by the ear, must be orientated towards its inaudible substrates and extensions, to its inherent (non)-sound, if it is to move beyond the trappings of phenomenological essences and the limits of the empirically given. The sonic events and occupations with which we are concerned, extending beyond the immediately given somatic territory, concerned with a broad field of material interactions rendered audible, can be addressed under the more general rubric of acoustic ecologies, which concerns itself, in the most general or generous sense, with audible relations, resonant connections and their environmental impression. This term, already well defined, brings with it traditions and associations that must be addressed if we are to make sense of this assertion within the context of the artistic practice discussed herein. In order to do so, it is necessary that we align a practice of acoustic ecology with production and engagement rather than preservation, documentation and measurements, around a notion of productive sonority rather than sacred silence. Such a practice of acoustic ecology becomes in many ways synonymous with sonorous spatial productions, a sounding which takes place.

Ecologies of Noise

Foregrounded within the practice of acoustic ecology are, of course, the sounds of 'the environment'—readily understood in its most simplistically 'naturalized' sense—and the

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⁴⁴ Emily Thompson, *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America*, 1900-1933 (Cambridge and London: The MIT Press, 2002), 1-2.

advocation, development and refinement of quotidian listening practice or audile technique. This orientation can be said to be built upon the concerns expressed in R. Murray Schafer's The Soundscape, which forms the ideological cornerstone of the acoustic ecology movement. While the practice as a whole has been the subject of some notable critical attention in recent years—most notably Augovard and Torgue's Sonic Experience and Brandon LaBelle's Acoustic Territories, texts that have served to problematize the limitations imposed upon the movement by its own romantic image of the natural and its relation to noise—there has been scarce attention paid to its core ideological and conceptual framework. It is not, however, my intention to provide a comprehensive review and restructuration of acoustic ecology in light of current practice—as any such attempt would fill numerous volumes—but rather to perform a kind of conceptual salvage operation upon the kernel of the movement's ideological edifice, as many useful tools persist therein. The key points of the aforementioned recent critical reappraisals withstanding, the approach taken here could be simply to move on; yet to do so would neglect the potentials provided by the peculiarities of Schafer's approach for many a productive disjunction. It is too simple a move to dismiss Schafer's approach on the grounds of his romantic ideals, archetypal epistemology and overtly 'new age' orientation. While we must of course be critical of these aspects of his work, we also find therein the framework of a participative ecological praxis, an ear tuned to the nuances of noise and many observations that identify the limitations of his own ideological position, a position which radically limits the scope of many of his own observations and conclusions. It is this same ideological position that has come to define some of the most simplistic and reductive aspects of the practice of acoustic ecology, as it has taken shape after Schafer; yet we find within the words of Schafer, as well as a number of those who have helped develop his project, at the heart of his ideological position, the means of its own undoing and reconstruction. In delimiting a practice of acoustic ecology more appropriate for our needs we should first return to Schafer and his particular rendering of the sonic environment within the context of a larger vibrational continuum.

It is not my intention to provide an overview of the field of acoustic ecology—which is structured around the divergent emphases and methodologies of its various factions or communities—but rather to isolate a number of its most salient points, both ideological and practical. For example, of particular interest is the groundwork carried out within the practice of acoustic ecology towards an elaboration and documentation of sound

as an agent in spatial productions, its contributions to the constitution of place and locale. This is perhaps most plainly evident in R. Murray Schafer's notion of the sound mark—understood as a component of his more generalized notion of the soundscape—wherein a recurrent sound event considered characteristic of its locale is to be treated with the same care, attention and preservation as visibly stable and consistent landmarks which contribute to local or national identity. Yet of further interest and greater importance is the work carried out at a more complex or analytical level wherein we find attention given towards the influence that such sound-marks, spaces and events have upon the bodies that occupy them—human and otherwise. Sound is in this way considered as an active element in social, cultural, physical and political relations. Such concerns can be found at the heart of the acoustic ecology or soundscape project and are the primary focus of Schafer's text, concerns warranting critical engagement.

In the description of acoustic ecology as participative rather than strictly observational and descriptive, Schafer enables explicit couplings between the practice and that of everyday life, to a quotidian audition that need not necessarily privilege the purity of the 'natural' over the clamor and complexity of 'noise'. Schafer's ecological praxis is one not strictly of quiet audition and observation, but one in which an environment is engaged with through the production of sound, through the production of noise and not merely its measurement and documentation: 'the basic modules of measuring the acoustic environment are the human ear and the human voice [...] the only way we can comprehend extrahuman sounds is in relationship to sensing and producing sounds of our own'. ⁴⁶ The ecological auditor is in this way more embedded than detached, acting through interaction more than 'objective' distance. Within this participative model, measurement is met with production, a situation that structures encounter with the ambiguity of the extrahuman, with noise grounded in a certain confusion of bodies and objects constituting the physical agents of both the land and soundscape. It is in this confusion that the soundscape is heard as a site of both contestation and mimesis, a site in which the human and nonhuman undergo

⁴⁵ A far from exhaustive list of such factions includes the Acoustic Ecology Institute, focusing upon a scientific methodology as a means of investigating the environmental effects of human sound, the World Forum for Acoustic Ecology, which covers a far broader field of auditory interests, and the American Society for Acoustic Ecology. A more comprehensive overview of this global initiative can be found at http://interact.uoregon.edu/MediaLit/WFAE/home/ . Of particular note is the more recently initiated Positive Soundscapes Project, based at the University of Salford, which sought to address many of the issues I will be addressing here through a programme of interdisciplinary research (See http://www.positivesoundscapes.org/ for further details) as well as the work of the Noise Futures network.

transformation according to interactive individuations and the problematization of discretion. An Schafer provides only the most basic list of instruments or modules to be used in the practice of a participative acoustic ecology, that of the voice and the ear, a list that is basic in terms of its numbers more than the complexity of its components. More than the constituents of a list of modules, it is the implications of Schafer's description of a practice comprised of sonorous productions as much as the means of audition that is important, the emphasis placed upon the coupling of perception and expression as constitutive of a technique appropriate to acoustic ecology, the involvement of the listener in the landscape. Schafer described a productive practice of acoustic ecology structured, in part at least, around a performative and participatory engagement, it is this element of his praxis that I wish to retain and in a sense retrieve from the broader implications of his thinking.

A slightly expanded set of 'basic modules' is put to work by Chris Watson who works extensively in with the practice of sound or field recording and the auditory documentation of place. We hear in Watson's work the exquisite detail attained through such a 'participative' model, a practice that not only documents from a distance but finds Watson embroiled in the documentation and creation of acoustic environments. While Watson in some ways erases himself from the recording, through the use of long cabling enabling his audible presence to remain imperceptible, his affirmation of the microphone as instrument is a sign of his participative and compositional engagement in the (re)production of auditory fields and environments. Watson's Weather Report presents the listener with fourteen-hour long recordings, condensed into eighteen minute documents, giving a dense and detailed account of three diverse and specific field situations; edited, layered, arranged, this piece does not present the most radical manipulation of sound, but the importance of this particular release is clear only when considered within the context of his earlier recording work which is comprised of 'untreated' documents of location specific soundspaces, acoustic documents concerned with the clear description of a specific locale and event. These earlier documents present what are—in the case of Beyond the Circle of Fire—otherwise impossibly proximal sites and sound-spaces, spaces such as that occupied by an 'Insect Hidden in the Leaf Litter' or the interior of a zebra carcass being fed on by

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⁴⁷ On the subject of soundscapes and mimesis see Allen S. Weiss, *Varieties of Audio Mimesis: Musical Evocations of Landscape* (Los Angeles: Errant Bodies Press, 2008).

vultures. 48 Watson's microphone placements, these extensions of the ear, grant access to sites otherwise inaccessible to human ears, resolutely concrete sound-spaces that are nonetheless somewhat abstract due to their often all-too-intimate realism. Sound events such as the passing of a 'Woodpigeon Wing Past Mics' are presented in a manner that is, by virtue of the intense clarity and proximity of its recording, abstract while nonetheless grounded with reference to its original context. The sounds foregrounded in these exquisitely clear recordings present a sonic materiality characteristic of the most detailed and intricate sound objects, yet presented as contextualized events. Weather Report presents something of a different approach: sounds presented as always-already contextualized events, expressly referred back to the site of their original occurrence, yet in this instance they are presented to us layered, reorganized, composed. Weather Report has been described as Watson's first 'foray into composition', as if the meticulous attention to microphone placements, the discernment of the desired signals, the attention to sound quality, the timing of edits and the pressing of 'record' and 'stop' buttons did not constitute the composition of a complex field situation in which each recording was made. 49 By way of analogy, we may think of photographic composition, which in many cases is determined more by the position of the photographer's body and lens in relation to the object being 'captured' than the placement of objects, composition is, in this sense, determined in the relation established between photographer, camera and object. It is in a similar way that we can describe every act of field recording as a compositional act established in the relationship between the field-recorder, microphone and sound object or event. What is present throughout all of Watson's work is an understanding of the creative and in many ways compositional act of directed and attentive listening. Nonetheless, there is a difference in approach made evident in Weather Report that needs to be noted. The more overtly composed sound-spaces presented on Weather Report have, through their layering and overlapping, been subject to a temporal compression which allows a greater sense of seasonal and macro level durational variation to be transmitted. 50 A sense of duration inheres in Weather Report that we do not hear in his earlier recordings, being orientated more towards micro-sonic details, timbral variance and quality, the emplaced sound object

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⁴⁸ Both examples can be found on Chris Watson, *Outside the Circle of Fire* (Touch: TO:37, 1998/2003).

⁴⁹ See http://www.chriswatson.net/discography.html, accessed 23/03/10.

⁵⁰ 'The three locations featured here all have moods and characters which are made tangible by the elements, and these periodic events are represented within by a form of time compression', see the back-cover of Chris Watson, *Weather Report* (Touch: TO:47, 2003).

and its matters of expression. The more expressly acknowledged compositional approach taken on Weather Report is striking as much for the foregrounding of Watson's own role in the production of the sound-spaces presented as it is for the aesthetic results that distance this release from his earlier work. This gesture, the foregrounding of the hand or ear of the field-recording artist in the construction and presentation of a sonic document is a decision that is audible in a small number of the sound events contained within Weather Report. 'The Lapaich'—the second of three tracks made discrete according to the locations documented—opens with the sound of someone striding out into a Scottish river or stream; one might presume that these footsteps are Watson's, perhaps moving to place another micor hydrophone. This simple gesture, the recorded sound of footsteps, draws attention to a human presence and to that of the artist within the site of an initial creative act of audition. Such sounds have the effect of explicitly locating Watson within the environment being recorded, as a part of and participant in that environment, rather than invisible/inaudible and abstracted observer. Such gestures contrast with the tendency in more 'objectively' orientated documents to seek the removal or transparency of the act of documentation, presenting the given perspective as somehow universal by way of a disembodied audition or gaze. Watson's practice presents the praxical notion of a participative acoustic ecology, yet one where the 'basic modules of measuring the acoustic environment' are not only the ear and voice but the noises associated with the presence and movements of the body within a landscape, as well as the various microphones which allow one to penetrate into the subtleties of its otherwise inaudible background noises and vibrational continuums.

The Confusion of Objects and Events

We find that there is more to acoustic ecology than the disciplinary capture of this term immediately permits, as is evident in the work of many artists who do not subject themselves to this rubric yet operate with matter and method that encroaches upon the delimiting thresholds of this field. Towards an extraction or exhumation of key points and a distortion of its territorialized distinction we progress towards an inversion of acoustic ecology, keeping in tact those parts which most clearly serve present needs, most notably the discipline's broad concern for the construction of differing sonic environments and

sound-spaces.⁵¹ To this end the discipline's internal relation of nature and noise is to be further problematized along the lines of its ontology of sound, as expressed in the work of a number of key practitioners.

To state that Schafer was solely concerned with 'natural' sounds would be to oversimplify his position, which took into consideration the sounds of the industrialized world, transport, the city and the workplace. 52 Schafer can also be seen to have championed a pragmatic engagement with industrial design, of the kind most clearly expressed in Max Neuhaus's Sirens project, which involved redesigning the sounds produced by emergency vehicles. Research carried out by Neuhaus, using vehicles provided by New York city's police department, sought to make sirens more identifiable, informative to the public, less confusing for those both inside the vehicle and out; Neuhaus's research acknowledged the complexity of listening and that through careful attention to sound and its reception, a siren need not swamp and confuse an environment but provide valuable information on the location, speed and orientation of emergency vehicles while preserving the audible dynamics of the city.⁵³ This project is exemplary of the approach to sound design that forms a core component of Schafer's participative ecology. Yet despite such considerations of the mechanized, post-industrial world, there resides within Schafer's thought an overwhelming ideological bias towards a peculiar 'purity' of sound, a purity to be found in and between clearly distinct signals: the sound set apart from background noise. It can be said that Schafer's concerns lie not with 'sound itself', not in notions of sonorous quality, timbre or pitch, so much as their audible discretion, proximity or spacing, as well as their symbolic and social function. In this distinct world of clear signal content resides the ideal, naturalized ground of Schafer's soundscape. In this sense we can say that Schafer's concern lies as much with the notion of background noise as with signal; it is where the former impinges upon the discretion of the latter that Schafer is able to identify what he refers to as the 'lo-fi' soundscape: 'in the ultimate lo-fi soundscape the signal-to-noise ratio is one-to-

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⁵¹ Perhaps the most prominent factions of this movement are The World Soundscape Project, the Acoustic Ecology Institute, the World Forum for Acoustic Ecology and the American Society for Acoustic Ecology. While the notion of the 'soundscape' and the practice of acoustic ecology has of course undergone significant development and change since its inception, it is with the more strictly Schaferian lineage that the current critique concerns itself.

⁵² For example, we could focus on Schafer's identification of the whistle of the Canadian Pacific Railway's trains as being a 'sound mark' worth protecting.

⁵³ For more detailed information on this project see Neuhaus's writing on sirens and sound design, available at http://www.max-neuhaus.info/soundworks/vectors/invention/ (accessed 11/08/10).

one and it is no longer possible to know what, if anything, is to be listened to'. 54 Yet the problem driving the internal constraints of Schaferian ecological practice can be recognized in the extent to which the fidelity effaced in the 'lo-fi soundscape' is that of a true or natural order of events; the lo-fi soundscape lacks fidelity to a set of determined and symbolic signals, while characterizing that which appears as confused and in between as lacking adherence to a naturalized order, the groundwork for an effacement of potential.

It is in Schafer's concerns for the symbolic relations of sound and the dissolution of phenomenological autonomy that his preference for the term 'sound event' over 'sound object' becomes clear. Despite the importance of distinction—attained through a silencing of background noise—sounds are, for Schafer, nonetheless contextual events rather than abstract or autonomous objects; sounds are always considered within a context rather than in what he identifies as the analytical abstraction of the sound object. Schafer's assertion is made in opposition to the acousmatic practices pioneered by Pierre Schaeffer whose own sense of phenomenological purity was located not within the grounding of signals against a silent background, but the strictly audible qualities of 'sound-itself', sound as autonomous, decontextualized object:

When we focus on individual sounds in order to consider associative meanings as signals, symbols, keynotes or soundmarks, I propose to call them sound events, to avoid confusion with sound objects, which are laboratory specimens [...] The soundscape is a field of interactions, even when particularized into its component sound events. To determine the way sounds affect and change one another (and us) in field situations is immeasurably more difficult a task than to chop up individual sounds in a laboratory. ⁵⁵

Schafer's event based orientation towards units of sound can be read as assuming a contingent nature of the sonorous through its contextual extensions and conditions, rather than focusing exclusively upon internal or expressive qualities. This notion of the sound event supports Schafer's concerns for an auditory *emplacement*, for the sonic components of place and auditory constituents of subjective identity. Schafer's sound event is culturally contingent as well as physically so, its meaning and social function defined in the extensions and repercussions of the former. For Schafer, sounds cannot be productively considered outside of the network of their social and symbolic relations, they cannot be

⁵⁴ Schafer, *Soundscape*, 71.

⁵⁵ Ibid., 131.

meaningfully considered apart from their role in a working day or as the components of a social, urban and subjective character. While the importance of Schafer's analytical network of relations and contingencies is not something I wish to contest, it must be taken further, be allowed to extend beyond the constraints of its symbolic function in a manner that does not shy away from the abstraction implicit within the persistence of sound-itself. Equally, we should not reduce the scope of our discussion to one of the phenomenological essences dominating Schaeffer's object; what we require is a confusion of objects and events, a confusion retaining the abstract power and affectivity of the sound object as well as the contingent relations characteristic of Schafer's event, a difference in sound-itself that is met with a difference within audition, an understanding of the power of sound beyond its constraint within the romanticism of *The Soundscape*. In this confusion sound is both object and event in a manner more dyadic than dualistic.

A similar attempt is made by Augoyard and Torgue in their catalogue of Sonic Experience. Augovard and Torque identify the Schaefferian sound object and the Schaferian soundscape as 'fundamental interdisciplinary tools for sound analysis', tools that are, however, in need of contemporary reassessment. ⁵⁶ For Augovard and Torgue, both 'tools' bare a number of problems that prohibit them from meeting the requirements of sound analysis, description and study. While the sound object is often criticized according to its use in a phenomenological search for the essence of sound—as is the basis of Schafer's critique of this term—for that which is particular to sound and sound alone, Augoyard and Torgue are quick to point out that this is in many instances of contemporary practice, particularly with the use of digital tools, a near ubiquitous mode of engagement with the sonorous across an expansive field of compositional practice.⁵⁷ The manipulation of sound in 'abstraction', removed from legible causality, according to aesthetic and broadly phenomenological and aesthetic concerns is commonplace, attesting both to a certain amount of foresight and an exquisite attention to detail, to the particular potentials or malleability of the acousmatic, on Schaeffer's part. Schafer's soundscape project approaches sound in opposition to Schaeffer's object orientated phenomenology. The soundscape project sought to describe, classify and preserve sonic environments, an

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⁵⁶ Jean-François Augoyard and Henry Torgue, *Sonic Experience: A Guide to Everyday Sounds* (Montreal and Kingston: McGill-Queen's University Press, 2005), 5.

⁵⁷ On the criticism of the sound object according to phenomenological essentialism see Kim-Cohen *In The Blink of an Ear*, wherein such criticism is ubiquitous.

approach that required a contextually dependent and often causally legible 'event' of study. Schafer's approach, while orientated around the strictly audible, posited a soundscape as being inseparable from a wider environment, as context dependent and concrete rather than concrète and abstract. Echoing critiques of acoustic ecology's traditionally puritanical naturalism Augoyard and Torgue point out that 'criteria of clarity and precision discredits a number of everyday urban situations impregnated with blurred and hazy (not to say uproarious) sound environments, which would then belong to the "lo-fi" category'. Noisy, complex or confused signals are thus considered as lacking fidelity towards the purity of signal discretion—a position that can be traced back to the harmonic structuration of the music of the spheres. The lo-fi category marks a proximity to noise that is all too easily classified as proximity to impurity, a prejudice privileging the simple tone over the complexity of noise. Beyond the broader participative and productive concerns of Schafer's soundscape project, acoustic ecology in general has tended to concern itself with the problems of noise pollution, a problem warranting due care and attention in the preservation of certain environmental conditions, prevention of the pathological consequences of inescapable sound and the curbing of unchallenged industrial expansions which often constitute the cause of noise's perception as negativity. This latter point could be considered a key concern of the soundscape project, where it not for the limitation of its particular ideological constraints, oriented as they are towards the purity of silence, necessitating the retrieval of noise from the negativity in which it has been positioned. As Augovard and Torgue point out, the scope of the soundscape project would prove too limited, simplistic in its orientation towards signals and crippled by a lack of internal or self criticism of its idealized natural purity.⁵⁹

Addressing the respective deficiencies of the soundscape and sound object, Augoyard and Torgue propose the use of a third term which seeks to avoid their shortcomings by way of an enhanced inclusivity, an openness to the noises of urban environments, the complex signals of the post-industrial world, and a stronger interdisciplinary focus. Through the use of their proposed term the 'sonic effect', Augoyard and Torgue hope to avoid the perceived shortcomings of the soundscape and sound object as means of description and design. Importantly, the sonic effect can be understood as seeking to retain a certain objectivity without eradicating context; the specificity of sound

⁵⁸ Augovard and Torgue, *Sonic Experience*, 7.

⁵⁹ See Augoyard and Torgue, *Sonic Experience*, 5-7.

and its particular affectivity is taken as being contextually dependent, as contingent, relying upon its surrounding environment, whether 'natural', urban or biological, for its shaping and definition. The sound effect is posited as existing 'halfway between the universal and singular, simultaneously model and guide, it allows a general discourse about sounds, but cannot dispense with examples'. 60 Augovard and Torgue suggest that 'the sonic effect should not be understood as a full "concept", in order to avoid the disenchantment that followed the over use and unchallenged naiveté of the soundscape, yet we should, nonetheless, question the necessity and success of this attempt at bridging the particularity of acousmatic objects and the generality of soundscapes. 61 For Augovard and Torgue, the sonic effect, posited between the 'universal and singular', maintains a distance from causal events, frictions and disturbances, appropriate to its strictly perceptual orientation; the sonic effect does not bare likeness to its causal objective interactions or event but appears residually and by way of active reception: 'any perception implies some effect, that is to say a minimal work of interpretation'. 62 Sound, both as sonic effect and as that which is capable of triggering emotional effect, is treated in a sense that can perhaps be summarized by way of analogy to an impulse response, a catalytic event which is not itself of particular interest, but used to trigger response or reaction from the body excited by this sonic event. Sonic effects, residual, affective and contextually determined, are to be understood as events and actions in progress. Where Augovard and Torgue's sonic effect is most useful is in its interdisciplinary extension, facilitating discourse and understandings of the sonic across the fields of musical aesthetics, literature and media, psychology and physiology of perception, acoustics, architecture and sociology. The notion of the sonic effect serves to bridge problems of scale and context between the object and soundscape, yet beyond its discursive facilitation, the limitation of sound to the effect would appear to undermine some of the potential to be found in the productive disjunction of the object and event.

Adding welcome depth and specificity to the definition of the Schaferian soundscape, Augoyard and Torgue state that a 'soundscape does not simply refer to a "sound environment"; more specifically, it refers to what is perceptible as an aesthetic unit in a sound milieu'. ⁶³ Augoyard and Torgue here bring the soundscape and sound object into

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⁶⁰ Augoyard and Torgue, Sonic Experience, 9.

⁶¹ Idem.,

⁶² Ibid., 11.

⁶³ Ibid, 6-7.

closer relation through the identification and clarification of a Schaferian 'aesthetic unit', yet I would argue that such a unit finds better expression in Schafer's own notion of the sound event. Schafer's event as 'aesthetic unit' remains distinct from the units of Schaefferian object orientated phenomenology which considers 'sound itself' as the abstract concrète, yet it is in the discordance of the two that we find a particularly productive disjunction. Taking onboard the criticisms of the soundscape project, aimed at its inherent sense of purity and idealization of natural order, there remain, as will be shown below, a number of approaches to the audible environment that can be retrieved from the internal contradictions and naiveté of the soundscape. Maintaining the context of Schafer's participative praxis, yet removed from the background of idealized naturalism, the event would appear to cater for many, although not all, of the qualities that lead Augovard and Torgue to posit the sound effect as an analytical tool. While the sonic effect serves to advance the scope of auditory awareness and discourse, there remains, in its appeal to a unified and harmonious audition, the spectre of Schaferian idealism and a diminution of the object and event's particular intensities. The potential for this diminutive consequence can be discerned in the appeal made to common sense: 'the sonic effect produces a common sense because it gathers together into unified and harmonious listening what other disciplinary knowledge divides. It also gives everyday listening a pragmatic value'. 64 To be clear, it is the interdisciplinary and quotidian orientation of Augoyard and Torgue's project that constitutes its principal significance, yet the focus upon 'unified and harmonious listening' invokes something of the naiveté located and criticized within Schafer's soundscape project. Division, disciplinary or otherwise, considered to ground a potentially discordant audition, division according to difference, accounts for a certain power in specificity and the critical function of a given faculty or sense. There is a power in that which can only be heard, felt, seen, thought, etc., to pose a problem to common sense, a problematic power that diminishes under the generality and assumptions of common sense. We might identify as a danger of interdisciplinarity the normalization of difference according to requirements of common sense. The problems and ideals of a harmonic and unified listening, drawn from an orientation towards common sense, to the determination of a centre ground or normalization, can be drawn out in Augoyard and Torgue's claim that 'the unification of sound phenomena must happen through a rediscovery of the pre-

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⁶⁴ Augoyard and Torgue, Sonic Experience, 11.

categorical approach to listening. A listening practice that starts with a return to the consciousness of early listening [...] concerns sound specialists as much as urban environment planners and educators'. 65 We can interpret this 'return' or 're-discovery' of an 'early' and 'pre-categorical' listening in a number of ways. This pre-categorical approach can be considered as a continuation or extension of Schafer's concern for ear cleaning, for a pedagogical audition that extends its influence into the realm of individualization, exercising a subjective influence in the context of an ecological praxis. Cleaning and clarification does not refer only to a removal of wax, dust and debris, but a renewed attention to the audible and a reconsideration of audible qualities, incidental or otherwise, a transgression of habitual listening practices. In this sense we can take this 'rediscovery of the pre-categorical approach to listening' as a challenge to the classification and resultant marginalization of noise. Such a reading would also be concomitant with Augoyard and Torgue's wider project. It is, however, the sense of an 'early' listening that must also be questioned, as it is this which posits the most significant retroactivity. Whether we consider this early listening as that of the child, listening before certain assumptions have lead to a habitual stagnation of listening and the negatively unproblematic caterogization of noise, or that of the early or pre-industrial human, which pulls Schafer's ideal audition back towards an idealized purity of the listening subjects of the past, both posit a similar naïve romanticism which Augovard and Torgue identify and criticize in Schafer's soundscape project. Counter to this retroactive gesture which plays into the hands of atemporal purities and essentialized audition, in opposition to appeals to an 'early' listening, attention will be given to the differences in and between listening and hearing, an orientation that appeals to an act or agency anterior to listening and therefore bearing something of a structural similarity to 'early' listening, insofar as both suggest a before and beyond of that which simply appears as given according to habitual listening practice. Yet in placing a focus upon differences between the acts of hearing and listening it is hoped that an auditory sense 'anterior' to listening might be evoked and investigated without falling pray to the romanticism and purity evoked by an early listening.

Disaffection regarding the notion of the sonic effect, outside of its discursive facilitation, is engendered by a sense that its attempt to occupy a middle ground undoes and disempowers the productive disjunctions and confusions not between the sound object and

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⁶⁵ Augoyard and Torgue, Sonic Experience, 13.

soundscape, but the sound object and sound event. The question, as I wish to pose it, is not one of the inadequacies of scale and reference regarding the sound object and soundscape, but rather one of the difference between the Schaefferian sound object and the Schaferian event; Augoyard and Torgue's bridging of the soundscape and object is here replaced with the maintenance of a certain discordance between the more comparative units of object and event. From Schaeffer's sound object—an attempt at identifying a phenomenological essence of the audible—we retain the potential for perception and manipulation of sound 'itself', sound taken as the abstract concrète beyond common sense, yet therefore retaining something of its particular catalytic productivity. From the notion of the object, a certain agency of matter is retained, an agency and affectivity beyond personal perception, a temporality of objects, durations of temporal matters that give to the perceptible as much as their definition in perception. From the event we retain the sense of an occurrence or appearance in context, a relational event expressing a specific situation. Yet it is in the insufficiency of these terms and the potential for a resultant confusion that I believe their particular power resides, for a confusion of objects and events. Such confusion is of importance where one considers appearance within a given context, the sound event as simply given, appearing according to well grounded, habitual listening, in contrast with the impact of an objective alterity that forces context by way of novelty and disturbance, an appearance out of context, out of common sense, yet one which forces a recontextualisation in perception by way of 'a minimal work of interpretation'. ⁶⁶ Here we begin to get a sense of an object that need not be so objectionable, an object that is described according to the temporality that inheres in sound and discordance with the event, the event being the other side of the object. With regard to both context and spatial operations, that of a broad territoriality, we can refer to two modalities of the sound object: objective displacement that which is behind its abstract characterization—and evental emplacement—the (re)contextualized or territorialized object that adheres to Schafer's relational concerns. Sound-as-object appeals to a 'pure perception', to a perception ahead of recollection and outside the context of the given, sound as event appeals to a more common mode of perception as inseparable from recollection, perception bound to memory and sound as given in context.⁶⁷ In the latter, the objectivity of sound remains pure potential, a carrier discarded by and before a recognition indistinguishable from recollection. In the former the

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⁶⁶ Augoyard and Torgue, Sonic Experience, 11.

⁶⁷ I return to this notion of 'pure perception' below.

sensible is forced ahead of perception, a clamorous arrival around which occurs the frantic assembly of identification, the self forced to take place in response to objective displacement.

What we require here, in support of this productive disjunction and confusion of the sound object and event is, in the words of Gilles Deleuze, 'not only a temporal but also a qualitative conception of the object, to the extent that sounds and colours are flexible and taken in modulation. The object here is manneristic, not essentializing: *it becomes an event*'. 68 This objectivity becomes, against Schaeffer by way of confusion with the event, not one of phenomenological essence but of contingency and inflection. This conception of the object points us towards both its own rhythms and durations, but also those qualities revealed and determined in perception. Sound objects are objects in flux, objects becoming events. The particular meaning and status of the event for Deleuze, and others, will be returned to later; this particular passage is presently taken within the context of the Schaferian event, that of a relational, audible appearance in a degree of extension, and therefore used somewhat opportunistically as a means of addressing the differing contingencies of an object-event coupling towards a maintenance of the powers of displacement and emplacement found in both concepts of object and event.

Setting out from notion of the sound event, as a means of maintaining the important work done by Schafer while stripping away prevailing romanticism and idealizations, we might also draw upon Schafer's summary of the soundscape in terms of a 'field of interactions'—a notion that is of central importance to the present argument— or a 'field situation' concerned with the interactions of bodies both audible and inaudible, organic and inorganic, interactions not necessarily centred around *the* body but *any*body. ⁶⁹ The affective 'field situation' that Schafer identifies as the locus of his ecological praxis, the site of sonorous and somatic interactions, begins to identify a site of sonorous individuations that can be loosely taken as framing the approach taken herein. It is a desire to trace the impacts, impressions and influence of sound upon the constitution, confusion and perception of bodies or personal territories—the affectivity of sound—that drives the present argument.

In his description of the soundscape as a 'field of interactions', Schafer identifies a common interest, that of the impact of sound in an expanded field; it is, nonetheless, with

⁶⁸ Gilles Deleuze, *The Fold: Leibniz and the Baroque* (London and New York: Continuum, 2006), 20. Emphasis added.

⁶⁹ See Schafer, Soundscape, 131.

the conclusions Schafer draws from this problematic site of sound that we are radically opposed: while Schafer grounds sonority with reference to a pure silence, the trajectory mapped out here is to be grounded in a notion of noise inclusive of that which we call silence. It is Schafer's concern for the issue of a rising level of background noise that is, particularly from a praxical perspective, behind his positing of a pure sonority within transcendent silence. The purity of silent sound marks the perfect audition of eternal subjects, an audile technique particular to the spirits, while the inherent impurity of audible phenomena, the productions of frictions, agitations and distortions, marks the limit of 'imperfect' and finite earthly individuals. We find such a tendency towards silence running throughout *The Soundscape*. Schafer's silence occupies the paradoxical position of being synonymous with an eternal sound, yet this is an 'unstruck' sound, a sound that persists in eternity and is considered apart from the world of causal impacts, frictions, collisions and other distorting impurities; Schafer's silence is the inaudible sounding of a bell that need not be rung:

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 [...] All the sounds we hear are imperfect. For a sound to be totally free of onset distortion, it would have to have been 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 and extended beyond our death, would be perceived by us as—silence [...] Can Silence be heard? Yes, if we could extend our consciousness outward to the universe and to eternity.⁷⁰

For Schafer there is purity to be found in that which persists, in that which persists in silence. In this excerpt, where Schafer's project is seen to be furthest from my own, we can still nonetheless identify a number of productive convergences that are worth drawing out: for Schafer, all sound bares an inescapable impurity, a distortion, a fundamental contingency, characteristics that impinge upon one's access to a universal tonal centre or purity. The difference to be asserted here is that the fundamental impurity identified in sound—ascribed according to the agitations and interactions that bring it into being—are taken not as being negatively problematic—as is the case in Schafer's argument—but as a

⁷⁰ Schafer, *The Soundscape*, 261-2.

positive impurity and larval anti-essentialism that are taken as an ontological necessity. Central to both positions is an inaudible object or event, from one perspective this imperceptible flux is understood to reside within a transcendent and eternal purity, from the other it marks a fundamental contingency, an essential ontological impurity; such are the consequences of a ground located in, on the one hand, a silent and perfect tonality and, on the other, an inaudible noise. The position which is to be presented here suggests that this initial dualism is wholly unnecessary and that this impassable parallax gap between differing notions of ground can be dissolved where the notion of pure silence is sacrificed to that of a fundamentally impure noise, where silence is taken in a sense akin to its Cagean use, as identifying a state of 'ambient' or background noise that persists between the distinct signals of musical organization. Silence—along with that of immateriality—is asserted according to the persistence of certain thresholds of perception, attention or cognition that delimit degrees of engagement with the complexity of material events. As a defence against the confusing complexity of such events, silence guards the pure and eternal from the noisy interactions of matter in which generative potential resides. The identification of such potential in noise is immediately evident in Jacob Kirkegaard's Eldfjall in which a series of 'field recordings' made just below the surface of the earth are given the names of earth goddesses from various polytheistic religions. ⁷¹ These recordings present a subterranean chaos, the rumblings of geysers, noises that attests to the creative potentials of the earth. Yet it is the ambiguous potentials of such noises that is asserted through references to a number of goddesses associated with both fertility and death, chaos, creation and regeneration. In these matriarchs of the fertile earth reside various embodiments of the potential for a vital emergence and formal dissolution; this is the noise of a creative potential that simultaneously threatens ultimate destruction, it is the medium of a chaotic ground that presides over the oscillations of existence. Kirkegaard presents a fundamental and necessary disquiet that resides beneath the surface appearance of quietude; within plutonic murmurs reside the various frictions and agitations that inform the productive potentials of sound. The ground to which Kirkegaard places his ear is one of a fundamental chaotic impurity productive of an anti-essentialism that is found to reside within the flux of material interactions rather than the eternal formal stasis of the heavens. Where attention is directed beyond those thresholds of perception which are immediately

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⁷¹ Jacob Kirkegaard, *Eldfjall* (Touch: T33.20, 2005).

evident or simply given, one finds an infinite field of noise constitutive of signal potentials. It is this probing intrigue and microphonic extension of attention and perception that dissolves the simplistic, stabilizing image of silence that acts as a protective buffer to the consistency of listening subjects and determined form.

What we find is that, insofar as silence is considered to be delimited according to thresholds of perception and attention, Schafer's notion of silence is indissociable from what we might also choose to call background noise, the noise that passes by unnoticed, that which is so common as to become imperceptible. This aspect of background noise is identified by Schafer in the virtually ubiquitous hum of electrical currents that has imprinted itself deep within the minds of the subjects of the industrialized world; Schafer notes how Europeans, when asked to hum a note—picked 'randomly'—will often choose something approximate to 50Hz., or one of its harmonic multiples. Likewise, North American's will often do the same with a tone around 60 Hz.:

It is, however, only in the electronic age that international tonal centre have been achieved; in countries operating on an alternating current of 60 cycles, it is this sound which now provides the resonant frequency, for it will be heard (together with its harmonics) in the operation of all electrical devices [...] during meditation exercises, after the whole body has relaxed and students are asked to sing a tone of "prime unity"—the tone which seems to arise naturally from the center of their being—B natural is more frequent than any other.⁷²

These frequencies, omnipresent to the point of imperceptibility, often pass by unnoticed, rendered silent through their own persistence, a persistence which wards off attention. These tones constitute, for Schafer, a 'tonal center' that resides not in immaterial purity but within the scope of 'impure' audition, quite literally the noise of the ground. This murmur or background noise permeates much of the urbanized world, a murmur which through the insistence of a fundamental municipal frequency carries out an individuating operation while marking a silence that attests merely to the absence of attention. It is towards a complex of such 'tonal centres' that Christina Kubisch's *Electrical Walks* direct our attention. Through the use of headphones designed to reveal electromagnetic emissions from street lights, cash machines and other electrical objects within the city, an opening is made to allow audition to enter what is an otherwise silent domain. Kubisch's work

⁷² Schafer, *Soundscape*, 99.

B₁ on a piano corresponds to roughly 60 Hz.

exposes the virtually omnipresent and ordinarily inaudible noise of electrical currents and electromagnetic fields that permeate urban life. Such tonal centers of 'prime unity' exists in contrast to that silent fundamental occupying a central position in Schafer's thought. Therein lies the notion of an eternal and inaudible purity, the silent music of the spheres which appeals to an immortal ear and an immutable audition. In stating that the silent sound identified by Schafer is synonymous with a notion of background noise an alternative framework is proposed that does not look to the eternal and universal for its consistency but to the fundamental inconsistency and contingency of a ground located in noise, an often imperceptible background noise that identifies the generative site of material interactions, mutable and transformative matter that is opposed to an eternal and pure form.

The Idea of North

Where Schafer tends towards silence the present argument seeks a more thorough or nuanced immersion in, and considered proximity to, noise. A consideration of noise is put forward that does not focus so heavily upon the signal-to-noise ratios that are of such central importance to Schafer, but rather upon the perception and imperceptibility of noise, upon an investigation of the interactions it expresses and emergent forms to which it provides a protean background. Noise is, however, not to be taken naively as simply a 'positive' and productive force, but as the fundamentally ambiguous ground of periodicity, fundamentally problematic, that from which signal content emerges and into which it dissolves. Having addressed the equation of noise and difference, we should also address the all too simple equation of noise with machines which constitutes a particular limit of Schaferian ecological practice, as is evident in the claim that:

such instruments are destroying the "idea of North" that has shaped the temperament of all northern people and has germinated a substantial mythology of the world [...] it was pure, temptationless and silent. The technocrats of progress do not realize that by cracking into the North with their machinery, they are chipping into the integrity of their own minds.⁷⁴

⁷³ Further discussion of Kubisch's *Electrical Walks* is carried out below.

⁷⁴ Schafer, Soundscape, 21.

Schafer's valid concerns for the impact of combustion engines upon an environment and the naivety of technocracy withstanding, an inverse reading reveals that within this critique lies an opening onto an expanded field of practice, a more thorough ecological engagement and productive—as opposed to descriptive and archival—acoustic ecology: this locus identifies the intersection of subject, site and sound. This opening onto an expanded field of practice and influence is, however, closed by Schafer as soon as it is recognized; the present task is to look towards practices that identify and invite the potential that such an opening offers. The 'idea of North' identified by Schafer is also the ideal purity of silence and, of course, solitude, the autonomy of the self grounded in silence, wandering amidst a frozen landscape, set apart from a somewhat pacified environment.⁷⁵ In the idea of North we can identify the naming of a field of transcendental conditions. In its delimitation, however, Schafer's idea of North fails to scratch beneath the surface or venture beyond given perceptual thresholds, it appears as an idea of North that could not be more different from that produced by Kirkegaard's recordings of Iceland's geysers and subterranean rumblings. Kirkegaard's North taps into mythologies that are far from being temptationless and silent, but that negotiate the ambiguous murmur of a fundamental noise. The noise to which Kirkegaard listens expresses a potential which, to the contrary, drives intrigue and temptation towards that which lies just beyond the boundaries of the perceptible and given. We could, to a certain extent, associate Kirkegaard with those 'technocrats' who are 'cracking in to the North with their machinery'; Kirkegaard's instruments—the accelerometers used to pick up the otherwise inaudible trembling of the earth—indeed destroy the idea of North, yet it is the grounding of the North in silence that is destroyed. In this destruction of a pure and silent North, Kirkegaard's probing creates an opening that invites these geological noises to challenge the integrity of the mind according to an influx of chaotic influences; the North is revealed not as an atemporal landscape of purity but one of change, difference, flux, of durational variability grounded in noise. What Schafer fails to acknowledge is that the threats against the integrity of the self are posed not only by 'invading machines', but by the wind, the trees, the sea-shore, the creak of a door or floorboard, the crying of gulls, the noise of a waterfall or the openings onto the earth's subterranean disquiet. What Schafer pinpoints in the above excerpt, and then immediately shies away from, is that the self is distinctly permeable and that it is not only machines that

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⁷⁵ See Glenn Gould's Solitude Trilogy: Three Sound Documentaries (Cbc Records: PSCD 2003-3, 1992).

penetrate its membrane and threaten its apparent consistency. These noises, constituent parts of an expansive environment, perform the synchronous invasion and definition of the self, a self that is contingent, determined in participation with an environment that provides its support and threatens its dissolution.

In Schafer's argument we find an opening onto 'environmental' relations through a confusion of subjective boundaries. It is to a certain extent the integrity of minds that maintains a distinction from matter, from the broader field of interactions with which Schafer is concerned. In identifying the threat of machinery to both earth and mind Schafer identifies a material relation, the agency of matter in mind, both are conceived as open and capable of confusion. If 'cracking into the North' entails a praxical challenge to the integrity of minds, this gesture must be understood as one which opens up potential for a more complex entanglement of matter and mind, of human and inhuman, an opening of thought onto the greater depths constituting the noise of the world. This chipping and cracking, far from being the preserve of 'technocrats', describes a perennial history of instrumentation and media taken in the broadest possible sense. Where the spade is capable of revealing only a limited depth, of allowing the constituents of a particular strata to provide new material for thought, the core sample or ultrasonic range finder allow a deeper probing of the earth, and therefore a more thorough complication of mind and matter through openings onto a plutonic field of interactions. While Schafer's concerns for unchecked pollution and the plundering of resources are, of course, of great importance, there is a potential that becomes closed of insofar as the idea of North asserts a puritanical divide and poses a limit to the field of interactions with which he is particularly concerned.⁷⁶

A Necessary Schizophonia

There is a particular power to be identified in the Schaferian soundscape that can be recognized in its considerations of the auditory aspects of an environment in a degree of abstraction from its other empirical renderings, thus enabling the particular force of the auditory to be appreciated beyond its constraint within common sense wherein an

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⁷⁶ A similar argument is voiced by Jane Bennett in *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), 113-116.

environment is perceived as a whole. The particular power of the soundscape that realizes its potential in abstraction, wherein it is unbound from common sense, becomes possible only after the 'intoxicating', 'fracturing' and 'imperialistic' instruments that Schafer is particularly critical of, comprising not only automotive assemblages but the manipulative forces of the loudspeakers, microphones and recording devices that afford an increasingly mobile abstraction of sound. The sense in which a soundscape comes after such machines is to be understood according to the impact of recording technologies upon thought and listening practice, according to which the potential dislocation of sound from its original site, of abstracted and repeated listening, and the potential for a more detailed and probing audition revealing to the ear an abstract concrète, is dramatically increased. 77 To a certain extent we can say that in every ear there now resides a phonograph, or the potential listening practices that this invention inserted into the evolution of audition, as if the organ excised from a cadaver in the production of Bell and Blake's ear phonautograph had reinserted itself-now inseparable from its modern technical assemblages and descendents—back into the body. 78 It is, specifically, a *listening* practice that comes after phonography, after the written sound and the infinite potential for its manipulation, storage and reproduction. It is listening that, as a perceptual act apparently inseparable from memory and recollection—an inseparability brought to our attention most explicitly by Bergson—must now occur after the mutability of both memory and perception that techniques of recording and reproduction have brought to the foreground and inscribed in cultural listening practices. In a similar manner, echoing the concerns of the anthropologist Tim Ingold, we can argue that the concept of soundscape is only possible in the 'schizophonic' world that Schafer is critical of, as to think of the soundscape as a distinct plane of environmental experience requires the possibility of a degree of abstraction, the possibility of thinking the particular difference that it posses from the notion of a landscape as a whole, the sensory force gained wherein it is taken apart. 79 To think of the particularities of a soundscape requires an initial distinction, severance or degree of abstraction, it casts the sound of the environment as distinct and separated out from the broader complex of intersensorial events that structure our perception of an environment as

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⁷⁷ The term 'abstract concrète' was used by Levi-Strauss to described the work of Pierre Schaeffer.

⁷⁸ On the ear phonautograph see Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham and London: Duke University Press, 2003), 31-85, in particular 31-42.

⁷⁹ See Tim Ingold 'Against Soundscape' in Angus Carlyle (ed.) *Sound and the Environment in Artistic Practice* (Paris: Double Entendre, 2007), 10-13.

a whole. Through his concept of the event, Schafer ties sound to site, emphasizing original context and enforcing representational potential, yet despite such emphasis the study of soundscapes remains built upon a necessary abstraction, making possible the perception of an environment along lines of sensory distinction and particularity, a possibility facilitated by schizophonic practice.

The Schaferian criticism of schizophonia resides atop an altogether more problematic assumption. While a degree of abstraction or sensory particularity can be considered necessary for the conception of the soundscape as a distinct topological component of the world, to ascribe this split or distinction, constitutive of both the possibility of a distinctive soundscape and a schizophonic audition, to the invention of the phonograph is to entertain undue technological determinism. To locate the emergence of this split within that of the reproducibility of sound is to underestimate the complexity and ambiguity of audition and the sensory information of subjectivity before the historical emergence of the phonograph. Such underestimations are symptomatic of a number of assumptions active within Schaferian ideology, as pinpointed by Jonathan Sterne. Assumed, prior to the technological reproducibility of sound, is a primacy of face-to-face communication, a direct and unproblematic acoustic communication that is damaged and disorientated in reproduction and telecommunication. More fundamental is the assumption that the pre-industrial subject existed in a state of unproblematic harmony, somatic and sentient coherence, the subject of a unified and peaceful existence, always 'at home' in the world. As an example of historical relational vicissitudes between subject, soma and terra firma to which such assumptions remain ignorant, Sterne refers to an identifiable medieval sensibility according to which the body was 'a filthy container for the soul, something to be transcended and overcome'. 80 The schizophonic split, disorientation and displacement is something that cannot be wholly reduced to the event of mechanical reproduction, being better considered as that which inheres in the ambiguities of perception and the opacities of material interrelations. Far from its reliance upon technological reproductions, a certain potential for schizophonic displacement can be considered to inhere within the objective status of sound, within sounds which confuse and appear out of place.

A similar phonographic scission is identified by Steven Connor in considering the place of phonography within the emergence of the self, an emergence that is considered in

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⁸⁰ See Sterne, The Audible Past, 20-1.

terms of a transition from noise to organized sound, from sound unbound to its containment and control. Connor charts an analogous relation between the musical organization and technical containment of sound, and historical psychoanalytical accounts wherein a certain consolidation of selfhood is attained through the structuration of an otherwise chaotic situation, a transition from noise to signal and sign. In accounting for a modern sense of the self in relation to the world, sensation and audition, considered within the specific context of a conjunction between psychoanalysis, musical organisation and phonography, Connor notes that 'it is in the passage from one to the other [from noise to its containment or organisation] that the self is formed'. 81 Through a process of structuration and containment the self is made consistent, a site of minimal resistance to the noise of the world. It is where Connor refers to Attali that subjection through organization is considered analogous with the possibility of phonographic containment. Through the means of capture and reproduction the phonograph acquired the noises of the world in a manner concomitant with the efficacy of representation or, more specifically, Attalian repetition, a notion bound up with mechanical reproduction, silencing and normalization, the means of a cancellation of radical difference. 82 Attali's orientation is more towards the societal and broadly cultural. yet this containment of noise and the normalization of difference constitutes a basic schema concomitant with notions of subjective consistency as a limitation of noisy confusion, a subtractive synthesis and organized resistance. That the means for the containment and organization of societal noise—a gesture taken as concomitant with a more individualistic psychical structuration—should hinge upon and find its most efficient execution in the apparatus of mechanical reproduction leads Connor to assert, as a consequence of Attalian repetition, that 'before the development of the phonograph, the auditory realm was wholly transient, immaterial and temporal. The opening of the self to and by the auditory was an experience both of rapturous expansion and of dangerous disintegration'. 83 The

⁸¹ Steven Connor, 'Sound and the Self' in Mark M. Smith (ed.) *Hearing History: A Reader* (Athens and London: The University of Georgia Press, 2004), 63.

⁸² Attali's notion of repetition is briefly discussed in the introduction. For a comprehensive account see Attali, *Noise*, 20 and 87-132.

⁸³ Connor, 'Sound and the Self', 63. For a more thorough historical account of the cultural history of sound recording see 'The Curves of the Needle' and 'The Form of the Phonograph Record' in Theodor W. Adorno, *Essays on Music* (Los Angeles and London: University of California Press, 2002), Friedrich A. Kittler, *Gramophone, Film, Typewriter* (Stanford: Stanford University Press, 1999), Michael Chanan *Repeated Takes:* A Short History of Recording and its Effects on Music (London and New York: Verso, 1997), Evan Eisenberg, *The Recording Angel: Music, Records and Culture from Aristotle to Zappa* (New Haven and London: Yale University Press, 2005), Sterne, *The Audible Past*.

phonograph, through its reproducible ordering and containment of sound, is, in part at least, considered to have assailed the threat of unorganized noise. We readily find examples of this in the use of portable media players, wherein prerecorded music constituting a portable and personal acoustic space is often used to set oneself out apart from the noise of the crowd and the cramped conditions of a commuter train or inner-city bus ride. Yet we cannot wholly ascribe this to the possibility of mechanical reproduction, as it is in a more general sense of repetition and simple melodic influence that we may also find this organizing principle at work. Deleuze and Guattari's notion of the refrain, for example, finds its simplest expression in the repetitive humming or whistling of a tune, a means of reassurance and comfort that establishes a degree of distinction from the unordered noise of the world, a personal territoriality established according to repetitive melodic expressions.⁸⁴ It is according to a more general sense of repetition and rehearsal that the noise of the world is rendered less threatening to the well grounded consistency of the self, rendered less capable of shock through its containment, organization and reproducibility. It is in this transition from noise to organized sound that we identify the emergence of the self as a listening subject, an audile individuation according to a kind of subtractive synthesis, performed according to the limitation, channeling and containment of noise as signal and resonance. Addressing the technological specificity of the Attalian assertion whereby repetition is bound to reproduction in its execution of a territorial organization, we should ask to what extent the 'opening of the self to and by the auditory' may have been forever sealed off by the closure of phonographic somatisation, sealing the opening onto the disintegrative temporalities of a 'raw' audition. Insofar as listening 'after' the phonograph marks a containment and organization, it would nonetheless appear that this closure has not been absolute, with the qualities of the prephonographic auditory realm Connor describes remaining commonplace in the discussion of audible matters. 85 There remains something of the ear beyond any reduction to a reproductive technicity, something in hearing that is not entirely subjugated to mnemonic function and audile contractions. It is this which exists in

Also to be considered consequential of repetition is the phonographic illusion wherein sound should no longer be wholly transient and temporal and that it is materialized in its fixity and inscription in wax in a manner somehow absent from tympanic function. Phonography's impact upon signal transience perhaps constitutes more of a pause or resistance to its temporal decomposition, shifting the duration according to which it slips into imperceptibility on to that of the degradation of a different material substrate, whether that of shellac or hard-disc.

⁸⁴ I return to the notion of the refrain at length in chapter three.

⁸⁵ For an example of such an account of the auditory experience see the introduction to Salomé Voegelin's *Listening to Noise and Silence*.

the event of listening or the qualities of an audible realm 'before' the phonograph, anterior to the refined audile technique wherein (tele-)phonographic mutability takes effect, a perception anterior to recollection and representation. This notion of hearing as listening 'before' the phonograph is not to be taken as positing a timeless and unchanging perception in the sense of an idealized 'early listening' or pre-industrial sensibility, but rather as the perceptive order of sensations and a protean being.

Having located the qualities of the 'postphonographic' realm in a more general notion of repetition, however, these assertions persist in placing too strong an emphasis upon the importance of mechanical reproduction. It is rather a difference which persists apart from the phonograph which is of primary importance, a difference within audition itself. Connor settles upon a notion of the auditory self characterized according to qualities of 'openness, complexity and interpenetration', qualities which can be thought to persist despite phonographic inscription and 'closure', attesting to the disparate and confused more than the organized and discrete, qualities adhering to Connor's description of a prephonographic auditory realm. 86 In taking such a state to be distinct, less according to a technological scission than a difference within audition, requires that a difference between hearing and listening be observed in order to account for the entry of difference into the listening subject, the perception of background noise within the individual that nonetheless exceeds its signal definition in the rarefactions of audile technique. It is through this difference within audition—that persists despite the phonograph and anterior to an audile technique—that the noise of the world slips in as such, the agent of a subtle influence. Connor's auditory self persists in part before the phonograph, not in the sense of ahistorical transcendence but according to its exceeding of inscriptions and discretions, with the closure and containment effected by phonography and compounded with audile technique having not been absolute. In opposition to a singular technological scission within subjective audition, Connor contrasts the closure of phonographic inscription and discretion with the 'openness' of telephonic dispersal and broadcast, marking the malleability of subjective auditory information according to the medium of capture and dissemination. Yet this difference can also be considered to persist within audition itself; to properly account for this we require not a unitary sense of the auditory subject but a conception that is more

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⁸⁶ Connor, 'Sound and the Self', 66.

dyadic in its containment of an individual that hears and a listening, audile subject, modes of audition remaining open to difference while nonetheless capable of analytical precision.

The difference acknowledged within audition should be complemented with the identification of an ambiguity in sound, according to which its reception through sympathetic resonance is not reduced to an unproblematic, unmediated and totalizing experience of a pure flux that connects one with the world, but rather taken as that which makes a difference at the point of its reception, provoking a disjunctive synthesis according to its capacity to excite, from a position of excess, the particular force of the auditory that functions beyond its subsumption to common sense. This identification of an agitative ambiguity within the conditions of sonority has consequences for the depiction of an auditory self or subject and the nature of its ecological relation to the world. The ambiguity in sonority is initially identified as such insofar as sound-itself is thought to reside beyond itself, as qualitative expression, in the agitations of matter. These agitative and restless origins of sonority are also discussed by Connor who suggests that 'sound is both process and object of pathos. Sound is produced by pathos—suffering, agitation [...] as though sound were both the assaulted body of the world and the cry of pain it emits'. 87 Engaging with Connor's rhetoric in accordance with the noises under consideration, particularly those brought to the surface in the work of Jacob Kirkegaard and identified by Jonathan Sterne in his discussion of mediate auscultation, of listening to the noises of the invisible organism, these noises are of a body—planetary, human or otherwise—'assaulting' itself, the constitutive interactions and noises that attest to its own generative potential. Connor goes on to draw a contrast, of importance to our present ecological concerns, between this positing of a generative agitation and a certain cultural understanding of sound and listening practices; despite the necessarily abrasive conditions of sonorous vibrations, 'hearing has the reputation of being more passive than seeing [...] This has sometimes impelled claims that a culture based more around sound and hearing than around sight might be gentler, more participative, less dominative culture. The strong association between cultural acoustics and ecology would seem to offer further evidence of this irenic dimension of the ear'. 88 The 'ecological' position that Connor identifies here would appear concomitant with most romanticized ideals of the Schaferian tradition. An attempt has been

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⁸⁷ Steven Connor, 'Edison's Teeth: Touching Hearing' in Veit Erlmann (ed.) *Hearing Cultures: Essays on Sound, Listening and Modernity* (Oxford and New York: Berg, 2005), 162.

⁸⁸ Connor, 'Edison's Teeth', 162-3.

made herein, however, to draw attention to a particularly participative and agitative notion of acoustic ecology, the fragments of which can be identified in Schafer's own text and gain complexity and contemporary relevance through the work of the artists already mentioned, their own noises amidst those of the world in the production of environments and territories. It is by way of referral to a principle of openness that we can discern a more nuanced notion of ecological audition within Connor's work, an audition which opens the self onto the world:

the idea of the auditory self provides a way of positing and beginning to experience a subjectivity organized around the principles of openness, responsiveness and acknowledgment of the world rather than violent alienation from it. The auditory self discovers itself in the midst of the world and the manner of its inherence in it, not least because the act of hearing seems to take place in and through the body. The auditory self is attentive rather than an investigatory self, which takes place in the world rather than taking aim at it.⁸⁹

While this excerpt would appear to adhere to the romantic ideals of audition according to which the ear and auditory complex is stripped of its critical function—this being ascribed to the eye which supposedly sets us apart from the world in accordance with the ideology of an 'ocular tyranny'—this characterization can be understood as accounting for only one side of audition, that of the active receptivity of hearing as the anterior conditions of reified listening practice or audile technique. The auditory self here described by Connor is that defined by the capacities of *individual* audition remaining open and receptive to the world, as opposed to the analytical audile technique of the listening subject. 90 Connor's auditory self is here positioned around an openness or opening onto its immanent, individuating field, an opening onto the noise of the world. This image of an auditory self locates its particular emphasis ahead of other sensory influences, most notably, as is almost customary within sound specific studies, that of sight. The privileging of senses describes a self that is in a sense fragmented, pulled in different directions according to its formative sensory influences, drawn towards its diffuse and diverse objective attractors identified through sight, smell or audition. Customary is the assertion that vision fixes, determines fact, makes consistent the identity and origins of an event; audition, on the other hand, is diffuse,

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⁸⁹ Connor, 'Sound and the Self', 64.

⁹⁰ This distinction between and individual and subjective distinction mirrors the difference between hearing and listening respectively, as discussed by Jonathan Sterne. This point will be returned to and discussed at length in chapter three. On the distinction between hearing and listening see Sterne, *The Audible Past*, 96.

ambiguous, unreliable and often in need of ratification, its ephemerality and overt contingency leaving it subject to doubt and suspicion. To place one sense ahead of another in the perception of the world and one's relation to it suggests a self formed not according to the holistic influence of the world, in harmony and according to relations of an equal temperament, but according to a degree of disjunction, according to a world that articulates its influence divergently, according to particular capacities and specialisms, sensory components being reconstructed towards the appearance of a consistent and identifiable image. Drawn from this competition of the senses is the notion that the self is in fact not simply one; to talk of an auditory self as Connor does—and therefore, presumably, also an olfactory, haptic and visual self, amongst others—posits the self as not one but many, the self as multiplicity, as a sensory ensemble that in a sense pulls itself—as one—apart. The openness of an auditory self that Connor discuses is one that posits the self as being many and in doing so opens itself up to differences between the senses, a difference that poses a problem to the stability of selves. Such an openness characterizes the listening subjects of a participative acoustic ecology, tuning into the various sounds of the world, not as the unified subjects of an authentic, holistic and direct experience but as a particular rendering of individual confusions.

The image of ecological audition that Connor critiques—structured around the irenic ear in concordance with the Schaferian tradition—is set apart from Connor's more generalized notion of an auditory self, in the sense that, in order to be characterized as irenic, the ear must be considered to be distinct from the abrasive nature and conditions of sound, maintaining a minimal distance from the world supportive of its apparent purity. To approach the self in a manner consistent with the unstable, dissipative or disjunctive view that Connor can be seen to take of it, rather than as given consistency, we require something of the process of individuation discussed by Connor wherein the production of a consistent self image is considered to occur in alongside a transition from noise to organized sound, a transition that occurs only with the act of directed listening. Emerging from this transition, the auditory self becomes figured as a self that listens, engaging in the critical exercise of the ear. Where Connor talks of a self that finds itself in the world it is, insofar as it listens, already one. Yet, insofar as the auditory self is, for Connor, not an 'investigatory' self, a self that is perhaps in someway predisposed to disinterested appreciation, this notion of the auditory self is somehow insufficient insofar as it appears to neglect its own defining gesture, that of an attentive and decisive listening that is nonetheless investigatory. It is here that we arrive at a contradiction within the constitution of the auditory self insofar as it is characterized by Connor according to a certain uncritical openness while paradoxically emerging through the binding of sound into signal content in the critical act of listening. The notion of an auditory self, insofar as its constitutive gesture is that of an active, attentive and conscious perception, should, therefore, not be too quickly aligned with the receptivity of hearing in which we can, as we shall see, locate something of a constant challenge to the consistency of the listening subject. This investigatory, auditory self is, as is evident in the work of Kirkegaard, capable of critical audition, of identifying openings into the earth, a gesture that, as Connor notes, does not engender its abstraction or alienation from it but rather its confusion amongst it. A limitation in Connor's argument can therefore be identified where difference is not explicitly recognized within audition, specifically the difference between hearing and listening described by Jonathan Sterne, a difference that must be thought to extend into the constitution of the auditory self.⁹¹

As we shall see, with reference to Sterne's account of auscultation and Kirkegaard's Labyrinthitis, probing investigations of acoustic substrata reveal noises beneath the flesh. 92 Revealed in each case is a subterranean murmur that challenges the self and the constitution of well grounded and recognizable periodicity—alongside of which the listening subject emerges. In these critical acts of opening listening up to difference, a degree of violence is acknowledged, not as alienating event but rather as effecting a forced 'inclusivity' or, more specifically, individuation according to the violence of a listening practice that creates an opening beneath the earth or beneath the flesh, an ungrounding of that which was grounded, opening it out onto difference. It is the investigatory auditory self, such as those subjects of audile technique identified by Sterne, that themselves identify the insufficiencies in a self taken as given, closed off from its own transcendent ungrounding, from that which supports the self yet is not one. In acknowledging a difference within the self according to which it is not one but many, we might say that there is something of the self that listens and something in the self that hears, a difference between the acts of listening and hearing, between an active investigation or directed attention and a so-called 'passivity' in receptive synthesis. The auditory self is therefore conceived as a confused and contradictory figure insofar as it is both receptive and

⁹¹ Sterne's discussion of a difference within audition is discussed at length below.

⁹² Kirkegaard's *Labyrinthitis* receives significant attention in chapter three.

investigatory. It is that which we may identify in the self which is not one that opens it out onto the receptivity located in its own transcendent conditions.

In opposition to notions of hearing and the self left mutually unchallenged, we shall posit hearing in relation to the potentials of the somatic-complex, as an act that is inseparably linked yet nonetheless distinct from listening, and listening as the activity of the subject proper, of the I that in saying "I hear ..." listens. What we might ascribe to a notion of hearing is a receptivity to the world that does not set itself, or a self, out against it, an understanding of hearing as the constitution of a sonic unconscious or auditory background that contrasts with a notion of listening as effecting a certain distinction from the world in its organization into discrete periodicities.

Having established a difference within audition, we can return to a critique of the soundscape and the perceptual event that sets it apart from the visual, haptic, olfactory and other sensory expressions of a landscape considered in its entirety and in excess of its perception. Ingold is particularly critical of the concept of soundscapes insofar as it entails an abstracted appreciation of a landscape at large, an appreciation of the environment broken apart along the lines of distinct sensory registers. In opposition, Ingold appeals to environmental perception according to common sense, a landscape not appreciated according to distinct registers of perception but taken, in a sense, holistically, not according to the 'schizophonic' listening practices that enable a thinking of sound-itself, but according to a common sense that perceives the landscape as intersensorial complex. Counter to Ingold's objections concerning segregation and perceptual stratification, we might take further the potential for a critical listening that both the soundscape and schizophonia presents us with, in order to adequately address the potentials for listening practice developed by Schafer's soundscape project that are nonetheless indicative of its own internal conceptual irresolution or discordance. While 'normal experience' is thought according to a common sense 'not tied to any specific sensory register', there is a particular sonic potential identified in the soundscape and its internal contradictions, a potential that is eradicated when subject to commonsensical critique. 93 Ingold's critique according to divergence from 'normal experience' poses an erasure of difference more banal than that presented within the most conservative corners of acoustic ecology. The potentials presented by this necessary abstraction exists in openings onto the particular transcendent

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⁹³ Ingold, 'Against Soundscape', 10.

conditions of a sense and onto that which can only be heard, that which appears only to a particular sense and in doing so 'confuses' common sense along with the coherence of the environment as a whole. There is a particular force to that which makes itself available only by means of audition, a force felt only insofar as the particular qualities or affective capacities of the audible are permitted to operate according to their abstract specialism, a force precisely identified in Francisco López's abstract environmental audition. It is according to a certain sensory confusion or, perhaps more appropriately, productive disjunction that a generative difference is revealed and put to work in thought. While Schafer posits a somewhat contradictory sense of the soundscape as a whole, as a unified event—contradictory insofar as it is a particular sensory reduction of a larger environment to which it pertains—that exists as a concept only by virtue of schizophonic potentials, it is this internal contradiction that gives rise to its potential influence beyond romantic idealization, a potential that is quashed where common sense is asserted. The schizophonia that enables the conception of the soundscape as such reveals certain depths within audition, exposing sound-spaces and events that otherwise remain inaudible when subject to common sense, details that slip below a threshold of perceptibility where the ear is subject or forced to make reference to, the eye or nose; it is the extent to which the practice of acoustic ecology and soundscape studies reveals matters to the ear that can only be heard that enforces its power and particular relevance, yet the abstract concrète that such practices disclose should be recognized as such in moving beyond romanticized notions of the earth and emplacement in the development of extended listening techniques which pose productive challenges to the integrity of self and mind. Far from proposing an autonomy of soundscapes it is rather its overt contingency that I wish to place a focus on, an understanding of the soundscape as being in-itself nothing, yet nonetheless evocative of a particular difference that opens onto a field of difference that cannot be taken in entirety or grasped my means of a commonsensical approach. It is in the assertion of such contingency upon material affectivity and interactions, yet also upon listening as material and culturally contingent practice, that identifies a soundscape as in itself nothing yet nonetheless particularly efficacious, a position that seeks the dissolution of a romanticism that grounds the soundscape according to a romanticized silence and idealized purity.

The expansion of acoustic ecology according to the implication of noise, catalytic of a flight from romanticism within the broadening field of environmental recording can be heard in Russell Haswell's Wild Tracks. 94 Haswell's acoustic documents exemplify an approach to environmental recordings that wholly discard the romanticized earth and idealistic naturalization that the term might immediately engender. The environments documented and catalogued are set apart from any puritanical naturalism; inclusive of the noises that mark participation within an environment, the notion of an objective audition and transparent observer are jettisoned in favour of an audible engagement. In a recording that documents a situation evocative of the pastimes of bored suburban teenagers, we hear Haswell repeatedly missing and occasionally hitting an empty beer can with a pellet gun. Certain field situations common to the nature documentary, such as the inside of an ant colony, are frequently interrupted by the noise of passing military aircraft, noises that attest to a variety of spatial contestations as well as the malleability and ambiguity of 'natural' environments. This same ant colony has also been subjected to the violence of Haswell's hydrophone placements: the sound we hear is possibly that of ants, according to Haswell's liner notes, rebuilding the disturbed area of their colony into which the hydrophone has been forced. Again, we come across a practice in which recording equipment is used to scratch beneath the surface of the earth to reveal the noise which resides therein. Such sounds are the result of an inaudible collision and disruption, Haswell's intrusive presence in each environment mirrored by the noises and interruptions of machinery found littered throughout his recordings. Agitations and intrusions of one body into another depict the constitutive disquiet of an infinite field of interactions that resides within Haswell's environments; in a recording in which 'A Horde of Files Feast upon a Rotting Pheasant Carcass', Haswell repeats the move made by Watson to focus minds upon the grotesque and seemingly brutal aspects of any given environment, cycles of death and decay that accompany or await the sounds of life and creation. Where this particular document may be perceived as lacking in the attention to detail and saturated aural matters that Watson presents to listeners in his recording of a zebra carcass, it is the stripping away of any exoticism that is notable in this instance, a move which orientates listeners towards the somewhat banal and quotidian nature of this grotesque event. Such a centralized disquiet can be heard in Haswell's recordings of waterfalls which draw attention to the raw and threatening power of such sites rather their gentrified representation amidst the production of idyllic scenes. Such sites force an auditory experience close to that of white noise, and it

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⁹⁴ Russell Haswell, Wild Tracks (Editions Mego: 099, 2009).

is the potential power contained within such sonorities—as is made evident in techniques of subtractive synthesis—which is brought to the fore through its abstraction rather than subsumed beneath idealized depiction and common sense.

Haswell's recordings bear an all too common sense of the authenticity of the raw and 'untreated' document as well as a somewhat uncritical engagement with the broader consequences of pollution, yet this is nonetheless an engagement with the notion of pollution that performs a critical function, a position that challenges the notion of purity and essentialism from a position amidst a field of given interferences. Such auditory field situations detail, by means of an abstracted audition, the particular power of the quotidian and often mundane. It is in many cases the banality of the documented situations that is striking, sound-spaces located somewhere between boredom and the anticipation of an event. In many cases these recordings document aspects of 'noise pollution' that would ordinarily be removed from an 'environmental recording' yet such noises are, for Haswell, constituent parts of such an environment insofar as it is not treated as abstract and separate from the bodies and actions occupying it. It is precisely such a continuum of actions, agitations and the intrusions of occupying bodies into each other's territories that constitute what we identify as an acoustic environment. These are documents which detail the effect of human noise within an environment, in the creation, constitutive distortion and manipulation of environments rather than the effect of such events upon a romanticized notion of 'the environment' separated from our own ontological status and boundaries. For all their drabness and banality, these recordings document a participatory engagement with the practice of acoustic ecology; ecology, in this sense, is taken as a broadly inclusive term which describes the interrelation and reciprocal determination of bodies, human, organic and otherwise.

Inverting Acoustic Ecology

The necessary movement away from reductive ecologies of the strictly 'natural' and typically 'environmental' must open itself onto an ecological complex that is inclusive of the subjective, political, scientific, and creative, an ecology that does not shun noise or difference but locates such concepts centrally to its understanding of nature and ecology. This ecological model is clearly present in the work of Félix Guattari, yet before turning to

his more generalized notion of ecological praxis we should consider the extent to which the necessary means for this reorientation can be found within the practice of acoustic ecology itself. While the means of an internal inversion of acoustic ecology can be identified within Schafer's soundscape, we find them more clearly and consistently identified in the work of Barry Truax.

We should begin with Truax's post-Schaferian participative ecology, wherein the listening subject is embedded within the world, taken not as a solely receptive individual but one whose engagement with a larger environment is 'balanced' in the establishment of a reciprocity. Within this ecological model the listening subject is posited as a constituent in a common environment, a core component of ecological ideology that is clearly evident in Truax's claim that 'one of the lessons of ecology is that when we see ourselves as "different" from nature, and not as an integral part of it, we are more likely to violate its balance'. 95 The organization of this relationship to nature is an essential point for Truax in establishing or reinforcing a participative and responsible ecological practice, yet the full potential of this charge is not quite lived up to insofar as the nature of the difference he identifies is never fully engaged with. The importance of Truax's lesson lies in its positioning of humans and our actions within a broad natural order or register, contributing to an ontological leveling: the hierarchical elevation or exclusion of humanity from nature, allowing for the establishment of a position where noise is understood solely as the negative effect of human actions upon the natural order of things, is here addressed in an understanding of nature as the totality of an environment in which humans are one particular but nonetheless entangled community. In accordance with a participative ecological praxis, Truax would like for us to position ourselves firmly within, as constituents of, an idea of nature, a positioning of the listening subject as an active agent amongst inhuman others, themselves agents in a process of ecological determination. Yet, despite such intentions, Truax's position is weakened insofar as the difference he seeks to rectify remains restricted to divergence. Limited in this way to divergence, difference is itself set apart from nature, a distinction that contributes to the constrained dynamics of acoustic ecology's ideology of holistic equilibrium. Initially this may seem a somewhat tedious or pedantic point within the broader scope of Truax's project, yet the nature of its

⁹⁵ Truax, Acoustic Communication, 65.

relationship with difference remains at the centre of many critiques of the acoustic ecology project and its own limitations.

Nature, for Truax, tends towards an equilibrium, a balance that marks the ideal order of things and a dissolution of the hierarchical elevation of the human. This idea of nature as equilibrium occupies a position of central importance to acoustic ecology, yet is often undermined from within by a limited conception of noise as mere negative effect, as the disturbing effect of human technological progress upon the natural order of things, a position which serves to support the hierarchical structure Truax is keen to critique. Here we must centralize another 'equilibrium', that already mentioned between noise and difference, the consequence of which is an understanding of noise as not simply a negative interference in a pure order of universal signal components, but rather noise as all signals appearing as distinct as well as their conditions of appearance. The characterization of difference as divergence can be seen to be symptomatic of the manner in which the acoustic ecology project maintains a certain atemporal purity at the heart of its conceptualization of nature, with its most reductive ideological position identifying such purity in a preindustrial global order against which difference as divergence is measured. The criticism of difference or divergence from nature tends to maintain nature as a selfsame unity and perfect equilibrium in its limitation of difference to divergence. In order to avoid the trappings of purity into which the arguments of the acoustic ecology movement often fall we must, far from negating the category of divergence, maintain a certain difference from nature or the natural by maintaining difference in the idea of nature through the idea of nature as difference in itself. This is the problem or ultimate limitation of acoustic ecology, insofar as it lacks a fundamental concept of difference, so when Truax calls for us to not consider ourselves as different from nature, the response must be that this conception of difference as divergence is insufficient, and to consider nature as fundamentally different, as being comprised of beings that differ from each other in infinite degree. The consequence of this reciprocal implication of difference in nature is that everything appears as different from nature insofar as Nature is taken, in a manner consistent with the ideology of acoustic ecology, holistically, as the naming of All, and that All—everything together all at once—is possibly the simplest expression of noise, of a Noise that is pure insofar as it marks the utter dissolution of distinction or the possible appearance of things as distinct. This simple mereological position can be clarified in saying that a body, object or event is, insofar as it is not everything, nor nothing, and therefore something different from nature

without attaining autonomy from it. This position, I believe, brings us closer in line with Truax's central concerns while allowing us to address the importance of a reconceptualization of difference, and therefore noise, within acoustic ecology. In maintaining difference within environmental considerations and the idea of nature, from the perspective of acoustic ecology, it will be necessary to rebuild acoustic ecology around the central problematic of noise as opposed to the site of a sacred silence that places the audible interactions of the world's constituent elements under erasure, the initial groundwork for which can be found in Truax's own work.

Truax presents an exceptional conception of noise that presents an opportunity to restructure much of his own argument, but also for a productive ungrounding of acoustic ecology that escapes an otherwise pervasive and puritanical romanticism. This exceptional conception, however, remains isolated within his text, preventing its possibility for contamination. Before focusing on the opening that this conception of noise creates, allowing for a flight from romantic naturalism, we should address the more typical and pervasive understanding of noise expressed in his writing, which can be taken as emblematic of the acoustic ecology project in general. This position is most clear when Truax states that 'noise is the enemy of the acoustic community', falling back upon the default position of the acoustic ecologist which reduces noise to negative interference.⁹⁶ Noise as negative interference is here posited as the enemy of 'the acoustic community', which is immediately intriguing insofar as this 'community' refers to 'any soundscape in which acoustic information plays a pervasive role in the lives of the inhabitants', and more broadly to 'any system in which acoustic information is exchanged'. 97 It is this latter and more expansive definition that we should adopt as it is the definition most consistent with Truax's concerns for an ontological leveling which grounds humans within the idea of nature and amidst its other countless occupants. In accordance with this definition we can say that an acoustic community is established wherever any collection of objects or bodies exist that are capable of response to, or the active reception of, contractions and rarefactions in mediums such as air, water or earth. Such an expansive notion can be seen to reflect the practices of the Acoustic Ecology Institute, who's work has a strong focus upon marine life and therefore the acoustic communities of whales, fish, dolphins and so on. Such inhuman acoustic communities are also brought to our attention in the work of Jana Winderen,

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⁹⁶ Truax, Acoustic Communication, 66.

⁹⁷ Idem.

whose The Noisiest Guys on the Planet presents recordings of the characteristic crackling noises or underwater soundscapes created by decapods such as crayfish prawns and shrimp, as part of ongoing research into the audible expressions and orientational use of sound by aquatic creatures. 98 Following Truax's lead, the notion of an acoustic community is clearly not to be restricted to the bandwidth of human audition, but considered as extending out into a larger vibrational continuum, a field that must be defined according to the potential for the rendering audible of any informative vibration. Where matter, membranes and tissues vibrate according to a sympathetic resonance an 'acoustic community' is established. An acoustic community is in this sense the vibrational relation of bodies and objects set in sympathetic motion, a territory delimited according to an expansive field of vibrations, comprised of any body capable of registering the effects and affects of vibrations: a community comprised of birds, grain silos, bees, iron girders, glass bottles, swimming pools, humans, steel pipes and so on, the kind of acoustic community exemplified in Bill Fontana's Objective Sound. This expansive and inclusive definition strengthens the orientation of acoustic ecology beyond the purely audible, creating an opening onto the inaudible conditions of sound.

Having adopted the broad definition of the acoustic community provided by Truax, we must necessarily consider the extent to which noise can be considered its enemy. Noise is in this sense considered negatively, as interference within the consistency of the community's relations through a blurring of periodicity leading to the indiscretion of its signs and signals. Insofar as noise remains the enemy of the acoustic community, its task is the eradication of such interference. What we are referring to as the acoustic community constitutes a certain territoriality when we consider the necessary space or environment it occupies influences and informs. The offensive on noise as interference waged by such a community can be understood as concomitant with the maintenance of its territorial consistency, a consistency which is defined according to the clear and discrete transmission and reception of its constitutive vibrations. In the eradication of noise a community erases all which falls or arises between its own signals, between those transmissions between the objects and bodies with which it establishes relations. This is not to imply that humans only listen to humans and silence all else, as we regularly enter in communal relationships with dogs, cats, trees and trumpets, but in a community comprised of humans, apes, food and

⁹⁸ Jana Winderen, *The Noisiest Guys on the Planet* (Ash International: ASH8.1, 2009).

computers, all other signals must be silenced towards the maintenance of this state of affairs, or particular territory. Where the eradication of noise becomes its default position, the ideals and practice of acoustic ecology become articulated towards and grounded in the ideals of silence. From this position silence is equated with a state of equilibrium, the base line or ground of the practice, the ideal against which it measures the noise of the world. Such orientation revolves around the notion of a pure communicability, the transmission of meaning and information through a wholly transparent and ineffectual medium, a medium which in the passage of signal content produces no distortion, permitting no noise. Such a medium remains, of course, impossible, with noise both constituting and permeating all signal. Within such a saturated and unequal medium, signal is rendered differently at each point of its reception, a reception that must include not only human audition but the affective capacities of every element that aids and impairs the transmission of vibrations between bodies, objects and membranes. Silence marks only an absence of attention; insofar as acoustic ecology grounds its signals in silence, signals rendered consistent against a silent ground and ineffectual medium, it delimits a field of interactions and vibrations to which it cannot, or cannot bare to, listen, a grounding in silence that leads to the maintenance of ideals of purity, as are evident in Schafer's Soundscape, which concludes upon the perfect silence of a universal or Cosmic tonality. 99 Truax, however, offers a way out of the deadlock of a grounding of signals in silence through his exceptional considerations of noise, considerations that are in many ways the inverse of his predominant position. Where Truax names noise as the enemy of the acoustic community, we must reorientate this assertion as we did his relation to difference, positioning noise as both the possibility and central problematic of an acoustic community. Noise, in this sense, is not simply a nuisance, nor an 'enemy of the acoustic community', but is rather constitutive of that community and a necessary expression of its territoriality. The problematic is here taken in a sense that is not negative, but rather as signifying a complex field of interactions, a collection of objects and events that pose a problem to which one must respond and in doing so define signal content. 100 Noise is taken as naming a problematic site of interacting bodies and objects from which signal content is drawn, an

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⁹⁹ I return to this point later in this chapter.

¹⁰⁰ Such a conception of the problematic is taken from the work of Gilles Deleuze and will be covered in greater detail below.

understanding of noise that is identified by Truax in the more nuanced considerations of noise brought about by his consideration of urban space:

Noise, in the sense of information that is unpatterned and unordered by the brain, is the only source of new information [...] People often use the word "noise" in a non pejorative sense to mean any undefined or unrecognized sound that is potentially meaningful [...] noise as the source of new information is open-ended and offers the promise of all that we may possibly experience. 101

It is from this position, oriented around a consideration of noise as the *conditions of sound* and the potentials of experience that Truax opens, from within, the possibility for an ecological practice grounded not in silence but constantly ungrounded in noise understood positively as a generative site just beyond the given thresholds of perception. It is on the basis of these assumptions that we should use Truax against himself, positioning noise not as the enemy of the acoustic community but rather the possibility of its existence through a productive ungrounding of ecological practice. Truax occasionally carries out this reorientation himself, recognizing noise as an ambiguous generative and problematic site, as in his terminological expositions wherein 'signals [...] are heard over the "ground" of the keynote sounds (e.g., boat horns against the sound of waves in a port)'. 102 The 'keynote sound' identified here being the noise of the sea, a site that embodies high bandwidth noise in its undulations and the crashing of waves, a natural site of near white noise forming the background or, more generally, ground of signal events against which Schaferian soundmarks emerge. The task at hand becomes the maintenance of an acoustic ecology that is in this way grounded in noise.

Towards the maintenance of difference as something other than negative divergence, we require a sense of acoustic ecology reorganized around an understanding of noise as the protean ground of experience and audibility, an understanding that, although somewhat marginal, is nonetheless present in Truax's work. This process of an internal restructuration is carried out, as to simply avoid engagement with acoustic ecology on the grounds of its privileging of purity, its idealization of the natural and the haunting spectre of a sacred silence, is to overlook the depth with which research has been carried out within this field into sonic spatial productions and sonorous relations. As we will see, much effort has been put into such a reconceptualization of acoustic ecology and auditory environmentalism, yet

¹⁰¹ Truax, Acoustic Communication, 97.

¹⁰² Ibid., 69.

largely and most notably from artists working in a far broader and less stratified practice of environmental sound recording. It is in this repositioning and rethinking of both noise and difference noise is then granted a certain ontological status, as a matter of being as much as perception. Further, as an affective matter, noise is both heard and understood by Truax as being influential within human adaptation, the affective matter of sonorous individuations, and while this capacity is cast in a somewhat negative light, we can nonetheless take Truax's observations as being of greater importance than he identifies: 'when feedback is amplified instead of being counter-checked, the result is an instability of the system [...] such a situation occurs when noise leads to human adaptation'. 103 The consequence of noise and feedback being grounded in negativity leads Truax towards a critical stance on adaptation, a position which would seem to call for the maintenance of a fixed model of humanity within a greater natural order, recognizable in the extent to which instability or, rather, metastability is cast as the negative result of interference rather than the possibility or potential of change and adaptation. Where this position is maintained it severely undermines the scope of acoustic ecology, insofar as feedback constitutes the reciprocal determination of environmental agents, a core concept of ecological thought, identifying the 'natural' as that which tends towards stasis rather than a dynamic and changing environment. Such a position, more specifically, undermines the extent to which sound is understood to creatively contribute to environmental determination and is capable of genuinely affective influence. What we can selectively preserve from Truax's statement is the extent to which feedback, reciprocal determination, affective relation and adaptation are ascribed to noise, as it is precisely such a concept, noise understood as generative rather than strictly negative interference, that we are trying to establish at the centre of acoustic ecology.

Identified with feedback, noise names the site of a generative matter and the potential for change within individuals, crowds and populations. Such is the ambiguity of noise: Truax intends to warn of a desensitization to noise which typically reduces the will to listen as discrete signal content is lost, dissolved as background noise rises to the surface—a warning that is of course heard and recognized as being of great importance—yet noise is in the same gesture identified as an agent of change, as a generative matter capable of producing difference. This latter point is clearest in Truax's description of an open-ended

¹⁰³ Truax, Acoustic Communication, 82-3.

field of noise, noise as a source of newness as well at a threat to signal discretion. Instability is taken here, in a reversal of Truax's position, as a necessary state of being, as a capacity for change; likewise, the 'functional equilibrium' that Truax is keen to maintain through ecological practice is problematized in light of his own considerations of noise, which posits, although shies away from, the notion of a metastable equilibrium as the (un)grounding of nature. This reorientation does not, of course, seek to evoke a kind of Futuristic flooding of the earth with noise through a state of 'unchecked amplification', but rather an openness to change and difference. In a similar manner the profusion of feedback need not be taken in the negative sense originally given as an increase only in amplitude; in rereading Truax we can interpret the productive role of feedback as an increase in intensity as opposed to global amplitude, an increase in the potential for change, for a greater opening onto and engagement with the informal difference of noise. Intensity, taken in this sense as a marking the productivity of difference, production through tension and the interaction of elements, asserts a proximity to ground, to noise, both an active listening and reception discerning new signal content and opening the self up to individuations and individualizations in response to the noise of the world.

Should we limit our understandings of noise and feedback, as in Truax's specific concerns, with a general or global increase in amplitude, this leads to what he, using Schaferian terminology, refers to as a 'lo-fi' environment: an environment flooded with or dominated by noise, problematizing the discernment of signal. In our reconfigurations we identify such an environment as the state from which signal is drawn, the 'lo-fi' continuum in which little or nothing is identifiable but from which anything can be drawn. What we call sound is one such thing, a divination of signal, a bandwidth reduced from a greater and in a sense anterior 'lo-fi' environment. In this sense the 'lo-fi' environment is ascribed the same ambiguity as Truax's open-ended noise, a field of both generative potential and the dissolution of periodicity. In equating the lo-fi environment with noise and therefore the ground of the soundscape or acoustic community it is posited as both a central problematic and anterior generative principle from which signals defining the consistency of both are discerned. Such assertions, however, initially appear incompatible with Truax's observations wherein 'the lo-fi environment [...] seems to encourage feelings of being cut off or separated from the environment. The person's attention is directed inward, and interaction with others is discouraged by the effort to "break through" that is required.

Feelings of alienation and isolation can result'. 104 For Truax it is a loss of discretion, distinction or alterity, caused by the blurring effects of the lo-fi environment that is the cause of a sense of detachment and separation; where a minimal distance is not easily defined, resulting in a proxemic confusion through the proximity of background noise to surface signals, one feels 'cut off'. It is in this sense that isolation appears paradoxical insofar as the intensity of both noise and signal indicates a certain proximity to the unfolding of events, a proximity to the generative site of noise. We get a sense of this in common phrases such as being 'in the thick of it', amidst the 'hustle and bustle', phrases that convey a sense of being 'where the action is', in close relation to the defining or determining events of one's environment. The lo-fi environment, rather than posing a threat through a sense of isolation appears as such through the possibility of too much connection, of being too close to noise, a situation wherein one's alterity becomes threatened through indistinction, a situation in which 'I can't hear myself think'. Excessive proximity with one's environment and its determining interactions, wherein the fragility and mutability of thresholds of personal space, the boundaries marking a minimal distance and individual territoriality, leads to overwhelming connectivity. 105 While a degree of personal isolation is in this way posited as necessary rather than simply a negative problem, the extent to which it may become amplified through overwhelming connectivity should be taken into account, forcing a turn 'inwards', away from the noise of others, through the proxemic bolstering of a site of self preservation. 106

Ungrounding Noise

In moving towards an ungrounded ecological praxis we have sought a reorientation around noise and an engagement with the ambiguity of affective capacities and forces of individuation. We find the beginnings of such a notion of ecological praxis mapped out in the work of Félix Guattari; where Schaferian ecology shies away from the extended and individuating consequences of its own observations, Guattari proposes an understanding of

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¹⁰⁴ Truax, Acoustic Communication, 23.

¹⁰⁵ For more on the maintenance and importance of a minimal distance between bodies and objects, as well as the vast cultural variance and malleability of its defining thresholds, see Edward T. Hall, *The Hidden Dimension* (New York: Anchor Books, 1966), and Robert Sommer, *Personal Space: The Behavioral Basis of Design* (New Jersey: Prentice Hall, 1969), 26-38.

¹⁰⁶ This point receives further attention in chapter three, where headphone based listening is discussed.

ecology that actively follows the radical potentials presented by such trajectories. Schafer can be seen to have identified the individuating potentials in sound yet was too quick to limit them within the bounds of a romantic naturalism, favouring a preservation of the natural or 'normal' order of things over the temporality of matters and a protean being. For Guattari, on the other hand, 'ecological praxes strive to scout out the potential vectors of subjectification at each partial existential locus. They generally seek something that runs counter to the 'normal' order of things, a counter-repetition, an intensive given which invokes other intensities to form new existential configurations'. 107 Presented here is the larval form of an ecological praxis open to challenges posed to the integrity of minds that Schafer was so fearful of, a praxis that seeks out affective matters opening onto processes of individuation and subjective reconfigurations. Such a notion of ecology opens the mind onto a world which is grounded in difference rather than purity, onto the complex and constituent interactions of its diverse components. Within Guattari's ecological model we may be able to identify an idea of North-the existence of a particular transcendental condition—yet it is the North uncovered by the likes of Kirkegaard, who create openings in its surface to enable couplings with the noise residing within. From amidst Guattari's broader concerns, presently taken to be most salient is the notion of 'opening-out', the function of an ecological praxis that opens territoriality onto the implications of environmental interaction that lead Schafer to fear for the integrity of his mind. This opening-out moves towards individuating forces and potentials to be found amidst the components of a field situation.

Ecological fields of influence are, in Guattari's work, considered according to a complex situation of reciprocal determinations. For Guattari there are three primary 'situations' or ecologies corresponding to the territories of mind, society and environment, relational territories marked by differences that nonetheless do not constitute their autonomy or absolute discretion. Too clean a distinction facilitates the hierarchical relation of individual and world, society and subject, nature and culture. Addressing present concerns for audible environmental relations, along the lines of division or distinction with which we have characterized the abstraction of the soundscape we might say that too zealous a distinction may result in the perceived autonomy of a soundscape from its inaudible conditions and extensions, a distinction that leads in the direction of

¹⁰⁷ Félix Guattari, *The Three Ecologies* (London and New York: Continuum, 2000), 45.

phenomenological essence. Yet, in pacifying difference according to the distributions of a common sense we lose the particular force of the audible. Our concern lies with a difference and distinction that does not exclude interrelations and reciprocal determinations, an ecological confusion that does not dissolve the force of the particular or disempower difference.

Here we take on the form of Guattari's ecological praxis, mapping his territorial concerns onto those of the earth, (inter)personal architectonics and the individual. More important, however, is the process of opening-out that characterizes Guattari's sense of ecological productions:

The principle common to the three ecologies is this: each of the existential Territories with which they confront us is [...] capable of bifurcating into stratified and deathly repetitions or of opening up processually from a praxis that enables it to be made 'habitable' by a human project. It is this praxic opening-out which constitutes the essence of 'eco'-art. 108

Here we are presented with the ambiguity of an ecological confusion, the oscillations between stratifying consolidations and opening-out. Within each component of Guattari's ecological schema resides the potential for a repetition by which its autonomy is perceived; Guattari's "eco'-art entails the production of openings, the making available of the components of distinct territories for the production of diverse assemblages, 'habitable' environments and occupations. Opening-out onto the noise of a particular environment, an opening on to the ground of recognizable and contracted periodic events, leads one to the site embodying both the dissolution and production of forms, an ambiguous site which, where such openings become audible, provokes potentials for new listening practices and therefore new 'vectors of subjectification' while at the same time threatening existing audile techniques and subjective consistencies. Guattari's schema furnishes us with an expansive notion of ecological praxis. Such a framework is supportive of the continuum of differences I wish to establish in this argument, a continuum stretching from the geological, through the architectural and the personal. These three territories while not discrete nonetheless embody degrees of difference, with Guattari foregrounding reciprocal influence between territories without dissolving differences. Ecology is then accordingly considered to operate according to a degree of confusion as much as preservation. Where the

¹⁰⁸ Guattari, Three Ecologies, 53.

ecological schema presented by Guattari is taken as a means of restructuring the ideological framework of acoustic ecology, the necessity of such an operation finds its audible expression most clearly in works such as Audible Geography, a collection of recordings expressing locational contingencies and mutabilities, a document comprising ecological praxes inclusive of the natural, technical, cultural and political. 109 Rendered audible are not simply environmental representations but rather a series of ecological confusions, wherein an environment abstracted from its holistic image in passing through the assemblage of the artist, the microphone, the means of its documentation and manipulation. In Audible Geographies we hear the confusion of site and intervention, not simply an environmental strata considered pure in its autonomy but a complicated set of audibly expressive objects not ascribing a privilege to the apparently natural or organic. Ubiquitous is the presence of a certain background noise, diverging is the degree of proximity to it in each recording; from a persistent murmur in recordings made by Stephen Vitiello, Toshiya Tsunoda and Francisco López, to the instances where the background rises to swallow and confuse the constitution of a foreground in Eric La Casa, Asher and Marc Behrens. Background noise is herein not considered the enemy of the 'acoustic community' but the persistent and constitutive expression of its possibility, a determinant of the space it occupies and to which it lends definition. In these recordings we hear he necessary problematization of acousticecological practice, a foregrounding of that which is stifled where this rubric is left to its traditional romanticization.

The ecological praxis we can draw from Guattari's work is one of openings and interactions, openings onto difference and ecological ungroundings. It its with the consequences of these openings, the resulting impacts and impressions of that which is let in that primary concern lies, with the catalytic and individuating functions of a territory opened to noise. Such openings can be thought to entail a territorial deformation rather than total obliteration, provoking a spatial production in relation to which the individual is defined and delimited. With regard to our concerns for sonority, these openings are movements beyond the determined significance of sound, a problematization of the Schaferian event and the consistency of its emplacements according to symbolic relations, towards openings that welcome inside the abstract concrète, an objective displacement and territorial deformation. Welcomed within, around such objects the individual may come to

¹⁰⁹ Various Artists, *Audible Geographies* (Room 40: EDRM416, 2008).

take place, establishing the initial objective displacement as a new 'tonal centre' through its gradual emplacement and recognition as event. This trajectory from objective displacement to emplacement finds expression in the terms of individuation amidst Guattari's ecological project, described as that which:

initiates the production of a partial subjectivity [...] a *protosubjectivity*. The Freudians had already detected the existence of vectors of subjectification that elude the mastery of the Self; partial subjectivity, complexual, taking shape around objects in the rupture of meaning [...] but these objects [breasts, faeces, genitals], the generators of a breakaway or 'dissident' subjectivity, were conceived by Freudians as residing essentially adjacent to the instinctual urges and to a corporealized imaginary. Other institutional objects, be they architectural, economic, or Cosmic, have an equal right to contribute to the functioning of existential production. ¹¹⁰

Here we find a more detailed elaboration of the operations of ecological openings and corresponding territorial confusions. The event of the objective displacement, the introduction of an object around which a partial subjectivity takes place, knocks the listening subject off course according to the objective 'generator' of a subjective and territorial distortion, an opening onto the field situation of a 'proto-subjectivity' that names the intensive field of the individual. Objective displacements force the self towards that which is other, towards the unidentifiable or unidentified, towards the void that nonetheless influences the consistency of the self in constituting the conditions of its selective territorial definition. In emplacement we find ritualized response to the objects revealed. Repetition, sustained attention and a refocusing of perception after objective displacement performs a subjective orientation, a congealing of identity around the selected signals emerging from an opening onto noise, a tuning into specific frequencies and timbres, consolidation according to a subtractive synthesis. Where psychoanalytical thought posits a list of partial objects containing breasts, faeces, (imaginary) phallus and so on, we presently posit an entirely different and expanded list of influential objectivities. Guattari's expanded list includes architectural, economic and cosmic objects; extending these institutional objects we identify displacement operative at a different order to the personal and the self: an affectivity of the real. From this list we are to retain only the architectural for our present needs while adding sound and technical objects in order to consider their subjective

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¹¹⁰ Guattari, Three Ecologies, 56.

impressions, specifically the status of sound as an evental-objectivity around which individuals take place.

Guattari's schema opens up ecological practice from its naturalistic constraints, mapping pathways out of limited understandings of the environmental into the architectonic, individual and interpersonal domains. Adopting this framework as a necessary step in discussing the expanded and de-romanticized acoustic ecology already at work in the likes of Toshiya Tsunoda, Andrea Polli and Russell Haswell, Guattari's model must nonetheless be subject to further ungrounding if we are to identify the ontological status of the noise onto which it opens. Beneath the ecological connectivity of subject, bodies and objects, agents human and otherwise, rumbles the noise of a fundamental and generative difference.

At the ideological core of acoustic ecology the natural signifies only those well defined and grounded signals, signals determined to represent an image of nature; in expanding the scope of the ecological praxis we seek to unground this distinction, to open it up to new determinations and consequent groundings through its ungrounding, its excision from determined symbolic operations. The ungrounding we seek is two fold: that of the nature of acoustic ecology and that of the individuals who populate it, enabling an entrance onto field situations and an openness to the individuating potentials of sonority foreclosed in Schaferian acoustic ecology. It is through reference to Guattari and the unbinding of noises marginalized within acoustic ecology that we find an initial model of ecological praxis which itself operates according to openings-out onto diverse fields of material others and vibrational agents. The apparent stability of the environment around which acoustic ecology has consolidated itself is supplanted with that of a metastability, the productivity of a problematized periodicity, through its ungrounding in noise. In operating according to a praxical opening-out a practice is recursively ungrounded in difference rather than grounded according to purity and the ideals of natural order. There is a necessity to this ungrounding insofar as we wish to disturb the orderly stability of natural signals, determined as such within a traditional model of acoustic ecology, opening it onto expanded fields of sonority through resonance rather than referral and representation.

That which appears as well grounded appears on the side of representation as 'to ground is always to ground representation', to fix in place and to determine in accordance

with the ideological practice of a given domain or territory. 111 Insofar as, through this productive ungrounding we come to concern ourselves with a subterranean transcendence, we take as our field of study the interactive determination of domains, domains which themselves constitute the objective and empirical events central to disciplinary territoriality. In the determination of audible domains we can identify the interactions of the inaudible and of events that exceed the thresholds of perception. Insofar as we orientate ourselves towards the processes by which audibility is determined as such, we reorientate the transcendental conditions of acoustic ecology from those of Schafer to the 'fractured' North presented by Kirkegaard, whose work forces to the surface a plutonic noise—that which subsists beneath both the surface of the earth and, as we shall see, the flesh—an audible energy that attests not to the autonomy of sound itself but to an energy in general, to the inaudible and transcendent conditions of sonority: 'energy in general or intensive quantity is the spatium, the theatre of all metamorphosis or difference in itself [...] In this sense, energy or intensive quantity is a transcendental principle'. 112 In his ungrounding of the silent heart of acoustic ecology—as performed in Eldfiall—Kirkegaard renders audible the rumbling theatre of geomorphology and addresses noise as the transcendent conditions of the natural. As a disciplinary territoriality, the empirical domain around which acoustic ecology orientates itself is that of sonorous events. Being concerned with a generative subterranean transcendence that conditions this domain of auditory events means that one takes as a field of study those interactions which may remain inaudible and confused, those fields of noise which present the potentials of audibility while remaining in excess of the perceptible. This relation of the empirical and transcendent can be further clarified with reference to Deleuze:

In terms of the distinction between empirical and transcendental principles, an empirical principle is the instance which governs a particular domain [...] The transcendental principle does not govern any domain but gives the domain to be governed to a given empirical principle; it accounts for the subjection of a domain to a principle. The domain is created by difference of intensity, and given by this difference to an empirical principle according to which and in which the difference itself is cancelled. [113]

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¹¹¹ Deleuze, Difference and Repetition, 343.

¹¹² Deleuze, Difference and Repetition, 301.

¹¹³ Idem.

The transcendental here names the noise of those interactions which constitute potential audibility while themselves remaining, at least in part, inaudible, subsisting beyond the domain of the empirical and the means of their perception. Insofar as what we hear is sound-itself or sound as symbolic operation, brought to the mind is not the body from which the empirical event arose but rather the phenomenon itself and its significant extension; it is in this sense that difference—the body of noisy, heterogeneous and subtarranean interactions—is cancelled in the qualitative perception and becoming symbolic of the audible events and discrete sonorities to which it constitutes the conditions. It is where the sound object is taken hold of within phenomenological and symbolic sufficiency that the difference from which it emerged is truly cancelled or effaced in its appearance as qualitative essence or sign, the external expressions of those processes constituting its internal differences and transcendent conditions.

It is from the position wherein acoustic ecology is grounded and grounds signals according to its naturalistic taxonomy that noise is represented as negativity and limited to the operations of divergence. In our equation of noise with difference and the groundless as a field of difference unbound, the site of a ceaseless generativity is identified; it is this generative status that is lost in the limitation of difference to divergence and the representation of noise as negativity, operations illuminating what Deleuze referred to as 'the ultimate external illusion of representation', wherein it is thought 'that groundlessness should lack differences, when in fact it swarms with them'. 114 It is this illusion which is put to work where noise is limited to interference, as that which is solely detrimental and withdrawn from catalysis. These differences, the 'swarming' of which is heard in the confused murmur of noise as both saturating and interstitial informality, comprise the productive conditions of a deformation, a productivity of noise that is disclosed to the listening subject as audile technique descends through the earth's depths, as attention is directed beyond the perceptual thresholds of the simply given. This ungrounding noise attests to the generative potentials of material interactions, to the emergence of signal from noise and to the 'opening up of things to the turbulence beneath them'. 115 Beneath the patterned organization of signals we find the rumbling of deformations and (de)compositions, contingencies and constitutive interactions. It is such a transcendental

¹¹⁴ Deleuze, *Difference and Repetition*, 347.

¹¹⁵ Iain Hamilton Grant, *Philosophies of Nature After Schelling* (London and New York: Continuum, 2006), 201.

rumbling that the audile techniques demonstrated in the work of Kirkegaard open onto, ears directed through openings in the earth in order to *discern something* of the inaudible, plutonic noise that rumbles beneath, a re-grounding of the sounds of nature and the objects of an acoustic ecology according to a fecund and transcendent noise that otherwise subsists inaudibly.

In the durations of the audible object—manifest in its transience—we find the arc of the apparent event which leads back towards the groundless and imperceptible, states discussed here not in accordance with a puerile celebration of noise but as a means of identifying capacities for change and their audible excitation, an identification of noise as a field of individuating potentials. As ungrounded audile object and event, noise finds its equation with difference, which as the imperceptible population of a groundless field of interactions finds resonance with the process and potentials of individuation; it is the groundless which is characterized by Deleuze in the terms of a 'depth or spatium in which intensities are organized [...] the fields of individuation that they outline [...] internal resonances and forced movements [...] the constitution of passive selves and larval subjects [...] the formation of pure spatio-temporal dynamisms'. 116 According to its being populated by differences the groundless is equated with a field of noise that, through this synonymity, is recognised as the site of individuations—observed in this instance to operate primarily according to sonority, by way of 'internal resonances and forced movements' that impact upon the definition of individuality and the delimitation of subjective territories. It is this list of characteristics that is to be claimed for noise insofar as it is to be understood as generative potential rather than homogenizing negativity, as a saturated space entering into a system of resonances and forced movements with the constitutive bodies of an environment, the interactions of which being understood as the dynamics driving individuations and the state of a protean being.

Originary Audition

Through the opening out of acoustic ecology heard in *Audible Geography*—a disciplinary and territorial expansion concomitant with Guattari's ecological schema—and its

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¹¹⁶ Deleuze, Difference and Repetition, 347-8.

ungrounding according to the noise posited as the subsistence of subterranean transcendent conditions beneath the ideal image of the natural, we are better positioned for a return to the originary site of Schaferian ecological practice. Kirkegaard's Eldfjall has been taken as an exemplar of the directing of auditory attention beyond the given thresholds of perception, towards the dynamics that persist both beyond and within the apparent, yet we also find a fundamental and generative noise posited as originary (un)ground(ing) within Schafer's Soundscape. In the noise of the sea Schafer identifies a fundamental sonic archetype, a primary and original murmur posited at the intersection of being an obliteration: 'what was the first sound heard? It was the caress of the waters [...] The roads of man all lead to water. It is the fundamental of the original soundscape and sound which above all other gives us the most delight in its myriad transformations'. 117 It is from the noise of the seashore that Schafer sets out on his trajectory towards an ideal and cosmic audition. In this identification of a speculative and primary auditory event, Schafer's soundscape ungrounds itself in noise, in the sounds of the sea and the near white noise of the crashing of waves. In our reconsideration of acoustic ecology, in identifying openings onto its own productive ungrounding, it becomes necessary to retain or recover this noise, plotting not a linear trajectory towards cosmic audition but a vacillation around the central problematic of nature's noise—noise is not simply a problem of men and women but necessary to an understanding of generative difference. To this end we can refer to an alternative account of originary noise that does not make recourse to the heavens but whose ontological trajectory is one of an oscillations always passing through the zero point of oblivion.

This alternative model, setting out from a common ground, can be found in the work of Michel Serres, who, on the noise of the sea, states that:

There, precisely, is the origin [...] We never hear what we call background noise as well as we do at the seaside. That placid or vehement uproar seems established there for all eternity. In the strict horizontal of it all, stable, unstable cascades are endlessly trading. Space is assailed, as a whole, by the murmur; we are utterly taken over by this same murmuring. This restlessness is within hearing, just shy of definite signals, just shy of silence. The silence of the sea is mere appearance. Background noise may well be the ground of our being. It may be that our being is not at rest, it may be that it is not in motion, it may be that our being is disturbed. ¹¹⁸

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¹¹⁷ Schafer, The Soundscape, 15-6.

¹¹⁸ Michel Serres, *Genesis* (Michigan: University of Michigan Press, 1995), 13.

For Serres, as for Schafer, in the noise of the sea resides an originary ground, the background noise that permeates our protean being. As the background to ontological distinction, noise is thought to permeate being, as that which lingers within that which makes itself distinct, an originary trace that nonetheless persists. Beyond the seashore it is the 'lapping' of a larger vibrational 'continuum inhabited by unnamable waves and unfindable particles' that constitutes the noise to which the subject is opened, constituting a less romanticized image of the site or environment of an originary murmur. 119 To be taken over by noise is to be opened up to processes of individuation that persist beneath the appearance of stability, to enter into confusion and composition with a background noise approaching zero, approaching a ratio of 1:1 with identifiable signal, the ultimate and originary 'lo-fi soundscape'. Being grounded in background noise locates a centralized 'restlessness' constituting a fundamental anti-essentialism, the field of an absolute contingency. The contingency of sound constantly refers itself elsewhere, to both its extensions and conditions. It is in this sense that sound 'in-itself' is nothing or rather nothing, in-itself it is always other, a sound that in itself remains inaudible multiplicity in its objective persistence beyond the thresholds of perception. Subject to attention, noise yields signal through a subtractive and selective audile technique, the quality of its expression defined in the interaction of object, event and ear in accordance with the vibrational potentials of the object or body set in motion and the conditions of the receptive auditory complex—both culturally and physiologically conditioned. In both qualitative extension and symbolic action the transcendent conditions of the sound object become obscure, with the former supporting phenomenological autonomy and the latter submitting sonority to sign in both symbolic and mnemonic referral. Noise in a sense haunts perception, always just out of ear shot, an element that resists or rather remains in excess of its perception, consistent image and sign, drawn out of itself in becoming periodic and significant. Michel Serres defines an ontology of noise similarly:

Noise cannot be a phenomenon; every phenomenon is separated from it, a silhouette on a backdrop, like a beacon against the fog [...] every signal must be separated from the hubbub that occupies silence, in order to be, to be perceived, to be known, to be exchanged. As soon as a phenomenon appears, it leaves the noise. So

¹¹⁹ Gilles Deleuze and Félix Guattari, A Thousand Plateaus, 274.

noise is not a matter of phenomenology, so it is a matter of being itself. 120

The problem of noise is less one of phenomenology than ontology. Noise as background, evading perception, constitutes the transcendental ungrounding of the grounded, the withering and waning of the periodic, the faint or overwhelming blurring at the edges of representation. Insofar as this noise is, for Serres, not a matter of phenomenology, neither is it strictly one of empiricism. The noise that Serres talks of is noise in it's 'pure' sense, noise in the sense of a pure and transcendent difference, pure insofar as it constitutes a fundamental impurity and recursive contingency. Where the empirical names that which is given to be sensed, the field of objects and events that may possibly be sensed, the transcendental names the conditions of this domain. Diversity exists between determined objects, between the empirically grounded, difference is that which remains particular to the transcendent, that constitutes the transcendental conditions and ungrounding of the diverse. The thing given to be considered as a phenomenon appears grounded atop its ungrounding, the appearance of periodicity set against the background noise from which it is drawn, a background constituting that which persists just out of earshot. This background noise names the state of productive interactions, a metastability or 'inequality', an inequality naming an imbalance, an imperfection whose movements create the disturbances and agitative conditions of sonority, the distortions that plagued Schafer's access to universal and silent tonality. This distortion occupies the periphery of the periodic, the hiss and crackle at the edge of audibility that betrays its indiscretions, its catalytic collisions and subtractive determination. Inequality is the imperfect oscillation that gives diverse signal events to the domain of the empirical and audible: 'every phenomenon refers to an inequality by which it is conditioned. Every diversity and every change refers to a difference which is its sufficient reason. Everything which happens and everything which appears is correlated with orders of differences: differences of level, temperature, pressure, tension, potential, difference of intensity'. 121 Such fields of difference are the influential matters of being constituting a particular horizon of perception. It is towards a more specific consideration of the individual populations of these fields that we will turn shortly in addressing the subject matters of an expanded acoustic ecology, a praxis that extends

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¹²⁰ Serres, Genesis, 13.

¹²¹ Deleuze, *Difference and Repetition*, 280. Italics in original.

from the impersonal noise of the world to its containment, resistance and domestication in architectonic space.

2. Architectonic Noise

Tracing lines of auditory determination, we proceed by way of a spatial contraction from the noise of the world—or more specifically, the environmental expanse at the heart of acoustic ecology—to its spatial containment, organization and isolation within the architectonic, to a space set apart from the world. Considered in terms of its individual and subjective impressions, the architectural territory is considered in terms of both protection and differenciation, an agent in both the maintenance and determination of self and identity, a determinant in the affirmation of alterity. Posited by Luis Fernández-Galiano-after Vitruvius—as the primeval gesture of such distinctions, that between the space in here and the world out there, is fire, a fire which sets a space apart. Distinct from organization according to the intersection of lines—territorial delimitations according to the geometries of visual space—is Fernández-Galiano's notion of energetic architectonics wherein the invisible and thermic is considered equal to the visible within architectural determinations. 122 This identification of an invisible, thermic architectonics draws us towards the transient mutability of space, to its environmental contingencies, towards an understanding of spatial determination appropriate to the broader notion of auditory space. This notion of auditory space is derived from the work of Marshall McLuhan, for whom

¹²² Luis Fernández-Galiano, Fire and Memory: On Architecture and Energy (Cambridge and London: MIT Press, 2000), 8.

auditory space constitutes 'a field of simultaneous relations without center or periphery'. 123 Where McLuhan's auditory space provides valuable descriptions of omni-directional spatial perception and relations beyond the linearity of line of sight, we find in Fernández-Galiano's invisible architectonics a discussion of the production of such spaces beyond that of apparent simultaneity or the instantaneous. The linearity of 'visual space' forces everything to relate to the eye, to the position of the centralized observer, whereas McLuhan's conception of auditory space is radically decentralized whereby every thing relates not to the position of a centralized observer but to everything else according to a kind of scale free network. Visual space is, for McLuhan, sequential or discrete, having become well defined according to print culture which through the discrete characters of movable type would come to impress itself upon perception. In contrast, although by now predictably, we find auditory space defined according to continuity and a degree of confusion in both perception and spatial relations. For McLuhan, the emergence of print culture is indissociable from that of a concept of privacy; the strict accuracy of this historical assertion put aside, what is important is that this discrete organization of space is contrasted with an ideal communality according to which auditory space is conceived as a continuum between one and all. Despite the decentralized, continuous and confused conception of the auditory put forward by McLuhan, he nonetheless maintains a sense of private or individual territoriality within the auditory or 'organic' organization of space, identifying the use of radios in the production of auditory private space, a space whereby the auditor is set apart from the whole, from the environment at large by means of a localized irradiation. 124 Auditory space problematizes linear organization, readily exceeding visual boundaries, permeating and confusing territories along the contours of its incessant vibrations. While McLuhan states that 'no architect can afford to be ignorant of auditory space' many remain so insofar as 'architectural design is entrusted now with a major task of sustaining traditional values achieved by print culture. How to breathe new life into the lineal forms of the past five centuries while admitting the relevance of the new organic forms of social organization [...] is this not the task of the architect at present?¹²⁵ McLuhan calls for an architecture opened up to the 'distorting' influence of auditory space,

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¹²³ Marshall McLuhan, 'Inside the Five Sense Sensorium' in David Howes (ed.) *Empire of the Senses: The Sensual Culture Reader* (Oxford and New York: Berg, 2005), 49.

¹²⁴ McLuhan, 'Five Sense Sensorium', 48.

¹²⁵ Ibid., 48 & 51.

not an obliteration of the linear or visual but its decentred reorganization and its bearing of a temporal mutability. We will shortly turn to the work of architects who are responding to the problematics of specifically auditory space, yet it is with the richly analogous architectonics in Fernández-Galiano's account of thermic spatial production that we must temporarily remain, insofar as his account of invisible architectures is more sustained than many other accounts from within the discipline.

Fernández-Galiano defines architecture broadly in terms of energetic regulation, through the containment and exploitation of energies that maintain the building-as-process rather than static or petrified form. Forcing a principal analogy, this definition of the architectonic is comparable with the containment, regulation and organization of noise that, with reference to Steven Connor's discussion of a modern auditory subject, is characteristic of the emergence and maintenance of self in the transition from or binding of a chaotic substrate, through its subtractive selection to the structuration of its organized, formal appearance. This is not, of course, to suggest that the individuation of buildings and individuals are one and the same, but that both Fernández-Galiano's understanding of architectonic production and the modern auditory subject described by Connor can be understood to respond to a similar problem in the form of noise or chaotic, energetic matter and its regulation towards the production of consistent yet nonetheless mutable form. This analogy is of importance insofar as the individuation of both space and subject is to be thought as in some way reciprocal or enmeshed, one embedded within the other. Insofar as the fire defining a dwelling is understood as the energetic expression of combustible matters, we take noise similarly as an expressive materiality, a generative matter of 'combustion' more than construction and regulation. In both fire and noise space is determined through an exploitation of materials according to their intensive and expressive potentials, at least as much as their regulation; in these intensive, productive forces we can identify an architectonics of irradiation, maintaining an intensive, differential interaction, an energetic noise whose emissions constitute its potential organization. For Fernández-Galiano it is the maintenance of thermic noise or chaos towards an architecture of invisible dynamics that sustains the building-as-process against the homogenization of spatiotemporal dynamics; with this concern for spatial energetics being taken as applicable more widely to energy in general, it is according to the sustenance of a minimal provision of noise that saves architecture from its expression as 'petrified silence' or acoustic homogeneity.

It is according to such energetics or spatio-temporal dynamics that an understanding of architectonic space is to be mapped out that does not reduce it to 'the art of petrified silence', as Juhani Pallasmaa has put it, but a site of intensive and individuating interactions. 126 Pallasmaa's text is notable insofar as it considers a broad, multi-sensory and invisible architectonics, including discussion of the auditory experience of space, of events wherein the ear perceives a volume that the eye does not. Yet the observations made remain limited to the usual affirmations of auditory intimacy, immediacy and the binary opposition of exteriority and interiority respective to the eye and ear. 127 Pallasmaa is most provocative in asserting that the power of architecture is to silence—the political consequences of which Pallasmaa neglects despite his criticism of visual surveillance and panoptic control the consequences of which will be addressed in some depth with reference to the work of Emily Thompson wherein architectural silencing receives more adequate attention. A summary expression of Thompson's more thorough work on acoustical space is found in Steen Eiler Rasmussen's earlier Experiencing Architecture, wherein both the experience and instrumental use of acoustic space—sound as marker, expression and excitation of place—is taken into account. Here positioned against Pallasmaa's architecture of silence, we find in Rasmussen's brief account an understanding of architecture as instrument of transmission and broadcast rather than silence, containment and solitude, an appeal for the maintenance of acoustical-energetic dynamisms against their homogenization. 128 It is in this sense that Rasmussen maintains a certain 'combustible' rather than regulatory notion of auditory space, placing an emphasis upon the generative potentials of the sonorous.

Perhaps the most exemplary account of auditory spatial production from within the architectural discipline is to be found in Peter Zumthor's atmospheric architectonics, wherein form is expressed as the residual product of material engagements, a kind of artisanal interaction wherein material potentials determine the possibilities of expression. There is a kind of rare confidence in Zumthor's consideration of the auditory within an instrumental notion of architecture; Zumthor's architecture operates according to a selective accumulation of things and their interactive regulation, channeling and organization, rather

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¹²⁶ Juhani Pallasmaa *The Eyes of the Skin: Architecture and the Senses* (Chichester: John Wiley and Sons, 2005), 52.

¹²⁷ See Pallsmaa, Eyes of the Skin, 49-51.

¹²⁸ See Steen Eiler Rasmussen *Experiencing Architecture* (Cambridge: MIT Press, 1959), 224-237.

¹²⁹ See Peter Zumthor, *Atmospheres: Architectural Environments Surrounding Objects* (Basel, Boston and Berlin: Birkhäuser, 2006), 71.

than their depiction as the passive receivers of form. Matter is, for Zumthor, considered in terms of a coupling of experience and potential according to objective expressions, impressions and the 'affordances' they constitute. Constituent amidst these material things are sounds, productive objectivities channeled, organized and exploited in accordance with their generative potentials towards the production of space. ¹³⁰ Zumthor's engagement with auditory space constitutes a confusion of visual discretion and a openness to the radiant excess of the apparently solid, providing one answer to McLuhan's question of 'how to breathe new life into the[se] linear forms'. 131 Perhaps more fundamentally, Zumthor harbours a distinctly resonant or harmonic understanding of the architectural edifice: 'imagine extracting all foreign sound from a building, and if we try to imagine what that would sound like: with nothing left [...] The question arises: does the building still have a sound? [...] I think each one emits a kind of tone'. 132 This tonality that Zumthor identifies, remaining despite reduction, is perhaps the building's resonant capacity or potential, its walls delimiting a wavelength, the edifice as harmonic structure. Resonance operates here as a means of capture more than relation, a capacity in waiting. It is the emphasis Zumthor places upon experience that is particularly interesting, his assumed position as both subject and executor of space. Zumthor is 'moved' by the elements of architecture, by the 'things themselves, the people, the air, noises, sound', things that we may describe as influential matters, objects forcing movement through their qualitative expressions and affective capacities. 133 In the consideration of such forced movements this argument enters into proximity with what Paula Young Lee has called the 'ideology of influence'. 134

For Lee, the ideology of influence is synonymous with unilateral determinism, specifically that of individuals according to what we might broadly refer to as a larger or greater order, whether that be cosmic, biological or architectural. It is into the ideology of influence that this argument inserts itself, insofar as this position names not the totality of a situation but its background. Lee's criticism is, rightfully, aimed at the epistemologies wherein this position becomes all encompassing, where individuals are simply the product of an environment, where they simply emerge but do not, nor cannot, choose to diverge. The point that I wish to maintain herein is that these environments, constituting a

¹³⁰ See Zumthor, Atmospheres, 29.

¹³¹ McLuhan, 'Sensorium', 51.

¹³² Zumthor, Atmospheres, 31.

¹³³ Ibid., 16.

¹³⁴ Paula Young Lee 'Modern Architecture and the Ideology of Influence', Assemblage, 1997, 34, 6-29.

'background', nonetheless exert influence and while this does not account for the totality of a situation its impacts and impressions are to be taken into account. Here there is perhaps a danger of all too simply stating a clean cut distinction between a background and foreground, that of a discrete or autonomous material base and a social or subjective superstructure, where in fact we should acknowledge the reciprocal action of one upon the other. While this reciprocity is acknowledged, I wish to maintain an emphasis upon the order of background events, upon the ideology of influence, insofar as this position does not limit itself to that which falls discretely within the perceptible or given but orientates itself towards their conditions and, therefore, the problem of determination. The reason for this emphasis is also an ontological one, insofar as it assumes that there is more to the world, more to matter and its interactions, than we perceive, know or can know of it, that the complexity of material interactions exceeds our ability to speak of it while persisting to exert its influence upon us. This orientation towards the background does not strictly address that which simply lies behind or beneath, but more a notion of background as excess, that which, in part, persists within empirical events—despite its imperceptibility and within which empirical events occur.

The ideology of influence is therefore assumed after Lee's critique; while environments are taken as broadly influential, as having diverse deterministic impacts upon occupying and constitutive bodies, these bodies are not to be conceived as lacking agency or the solely passive subjects of a greater order which, whether it be astrological or architectural, promises to comfort, pacify and cleanse their ills. While an emphasis upon background and excess is assumed it should not be thought to be at expense of subjective agency, manifest in diverse tendencies to challenge, revolt and reappropriate. Yet neither must the source of this influence be thought as lacking agency; an influential environment comprises many non-human agents, affective materialities and objects that assert a particular influence and must be acknowledged. The human subjects of influence constitute one set of bodies amongst many, a set which includes the organic and inorganic as constitutive objects of influence.

It is perhaps not surprising—considering the extent to which acoustical space remains, within architecture, primarily a 'found object', a residual excess insofar as it manages to escape cancellation—that the most notable considerations of architectonic sounds have come from outside of the architectural discipline, from accounts of the 'users' of the spaces it designs. We get another sense of architecture's ideological assertions in

Brandon LaBelle's account of architectural influence, considered from the point of use, occupation and appropriation, wherein it is considered insofar as it can be thought a condition of the subjective, an influential component in the determination and assertion of identity. LaBelle's work has much to say on this point, and places a particular emphasis on the audible aspects and relational affects of space. Before attending to his particular considerations of the audible, his more general thoughts on architecture are particularly relevant in laying out an initial position regarding an ideology of influence. Here LaBelle considers architecture primarily from the point of view of use and experience as a component in a larger field of subjective, cultural and semantic tension:

architecture should be understood not so much as a single building, or act of design, but as a symbolic system that profoundly contributes to the formation of individual experience [...] like language, we can view architecture as forming the basis for an understanding of the development of personal identity: against architecture subjectivity is brought forward, for architecture fixes one into a certain ordering that goes beyond physical spatiality—or rather, it complicates such spatiality by rendering it symbolic and culturally coded. In other words, architecture functions within the larger sphere of social values by partially representing a given bias. Such representation occurs through the physical contours of spatial design, where the body is held within architecture and partially determined by its design: it literally dictates one's movements as a cultural and social body. In turn, architecture liberates the individual [...] Like language, architecture operates as a system that lends definition to the individual by allowing a conscious exertion of will [...] and by confining it to a set of values. Architecture frees the individual and traps him or her in the same moment. 135

Where LaBelle here places an emphasis upon architecture as a symbolic system, my own is with regard to its affective influence and determination. Here LaBelle highlights the physical while foregrounding the social and symbolic. The concern for the definition of the individual within architecturally determined space is shared, yet my own position is less concerned with representational efficacy than affective extimacy, with the confusion and conditions of the individual which feeds into and problematizes the definition of the personal. Insofar as consideration of architecture as determinant tend towards is coding, we move further from auditory space, in the sense put forward by McLuhan. Insofar as it constitutes a component of a larger symbolic network, architecture facilitates a certain

¹³⁵ Brandon LaBelle, *Background Noise*, 161.

exchange or discourse; it is in this sense that LaBelle conceives of the freedom offered by architecture, 'allowing a conscious exertion of will'. Counterpoint to this position is the emphasis placed herein in upon an 'unconscious' influence or order of background events. Here architecture's ideological function is acknowledged, yet it is precisely this function that allows for the assertion of subjectivity against architecture. The manner in which this is an assertion against architecture is to be taken as twofold; subjective assertion may take the form of a destructive gesture against architectural determination in the manner of Gordon Matta-Clark's anti-architectural or 'anarchitectural' practice—a gesture that finds sonic extension in the work of Mark Bain. 136 This destructive—or at least distorting—gesture nonetheless occurs against the backdrop of architecture, a backdrop that nonetheless remains as the ground against which these assertions are made. It is in this latter sense that we can conceive of architectures role in subjective determinations; subjective assertion against architecture is not necessarily oppositionally orientated, insofar as the subject appears against an architectural background that nonetheless persists, such is the ambiguity of the subjective assertion. Architecture is broadly considered in terms of its being a subjective determinant, as influential in the formation of identity, yet itself subject to the agency of the bodies that occupy and constitute it. Adopted herein is an understanding of architecture as that which is not only designed but produced, one that sees the category of user insufficient in comparision to the agency of producer.

Where we are concerned with an opening of architectonic space onto the noise of a broader field of interactions, architecture appears as determined as much as determinant. It is the 'undoing' of architecture that opens determined space or a given domain up to determining difference, to the noise that exists beyond its boundaries. The praxical relationship with architectural determination that LaBelle expresses draws on the work of Jane Rendell, in particular upon her concerns for the undoing of architecture. The 'undoing' of architecture, as Rendell puts it, 'is a spatial practice which signifies an act of resistance, which attempts to establish identity by celebrating difference'. This 'celebration of difference', constitutes the opening of a crack in architecture as given, the redetermination of architectures deterministic influence and therefore a kind of vicarious and yet auto-

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¹³⁶ For a critical overview of Matta-Clark's work see Stephen Walker, *Gordon Matta-Clark: Art, Architecture and the Attack on Modernism* (New York: I.B. Tauris, 2009).

¹³⁷ Jane Rendell, 'doing it, (un)doing it, (over)doing it yourself: Rhetorics of Architectural Abuse' in Jonathan Hill (ed.) *Occupying Architecture: Between the Architect and the User* (London and New York: Routledge, 1998), 141.

deterministic assertion. Insofar as architecture is inhabited and lends definition to the individual, to open architecture up to difference through its undoing is to invite difference into the self. The counterpoint to this is, of course, that through the personalization of architecture, its 'closing-up' insofar as it becomes increasingly distinct from the world, maintains the consistency of the self and the personal territory through an exclusion of difference considered to be the confused murmur of the world at large. Where undoing as opening is allowed to run its course unhindered it leads only to obliteration. Necessary is the maintenance of a minimum of 'doing', support or consistency, or a constant oscillation between doing and undoing, an opening and closure, between the self-same and its opening up to difference. Despite his offensives, Matta-Clark's buildings remained standing. The undoing of architecture is treated as synonymous with its opening-up, a gesture which need not be cataclysmic but may proceed according more subtle or sober gestures. Where this opening up is considered as an opening onto difference taken as synonymous with noise, we find one such subtle gesture in Henri Lefebvre's opening of a window.

Sitting, Listening

Sometime during the mid 1980s in a Parisian flat along *rue Rambuteau*, Henri Lefebvre was sitting on a balcony, outside of a window, listening to the noises of Paris. Noises were rising up from the street below, an audible field of vibrations, or fluxes as he called them, passing in through the window, and in through the ear. The noises, fluxes, or vibrations were the objects of Lefebvre's rhythm-analytical approach, their durations and temporalities taken as a provocative and problematic site engendered by the 'life' and rhythms of the city, these sounds 'kicked up', distorted, disturbed by the movements and stillness of occupying bodies, the city's aural residue. Sitting, listening, Lefebvre considers this particular site of sound, the place in which one must be situated in order to be affected and influenced by the becoming audible of the city's constituent agitations: 'in order to *hold* this fleeting object, which is not exactly an *object*, one must be at the same time both inside and out. A balcony is perfect'. The 'fleeting object', out to which Lefebvre is reaching, is the ephemerality of a periodic wave, the briefest of rhythms and undulations,

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¹³⁸ Henri Lefebvre, 'Seen from the Window', in *Writings on Cities* trans. Elonore Kofman and Elizabeth Lebas (Oxford: Blackwell Publishing, 1996), 219.

the distinct sound object always already fading into the background. Why is it that this is not 'exactly an object'? Here we perhaps find Lefebvre caught between Schafer's taxonomical discordance, the sonorous as object or event, as abstract 'laboratory specimen' or contextually grounded signal, respectively. That which is 'not quite an object' is perhaps that which is not quite distinct, its possibility of autonomy refuted in its audible rendering, in being drawn out of its inaudible in-itself in the event of perception. Nonetheless a certain 'objectivity' remains for Lefebvre, an objectivity that leaves it caught between an imperceptible 'autonomy' of objects and contextually grounded events. Sat at the window listening, Lefebvre notes how 'noises are distinguishable, fluxes separate themselves, rhythms answer each other'; although rendered sonic only by the ear, there nonetheless seems to remain an agency in these fleeting objects, insofar as Lefebvre is concerned to speak of fluxes 'themselves'. Out of the hustle and bustle below the balcony, layers of noise emerge and rise up, Noise appears as yet another ephemeral, somatic residue comprised of fleeting objects whose existence is irresolvably contingent. Contingency withstanding, Lefebvre is inclined to speak of fluxes themselves, fluxes that make themselves distinct and in so doing interact with others; such is the agency of objects, however fleeting. In separating themselves from the micro-vibrational world of everything else, fluxes come to be according to what is perhaps best thought of as a subtractive emergence, drawn out and appearing as distinct by means of collision and abrasion, their interactions performing the determination of their respective alterity. For Lefebvre there remains an agency of objects, of fluxes themselves, free of intent, in their brute and base affectivity. It is such fluxes, complexes of noise and rhythms, that pose a certain problematic challenge to the stability of self, entering into it and making a difference, as well as to their own discrete identity. For Lefebvre such discretion, or rather unitary appearance, is just that, a multiplicity of rhythms, objects and events only appearing as one:

Up to a point this simultaneity is only apparent; surface and spectacle. Go deeper, dig below the surface, listen closely instead of simply looking, reflecting the effects of a mirror. You then discern that each plant, each tree has its rhythms, made of several [...] each has its own time [...] Instead of a collection of congealed things, you will follow each being, each body, as having above all, its time. Each therefore having its place. ¹³⁹

Lefebvre turns his ear towards a subterranean noise, to the noise of an ungrounding by

¹³⁹ Lefebvre, 'Seen from the Window', 222-3.

which the appearance of one is dissolved through attention to the noise it covers, enveloping according to its constituent durations. A tree houses a multiplicity of rhythms, periodicities in their own right, the ear, turned towards it, tuned into it, reveals a certain depth underlying its surface appearance and perception according to recollection. 140 Here, against Kant, time is a property of objects in which inhere durations. Durations are given up to listening subjects, posed as problems, as temporal problematics and the potential of durational information. For Lefebvre, however, such objectivity is not all: 'Objectivity? Yes, but spilling over the narrow framework of objectivity by bringing to it the multiplicity of the senses'. 141 Here we uncover that to which Lefebvre is sat listening, that which is 'not exactly an object'; the fleeting object brings its own temporality to the listening subject who imposes upon it the rhythms which comprise them. An additive synthesis insofar as rhythms and fluxes are, in their perception, a collective sum; their addition distorting form, modifying amplitudes, frequencies and phase. As such this addition does not simply lead to an increase, the addition of one flux or waveform having equal potential to detract from the power of the other, drawing peaks towards zero and embodying the potential for phase cancellations. The 'not exactly an object', for Lefebvre, spills over objectivity in experience, exceeds 'objectivity' in that which is brought to it, the problematic coupling of rhythms which take from the object and confuse it's 'objectivity' within the sensory somatic complex. These are in a sense excessive objects embodying more than is apparent. To hold this fleeting object, to stay with it for as long as possible, to analyze and be informed by the rhythms and durations it yields, requires that one 'be at the same time both inside and out'. What are we to make of this extimacy that is apparently required in order to hold the object, to be informed by it? We might conceive that where Lefebvre suggests one be 'outside' implies a certain subjective subtraction, that the self as one be extended beyond its unitary experience to the constituent complex that at the same time problematizes the limits of this constituency. Lefebvre, for example, is sitting listening, certainly positioned within the boundaries of his domain along *rue Rambuteau*, yet he is nevertheless outside, upon the balcony. Such an observation is hopefully not a banal as it sounds if we take into consideration understandings of the home as 'the one place that is considered to be truly personal [...] a vessel for the identity of its occupant(s), a container for, and mirror of, the

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The most obvious contemporary reference here is to Alex Metcalf's *Tree Listening*, see: http://www.alexmetcalf.co.uk/AlexMetcalf/Tree_Listening.html

¹⁴¹Lefebvre, 'Seen from the Window', 223.

self'. 142 In stepping outside one stops 'reflecting the effects of a mirror' in moving beyond the 'inviolable vessel'. 143 Sat at the blurred and blurring thresholds of his home, inside or out, at the point at which its consistency and sovereignty begins to dissolve into the noise of the city, Lefebvre takes a step beyond himself, or at least his reinforcing vessel through an opening in the wall, allowing himself to be captured and informed. Here we are well positioned to consider the way in which 'for Lefebvre, it was not the home but the city, which expressed and symbolized a person's being and consciousness'. 144 Beyond the supposed stability of the home—the most obvious architectural reinforcement of identity—being in the city is diffuse, complex, confused, constantly challenged; it is towards such a space that Lefebvre positions himself, a space *just* beyond, a step beyond the well defined territory of the self and identity, but not too far. In stepping outside through the window, Lefebvre begins to 'let go [...] *but not completely*'. 145 It is this movement to the boundary, inside or out, a site of confusion, that lets the noises in, bears their problematic challenges in an analysis and contemplation, engendering information.

Sat listening at the questionable boundaries of his home, at the point where it is opened to the world, to the environment at large, in the problematic space that is certainly a private territory but one becoming diffuse, Lefebvre opens a window onto the noise of the world. In a passage that exemplifies attention to the rising of an ungrounding diffusion, attention to an ecology of noise, we find Lefebvre providing an account of not only the generative potential in noise but its impacts and point of impression by way of audition:

Noise. Noises. Murmurs. When rhythms are lived and blend into another, they are difficult to make out. Noise, when chaotic, has no rhythm. Yet, the alert ear begins to separate, to identify sources, bringing them together, perceiving interactions. If we don't listen to sounds and noises and instead listen to our body (whose importance cannot be overvalued) usually we do not understand (hear) the rhythms and associations which none the less comprise us. It is only in suffering that a particular rhythm separates itself out, altered by illness [...] To understand and analyse rhythms, one has to let go, through illness or technique, but not completely [...] to capture a

¹⁴² Jonathan Hill, *Immaterial Architecture* (London and New York: Routledge, 2006), 8.

¹⁴³ Lefebvre, 'Seen from the Window', 222.

¹⁴⁴ Eleonore Kofman & Elizabeth Lebas, 'Lost in Transposition—Time, Space and the City' in Henri Lefebvre, *Writings on Cities* trans. Elonore Kofman and Elizabeth Lebas (Oxford: Blackwell Publishing, 1996), 8.

¹⁴⁵ Lefebvre, Writings on Cities, 219. Emphasis added.

rhythm one needs to have been captured by it. One has to let go, give and abandon oneself to its duration. 146

Here we set out once again from the dissolution of periodicity in noise, noise taken as the potential of all signal content. Through a concrescence of interactions between objects 'themselves' as well as the ear, signal emerges and sound events are discerned. Here we also find Lefebvre giving consideration to the noises heard in the turn away from the world, those of the interiority of the body. Such noises, as Lefebvre points out, pass by in imperceptibility insofar as their operations are perfect and the oscillations balanced. It is only through interruption, as skipped heart beat or borborygmus, or through reorganization—the stopping up of the ears with wax—that such sounds are brought to the surface. Their identification is not, however, limited to malfunction but may be discerned through the development of audile technique. While such technique describes a practice of focused listening, that of the critical and analytical ear, a conscious searching for signal content, the determining site of such individualizing listening practice is, according to Lefebvre, reached by way of an opening, a 'letting go'. Through such an opening, an open window in conscious perception, noise is permitted to enter and confuse as a necessary stage of ungrounding in the definition of novel periodicities. An abandoning of the self to a complex of durations, periodicities, signals, permits an alteration of the self—an alteration which Truax fears—individuations and individualizations along vibrational lines. The means of opening and abandon is, for Lefebvre, a means of understanding and at the same time an apparatus of capture; to grasp the potential offered by noise one must risk the relaxation of the subject's territorial delimitations, to become overrun with noise and the confusion of competing signals. Such openings enable the potential restructuration of the listening subject, a confusion between the periodic appearance of discretion.

Through such openings, noise is permitted to flow into architectonic space, into the home and therefore the territories of the self and the personal. From the noise of the world as a system of energy in general we move into its containment in form. Lefebvre's opening is, however, one performed after, in a sense *against*, much of the efforts of architecture.

¹⁴⁶ Lefebvre, 'Seen from the Window', 219. This translation has been slightly modified; 'Murmurs' replaces 'Rumours', which was originally present in the Kofman and Lebas translation. 'Murmurs' is here taken from the Stuart Elden and Gerald Moore translation of this same article, as it appears in Henri Lefebvre, *Rhythm Analysis: Space, Time and Everyday Life* (London and New York: Continuum, 2004), 27-37. 'Murmurs' is taken as the preferential term in this instance as it seems to appeal more generally to sound in general and therefore as being better suited to Lefebvre's discussion of noise, as well as my own topic and adopted terminology, of course.

Containment, encapsulation, isolation; such terms are most easily associated with the predominant practices in architectural acoustics—outside of the concert hall. Dealing with noise typically leads to its cancellation at the hands of an architectural praxis that tends towards silence in much the same way as the practice of acoustic ecology, where communication is all too easily taken as synonymous with clarity, discretion and distinction, an obsession with content maintained at the expense of an understanding of a medium as itself information. At the heart of such practice noise is other, the noise of others, the neighbors, the street, the city outside, a source of interference. Such others impinge upon the personal and private and are accordingly shut out, guarding integrity and delimiting territory.

The Silencing of Space and the Contracting of the Self

Here we set out from an opening-up of architectonic space. It becomes necessary, therefore, to delimit that which is considered to be in some way closed, that space which asserts itself as anterior to this gesture of opening and reopening. Here we require architectural discourse that remains critical of the monumental, critical of that which sets itself out against the world according to a formal autonomy. Such criticisms are well rehearsed and will not be the primary focus of the argument which is to follow; it is the extent to which these critical discourses allow for a consideration of the architectonic in relation to noise and sonority that is of primary concern. In beginning to delimit the situation whereby an opening out of architectonic space becomes necessary, referral can be made to the work of the Situationist International, a movement that held similar concerns for urban space as those exemplified in the work of Lefebvre. This association is, however, drawn out primarily due to the work of Brandon LaBelle, an association that grants us access to LaBelle's thinking on an 'Architecture of Noise':

The SI [Situationist International] aimed to embrace the fluidity of modern life, not the imagined fluidity of free movement but the actual fluidity in which all the chaotic agitations of reality unfold-the body as it brushes against and is bruised by its surroundings [...] the SI structured their architecture on a theory of noise, dissonance, one which is inherent to the natural conditions of urban life. The harmony of modern urban design is based upon the idea of fixing the body as a site in itself—the modular man as the happy medium of

possible experiences and events. From here it would remain to construct a architecture in relation to this average of subjectivity, to support the medium through forms of comfort [...] This theory, though setting out to support human action, to raise the state of modern living, in turn imposes a reduction of subjectivity—it levels off the extremity of individual sensibility and imagination, averages out the unexpected spontaneity of possible events [...] to speak of the SI in terms of a theory of noise is to suggest that the SI in considering architecture aimed to magnify difference, to multiply human experience by supporting the inherent dissonance of the body and its psychological and emotional forces [...] freedom is not something devoid of tension or free conflict, but rather it only amplifies conflict. In turn, architecture in setting out to embrace freedom, should create spaces for these tensions and conflicts to unfold in all their expressivity.¹⁴⁷

This passage is quoted at length as it outlines a productive and agitative stance on architectonics, the necessity of a tension and a minimal degree of disturbance; in this way LaBelle outlines an architecture of noise in aligning its catalytic disturbances with the conditions of not only sound but subjective assertion. Identified accordingly is a field of interactions or, to use Schafer's term, a 'field situation', conceived in terms of an agitative site, a 'soundscape', the physicality of which is not limited to its audible components but conceived as extending into its inaudible conditions. Such agitations are the causal events of noise, which is in turn considered in terms of a generative potential rather than strictly a negatively problematic phenomenon.

This account of an architecture of noise can be read as an engagement with the ideology of influence, seeking out the edges and influential objects that lend themselves to subjective determination and the organization of movement. To brush up against a wall, a surface, an object, engenders a certain awareness of its existence, affordances and constraints, an attention to the limits of a situation as a critical engagement with its ideological function. Accordingly, smooth passage is equated with the imperceptibility of one's determinants and influences, the invisibility, inaudibility and imperceptibility of ideological influence perfected. In this way LaBelle talks of a hampering or reduction of subjectivity insofar as the individual knows not what to assert itself against. To adopt a particularly critical stance, at its most vicious, support for smooth and unhindered movement operates according to a law of averages and normalization, effecting the

¹⁴⁷ Brandon LaBelle, 'Architecture of Noise' in *The Site of Sound: Of Architecture and the Ear*, Brandon LaBelle and Steve Roden (eds.) (Los Angeles: Errant Bodies Press. 1999), 50-1.

constraint of difference and the movement of that which differs. In audible terms, we can characterize this as a cancellation of noise, not simply that of the pneumatic drill entering one's living room from across the road, but the sound of all that is not consistent signal or communicative content, along with the sound of space itself, the auditory 'signatures' and impressions of the built environment as a resonant capacity, emphasizing and dampening particular sounds and signals according the definition and delimitation of its volumes. Cancelled or contained are those incidental sound events, taken in the Schaferian sense wherein they are expressive of a context, of a space and place, events silenced towards the smooth and unhindered passage of the voice and more meaningful or instructive communication. The silencing of space and the incidental event often serves the primary purpose of efficient communication so that labor may progress unhindered, as is discussed at length by Emily Thompson. In its silencing of the incidental and the noise of the world, architectural acoustic determination serves to reinforce the selectivity of listening, its capacity for tuning in to specific signals and a tuning out of others. Yet the over exertion of this support through an acoustical homogenization—executed through the installation of dampening materials, acoustic tiles and baffles, often as an afterthought to design wherein emphasis resides with the discretion and organization of visual space—also constitutes a dampening of listening, of quotidian audile technique, through lack of challenge and exercise. Through the silencing of space listening grows lazy and accordingly we can think of Schafer's call for ear cleaning as entailing aural exercise, an effort to allow for the development of audile technique towards a more refined and analytical engagement with noise, a practice not bound strictly to the ear but rather as something which can be exercised or effected vicariously through a practice of acoustical design opposed to the silencing of space. Through the maintenance of a minimal degree of noise understood in accordance with the incidental as well as the auditory expressions and impressions of the built environment, the ear is exercised, forced to audition. To silence is to constrict imaginative and generative potential, to eradicate influence, preserving stasis, the pure and static state of things through the cancellation of difference.

Despite this position, we again find noise cast most readily as divergent negativity in the history of 'urban soundscapes'. It is particularly where this history is considered primarily in relation to the home, the site of an ideal quietude, as a site of self definition, distinction and protection that noise becomes understood primarily according to divergence and its influence becomes one of a hollowing out or wearing down of identity. From the perspective of the home, noise is 'out there', and if it is 'in here' it is alien, annoyance and agitator to be eradicated. When noise becomes increasingly equated with the outside, the interior steps ever closer to an ideal silence, within which difference is cast out as divergence, as increasingly invasive rather than that which inheres within and might otherwise facilitate the exercise of audition. Silenced, noise looses its generative potential and space loses its audible expression. Such practice binds noise to negativity in order to preserve a harmonic mean. The isolation of noise to the exterior of the personal and private in many ways ignores the existence of an inescapable problematic, falling ignorant of Truax's assertion that 'the soundscape and the phenomenon of noise are not things that are "out there", apart from ourselves. They are inextricably related to us'. 148 Here we must take Truax's point further; noise and the soundscape are, in addition to not being 'apart from ourselves', not apart from 'themselves', from each other, but inextricably linked, the latter being an identification of signals within the former through an agile and exercised audition. Truax's confusion of sound and self, if taken in fidelity, is asserted towards the establishment of an equilibrium or a restorative balance; here this confusion is adopted towards a productive although more ambiguous metastability, the inherence of difference within the self, a difference which nonetheless persists both inside and out as the other within, the extimacy of noise. Noise, and therefore the soundscape, persists in its alterity, remaining "out there" while persisting "in here", according to its excessive being. Truax's assertion should then be altered accordingly to express the extent to which the soundscape and the phenomenon of noise are things "out there", yet they nonetheless constitute a part of us wherein they become apparent. They are inextricably related to us yet not reducible to this relation, persisting in excess and inaudibility. Their ambiguity resides in the extent to which they pose a threat and nonetheless populate the interiority of the somatic or architectonic. Noise persists in constituting the dirt which belongs outside yet continually trespasses within, the uninvited visitor and the source of base distractions. Such a classification of noise is the prerogative of an identity that perceives itself to be under threat.

The history of auditory space reveals as a common response to this threat a fortification of one's defenses, the construction of a more solid, private space to guard the consistency of that which resides within the home and the proxemic boundaries of personal

¹⁴⁸ Truax. Acoustic Communication, 106.

space. The practice of constructing an acoustic buffer against the noise without serves to maintain self-definition through the enhanced distinction of signals indicative of identity. Where these distinctions have ramifications for class division such spaces, as John Picker describes, provide 'a spatial reinforcement to vocational identity'. ¹⁴⁹ Indeed, as both Emily Thompson and Jonathan Sterne have also shown, quietude and silence would—with developments in both the technologies of architecture and sound reproduction—become a commodity, a certain bourgeois privilege, set apart from sites of noise, as well as the noise of the proletarian workplace whether the factory, the kitchen or the street. 150 Picker details the threat posed to Victorian professional identities by the noise of the street, that interstitial site of contestation occupied by buskers and entertainers, protesters, pickpockets and salesmen active amongst the movements of a population at large. Being occupied by such individuals, the street was defined by a noise that threatened to overwhelm the boundaries of the home and professional workplace, being set apart from yet nonetheless in proximity to the street. Picker's focus on those individuals whose professional identity was defined within their home conflates the domestic with the professional in the construction of a particular bourgeois identity, an identity that perceived itself to be under threat from the noise without. The emphasis placed upon class, a historically specific situation and subjectivity does not serve to limit the scope of Picker's argument but rather more broadly defines the perennial ideal of home as a site of self-definition and territorial subjectivity. Beyond the specificity of Picker's study, it is the delimitation of personal space or territory beyond that manifested and represented in the home that is of particular interest, as such territory extends beyond the domestic into a more broadly social praxis through the cultural observation of invisible and ephemeral territories or auditory proxemics. Picker himself goes on to show how, within the specific historical context of his study, the notion and boundaries of the personal and private can be seen to have expanded beyond the confines of the home. For Picker, however, this was most clearly manifest in an extension of the home as the central model and form of bourgeois personal space, rather than its problematization or mobilization: as bourgeois identity sought to strengthen and expand its blockade against the imposition of an alien noise, the streets would be silenced through 'a professional seizure of urban space, and an architectural tactic by which to expel the threat of the noisy

¹⁴⁹ Picker, Victorian Soundscapes, 44.

¹⁵⁰ I return to this point and the work of these two authors below.

rabble and thereby preserve an authorial career'. 151 Through its procurement the once public would be rendered private in order to maintain the discretion of its occupying bodies. Noise abatement would silence the clamor of the streets in order to better define and extend the quietude of a void through which the personal could move unchallenged and unperturbed, comfortable within the auditory manifestation of the ideological framework produced towards the maintenance of its own self image. Initially more important, however, than the tactics employed in defense is the power that Picker identifies as having been at work in the acoustic matters resisted, contained, organized and silenced: 'noise began in this period to alter the agents, subjects and conditions of artistic and intellectual occupations', the street would come to move in from outside, into the home, into the workplace and into the mind; noise would become more broadly understood as a vacillating and spectral medium active in the (de)formation and delimitation of the personal and the professional. The audible irradiation of the street would, through a confusion of architectural boundaries, compromise well defined subjective territories, contaminating the vessel of the self. The bourgeois response would eventually become the entrepreneurial commodification of silence. Picker's account of the contestation of the domestic, professional and pedestrian, around the acquisition of architecturally determined quietude provides background to an understanding of the ambiguous relation between sound and self, with the former providing both support to and subversion of the latter. It is through its consideration according to an auditory territoriality and architectonics that this relation of sound and self is considered not according to the determination of an atemporal and eternal soul but a contingent, situated and confused subject, a relation of sound and bodies that matter. From the class and historical specificity of Picker's statement regarding the influence of noise, a more general understanding of auditory determination is to be derived, one which understands the sonic as both a fortifying and invasive spatio-temporal materiality, that which may contribute to the delimitation of personal territory as well as its confusion and dissolution. Faced with the ambiguities and complexities of such a problematic matter, its silencing would become the most obvious architectural tactic to be employed in the organization, containment and control of this residual and spectral influence, the means of which would lend both definition and desirability to the architectural and specifically domestic.

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¹⁵¹ Picker, Victorian Soundscapes, 43.

The commodification of silence within architecture would not become possible until the early decades of the twentieth century, when substantial research and industrial investment was made following the pioneering work of the physicist Wallace Sabine. Sabine, who between 1895 and 1897 undertook a sustained period of experimentation in order to rectify 'acoustical difficulties in the lecture-room of the Fogg Art Museum', founded what would come to be known as the science of architectural acoustics. 152 The application of materials possessing differing absorption coefficients to an otherwise reflective surface would allow for the sculpting of internal acoustics and the retention of harmonic complexity characterizing distinct signals and the possibility of their recognition. Of particular interest, however, is an experiment carried out by Sabine some years after this catalytic period, detailing a certain architectural contingency and the potentials of auditory spatial determination. In an effort to better understand the propagation and resulting alteration of a sound source within architectural confines, Sabine, in 1910, mapped the distribution of sound intensity within the Constant Temperature Room of the Jefferson Physical Laboratory at Harvard University. A constant sound source, in this instance an electrically driven tuning fork, was placed in the Constant Temperature Room and monitored by a telephone receiver mechanically driven in a continuous spiral motion around the room at a fixed height, allowing Sabine to chart localized regions of greater and lesser intensity.

¹⁵² Wallace Sabine, Collected Papers on Acoustics (Cambridge: Harvard University Press, 1923), 3.

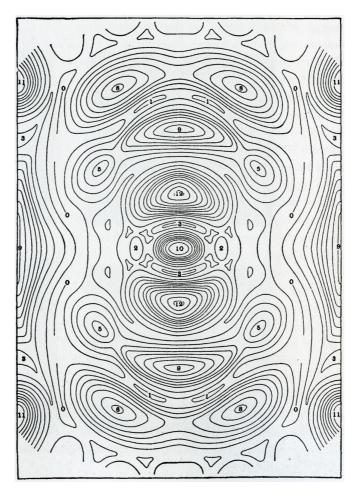


Figure 2 : Wallace Sabine's mapping of the auditory excitation of the Constant Temperature Room at the Jefferson Physical Laboratory, Harvard University.

The image produced by Sabine shows the contours and distribution of sound intensity within the room's confines, an aural topography of a very localized and regulated soundscape. As a two dimensional reduction of a more complex spatio-temporal dynamic or propagation, this experiment reveals something of the depth of Sabine's interest in auditory spatial relations, not only concerned with quietude and the silencing of space—as would become prevalent with the commercialization and industrialization of his findings, measures which made possible the commodification of silence and the production of a hushed homogeneity—but with sound as a material component in the construction, perception and morphology of the architectonic. Were this experiment to have been repeated at differing heights and the various results consolidated in the production of a three-dimensional image, pockets or bubbles of differing intensity would be shown filling the room. While it has been suggested that Sabine was not entirely comfortable with the

map or the means by which it was produced, it nevertheless serves as clear example of his thinking of sound in spatial terms. Of further interest is the analogy made by Sabine relating this acoustical map with those produced by the geodetic surveys. 153 Where geodesy is concerned with the mapping and representation of the earth as variable environment in constant although mostly imperceptible flux, through the monitoring of crustal motion, tides and polar motion for example, Sabine's mapping of sound intensity distribution represents architectural space as a morphological environment. The peaks and troughs of Sabine's diagram show the contours of a physical environment in flux, rendered stable, quantifiable and consistent only through graphical representation afforded by the constancy of the laboratory environment. We find in Sabine's work the beginnings of a focused awareness of auditory dynamics and the morphology of architectonic space, of a sound that sets space in motion. Here the geometrical concerns of architectural design are set in motion according to the unfolding of material temporalities, vibrations and waveforms. We see an understanding of the spatial propagation of sound as constituting peaks and troughs, zones of intensity and their dissipation, a physical environment that at once produces space through its displacements and distortion while being interwoven and reliant upon its architectural host.

The contours of a sound-space rendered visible in Sabine's mappings reveal a morphological and otherwise invisible topology that is ordinarily neglected and, if considered at all, identified only according to negative problematics. What Sabine revealed was an invisible and shifting field of influence within architectonic space, one which impacts upon communication, spatial perception and a broad bandwidth of behaviour falling under the influence of spatio-temporal determinations. These catalytic engagements with the problematics of auditory space would be subject to extensive reduction and normalization in their industrial application, an application that would lead to a prevailing acoustic homogeneity within urban developments through the silencing of space. Signal would become grounded in silence—as it would within the acoustic ecology of later years—as discretion, clarity and the efficiency of communication became the primary concerns for a given domain.

¹⁵³ See Thompson, Soundscape of Modernity, 65-9.

¹⁵⁴ These points are discussed with specific reference to Sabine and the immediate impact of his work within the context of Modern American architecture, in far greater depth than is possible here, throughout Emily Thompson's *Soundscape of Modernity*.

Throughout the early twentieth century increases in urban occupancy, high-rise structures and densely packed populations, together with a culture increasingly concerned with efficiency, engendered a desire for quietude through acoustic isolation. This would be realized in the architectural embedding of insulated and therefore isolated environments within the city. The implications of this practice of spatial silencing are developed in the history of acoustic engineering developed at length by Emily Thompson. Throughout the 1920s, developments in architectural acoustics initiated the construction of a 'modern sound' that existed in stark contrast to that being developed simultaneously in what would become canonical artistic practice: this 'modern sound' was one of incremental silencing. Increased desire for the efficient transmission of sound throughout both the home and professional workplace required the ever-greater suppression of environmental noise. This entailed not only the noise without, that of the street, construction, weather and so on, but also that supplementary noise that occurred within the built environment, the sound of space itself. The identification and eradication of reverbs through the use of specifically designed sound-absorbing materials performed an erasure of the auditory impressions of space, the reverberations constituting an auditory site specificity and determination. The efficient and clear proliferation of speech within the home and workplace was attained at the cost of incidental environmental noise and the possible perception of audible architectural determination. If, as was noted in relation to LaBelle's 'Architecture of Noise', the perception and engagement with the means of determination through a certain abrasive participation or interaction can be understood to allow a degree of ideological critique and awareness, the silencing of space entails the becoming imperceptible of its determinations and influence, an imperceptibility that marks the efficiency of an ideological edifice through its apparent transparency or neutrality. Driving this erasure and influential imperceptibility were the requirements of efficient communication and the eradication of distractions from the workplace. Insofar as space was heard to impinge upon the signifier, the voice and instruction, or to hinder the dedication of attention, the attainment of an ever more efficient acoustic communication would require that the connection between sound and space be severed:

In a culture preoccupied with noise and efficiency, reverberation became just another form of noise, an unnecessary sound that was inefficient and best eliminated [...] When reverberation was reconceived as noise, it lost its traditional meaning as the acoustic signature of a space, and the age-old connection between sound and

space—a connection as old as architecture itself—was severed. Reverberation connected sound and space through the element of time, and its loss was just one element in a larger cultural matrix of modernity dedicated to the destruction of traditional time-space relationships. ¹⁵⁵

Thompson's account of the silencing of space sets out from the position of a sound-space relationship that within a third of a century would be severed, a severance that would be made complete and irreconcilable through the synthesis of space made possible by electroacoustic installations—the apparatus of 'schizophonia'. Yet what we find in Thompson's text is a trajectory towards the dissolution of unified and legible sound-space relations, rather than that of sound-space relations per se. With the introduction of electro-acoustic installations and, by the same token, the potential for the synthetic production of soundspace it is the necessity of legibility and linear causality that is severed in making space for the production of auditory illusions, connections, subtractions and spatial reconfigurations that do not find equivalence between the eye and the ear. The necessary correlation of auditory space and architectural delimitation would cease to be so closely bound, permitting auditory experience to operate in excess of visual delimitation, forcing a disjunction of the senses, a problematization of common sense and the particular exercise of audition. It is under such circumstances that sound becomes most influential, operating as a distorter through disjunction, sound-itself exciting a particular more than a common sense. Yet, prior to electroacoustic scission, can we not identify within the experience of architecture a further disjunction between sound-space relations, particularly that of the concordance and legibility between the auditory and visual. While reverberation may function as the auditory signature or impression of a space and its material conditions, its may also operate as the agent of a spatial distortion of, rather, disjunction through the perception of a space heard to be in excess of or divergent from that which is seen. Most common perhaps is the perception of a space whose auditory expression appears to extend 'beyond' or in excess of visual delimitation due to the intensity of a space's reverberations. ¹⁵⁶ A space may also appear to the ear as too small when compared to what is perceived by

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¹⁵⁵ Thompson, Soundscape of Modernity, 171-2.

¹⁵⁶ The potential for a disjunction between the eye and the ear within spatial perception is discussed by Matteo Melioli, who has attended to the reverberations of the Basilica San Marco and the extent to which they constitute a space perceived to be in excess of its visible limits insofar as sound is unbound from commonsense. See Matteo Melioli, 'Inhabiting Soundscape' in Colin Ripley, Marco Polo and Arthur

the eye, again forcing a disjunction within spatial perception wherein the space heard appears apart from that which is seen. Within a large and reverberant space, a particular spot beneath an arch or dome may yield reflections and reverb times more commonly experienced in small rooms, creating an auditory perception of intimacy that is in discordance with what is seen. Rather than unified spatial perception according to common sense, defined as such through the concordance of the senses, we can identify in sound and these exceptional appearances the potential for a deformation or distortion of spatial perception through the exercise of a particular sense disjunct from another. Prior to electroacoustic synthesis and scission we can identify in certain and usually exceptional instances of the architectonic—cathedrals, caves, archways, entrance halls and more subtle and peculiar divergences from the domestic or professional norm—an instrument forcing a disjunction within spatial perception that rather than severing the relation between sound and space amplifies a difference between the senses. Anterior to electroacoustic schizophonia we can identify the sonorous distortion or disjunction of spatial coherence within the architectonic, an ambiguity or confusion that precedes a scission. Such differences within spatial perception are nonetheless distinct from the erasure of spatial conditions and contingencies towards its apparent transparency or neutrality, insofar as this difference and discordance brings the perception of architectonic determination to the fore, revealing its otherwise subtle influence. Such disjunctions contrast with the imperceptible influence of modernity's anti-spaces and non-places comprising an architectonic apparatus of efficiency.

The 'silent anti-space' of modern architecture would isolate the individual from the noise without and eventually the difference within, increasingly closing them off from the auditory environment and the activity of which it is comprised. Where the noise of the world could not be suppressed and became unbearable, modern architecture could offer quiet sanctuary within the confines of private property; the self would come to be increasingly *individualized* in silence, in an embedded auditory space or silent spatial insert. This focus on maximizing efficiency by canceling out all unnecessary noise led to what Thompson has identified as the acoustic homogenization of architectural space or what she refers to as the 'soundscape of modernity', a historical process that finds parallels in the

Wrigglesworth (eds.) In the Place of Sound: Architecture, Music, Acoustics (Newcastle: Cambridge Scholars Publishing: 2007), 45-54.

¹⁵⁷ Thompson, Soundscape of Modernity, 227.

thermodynamic history of architecture detailed by Fernández-Galiano. Yet here I wish to draw out comparison with another critical history of auditory space that is concerned with an overlapping time frame: the interrelated histories of audile technique and individualized sound-space put forward by Jonathan Sterne.

Concerned with the period between 1900 and 1933, Thompson's account is one of a progressive silencing and erasure of auditory space towards homogeneous discretion—the latter being, in McLuhan's terms, characteristic of 'visual' space—that charts a trajectory of architectural production and the compartmentalization of private space according to spatial ideologies espoused by capitalist logics of efficiency. Through the silencing of space the mutable, confused, continuous and decentred would become subject to the discrete, to that which was visually set apart and centred around the singular, linear perspective of the observer; architecture would increasingly become a visually dominated art. This charting of the eradication of acoustic signatures from private space is both enabled and bound by practices of, on the one hand, manipulating construction materials in support of efficient communication and, on the other, the electro-acoustic synthesis of space enabled by the mechanisms of reproduction and transmission. Thompson, therefore, sets out from the noise of the world, from the notion of acoustic space as a problematic, enveloping assemblage, and charts a trajectory towards a notion of private space that tends towards silent discretion. This tendency towards silence is, as has already been said, driven by a capitalistic logic of efficiency that locates ideal, bureaucratic productivity in a practice of 'silent running'. Jonathan Sterne, on the other hand, assumes what at first appears to be a different set of prerequisites in providing a model for the production of private acoustic space and its relation to a more collective and clamorous audition. Where Thompson sets out from a position of spatial considerations prior to technical reproduction, from a historical situation which was responding to the problematic noise of world and city at large, Sterne's detailing of auditory privatization, built upon a history of sound reproduction, is necessarily bound to the synthetic production of auditory space, a position that, as we shall see, assumes a prior isolation from the noise of the world. In focusing on techniques and technologies of telecommunication, reproduction and consumption, the auditory spaces Sterne considers-most notably built around differing models of headphonic space—are necessarily set out from the romanticized immanence and authenticity of an overly naturalized acoustic ecology. Where Thompson, initially at least, sets out from a consideration of the noise of the world, with what has traditionally been

referred to as the 'soundscape', Sterne begins with its patiently listening subjects, the subjects of the 'schizophonic' world. It is in Sterne's discussion of the development of audile technique that notions of the private come most clearly to the fore. Audile technique, as a trained and focused listening is of great importance to Sterne's argument, a refined practice that constitutes both a technique of listening and a process of individuation, shaping and refashioning subjective perception and the information of identity. Sterne sets audile technique apart from listening and, in particular, hearing as inherent capacities. Referring to a trained or developed listening practice, audile technique is largely the reserve of those for whom listening technique is applied as labor; Sterne identifies the telegraph operator and medical doctor as such practitioners, but we can also add musicians, sound engineers, music critics, musicologists and many others to a wider field of auditory workers. We should also add to this list those for whom listening does not inform professional identity but a more specifically social, individualized identity: the audiophile for whom listening is an active process in the construction of self identity, the 'discerning' listener or musical consumer for whom the identification of sonic details constitutes an individualizing event, setting them apart from less attentive others. Audile technique is the informative listening practice of subjects of the analytical ear. Sterne describes the development of audile technique across a period of approximately 170 years, between 1760 and 1930, a history that follows developments in both medical listening practices and sound reproduction technologies. It is in dealing with a period stretching from 1810 to around 1925 that Sterne provides a history of the production of what we can refer to as headphonic space, an auditory space characterized as particularly individualized and personal. This history sets out by focusing in particular upon technique that developed alongside the introduction of the stethoscope in to medical listening practice and details how the headphonic space it produces stretches into the twentieth century through the development of the hi-fi headset, and so it will be according to an apparent anachronism that we will come to assert that the headphonic space described by Sterne in many ways assumes the quiet 'soundscape of modernity' that Thompson provides an account of. This anachronism is resolved, however, through referring once again to Picker's study of the Victorian era, in which the production of private and personal territories through the architectural tactics of auditory spatial contestation details the soundscape of an earlier period in modernity, preceding that discussed by Thompson and contributing to its cultural conditions.

Where audile technique would, through the use of the stethoscope, be developed to

suit the professional requirements of medical practitioners, so to the professional identity of the listening subject is shaped in relation to their objects of interest; techniques of listening beneath the skin develop the perceptual apparatus and the information of the self; the noise of organs brought into proximity with the ear creates an intimate space that nonetheless spans bodies, an acoustic continuum stretching between the bodies of patient and doctor. Brought to the fore through the use of the stethoscope, such inter-somatic acoustic spaces are revealed within the individualized confines of headphonic space, a space that is both alien and intimate, and in most cases unattainable to the patient. In the decoding or binding of bodily noises a professional identity is defined, the patient looks to the medical practitioner for meaning, for the meaning of their own body's noises, to the medium by which the sound becomes sign. Drawn from noisy obscurity, auditory information is offered to the listening subject within the boundaries of highly personalized and individualizing headphonic space. The impact of such listening techniques, as well as the auditory spaces they construct, upon perception can be discerned from Sterne's account of mediate auscultation—a discussion that gives shape to the listening practices of medical professionals—which as the following excerpt shows revealed an affective acoustic terrain allowing new subjective impressions and streams of individuating events:

Mediate auscultation refers to the practice of listening to movements inside the body with the aid of an instrument. [Auscultation] picked up specifically medical connotations at the turn of the nineteenth century as the activity of listening to sound of movements of organs, air, and fluid in the chest. In fact, auscultation already involved a notion of listening as *active* (vs. passive) hearing [...] later writings would simply use auscultation to refer to listening to the body through a stethoscope—mediation was always assumed.¹⁵⁸

The acquisition of listening techniques reveals not only otherwise imperceptible signal content but the terrain of an expanded individuating environment, it contributes to the shaping of a space in which listening practices influence an emergent field of events contributing to the conditioning of personal identities. A technique that individuates the listener, in this case the medical practitioner, as such, occurs in a space inclusive of the body of another, a space which reaches inside the body of the patient as object of attention and extends into that of the auditor. Rather than necessarily constituting a unified or holistic auditory space between patient and doctor, that produced through auscultation reveals a

¹⁵⁸ Sterne, Audible Past, 99-100.

body set apart from itself, regions isolated and revealed only to the ear of the auditor, a continuum established between the auditor and the patient body, a body that is set apart from the patient through the critical function of audile technique which renders the ear as capable of scission as the eye. The noise of the body's interior is transmitted into that of the listener, a listening practice that determines the relational continuum established between bodies as an individuating auditory space. Where Thompson's account of architectonic silencing describes a process of increasing individualization in silence through architectural and acoustic conditioning, Sterne's focus on the technologies of sound reproduction details individualization according to private audition and consumption of informative sound, and therefore an individual located amidst signal and noise, tuning to the subtle noises of distant transmissions, organic or otherwise, as a means of divining signal content. Set apart from the noise of the world according to the architectural tactics constitutive of a bourgeois modern soundscape, the listening subject informed by audile technique goes in search of new bodies of noise, generative sites of confusion capable of reinstating the productive displacements of sound unbound. The positioning of the listening subject within headphonic territory to a certain extent assumes the prior cancellation of the 'immanent' noise of the world-through both architectural and electro-acoustic isolation in headphones—allowing the listening subject to set about the construction of another. ¹⁵⁹ The spaces constructed through headphonic listening considered by Sterne assume a prior state of isolation that is detailed by Thompson, the silencing envelope of domestic, professional and personalized spaces in which the refined listening practices associated with audile technique can take place. It is within the hushed confines of architectonic bodies constructed around the bourgeois ideals of professionalism that such a listening practice can start to take shape. In both Sterne and Thompson's accounts we find descriptions of a process whereby sound-space is rendered abstract, set out from the world only as it appears, of sound-spaces cut out from that which is, in a hopelessly romanticized model, present to the unindustrialized ear. In a passage that would seem to echo the spatial concerns expressed by Thompson, Sterne states that 'space occupied by sound becomes something to be formed, molded, oriented, and made useful for the purposes of listening techniques. It can be segmented, made cellular, cut into pieces, and reassembled'—descriptions that add

¹⁵⁹ Though, of course, the portability of headphones allows for all manner of interferences to enter headphonic space, a potential that developments in in-ear and noise canceling systems are progressively trying eradicate. I will be returning to the challenges portability poses to this argument.

depth to the potential for privatization that necessarily complicates McLuhan's notion of auditory space. 160 Here sound contributes to the plasticity of space otherwise considered abstract or empty according to visual perception and static in its given form. Sound is described as deforming space in time, complicating a perceived homogeneity according to the contours of its unfolding envelopes. Auditory space embodies a certain plasticity which, with suitably nurtured audile technique, can be given shape as much as it creates it, and from which one can come to discern meaning; such plasticity, it would seem, also reveals an innate capacity for synthesis and composition, a dynamic flexibility that, as with any matter, lies openly susceptible to commodification whereby 'acoustic space becomes a kind of bourgeois private space'. 161 Such vicissitudes of sound-space, being subject to mechanisms of segmentation and reproduction, continuity and scission, concern both Thompson and Sterne, the former with an architectonic silencing and compartmentalization that forms a prerequisite, 'prior, private' for the reproductions, transmissions and consequent consumptions that concern the latter. The differing theoretical trajectories towards individualized sound-space and notions of the private put forward by Thompson and Sterne are of particular interest due to their positioning of the subjects of sound-space. In addition to the complementary resonances I have attempted to outline above, concerned as we are with uncovering something of the theoretical ground or pre-requisite assumptions necessary for the consistency of these models of individuation and individualization in sound-space, is Sterne's assertion that 'collectivity is entered through this prior, private auditory space'. 162 Such a position asserts a 'prior, private' space as given, yet it is the conditions of the given that we have so far been concerned with addressing, whereby sound and space are understood as produced as opposed to given, and so it is to both the conditions and consequences of this assertion that we should turn.

Taken as a prerequisite of collectivity is a cultural notion of private space that prefigures collective experience—that asserted by or constructed within the soundscape of modernity. This assumption poses a problem to the theory of individuation I have been outlining thus far, which has focused on the primacy of the conditions of such individualized, personal space as opposed to the primacy of such space in itself. Such an approach poses a prior collectivity in the form of diverse material assemblages and a

¹⁶⁰ Sterne, Audible Past, 93.

¹⁶¹ Idem.

¹⁶² Idem.

model of sonic articulation that addresses a complex of individuals ahead of personalized privatism. In addition, rather than taking perception as given, assuming a model of subjective empiricism as the means by which to grasp a wider 'collective' acoustic field, the approach taken has been to consider the conditions of such things, what we might in reference to Sterne's assumption of a prior, private subjectivity, call an approach to that by which the given is given as such. This approach is necessitated by practices so far and yet to be considered, practices that function according to the assumption of a resonant capacity and physicality anterior to act of listening. Through reference to such practices, the emphasis placed on the material impact of sound in relation to its subjective influence necessitates that we take the notion of a personalized, 'prior, private' space as secondary yet nonetheless real as opposed to simply passive or superficial—to such matters of influence, as a subtractive binding of an anterior continuum or connectivity. Sterne's argument, setting out from the position of the already individualized subject is proximal with a certain primacy of the conscious self that my own approach seeks to move beyond through recourse to different matters of individuation and modalities of interpellation. That one must be always already individualized in order to enter into the collective experience of sound is at odds with the notion that such individualized experience arises from a prior complex or impersonal collectivity determined as such through resonant capacities, that sound phenomena addresses bodies, any body, ahead of the self and ahead of listening. Yet to be done with Sterne's argument at this stage and on these grounds would be to overlook the intricacies and importance of his argument. In turning to the conditions of Sterne's asserted 'prior, private' space, anterior to collectivity, we find that this notion is necessitated by Sterne's focus on the cultural conditions of sound reproduction and dissemination as opposed to a theory of sonorous individuation per se. This 'prior, private' state is, as Sterne points out, a prerequisite of technicity and technique engendered and controlled by capitalist modes of production and consumption, it is essential for the successful commodification of sound. As Sterne puts it:

It is true that people often listened together to sound recordings and, later, to radio shows. Yet even these collective modes of listening already assumed a preexisting "privatized" acoustic space that could be brought back to a collective realm [...] the construction of

acoustic space as private space is in fact a precondition for the commodification of sound. 163

It is the construction of private acoustic space that is described in the histories provided by Thompson and Picker, accounts of personal struggle against the noise of the world, that constitute the preconditions of the individualizations discussed by Sterne. The territories claimed through architectural tactics construct the conditions of a personal proxemics defined according to a minimal degree of quietude setting apart a space for thought, constituting the conditions of individualizing processes, the spaces in which the audile techniques described by Sterne can be practiced and take effect. It is within such spaces and through the acquisition of such techniques that listening practices are described as giving shape to self and a particularly bourgeois identity. It is this process, this chain of events that is mapped out here as a coupling of sound-space and listening techniques that constitutes an individuating environment. It is where listening techniques are considered in a similar fashion that Sterne's argument is of particular interest: 'Beyond its privileging of sonic details, audile technique is based on the individuation of the listener. The auditory field produced through technicized listening [...] becomes a kind of personal space'. 164 A personal, individuating territory is established in the coupling and resulting tensions between architectural conditions and listening practices, a territory that shifts with changes in conditions and developments in practice, ongoing developments that attest to individuation as an process rather than a singular event of subject formation. Of obvious importance to the current argument is Sterne's account of individuating sound-space for the contribution it makes to a broader theory of sonorous individuation and the detail with which it attends to the conditions and impressions of headphonic space with regard to its listening subjects; yet what we find in the above passage is an example of a certain confusion between notions of individuation and individualization that I would like to subject to some scrutiny. In Sterne's text we find numerous accounts of the privatization and personalization of auditory space, spatial productions that are driven by audile techniques performing a critical function through modes of isolated and abstracted listening. Such descriptions—Sterne's discussion of the impacts of mediate auscultation for example—provide invaluable accounts of individualized spaces, the personal spaces of professional and listening subjects, spaces active in interpersonal distinction according to

¹⁶³ Sterne, Audible Past, 155.

¹⁶⁴ Ibid., 158.

class, professionalism and identity. In Sterne's examples we see how such spaces are brought into being only by the possibility of their mediation, through the development of technical objects that make possible certain relations, between ear and organ or geographically distant people. Yet in creating the possibility of such relations the further individualization of the related subjects, objects or organs is also brought about. Sticking with Sterne's example of mediate auscultation we can discern the way in which the invention of a means of informative relation and mediation is implicated in changes in listening practices and professional identities. Let us take as an example the trainee medical professional embarking on the necessary acquisition of audile technique enabled through the invention of the stethoscope. Gilbert Simondon describes concisely how such a process of learning can be taken as synonymous with a process of individualization: 'Because in an apprenticeship a man forms habits, gestures, and ways of doing things, which enable him to use the many and various tools demanded by the whole of an operation, his apprenticeship leads him to technical self-individualization. He becomes the associated milieu of different tools he uses'. 165 To learn to listen is to enter into a process of individualization and self definition. The relational space established between, in the case of auscultation, listener and organ constitutes a space in which the individualization of the listener is performed, the individuated subject undergoing a 'restructuration' which, as a process of individualization, enables the emergence of its professional and symbolic identity.

Sterne places an emphasis throughout his work upon the cultural conditions and impacts of sound reproduction, upon the circuit of reciprocal determination engendered between listening subject and media. The contemporary practices with which we will come to concern ourselves more thoroughly—and to which the work of Sterne, Thompson and Picker provide a historical framework against which their difference is asserted—takes as its primary site of influence that of a physical affectivity and somatic resonant capacity. The influence and impact that such practices assert assumes a primary somatic capture or reduction ahead of its psychical and subjective restructuration as well as its culturally negotiated meaning. The way into the subject is not considered to be primarily semantic but rather considered as passage through the opening of an affective and resonant capacity that persists in excess and as a point of confusion of that which comes to be determined according to the operations of symbolic efficacy. As was stated at the beginning of this text,

¹⁶⁵ Simondon, Technical Objects, 91.

the work considered herein, especially that of Bain, Lucier and Kirkegaard, articulates itself through and takes aim not only at the affective sonorities that function ahead of their semantic reduction and extension but at the conditions of sound itself. Such orientations concern themselves with the spatial productions wherein sonorous individualization becomes possible, with the necessary conditions of an informative audile technique; as such they express a more particular notion of sonorous individuation as opposed to audile individualization, taking aim at the conditions of both sound and listening ahead of the further complexity brought into play by both. What we find in Sterne's account of an individuated personal space, is rather the individuation of the individuated, in being a function of the personal this individualizing spatial production determines a certain professionally identity according to a refined audile technique and the instruments of auscultation. The refinement of listening constitutes a restructuration of hearing towards the production of identity. As we are concerned with the extent to which sound is productive of individuating spaces, not only spaces in which sound is active in individualizations—a notion which positions space as an often neutral or empty backdrop—we require an approach to sound that accounts for the production of the impersonal potentials of soundspace, the productive and influential background noise against which individualizing auditory practices can be performed in the production of personal space—this latter stage in subjectification being well described by Sterne. By focusing on sonic practices inclusive of the conditions of sound, practices that address the potentials of both hearing and listening, we require a concept of individuation that also addresses such conditions, a concept that addresses the transcendent conditions of auditory spaces rendered as such within the complex act of audition. It is for this reason that, in clarifying the differences between the arguments concerned with the influence of sound-space put forward by Sterne and Thompson from my own, a distinction must be made between the closely related and overlapping notions of individuation and individualization. Where this argument is concerned with individuation, if too close an association is made between this and the notion of individualization, then the scope of this argument would have to be limited to that of perception and empiricism. An understanding of sound as influential at an impersonal and even inaudible level, as being influential in the states of bodies in the broadest sense, requires a theory of individuation that addresses not only the formation of identity and personal perceptions but their conditions. To this end we can turn to the work of Gilbert Simondon who makes this distinction most clearly.

Simondon identifies two stages of individuation, the first of which accounts for the individuation of individuals—understood as that which exceeds, underpins or is otherwise not wholly enveloped by the self or I—or the production of bodies. It is this stage of production that addresses what I have been referring to as the impersonal and allows for the development of a theory of sonorous individuation that understands sound as being influential within the conditions of identity. Coupled to this is a 'second stage' that accounts for personalization or individualization, the individuation of the individuated—a notion that I believe can be more closely aligned with Sterne's argument. To a certain extent we can think of these two stages as accounting for the production of bodies and the production of selves respectively yet without discretion, interactive influences at the levels of a background and foreground. Yet asserting too clean a distinction at this point brings this argument into proximity with a reductive dualism. While a distinction is nonetheless made, these stages are not conceived of as separate but interrelated, coupled and complementary, rather than being discrete and superimposed. These two stages are, as Steve Shaviro has pointed out, equivalent to the Kantian a priori transcendental subject and the *a posteriori* empirical subject, respectively. 166 We must, however, take this equivalence as being in a sense after Deleuze and therefore as referring to a notion of the transcendental that defines the conditions of being as opposed to atemporal, immutable ideality. Individuation, therefore, defines the processual production of bodies, individuals, somatic complexes, of being in intensity; individualization is taken as referring to a mode of personalzation, selfhood, the 'I' that exists in accordance with a necessary interpersonal alterity. Here it is perhaps necessary to state once again that we are dealing with processes, in the former the constant development and deformation of bodies, and in the later an ongoing restructuration of the self according to the potentials of it material conditions. This interrelation can be made clearer with reference to Simondon's consideration of psychic operations:

psychic individuation is rather an individualization than an individuation [...] [Individualization] needs the support of the living being already individuated to develop psychic operations that are not separate from vital operations but rather, after the initial individuation which provides a living being its origin, there can be within the unity of this individual being two different functions, that are not superimposed, but one (functionally) connected with the

¹⁶⁶ See http://www.shaviro.com/Blog/?p=471, accessed 02/10/10.

other as the individual is connected with an associated milieu [...] the physiological and the psychic are like the individual and the complement of the individual at the time a system is individuated. Individualization, which is the individuation of individuated being, resulting from an individuation, creates a new structuration within the individual [...] thought is like the individual of the individual, while the body is the associated milieu complementary to thought [...] Psychosomatic unity is, before individualization, homogeneous unity; after individualization, it becomes a functional and relational unity.¹⁶⁷

This notion of thought that for Simondon is 'like the individual of the individual' is taken as being equivalent with a personalized thought. This is to be taken as contrasting with the much broader notion of thought as an 'elemental consciousness' constitutive of being that we find in Deleuze, a concept that sees thought extended beyond the I into a broader field of material relations. Insofar as the appearance of conscious thought is, in the above excerpt, not something but of something is it associated with a 'second stage' of individuation—individualization—whereby the self identifies itself as being a body, a named and identifiable subject. A distinction is made between the notions of the individual and the person, the latter being described as the complement of the individual or the individuation of the individuated. Here we once again delimit a notion of dyadic individuality, or 'bisubstantialism' to use Simondon's broader term, that is described in the difference between individuation and individualization, or the individual and the personal, encapsulated within functional and relational psychosomatic unity. As there is a dependence between the interrelated stages of individuation and individualization, there is also a dependence between these constitutive modes of psychosomatic being and what Simondon refers to as its 'associated milieu', the 'background' of the individual constituting its 'virtual' conditions. We can formulate these interrelations more concisely as:

(associated milieu-(individuation-individualization))

Appearing both against and amidst a background or environment—what Simondon refers to as an associated milieu—is the individual who's unity is understood as being comprised of two reciprocally determining functions: individuation and individualization. On the subject of the individualization of technical objects Simondon provides a clear description

¹⁶⁷ Gilbert Simondon, L'individuation Psychique et Collective (Paris: Aubier, 1989), 132-3.

of what is meant by the term associated milieu: 'Such individualization is possible because of the recurrence of causality in the environment which the technical being creates around itself, an environment which it influences and by which it is influenced. This environment, which is as the same time natural and technical, can be called the associated milieu'. 168 The notion of an interactive influence is seen to be essential to the associated milieu and its interrelation with the differing modes of individuation and individualization in instigating a reciprocity that avoids this model being reduced to one of linear determinism; the environment which surrounds the individual is not conceived in a reductively deterministic manner but in terms of a necessary interaction through a more complex engagement with the ideology of influence. This environment is not simply given but produced around and in part by the individual. While the individuating environment is comprised of matters and events in excess of the individual they give shape to and influence the individual as they pass through, impress themselves upon and are contracted within it. The presence of the individual in turn gives shape to its individuating environment by complicating the flow of matter and the occurrence of events within this environment, therefore complicating the potentials of its own individuation. Where an individual stakes a claim over an environment, defining a territory around a body through its expressions and appendages, a territory which constitutes its associated milieu, we find at the edge of this territory, defined along blurred, confused, ambiguous and transient lines, the somatic complexes defining other individuals and territorial assemblages.

Being primarily concerned with a concept of sonorous individuation distinct from individualization, attention is given primarily to the affectivity of a background noise, considered as a primary state of confusion anterior to the 'prior, private' auditory space through which interpersonal, collective audition is entered into in Sterne's account of auditory spatial production and the cultural conditions of listening practice. This notion of background noise posits an impersonal collectivity and confusion anterior to the architectonically supported privacy or personal territoriality defined through quietude or a minimal degree of auditory control and organization, a confusion within which the individual who hears is embedded yet from which the listening subject distances itself. While this notion of background noise suggests a subtle influence by way of auditory capacities, these informative and influential sonorous matters are not necessarily assigned

¹⁶⁸ Simondon, Technical Objects, 61.

to the background of experience according to their amplitude or ambience, but rather according to their being articulated towards, or 'interpellation' of, individual receptivity, to the body as membrane and primary site of sensory filtration or subtraction that constitutes the base conditions of audile technique and the determination of the objects of a personal proxemics. It is in this way that sonorous individuation is thought to operate according to the determinations of background noise and the structuration of a primary collective and impersonal confusion. Background noise defines an impersonal continuity of auditory space, as such it constitutes the potential conditions of auditory proxemics, that which must subsist anterior to the definition of personal space. Background noise subsists in excess of proxemic determination, insofar as this is understood in a manner concomitant with Hall's definition of proxemics as 'the use of space as a specialized elaboration of culture', the determination of a mutable territorial sensibility through interpersonal interaction and according to distinctly cultural conditions. 169 Proxemic determination as the activity of personal territorial delimitation is—insofar as we are primarily concerned with auditory space—taken to be an operation of the critical and analytical ear, of the ear which aids distinction and distanciation, in setting the self apart from others. Background noise is that against which proxemic space is asserted, it is that within which the personal sets its self apart or 'hollows' out a territory through organization, containment and contraction, through the establishment of thresholds of perception that maintain or reinforce a minimal distance. As the immanent conditions of such distinctions and territorial determinations, background noise is that which persists despite the establishment of perceptual and spatial thresholds, that which allows for their determination or assertion as such as well as their confusion and dissolution. It is this potential that is played upon in works that take aim at an inescapable audition, works that are articulated through the excitation of inherent resonant capacities ahead of their cultural coding and proxemic determination. Such approaches do not efface nor negate the importance of the symbolic, semantic, and broad cultural conditions of personal space described by the theory of proxemics, but rather address that which subsists in excess of these interpersonal determinations and delimitations, taking the mutability acknowledged in proxemic research as opening beyond the symbolic, as an indication that the strictly interpersonal—taken to be the limitation of the notion of culture to the strictly human—need not be considered all. Background noise

¹⁶⁹ Hall. Hidden Dimension, 1.

names an inescapable immanence that is assailed in proxemic assertion, according to the necessary delimitation of minimal threshold supportive of alterity, yet that which nonetheless persists in the determination of an individual confusion.

Insofar as proxemics describes the cultural determination of personal space, the spatial considerations undertaken herein seek to expand the range of proxemic investigation through consideration of the individual as distinct yet inseparable from the personal, and a notion of culture not restricted to that of humans. On this latter point, in establishing that cultural territorial thresholds are not only set by human bodies but other objects, by anybody, we can once again refer to Truax's definition of the acoustic community as 'any system in which acoustic information is exchanged', an understanding which extends the scope of ecological praxis well beyond the domain of humanity. 170 In a similar gesture, what is considered to constitute the cultural conditions of personal space must be expanded in order to include a wider field of objective determination and territorial influence, taking into account the impact of the impersonal and inhuman within the delimitation of the personal. Where we count the auditory among such objects as a matter of spatial determination, where we are concerned with the impact of sonority upon space, place and territory, this expansion must be allowed to continue through an opening of the audible event onto its inaudible conditions, those objects and events that populate the larger complex of its 'associated milieu', the field of inaudible noise that is engaged with in an expanded and inverted acoustic ecology attending to both the human and inhuman populations of affective and individuating field situations.

The ecological approach outlined in chapter one is here confused with Hall's cultural proxemics in the outlining of an expanded field situation that takes into account a complex of bodies and objects, inclusive of the sound object, that contribute to the conditioning of personal and impersonal space, therefore constituting a certain architectonic agency through their irradiating spatial productions and deformations.

¹⁷⁰ Truax, Acoustic Communication, 66.

The Semblance of Immateriality

In considering an expanding field of architectonic objects and materiality through consideration of the spatial determinations of sonority, we encroach upon a territory in which spatial production is not the reserve of the architect, nor, for that matter, that of the human; the agents of spatial production are more readily found to reside in the air and earth, within the temporality of matter. Many matters that can be considered dynamic or subject to temporal determination in their spatial productions can be found listed and alphabetized within Jonathan Hill's 'Index of Immaterial Architecture'. 171 Hill intends for this text to be more of an introduction than a manifesto in its provision of a broad contextual outline to what is a complex subject, so it could perhaps be considered overzealous to linger on the peculiarities of Hill's argument. Nonetheless, at the core of the text is an appreciation of matters so close to the heart of the current argument that to overlook their inclusion within an inventory of immaterial matters would be something of an oversight. The subject matters of Hill's text exist in intimate proximity with those considered herein, but where their theoretical elaboration is concerned our two positions are nothing less than polarized. It is because of the distinction that such intimate opposition enables that I wish to consider it in some detail here.

The materials constituting Hill's index are in many cases perceivably dynamic under empirical observation, unstable and subject to continuous change, contrasting with the appearance of stability, security and stasis that architecture is typically seen to express. These materials of spatial production are dynamic insofar as they are themselves active in the construction, unfolding, contraction and morphology of space. The consideration given to sound amongst such a list of materials is interesting for its acknowledgement of sound's role in spatial productions. Yet sound sits at the threshold of Hill's material and immaterial taxonomy: '[s]ound is immaterial in that it cannot be seen except through its consequences, such as vibrations on a surface. Sound is material, however, in that it can be heard'. To take invisibility, or more generally imperceptibility, as a condition of immateriality is a weak distinction, insofar as there is material affectivity beyond perception and sensation in excess of causal linearity or legibility; these immaterialities merely identify the dynamisms

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¹⁷¹ The 'Index of Immaterial Architecture' constitutes the second half of Hill's text *Immaterial Architecture* and gives alphabetized descriptions of various materials and considers their role in spatial production.

¹⁷² Hill, *Immaterial Architecture*, 182.

of matters beyond perception. Hill's is an ocularcentric taxonomy, a consequence of which is that the classification of immateriality according to consequential effects and observation neglects the residual nature of sound, its status as an inseparable product of material interactions constituting its acknowledged materiality via the sensation of hearing. The problem of the materiality and immateriality of sound is in many ways a false and unproductive one that underestimates the complexity and ambiguity of broader material interactions; the complex materiality of sound is made clear in its contingency and reliance upon such interactions. The internal contradictions of Immaterial Architecture are to a certain extent acknowledged in Hill's admission that text focuses upon on matter; this brings into question the importance and reasons for investment in an imposition of immateriality upon various matters. For Hill, the condition of immateriality is grounded in perception: 'The immaterial architecture I propose is less the absence of matter than the perceived absence of matter. Whether architecture is immaterial is dependent on perception'. 173 Insofar as the ontological status of matter remains determined according to the given thresholds of perception we remain behind the veil lifted by the physicalisation, materialisation or actualization of sound, amongst other transient matters, carried out in the nineteenth century by the likes of Helmholtz, a gesture which—although without total success—began the retrieval of sound from the domain of the spirits. Hill's category of immateriality simply refers to imperceptibility, to temporalities and durations operative in excess of the given thresholds of perception, an imperceptibility that remains real and nonetheless matters.

Of importance is the necessity for and consequences of Hill's suggested perceptually determined interpretation of matter as immaterial. Hill refers to an architecture 'caught between the immaterial idea and the material object', a distinction that engenders a string of binary qualities that sees the material equated with the solid, static, stable and objective, and the immaterial with the ephemeral, inconsistent, fluid, porous and subjective, binary distinctions that betray an impoverished understanding of material dynamisms.¹⁷⁴ The conditions of immateriality are developed to the point of an intimate proximity to transcendent spiritualism—which can be traced through Hill's work to Yves Klein's desire

¹⁷³ Hill, *Immaterial Architecture*, 72.

¹⁷⁴ Ibid., 75.

for liberation from 'the bad dream of differentiated material existence'. 175 Klein locates the site of such liberation in the air, cast as a realm of unmediated openness. 176 Yet this openness onto immateriality is the result of a failure to address that which subsists in excess of the thresholds of perception and to grasp the objective multiplicity of air, comprised of its various atmospheric gasses and particles. This is, as Steven Connor points out, 'a refusal to allow air the status of an object [...] [a] myth of universal diffusion, which means the approach to absolute uniformity'. 177 It is the failure to grasp the complex and invisible materiality of air—as well as its perturbations rendered audible by the ear—that maintains its Kleinian immaterial categorization. This taxonomy is established at the expense of invisible materiality or matters beyond sight; that which is not seen to maintain a stable, consistent image, that which functions invisibly, is deemed immaterial due to its imperceptible fluctuations and interactions. In Hill's taxonomy, even that which is seen to be unstable is dematerialized, yet the root of this dematerialization can nonetheless be located in invisibility and the insufficiencies of occularcentrism. What unfolds is a desire to elevate certain materials, those that might otherwise be relegated to the realm of hair, mud and dirt, materials that are 'worthless and base', to a position of greater dignity; such efforts betray a neo-platonism that observes a categorization of actualities according to a fidelity or subjection to, pure forms, characters or Ideas. 178 While the desire to dignify matter, to grant due attention to its dynamic role in spatial production is significant, the failure to question the classical, hierarchical relation of form and matter neglects the impact that comes from a critical reconceptualization of the Idea that challenges its immaterial and atemporal transcendence. It would seem that there is a desire to pull matter away from itself, to dignify it with the realm of Ideas, to make it worthy of spirit and pure, formal considerations. The category of immateriality amidst the matters of spatial production is therefore read as a trajectory towards ideality, a category that is only required when matter is perceived, along neo-platonic lines, as that which is trivial, base and without form or in excess of empirical observation and the thresholds of perception.

¹⁷⁵ Yves Klein, Quoted in Steven Connor, 'Next to Nothing: The Arts of the Air', talk given at Art Basel, 13 June 2007, transcript available at http://www.bbk.ac.uk/english/skc/airart/, accessed 08/10/10.

¹⁷⁶ As discussed by Connor, in 'Next to Nothing'.

¹⁷⁷ Connor, 'Next to Nothing'.

¹⁷⁸ On the subject of matters that do not pertain to the purity of separate characters or Ideas see Plato, *Parmeneides, trans.* R. E. Allen (New Haven and London: Yale University Press, 1997), 7-8.

In considering the spatial productions and determinations of sound, amidst a broader field of invisible and imperceptible matters, a more nuanced approach to the ambiguity of matter is required in place of spurious references to the immaterial. While Hill's description of the role of immaterial-materials in the dynamic production of space provides a valuable contribution towards discourse on dynamic, and ephemeral spatial productions, the classification of immateriality appears to serve only the submission of matter to the hierarchy of idealism, as is made perfectly clear in Hill's statement that 'to be associated with the world of ideas a material object must be considered immaterial'.¹⁷⁹ In response we need not do away with the importance of ideas but addresses their proximity to and involvement in material objects without need of recourse to a transcendent immateriality. In problematizing the notion of the idea we are provided with an alternative to this distinction that negates the categorical necessity of immateriality in spatial production, eschewing its trajectory towards both spiritualism and idealism.

A Spectrum of Infinite Potential: Ideas, Problems and Multiplicities

In constructing a critique of Hill's ideal hierarchy, in which matter subsists beneath the authority of the immaterial, an ungrounding of the idea is required, in which its hierarchical and neo-platonic elevation is challenged and displaced. It is in Deleuze's *Difference and Repetition* that we find a particularly relevant and *problematic* notion of the Idea that while naming a certain transcendence remains nonetheless immanent with regards to the objects in which it is implicated. The immediate importance of the Deleuzian Idea is that matter's association with it does not require a dematerialization or the a sacrifice of its materiality in order for its elevation to 'the world of ideas'; the Idea persists in both immanence and excess of the apparent or perceptual rendering of the material objects in which it is influentially implicated—the Idea subsists within the material. Far from being a solely conceptual construct encapsulated within the mind of the thinker, 'the Idea as concrete universal stands opposed to concepts of the understanding', it is something which persists in excess of the instance of its being thought—or its differenciation—exceeding the individual. In an inversion of the commonsensical notion of the idea as that occurring

¹⁷⁹ Hill, *Immaterial Architectures*, 51.

within the individual's mind, as the instance of a pure creative impulse, it is the individual that appears as differenciated within the Idea, the individual being engendered as such through the complex and concrete interactions that constitute the Idea as a kind of network of influential, informative elements and events. In this sense the Idea is less a concept, produced ex nihilo according to the originality of an individual, or a formal essence than what Deleuze calls a virtual multiplicity, a generative confusion of objects, elements and events.

The concept of the Idea to which I refer is decidedly problematic, insofar as the problematic is taken as referring not a negativity or lack as in common usage but a complex collection of things that exert influence and constitute the potentials of a situation, the conditions within which the critical and creative subject is free to choose that are nonetheless not of their choosing. A problem is that to which one responds in thought, in movement or in sound. It is this problematic understanding of Ideas that is of specific importance insofar as a generative materialism is being laid out in relation to a particular ideology of influence. The importance of this problematic formulation and displacement of ideas becomes clear where Deleuze states that 'problematic Ideas are precisely the ultimate elements of nature and the subliminal objects of little perceptions'. 180 Here problematic Ideas are aligned with what was referred to above as the background of experience, a field of subtle influence that in auditory terms affects hearing ahead of its organization in listening. Problematic Ideas, in this sense, describe fields of individuation, affective complexes that influence and inform the individuals that populate them. These individuals remain distinct from the self or the I, insofar as the latter names the subject of a distinction and representation, whose symbolic determination marks a certain closure to difference in the maintenance of a distinct set of signals. The individual distinct from the I—the subject of Steven Connor's 'disintegrative principle'—is for Deleuze a larval subject:

It is true that every Idea turns us into larvae, having put aside the identity of the I along with the resemblance of the self. This is badly described as a matter of regression, fixation or arrestation of development, for we are never fixed at a moment or in a given state but [...] always fixed in a movement that is underway [...] larvae bear Ideas in their flesh, while we do not go beyond the representations of the concepts. [181]

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¹⁸⁰ Deleuze, Difference and Repetition, 205.

¹⁸¹ Ibid., 272.

Where the Idea borne in the flesh is that of sound or noise, the individual remaining open to its information, anterior to the cancellation of its intensive influence in representation or indexical mnemonic operation, is that which corresponds to the receptivity of hearing rather than the subject of an audile technique, removed or having become distinct from background noise according to the development of an auditory proxemics or a sound-space set apart. Understood as being comprised of the elements of nature, Ideas—taken problematically—are further dissociated from the strictly conceptual and immaterial. As subliminal objects, Ideas can be thought to influence the individual anterior to the recognition and representation of the influential objectivity. These little perceptions are those that occur in response to a subtle influence more than the conscious act of directing attention or interpolation, those perceptual events more readily associated with audile technique. The Idea as subliminal object in this sense constitutes the anterior and excessive potentials of an auditory proxemics, that by which distinction is asserted yet that which problematizes distinction in remaining immanent. It is according to its association with a background and subliminal status, anterior to recognition or recollection that the Idea can be thought to constitute a kind of noise, that which is confused and obscure from the point of view of its perception or the instance of its periodic rendering or expression, yet that which remains in-itself determined according to the network or collection of elements, object and events that in their relational tension, interactions and abrasions constitute the conditioning structure of an Idea. It is in this sense that we can think of Ideas as that which persists as noise.

The Idea as noise gives a good sense of its immanent excess, of that which inheres within yet persists beyond an instance of its perception. Noise can be considered to constitute the potentials of audibility, the body of frequencies that can possibly be heard. While sound as object or perceived event is distinct from noise in the instance of its audition or audible rendering in the ear, that sound itself remains immanent to noise, to the larger field of potentially audible vibrations that in their confusion constitute noise; it is in the instance of audition that a minimal distance from this confusion is asserted in the discernment of a distinct signal from an otherwise confused body, a body that remains immanent despite its distinction in perception. It is where they are considered to be the Ideas or conditions of perceivable qualities that Ideas are, for Deleuze, to be equated with noise: 'the Idea of colour, for example, is like white light which perplicates in itself the genetic elements and relations of all colours, but is actualized in the diverse colours with

their respective spaces; or the Idea of sound, which is also like white noise'. 182 White noise constitutes the Idea or virtual conditions of sound, a spectrum of infinite potential, the embodiment of all possible tonalities that are rendered as such in distinct instances of audition or actualization, tonalities that in their simultaneity obliterate identifiable periodicity. White noise presents an undifferentiated yet determinable collection of all possible frequencies, a problematic complex that when engaged by the ear or membrane yields audible and distinct tonalities, qualities or sound objects, a subtractive synthesis that renders an audible instance of an inaudible Idea, that which persists in the background and in excess of the audible. It is in this sense that the Idea of sound constitutes a problem to which the ear responds as a solution as the eye does to light: 'an organism is nothing if not the solution to a problem, as are each of its differenciated organs, such as the eye which solves the light "problem"; but nothing within the organism, no organ, would be differenciated without the internal milieu endowed with a general effectivity or integrating power of regulation'. 183 It is according to the power of regulation that the actualized organism or thing is considered to be efficacious itself, and not simply the passive receptor of stimulus, but rather a complex complicator or integrator. The ear conceived as solution is that which draws upon and renders actually audible the potentials embodied by the Idea of sound, potentials that inform the individual in accordance with its own powers of regulation and selection.

It is through Deleuze that we get a sense of the extent to which an Idea is not to be thought of as strictly transcendental, but rather 'at once transcendent and immanent', that which persists in excess, and is structured by events, elements, objects and their relations. He was a more familiar to which Deleuze's Idea bears relation to both noise and individuation. While the Idea in its complex problematic form can be encapsulated within the perhaps more familiar concept of multiplicities it is only through tracing Deleuze's post-platonic reconfiguration or displacement of Ideas that we can understand how recourse to multiplicities provides a critique of ideal immaterial essences, as that to which matter must pertain in the acquisition of form by means of external impression.

The Idea, as Deleuze conceives of it, is strongly related to the concept of

¹⁸² Deleuze, Difference and Repetition, 258.

¹⁸³ Ibid., 263.

¹⁸⁴ Ibid., 203.

multiplicities, as is evident in Deleuze's statement that 'Ideas are pure multiplicities'. 185 In Deleuzian ontology, every thing is a multiplicity, insofar as each thing considered a unit or object is in fact a concrescence of other elements and their interactions—as is most easily exemplified in the microbiological understanding of the body in which it is not simply one but a collection of organs, cells, microbes, viruses, bacterias and their interactions. This can of course be taken more generally as applying to anybody, such as that of air or water; multiplicity describes any body as being particular rather than unitary, engendered according to a set of conditions and the interactions between objects, as opposed to the impression of form upon the otherwise inanimate. A multiplicity is to be considered as substantive, rather than a thing that has been broken apart or fractured, as such a position would assume a prior unity or pure formal essence from which the thing as multiplicity has diverged, constituting a distorted and somewhat inferior image. In this latter formulation multiplicity comes after a prior unity or whole which assumes ontological priority. The multiplicity as substantive thing is therefore not considered as the fragmentation of a prior whole but rather as sufficient in itself, engendered as such not through a shattering of form but according to the relations and interactions of the differences it embodies. The substantive status of a multiplicity accounts for the unity of its appearance, its consistent image, as being residually or relationally determined; the multiplicity is, or appears as, one for another while in itself being confused.

The purity Deleuze ascribes to the Idea as multiplicity is indicative of its virtual status, of its persistence apart from the apparent and recognizable. The virtual multiplicity consists of an imperceptible set or network of influences structured in the same way as the Idea discussed above, it is that which constitutes the conditions of the apparent and recognizable while remaining obscure from the position of that to which it in part gives rise or constitutes the conditions of. This purity does not suggest essence but rather a state of change, of constant movement that persists in excess of that which is identifiable or empirically given; its purity is ascribed according to its not being recognizably of a thing—as in the sense of a multiple or jigsaw—and therefore always subject to representation, but its protean being as a state of change, that which constitutes the potentials of productive deformations. This distinction from the essential is made clear where Deleuze states that:

¹⁸⁵ Deleuze, Difference and Repetition, 243.

the subject of representation still determines the object as really conforming to the concept, as an essence [...] The Idea makes a virtue of quite different characteristics. The virtuality of the Idea has nothing to do with possibility. Multiplicity tolerates no dependence on the identical in the subject or in the object. The events and singularities of the Idea do not allow any positing of an essence as "what the thing is". No doubt, if one insists, the word "essence" might be preserved, but only on the condition of saying that the essence is precisely the accident, the event, the sense. ¹⁸⁶

The possible is here considered to be already actual insofar as it is imaginable, one option amongst many that are all possible, whereas it is potential which is specific to the Idea, the virtual and the multiplicity, insofar as potentials are understood as that which remain imperceptible and therefore confused from the point of view of recognition or representation, potentials are considered to be capable of making a difference where the possible is rather a reconfiguration of that which is already actual. It is this absence of essence that grounds the virtual condition of a thing in difference, therefore accounting for its mutability, its openness to change. The virtual is in this sense thought as being distinctly temporal, dynamic or durational, that which constitutes an openness to change in every thing despite the actual appearance of consistency. As a set of potentials we can think of the virtual in terms of potential frequencies, frequencies that remain real and persist outside of their being rendered as audible, actual qualities or sound objects, a virtual multiplicity would in this sense constitute a set of frequencies, of audible potentials that remain in themselves inaudible. It is where multiplicities are brought together—as in the sense of a problematic or dialectical set of Ideas—that these potentials may become actualized through the interactions of differing potentials and capacities; it is in this sense that the actual is conceived as a qualitative expression or perceptible rendering, a concrescence, contraction of snapshot of the virtual conditions that persist in excess of the apparently actual. The sound object, according to this schema, appears as an actual event insofar as it is the audible and qualitative rendering of conditions that remain in themselves inaudible, an event that is nonetheless considered as a multiplicity insofar as it is comprised of diverse elementary interactions, perturbations of the air and auditory apparatus, themselves multiplicities which collectively exploit the unactualized set of virtual audible potentials constituting the Idea of sound. As with the Idea, a virtual multiplicity may be thought as

¹⁸⁶ Deleuze Difference and Repetition, 240-1.

existing in excess of its actualisations or localized, qualitative renderings, it is, again, that within which or in relation to which the individual or object appears more than something encapsulated within the individual.

The importance of the virtual and actual states of multiplicities is their co-implication, constituting two unequal halves present in every thing, accounting for external appearance and expression as well as continuous if imperceptible deformation and composition, two unequal halves creating the necessary imbalance or metastability that puts being in motion: 'every object is double without it being the case that the two halves resemble one another, one being a virtual image and the other an actual image. They are unequal odd halves'. It is the imbalance of the virtual and actual that is thought to account for the immanent propensity for change within an object, its internal generativity as opposed to its being inanimate and in need of hylomorphic subjection for its formal organization. The virtual is in this sense not to be considered as the sole agent of change, as such sufficiency posits actual beings as merely the passive products of an environment. Virtual potentials may remain unactualized, dormant, insofar as they are not drawn upon in the transition from virtual potential to actual being, a transition that is described in the concept of intensity which brings into play the reciprocal interactions and influence of virtual and actual, of potential and perceptible.

We call intensity, after Deleuze, the manner in which virtual conditions are actualized, yet this passage between virtual and actual should not be thought as strictly linear, as moving from virtual structure to actualized instance, but rather as an oscillation or reciprocal influence insofar as intensity also accounts for a process of deactualization: the (de)composition of a thing or its trajectory towards imperceptibility. Intensity is a state between, it is unstable, transitory, en route; it remains imperceptible insofar as perception remains anchored to the actual, to the stability of the given. In extension to the identification of white noise as the Idea, the virtual conditions, of sound, we can take the wind as an example of an intensive state rendering sonic actualities. As Steven Connor—amongst others—points out: 'we do not actually hear the wind, but rather hear and see objects as they are affected by the wind, such as the wind in our ears [...] the wind through the leaves of a tree [...] the indefinite process whereby air becomes itself by being made

¹⁸⁷ Deleuze, Difference and Repetition, 261.

exterior to itself. 188 Connor here describes a process of actualization by which the wind is heard and recognized as such; in being made exterior to itself it becomes identifiable, we hear it as wind and see its effects upon the objects around us, never apprehending it directly in itself. Wind can almost be considered a trope of Deleuzian intensity, of the processual actualization of virtual conditions; existing only where there is difference in pressure, its purely differential ground is comprised of the tendencies and potentials for change between low and high pressures. Characterized as the movement of things, air and other atmospheric gasses, between differing zones of pressure, it is in itself no-thing, without formal essence, existing only between states and the interactions of objects. It is only through its actualization in the movement of trees, its buffeting and whistling through the cracks in windows that we identify wind in extensity, in its becoming qualitatively apparent, perceptible and exterior to itself. It is the concept of intensity that gives an account of the becoming perceptible of the imperceptible, and where this process of actualisation is made evident within contemporary sound works we can discern an opening of sound and its audition onto the inaudible and virtual field of its conditions. This intensive process as an opening onto the conditions of the audible is evident in Francisco López's field recording entitled Wind (Patagonia), as Christoph Cox has pointed out:

The piece as a whole focuses on the very medium of sonic transport—air—and highlights the fact that sound is simply the result of pressure changes in that medium. Its subject matter—wind—is the most elemental of all phenomena and the most primeval sonic stuff. Wind is powerful, invisible and ever-changing. To focus on it is to transcend the limits of our ordinary ontology, composed as it is of relatively stable visible objects. 189

The transcendence Cox draws attention to here is one of an opening onto intensity, onto the immanent transcendence of those conditions that subsist within the apparent. It is the ontological implications of this orientation around the dynamics of sonorous actualization that is particularly interesting. The 'ordinary ontology' referred to here is that which belies a certain occularcentrism, or rather that which determines material existence according to the given thresholds of perception that pertain to the maintenance of a common sense; this 'ordinary ontology' characterizes that according to which Hill locates the ephemeral and invisible within the category of the immaterial. The unordinary or anomalous ontology to

¹⁸⁸ Steven Connor, 'Next to Nothing'.

¹⁸⁹ Cox, 'Sonic Unconscious', 25.

which an auditory attendance to intensive conditions directs us understands matter not only in terms of static identities but as being inseparable from a temporal deformation that inheres within it. In López's recording, sound is heard to be the product of an intensive state (wind) that actualizes virtual conditions or differences (in pressure)—a presentation of the processual determination of sound that would seem to violate López's professed Schaefferianism in foregrounding the impurity of sound and the means of its production. Despite the actualized status of the sounds of wind, evident in the ephemerality and continuous mutability of this material phenomenon is the immanence of virtual conditions remaining in themselves imperceptible, the unfolding differences that subject matter to continuous change. The actuality of sound appears as a fleeting moment amidst intensive vibrational states that are drawn from, and in their dissolution contribute too, virtual conditions of difference. The stability and consistency of recognizable form is considered apart from ontogenetic and intensive processes, the generative principles of both composition and deformation. In sonorous actualizations, however, we remain arguably closer to the process of intensive production by virtue of a clearly expressed inherent temporality, a proximity that is facilitated by the ambiguity of the audible which is itself aided by what is often referred to as the subordinate position of the auditory within the perceptual hierarchy of common sense.

The problematized hierarchy of the Idea—its immanent transcendence, its relation to both noise and individuation—leads to the positioning of sound and other instable, inconsistent and fluid phenomena, less at a threshold of materiality and immateriality than that between virtuality and actuality, at the site of intensive, processual determination wherein virtual conditions are rendered actual. The spectral and transient—which through an underestimation of material complexity might be considered immaterial—remain firmly positioned within reality insofar as these 'immaterial' temporalities and ontological inconsistencies are considered immanent with regard to material actuality, in other words, mutability is considered to be part and parcel of materiality.

This shift towards an anomalous ontology of matter yields an expanded field of matters retaining their materiality, their mutability and intensity. Through the immanent transcendence of the Idea within the concrete we are better equipped to consider such matters in terms of their potential for spatial productions within practices that challenge the hierarchy of the line and hylomorphic assertions; such a move allows for a detailed

consideration of sonorous spatial productions as well as the scope of their subjective impressions through their implication within processes of individuation.

Architecture's Void

The spatial concerns brought to the fore through a consideration of the architectonic implications of sound cannot be thought apart from their individual impacts or individuations, insofar as space is to be thought apart from its Bergsonian limitation to extensity—its confinement to the purely geometrical or that which is capable of division without change in kind—and considered according to its intensive confusion with the temporal. This orientation draws attention towards a field of invisible influences, to a vibrational continuum that impacts upon spatial perception, territorial delimitations and behaviour therein. Sound, until quite recently, has received little attention within architectural concerns, its residual ontological status also describing its relation to design, to the extent that one can more easily talk of architectural acoustics as found objects, as the industrialization of the field has lead largely to the desire for an erasure of acoustic space through the commodification of silence, as described most eloquently by Thompson. The primary concern of this thesis is with the affectivity of matters that remain invisible, that operate within, without and against the well defined limits of architectonic space considered purely in terms of its visual delimitations. In addressing these concerns it becomes necessary to consider the role of other matters, events and phenomena that are in excess of the line, events that set the geometrical in time. Analogical support is sought in approaches that have considered the ephemeral, invisible and imperceptible within the context of built environments, not only for their consideration of the impressions of temporal matters but also because such considerations add depth to the notion of a transcendent ungrounding of sound in the noise of material interactions; in appealing to considerations of a larger vibrational continuum an emphasis is placed upon the fundamental contingencies of sound events. The temporal matertialities to which I would like to direct attention populate what we might call architecture's void, they are those events which are most problematic to the grandeur of architectural ideology, built upon stability, atemporalities and the purity of form. A similar position is maintained by Jeremy Till, for whom: 'architectural space, in the purity of its formal and conceptual genesis, is

emptied of all considerations of time and is seen as a formal and aesthetic object. Time is frozen out or, rather, time is frozen [...] Freeze life, freeze time, control time. It is a control which attempts to banish those elements of time that present a challenge to the immutable authority of architecture'. Till here addresses what he finds to be the ideological kernel of architecture. Till's position is one which seeks to open architecture up to temporal deformation and contingency in the broadest sense, concerns that are echoed herein. While being primarily concerned with a more specific subject matter, the consideration of sound herein is also open to those matters and events which might constitute its conditions, and therefore does not exclude that which remains inaudible. Where the temporality of matter and form, its decay, deformation and weathering can be considered to constitute architecture's void, that which persists in excess of all desire for stability and atemporal infallibility, it is to architectonic practices turning to this void for their subject matter that I wish to now turn, to those which claim that:

The void, more than the solid, is the subject of architecture. The invisible more than the visible is the very matter of space. The history of architecture is possibly based on a misunderstanding, on a history of the solid [...] because the means for measuring the void were virtually non-existent until the 19th century, up until the moment when new measuring instruments made it possible to describe this void in physical, chemical, biological and electromagnetic terms.¹⁹¹

Here Philippe Rahm identifies architecture's void, that which largely escapes or is avoided by architectural practice: the realm of the invisible. There are, of course, a number of notable exceptions who are considered herein, but their approach remains the exception. The invisible void around which architecture orientates itself should not, as immediate interpretations might suggest, be taken as referring to an absence of matter, an absence of everything. Rather, as Rahm points out, the void more aptly describes the invisible matter of space; the void, for Rahm, is spatium rather than vacuum. Architecture's void teems with the activity and interactions of the invisible, of material elements and objectivities that reside outside of the visual, but also beyond the thresholds of the empirical and perceptible. As the groundless swarms with differences—against the 'external illusion of

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¹⁹⁰ Jeremy Till, 'Thick Time: Architecture and the Traces of Time', in Iain Borden and Jane Rendell (eds.) *InterSections: Architectural Histories and Critical Theories* (London and New York: Routledge, 2000), 285.

¹⁹¹ Philippe Rahm, *Distortions* (Orléans: Editions HYX, 2005), not paginated.

¹⁹² For example: Philippe Rahm, Peter Zumthor, David Leatherbarrow, Mohsen Mostafavi, Bernard Tschumi, Juhani Pallasmaa, Steen Eiler Rasmussen.

representation'—so to does the void with the infinite interactions of matter. ¹⁹³ In this excerpt Rahm goes someway to identifying some of the key assumptions of architecture that I am keen to examine herein. We here find Rahm referring to the solid in the most obvious of ways and in much the same way as it appeared—orientated around an immaterial void in which only the spirit resided—in the work of Jonathan Hill, as the name for the consistency and stability of matters according, primarily, to vision. It is this assumption of stability and consistency in the visibly solid that limits access to the complexity of matter, to material interactions and excessive affectivity. Concern for solidity would, towards such an understanding of an expanded field of architectonic matters, be better directed towards the broader notion of the physical, which caters for an inventory of materials considered in terms of spatial productivity by Hill, Rahm, Zumthor, Pallasmaa, Rasmussen, Fernández-Galiano and Tschumi, amongst others. It is this focus upon solidity that, according to Rahm, lead to the history of architecture being 'based upon a misunderstanding', a misunderstanding caused by over reliance upon the visual, and in particular upon the visibly stable and solid.

Rahm identifies a turn towards the void in the nineteenth century. ¹⁹⁴ In this period a mapping of the void was undertaken according to a plethora of new instruments capable of revealing the agency of the invisible to consciousness. By way of such instruments the void came to be mapped according to its physicality or materiality. No longer would the void be solely the realm of the immaterial, the realm of the spirits, guarded by the given limitations of empiricism and perception. This is not to say that there was no contest in the matter, that there was an instantaneous eradication of the mystical and spiritual from the void according to instrumental intervention. We find accounts to the contrary in the writings of Babbage and Tesla for whom the void remained a site of contestation between the mystical and physical. Nonetheless, ascribing immateriality according to the semblance of visible solidity leaves thought lingering before this turn into the void, abandoning matter, events and physical phenomena to the spirits that once occupied it.

We turn now the those practitioners for whom, along with Rahm, the void as spatium constitutes the subject matter of the architectonic. Where Rahm stands out as a

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¹⁹³ Deleuze, *Difference and Repetition*, 347.

¹⁹⁴ A claim, it can be argued, concomitant with the observations of Jonathan Crary. See Jonathan Crary *Suspensions of Perception: Attention, Spectacle, and Modern Culture* (Cambridge and London: The MIT Press, 2001).

perhaps extreme example in his orientation towards the invisible, there are many others who have directed attention towards the invisible, ephemeral and broadly sensorial within their wider architectonic concerns. Such practices, in engaging the physicality and affectivity of the invisible in their spatial productions, contribute to a mapping of the void, rather than its abandon to immateriality.

The Figure of Decay

Auditory spatial production can be considered to be marked by the figure of decay as much as resonance, the latter being considered in terms of capture as much as connection. The body which resonates lies in waiting, a trap or resonant capacity, a patient subject awaiting an activating movement in the air. The resonant entails an irradiation impressing itself back upon the medium of its excitation, extending its influence and territorial determination beyond the limits of its visible body. Resonance is a means of capture insofar as to irradiate is also occupy, to extend, a move outwards simultaneous with internal agitation and vacillation. It is according to the simultaneity of internal and external excitements that resonance is considered relational, a proportional movement of bodies contributing to the perturbation of a medium of common excitation. The figure of decay is borne strongly insofar as those matters of expression which determine auditory spatial production fulfill their trajectory from radiant in/(de)formality towards the undifferenciated void quicker than most. The vector of decay nonetheless marks a productive process, a deformation implicated in further compositions; here we adopt only the most general and basic sense of Reza Negarestani's use of decay in stating that 'differential or germinal derivatives [...] constitute the positive building vector of decay which extends outwardly'. 195 These germinal derivatives mark a residual productivity, those elements and events in flight from one body and absorbed into another, passing towards imperceptibility yet nonetheless the agents of a subtle or subliminal influence. The arc of decay nonetheless maintains architectonic positivity in its expressions, insofar as 'decay is a building process' engendering 'new states of extensity', entering into further compositions. 196 Where this

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¹⁹⁵ Reza Negarestani 'Undercover Softness: An Introduction to the Architecture and Politics of Decay, in *Collapse*, 4 (January 2010), 387.

¹⁹⁶ Ibid., 386.

trajectory marks a transition from the well defined and consistent to its particular (de)composition it is according to an ever increasing resolution that sonority bears site specific relation to the place of decay.

Abandonment can be thought of as an inaugural event of ruination; ruin is the building embedded within and left to time, marking a disintegration of architecture, a descent into ground and into dust. Such trajectories are often set in motion through the absence or retraction of superstructural support that would locate value in the output and existence of these infrastructural sites. Yet, as Tim Edensor has shown, there is vastly more to these sites than the ghosts of economic failure and abandonment. In ruins and material decay we find openings onto a material ontology that is critical of illusory permanence and an idealized notion of progression manifest—at the outset at least—in crystalline form. In ruin presents matter in motion, a motion only possible in the absence of maintenance and material replenishment. Within the ruin energy flows, not into maintaining facades and internal atmospheric homogeneity, but into the air and ground, a particular motion, a movement through dust. This movement charts the weathering of form, the expression of impurities and contingencies through dirt, decay and susceptibilities laid bare, that which Mostafavia and Leatherbarrow refer to as the life of buildings in time:

Is not this return of matter to its source, as a coherent body, already implied in its constitution, insofar as every physical thing carries within its deepest layers a tendency towards its own destruction [...] The value, then, of works that suffer stains and abrasions is the revelation of the eventuality of this final justice. This is the actual assimilation of an art work *back* into its location, the place *from which* it was first taken. In the time after construction, buildings take on the qualities of the place wherein they are sited, their colors and surface textures being modified and in turn modifying those of the surrounding landscape. ¹⁹⁹

Temporal deformation renders the site specificity of that which is built, inserted, and installed, the reciprocal determination of environment and form, of the background and that which is drawn to the fore. Matter becomes subject to temperature, humidity, vibration: the

¹⁹⁷ Tim Edensor, Industrial Ruins: Space, Aesthetics and Materiality (Oxford and New York: Berg, 2005).

¹⁹⁸ A critique of ideologies of progression is provided by Edensor in largely socio-economic terms. I would like to add to this by reinforcing a further critique of progression as expansion and a trajectory into an idealized future by coupling this discussion to material temporalities, those of—amongst others—sandstone, granite, wind and liquids.

¹⁹⁹ Mohsen Mostafavi and David Leatherbarrow, On Weathering: The Life of Buildings in Time (Cambridge and London: The MIT Press, 2005), 69-72

agents of time, the saboteurs of solidity, permanence and the eternal. To these forces of deformation we add that bandwidth of vibrations we hear as sound; background noise, artefacts of space-in-use and actions in space. As marks, stains, the various effects of weathering, make of space a specific place, traces that display established environmental relations, so to do sounds, expressing the use of a site and the interacting bodies which define and constitute it. As expressions of actions in space, sounds contribute shape, definition, and character to space, yet there is an essential reciprocity to be acknowledged, the specific shaping of these sounds and ephemeral forces by that which is always already built around them. The site of the ruin lays such processual relations bare, the reabsorption of the building into the world and the effects of the building upon that world.

The abandoned site, left to ruin, is a space left open for reappropriation and occupation. In the occupation, reuse and abuse of space we witness spatial practices more often in accordance with the particular spatio-temporal trajectories of the ruin. In the absence of the means or interest in economic investment, rather than setting space out against time through maintaining the appearance of permanence, transient occupations and visitations of the abandoned and disused embody a certain ephemerality concomitant with the spatio-temporal trajectories of decay; the abuse of abandoned sites only quickens their already initiated dissolution, and their occupation is in most instances fleeting, as those who occupy may always be en route, momentarily taking shelter. Yet where such occupation is a technique of political resistance there may also be resistance to the decay of the occupied site through temporary, ad hoc improvements, minimal repair and maintenance that amounts to a more explicit 'pause' along matter's diverse and inevitable durations. It is such temporary occupations, being in accordance with or coupled to material durations, temporalities enforced by speeds of decay, weathering and collapse, that are of primary interest here. Such occupations can also be said to characterize the manner in which the actions constituting the Tuned City festival—which positioned itself 'between sound and space speculation'—inhabited a number of derelict and crumbling sites around Berlin in the summer of 2008, spaces that were visibly slipping into a continuum of undifferenciated matter.200

²⁰⁰ Each day of the festival was held in a different location around Berlin in which talks and many site specific activities, performances and installations would take place. Each site, perhaps with the exception of Alexander Platz and the Technical University, bore complex signs of neglect and ongoing decay. See http://www.tunedcity.de/

Rather than an explicit aestheticisation of dereliction or overt economic criticism, it is the foregrounding of material temporalities that establishes the strongest links between the site specific locations of Tuned City and its subject matter. Beyond its clear interest in sites of acoustic interest, the often decaying structures which housed events revealed matter as subject to time, transient and ephemeral, implicated within durations of varying congruence with human bandwidths of perception. These sites in which formal intent is seen, smelt and heard to be slipping into imperceptibility draw out and reveal a complex and often invisible material ontology that accounts for the invisible materiality of sound. Such an ontology conceives of matter, and by extension that which constitutes the built environment, as matter in motion, in flux and subject to spatio-temporal variation. Such sites engender a proximal sensitivity to invisible materialities, in particular that of sound, its transient and radiating forms appearing as contractions and dissipations of the air before being absorbed into an imperceptible ground.

In focusing on the relations of sound and space the latter is explicitly—and reciprocally—positioned in time. To direct attention to such relations amidst ruin and decay directs thought to temporally subject matters. These actions encourage an understanding of all that is perceived to be concrete as being in flux, malleable, and mutable, an understanding of matter that in its breadth opens thought onto more distinctly ephemeral matters including, of course, that of sound. This expanded notion of matter in the built environment is evident in the work of sound artist and architect Raviv Ganchrow, but more interesting is the impact such an expanded notion of materiality has upon both the conception and perception of matter; this is not just an expanding inventory of materials to be applied in design but an increasingly complex ontology of matter, a process put into action when matter is thought and perceived in time:

Generally, architecture is envisioned as the final product in a design process. What happens, if you expand the time span of that process and start to consider the factors that interact with the formal result? At that point, the definition of "finished" and "unfinished" is reversed: you end up with an incomplete—or infinite—form that is completed with every progressing moment anew. You no longer understand the building to be a solitary thing "out there" but rather as a relational system that extends beyond the visible. ²⁰¹

²⁰¹ Raviv Ganchrow, 'Sound Material: an Interview with Raviv Ganchrow', in *Tuned City: Between Sound and Space Speculation—Reader* (Idstein and Berlin: Kook Books, 2008), 155.

It is this notion of an infinite form that understands the architectonic according to a particular ontology and the positive figure of decay, insofar as this is conceived as an ongoing extension and deformation that is necessarily temporal. The architectonic as a relational system extending into the invisible, into the void, maintains an opening onto the matters of present and particular interest, onto the materiality of sound and affective spatial productions. It is the immanent spatial productivity of the sonorous that Ganchrow directs attention to, its operation according to a productive displacement and its ontological status as a matter of spatio-temporal expression:

To materialise sound is to make corporeal artefacts from durational flux. Constituting any materiality from within vibrational transience will simultaneously construct a corresponding space within which certain aspects of sound are seen to operate. In other words, every materialisation of sound is already spatialised within the limits of its own comprehension. ²⁰²

Betrayed in this excerpt is the spectre of architectural ideology, as identified by Till and evident in Hill, according to which sound is primarily considered immaterial due to ontologically constitutive thresholds of perception, becoming material through the work of the architect or artist. Inherent in the necessity of materialization is the ideological position according to which the invisible and ephemeral lacks materiality and that the temporal exists as some kind of pure and autonomous flux awaiting material embodiment as opposed to being active within matter itself. It is perhaps surprising to find the persistence of this position within the discourse of artists working with the physicality and often hapticity of sound, such as Ganchrow and Mark Bain, yet it is certainly more than coincidence that both should have a background in architectural practice, and therefore maintain something of its ideological legacy in their own discourse, despite any contradiction this might pose with regard to their own practice and sonorous productions.

While the residue of this position persists, Ganchrow's considerations of space and its sonorous unfolding are of particular interest and should not be overshadowed by these ideological criticisms. In seeking to rectify this issue we might reposition this notion of materialization, the drawing out or contraction of 'durational flux', in terms of a process of actualization: the process by which something becomes recognizable as such, a transition between two states—between the virtual and actual—that are nonetheless real. Ganchrow's

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²⁰² Raviv Ganchrow, 'Hear and There: Notes on the Materiality of Sound', in *Immersed: Sound and Architecture*, OASE Journal for Architecture, vol. 78, 72.

materialization repositioned as actualization marks a necessary ontological shift whereby the physicality of the invisible attains equal ontological status with visually confirmed objectivities. Through actualization an object is perceived as such, in subsuming what Ganchrow refers to as materialization within actualization it is important to point out that this process does not infer the making-matter of the immaterial, but rather the process by which something comes to be a perceivable and empirically knowable materiality. That which was spectral and evanescent becomes the object of refocused attention; beneath a once mysterious guise lies the matter that always was. This actualization draws from a field, an imperceptible groundlessness, that is nonetheless real; its material identity, however, is only established by virtue of accommodating shifts in ontology and culturally determined perception. Yet here we rehearse an old argument, the actualization of transient material states and vibrational phenomena having received significant attention in the mid and late nineteenth century, most notably perhaps—with specific reference to our auditory concerns—in the work of Hermann von Helmholtz. Helmholtz's 'vibration microscope', in a manner consistent with cymatic revelations, traced the otherwise invisible and radiating forms of matter set in periodic motion. More important than the visualizations produced via such means is the impact of such actualizations on the broader perception of the material world; while the transcription of vibrations refines and consolidates their formal identity with diagrammatic precision, this foregrounding of that which is in flux, the drawing out or rendering of the invisible, can be seen to contribute to both a confusion and complication of objective reality. In contrast to the discrete precision with which vibrational phenomena are transcribed, this uncovering of a vibrational substrata contributes to the corroding semblance of material solidity in aesthetics and perception through creating awareness of imperceptible oscillations, movements and inconsistencies. This trajectory towards a transient material ontology can be seen in aesthetic developments roughly contemporaneous with the work of Helmholtz, wherein the visual depiction of the world would become, in Jonathan Crary's words, 'more evanescent, its substantiality irrevocably discredited'. 203 Again, this excerpt must necessarily be subject herein to the ideological critique outlined above, according to which this substantial refutal would be repositioned in terms of a confusion according to an uncovering of substantial complexity, wherein it is more stability and consistency that is discredited than substance per se. For Crary, this

²⁰³ Crary, Suspensions of Perception, 84.

degree of confusion is evident in Manet's aesthetic developments, wherein objects became ill defined, their edges blurred and bleeding from one to the next. These distorted objectivities represent a material world in motion or at least of questionable solidity and stability. Such aesthetic developments accompany a wider cultural shift where material ontology is taken 'outside of a stable circuit of visuality to an arrangement in which neither eye nor objects in the world can be understood in terms of fixed positions and identities'. 204 Both object and observation become events in time, positions assumed in relation to blurred distinctions and a material world in flux. In this confusion of boundaries the temporally determined attains increasingly significant ontological status and spatial influence as object and event. That which appeared solid is set into time at the expense of its being discrete. Attesting to the materiality of the transient amounts to continuing expansion in cultural thresholds of perception; in expanding understandings of material our perception of material changes. This does not amount to a shift in the physicality of things per se but rather the uncovering of such physicality that constitutes an epistemological shift and by extension a shift in the cultural conditions and practices of perception. In attending to the complication of perception and the status of materiality we begin to uncover what Deleuze refers to as a:

new object we call *objectile* [...] it refers neither to the beginnings of the industrial era nor to the idea of the standard that still upheld a semblance of essence and imposed a law of constancy [...] but to our current state of things, where fluctuation of the norm replaces the permanence of a law; where the object assumes a place in a continuum by variation [...] The new status of the object no longer refers its condition to a spatial mold—in other words, to a relation of form-matter—but to a temporal modulation that implies as much the beginnings of a continuous variation of matter as a continuous development of form.²⁰⁵

Doubt, ambiguity, speculation and probability take the place or certitude; the object perceived constitutes only the semblance of reality taken as stable and consistent. The 'current state of things' names the uncovered complexity and ambiguity of objects considered stable in appearance only, a 'snapshot' drawn from a more complex matter in motion, that which is asserted according to the given thresholds of perception and common sense. The object conceived according to temporal modulation is defined in terms of

²⁰⁴ Crary, Suspensions of Perception, 87.

²⁰⁵ Deleuze, *The Fold*, 20.

frequency and a mutability of form, as Deleuze states in the above excerpt, 'the continuous variation of matter as a continuous development of form'. The objectile sets the object in motion, referring to its implicit variation rather than its apparent stability. The object as objectile is the object as event, a vibrational and temporal objectivity. This particular status of the object, confused with the event, describes without provocation that of the sound object, the object considered not as static form but as morphological waveform. Where the sound object as an embodiment of objectility fails is where morphology is reduced to purely sonic taxonomical quality and essences are enforced instead of particular affects and conditions. Deleuze's objectile is not, of course, directly intended to refer to sound despite the ease with which it does so after Schaeffer. The object as objectile has the particular impact of conceiving of materiality primarily in terms of spatio-temporality, easing a conception of the ephemeral, invisible and imperceptible in terms of the material, should resistance be met. Where the object is taken to mark a critical distance, the objectile problematizes such distinctions and discretions through never being exactly there, definitively localized, but always going elsewhere and becoming other. Distinct identity relies upon this minimal distance, a spatialization marking alteritous discretion. Yet it is precisely this distinction, this being discrete, that objectile sonority problematizes. While we conceive of a sound's origins as residing 'over there' in the vibrations and agitations of another object, sound permeates individual boundaries and is often felt to exist 'in here' as much as 'out there'. The unfolding of a sonorous material ontology constitutes a set of decidedly blurry objectivities and negotiable boundaries. Spatial productions in sound appear as relational, the appearance of one object both in and against another, trajectories through objects whose boundaries shift with the contractions and dissipations of a space defined and produced through vibrational events.

Ganchrow's considerations orientate spatial productions beyond the visible, encouraging an opening of perception onto audible determinations. While this constitutes a valuable contribution to a notion of auditory spatial productions, articulating the extent to which such productions can be said to remain open to the conditions of sound requires that our attention be allowed to extend further, up to the limits of perception and its imperceptible conditions. In giving attention to such conditions one considers the void, the void taken as saturated spatium, that which is populated with everything that is not the thing under consideration yet nonetheless remains a constituent, 'supportive' or unrelated element. It is in attending to the void that a *particular* materialism has come into favour,

opposed or at least anterior to the counting of assemblages or collective identities as one. It is in focusing upon particular abstractions, the point of confusion at which indexical quality breaks down and unitary appearance subsides according to the surfacing of a finer resolution, that particularity leads through imperceptibility to the void. The ambiguity and confusion of temporal matters brings us to a particularity that is not necessarily 'pointillistic' insofar as it lacks certain specificity in becoming indiscernible, in its trajectory or oscillations around thresholds of perception. Insofar as a point is localizable according to coordinates, the particular is considered here more in terms of frequency than position; across the threshold that defines the semblance of solidity as such, the stability of a thing is found in motion, as the collective oscillations of finer individuals. The sound object, molecule or element, insofar as it is necessarily in motion and in-between—being a question of where it *goes* and what it *does* more than where it is—is primarily a problematic complex of 'relations of speed and slowness between particles'.²⁰⁶

An increase in resolution reveals a (de)composition or deformation, both the agency and durations of particular matters in motion, frequencies, movements and oscillations that constitute a morphogenesis levied by a 'becoming imperceptible'—such is the 'life' of buildings according to Leatherbarrow and Mostafavi, and an ontology determined, as in both Christoph Cox and Jonathan Crary's work, 'outside of the stable circuit of visuality'. 207 It is the challenge put to ontologies of the stable, consistent and unitary that is of particular interest, a challenge brought to discrete ontologies by a particular materialism. It is precisely the question of the extent to which the particular can be considered to take given perception to its limit that drives the current interest in a dynamic or 'vibrant' materialism. The frequency or temporality of the particular, of the unitary set in time and motion, exposed as processual multiplicity covered or cloaked by the semblance of stability, draws perception away from what is given to the means by which it is given. This can be said in two senses insofar as what is given is the appearance of bodies set apart from their subterranean and constitutive murmur, but also the given limits of perception and sensibility, perception as the function of a common sense subsumed by the requirements of recollection and representation. It is in the excitation of the limits of perception that sensory specificity is foregrounded, the particular and efficacious intensity of the senses, yet primarily of a sense in particular. In the particularity or 'becoming particular' of matter, the

²⁰⁶ Deleuze and Guattari, A Thousand Plateaus, 300.

²⁰⁷ Crary, Suspensions of Perception, 87.

deformation and (de)composition of bodies in motion makes possible an excitation of limits, the body apart and in particular, considered not as unified concrescence but according to the movements and frequencies of a constitutive multiplicity, its particular elements made available not to a common sense but to senses in particular. The objects of perception taken according to given conditions subjects the object to the normalizing force of a common sense understood as both the expression of an unquestioned ideology and according to a mean function of the senses that cancels particular intensity. Challenging the cultural conditions of perception that constitute a common sensical determination of sensible possibility outlines a field of experimentation, an understanding of perception as mutable and contingent. It is through a particular understanding of matter that this challenge is put to perception at its limits, problematizing the ontological assertions carried out according to its given thresholds. Away from the solidity and stability of matter, emphasis is placed upon its movements, movements that elude or exist in excess of the appearance of that which moves: 'perception can grasp movement only as the displacement of a moving body or the development of a form. Movements, becomings, in other words, pure relations of speed and slowness, pure affects, are below and above the threshold of perception'. 208 Deleuzian purity locates movement elsewhere, at a certain or particular distance from the identity of the moving or displaced object; it is this distance that locates more than what is perceived in the object, an objectivity or objective agency beyond the given thresholds of perception. The distance of movement itself from the identity of that which moves does not, for Deleuze and Guattari, posit an absolute transcendence, according to which movement cannot be known nor perceived: 'we are obliged to make an immediate correction: movement also "must" be perceived. It cannot but be perceived, the imperceptible is also the *percipiendum* [...] If movement is imperceptible by nature, it is so always in relation to a given threshold of perception'. ²⁰⁹ It is precisely from the perspective of the given, according to the thresholds of perception determined by common sense, that the imperceptible is considered as such. The imperceptible remains that which escapes, exceeds or is otherwise left out of representation, beyond that which we choose to identify as the characteristics of a thing. The perception of the imperceptible is the particular problem of a 'superior empiricism', an empiricism active beyond the given thresholds of perception, those thresholds asserted according to common sense and concerned with the

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²⁰⁸ Deleuze and Guattari, A Thousand Plateaus, 309.

²⁰⁹Ibid., 310. Emphasis added.

identification of the known and knowable. A 'superior' or 'transcendental' empiricism bears engagement with that by which the given is given as such, with the *particular* conditions and conditioning potentials of perception. It is through the directing of attention towards particular matters that perception encounters the otherwise imperceptible, that it is redirected from macro or molar appearances to 'molecules to particles, and so on to the imperceptible [...] Into the void'.²¹⁰

A particular sensibility uncovers a subterranean noise, that which lies beneath appearances and beyond the given thresholds of perception, populating the void. Perception put to work beyond given thresholds uncovers a certain objective sonority, yet one which is not limited to its appearance, nor determined as such according to a universal perception; here we refer to the ontological excess of a sound object becoming 'progressively more molecular in a kind of cosmic lapping through which the inaudible makes itself heard and the imperceptible appears as such: no longer the songbird, but the sound molecule'. ²¹¹ This 'sound molecule' considered, in a 'pure' sense, not as the sound of something but as sound in-itself, nonetheless bears something of a resemblance to the Schaefferian sound object: sound considered in-itself, apart from causality, representation or its indexical function. In both considerations of sound we encounter a defamiliarized sonority considered not as the sound of a thing but sound as thing, sound in-itself. In both there is a praxical notion of an abstract appearance of the real, of an 'abstract concrete', the exposure or uncovering of a concrete reality of the sonorous through its original abstraction. 212 It is according to such abstraction that the referential or representational value of the sound is jettisoned—or at least taken as of secondary importance—in foregrounding its particular affectivity. The similarity between notions of sound objects and molecules is clear in the sense that both attempt at defining an elementary sonority that remains 'abstract in this sense even though they are perfectly real'. 213 Here we encounter a reality that remains apart from or in excess of its appearances, a notion that there is a degree to which reality is withheld from its representation and perception. The nature of this particular reality is one of becoming before being, being considered as primarily protean and mutable rather than according to formal essences and stability: 'what is real is the becoming itself, the block of becoming,

²¹⁰ Deleuze and Guattari, A Thousand Plateaus, 257.

²¹¹ Ibid., 274.

²¹² See Christoph Cox, 'Abstract Concrete: Francisco López and the ontology of sound', *Cabinet*, Issue 2, 2001 43

²¹³ Deleuze and Guattari, *A Thousand Plateaus*, 280.

not the supposedly fixed terms through which that which becomes passes'. 214 Reality is, for Deleuze and Guattari, considered as such according to the movements and interactions of its constituent elements, not according to a count or appearance constituting identified bodies, nor the terms of their representation and juxtaposition. It is in light of such an understanding of the nature of reality that a particular difference between the objective and molecular status of sound comes to the fore in the claim that elementary sound molecules 'are not atoms, in other words, finite elements still endowed with form. Nor are they indefinitely divisible. They are infinitely small, ultimate parts of an actual infinity, laid out on the same plane'. 215 That the elementary particle, according to Deleuze and Guattari, is infinitely small yet not indefinitely divisible is a consequence of the ontological position according to which everything is a multiplicity, and that a multiplicity is not 'in-itself' divisible without becoming another, or a number of other multiplicities: a multiplicity 'is not divisible, it cannot lose or gain a dimension without changing its nature'. 216 A further and perhaps finer difference to be asserted here is that, in contrast to Schaeffer's object, Deleuze and Guattari's sound molecule does not describe a phenomenological essence; more than specific sonorous qualities it is the particular affectivity of the sonorous that is of concern, the impact of sound, the movements and interactions it engenders:

We are not at all arguing for an aesthetics of qualities, as if the pure quality (color, sound, etc.) held the secret of a becoming without measure [...] Pure qualities seem to us to be punctual systems [...] A *functionalist* conception on the other hand, only considers the function a quality fulfills in a specific assemblage, or in passing from one assemblage to another.²¹⁷

This functionalist conception can perhaps be described, if not according to an aesthetics of qualities, nor the strictly inaesthetic, then as an *infraesthetics*, concerning itself with affects before qualities, with the conditions and potentials of aesthetic experience and perception.²¹⁸ Rather than the specific qualities or identity of an essential in-itself, it is that which is in-itself nothing, relative to given thresholds of perception, that populates the void

²¹⁴ Deleuze and Guattari, A Thousand Plateaus, 262.

²¹⁵ Ibid., 280.

²¹⁶ Ibid., 275. Emphasis in original.

²¹⁷ Ibid., 337. Emphasis added.

²¹⁸ 'By "inaesthetics" I understand a relation of philosophy to art that, maintaining that art itself is a producer of truths, makes no claim to turn art into an object for philosophy. Against aesthetic speculation, inaesthetics describes the strictly intraphilosophical effects produced by the independent existence of some works of art'. Alain Badiou, *Handbook of Inaesthetics*, trans. Alberto Toscano (California: Stanford University Press, 2005), 1.

and constitutes the imperceptible; sound in-itself is imperceptible from the perspective of a mnemonic or representational audition—according to which it is always the sound the sound of the wind, or a sound like a fox—and is in-itself nothing from the point of view of purely sonic qualities. What remains is a particular affectivity of sound encountered at the limits of perception, a limit which defines a 'pure' rather than mnemonic or representational perception. Perceiving the imperceptible, hearing the inaudible, entails a non-representational or counter-mnemonic audition, the self caught out through hearing without recognition. That which is excluded from perception in recollection, is assigning phenomena to identity, remains imperceptible from the point of view of a conscious recollection and recognition; it is that which is discarded in the maintenance of discrete identities, avoiding an over-saturation that draws attention to the impersonal, which is perceived in particular. The perception of the imperceptible entails a saturation of perception bringing to the fore that which is excluded in guaranteeing the efficacy of representation and recognition, the appearance of a reality that includes too much, that challenges discretion and distorts the phantasmatic frame. The perception of the imperceptible involves a rendering sensible of the transparent, the becoming apparent of the conditions and conditioning of the perceived. In this sense Deleuze and Guattari's functionalist perspective appears to lack a certain resolution; while this praxical, influential or interactional perspective accounts for a primacy of infraesthetic affectivity, there is a sense in which functionalism remains a descriptor of that which is given, and that, therefore, Philippe Rahm's 'infrafunctionalism' serves as a more appropriate term for this very particular orientation. It is to the consideration of Rahm's spatial practice, as an example of an affective architectonics in-between, that I will shortly turn. In preparing the ground for such considerations, as a means of gaining further insight into both invisible and imperceptible spatial productions that add depth to the affectivity of sound-space while constituting constituent conditions, attention must be given to architectonic discourse that concerns itself with such particular matters.

Intensive Architectures

By positing thermodynamics at the origins of architectural production Fernández-Galiano depicts its constructs as morphological, subject to a historical continuum and infested with

the energies they both house and draw upon in the maintenance and production of form. Buildings and spatial constructions in general are understood as always in the process of becoming, as opposed to existing as static, fixed forms. They undergo constant development, maintenance or decay, bound and subject to environmental determinations in the broadest possible sense. For Fernández-Galiano the idea of architecture is built around a 'fire that builds the dwelling' around the dynamic unfolding of energetic space, architecture regulates, supports and conducts the flow of this energy while remaining subject to it.²¹⁹ The contiguity of fire or, more precisely, thermodynamics and architecture that Fernández-Galiano describes at length energizes the image of spatial organization, locating its (un)ground(ing) in disequilibrium and difference. It describes the production of architectural space as constantly in flux, bringing the practice in line with more broadly environmental and ecological concerns, according to the contingencies this position necessitates. In this way the organization and production of space is tied up with energetic phenomenon that are the result of movements, friction, collisions and so on—spatial productions according to interactions, connections and openings. Architectural practice is seen to emerge between combustion and construction, at the site of a question regarding material as either an energy source or a potential framework for the support and regulation of energy. It is the interaction between these two interpretations of matter, the fact that the question is never fully answered that leaves architecture open to a productive disorder, to a deformative noise that is the result of material interactions; architecture 'needs a flow of entropy in order to subsist'. 220

Of particular importance is the point at which Fernández-Galiano renders the link between fire, thermodynamics and architecture sonorous; in the dynamic thermic space of the open fire, in the crackles and pops that accompany its energetic productions and exploitations, Fernández-Galiano hears the echo of an originary combustion, the presence of an 'archaic voice' and the 'fragments of an obscure and remote discourse'. Where Fernández-Galiano hears a voice emanating from the flames, we should perhaps take this to be an interpolation of noise that evokes the archetypal origins of home and hearth. The roar of the open fire is in this gesture equated with noise, with an intensive and productive difference constituting the ontogenetic potentials of Fernández-Galiano's historical

²¹⁹ Fernández-Galiano, Fire and Memory, 17.

²²⁰ Ibid., 97.

²²¹ Ibid., 250.

continuum. Orientated around this site of an originary energetic exploitation and material displacement, spatial production is positioned within and against a state of disequilibrium, appearing through the introduction and maintenance of an identifiable tension that is situated amid and against the noise of matter in action. Noise, for Fernández-Galiano, can be seen to constitute a generative potential, expressing a site of environmental interactions that sits between solar organization and the crackle of a more localized combustion. The noise of spatial production, a space emerging *in-between* imperceptible conditions and apparent form, engenders an intensive site. This coupling of terms requires some explanation; site is a notion that, concomitant with that of site-specific practice, eludes to processual determination and a state of incompletion. It is a space that is to be built upon, that is occupied, that houses productive development and activity, it is a space that is in continual development or transformation. Site, as opposed to place or location suggests that its identity is not yet fixed, that it is either undergoing development or is being redeveloped. A building site, for example, ceases to exist once the building is completed, it then becomes a place, a location, a home or monument; it is only within the process of its determination or under the appearance of a particular temporality that the occupied space is considered a site. This particular mode of spatiality suits an elaboration of the impact of audible spatial characteristics as it suggests a degree of productive instability concomitant with the ephemerality of audible space. Rather than a construction of place, the interactive conditions of the audible constitute a mode of spatial production according to displacement, less a delimitation of figures than an equally productive deformation, decay or (de)composition—form in continuous variation, 'a continuous variation of matter as a continuous development of form'. 222 The stability and necessity of identity in the production and maintenance of place is replaced by the more spurious or ambiguous unfolding of a site by displacement. Any such doubts are, in a sense, the product of a specific ideological grounding of perception, a grounding which grants primacy and a sense of stability or certitude to ocular appearance, a grounding which is ungrounded where noise takes on a particular ontological significance. Where our ontological assertions are made according to a protean being or 'reality of becoming' as opposed to that of the stable, given and apparently consistent, doubt and willful skepticism is to be directed towards

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²²² Deleuze, *The Fold*, 20. The productivity of sonorous displacements is also considered by Brandon LaBelle in his book *Acoustic Territories*, 6.

appearance in general rather than simply the invisible.²²³ Where ontological spatiality is considered in terms of site as opposed to place, it is becoming, deformation and the efficacy of the imperceptible rather than the consistency of the apparent that takes precedence. In this sense both perception and the perceived are taken according to an ephemerality and transience, no modality of perception being granted privileged access to the truth of things in themselves; the seen, heard and smelt all attesting to the ambiguities of objectility.

What we might refer to as the site of sound refers to a process of spatial production or unfolding according to a continuous spatio-temporal deformation. The particularity of the site locating spatial concerns in flux as opposed to definition according to given and consistent identities. Despite the position I am attempting to set out with regards to a particularity of site, one continually redefined according to complex deformations, this centralized notion of a displacement at the heart of sound's function within the definition of space can be found 'undone' within the notion of site specificity. The latter, insofar as it is concerned with the specific identity of a locale, has more in common with emplacement than a particularity which functions according to continuous displacement. It is in this way that the specific embodies a potential for fixity that the particular does not. Yet, before a position is borne too strongly, we may consider such assertions as identifying two sides of a site—sides analogous to an oscillatory (de)territorialization: the potentials its particular instabilities offer up to wider deformations and the determination of relational yet distinct identities that its specifics afford. The site in particular can be taken as referring to what we might call its internal or intensive differences, both its material conditions and it potentials for change, whereas the site specific is taken as being concerned with the potentials for 'external' or extensive relations, or relations according to the definition of identities. Particular concerns lie with the productive conditions of or internal to a domain whereas the specific details relations with the domain as given; within the notion of the site lies the potential for both.

Regarding the site of sound, we must acknowledge both the potential for displacement and emplacement afforded by the notions of the particular and the specific. While sound can be understood as occurring through displacement, such occurrence constitutes the potentials of emplacement, a potential that is made evident in the Schaferian notion of the soundmark. As is the case with the more familiar notion of a landmark, the

²²³ See Deleuze and Guattari, A Thousand Plateaus, 302.

soundmark contributes to the identity of a location, to the production of a certain specificity of place. Its monumental function acting according to a certain socio-cultural and historical punctuation, lending definition and distinction. The spatio-temporal punctuation performed by the soundmark contributes to the consistency and identity of social space and locale; recurrence and repetition contribute to the status of the soundmark while contributing to the stability of a localized identity. This stability is attained and maintained according to a certain *frequency*, according to the repetitions of that which is particular to the soundmark and, through this repetition, constitute it as such. The frequency which accords the status of the soundmark is a frequency or repetition which facilitates contribution to the appearance of permanence, to a state of place rather than the state as site. The duration constituting the soundmark as such marks a socio-economic, industrial and broadly cultural state, its permanence being reliant upon the stability of a given state of things and their recurrent interactions.

The figure of decay determines the appearance of permanence, solidity determined as such according to frequency, durations and thresholds of perception. It is at the constitutive frequency of the soundmark or according to its durations and repetitions that the audible can be heard to participate in the production of place most clearly; the site of sound operates according to repetitions remaining obscure or barely perceptible, its being always in passing without promise of return. The frequencies, durations and repetitions appropriate to the soundmark render the site of sound specific, marking the consistency of a state of being and the stability of the given; the primary concerns of this argument, however, lie with operations and interactions at more obscure frequencies, their repetitions bearing proximity to the imperceptible. The frequency of such repetitions are proximate with the imperceptible in two senses, firstly, their frequency does not allow for its perception as the repetition of a thing but as the repetitions in a thing which as such are typically imperceptible, being in a sense covered over by the appearance of a thing as such. The repetition of a thing, its recurrent appearance, whether it be the six o'clock train, the flight of a blackbird across a garden while feeding its young or the postman, marks a 'slowness' or molar repetition, a frequency that allows for the auditory identification of the six o'clock train, the blackbird or the postman as such, this 'slowness' allows for both the sense in which it is the same thing returning and the consistent appearance of that thing as such. Repetitions in a thing, the repetitions and frequencies constitutive of that thing, lie hidden insofar as what we take to be perceptible is only the thing as it is given, appearing as a matter of expression. Such frequencies and repetitions constitute the 'internal' operations of a thing, frequencies to be associated with its necessary conditions more than its appearance. Insofar as we remain focused upon the frequency of a thing we are only able to know the recurrence of its appearance, the repetition of its given form. It is where we become concerned with the repetitions in a thing that we approach its imperceptible conditions, the movements of its organs or constituent particles, its progressive deformation. Perhaps the clearest example of these two orders of deterministic frequencies is found in the ringing of a bell, being characterized according to external or metric frequencies of recurrence as well as the 'internal' or intensive frequencies marking its particular sonority. The bell is marked by two orders of frequency or repetition, that which determines its sounding every fifteen, thirty or sixty minutes, and those that determine its audible qualities and spectral quantities. It is 'internal' frequencies and oscillations that constitute a higher and often imperceptible bandwidth, what we might call constitutive as opposed to apparent frequency. Here we can make a further sonorous example: once a frequency passes below around fifteen hertz, we being to hear and feel a sound more as a series of discrete impulses than a continuous waveform, at twenty hertz and above we have little difficulty perceiving a waveform as such and repetitions remain 'internal' to the thing being perceived; what we hear, what we identify through listening is a tone, a frequency, an audible quality and not necessarily the constant repetitions that constitute the conditions of an individuated frequency. In this sense, just as 'a degree of heat is a perfectly individuated warmth distinct from the substance or the subject that receives it', a frequency is yet another perfectly individuated vibration rendered distinct if not autonomous from its substantial reception and support.²²⁴ The second sense in which frequencies may be considered proximate to the imperceptible is with regard to the periodicity of appearance, what we might call a random recurrence or noise. If we are to conceive of dirt as matter out of place, we may in a similar fashion conceive of noise as sound out of anticipated space and time, in excess of metric recurrence. This is not solely to be thought in terms of an excess of conscious anticipation but one of capacity, a capacity for the perception of periodicity beyond which lies confusion and noise. Confusion marks the tardy appearance of the thing out of place, but also the thing which exceeds our capacity for perceiving it as such. Where we are concerned with a reality particular to becoming it is this state of

²²⁴ Deleuze and Guattari. A Thousand Plateaus, 279.

confusion as an *apparent* spatio-temporal distortion that defines the particular nature of a thing and grounds it in noise, in that which appears as groundless, homogeneous and 'imperceptible' from the point of view of recognition, recollection and representation. Confusion, as appearance out of place and the contrary nature of site, marks a greater proximity to what we might call a nature of reality as becoming than that of the regularity and periodicity *of* a thing. It is onto such a state of confusion that the site, taken in particular, opens, while in its openness constituting the conditions of consequent emplacement and regulation.

The site is considered in terms of a space in between, a space taken according to its movements between states rather than the states being moved between, it is taken herein as the ambiguity of a space displaced by sonority and vibration. Such spaces are to be characterized according to the intensity constituting their generative and deformational potential, as opposed to their geometric orientation which relies upon the fixity and stability of constitutive elements as a set of points for its identity. It is according to this notion of a space in-between that such a spatial orientation is to be described as an intensive site. The notion of the intensive site of sound is intended to place a particular as opposed to strictly specific focus upon our spatial concerns in order to better account for the role of a 'dynamic materiality' in a broad spectrum of individuations. Here we make use of the term intensity as we find it developed in the work of Gilles Deleuze, as referring to an intensive process, to a movement between states of stability. It is in conceiving of space according to an intensive site that it is thought of more in terms of spatio-temporal dynamics than static form, a conception particularly suited to the ephemerality of acoustic space. It is an interest or concern for a particular determinism that can be found at the heart of the present desire for a coupling of intensity and site. Intensive processes are to be considered as describing a reality particular to becoming as opposed to appearances, and therefore describing spaces set in motion, space encountered as dynamic as opposed to static and unchanging.

Here we determine a relation to the site that moves away from its actuality not in the direction of further extensity in the form of its socio-symbolic extensions or associations by which it is represented—as is the case in Seth Kim-Cohen's study of sonic extensions—but towards its intensity, towards that which inheres within it yet tends towards the imperceptible. This is, of course, not to say that the site is devoid of such extensions, themselves being efficacious in their determination of that which is given by intensity, but rather that such extensions, built upon given actuality, cannot be considered wholly

sufficient in its determination. An understanding of the site is required that accounts not solely for the specific but for energetics in general or the intensity of the particular.²²⁵ The site we are here attempting to delimit is one that resides within and determines a point of confusion not found within the discretion of 'visual space', a confusion that identifies the influence of the intensive within individual determinations amidst a broader ideology of influence.

In directing attention to the intensity of the site in particular we do not discard its actuality, as that which grounds further symbolic extensions, but rather take into considerations its conditions: that which persists in excess of the actually apparent. It is this state of apparent excess that describes the generativity of intensity:

Intensity is the determinant in the process of actualisation. It is intensity which *dramatises*. It is intensity which is immediately expressed in the basic spatio-temporal dynamisms and determines an "indistinct" differential relation in the Idea to incarnate itself in a distinct quality and a distinguished extensity [...] intensity creates the qualities and extensities in which it explicates itself.²²⁶

Intensity is that which, insofar as it appears, appears confused from the position of recognition, constituting the deterministic processes by which the actual is engendered as such in its appearance as clear and distinct objects, signals and events that are recognized as such according to their perceptible qualities. Intensity names those interactions that persist within the imperceptible 'background' of experience, a background that is not entirely distinct insofar as it remains the immanent and 'internal conditions' of an object, its constitutive interactions; processual intensity, summarized under the rubric of *dramatization*, names the transition from pure or virtual potentials to actualized qualities, from that which is indistinct, continuous or confused to that which is qualitatively distinct or apparently discrete. The immediate expression of intensity in spatio-temporal dynamisms—fluctuating environmental determinants such as light, heat or sound—

²²⁵ Here I refer to the idea that 'energy in general or intensive quantity is the *spatium*, the theatre of all metamorphosis or difference in itself [...] energy or intensive quantity is a transcendental principle, not a scientific concept'. See Deleuze, *Difference and Repetition*, 301.

The importance of the site and the vicissitudes of its actuality within artistic practice is outlined in Miwon Kwon's 'Genealogy of Site Specificity', see *One Place after Another: Site-Specific Art and Locational Identity* (Cambridge and London: The MIT Press, 2004), 10-31, especially 11-12 wherein the actuality in relation to which emergent site-specific practice would initially define itself is described according to the *qualities* of 'a tangible reality, its identity composed of a unique combination of physical elements: length, depth, height, texture, and [the] shape of walls and rooms [...] existing conditions of lighting, ventilation, traffic patterns; distinctive topographical features, and so forth'.

²²⁶ Deleuze, *Difference and Repetition*, 306-7.

describes the immanent experience of a difference that remains obscure from the perspective of its recognition, this immediacy is that which is experienced in a transition, a change between dynamic states that is felt before it is known, recognized or quantified, it is a state in which something is different while the thing remains obscure. In getting a sense of this immediate expression we can think of the changes in ambient light, noise or heat, changes that are immediately felt or experienced ahead of their recognition or qualitative rendering in distinct spatial experience, the agents of a subtle or subliminal influence. This immediate expression is that of a change in space or a change of space, that felt within the transition from one qualitatively distinct state to another. The immediate expressions of intensity are taken to be the expressions of complex and particular interactions forced into relation through the interaction of environmental determinants and spatio-temporal dynamics. Concerning ourselves with two reductive examples, heat can be thought to constitute the expressive frictions between the particular conditions of a space forced into relation, just as sound can be considered an expression of the particular contractions and rarefactions of matter in motion. While sound is most easily thought as qualitative appearance, being the product of material interactions, actualised according to the ear and the cultural conditions of its organization, it is nonetheless capable of intensive functions, of being considered according to the differences it makes and not only the qualities by which it is perceived. It is the sense of transition or difference that is key to the definition of intensity, the sensation of change in the rendering of distinct temperatures, sonorities or luminosity. Here quality remains a kind of punctuation which constitutes the ground of an appreciation of aesthetic qualities rather than the 'functionalist' perspective by which one is orientated towards an infraesthetics of intensity.

Intensity as the generative process that yields qualitative actuality is considered to be the motion that persists behind the appearance of stasis and stability, appearances determined according to thresholds of perception that occlude the process behind production. It is through actualisation or the process of a qualitative rendering that intensity is subjugated to recognizable identities in support of symbolic efficacy. It is through the actualisation and extensive explication of intensive spatio-temporal determinants that space is set apart from the continuity of the background noise constituting its Idea or indistinct multiplicity in the determination of its 'visual' discretion, a process of extensive explication that facilitates the homogenization necessary for its divisibility and modular repeatability. In making concrete this definition of an intensive site, thought as different from its actuality

in a manner opposed to its symbolic extension, as the generative ungrounding of actual or specific qualities that are determined as such through their actualisation or differenciation, we should once again turn to Deleuze for a concise explanation of the interrelation between actuality and its intensive determination:

Intensity creates the extensities and the qualities in which it is explicated; these extensities and qualities are differenciated. Extensities are formally distinct from one another, and comprise within themselves the distinctions between parts corresponding to the distinctive points. Qualities are materially distinct, and comprise the distinctions corresponding to the variations of relations. Creation is always the production of lines and figures of differenciation. It is nevertheless true that intensity is explicated only in being cancelled in this differenciated system that it creates.²²⁷

Where the specific is taken as naming a 'differenciated system' of distinct qualitative extensities, it is to a definition of the site understood according to the intensity of its particular interactions that we should turn in seeking an account of the continuity or point of confusion wherein it is precisely the *individual* who is subject to the affective influence of spatio-temporal dynamics, as it is the individual more than the I that is the subject of intensity: 'the individual is distinguished from the I and the self just as the intense order of implications is distinguished from extensive and qualitative order of explication'. Where the I or the self is thought to be the correlate of qualitative and symbolic explication—the subject of an audile technique—it is the individual which exists at a point of confusion with the noise of the world, defined if not distinct in a position that proves problematic for spatial delimitation according to interiority and exteriority, the point of an excessive interactivity and a proxemic confusion.

Extimate Architectures

In maintaining a fire at the heart of architectural practice, Fernández-Galiano keeps architecture open to the dialectical and reciprocal problematic of environmental conditioning. His resistance to the compartmentalization of intensity—a process that constitutes its cancellation in being constrained within discrete units that through their

²²⁷ Deleuze, Difference and Repetition, 317.

²²⁸ Ibid., 321.

extensive explication become both repeatable and divisible—leaves architecture open to more broadly environmental or ecological determinations, through refusing to reduce it to the purely extensive or reduced spatiality of the line, to the discretion which characterizes McLuhan's 'visual space'. The intensive determination of the architectonic described in Fernández-Galiano's speculative history depicts an architecture open to intensive durations and temporal deformation, a spatial production positioned between authorial intent and material mutability, a spatial production that is marked by the figure of decay as much as formal imposition. This account of a dynamic and intensive spatiality, however, neglects its influence upon those individuals populating it, insofar as it remains subject to one of Fernández-Galiano's opening distinctions: that architecture be 'thought of as an exosomatic artifact of man'. 229 To take account of such influences and architectonic individuations, we must conceive of architecture in excess of this limitation. While this is, for Fernández-Galiano, mainly a pragmatic distinction that focuses his study upon purely architectural objects, it nonetheless highlights the boundary that the practices and experiences we are concerned with herein render problematic, that of the limit between the exosomatic and endosomatic. This line which, in Fernández-Galiano's work, separates the body and its functions from architecture, its energetic codetermination and regulation, inhibits the understanding of its intensive influence; this distinction limits the affective scope of architecture and its energetic implications, the extended field of which can be felt more than seen in practices engaging primarily with architecture's void, as is most clearly evident in the simultaneously environmentally and physiologically orientated work of Philippe Rahm.

Philippe Rahm's architectural practice locates itself within a point of confusion, residing within an endo/exosomatic *continuum* as opposed to a divide. His work has been variously described as environmental, meteorological and invisible architecture; in addition to this list, I would like to refer to it as intensive architecture, as a practice that is concerned with the production of intensive space more than the construction and maintenance of extensive form. The clearest example of this intensive practice and its somatic confusion is to be found in Rahm's *Hormonorium*, conceived as the production of a physiologically oriented environment that is 'based on the disappearance of the physical boundaries between space and the organism':

²²⁹ Fernández-Galiano, Fire and Memory, 6.

The Hormonorium is an "im-mediate" space, no longer resorting to semantic, cultural or plastic media for the making of architecture [...] the aim is to act in advance of form, at a subformal level, by modifying the very information that gives rise to form, to behavior, to thought [...] The Hormonorium is an alpine-like climate, but it is also an assemblage of physiological devices acting on the endocrine and neurovegetative systems. It can be viewed as a sort of physiological representation of an alpine environment, to be ingested. ²³⁰

Through the projection of UV light and the manipulation of oxygen levels in a space, the *Hormonorium* stimulates melatonin levels in the body and increases its physical capabilities. These architectural projections are of course subject to the conditions of the host site they occupy, yet they distort and eat away at the definition of these extensive frameworks, temporarily usurping their spatial hierarchy and imposing their own. This usurping could refer to either the space of the body or the strictly extensive, architectural surround; it should of course be taken as referring to both, pinpointing the transgression of Fernández-Galiano's endo/exosomatic divide and the establishment of an intensive continuum between the somatic and architectonic through Rahm's 'infrafunctionalist' approach.

The invisible dimension of architecture in which Rahm's practice is situated finds itself lodged in the opacity of the body, articulating itself more towards the connections and continuity of the individual than the distinction and alterity defining the subject. Contrary to the trend towards transparency that through the glass façade conjures the appearance of a continuity between the within and the without while maintaining an internal homogeneity through the control of the differential and dynamic, Rahm's invisible architecture accentuates the intensity of matter, it manifests an extended and excessive interiority without clear divide, often carrying with it the fear, claustrophobia and paranoia that is bound to that which gets under the skin.²³¹ The accentuated materiality implicated within Rahm's practice frequently remains invisible or at the thresholds of perception; architecture's subject matter is here broadly delimited according to a territorial physicality more than a solidity or stability.

²³⁰ http://www.philipperahm.com/data/projects/hormonorium/index.html, accessed: 02/05/10.

²³¹ These issues are discussed by Rahm in 'Worrying Conditioning of Space', in Heike Munder and Adam Budak (eds.) *Bewitched*, *Bothered and Bewildered: Spatial Emotion in Contemporary Art and Architecture* (Zurich and Gdansk: Migros Museum Für Gegenwartskunst & Łažnia Centre for Contemporary Art, 2003), 57-62.

Within Rahm's work the individual is interpellated by way of its complex physicality, addressed according to physiological dependencies expressive of environmental reciporicity. Rahm's infrafunctionalism constitutes a particular determinism, yet a determinism that is not absolute. The individual body is taken as the site of an intensive mutability, an environmentally contingent multiplicity. A prevailing and praxical determinism is perhaps most evident in the claim that the Hormonorium affects the 'information that gives rise to form, to behaviour, to thought'. 232 The question we should then ask in determining the nature of this determinism is that of the relation between form and information. Opposed to a kind of conservative, biologically deterministic theory wherein information is treated as being synonymous with genes and genetic sufficiency, Rahm's infrafunctionalism, due to its opening onto a broader field of environmental determination is perhaps better thought as being roughly inline with Susan Oyama's 'constructivist interactionism' wherein contingency is asserted at every stage of a distinctly processual or interactive individuation, and information is considered to be inseparable from the environment or system that it determines and in which it is determined.²³³ Where Rahm's infrafunctionalist practice is orientated towards information posited anterior to form, this anteriority is posited with regards to formal appearance and the aesthetic more than form per se, or the form of that which in-itself remains imperceptible. The physiological imperative that is evident in Rahm's work should not be thought to cast the biological or genetic as absolute and autonomous sites of information, but rather as the particular territory of a determinable determinant, necessary components in a broader understanding of what constitutes a culture of reciprocal determination.

Rahm's foregrounding of the invisible conditioning of space opens onto the otherwise imperceptible matters of architectural ideology, the most effective manifestation of which resides somewhere between invisibility and transparency; the invisible nonetheless maintaining the sense of a certain spatial thickness, the saturated physicality of a spatium, while the transparent more readily alludes to the freedom of a smooth and harmonic space. The infrafunctionalist approach inserts itself into the expressive matters of a particular spatial ideology, investigating their influence upon thought and their potential for subjective determination; through their physical interpellation of individual matters the

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²³² Philippe Rahm, http://www.gallerialaurin.ch/files/philippeDOK.pdf, 7. Accessed 22/05/10.

²³³ See Susan Oyama, *The Ontogeny of Information: Developmental Systems and Evolution* (Durham and London: Duke University Press, 2000), 126.

manifest territories perform experimental individuations. The impact of an otherwise extensive environment is examined at a level of intimacy that conceives of architecture as determining not only the coordinates in which movement is possible but, through metabolic infiltration, as influencing the potentials of expressive movement, sensory perception and spatial experience.

This experimental approach to individuation by way of architectonic productions nullifies Fernández-Galiano's characterization of architecture as exosomatic artifact in the constitution of an extimate spatial practice whereby physical interiority is treated as open, accessible and responsive to a dynamic and equally physical exteriority. In taking Rahm's practice as a critique and development of the informal and invisible spatial dynamics underpinning Fernández-Galiano's speculations, an extimate and individuating architectonic practice is outlined. The spatial impressions and determinations of thermodynamics that Fernández-Galiano treats as the theoretical underpinning of architectural practice, through its more general elaboration of a dynamic and specifically energetic production of space, analogically prepares the ground for a more thorough discussion of sonorous spatial-productions. Yet such spatial dynamisms cannot be limited to the exosomatic if we are to account for the individuating influences of architectonic space; Rahm's focus upon the physical and physiological, a practice that, by means of atmospheric distortions, takes individuals as enmeshed within the act of spatial production conceives of an adequately extimate architecture. Rahm and Fernández-Galiano focus upon a broad range of physical and invisible spatial determinants that influence their occupying subjects by means of a variety of architectural installations including air conditioning, heating and the infra- and ulta- bandwidths of lighting.²³⁴ To the list of installations that contribute to environmental and atmospheric regulation or determination within architectonic space I would suggest we add those considered by Thompson in her account of architectural acoustics: the reflective, absorbent and otherwise broadly influential matters that determine auditory space, including the electro-acoustic means of 'synthetic' auditory spatial production. Rather than a fire that builds a dwelling, our primary concern now lies with a sound that delimits territory.

²³⁴ Further discussion of the impact that such regulating installations have upon the determination of an architectural environment and its subjects can be found in Reyner Banham's *The Architecture of the Well Tempered Environment* (London: The Architectural Press, 1969).

Sound, Space, Events

Emily Thompson's history of architectural acoustics details the regulation of auditory space by way of design and electroacoustic installation, providing an account of the gradual erasure of the auditory signature of space—carried out during the first third of the twentieth century—as is heard in its characteristic reverberations. Thompson's account considers the cultural and subjective conditions of a practice of spatial silencing that catered for an enhanced communicability, a dampening of distracting noise detrimental to the efficiency of labor and the discretion of identity and personal territories through acoustic isolation and electroacoustic regulation. Thompson's work provides a critical account of such practices, as has already been discussed; the field of acoustical design and auditory spatial determination initially opened by Sabine and others—as discussed in detail by Thompson—is taken as the site of a critical experimental practice in the work of a number of more contemporary artists. The emphasis placed upon acoustic design towards the regulation of space in Thompson's historical account is here displaced towards a consideration of artistic practices foregrounding auditory spatial production. In such work it is often the excitation, manipulation, distortion or destruction of a given space, rather than the design and construction of a spatial complex ex nihilo that takes precedence—for reasons that are not only economical.²³⁵ Here the work of Alvin Lucier is, of course, exemplary. In the performance of Vespers simple clicks draw out the impressions of space, allowing echolocation within and the navigation of a given space, sound is used as a catalyst, an impulse to which the response yields the volumes and dimensions of space that shape and distort the signal excitation. What we find in much of Lucier's work is a practice exemplary of, while not strictly reducible to, the functionalist or infraesthetic approach outlined above. Put to work is a kind of sonic functionalism where sonority is considered primarily from the perspective of the 'function a quality fulfills in a specific assemblage, or in passing from one assemblage to another', more than the specific details of the auditory quality itself.²³⁶ The aesthetic qualities of *Vespers* are of little importance and somewhat

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²³⁵ A notable exception being Mark Bain's permanent BUG installation in Berlin, constructed in collaboration with architect Arno Brandlhuber in which headphone sockets at street level give access to the otherwise inaudible murmurs of the building. Such participation between the auditory and more commonly architectural concerns for spatial design of course shares a certain although not strictly concordant lineage with the Philips Pavilion

²³⁶ Deleuze and Guattari, A Thousand Plateaus, 337.

banal if dwelled upon, the piece being more concerned with a performance of 'acoustic orientation by means of echolocation, for players with hand-held echolocation devices'. Orientation is made possible by means of an impulse response; the hand-held echolocation devices emit a simple click which is used to excite the performance space and relay information about its dimensions and volumes to the performers. The impulse itself is of little importance and is in a sense discarded, expendable, its function being of primary importance in relational interaction with a larger assemblage, establishing connections between architectonic space and occupying bodies through sonority. Here it is not the qualities of the audible but the functional affectivity of the sonorous and vibrational that is of primary importance.

While the specific quality of a sound may not be of primary concern, the particular affectivity of the sonorous is. The sonic gesture as impulse, whether click or utterance, is in a sense sacrificed to the excitation of an assemblage that extends into the inaudible and imperceptible. In the now canonical I Am Sitting in a Room, the voice is both of central importance and in a sense expendable, given up as impulse and offering, it has the function of a material excitation of spatial determination, drawing out that which is particular to its otherwise imperceptible auditory influence. The specific importance of the voice in this piece should not, as Brandon LaBelle has pointed out, be played down, it being of particular importance to Lucier; the voice's submission to architectonic determination has the function of smoothing out the 'irregularities', stutters and stammers in Lucier's voice. Yet what remains of the voice is precisely its rhythmical content, its words, meaning and specific qualities having been stripped away by tape and architecture. There is a particular dissolution of the voice as it enters into (de)composition with a larger assemblage comprised of tape recorders, a room—different from the one you are in now—and the patient movements of Lucier's performance. Here the voice becomes a line, a simple rhythmical impression upon a waveform that would otherwise remain pure potential, no longer a collection of discrete phonetic units but a waveform 'freed' from its signifying punctuations and occlusions in a shift from 'the "pulsed time" of a formal and functional music based on values' to the "nonpulsed time" of a floating music, both floating and machinic, which has nothing but speeds or differences in dynamic'. 238 A spectral voice remains as a series of accents, impulses which attain linearity through their entering into

²³⁷ See http://alucier.web.wesleyan.edu/discography.html#electronic accessed 12/06/10.

²³⁸ Deleuze and Guattari, A Thousand Plateaus, 289.

composition with the resonances of the room, resonances which, as Lucier intended, smooth out punctuating irregularities, joining one accent to the next with a resonant thread, a shared, sympathetic element drawn out of the voice through its gradual dissolution. It is through this linearity and (de)composition that the voice becomes imperceptible as such. Lucier's practice is exemplary of sonorous interactions within larger spatial assemblages, yet I wish to place more of an emphasis upon what is a less canonical practice. Insofar as we are concerned with the topic of sonorous individuations, clear expression of the extimate influence of sound within a similar context can be heard, felt and sought out in the work of Mark Bain.

Bain's work establishes a critical link between architecture and the body through common resonant capacities or what he has called 'relational frequencies', his work performing the transformation of a static structure or space into a developmental or deformational site inclusive of the vibrational, auditory environment being produced, the architecture which it occupies and the bodies which both envelop. 239 Through its sonorous excitation, architecture becomes site set in motion through the use of synthetic infrasonics or mechanical oscillators directly vibrating the buildings themselves in the rendering of architecture as instrument; space is saturated with haptic, infrasonic vibrations. Architecture set in motion comes to occupy a pervasive acoustic territory, the body of which lays claim to a confused audition blurring the clearly cochlear with the more generally somatic listening can be said to find a particular limit in Bain's work as the body is made a membrane through its confusion. More than the clearly architectural approach to the design and delimitation of space according to the discretion of lines, Bain frequently performs a manipulation or distortion of a given environment; rather than architectural construction, Bain's is a practice of spatial production against many of the prevalent ideologies of architecture. In some cases Bain's work constitutes an attack on architecture, literally cracking the buildings upon which the work depends, in others opposition is more subtle or complex, seeking to temporally distort space through an excessive vibrational presence. Such practice constitutes action against architecture that must nonetheless remain; seeking to destroy an architectural instance or perform a critical and distorting occupation, this positioning against architecture maintains a dependency, either in the sense of an 'anarchitecture'—after Matta-Clark—or that of a necessary background against which it

²³⁹ See www.nettime.org/Lists-Archives/nettime-l-0304/msg00018.html

becomes possible to appear, a background from which each piece distinguishes itself while remaining inescapably related to its architectural conditions.

While Bain's work takes a somewhat aggressive approach to architectural determination, it can nonetheless be understood to expresses a certain architectural vitalism in its desire to 'activate' space through sonorous imposition, vibrations bringing space to life. Bain's identification of relational frequencies or resonant capacities between the organic and architectonic 'can be thought of as a kind of divining, a search for a living entity within that which is normally considered static and dead: architecture, structures and sites'. 240 This vibrational vitalism arises from a critical approach to a number or issues concerning architectural ideologies that Bain works against yet nonetheless bears; architecture conceived as static and stable becomes equated with a certain 'lifelessness' in its temporal defiance through the illusion of permanence and apparent solidity. Being set in motion such space is thought to be 'activated' or 'brought to life' through being forced to bear vibrations, an 'injection' of temporality or durational vitality allowing for an understanding and experience of architecture beyond its limitation to purely extensive geometries. A similar vitalism is found where attention is directed towards the diverse durations and temporalities of architectural matters, to the materials and movements of built space rather than its formal delimitation.²⁴¹ Mostafavi and Leatherbarrow's study of weathering, for example, looks to the temporal deformation of matters necessarily exposed to the elements, meteorological determination or what we might more broadly refer to as spatio-temporal dynamisms, an understanding of the architectonic according to morphogenesis rather than according to solid and static forms. Such studies consider an architecture opened-up to the agency of matter, spatial production being subject to both material deformation and design. Such vitalistic concerns are often brought to the fore where primary focus is given over to a broader sensory experience of space, where architecture and the urban is considered according to its thermal, auditory and olfactory constituents. Such ephemeral matters of expression do not allow for a suspension of temporal deformation towards the illusions of permanence upheld by a certain threshold of perception, but rather force a consideration of the inherent temporality of the material

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²⁴⁰ Mark Bain 'Sonic Architecture' in Rosanne Altstatt (ed.) *ArchiSound: Mark Bain: Sonusphere* (Oldenburg: Edith Russ Site for Media Art, 2003), 6.

²⁴¹ This point is also noted by David Gissen in his book *Subnature: Architecture's Other Environments* (Princeton: Princeton Architectural Press, 2009), 23.

through their transience. Such a vital sensibility can be recognized as prevalent in texts such as Sense of the City, in which the 'alternate approach to urbanism' is one of a multisensory empiricism that sidelines the predominance of the visual.²⁴² The result is a conception of urban space as a dynamic environment comprised of ephemeral materialities, noises, gasses and the ambiguity of dust. The transience of such amorphous assemblages, through a forcing of temporal considerations, draws out a particular vitalism residing at the margins of perception, within those events which are not so easily identified or pinned down according to the requirements of a visually dominated ontology. The 'life' of the city that such events draw attention to is more a foregrounding of impersonal or inhuman agencies and complex inconsistencies than a panpsychism. A similar vitalistic materialism finds expression in Bain's activation of the architectonic and the confusion of its boundaries. As much as Bain's work sets matter in motion, foregrounding a fluctuation of the built and ordinarily stable, this technique can be said to bring to the fore a state of matters that exists nonetheless, with or without Bain's 'activations'—although ordinarily beyond the bandwidths of perception. The materials of the built environment are always already in motion, interacting with one another, yet often imperceptibly so. Bain's action against architecture could, in this case, be said to seek out the distortion and destruction of architectural ideologies more than architectonic matters, revealing the semblance of solidity and permanence, as well as illusions of autonomy, positions ungrounded by use and abuse, through the praxical 'undoing' of architecture as itself an act of spatial production.²⁴³

In considering approaches to the architectonic primarily concerned with the physicality of the invisible as a means of foregrounding the extimate affectivity of architecture—its influence and determinations beyond any endo/exosomatic divide—Bain's work is exemplary for its exploitation of common resonant capacities between the organic and architectonic. This common ground is often established through infrasonic connectivity, through both the haptic and residual aural events to which it gives rise. The vibration and excitation of the building itself through the use of mechanical oscillators engenders infrasonic activity, transforming the structure upon and within which this parasitic site subsists throughout its sonorous occupation. This sound excites both architectural matter and that of the organic bodies enveloped and permeated in

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²⁴² Mirko Zardini (Ed.) *Sense of the City: An Alternate Approach to Urbanism* (Montréal: Lars Müller Publishers & Canadian Centre for Architecture, 2005).

²⁴³ As discussed below, this notion of 'undoing' architecture is taken from the work of Jane Rendell.

performance, establishing relations through sympathetic resonances; fluctuations in waveforms periodically excite bodily tissues and muscle groups in an imposed unison with the resonating walls, floor and ceiling of a host site. Bain has referred to the resonant imposition of this sonorous interconnection as site magnification: 'I was interested in how a certain site magnification can invade a space both physically and acoustically [...] With this magnification of the site an attempt is made to create a stage of destabilization, a reactive zone or interface between the spectator and the architecture'. 244 While Bain here rehearses the ideological position already addressed below, wherein the auditory is conceived within architectural ideology in terms of immateriality, as is made evident in Bain's contrasting of the acoustical and physical, the notion of site magnification resonates particularly strongly with the site conceived in terms of intensity, as outlined above, its 'destabilization' establishing the metastability that constitutes the background conditions of sonorous individuations. Through this process of site magnification, through the uncovering and excitation of its intensive magnitudes and determination we find an understanding of structures, previously described by Bain as 'static' or 'dead', reconceived as 'neither immaterial essences nor formal invariants but rather as the pre-individual grounds of individuation', structures imbued with a generative or catalytic potential more than that of an extensive delimitation.²⁴⁵ Here the processual and generative instability of the site—as opposed to the identification of place or location—is of particular importance: the magnification of the site's intensity engenders a state of confusion necessary for ongoing developments and the continuous determinations of both organic and non-organic bodies. Bain's site magnification works according to an increased confusion through the amplified intensity of 'a proximity, an indiscernibility that extracts a shared element', that element being the resonant capacity that allows for the excitation of relational frequencies.²⁴⁶ Enforced in such situations is the proximity of an extimate waveform, known without and felt within as personal territories enter a point of confusion with the impersonal. Bain's infrasonic connections perform a proxemic distortion through the intensity of the magnified site, leveling the thresholds of personal space through the common extimacy of an infrasonic continuum; the production of an architectonic and vibrational assemblage establishing a plane of confusion through a composition of

²⁴⁴ Mark Bain, ArchiSound, 12-13.

²⁴⁵ Toscano, *Theatre of Production*, 169.

²⁴⁶ Deleuze and Guattari, A Thousand Plateaus, 307.

particular elements. Thresholds are commonly confused according to a particular intensity, the thresholds of personal space normalized to a point beyond that of the personal, given and visible. It is in relation to a sonorous distortion of proxemic delimitations that Bain's interest in vibrational affectivity most clearly approaches a notion of sonorous individuation: 'when boundaries are pushed, new awakenings in the self can be located', leading to a reconfiguration of social interactions and identities.²⁴⁷ This manipulation of boundaries is most easily thought according to the sonorous distortion of personal proxemics already discussed; wherein this territoriality becomes confused, that which determines and delimits the self is brought into question as it finds itself located amidst the metastability of the 'magnified' site opened up to intensity. Awakened within the self is that which persists in excess of the consistent self image, an extended field of interconnections, confusions and contingencies that function beyond the minimal distances of interpersonal territorialities; within the magnified or intensive site, social interactions may be thought to operate according to an increasingly prevalent affectivity destabilizing the priority assumed by the strictly symbolic. It is at this point of confusion that identity is opened up, preparing the ground for its potential restructuration. Excited within this confusion or generalized somatic complex is a 'shared element', a particular capacity comprised of both sonorous objectility and sympathetic potential in the establishment of a common resonance.

The establishment of a pervasive vibrational interface between architecture and body, the destabilized, receptive and reactive site that exists between its constituent elements takes effect and resides both within and in excess of the individuals populating it. Subjection to intensity within Bain's magnified sites has a similar physiological orientation to that evident in Rahm's work: infrasonically infested, the muscles, lungs and other organs are stimulated, drawing attention to the contingencies of somatic matters; within a body so affected phenomena such as nausea, vertigo, coughing and gag reflexes have been induced. While Bain refrains from subjecting visitors to such states of physical repulsion he nonetheless addresses such phenomena and their potential role within systematic control through an induced extimate and essentially embodied aurality established in a relational continuum between body and architecture, issues that are addressed with reference to a broader technological infrastructure and affective bandwidth within Steve Goodman's

²⁴⁷ Mark Bain 'The Live Room: Transducing Resonant Architecture' in *Organised Sound* 8 (2), 166.

survey of *Sonic Warfare*.²⁴⁸ The binding of this physiological orientation to an active interest in methods of surveillance and control is evident in Bain's *BUG* installation which allows building users and passers-by to listen in on the sounds of a Berlin apartment block. A number of headphone sockets, some of which are accessible at street level, are connected to seismological sensors embedded within the building. This allows listeners to hear the audible effects of the forces impacting upon the building, whether that be the U-Bahn passing beneath it, winds against its walls or the movements and muffled conversations of those that occupy it. While these sockets give access to the audible information of the building and its immediate surroundings, the ambiguity of these expressions and sonorous interrelations is also addressed insofar as it presents an understanding of resonance that applies itself equally across connectivity, capture and the potential for control.

In Bain's performances and installations one is subject to the intensity of the site of sound being produced. The instability of the sonically induced site confuses architecture and organism in an extended sensibility, it performs a questioning of boundaries, territory and the interrelations of a population. Such a point of confusion unfolded within Mark Bain's 2008 performance in the basement of Brunnenstraße 9, the construction site that would later become the location of his permanent BUG installation. What unfolded within this performance which filled the then incomplete basement with sound and infrasound was a vibrational field of increasing complexity and density. Amidst an undulating haptic and auditory field, nodes, dips and cancellations between waves provided momentary relief from the intensive sonic and infrasonic intrusions, yet such calm sites of intensive cancellation were short lived as frequencies constantly shifted. People moved throughout the lower level, often sealing off their ears from the noise—the majority of which occupied a register that resonates with organs other than the ear—following the trajectories of waveforms and the space inbetween. Nodes, points of cancellation, intensification and distortion acted as particular attractors, singular events lending invisible definition to the site performed as a multiplicity, an invisible and undulating topography occupying a site of dormant architectural intention and economic neglect. Bain was pressed up against a wall in performance, a body caught between waveform and concrete, occupying the interval or continuum between sound and architecture that his work engenders. This positioning identifies the locus of Bain's infrasonic practice: a line drawn, a trajectory sounded,

²⁴⁸ Goodman, Sonic Warfare.

between two bodies set in motion by common excitation. This space between identifies the embryonic site of our present argument, a site saturated by and activated in sound. Here we are driven to consider sound in the terms of a spatio-temporal event, a determined determinant. The space that we are concerned with is one of manifold complexity; the problematic complex of spatial discourse, as it expands beyond the purely geometric into the social, conceptual, architectural and individual, is discussed in detail within Lefebvre's *The Production of Space*. Needless to say that where we are concerned with sound, its perception and reception, we cannot talk of one space without also implicating another; the traces and impressions of sound pass through all manner of physical, architectural, individual and social spaces, each of which determines the other. Here we do not need to rehearse the historical trajectory of this discourse already mapped out by Lefebvre, but simply to state that our focus on sound necessitates that this space be one primarily comprised of materials, a space determined in both the first and last instance by physical attributes. While this is the case, it is in the space which unfolds between these particular instances that our discussion takes place.²⁴⁹

As sound relies upon matter so this argument is based upon the assumption of similar dependencies, upon matter as the ground of the subject under consideration. Yet the simple cataloguing and description of material properties cannot be allowed to define the totality of space if we wish to talk of social, political or 'head' space. While we require that our definition of space be built upon material characteristics, these qualities and characteristics cannot be considered all. Sound, understood as an event within and productive of space, serves as an example of this requirement. The nature of such an event is that of an agitation, friction, an interaction of material elements; only in the coming together, the collision of bodies, do we have the production of vibrations which can be rendered by the ear as sound. Sound appears as a residue of such material interactions yet cannot be reduced to or described according to an inventory of material components which constitute only a set of potentials. As Steven Connor puts it, sound is 'literally contingent', that which we hear is under the influence of everything surrounding, preceding and receiving it: the properties of the colliding bodies that produced the initial vibration, the density of the medium through which it passes and the peculiarities of each auditory system

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²⁴⁹ See Henri Lefebvre, *The Production of Space* (Blackwell Publishing: Massachusetts, Oxford and Victoria, 1991), where distinctions and developments in historical discourses of space are discussed in depth, in particular pages 1 – 67.

that perceives such vibrations as sound.²⁵⁰ This material contingency renders the consideration of sound as an event in space inadequate: a sound event cannot be adequately considered *as such* apart from the space in which it occurs, despite its mechanical and now digital reproducibility. To complement this statement and assert reciprocity necessary for a theory of sonorous spatial productions, we should recall Tschumi's relentless assertion that 'there is no space without event'; space determines the (sound)-event determines space.²⁵¹ This reciprocity of event-space forces us to consider sound as always being *of* space and, perhaps more importantly, *as* space; insofar as there is the possibility of audibility, the production of space is marked by the spectral event of sound.

The notion of the event takes many shapes, and so we must define the event and its appearance here in order to express its reciprocal relation with space. In describing a sound as an event it must be thought of as an event amongst events, one enveloping and absorbing another forming sound-events of varying complexity, a conjunctive evental synthesis. In this sense an event does not appear in autonomy, as immaculate or irreducible appearance. Events thus defined do not appear 'from nowhere' but, rather, as being context dependent, conditioned by the environment within which they emerge and in doing so distort along the lines of the displacements they affect or according to the complex figure of decay. The importance of making such distinctions is realized in the resulting definition of an event that is distanced from the architecture of the spectacle; as we are concerned with the role of sound in the structuring of sites and processes of individuation we are driven to consider the status of a subject interpellated by sound. Rather than the subject of a voice, the subject is cast as being informed by and appearing amongst asignifying sonorities. The appearance of the subject is as a node amongst a set of nodal events: the event is localized in such a way that the subject appears alongside, atop or within an event amongst events.

In a passage that adds distinction to these overarching concerns, Deleuze renders the event audible: 'the event is a vibration with an infinity of harmonics or submultiples, such as an audible wave'. Building on Leibniz's definition of the event, Deleuze identifies a series of components that define an event and the way in which it may be figured as a vibration. We can broadly summarize these components as follows: an event is defined by, and therefore also defines through, extension; by grouping many elements under a

²⁵⁰ Steven Connor, 'Edison's Teeth', 157.

²⁵² Deleuze, *The Fold*, 87.

²⁵¹ Bernard Tschumi, Architecture and Disjunction (The MIT Press: Massachusetts and London, 1996), 139.

dominant and unifying elementary quality the event becomes distinct while confusing those elements which it claims as its components. It is the sound event, thought to operate according to extension that again identifies the status of resonance as a gesture of both connection, relation and capture. Here we can identify the power of a fundamental frequency in the identity of a waveform, a dominant vibration that defines a complex of other partials or harmonic vibrations. We can also think of the particles that a vibration subsumes and displaces in its transmission, particles which are regrouped under the identity of an extending waveform. The form that this vibrational event can take is influenced by the intrinsic material properties of the environment from which it emerges, exerting a determining effect over the actualities that the event yields such as the timbre of a sound and the resonant frequencies that are both drawn from it and excited by it.

As the event itself subsumes elements that serve its own extensions and propagations, for Deleuze, 'the individual is a 'concrescence' of elements'. 253 As such, the individual is implicated in and subject to a series of events. It is in this way that we are able to speak simultaneously of the event as both the appearance of sonic phenomena and as affective agent in the conditioning of individuals. In this way the event both yields and relies upon individuals and their constituent elements for its emergence; the event appears 'behind' or beyond the delimited territory of the individual, as a determining and conditioning agent, as the source of a subjective impression. Events perform a determining influence on an individual, contributing to and shaping a process that yields identifiable form and actualities. While we can easily state that an event is understood to have an impact upon the conditioning of an individual, our focus on sound as event requires that we address the conditions of the event if it is not to be posited as simply 'given'. The event is produced through interactions, anticipations and apprehensions, apprehensions that may occur between material elements as much as sentient beings. This refers specifically to the inherent material properties of the elements that comprise the potentials of an event. While being made up of elements, an event is, again, not entirely reducible to those elements; the event is a contraction of 'prehensions', or reliances and dependencies that are negotiated in interactive determination, shaped by the impact that elements have upon each other in constituting an individual or being subsumed within an event. Collisions and frictions constitute the conditions of a vibration which is the conditioning force of contractions and

²⁵³ Deleuze, *The Fold*, 88. Described in this way the individual is also identified as being a multiplicity, the importance of which receives significant attention in the following pages.

rarefactions that are rendered audible in the ear. Such material interactions constitute the prehensions, contingencies, reliances, influences and interdependencies that move, according to Deleuze, 'from the world to the subject' establishing the field of environmental interactions and reciprocal determinations that are the ungrounding, metastable ground of the individual.²⁵⁴ What is particularly important about this latter component of the event is the way in which it weaves the individual into the aforementioned event-space reciprocity; in the interactions of event and space the individual appears as a component, a conception that, where sound is conceived in the terms of an event, is vital to the theory of sonorous individuation that this thesis aims to elaborate.

Of immediate importance is the manner in which we conceive of the sound-event in relation to spatial productions or the definition of space. Such definition can be understood to occur in the extensions that are characteristic of the event-as-vibration, the way in which an event subsumes elements in a gesture of spatial production. In considering the site of sound as a site of individuation we must take into account the environmental determinations that influence the emergence of such sites. Frequently the production of such sites is subject to, while being active in the distortion of, architectonic space. Sound events appear within and against architectures, against in the sense of the properties of the often built environment that they rely upon and appear against the backdrop of, as well as against in the sense that they present a disruption of these spaces in their agitative processes of production. The appearance of sound against architecture is that of a function whereby phenomena distance themselves from a background that does not distance itself from the phenomena; the appearance of sound against architectonic space in the production of space anew nonetheless retains an inherent connection to properties of the ground from which it emerged; it appears as distinct from a background that constitutes its conditions and comprises its vital support.

Bernard Tschumi has described how the body, as a source of movements not necessarily contained within the architectural vision, 'disturbs the purity of architectural order'. Geometrical form, the originary lines demarcating space, are distorted by the presence of forms, figures and functions that appear within space yet from outside the authorial vision. The movements of bodies trace new lines throughout space, demarcating

²⁵⁴ Deleuze, The Fold, 88.

²⁵⁵ Tschumi, Disjunction, 123.

new zones and territories. This distortion, caused by the movements of bodies, articulates at a macro level the dynamic state of the built environment when observed at a micro level, as artefacts in flux, subject to historical trajectories of spatio-temporal deformation. Contrary to the stability, consistency and solidity that architectonic space is ordinarily assumed to provide, such perceptions appear atop perennial developments and degradations in the material environment: the flow of glass, the progressive curvature of a step, the smoothing of stone by the wind. Just as *the* body is understood to distort architectonic space so to does *any* body, so long as we are not to inhibit the breadth of this argument; the presence of a body of water or a body of air brings with it implications for both intensive and extensive spatial properties, changing both the form and function of a space. The impacts, agitations and vibrations of bodies in space perform altercations and modifications of space, in short, distortions synonymous with spatial productions. To distort space, to enact modifications is to produce space anew through the reorganization of its constitutive material interactions.

Such spatial distortions are observed in the process by which an impact is the cause of a vibration which is manifest in the contractions and rarefactions perceived as sound waves by the auditory system; this vibration which propagates through the displacement of materials is active in the distortion and production of space. In the reorganization of materials, however ephemeral such action might be, the characteristics of space are altered, producing space anew amidst a broader field of continuous deformations. Connections are established between objects set in sympathetic vibration, set into motion by a common wave which establishes connective lines and groupings constitutive of a site or territoriality; these sympathetic vibrations express material relations between objects set in motion, objects that are both subject to and the components of a sound-event. The establishment of these vibrational continuums leads us to address sound in terms of a sonorous-event-space, expressing the reciprocal determinations invoked in sound as spatial event. It is this amalgamation of co-determining forces that forms the ground or the conditions for the production of sonorous individuations.

3. The Site of Sonorous Individuation

An expectant crowd occupies the basement of Brunnenstraße 9, Berlin, a building yet to be built, a site more than a place, awaiting Mark Bain's performance. All that surrounds is foundation and embryonic structure. The development of this building is underway yet it has barely got off the ground, it is the most basic of architectonic shells. This space is defined by the blank faced intimidation and overbearing presence of concrete, this homogeneous material bearing stains, the marks of an outside leaking in. This is a space comprised of two floors. The upper level lies adjunct with the street, the presence of temporary construction fencing defines a crooked and weathered border. In the absence of a façade or external walls the boundaries of this site are defined by those of two other buildings that mark its extremities; such gaps puncture the density of the city, a pause in architectural development that bares the signs of stalled construction. Such hesitations afford a rare stream of elementary forces, appearing outside the regular channeling they are subject to in the streets and alleyways. If anything defines this upper level it is its openness to the world; a site demarcated by a patch of concrete and the protrusion of iron rods, no doors or walls to define entry points or condition the flow of bodies.

A non-descript circular hole lying off centre towards the far corner of this patch of concrete and a temporary staircase grant access to the lower level. Despite the barren appearance of the surroundings this lower level is teeming with activity, it is saturated with waves that oscillate around the threshold of audibility. Those waves which set the ear in

motion force the sensation of an intimate proximity; standing waves saturate the space in a gesture that both expresses the dimensions of this space while annihilating its identifiable acoustic signature. This lower level is defined by a vibrational density that iteratively pinpoints relations between organic tissue and architectonic foundation. As an individual amongst the crowd I witness the immanence with which the sound without excites and becomes the vibration within; waveforms define lines passing effortlessly through the body, making explicit the manner in which it is stitched and enfolded within its surrounds. A sound—barely a sound—knocks the wind out of me; the waveform enters my body, sets a lung involuntarily in motion and in response my body coughs, I cough. Just as a relational continuum is established between organic tissues and architectural materials, in this instance an interval between body and self resounds with the intrusion of waveforms that address and affect the organism before the soul. Here individuals are defined as those confused subjects enmeshed within volatile surroundings; intruding waves express relations between complex sets of materials constituting a body that extends beyond yet includes that which we would ordinarily call our own, that which can be seen to define our personal territory. Expressed is a tension between the complexity of the site, the material conditions of the events unfolding, and its expression in the reception, perception and actions of its subjects. These intrusive yet connective gestures, these sound events instigating relational matters, simultaneously invoke alterity; a forced cough constituting a loss of control forces me to appear momentarily, after the fact, at a distance from myself, from the body that coughed. In this moment, sedentary boundaries are disturbed as subjective topologies are rendered problematic.

Here we arrive at the site of sonorous individuation, the problematic of sound and self. An account of sonorous individuation requires that we address the way in which sound, in its always already impure form, distinct from speech or music, addresses subjects, individuals, bodies in general. Our position here is on the side of sound in asking how it addresses its embodied subjects ahead its perception. In so doing we seek out the entry points whence vibrations affect the subject, the impact site of sound on self. Surveying potential entry points necessitates a certain set of distinctions in the above list of subjective associations in sound, questions regarding the synonymity of subject, individual and body. To suggest that we understand sound as addressing the body before the self is not to reintroduce a duality between mind and body *per se*. In positing a primacy of embodied reception we assume the neo-Bergsonian notion that 'the body is like a continuous emission

of an infinite matter whose particles constitute the terms of choice offered to the mind'; the body constitutes the site of a forced rarefaction that in its diversion and filtration of matters enfolds the conditions of their being considered. 256 The relation of subject and sound is not to be primarily considered from the point of view of an apriori consciousness, from the position of a self that executes free choice amidst its perceptions, but rather from the position of an 'un-free' receptivity, passive synthesis or the forced choices of a subtractive material embodiment; in other words, we set out not from a position of apriori conscious perception but forced prehension, from the contingencies of embodiment as the material prerequisite of mutable thought. This position which amounts to asserting a 'primacy of the base' does not set about to dislocate and diminish the subjective agency of which it constitutes the conditions, as said in one and the same sense of a constitutional embodiment is the capacity for thought as an agent in the determination of such conditions. In talking of bodies we have not begun to consider consciousness and yet, at the same time, we cannot avoid such considerations as the assumed model states that implicated in the constitution of bodies is the perplication of consciousness. Simultaneous with and indissociable from the constitution of organisms and material organization is the capacity for elementary thought. There is, however, a distinction to be made: not between mind and body but between subject and individual, as in the individual we identify a reciprocity between a body and an elementary consciousness as a site comprising the formation of, as opposed to preformed, identity. Such a notion of (impersonal) individuality is, for Deleuze, being per se; insofar as being is thought in a protean sense, taken as becoming. As a process of intensive differenciation, individuality is a state of intensive being, or—in terms more expressly related to our immediate concerns—the 'being of the sensible'. The individual, the being of the sensible, is inseparable from and enmeshed in an 'intense world of differences, in which we find the reason behind qualities and the being of the sensible, [that] is precisely the object of a superior empiricism'. ²⁵⁷ Deleuze's 'superior empiricism' confronts sensibility in the site of its ontogenesis, in the 'intense world' anterior to its own identification as the sense of some thing. We therefore claim the individual to be synonymous with a body, a body that in its being constitutes an elementary consciousness. The consequences of this are that in stating that sound primarily addresses bodies, its impressions—by virtue of the reciprocity I am at pains to address—contribute to an influence or particular shaping of

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²⁵⁶ Quentin Meillassoux, 'Subtraction and Contraction' in *Collapse*, 3 (November 2007), 74.

²⁵⁷ Deleuze, Difference and Repetition, 335

thought. Once again it becomes necessary to bolster the assertion that *a* body is not necessarily *the* body, that to talk of bodies is to talk of any body. Insofar as it is taken that the constitution of a body implies the perplication of conscious capacity one recognizes the near ubiquitous distribution of an elementary thought: 'every body, every thing thinks and is a thought insofar as, reduced to its intensive reasons, it expresses an Idea whose actualization it determines'. Conceived as intensity we find enfolded within being matter and thought, a sense that foregrounds, as Ray Brassier has put it, 'how profoundly difference and repetition, ideality and materiality are reciprocally enveloped'. Such a conception of the body possesses not a duality but a dyadic individuality; the latter is invoked in opposition to the former insofar as it posits a double, or rather a difference without ontological dualism, two parts that due to their interdependence cannot be considered discrete. In detailing this dyadic individuality we must address its components in order to grasp their interrelation.

In claiming that individuality comprises two inseparable components we identify a body that constitutes a consciousness that is a body. This inseparability is made clear by Deleuze when he states that 'it is not enough to say that consciousness is consciousness of something; it is the double of this something and each thing is consciousness because it possesses a double'. 260 A thing in actuality is doubled and it is this doubling, a break with all which is otherwise univocal, that constitutes its actuality, its distancing from an otherwise undifferenciated material continuum. The process of actualization constitutive of being entails a breaking away from an originary ground and in this moment being as such is doubled. The actualization of a particular being can be thought of as an expression of an Idea—taken in the sense of a material complex, a set of structuring elements, as outlined above. Summarizing Deleuze, Brassier gives a concise summary of expression as the modality of being-double or dyadic individuality in stating that 'each thing is at once the expression of an Idea and the thought through which that Idea is expressed'. 261 That which we call an individual, a thing, is synonymous with the expression of an Idea. Thus while a particular expression can be considered to make itself distinct from the Idea constituting its ground, the Idea does not distinguish itself from its expressions, which in its tenacity

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²⁵⁸ Deleuze, Difference and Repetition, 316.

²⁵⁹ Ray Brassier, *Nihil Unbound: Enlightenment and Extinction* (Hampshire and New York: Palgrave Macmillan, 2007), 164.

²⁶⁰ Deleuze, Difference and Repetition, 273.

²⁶¹ Ray Brassier, Nihil Unbound, 173

comprises a double. Intensive being is therefore characterized as the coupling of active expressing thought and expressed conditioning Idea or, in other words, concrete complex and particular responses to it at the point of confusion or encounter. While it is claimed that actualization marks a split with the univocal, this is a bifurcation that does not engender an elevated, atemporal transcendence but rather the immanence of the transcendent insofar as intensive being and Ideal ground are necessarily inseparable.

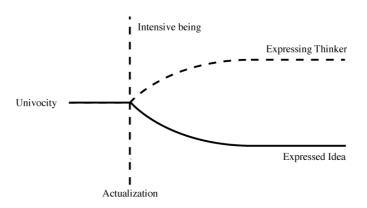


Figure 3: Dyadic Individuality

Here we arrive at a notion of the transcendent conceived not as that which floats atop a material substrata or exists in a state of eternal purity, but rather that which constitutes the principle of a ground or rather an ungrounding. It is that which constitutes a larger, predominantly imperceptible material continuum beyond the individual that is nonetheless immanent to it, the material constituents that constitute and compromise its embodiment while originating and extending beyond the individual. It is in this sense that the Idea, as concrete continuum from which embodied thought is drawn, can be considered to comprise the conditions of individuality, the collection of events or 'singularities' from which individuality distinguishes itself in expression. What Deleuze calls 'an individual is established first of all around a certain number of local singularities, which are its 'primary predicates' [...] That is the real definition of the individual: *concentration, accumulation, coincidence of a certain number of converging preindividual singularities*'. ²⁶² The Idea, as a grouping of 'singularities' or events, constitutes the immanent transcendent principle of individuation, that which is beyond or anterior to the individual yet nonetheless

²⁶² Deleuze, The Fold, 72.

encapsulated in it. It is that which constitutes the ground or genetic principle of the individual that nonetheless remains immanent or internal to it. What we find here is a gesture necessarily coupled to that performed by Deleuze in his critique of the Idea reformulating Ideas as genetic principles rather than mental concepts—Deleuze redresses the notion of the transcendent by swinging it around the individual—the individual conceived as being enmeshed within and inseparable from a world—displacing the transcendental from its normative, 'elevated' or ideal position with regard to the subject. As with the Idea, the transcendental is shifted from the position of telos to that of a genetic principle—it is stripped of its association with immaterial immutability and reconceived as the generative ungrounding ground of the individual. Where we are concerned with identifying the impact of sound on self, with the identification of sound as influential materiality, this seemingly paradoxical notion of an immanent material transcendence provides a productive framework for addressing the affectivity of sound. Acoustic space, a necessarily contingent complex of events that extends beyond sonority, constitutes an affective locus of singularities, an influential set of events that impact upon the individual from a position anterior to it. Yet the possibility of this anteriority requires that we conceive of the individual according to a certain temporality, as a thing, far from being immutable or eternal, for which being is necessarily in time. In doing so we adhere to 'an ontology wherein being is understood as temporal differentiation'. 263 Such temporal ontology is required if we are to conceive of sound events as appearing anterior to the self, as the self must be conceived as always being under the influence of events, as contextually determined and necessarily contingent; only such a conception permits the opening out of subjectivity, as a self conditioned by events is open to influence as each new event commences.

In adopting the gesture performed by Deleuze in rethinking the transcendent we might momentarily find the individual parenthetically positioned, bounded on each side by differing notions of the transcendental: on one side we have that which characterizes the ideal domain of subjectivity, and on the other—after Deleuze—the transcendent as immanent genetic principle, as ground. If we accept this transcendental revolution as a means of negating eternal and immutable form, we should make preparations for the criticism of deterministic thought that should be expected to attack any philosophy

²⁶³ Brassier, Nihil Unbound, 162.

accounting for the production of individuals at the expense of individual productions, with these defenses in place, we must account for the displaced subject, the I which lingers in the place where its traditional, transcendent territory once stood.

Just as we have sought the dissolution of the guise of immateriality so that we might open out onto the greater complexity of materiality—a movement towards the infinite resolution of matter carried out through the dissolution of normalizing, culturally conditioned thresholds of perception that lead to perceived immaterialities—we require the redress of durations and temporalities that hold the subject aloft its transient material substrata. In order to do so the subject must be conceived not as that which persists in time but as the subject of time. Yet we must take this further, as this duration should not be thought of as a single arch from conception to death. We are here in search of a generative and granular subjectivity of infinite resolution; overlapping, granular subjectivities, one duration after another, a complex and confusion of elementary thought.

In providing background to these assertions we should situate and better specify the consequences of Deleuze's transcendental revolution with regard to the constitution of subjects. To grasp the temporalities of subjectivity that arise from this regrounding of the transcendental we need to clarify the structure of this ground if we are to trace the events and singularities which through their structuring of the transcendent determine the rhythms and temporalities of individuation. Prior to an exposition of subjective constitution there must, in accordance with a dyadic individuality, be an account of the production of individuals; in accounting for this productive ground Deleuze states that:

A consciousness is nothing without a synthesis of unification, but there is no synthesis of unification of consciousness without the form of the I, or the point of view of the Self. What is neither individual nor personal are, on the contrary, emissions of singularities [...] Singularities are the true transcendental events [...] Far from being individual or personal, singularities preside over the genesis of individuals and persons; they are distributed in a "potential" which admits neither Self nor I, but which produces them by actualizing or realizing itself, although the figures of this actualization do not resemble the realized potential. Only a theory of singular points is capable of transcending the synthesis of the person and the analysis of the individual as these are (or are made) in consciousness.²⁶⁴

²⁶⁴ Gilles Deleuze, *Logic of Sense* (London and New York: Continuum, 2004), 118.

Here we see that to transcend the self is to arrive, not at a higher plane of consciousness but the conditions of its production. In this passage Deleuze refers to two stages or strata of individuation, that of the individual and the personal. It is the first stage of individuation, leading to the production of individuals, that is dealt with in the biological, socio-cultural and political sciences, through the study of groupings of singularities that comprise the conditions for the production of individuals: the interaction of genetic, nutritional, economic, psychological and even meteorological tendencies, determinants or singularities that influence the production of individuality. 265 This overview of influences is of course incredibly crude yet necessarily so, as the complexity of individuating influences in even a single instance vastly exceeds the scope of this text and, for that matter, that of my own life time. For example, we might also refer to the vastness of cultural and familial histories, more complex environmental and geological relations, and of more particular concern to this text, the influence of architectonic space and vibrational phenomena. Viewed in this way, these groups of transcendental singularities are seen, despite their interactions, as disparate sets of influences that constitute the grounds of as yet undifferenciated individuals. It is in what Deleuze refers to as the second stage of individuation that we witness the emergence of personality and subjectivity which through the making possible of identity performs the unification of these disparate determining factors under the appearance of a self asserted against its background influence. The relations of these two stages of individuation are expressed clearly and concisely by Levi Bryant who, summarizing Deleuze, begins with:

a transcendental field out of which the individual is eventually actualized. At the second level, the level of persons, we have synthetic predicates [...] It is true that at the first level the individual body envelops singularities upon the transcendental field, but it does not necessarily synthesize them. At the second level, the predicates are synthesized forming a unity or identity [...] But this identity, in turn, is only rendered possible on the basis of an alterity.²⁶⁶

It is at this point that my argument leaves itself most open to criticisms of overly linear or simple determinism, of positing an unchallenged primacy of the transcendental base as the

²⁶⁵ This overview is of course very crude, as the complexity of individuating influences in even a single instance vastly exceeds the scope of this text. A methodological approach to the broader study of individuating influences can be found in Susan Oyama's *The Ontogeny of Individuation*.

²⁶⁶ Levi Bryant, Difference and Givenness: Deleuze's Transcendental Empiricism and the Ontology of Immanence (Northwestern University Press: Illinois, 2008), 253.

trajectory of this argument so far passes only from world to subject. If we are to avoid becoming stuck in a deterministic rut we must account for the space of subjective influence upon the world, the role of subjects in influencing the principles of their own determination. In a passage from *Difference and Repetition* Deleuze lays out the key stages of his theory of individuation while addressing the critical reciprocity that is required if we are to avoid an over simplified and reductively deterministic account of individuation:

these systems are not defined only by the heterogeneous series which border them, nor by the coupling, the resonance and the forced movement which constitute their dimensions, but also by the subjects that populate them and the dynamisms which fill them, and finally by the qualities and extensities which develop the basis of such dynamisms.²⁶⁷

Here we find the interactive structural components of Deleuze's theory of individuation: the 'heterogeneous series' synonymous with Ideas and virtual multiplicities, their 'coupling' which is constitutive of dialectical or problematic-Ideas, the 'forced movement' which in 'constituting dimensions' performs the carving out of space characteristic of intensive processes and therefore spatio-temporal dynamisms, and finally the qualities and extensities that constitute the forms, identifiable phenomena, bodies and objects that these processes actualize. More importantly, however, is the assertion that these systems of individuation are not only defined by the former three stages most readily associated with the transcendent base but also by the subjects, extensities, actualities and therefore identities that a theory of individuation accounts for. It is this latter point that is essential in avoiding a reductively deterministic philosophy by accounting for subjective agency in the determination of the genetic principles of individuality and subjectivity, in other words, acknowledging the reciprocity of virtual conditions and actual identities. Subjectivity is not stripped of importance or agency but rather positioned as one agent amongst others within complex systems of determination. We arrive at a subject that is necessarily in-between, that appears and reappears between events.

Noise and the Extimacy of the (Im)personal

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²⁶⁷ Deleuze, Difference and Repetition, 145.

Having moved from the site of architectonic extension to the intimacy or extimacy of the individual, a similar contraction of auditory space should be considered in addressing the particular individual, impersonal and subjective impacts of a more localized and intimate sound space. This argument has been following a course of what we might refer to as spatial contractions, from the expansive noises of the sea, of nature, of an environment considered as a confused whole, to the environment considered according to architectonic determination and distinctions, to the urban or built environment. Where both of these latter expansive spaces or spatialities conceive, one way or another, of collective and social spaces, we now turn to a sound space that is often considered in terms of solipsism, individualism and isolation, to the proxemic thresholds constituting headphonic or headspace, to the portable and personal sound spaces constructed through the use of mobile media players of all kinds. Of ongoing interest is the production of space for the ears and the specificity of those spaces which appear to cut them from the world by synthetic or electroacoustic means. Of particular interest is not only the production of a synthetic space through headphonic means, but the way in which the headphonic can be thought to construct or direct audition towards a space not for but between the ears. As discussed earlier, Emily Thompson has given an extensive account of the manner in which physical and specifically architectural acoustics came to be broadly undercut by the possibilities of electroacoustic spatial synthesis, the way in which sound systems as yet another architectural installation were capable—in theory at least—of producing any space imaginable through the application or synthetic production of reverbs, through the placing of loudspeakers so as to create an otherwise impossible intimacy between orator and audience. The negative problematics of a given, physical space could be solved through the installation of electroacoustic systems capable of synthesizing an altogether more agreeable and intimate space. With the development of portable sound systems such possibilities would be taken to the streets; one can be pressed against the bodies of multiple others on any city's bus, train or underground network, close enough to smell their breath, feel the heat being emitted from their bodies, see the dandruff on their shoulders or the remnants of their breakfasts in their beards, yet one can be immersed in expansive and cavernous reverberations, or drawn out of the banality of the situation by the recording of a truly exceptional musical performance. Audition can be directed elsewhere through the imagination, and one can listen within a space that through the reverberant means of a portable spatial synthesis extends well beyond confines of a train carriage, bus or dinner

queue, placing under auditory erasure the noise of the otherwise problematic intimacy of others. Where public congestion and the uncomfortable intimacy of our largest cities began to overwhelm its occupants, portable media would—amidst the 'thickness' and opacity of overcrowded locations, in which each and every sound or smell produced by those forced into unwelcome intimacy would become both un-ignorable and intolerable—create a proxemic buffer zone, a space of synthetic relief through the 'virtual' creation of an elsewhere, either through portable headphonic listening or visual media such as books, magazines, newspapers and the ever expanding array of portable computers and other multimedia devices. It is into this problematic confusion that headphonic listening inserts itself most readily, as a response to what acoustic ecology has traditionally called the 'lo-fi' environment, most easily thought in terms of the noise of the city, concomitant with the need to turn away from or 'tune out' of the city's noise, from the nondescript and confused noise of others, is the prevalence of personal soundscapes and private acoustic spaces made possible and portable through headphones, mobile protection against the overwhelming noise of the world. Yet where headphones are concerned, this is not strictly a turn inwards, a turn towards inner peace and quietude, but rather a synthesis or deferral of space, a synthetic sonorous envelope, a spectral shield or membrane that maintains the perception of a minimal, proxemic distance between oneself and others. To shut out the noise of the world one might stop up the ears with wax or earplugs, yet to do so brings another space, another site of noise, one which is all too close: that of the body's interior, bringing the sounds of the jaw bone, tinnitus, each step upon the concrete which resonates through the skeleton and, perhaps most disturbingly, ones own heartbeat, the sound of both life and a countdown to death, too far into the foreground. Such a space, the space of an internal, distanceless and claustrophobic audition is found to be equally as threatening as that of the 'lo-fi' environment. What headphones provide is the maintenance—however illusory—of a minimal distance from both the noise of the world and that of one's own body and finitude. Under threat from the lo-fi environment, the listening subject may seek solace and affirmative individualization within headphonic space; Truax summarizes this mobile listening practice nicely, this turn away from the noise of a given environment as the "embedding" of an environment within another through use of portable, lightweight headphones', yet for the traditional acoustic ecologist this is a practice reinforcing the

'schizophonic split between electroacoustic and natural environments'. ²⁶⁸ The portability of electroacoustic or 'synthetic' sound-space provides the listening subject with the choice to partially leave an overwhelming environment, to enter another more concomitant with the delimitations of a personal territory, to make space and maintain a distance:

The choice of audio environment has the attraction for the listener of being entirely one's own [...] self isolation can occur anywhere and at will [...] The audio advertiser's exhortation to "shut out the city" with their stereo products is now being answered by the walk-person's logical response, "shut out everybody". It becomes the electroacoustic answer to noise pollution, as well as a psychological listening habit made profitable.²⁶⁹

The increased noise of urban environments is answered with an increased individualization according to portable and synthetic sound spaces, isolated sound-spaces determined according to the listening habits of individually orientated listeners. It is precisely such a turning away from the problematic noises of the world that acoustic ecology claims set itself against, yet it too turns away from noise—the reversal of which is made possible 'internally' by Truax's considerations of noise—moving away from the world and towards an idealized silence which maintains and protects the stability and discrete consistency of identities in manner similar to the conservative function provided by headphones. Admittedly, this 'conservative function' remains too simplistic insofar as headphone use is often as much a means of personal manipulation—a spatial and emotional insert bringing difference to an overwhelming or over familiar environment—as it is one of protection, yet this latter function nevertheless remains and appears as the primary target of Truax's critique. Such portable, headphonic sound-space becomes almost a necessary defence against the noise of the city which often threatens to overwhelm; it is in this instance that the Schaferian critique of headphones is at its strongest, where it is not a critique of headphones per se, but rather directed towards the occlusion of the noise of the world in place of a critical listening practice, a blockage which has the effect of allowing this noise to proliferate unchallenged. Such a turn inwards, a turn into portable and embedded environments promising escape, quietude or resistance, is a turn towards self definition and subjective consistency amidst a chaos of ill defined signals, signals swamped by the rising background noise. The response to the lo-fi environment, this turn inwards, is not only to

²⁶⁸ Truax, Acoustic Communication, 135.

²⁶⁹ Idem.

'shut out the city', nor to 'shut out everybody', but to shut it all out and gather yourself, produce a space in which you can get yourself together through listening, composure and composition.

Such auditory spatial productions mark the emergence of a distinctly personal territory, a space in which one takes place. From an ontological perspective such practices, through their maintenance of a minimal distance, pose a particularly subtractive model of individualization: through selection and subtraction, through the removal of oneself from the noise of a given environment the consistency of self image and the delimitation of personal space is maintained. Too much noise or an excessive proximity or intimacy and the self becomes confused. Response often comes in an auditory turn away or within—but not too far—to a space of quietude or consistency and stability. In the somewhat paradoxical 'feeling of being cut off' that Truax mentions it is the distinction or discretion of the self which is threatened as periodicity becomes blurred amidst rising background noise. Discretion is lost as the noise of the world threatens confusion on one side, while that of the body as inescapable and claustrophobic sound space waits on the other, between which the embedded auditory environment or sound-space insert provides relief.

To a certain extent this merely states the obvious insofar as such experiences are near ubiquitous around the globe. Nonetheless, much has been said to challenge the most obvious positions and received wisdom on such listening practices, accounts which deserve consideration; such accounts are, of course, of concern as they directly address modes of individualization according to audile techniques. It is to accounts and practices that engage directly with the complex problematics and proxemics of this portable spatiality that I wish to turn. A brief overview of practices concerned with the production and investigation of such portable, individualized and individualizing spaces will lead to a consideration of works that seeks to engage more critically with precisely the spatial aspects of related audile techniques, in challenging the personal and individualized spaces that such techniques and technologies produce. These critical practices to which I will eventually turn are considered due to their opening out of such personalized spaces considered characteristic of headphonic listening, creating openings from the individualized that lead in two apparently very different directions: firstly, back out into the world, and secondly, deeper into the question of what we consider an individual and individual space to be, into the impersonal conditions of the personalized, and the opacity of the somatic complex. It is this latter point that remains focused upon the individual yet one which does not distinguish

itself from the world it inhabits and the spaces it occupies.

For Schafer, headphones constitute a symptom of unchecked noise pollution and ubiquitous schizophonia, with listeners walking around divorced from their surroundings, isolated within their own, individualized synthetic spaces, set apart from the wider acoustic community: 'In the head-space of earphone listening, the sounds not only circulate around the listener, they literally seem to emanate from points in the cranium itself, as if the archetypes of the unconscious were in conversation [...] when sound is conducted directly through the skull of the headphone listener, he is no longer regarding events on the acoustic horizon; no longer is he surrounded by a sphere of moving elements. He is the sphere. He is the universe'. 270 While Schafer's observations will be familiar to most city dwellers, there is a sense in which these observations remain too simplistic, limiting elementary movement to an overly naturalized image of the external acoustic horizon, remaining unaware and unable to appreciate the subtleties and headphonic listening practices, the almost necessary function they provide for many users and the complex quotidian praxes and urban engagements they are bound up within. A more problematic objection comes in response to the assumption that Schafer's assertions are based upon, namely a prior unity or authentic and unperturbed experience of the world, a position which neglects the necessity of a minimal distance, disconnection or distinction of the alteritous foundations of subjective consistency that are supported or reinforced through headphonic schizophonia where connectivity overwhelms. Further insufficiencies and undue simplifications put forward in Schafer's view of headphonic listening are pinpointed by Steven Connor:

The walkman has the reputation of bringing about a solipsistic and antisocial withdrawal of its user from his or her environment. But it is better understood as a way of translating the experience of the city in auditory terms. Unlike fixed hi-fi headphones, the Walkman does not remove its user from his or her environment; rather, its portability deepens the experience of the body as it moves through an urban scene transformed by the cadences and colorations of the inner sound-track. The Walkman offers the pleasures of a mastery exercised over an otherwise potentially over-mastering saturation by auditory stimulus in the city, but it does so not by switching the attention of its user from an outer to an inner experience, but by making available a different (auditory) kind of attention to the non-auditory aspects of the city [...] the Walkman auditizes the urban.²⁷¹

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²⁷⁰ Schafer, *The Soundscape*, 119.

²⁷¹ Steven Connor, 'Sound and the Self', 60.

In contrast to Schafer's isolating and solipsistic view of headphones, headphonic listening practices are here recast by Connor as productive of complex individualizing spaces and, where portability is taken into consideration, alternate, augmentative interfaces to the wider environment; their use allows the self to make new connections to, and experiences of, the surrounding environment enabling progressive individualizations along the relational lines established between listening praxis and its associated environment. The inaudible is 'auditized', peculiar synchronicities arise as the world bleeds back into headphonic space, as a pause in the music creates the smallest of openings onto an over heard conversation or the crunch of grit and gravel under foot. The stream of visual and otherwise inaudible events silenced by the choice to 'plug in' while en route acquires a rhythm that would otherwise have slipped through the cracks and distractions that punctuate attentive durations. The world without takes on a rhythmic and harmonic structuration according to the sounds heard within. Events contracted, unified in perception, structured according to the rhythms of a portable sound-space, contribute to the terrain being crossed; one's internal sound-space will bring to the fore details otherwise neglected, framed differently according to abstract soundtracks brought into it by those who pass through. New routes are taken, paces altered, spaces differently perceived according to the intrusion and confusion of sounds brought out into the world within portable headphonic space. While headphonic listening in any instance constitutes the potential for alternative engagements with the environment, this potential has received considerable attention in the work of Janet Cardiff. Cardiff's sound walks involve listeners wearing headphones and listening to prerecorded pieces that, through a combination of field recordings, narrative, superimposed sound events and instructions, direct them along a predefined route. The sounds heard are taken from the space in which the walk takes place—an overlaying or enfolding of the place within itself that short-circuits schizophonia—often overlaid with additional sound effects and details. Cardiff presents listeners with the sounds of her walking, the sound of her own footsteps upon the earth on which they now stand, following the same route they themselves undertake; one walks her walk. Through the use of binaural techniques the listener is also presented with the sound of Cardiff listening; one listens to her listening, according to the specific dimensions and resonances of her cranium. Cardiff's work tests the extent to which such listening practice and sound-space can be said to construct new connections with an environment. Cardiff develops an uncanny relational proximity to the site of a sound walk, binaural on-site recordings construct the most intimate of hi-fidelity fabrications, a subtle distortion of site supports her superimposed narratives, a distortion that is itself productive of site as ongoing spatial production. Listeners are presented with a minimal margin of mediation, to listen to a recording of the site in which one stands situates one at the edge of auditory simulacra, a superimposition of 'soundscape' as uncanny auditory object against the background noise of the occupied site that nonetheless persists, a perceptual distanciation.

Cardiff presents us with a particular tension between listening practices, her work applies many approaches used within acoustic ecology: field recording, sound walking, cartography and so on, yet her nuanced manipulation of headphonic space within the field, the production of fields within fields presents the most intimate of listening spaces atop and within that which is expansive and open; headphonic space is reintroduced into intimate proximity and interrelation with the noise of the world, a juxtaposition and cross contamination of sound-spaces that suitably complicates the narrative and structure of auditory space outlined above. Such practices add necessary complication to a trajectory that, moving from the geological and geographical to the architectonic to headphonic space presents an all too straight forward and linear spatial hierarchy. Where headphonic is space is opened out onto the world, a gesture expressed most concisely—although not exclusively—in Cardiff's work, within the structure of auditory influence an opening is forced that delimits that of the listening subject as agent in the determination of auditory conditions. The act of listening performs a structuration and restructuration of sound-space.

Despite such openings and extensions, portable headphonic spaces, as individualizing spaces, nonetheless constitute a certain personal buffer through which events are filtered and interpreted, an ambiguously extended and increasingly complex personal proxemics or subjective territoriality. Such listening practices, despite their confusions, complexity and uncanny embedding of auditory environments, nonetheless maintain a certain consistency of the individualized self image; this is not to say that such consistency is static or immutable within such listening situations, but that while headphonic listening cannot be reductively characterized in its entirety as a solipsistic practice—in part at least due to the portability mentioned by Connor—the means by which it addresses its listening subjects maintains individualized modes of consumption and models of audile subjectivity.

While such individualized auditory space generally characterizes headphonic space, we can find an exception in the work of Andreas Avelas whose *Earphones* constitutes an exploded headphonic space opened up to a more collective mode of sonic experience.

Hundreds of pairs of headphones laid out on a gallery floor constitute the input and output nodes of a feedback network. The content of this system is the filtering of architectonic space through the limiting bandwidths and reproducible frequencies of headphonic space. The acoustic space of the gallery constitutes an associated and supporting structure for the occupying sonic field that Avelas' Earphones assembles. Avelas' Earphones invoke the potential for his subject matter to be both speaker and microphone, to be anthropomorphically somatised as being simultaneously mouth and ear. Earphones sets itself apart from the surrounding gallery space by producing a distinct and relatively static sonic field and bandwidth, a parasitic auditory occupation. Yet, as with any feedback system, its infrastructural supports, electronic, physical, architectonic and so on, being indissociable from its existence, are implicated and enmeshed within and as the technical system that subsumes its existence; the sound produced is an expression of the system's physicality and extensive connectivity. The piercing body of sound produced by the electroacoustic network and its associated architectonic milieu is an expression of relational interior acoustics that cuts through trends in acoustic design that seek to create the sound of any space and simultaneously no-space through its auditory erasure. Where headphonic space is interpreted solipsistically as a space in isolation, divorced from its surrounds, Avelas excites the potential for this confinement to be refigured, rewired and folded out into the wider architectonic world. The technical infrastructures of headphonic space are reconceived in terms of a potential for modular interconnectivity, as being capable of defining a wider, collective territory. 272 Headphonic space is opened out into an expansive field of indiscriminate broadcast, the allusions of intimacy and the sense of a space of one's own that headphonic listening often invokes are deconstructed, with the possibilities of headphonic space, its bandwidth of potential frequencies, being reconceived in terms of a potential for collective occupation and interaction.

While Avelas' *Earphones* perform a restructuration of headphonic space according to a schema that sees the protective, proxemic buffer that such space normally constitutes opened out into a wider field of influence through its occupation of architectonic space, it is beyond the common technical infrastructures constitutive of headphonic space—the

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²⁷² This of course brings to mind the 'flash mobbing' trend which saw London Victoria station, amongst others, occupied by large crowds dancing to individual sound tracks played on personal stereos during rush hour. Such events display a form of collective individualism that while interesting maintains the sorts of divisions and personalized spaces that the work I am primarily interested in is more critical of.

stethoscope, headset and earphones—that we find the most intimate identification and exploration of headphonic space. In constructing an account of individuating sound-spaces a trajectory has been followed from the noise of the world taken as the originary impulse and subject matter of acoustic ecology practice, through the resonances of the architectonic body to the personalized and individualizing space of headphonic listening. Yet this latter stage, what we might refer to as the sounding of a certain 'head space' is taken further, someway beyond the space of the listening subject, by Jacob Kirkegaard. Kirkegaard's *Labyrinthitis* cuts through personalized headphonic space to the *individual* operations of hearing, passing through the minimal proxemic territory of individualized listening that is supported against the threatening noise of the world without within headphonic listening, to the inescapable intimacy of somatic noise that ordinarily constitutes a turn within taken too far.

Ahead of the listening subject, sound, in *Labyrinthitis*, is articulated towards an *a priori* concrete individual. Ahead of the contractions of memory, association, or representation, Kirkegaard addresses the ear as a contraction of vibrations, a contraction of the possibility of hearing and listening. It is the ear, ahead of the listener, that appears as Kirkegaard's primary subject, a focus that designates individuals not yet considered apart from their associated environment, from the conditions of hearing and the potentials of what can be heard. Kirkegaard once again brings to the fore that which one cannot help but hear but to which one seldom listens: audition itself. Kirkegaard's work addresses the conditions of sound in a manner that situates one's being in intensity; present in equal measure are sound and the possibility of its existence as such, the becoming sound of vibration. We are brought to the site where the virtual conditions of sonority become actualised, rendered sonorous ahead of their being signs, the intensive site of hearing. Douglas Kahn's essay written to accompany the release of this piece as a recording describes how *Labyrinthitis*:

creates a situation where the audience hears him [Kirkegaard] hearing and hear themselves hearing [...] Knowledge of active hearing has developed since the late 1970s, due to an increased understanding of the mechanisms in the outer hair cells of the cochlea. These specialized hair cells change shape in response to electrical stimulation from the nervous system, and when they do it in concert they create vibrations in the fluid chambers of the labyrinth. To sound coming from the outside, they respond with a tiny amount of sound of their own. These sounds are called

otoacoustic emissions (OAE) and are thought to play a part in 'cochlear amplification', a selective reinforcement of certain frequency characteristics [...] When OAEs are evoked by external tones, they are called distortion products (DPOAE) and can be heard. Labyrinthitis consists of DPOAEs.²⁷³

It is this situation that Kahn summarizes as 'active hearing', the act of listening to hearing whereby one hears the process, the working of the 'mechanism', through which one hears, and by the means of which one comes to listen. This site of active hearing, of hearing hearing, identifies the minimal and necessary potentials of a listening practice that must exist anterior to the complexities of culturally conditioned listening and auditory tuning, what we might refer to as a primary subtraction that renders a broader field of vibrations as audible possibilities, a field that nonetheless persists in excess of its audibility, its actualisation in qualities. The assertion of an 'active' hearing should not, however, suggest an otherwise passive sense, as Sterne points out: 'the physiological notion of hearing as a pure capacity is not quite passive—receptive would be a more accurate adjective'. 274 It is in addressing similar concerns that we might describe hearing in terms of a passive synthesis, its passivity or receptivity rendered active in its synthetic productions offered up for cognition, a receptivity that is nonetheless productive in its contraction of stimuli or elementary excitations.²⁷⁵ It is such an active receptivity that Kirkegaard's piece draws attention towards, foregrounding its synthetic potential. In directly addressing and exciting the auditory apparatus in a manner that draws it to the foreground of attention, Kirkegaard uses sound to cut through the personalized space of listening to the individuating space of hearing, addressing the individual as a mode of being not distinct from the world. The proximity of headphonic listening is surpassed by sonorities that lodge themselves within the intimate space of the ear canal, the most precise localization of auditory headspace. This is an approach to sound and its perception that addresses the conditions of both, the contingent material potentials of sound, hearing and listening praxis. In its intensive somatic address, an auditory interpellation of resonant and fleshy assemblages,

²⁷³ Douglas Kahn, 'Active Hearing', liner notes to Jacob Kirkegaard's *Labyrinthitis*, available online at http://fonik.dk/works/labyrinthitis-kahn.htm, accessed 08/10/10.

²⁷⁴ Sterne, Audible Past, 100.

²⁷⁵ Passive synthesis is here taken in the Deleuzian sense whereby it refers to a habitual and sub-representative binding or contraction of elementary excitation constitutive of a constantly renewed present. This notion of passive synthesis locates activity within receptivity, against the Kantian conception whereby activity is conceived in terms of that which gives rise to new forms of identity within the I, while passivity is conceived as a receptivity without synthesis. This concept is discussed in depth by Deleuze throughout the second chapter of *Difference and Repetition*. Only the specific points mentioned here see 93, 103, 106, 109, 133.

Labyrinthitis establishes a collective experience of individual difference through a broadcast diffusion that attains headphonic intimacy in each instance of its reception. Each reception of the tones produced renders a third according to its specific organic conditions, while we hear Kirkegaard hearing this event is repeated in each instance and so one hears Kirkegaard and one's self hearing. This third tone—also known as a Tartini or combination tone—produced by the ear appears as a marker of Kahn's 'active hearing', the organism in operation. To reduce this situation to operations of the flesh is too reductive a move; in addressing perception we are never dealing solely with the physical or physiological; such things may comprise the conditions of sonority but where we are concerned with hearing and listening practices we are required to account for the cultural determination of such events, the tuning of perception that is as much cultural as physiological determination. In addition, the influence of sound is, as Kirkegaard's work shows, not solely enforced from without and so in hearing we identify a site where the organism meets the world:

There is no such thing as a sound in itself, or sounds in themselves in active hearing. What one hears is, at its physiological basis, the nervous system reaching out to sound with its own sound. Active hearing, in other words, clears a discursive pathway to better appreciate all the conditioning of hearing from the inside out, including acts of directing one's attention.²⁷⁶

What is important about Kahn's statement, beyond is description of what Kirkegaard's work reveals to us as listening subjects, is that he directs us towards attention. Lest we become bogged down in unilateral biological and physiological determinism, Kahn reminds us that the directing of attention, the decidedly cultural 'mechanisms' assumed and active in the tuning of perception also comprise a conditioning of sound as a synthetic and relational production 'from the inside out', a conditioning that by virtue of its complexity is perhaps better described in the terms of an infra and interpersonal extimacy. Despite the focus that runs throughout this argument on an assumed primacy of matter—necessary in avoiding ontological dualism—cultural, subjective and social activity is in no way discarded as mere residual effect; on the contrary, conscious activity is asserted as efficacious and an essential productivity that must be acknowledged if we are to avoid an oversimplified, linear determinism. The notion of active hearing, of a determination of what is heard at the point of its reception, directs attention towards the contingency of sound; insofar as we add to

²⁷⁶ Kahn, 'Active Hearing'.

Kahn's statement that hearing is in fact never wholly passive, that both receptivity and perception indicate a state of active engagement, we can state that there is no sound in itself, that counter to autonomy, sound expresses the connections and interrelations of a contingent system, that sound is the active expression of an active system comprised of organic, inorganic, technical, architectectonic bodies and so on. Sound expresses the inbetween, the relations of elementary objects and events, the space between organism, architecture and environment and their forced excitation.

The individuating and individualized events engendered in Labyrinthitis are rendered more problematic in terms of perceptive and evental conditioning by the site in which they occur. A performance of Labyrinthitis during the summer of 2008 at Rundfunkhaus Nalepastraße, Berlin, accentuated a stark contrast between the cavernous hall in which the piece was performed and the alarmingly intimate proximity with which these sounds took a hold of those bodies present, the sounding of an interiority ordinarily the reserve of one's organs. Labyrinthitis adds several layers of complexity to the determination of a headphonic space. By means of indiscriminate broadcast the most intimate of individualized listening experiences is provoked, a collectively articulated sound field addresses a common organ and capacity, a gesture that results in tonalities that express the finer details and individual differences of each auditory system. While being articulated at an individual level this is far from a selfless or wholly impersonal gesture; as Kahn points out, the audience hears Kirkegaard hearing, they hear the resultant tones of his particular DPOAEs which engender similar yet distinct events according to each individual's physiological composition. To hear another hearing, to hear another, to hear, in a sense, through another are all alteritous auditory situations constructed by Kirkegaard. Within the sound-space constructed in this piece another is brought inside, this drawing of the outside within is not a privilege of sound but it is in sound that such a breaching of thresholds is most keenly felt.²⁷⁷ At the performance of *Labyrinthitis* at Nalepastraße, the audience is simultaneously subject to the cavernous envelope of the concert hall and an inescapable claustrophobia. Coupled are the grand and the intimate, the expansive and the claustrophobic. These latter adjectives are most adequate in describing the drawing together of a collective listening experience, normally assumed to be the collective experience of a common phenomenon, with the intimately individual experience of one's own interiority,

²⁷⁷ Although, perhaps even such sonorous extimacy might be surpassed in terms of offense and affective impression by the olfactory sense.

the specifics of one's auditory system: a collective experience of individual difference. It is this sonic extimacy that Labyrinthitis expresses so clearly: 'in Labyrinthitis, sounds interact both inside and outside the confines of individual experience, as listening is introduced into the transductive flows of the world'. 278 It is Kahn's association of listening with transduction that is key here, as we identify transduction, in line with the work of Gilbert Simondon, as being the driving force or forcing of individuation: 'a physical, biological, mental, or social operation by means of which an activity propagates itself from one location to another within a given domain'. 279 As the influence of sound is felt from the outside in, an active conception of receptivity, of sensation and perception, witnesses the addition to this situation of a influence active from the inside out. Thus transduction designates a trajectory of influence, a process and transfer of information through material mediums.²⁸⁰ Listening and hearing as active processes are added to the complex of transductive forces, of individuating determinations and conditions that constitute the ongoing structuration of individuals. Complicit in networks of influence, the active conception of perception locates it amidst a confusion of interiority and exteriority, a complication necessary in avoiding simplistic linear causalities and hierarchically deterministic ideologies of influence.

While in some senses performing a most precise definition of headphonic space, it is in its reach beyond the notion of such a space as being strictly individualizing, in its cutting through the proxemic delimitations of headphonic space towards its material conditions, that Kirkegaard's *Labyrinthitis* establishes connections between individuals and a broader individuating environment. The buffer zone ordinarily constituted by what we have been calling headphonic space addresses its listening subjects by means of a series of optional and subjective associations, a personalized synthesis of self and environment, what we could—by virtue of their orientation towards conscious perception—refer to in terms of 'free choices', the choice to listen, to engineer an individualizing environment through the correlation of organic, inorganic and architectonic bodies along auditory lines, the reframing of an environment according to the structures of a personalized and personalizing sound field. Such individualizing assemblages or mechanisms are active, in a sense, 'after'

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²⁷⁸ Kahn, 'Active Hearing'.

²⁷⁹ Simondon, *L'individuation*, 24-5.

²⁸⁰ This interpretation and the above translation of Simondon's text are taken from the work of Steve Shaviro. See http://www.shaviro.com/Blog/?p=471

perception, insofar as such listening practices and theories of audition take modes of perception as given, assuming a certain consistency of what it means to hear and listen. Kirkegaard's Labyrinthitis sets its sights somewhat 'lower', articulating its sonorities towards a receptive substrata, an 'unfree' forcing that identifies the body as inseparably enmeshed in its environment; in other words, the conditions of perception are taken as the subject matters of *Labyrinthitis*, the organic subtraction that provides a partial structure by which we can begin to identify a particular bandwidth of vibrations as sound. We are, then, drawing upon what we can call, after Bergson, a theory of 'pure perception'. This theory describes a mode of perception possessed by a being 'absorbed in the present and capable, by giving up every form of memory, of obtaining a vision of matter both immediate and instantaneous'. 281 We might also describe such a mode of perception in terms of a 'shock of the real': a material event in which the nature of the material as opposed to representational or associative operation, its combination with memory, appears to us. Pure perception, then, names the immediate appearance or presence of matter and a certain immanence of influential forces. To the extent that it addresses what we have already referred to as the order of individuals, a state of pure perception describes what would perhaps better resemble a state of horrific or monstrous confusion, a world of unknown and unknowable, sub-representative signals, affects and events. Recourse to the theory of pure perception is made insofar as it describes periodic ruptures, transient events that appear as a dissolution or overpowering of representative, mnemonic structures which return after its passing. The particular relevance of the theory can be seen in Bergson's statement that 'pure perception bears, by definition, upon present objects, acting on our organs and our nerve centers'; such a description provides a concise overview of the approach taken to both the body and perceptive functions in Kirkegaard's Labyrinthitis, but also more generally practices which articulate their actions towards bodies ahead of, yet, of course, not in the absence of, minds. Made present both within and without the individual towards its confusion is the vibrational reality of a sonorous objectivity or objectile, an event primarily articulated towards 'organs and nerve centres'. This approach, which in addressing the conditions of sound, draws upon the possibility of pure perception, yet insofar as we can also identify at work the notion of a larger vibrational continuum from which sonority is derived, we draw more specifically upon the diminutive aspects of this theory, upon a particularly subtractive theory of

²⁸¹ Henri Bergson, Matter and Memory (New York: Zone Books, 1991), 34.

perception. This subtractive theory accounts for the notion, implied within the theory of pure perception, that what is perceived is but a small bandwidth of a larger vibrational continuum, that there is more to matter than is revealed in perception. This position is described by Bergson as follows:

If there were *more* in the second term [perception] than the first [matter], if, in order to pass from presence to representation, it were necessary to add something, the barrier would indeed be insuperable, and the passage from matter to perception would remain wrapped in impenetrable mystery. It would not be the same if it were possible to pass from the first term to the second by way of diminution, and if the representation of an image were *less* than its presence.²⁸²

It is precisely this diminutive trajectory that should be retained; more critically, it its important that this subtractive theory be maintained despite Bergson's own understanding of this theory as being purely hypothetical and counter to its surrender to a perception fused with memory, as per the famous quote: 'there is no perception that is not full of memories. With the immediate and present data of our senses, we mingle a thousand details out of our past experience'. 283 It is not, of course, my intention to suggest that we are dealing with events and situations where memory is wholly absent, but rather that the events of particular interest are not explicitly directed towards memory recall or representation, but more towards notions of a perception-action and -ascesis. In the practices and approaches under consideration, where intent is not symbolically but affectively or generatively orientated, the situation can be taken as one in which memory is not assumed as given but circumvented in attempts to appeal to the intensity of a nonrepresentational perception 'in itself'. The potential for subjective ruptures and perceptive distortions found within Bergson's notion of pure perception are catalytic in approaches articulated towards the concrete individual. The present intention is, of course, not to merely describe the already complex and rich work done by the likes of Kirkegaard and Kahn in Bergsonian terms for the sake of a transposition of ideas into the reputable arguments of a particular philosophical discourse, but rather to draw attention to the fact that it is only with reference to Bergson and his critics that the idea of pure perception is shown to be nested within Kahn's discussion of 'active hearing' and assumed as given with regard to the psychophysiological imperatives of Kirkegaard's Labyrinthitis. More importantly, it is only

²⁸² Bergson, *Matter and Memory*, 35.

²⁸³ Ibid., 33.

through reference to the concept of pure perception that we are able to establish a clear connection between Kirkegaard's work and the notion of perception-ascesis onto which it opens: a shaping of perception around the sonic events and objects received. It is this opening onto perception-ascesis that highlights the individuating potentials of this work and related approaches. Within this notion, built around the idea of a conditioning and training of the self or individual according to the presence of objects and events, we find a description of both a site and process of individuation, the training, conditioning and disciplining of the individual according to the immanent impressions of objects around which perception molds itself. In order to establish a framework by which to support the practical investigation of such potentials and the events occurring within and towards the construction of a site of individuation, it will be necessary to extract the theory of pure perception from Bergson's own work on the concept. To this end, we will be drawing upon Quentin Meillassoux's critique of this very point, of Bergson's submission of his own theory of a pure and subtractive theory of perception to memory and representation.²⁸⁴ This critique reinstates the individuating potentials that can be located in a notion of pure perception as both instantaneous, i.e., non-representational and distinct from memoryrecall, and appearing within a site of utmost intimacy. Such a critical wresting of pure perception from the conclusions of *Matter and Memory* proposes a continuum between both subject and matter, space and time, a continuum contrary to Bergson's own philosophy. To better map out the route to such a continuum we should make brief recourse to the consequences of Bergson's elevation of time over space.

The privilege Bergson ascribed to the temporal—associating quality with duration which is unveiled according to the contractions of memory—holding it above the spatial, has, due to contemporary critiques and practices, come to be thought of as something of 'bald dichotomy'. ²⁸⁵ In uncovering the complex, heterogeneous and qualitative temporality of matter—the productivity of matter itself, devoid of spiritual guidance—the boundary set up by Bergson in the defense of this dichotomy collapses in on itself. Where qualitative

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²⁸⁴ While Meillassoux describes 'Subtraction and Contraction', the only article of his oeuvre that I will be drawing upon, as a work of philosophical fiction, for reasons detailed in the article itself, it nonetheless engenders a number of points and ideas that are of considerable use to my own project and the argument constructed herein. While the article does not necessarily describe Meillassoux's own position, this does not hamper its generative potential.

Ray Brassier has highlighted the inadequacies of this dichotomy and detailed Deleuze's critique of this Bergsonian split as well as the conceptual model he provides for thinking their interrelation through the discussion of Difference and Repetition as being reciprocally enveloped. See Brassier, *Nihil Unbound*, 164.

duration is found to reside in the fluctuations of matter, matter is no longer conceived as homogeneous and in need of memory for the production of heterogeneous qualities, of properly subjective durations which privilege time as the revelatory force of qualitative heterogeneity over the spatial and material homogeneity. The razing of this dichotomy, a move made necessary in order to avoid positing an ontological dualism contrary to all efforts thus far of establishing a continuum of material influence, has a number of important repercussions. Embroiled in the Bergsonian time/space distinction are respective divisions between interiority and exteriority, mind and matter, spirit and body. Despite Bergson's project of investigating the relations between such notions, it is with the maintained distinctions and resulting ontological dualism that we currently take issue. It is precisely such divisions that I have been at pains to problematize in what has already been said; in setting time in space, in acknowledging a qualitative temporality of matter, Bergson's time/space distinction is found to be somewhat decrepit—yet nonetheless a peculiar and provocative relic. In dismantling the boundary established between space and time, the support is removed from Bergson's related distinctions—between interior and exterior, matter and mind, and so on. If, by virtue of the acknowledged relation of space and time, qualitative temporality is not the reserve of a distinct consciousness or subjective synthesis then we are required to take a similar approach to matter and mind, to the material world and the structuration of the self. It is the privileged extensions of temporality that kept mind distinct from matter, in acknowledging the insufficiencies of such a privilege, in removing its support, one term slips into the other. In placing time-in-space, quality-in-matter, mind is situated in matter as the qualitative duration which was its privilege is found to be active in the productivity of space, of spatial-matters. The critical gesture performed is one of a debunking of dualism towards the establishment of continuum, a univocity in which the distinction between matter and mind is considered—contrary to Bergson's formulations in terms of degree rather than kind towards the establishment of a continuist ontology.

A problem appears to surface when, after all this discussion of continuums, one acknowledges a *difference* between matter and mind, between body and self—as is the case in the above references to a notion of dyadic individuality. The appearance of this problem does not, however, impact negatively upon the current argument as it is taken as presenting a problematic difference assumed to be 'internal' to matter, a difference in degree as opposed to a difference in kind. Such a difference exemplifies a heterogeneous understanding of matter inclusive of 'qualitative duration'. It is such a difference in degree

which is proposed by Bergson's hypothetical pure perception, and as such highlights the necessity in referring to Meillassoux's critique which wrests this concept from its subjection to memory and synthesis, and in doing so preserves the force of its continuist schema.

The particular relevance of this brief Bergsonian exegesis is found in the consideration of what we can—by means of a subtle distortion—describe as an account of individual or personal territories. Towards some kind of consistency with the approaches already discussed we will first address the body. Bodies constitute what Bergson refers to as 'zones of indeterminacy', a complex system through which stimuli and information are processed. It is this indeterminacy which accounts for a certain 'delay' which is associated with the capacity for thoughtful response, for choice in relation to action, that is distinguished from reflex action in the absence of a conscious decision. Where a 'zone of indeterminacy' is identified as primitive or non-existent, the response to received stimuli is one of immediate reflex action, a situation in which we can say that perception is action, insofar the act of perception necessarily entails an immediate response from the body. The complexity of this indeterminacy—the potential for delayed and considered reaction built upon memory and enabling choice—is in a sense proportional to a complexity of thought, and is considered constitutive of a consciousness. Interestingly, Bergson draws out a relation between perception and the complexity of this zone of indeterminacy, or more specifically between distance and the territory of the self, as Bergson puts it: 'a variable relation between the living being and the more-or-less distant influence of the objects which interest it'. 286 This idea of distance in relation to conscious perception and the delimitation of a subjective territory is of particular interest, as the proportionality between the complexity of a zone of indetermination and the distance or foresight with which events and objects can be perceived accounts both for a capacity for conscious consideration—for choice—and the well defined space of the self image. In other words, the relation of the body to more or less distant objects and events allows for the determination and identification of alterity. This relation between perception and the determination of personal territory can be seen in the following statement from Bergson:

By sight, by hearing, it [the body] enters into relation with an ever greater number of things, and is subject to more and more distant

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²⁸⁶ Bergson, Matter and Memory, 33.

influences; and, whether these objects promise an advantage or threaten a danger, both promises and threats defer the date of their fulfillment. The degree of independence of which a living being is master, or, as we shall say, the zone of indetermination which surrounds its activity, allows then, of an a priori estimate of the number and the distance of the things with which it is in relation.²⁸⁷

Perception expands potential for spatial relations and objective influence, yet, in the above, it is also charged with a certain determination of personal territory within which a duration or capacity for both foresight and memory inheres—a capacity summarized by the notion of a 'zone of indetermination'. That an event being defined as 'out there' is easily construed as other is obvious, yet it is precisely the rigidity of the division between 'out there' and 'in here' that is problematized by post-Bergsonian critique, situating both terms within a continuum. It is clearly the very real possibility of the exterior arriving within in the interior that defines a certain notion of threat, and at the same time the variability and permeability of the self. Yet it is the particular way in which this proximally orientated identification relates to the consistency of subjective territory that is of interest. It is the appearance of alteritous events within that problematizes such delimitations, the appearance of the without within. We find an example of such an appearance in the DPOAEs capitalized upon by Kirkegaard, a sound that we know is projected from without appearing below the threshold of a certain minimal distance, that is, appearing as being indiscernible from the most intimate of interiors. Such internal alterity defines the alarming difference and interdependence of matter and self, exemplified by the sound in and of me that is not I. The appearance of sound events that are in a sense without distance, that are heard as a sounding of the body itself, do so by means of a perception-action, the 'active hearing' and 'sympathetic production' discussed by Kahn and Sterne respectively. The intimacy of this appearance attests to a transgression of indeterminacy, an intimate appearance that in its dissolution of alteritous distance appeals to the perception-action of the concrete individual. It is in appealing to a radically limited zone of indeterminacy that such proximal events problematize the territory of the self—challenging personal space—in their orientation towards the individual. It is in this manner, in the forced hearing of the without within, that Kirkegaard's Labyrinthitis articulates itself to the base materiality of individuals and operates explicitly within ongoing individuating processes, perception located at the site

²⁸⁷ Bergson, Matter and Memory, 32.

where it molds itself around external objects.

This site or event can be considered in terms of a process of perception-ascesis, a coupling of perception and a practical discipline or determination of the self. What we find in Meillassoux's proposed restructuration of the theory of subtractive perception is an attempt to free the more radical theory of perception-ascesis from its Bergsonian submission to perception-synthesis, to rescue the notion of pure perception from Bergson himself. It is perception-ascesis which provides the opening for this discussion of perception to be coupled most clearly with the overarching concern regarding a theory of individuation, for perception-ascesis names 'a perception [...] absorbed, to the exclusion of all else, in the task of molding itself upon the external object'. 288 This notion begins to account for somatic functions under the influence of environmental matters, an objective influence that assumes an environment that is in flux or metastable. The reason for this preference is that in adopting some of the details of Meillassoux's critique we are better equipped in accounting for a theory of perception suited to the 'active hearing' to which Kirkegaard's Labyrinthitis, is articulated. More broadly, such a theory establishes the conceptual ground for a theory of sound articulated to a material receptivity ahead of its conscious or subjective perception, a theory which goes some way to coupling perception with individuating forces. As Kirkegaard cuts through the individuated listening practices, through the identification active in representative listening, Meillassoux's critique of the essential role of memory in Bergson's theory of perception attempts to strip away layers of memory in order to arrive at the site of matter in action anterior to the representation of matter. It is, in Meillassoux's speculative formulation, perception-synthesis which, by way of a temporal compression or durational envelopment, fuses perception with memory, the consequence of which is a strict division between the in-itself and the for-us, against Bergson's own anti-Kantian critique. Such distinction asserts a impassable division between matter and subject, positing an unobtainable materiality and a subjectivity trapped within its own synthetic constructs. Meillassoux's argument is of interest for the importance it places upon perception-ascesis, a theory that can be read as a coupling of pure perception with the force of individuation, and the manner by which his argument is framed by a critical approach to the notion of a vibratory reality of matter found in Matter and Memory. It is via a subtractive method that Meillassoux aims to establish a theory of

²⁸⁸ Bergson, Matter and Memory, 33.

perception that operates not by the synthetic contraction of matter with memory, but by selection from the rhythms of matter, a selection from matters which comprise all possible and perceivable rhythms. Were we to equate rhythms with the peak of a waveform we might refer to such rhythmic perception in terms of frequency, a move which would render this argument congruent with the notion of tone as an isolation or reduction of frequencies derived from the Idea of sound, from the noise which constitutes the potentials of sonority. In many ways, then, the subtractive theory can be thought of as well suited to describing the relation between sound and the wider field of vibrations it appears amongst, or perhaps apart from; the suitability of this assumption can be addressed with reference to Sterne who notes that:

The physiologist Johannes Müller wrote over 150 years ago that, "without the organ of hearing with its vital endowments, there would be no such thing as sound in the world, but merely vibrations." [...] Sounds are defined as that class of vibrations perceived—and, in a more exact sense, sympathetically produced—by the functioning ear when they travel through a medium that can convey changes in pressure (such as air) [...] Sound is a little piece of the vibrating world. ²⁸⁹

Sound is thus figured as a territory of vibrations claimed by an organic agency, a reduction of the vibratory reality of matter and as being subtracted from the—otherwise largely inaudible—noise of the world. The body's obstruction and complication of vibrations—a complication that means vibrations do not simply pass unchallenged—constitutes a certain reductive filtration that renders sound-as-such and the body sonic. Sound constitutes a limited bandwidth of vibrations; while we can, therefore, characterize the bandwidth of vibrations we call sound as being in a sense subtracted from the world, Sterne's statement does not allow us to take audition as a wholly subtractive theory, detailing, rather, a subtraction that is then subject to further production. It is this notion of a productivity performed after the subtractions of the body that seeks to account for a productive receptivity, a receptivity capable of novelty, that does not complicate an already defined terminology by positing a mysterious addition to an otherwise 'monistic' view of material activity. The subtractive selections performed by the body that define sound as such are met by the active receptivity of perception, the agency of the organism. This is expressed most clearly when Sterne clarifies his position by stating that vibrations are not simply or purely

²⁸⁹ Sterne, Audible Past, 11.

subtractively perceived but also sympathetically produced by the ear. This attention to the complexity of vibrational events reveals certain inadequacies in too simple a subtractive model of perception. Sympathetic resonance and DPOAEs or Tartini tones—examples of active hearing or receptivity performed in Labyrinthitis—reveal an initial subtraction that is subject to a distorting and productive reception, yet a production that cannot be labeled as a function of symbolic memory-contraction. It is not memory or representation that 'gives' to received vibrations but the activity of reception itself, the response of matter, organic or otherwise, to fluxes in its enveloping environment. The sympathetic production of tone is of course not strictly the reserve of organic matter, of the functioning of the ear, nor is it restricted to listening subjects, but is an event that occurs in Helmhotz's resonators, within architectonic and material bodies possessing audibly resonant frequencies. It is simply that only by virtue of a particular capacity is tone defined as such. This productivity does not negate subtraction, nor does it suggest that perception performs some kind of mysterious production of energy which it adds to the world, but rather points out that the simple notion of subtraction does not wholly account for, nor does it adequately explain, perception unless thought in the terms of a subtractive synthesis. The reason for drawing on the subtractive theory here—where the aim is, of course, not to provide a complete account of perception—is for the opening it creates into thinking individuating processes by means of a perception founded upon an initial active receptivity. It is this activity that, initially at least, is not apparent in the terms of a subtractive theory of perception, yet to which it necessarily appeals. The subtractive selectivity that defines a site of rarefaction, a site which for Meillassoux names the body, is defined according to an initial or primary subtraction—a becoming by means of which something does not simply pass unchallenged—to which it cannot be wholly reduced once receptivity is not limited to a passivity. The productivity of reception exemplified by sympathetic resonance—an action nonetheless anterior to conscious perception-means that subtractive selection or delimitation that defines the territory of a body must be met by responsive action. We take this productive activity not as an addition to matter but as a complexity within matter, more precisely, it is an event that is encompassed by the heterogeneity of matter; it is such a notion of an exclusive subtraction within an 'inclusive' heterogeneity of matter that is essential in avoiding ontological duality.

It is in articulating itself to the order of individuals that *Labyrinthitis* associates itself with the violence of individuating forces, with a state of unfree rarefactions active in the

conditioning of perception. This conditioning is, as explained by Meillassoux, conceived as being unfree by association when held in contrast to the 'free choices' of the mind:

For if the mind is free, it is free in so far as it chooses, selects certain actions, from amongst the multiplicity of possible actions which it perceives in the world itself; but the mind cannot choose unless an *anterior* selection, itself *unfree*, is already in operation [...] a selection which, this time, constitutes the *terms* of the choice. The body is like a continuous emission of an infinite matter whose particles constitute the terms of the choice offered to the mind. The body selects the terms, the mind chooses between the terms. There are thus three realities within perception: matter, body, mind. Communication, selection, action. ²⁹⁰

In its approach to the organic, the biological and audition, this approach to sound may be taken as deterministic in its orientation; it is by means of a degree of violence that hearing is forced, by which one is forced to listen to oneself hearing. Yet it is with the dissolution of a certain passivity—the dissolution of waxy substrates and the linear structure of causal influence characteristic of reductive determinisms—that this work is concerned. In focusing on an active receptivity, the notion of a passive impression is debunked towards an understanding of the event as being partially shaped in the act of perception, by its myriad means and conditions. Subject to such auditive constructs, the organ is figured as elemental agent, as being active in the determination of events as opposed to the passive receiver and decoder of external stimuli, the organic agent meets the object of excitation in a point of confusion, from which quality is engendered; regardless of the fidelity of this perception, the object persists in excess. In addition to this focus upon hearing and perception as active it is the attention given to how we hear, hearing as an active process, not taken as given but rather directly addressed and critically investigated, that sets the individuating sound-space of Labyrinthitis apart from the individualizing headphonic spaces discussed above; Labyrinthitis addresses the conditions of sound, articulating itself towards a certain (non)sound that inheres in the potentials of audibility.

Despite Bergson's assertion that the theory of pure perception exists purely as a theoretical construct or thought exercise, we nonetheless find examples of experimental engagement with ideas resembling this theory in the more contemporary artistic and philosophical practices under consideration, as is most strikingly evident in Kirkegaard's work while also present in Bain's infrasonic approach to somatic matters. Deleuze, in his

²⁹⁰ Meillassoux, 'Subtraction and Contraction', 73-4.

consideration of sensory distortion, goes some way to reviving the consequences and 'exaggerated conclusions' drawn from Bergson's hypothesis of a pure perception through reference to situations whereby difference and intensity, as movements, events and interactions prior to their qualitative definition or punctuation and mnemonic representation, may be experienced 'in itself'. The implication of pure perception within the experience of intensity can be seen in the references made to vertigo and pharmacodymanic experimentation:

The point of sensory distortion is often to grasp intensity independently of extensity or prior to the qualities in which it is developed. A pedagogy of the senses, which forms an integral part of "transcendentalism", is directed towards this aim. Pharmacodynamic experiences and physical experiences such as vertigo approach the same result: they revel to us that difference in itself, that depth in itself or that intensity in itself at the original moment at which it is neither qualified nor extended. At this point, the harrowing character of intensity, however weak restores its true meaning: not the anticipation of perception but the proper limit of sensibility from the point of view of a transcendent exercise.²⁹¹

In this attempt to define the intensive nature of sensory distortion as an experience in excess of representation and recollection we can identify the residue of a theory of pure perception. The sensible event grasped outside of extensity or quality describes an affective situation dissociated from recognition or representative memory. Performed within such situations is a 'pedagogy of the senses'—pedagogy being, for Deleuze, a process of individuation which, as such, bares resemblance to what we have referred to above as perception-ascesis, the point at which perception is molded around an external event or object, shaped in encounter. It is in this situation that what is given is that which can only be sensed—as opposed to known, represented and diverted by way of recollection. It is this latter point that identifies what Deleuze here refers to as a 'transcendent exercise'. The transcendent exercise is not, for Deleuze, an abstraction of the senses towards some kind of pure and eternal form or absolute transparency, but rather that which calls upon the particularity of a given sense and its objective excitation, on that which can only be encountered by way of sensibility. The particular relevance of this is that an object or event which can only be sensed is encountered in a situation that is distinct from common sense, from the formation of an identity for the encountered object by way of recourse to a combination of sensation

²⁹¹ Deleuze, *Difference and Repetition*, 297.

and memory, for example, and therefore known by way of a sensory conjunction, by way of a distribution of the object or event encountered between both memory and sensibility towards the discernment of its symbolic identity and mnemonic recollection. The transcendent exercise of the senses, then, is an exercise of the senses which is distinct from recognition, that which exposes the 'limit of sensibility from the point of view of a transcendent exercise', that which appeals to sensation alone. The transcendent exercise of the senses, an encounter with that which can only be sensed, draws forth an experience of the peculiarity of a given sense, its 'internal logic and structure'. ²⁹² Contrary to the concept of transcendence as a rising above, we find it here, as it is used by Deleuze, to signify a certain descent into the depths, into the particular extremes and potentials of sensation. With particular relevance to our present concerns, we might invoke the transcendent exercise of hearing, a revelation and exploration of the internal logic and structure of hearing. Such an exercise surely invokes what Kahn refers to as 'active hearing', the sense of hearing hearing which is forced upon us by Kirkegaard in Labyrinthitis. This can be taken more generally as a perceiving perception, as an encounter with the act of perception in itself and therefore a pure perception. The dynamics and structure of this situation currently being laid out can be made clearer with reference to Deleuze:

Something in the world forces us to think. This something is an object not of recognition but of a fundamental encounter [...] it may be grasped as a range of affective tones [...] In whichever tone, its primary characteristic is that it can only be sensed. In this sense it is opposed to recognition. The object of the encounter [...] gives rise to sensibility with regard to a given sense [...] It is therefore in a certain sense imperceptible [insensible]. It is imperceptible precisely from the point of view of recognition. ²⁹³

This passage provides a schema for what is laid out above, a situation or encounter in which an object or event is perceived ahead of its being jettisoned or 'cancelled' in its interpretation through recognition. In this encounter the object or event is taken as affective rather than symbolic and therefore as articulated towards sensation ahead of recognition. That an object or event 'in itself' is imperceptible is so due its being non-representational, due to its being of the sensible as opposed to the mnemonic. Yet the encounter with an object or event does not present to us the totality of an object itself, nor its mirror image,

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²⁹² See Levi Bryant, *Difference and Givenness*, 92-6.

²⁹³ Deleuze, *Difference and Repetition*, 176. The choice to maintain the reference to 'affective tones' in this excerpt is somewhat opportunistic but not unjustified.

but rather with an encounter that constitutes the conditions of a potential perception, which in any particular instance is just that, incomplete and but one particular rendering of a complex objectivity, auditory or otherwise, that persists in excess of its perception.

We are now in a position to be able to better identify the terms of the distinction made above between individuation and individualization, a distinction that refers to the order by which sense is made of an encounter which forces one to think. The distinction between orders—a distinction respective of that between individuation and individualization—can be made clear with reference to the division between matter and mind imposed by Bergson in his consideration of the 'when' of perception. While not adhering to the strict division raised by Bergson between matter and mind, nor the implications such a fissure poses regarding the potentials of perception, the difference that is necessarily identified ahead of such a dualistic split is nonetheless respected; a difference that is not manifest in division or dualism but one conceived as being established by way of continuity and complexity. Respective of this difference is that presently posited between individuation and individualization. In the processes accounted for by the former we locate the impressions, shocks and violence of a 'pure perception'—an event that can only be sensed that functions according to a resonant capture. In the latter we locate the (re)structurations of the subject according to a common sense by which an event or encounter is not only sensed but also remembered and recalled—the perception of an event by way of mnemonic contraction and subjective synthesis. Individualization is taken as the process by which the subject bends or undergoes change according to matters and events that are perceived as given. Individuation is taken as referring to the means by which these events appear as given through the expression and excitation of the internal structure or logic of a given sense, the means by which that which appears as given is given.

This distinction, between individuation and individualization, is made in order to accommodate differences and divergences in practice; more specifically, to accommodate more detailed discussion of the differences between practices appealing to a pedagogic and hermeneutic shifting of perceptions by means of symbolic operations and associations—practices that recode listening practice and the perception and understanding of place—and those that seek influence in excess of the symbolic, taking aim at the spatio-temporal dynamics constituting the conditions of place and territoriality. In short, a distinction is made in order to accommodate a difference within and between practices articulated towards an immanence of encounter and the means of its 'deferral' in memory and

recollection. This distinction does not assert that such approaches, nor the notions of pure perception and memory, are to be dualistically opposed, but rather that there is a difference to be discerned that identifies what are distinct notions of influence and of a 'ways in' to the subject. Having laid out the philosophical framework by which a theory of sonorous individuation can be thought as distinct from that of individualization, a mode of auditory influence particular to the individual considered distinct the listening subject of audile technique, I now wish to situate this discussion within the perhaps more familiar field of the Deleuze-Guattarian project that places particular importance upon sonority, while opening it up to broader field of sonic practice.

An Intensive Ideology of Influence

This text has so far placed a particular emphasis upon articulations of vibrational affectivity, constituting a bandwidth stretched between the infra- and ultra-sonic, with its constituent vibrations originating in, and affecting a determination of, the inaudible, movements and oscillations operative beyond an architectonics of the air. The primacy of affective flux, as the determinant actions of material interactions is necessitated by the praxes catalytic of this study and discussed herein. Tracing the vibrational productions of the works considered so far—chosen for the way in which they engage with and construct a problematic situation courting determinism, individuation and a vibrational materialism or realism—leads to a problematic complex of bodies, objects, or rather objectiles; the interactions of such objects—architectonic, organic, particular, ...—constituting a problematic field. Vibrations traced as lines of affectivity lead from the movements of one body into another, an affective continuum punctuated in the instance of a qualitative rendering yet existent in excess. It is a collection of such lines, moving throughout and making a difference within the diverse bodies of broad somatic complexes, that I have been attempting to follow within this text.

This problematic affectivity constituted between and according to the interactions of objects—whether audible, inaudible, organic or otherwise—apparent in the practice considered below necessitates a particular notion of 'pure perception', as discussed in relation to Kirkegaard, Bergson and Meillassoux, a perception or active reception of events anterior to mnemonic recollection, objectile events that are not considered in so far as they

entail a recollection and signification but on the grounds that they force information. This particular theory of pure perception is necessary if we are to account for objectile interactions within the context of a theory of sonorous individuations, a process or protean being that is experientially apparent in itself in the sensory distortions or disjunctions yielding intensive sensations. Not disregarding the efficacy of the therefore posterior stage of representation, such an approach takes pure perception or active receptivity as a route into the individual and its conditions, it both enables and requires an understanding of 'the anteriority of production as individuation', a 'production of heterogeneous space-times inseparable from the rhythms of matter'.²⁹⁴

This primacy of production conceived according to the 'rhythms of matter' posits a particular determinism that has been developed within this text so far, yet one which must now be once again redressed in order to avoid too strong an assertion of an apparent sufficiency. The emphasis placed so far upon material interactions has been carried out in the shadow of a certain 'sufficiency of the virtual', a position that it has been necessary to adopt in order to derive a richer account of Deleuze's philosophy of individuation than is possible through direct and sole reference to his work with Guattari. 295 Here it is my intention to better address a necessary distance from what Toscano has referred to as the sufficiency of the virtual—a position that to a certain extent haunts without consuming Difference and Repetition, due to its biological orientation—a structural or 'genetic' sufficiency that threatens to render the deterministic approach followed herein in terms of an overly simplified linearity. The sufficiency of the virtual describes the sense of overly hierarchized production one gets from a theory that holds the virtual to be the sole source or causal site of change and creation. What it is now necessary to affirm is the sense of the virtual that is more thoroughly or consistently developed throughout Delueze's entire oeuvre, where the organization and structuration of the process of individuation becomes necessarily more complex. Where the virtual is taken as describing change as such—not changes in the organization of things and their already individuated components, but rather a change that is productive of a difference distinct from divergence, the source of Deleuzean purity and the 'primary' state of being conceived in terms of continuous rather than discrete multiplicities—its sufficiency would suggest that it be considered the sole

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²⁹⁴ Toscano, Theatre of Production, 188.

²⁹⁵ On the sufficiency of the virtual, traces of which one finds throughout *Difference and Repetition*, see Toscano, *Theatre of Production*, 175.

determinant of productivity, rendering actualized individuals as the purely passive subjects of such changes. Such a positioning grants a certain autonomy to the virtual which violates the univocity that persists throughout Deleuze's work. To avoid slipping into an assertion of the sufficiency of the virtual, we should address the model of individuation we have adopted and the structure of its intensive, influential information. Arguments of determination, taken unilaterally, posit actualized individuals as the passive subjects of their virtual conditions, positing an overtly hierarchical schema of influence and ontogenesis that holds the virtual as autonomous and separate from the actual. In avoiding a misinterpretation of the virtual along the lines of a kind of genetic code, conceived as being the sole and defining source of individuality, we can conceive of the virtual in terms of an interference or deformational capacity making a difference within individuals, a structure more suited to detailing the potentials of auditory influence. In this sense the virtual is not purely considered as the originary ground beneath individuals from which they arise, but as that within which they reside, that which permeates their being and from which identity necessarily distinguishes itself in the maintenance of consistency through apparent pauses and blockages. In further detailing this shift we can refer to two diagrams which themselves can be read as reflecting the shift in models or schema of individuation as we find them expressed in Difference and Repetition and A Thousand Plateaus. In the first we find a graphical representation of the process of individuation derived from Difference and Repetition, a somewhat hierarchical model in which (i) the Idea constitutes the transcendent and ontogenetic ground whose internal differentitation of singularities, expressed here as points, provide the determinants of an (ii) intensive and individuating problematic, the points of which are differenciations of their virtual conditions, their becoming actual which constitutes (iii) cases of solution, actual responses to a common problematic rendered differently in each case of solution of actualization.

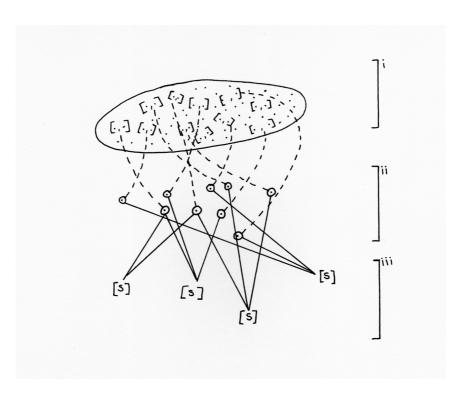


Figure 4: Individuation expressed as a passage between Ideas, problems and solutions or Indidifferent/ciation.

In addressing the sufficiency that such a schema can easily be thought to suggest, we should turn this organization on its side, positioning the virtual, not strictly beneath or above the actual productions it determines, but as that which persists alongside the actual, interfering in and distorting constituted actualities and individuals as much as it can be thought to give rise to them when conceived in terms of ontogenesis. In this sense we undertake a transition from the schema of individuation found in *Difference and Repetition* to that found in *A Thousand Plateaus*, a shift clarified with reference to Toscano: 'The individuations that Deleuze and Guattari foreground in *A Thousand Plateaus* are not of the sort that engender individuals; rather, they traverse already constituted individuals, drawing them towards impersonal becomings, compositions of one multiplicity with another'. ²⁹⁶ It is this shift that adds necessary complexity to the determinism we have been concerned with herein, further distancing it from any unilateral orientation. Before moving into the consequences of this shift and the explicit impact that it has upon considerations of sonority, a summary account of Deleuze's earlier philosophy of individuation is required, as it provides background and depth that does not appear, or is at least somewhat obscured

²⁹⁶ Toscano, *Theatre of Production*, 176.

by the terminology applied, in *A Thousand Plateaus*, background which creates a more explicit and informative connection between the broader matters of our spatial concerns than we might otherwise obtain from the more explicitly sonorous references found in this later text.

Towards the construction of such an overview we should begin with the position expressed by Deleuze in *Difference and Repetition* wherein the process of individuation:

[...] involves fields of fluid intensive factors which no more take the form of an I than of a Self. Individuation as such, as it operates beneath all forms, is inseparable from a pure ground that it brings to the surface and trails with it [...] this ground, along with the individual, rises to the surface yet assumes neither form nor figure [...] The individual distinguishes itself from it, but it does not distinguish itself [...] the I and the Self [are] undermined by the fields of individuation which work beneath them, defenceless against a rising of the ground which holds up to them a distorted or distorting mirror in which all presently thought forms dissolve.²⁹⁷

Intensity names the site and means of individuation, operative 'beneath' apparent forms, understood as the identities clung to in the formation of objective consistency and determined in representation. That individuation is a process not describing the production determination of identity—and is therefore considered as different from individualization, as discussed below—or appearance, being concerned more explicitly with the potential for such assertions, can be seen in the exclusion of the self and the I from individuating processes, processes otherwise described as impersonal becomings, influence articulated towards the individual in particular. Purity can be thought to describe the characteristics of Deleuze's conception of the virtual, and so the ground referred to here is that of a constantly unfolding change, that of infinite, elementary and particular interactions constituting an imperceptible determination, a determination that is imperceptible from the point of view of its representation, the self and the I that it undermines. This ground from which the intensive processes of individuation are inseparable operates according to the distorting influence of that which draws the 'I' away from itself, knocking it off course and setting it upon another. The intensity of the situation in which and from which the subject distinguishes itself is that which is, in itself, an assemblage asserting a distorting influence, that in which such forms dissolve and are produced anew. Insofar as this ground which rises to the surface is considered to be pure it is to be thought in terms of a differential

²⁹⁷ Deleuze, *Difference and Repetition*, 190.

noise, constituting the conditions of ecological relations and the ungrounding of 'natural' and defined orders, as discussed in chapter one. In attempting to establish such relations it is towards an ideal function of art that this argument is concerned, that which engenders change and, through an intensive pedagogy, a process of individuation in its active reception. It is such an ideal function that Deleuze also aims to identify in art, as can be seen in his claim that 'paintings or sculptures are already such "distorters", forcing us to create movement—that is, to combine a superficial and a penetrating view, or ascend and descend within the space as we move through it'. 298 That such art objects force a distorting movement upon the observer, a relational situation, can be understood as instigating a particular theatricality, one which has been described otherwise as a negation of art. Where autonomy and the instantaneous manifestation of the art work itself, in its entirety, is sacrificed in the definition of a tension between object and observer or auditor, it is not so much the necessity of this specific relation for the existence of the object as such that is invoked, but rather a fundamental contingency in the determination of appearances within which a catalytic functionalism is brought forth, one which takes the work according to contextual influence and distortions as much as its own internal logic. Where we are concerned with the perception, determination and function of sound objects or sonorous objectility, relational theatricality—not limited to symbolic determination—is considered a necessity, insofar as qualitative determinations require a localized rendering in the ear of an otherwise inaudible perturbation of the air. This relational theatricality, understood as describing contingent and constitutive interactions can be considered a defining feature of Michael Fried's famous criticisms of minimalist or 'literalist' art:

the literalist espousal of objecthood amounts to nothing other than a plea for a new genre of theatre, and theatre is now the negation of art [...] Literalist sensibility is theatrical because, to begin with, it is concerned with the actual circumstances in which the beholder encounters literalist work [...] the experience of literalist art is of an object in a *situation*—one that virtually by definition, *includes the beholder*.²⁹⁹

The now common gesture of inverting Fried's criticisms, their reframing as positive identifications of relational definition and determinations, is repeated herein. The repetition

²⁹⁸ Deleuze, *Difference and Repetition*, 67.

²⁹⁹ Michael Fried, 'Art and Objecthood' in *Art and Objecthood: Essays and Reviews* (Chicago and London: The University of Chicago Press, 1998), 153.

of this gesture should not be thought to entail the determination of the object or event as purely the product of its external or extensive relations, that between object and auditor or observer, according to which the object is defined as such only insofar as it is seen or heard. The relational determinations and contingencies I have been at pains to express are not thought to be limited to a necessary inclusion of the beholder in the constitution of objectivity, but rather as referring to the internal or differential relations constitutive of objects and objectiles, as well as those external and extensive relations which define the instance of a perception, a perceptual and subtractive rendering apparent of an object that nonetheless persists in excess and inaudibility of the instance of its qualitative appearance. It is according to these two modalities of relations that the notion of the sound object is maintained insofar as it has come to describe sound in-itself—considered herein to be distinct from phenomenological essence and necessarily inaudible by virtue of its existence apart from and in excess of the ear—while being confused with an equally distorted notion of the Schaferian event that takes the appearance of sonority to be contextually dependent, the necessity of which is displaced towards the assumption of a more generalized and fundamental contingency considered anterior to symbolic relations. A distorting and productive theatre of relations is assumed insofar as it maintains matters beyond perception and the excessive ontology of objectility, maintaining functional intensity against the sufficiency of extensity.

The theatricality derided by Fried as the constitutive characteristic of minimalism, defined as the tension created between and including the art object, the space of its exhibition and the act of its observation, can be taken as an example of distortion, where the object, its setting and its observation are taken as irrevocably entwined, one impacting upon and distorting the other. The theatricality of minimalism, as described by Fried, gives an account of the way in which a painting or sculpture can be considered as one element of a theatrical network and process, constituting a distortion insofar as it draws the observer into interactions, becoming the catalyst of movements throughout a space defined in part through its distorting presence. That works be considered as 'distorters' is equally significant for the challenge this poses to perception and the discretion of representation. It should be noted that, for Deleuze, this distorting function forces movement on a number of

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³⁰⁰ It has become quite popular to simply take Fried's negative critique as in fact constituting a number of positive interpretations, reversing his intention while keeping the observations made wholly intact. This is a perspective also adopted by LaBelle. See *Background Noise*, 102.

levels, not simply the movement of a body through space, but a distortion that reveals what otherwise remains imperceptible, forcing a sensory distortion upon the observer and creating an opening onto a field of individuating intensities, for Deleuze, 'the point of sensory distortion is often to grasp intensity independently of extensity or prior to the qualities in which it is developed'. The art object and event as an agent of distorting influence forces not only the movements of bodies, an alteration of their positions or coordinates, but seeks out their internal and constitutive movements. In this way distortion conceived as an ideal function of art is understood to undermine form and representation in the constitution of an individuating situation and the catalysis of influential and informative movements within the individual.

Where Deleuze has referred to paintings and sculptures as the agents of an affective distortion, we are, of course, primarily concerned with an altogether more ephemeral object: the sound object, described according to the more complex notion of objectility. While this particular object is undoubtedly of a different kind to that of sculpture or painting, the extent to which it can be considered as another such distorter, implicating theatricality and forcing movement, remains undiminished. Forced upon the listening subject is a shifting and invisible topography—as mapped by Sabine—capable of emplacement yet more productive in individuating terms in its more characteristic and conditional state of displacement. This is perhaps clearest in installation settings or in sound-walking insofar as the latter is considered concomitant with Debord's dérive, a route along which the listener is guided more by the durational unfolding of sound events themselves than a map or pre-established route that relies upon a certain stasis contrary to the ephemerality of auditory space. Here we can refer once again to the work of Bain and Lucier. In performance, Bain's work establishes a shifting architectonic tension, an expression of frequencies that excite the volumes they occupy and also potentially destroy. Such performances constitute what is in some senses a shifting harmonic structure, one which saturates and redetermines the space it occupies along with other resonant bodies, setting the space in motion. Both architectural and organic bodies are affected, the listening or alternatively active receptors of the expressed vibrations. Zones of differing intensity are established and gradually shift throughout a space creating a terrain that influences the movement of bodies: particles of dust shift around a room realigning in patterns expressive

³⁰¹ Deleuze, Difference and Repetition, 297.

of the waveforms passing through them, human bodies move finding spots of greater and lesser intensity, testing themselves, opening up to a vibrational barrage or finding a point of relative calm.

A similar example can be drawn from Alvin Lucier's performances of *Bird and Person Dyning* in which Lucier, wearing binaural headphones slowly paces around a performance space, often amongst the crowd, his body invested in the establishment of feedback loops. Lucier's movements trace paths through the auditory field his presence—amidst a broader technical assemblage—establishes to the location of known phantoms, positions within the room where the sounds being emitted by an electronic birdcall—a decoration intended to adorn Christmas trees, comprised of an electronic circuit and a small loudspeaker housed within a silver ball—interfere with the shimmering, structural feedback that saturates and distorts the given performance space, producing heterodyne components, tonalities produced through the interference of birdcall and feedback, tonalities that engender an extimate confusion of interior and exterior auditory events in the act of audition.

While the constitutive schema of the performance allows repetitions, granting it a certain independence or life beyond the instance of its execution, the particularity of this instance is nonetheless implicated within a fundamentally contingent relationship with the architectural space it occupies, being partly determined by its volumes, materials and dimensions. As Lucier traverses the auditory space, tones shift in a manner dependent upon the position of his head within the space. This dependency takes Lucier on a walk throughout the space in search of diverse tonalities and nodes of particular intensity. The assemblage comprised of performance space—encapsulating the audience and the layout of furniture in addition to strictly architectural matters—PA, birdcall and microphones constitutes a set inaudible determinants or potentials, waveforms made possible through the dimensions and materiality of the space, the speaker system being used and the emissions of the birdcall, yet excited, individuated or *dramatized*, rendered as qualitative audibility, only through Lucier's insertion amidst them, his movements both constituent and catalytic in an intensive, sonorous individuation. As Lucier squats, climbs on chairs or tilts his head, new frequencies and harmonic structures are individuated, waveforms set in motion across the room, altering its audible topography. The performance is not an improvisation, but the negotiation of an invisible, intensive and amorphous structure, with Lucier slowly following the contours of the auditory field established between body, architecture,

microphones, birdcall and speakers. In *Bird and Person Dyning* Lucier is a walker, following paths that open up amidst a particular auditory space, taking routes between the peaks and troughs of greater and lesser acoustic intensity, pausing where he finds or uncovers the phantom objects and productions he is invested in seeking out. Engendered in the performance of this piece is a particular theatricality, an intensively relational and contingent situation established between the diverse elements of its constitutive assemblage.

Through the potential for distortion that objects present—auditory or otherwise—their ability to make a difference, a particular theatricality is instigated, a theatricality derided by Fried according to its appearance in minimalist practice yet here cast in a positive light for its generative and relational productivity. It is to the details and dynamisms of this theatricality that we should now turn, a theatricality which, for Deleuze, defines the world:

The world itself is an egg, but the egg itself is a theatre: a staged theatre in which the roles dominate the actors, the spaces dominate the roles and the Ideas dominate the spaces [...] spatial dramatisation is played out on several levels: in the constitution of an internal space, but also in the manner in which that space extends into the external extensity, occupying a region of it [...] A living being is not only defined genetically, by the dynamisms which determine its internal milieu, but also ecologically, by the external movements which preside over its distribution within an extensity. 302

Initially expressed is an organization of Idea, space, role and actor constituting a genetic function or somewhat unilateral, structural determination. Yet, beyond the explicitly biological references, we can take from the latter assertion of an external or ecological determination the interaction necessary to derail charges of unilateral determination. The world is here considered as an egg insofar as it is the site of creative production, comprised of virtual or genetic elements and their intensive interaction, complication and particular distortion necessary in the production of an actualized individual. While deterministic, this potential biological determinism does not remain sufficient insofar as actualisation is realized or distributed only through a *necessary* ecological 'interference'. The determination or actualisation of internal differences are here described as requiring external influence. Beyond Deleuze's biological orientation, it is the nature of this

³⁰² Deleuze, *Difference and Repetition*, 269.

theatricality taken as a schema of intensive individuation in general that is of interest, as it is here that we are able to make use of this schema for our discussion of the individuating dynamics and spatio-temporal intensities of particular instances of sound art and related practices. Here we have the expression of a schema according to which the individuals occupying a space are the subjects of this broader situation, subjects of the rhythms of matter. As discussed below, we consider Ideas not as purely conceptual or immaterial objects, but along Deleuzian lines as concrete, generative situations, as problematic-Ideas that 'are of the order of events', an assemblage of elements that rumbles and murmurs according to the unfolding of catalytic vibrations, both individuated and individuating.³⁰³ We perhaps get a stronger sense of the importance of this concrete conception of Ideas for our subject matter insofar as problematic Ideas are considered, by Deleuze, to be 'the ultimate elements of nature and the subliminal objects of little perceptions'. 304 This situation broadly delimits the abstract schema according to which a materialist theory of determination operates; subjects, or rather individuals, informed by the material interactions that constitute an informative ground. Yet this trajectory from virtual Idea—from elementary, particular or molecular interactions—to individual is not to be thoughts as strictly unilateral, as ecological, actualized and external conditions constitute a necessary interference in intensive productions. Here we can think of a space saturated and determined according to intensive vibrations, vibrations rendered as sound but, of course, also productive of heat, light or haptic sensations within the infrasonic bandwidth, ephemeral spatial productions of the sort discussed in detail below. These material interactions are considered as the spatio-temporal determinants that come to 'dominate' the 'actors' occupying such spaces, the subjects of forced movements and productive distortions. Yet these catalytic vibrations are themselves individuated according to more complex sets of conditions, audible vibrations whose conditions reside within the dimensions of an enveloping space, the materials of its construction and the various bodies that come to inhabit and in turn contribute to the determination of this space, whether these be human or otherwise.

In this theatrical model of individuation we can recognize two efficacious states, that of the concrete or problematic Idea, more generally described under the rubric of the virtual, and those extensive forms constituting an ecology of the actual that comes to bear

³⁰³ Deleuze, Difference and Repetition, 237.

³⁰⁴ Ibid., 205.

upon what can be rendered of the virtual. Where individuation is considered to be a movement between the virtual and the actual, this process operates according to the characteristics of dramatization. Deleuze's theory of dramatization—which will be seen to be particularly useful in elaborating and clarifying a theory of sonorous individuation accounts for virtual-actual movements, yet this term also encapsulates what is described by Deleuze elsewhere as the processes of differentiation and differenciation. The former accounts for an organization at the level of the virtual through the internal relations of 'preindividual singularities', the structuring of virtual multiplicities. We might also consider differentiation as a kind of imperceptible organization constituting the potentials or conditions of appearance. With differenciation, on the other hand, Deleuze accounts for the actualisation of individuals, their formal appearance and extensive constitution. Yet the differentiated need not necessarily be differentiated, need not become apparent or recognizable, and insofar as it undergoes differenciation it may nonetheless remain in excess of this differenciation, as potentials that were not actualized or 'realized' in an individuated instance. Insofar as differentiation is thought as the internal structuration of the Idea of sound, that which has already been discussed in terms of a kind of white noise, the instance of its becoming audible is to be thought as the process of differenciation wherein in elements or a particular bandwidth of the audible potentials embodied within the Idea of sound are actualized as a sonority. Differentiation, as the internal and obscure organization of an Ideal noise, remains in excess of any differenciated instance, as in such an instance only a limited bandwidth of its audible potentials are rendered audible. Deleuze develops 'the concept of different/ciation to indicate at once both the state of differential relations in the Idea or virtual multiplicity, and the state of the qualitative and extensive series in which these are actualised by being differenciated'. 305 Since the differentiated virtual multiplicity need not necessarily be actualised—need not become apparent or externally identifiable the fact that this occurs requires that the process by which it occurs must be accounted for in the development of a sufficient theory of individuation. To this end, Deleuze states that 'the totality of the system which brings into play the Idea, its incarnation and its actualisation must be expressed in the complex notion of "(indi)-different/ciation" [...] Individuation ensures the embedding of the two dissimilar halves. 306 Individuation names the intermediary productive force between the differentiated and the differenciated, that

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³⁰⁵ Deleuze, Difference and Repetition, 306.

³⁰⁶ Ibid., 350. Emphasis in original.

which renders the virtual actual and substantiates what are only otherwise potentially informative events or changes. Yet in keeping with Deleuze's theory of immanence, the individuated does not remain strictly distinct from the virtual in its actuality, insofar as individuation constitutes an embedding of both the virtual and actual within being, within an individuated object, body or sonority, locating the potential for change within the actualized object, sonorous or otherwise, and accounting for its spatio-temporal deformation. That an object may be actually apparent, differenciated or actualized, does not exclude its potential for change—its actuality is only one unequal half of its existence, the other being its virtual component. It is these two 'unequal halves' combined that constitute the individuated body, its apparent actuality as well as its virtual capacity for change. It is this process of (indi)-different/ciation that we find encapsulated within the notion of dramatization.

Taking a step away from the exposition of this schema of individuation in what are somewhat, although necessarily for Deleuze's project, abstract terms, towards the particular expressions of our subject matter, of sonority as a spatio-temporal determinant and as spatio-temporally determined, the particular relevance of this process of (indi)different/ciation or the method of dramatization is expressed more clearly where it is referred to as a function of 'spatio-temporal dynamisms'. Discussed in relation to spatiotemporal dynamics, the method of dramatization can be understood as embedding a theory of individuation within the rhythms of matter, identifying the generative force of production and distortion in relation to spatio-temporal fluctuations and deformations of the kind discussed below. Under this rubric we can include weather systems contributing to or activating material deformation, exciting the capacity for change in bricks, in dunes, but also more localized environmental fluctuations or dynamics such as those productive of sonorous vibrations. In the same fashion we may also consider sonorous vibrations as themselves being spatio-temporal dynamisms, affecting change and performing individuations according to the rhythms of spatio-temporal matters. Continuing with the functionalist or infraesthetic approach outlined below, the question we ask of these dynamics should be that of what they do, the way they affect systems, bodies or objects. Deleuze answers this question in stating that spatio-temporal dynamisms:

create particular spaces and times [...] they entail or designate a subject, though a "larval" or "embryonic" subject [...] they constitute a special theatre [...] they express Ideas [...] It is through

all these different aspects that spatio-temporal dynamisms figure the movement of dramatization. ³⁰⁷

The movement of dramatization is a productive and individuating force, an attempt at accounting for spatio-temporal productions expressed in the dynamic rhythms of matter. This processual determination accounts for the stages of (indi)-different/ciation briefly outlined above, the expression of, or transition from, virtual Ideas to individuated yet nonetheless embryonic subjects, bodies that despite being individuated remain in development, retain the capacity for change expressed as their unequal, virtual 'half'. The movements of dramatization entail the production or determination of not only subjects but, simultaneously, the spaces they occupy, a process from which spatio-temporal and subjective states are engendered as residual productions, the products of processual interactions. These interactions entail a chain of events constituting the conditions of the production of space and the determination of its occupying and embedded subjects. It is in this manner that sonority is to be figured in the terms of spatio-temporal dynamisms, as a processual determination of space and occupying subjects, as an ephemeral yet nonetheless intensive productivity and individuating force. Rather than undermining relations to intensive potential, it is a particular ephemerality that expresses intensive being, being as subject to time, as spatio-temporally contingent and as being in relation to or oscillating around mutable, imperceptible potentials. Effecting a localized disturbance or deformation within both qualitative and infraesthetic orders, sonority contributes to a determination of space through displacement; as a distorter or distorting objectility, the intensive ephemerality of sound may contribute to the perturbation of space insofar as it is figured according to representation as recognizable place. In the agitative conditions of sonority, an event that is itself a spatial agitation, we find the audible expression of material interactions, an expression whose ambiguity constitutes a problem in excess of its representation and recollection. While in sound we may identify the possibility of an emplacement, the particular expression of a material and site specificity, its is in its existence and propagation as displacement that its individuating potentials are located. Such is the ambiguity of sound, being both expression and perturbation of location, its contingency, with regard to its immanent conditions, marks a particular specificity, yet this same expression marks a difference, a contribution to and distortion of a spatio-temporal

³⁰⁷ Gilles Deleuze, 'The Method of Dramatization', in *Desert Islands and Other Texts* (Los Angeles and New York: Semiotext(e), 2004), 94.

aggregate. Such processes must be conceived in the form of an oscillation insofar as such dynamisms are to be thought as differenciating agencies, as the displacements conditioning place, a distortion making possible consecutive consolidations. Sonority is thus conceived as both product and producer, as the individuated product of its inaudible and imperceptible conditions and as individuating producer of an intensive spatiality, a particular objectility operating according to perturbations, disturbances through which it expresses and reveals something of those imperceptible conditions through procedural information, functioning 'beneath' its representation or anterior to its recollection. This ideal functionalism is to be thought as particular more than specific, insofar as the specific implies a certain fixity or definition of identity and a condition of recognition, serving symbolic operations ahead of the affects of individuations. It is only when considered in excess of symbolic representation and as operating according to a 'pure' perception or active receptivity that we can ascribe to sonority this ideal functionality, the agitative and dramatizing potential of noise whose primary affectivity resides beyond its symbolic reduction and organization:

Beneath organization and specification, we discover nothing more than spatio-temporal dynamisms: that is to say, agitations of space, holes of time, pure syntheses of space, direction, and rhythm [...] These dynamisms always presuppose a field in which they are produced, outside of which they would not be produced. This field is intensive, that is, it implies differences of intensity distributed at different depths. Though experience shows us intensities already developed in extensions, already covered over by qualities, we must conceive, precisely as a condition of experience, of pure intensities enveloped in a depth, in an intensive spatium that preexists every quality and every extension. 308

It is this description of spatio-temporal dynamisms that describes the ideal function and individuating force we are seeking to identify in sonorous dynamics amidst a broader aggregate of material expressions and rhythms, rhythms attesting to the constant and procedural deformation of space and its implication within ongoing processes of individuation. Where we seek to treat sonorous productions in a manner analogous with the notion of spatio-temporal dynamisms, we may render the abstract structure outlined above by Deleuze more specific in stating that auditory dynamisms always presuppose a field in which they are produced, a field that constitutes their conditions, such as the architectural infrastructures excited by Bain and Lucier, or the auditory system and organic

³⁰⁸ Deleuze, 'The Method of Dramatization', 96-7.

infrastructures confused by Kirkegaard. The necessity of these presupposed conditions asserts a contingency, the reciprocal determinations of an auditory event and its broader infrastructural assemblage. The constitutive interactions of such presupposed conditions constitutes their intensity, their generative potentials, as that which belies their localized, qualitative rendering in the act of audition. These presupposed fields or conditions are not, however, thought to remain autonomous from the dynamisms they help produce, insofar as it is in the nature of such dynamisms—sonorous, thermal or otherwise—to agitate spatial conditions according to the temporalities, directions and rhythms they express, themselves contributing to a spatio-temporal determination. Continuing our overview of Deleuzian individuation—taken as a schema appropriate to the description of sonic and vibrational productions beyond their symbolic organization—what we find in this excerpt is a clear explication of the way in which the virtual is not in itself causal, not considered—in a formulation that would be constitutive of a unilateral determinism—to be the sole agent of production, but rather one part of production that must be excited and may only be called into action under particular conditions. Intensity as a quasi-object, a catalytic objectile, excites response from virtual potentials or conditions, engendering individual instances from provisions which remain inexhausted in the production of such a particular instance. Following Lefebvre's description of 'fleeting objects'—that 'which is not exactly an *object*' and pertains more to a particular objectility—we might refer to an auditory event or sonorous objectile as one such excitation, an excitation constituting the catalyst of dramatization.³⁰⁹

In the rhythms of matter we identify a field of intensity, interacting matters and vibrational events that provide the conditions from which perceptible quality, tonality, brightness or roughness may be drawn, each instance being both production and reduction of its intensive set of conditional events. The contingency of such individuations is described according to its reliance upon a particular, presupposed field or set of necessary conditions, without which imperceptible or virtual potentials could not be actualized or individuated, could not be rendered audible. It is this field of intensive potentials that constitutes the imperceptible conditions of experience, that which remains inaudible but provides the possibility of audible qualities that constitute its extension, its externally recognizable qualities constituting the possibility of recognition. Within an appropriate field

³⁰⁹ See Lefebvre, 'Seen from a Window', 219.

situation, through agitation and excitation, an individuating dramatization unfolds, drawing out a spatio-temporally contingent being, performing an individuation of events, bodies, waveforms. It is this schema of individuation, as spatio-temporally and materially contingent, as being brought about through dramatization, through excitation and agitation according to spatio-temporal dynamisms, that particularly suits our concerns for both the production and consequent affectivity of sonority. The resonance of this schema of individuation—operating according to dramatization—with the production and productivity of sonority is well recognized by Deleuze and Guattari in their specific considerations of sound. Where individuation is considered according to the notion of dramatization, a method that adds necessary complexity and confusion to schemas sympathetic to unilaterally deterministic trajectories and an overly hierarchical organization of differenc/tiation, a particular resonance with sound is established and a more complex connection or continuation is made possible between the elements of Deleuze's theory of individuation and the more specifically sonorous accounts provided in A Thousand Plateaus. It is in moving onto a consideration of such accounts that a second diagrammatical rendering of the process and schema of individuation is provided, one more suited to individuation considered as a process of dramatization or *haecceity*.

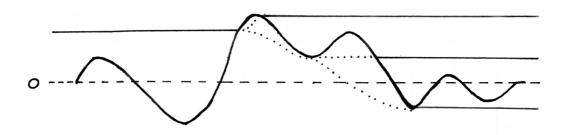


Figure 5: Individuation expressed as *haecceity* or a process of dramatization.

Developing the method of dramatization, haecceity is figured similarly as a processual individuation while being confused with the instance of protean, intensive being. In a graphical representation of this schema intended to express a difference of orientation from the model according to which individuation could be read as passage from virtual Idea to actual being we find, passing from left to right, a solid line representing the apparent

stability of the constituted individual existing beside the fluctuations of a virtual interference represented as a variable waveform. Where the waveform comes into contact with the line representing the individuated being the unilateral trajectory is dispersed and distorted, set in motion and set apart from itself through virtual interference, pulled towards the peaks and troughs of virtual flux, with the individual appearing as once again distinct from this intensive interference or problematic involvement in three differing positions. Drawn into impersonal becoming by the interference of a distorting virtual waveform, the individual reappears as differently individuated, being displaced yet nonetheless consistent. This difference of orientation is noted by Deleuze and Guattari who, in a passage that can be read as a warning against the 'sufficiency of the virtual' and an overly stratified schema of individuation holding the virtual to be an autonomous creative force, state that:

It should not be thought that a haecceity consists simply of a decor or backdrop that situates subjects, or of appendages that hold things and people to the ground. It is the entire assemblage in its individuated aggregate that is a haecceity; it is this assemblage that is defined by a longitude and a latitude, by speeds and affects, independently of forms or subjects, which belong on another plane. 310

Here becoming or individuation is, through its expression as haecceity, distinguished from any assertion of an autonomous ground, being affirmed as the saturating interactions of elements that both surround and permeate individuals. Here we are talking of individuals as aggregates, individuals which, in being distinct from a self, do not distinguish themselves from the noise of the world, from the 'background' noise that in fact permeates and constitutes the individuating, generative and problematic field in which the individual resides, the generative chaos of material interactions that is, for the individual, foreground as much as background. A haecceity, as intensive being, aggregate and continuous multiplicity, while being individuated is not necessarily actualized, remaining an instance of protean, intensive being, embedded within a system of productive interactions constituting the presupposed field of individuating dynamisms. According to such a schema, determination is not figured as being carried out according to a generative structure or blueprint, but by means of interference and distortion. Understood in the terms of a haecceity, not as a fixed and finite but infinite and protean being, a body is figured not as the mirror of its virtual conditions nor limited to its apparent form, but as an aggregate of

³¹⁰ Deleuze and Guattari, A Thousand Plateaus, 289.

intensive relations, as the sum of its material elements, rhythms and relations:

A body is not defined by the form that determines it nor as a determinate substance or subject nor by the organs it possesses or the functions it fulfills. On the plane of consistency, *a body is defined only by a longitude and a latitude*: in other words the sum total of the material elements belonging to it under given relations of movement and rest, speed and slowness (longitude); the sum total of intensive affects it is capable of at a given power or degree of potential (latitude). Nothing but affects and local movements, differential speeds [...] Latitude and longitude are the two elements of a cartography.³¹¹

Here a body is described according to the cartography of continuous multiplicities, as a collection or assemblage of elements that define an internal relation according to durations and rhythm. A body, *any*body, is thus figured as a collection of material rhythms, durations or vibrations, fluctuations and temporal determinations each being the subject of reciprocal interference. The somatic complex is thus conceived according to a fundamental mutability and defined in terms of frequency, as 'the sum total of the material elements belonging to it under given relations of movement and rest, speed and slowness'.

Thinking the body as relational aggregate, held in relation through deterministic intensity, we can figure such relations of movement and frequency in the terms of explicitly sonorous relations, differing objects and bodies set in motion and brought into relation according to their resonant capacities (latitude), establishing through sympathetic relation an extended somatic complex. A complex waveform excites and establishes relations between disparate objects that otherwise bear only the potentials of relation; the common agitation of a waveform excites the inherent resonant capacities of tissues, concrete and airborne particles performing an intensive individuation through a distortion of otherwise apparently discrete boundaries, personal or identifiable territories. We must here once again assert that this is not necessarily the body but anybody and is perhaps better thought, in a broader sense, in the terms of objectility, the object-as-evental-objectivity, necessarily in motion. That the body being defined above by Deleuze and Guattari should be thought in terms of anybody can be seen in statement that 'there is a mode if individuation very different from that of a person, subject, thing or substance. We reserve the name haecceity for it. A season, a winter a summer, an hour, a date have a perfect individuality lacking nothing, even through this individuality is different from that of a thing or subject. They are

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haecceities in the sense that they consist entirely of relations of movement and rest between molecules and particles, capacities to affect and be affected'. Haecceity becomes the objectile of an ontology of constant and recursive individuation, an intensive *any* body in motion. It is in this sense that we must think not only of the consistent objects or beings entering into intensive processes as the constituents of an intensive ontology but the intensive processes 'themselves' as its real and primary constituents, the temporal matters remaining obscure where attention is directed solely towards the snapshots of the apparent.

The notion of haecceity is invoked here due to its use in the description of intensive spatio-temporal determinations, processes that arguably find adequate explication in the more abstract schema of dramatization. The necessity of this reference beyond mere repetition is found in the extent to which, under the rubric of haecceities, these processes are more explicitly related to the spatio-temporal dynamics that have been of particular concern throughout this text so far, an example of which is found in the statement that 'a haecceity is inseparable from the fog and mist that depend upon a molecular zone, a corpuscular space', the haecceity here being expressed as the relation of the particular or corpuscular to the molar aggregate of mist, to an amorphous spatial objectility. 313 This reference to diffuse spatial matters, to the reciprocally determined orders of the particular and the broader somatic complex, is treated herein as being analogous to auditory spatial productions relying upon particular and often imperceptible agitations for their unfolding both within and as architectonically apparent space. A haecceity, as the necessarily processual objectility of an intensive ontology, is considered inseparable from the diffuse spatio-temporal state within which it is involved in processes of reciprocal determinations. With the fog and mist comes a consideration of the spatial divorced from its Bergsonian limitation to the extensive—more suited to the dynamic productions and nephological syntheses of Diller and Scofidio as well as Tetsuo Kondo-space not limited to representation, to the relation of points and coordinates, but figured in the terms of spatiotemporal productions.³¹⁴ Such diffuse and particular matters have been the subjects of this

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³¹² Deleuze and Guattari, A Thousand Plateaus, 287-8.

³¹³ Ibid., 301.

³¹⁴ Here I refer to Diller and Scofidio's famous *Blur* building, built for the Swiss Expo 2002 on Lake Neuchatel. A minimal structure supports platforms, walk ways and 31,500 high pressure mist nozzles which cloak the structure in a shroud of mist created by drawing water from the lake within which the structure was positioned. Inside this amorphous structure occupants experience a 'white out' as both auditory and visual distance is obscured by the white noise and light produced through the production of a constant mist. See http://www.dillerscofidio.com/blur.html for further information (accessed 29/09/10). More recently Tetsuo

text so far, the material agents of architectonic deformation, weathering and distortion. This material deformation might equally well be referred to in terms of a composition as the mode of individuation appropriate to a haecceity, as an emission of particles, of the self, thing or subject emitted *as* particles into composition with a wider material environment, such as 'the dying rat enters into composition with the air'. Likewise we conceive of an emission of sonorous particles or particular sonorities as the composition of fully individuated objectiles, objects that are nonetheless diffuse, their propagation expressing not the residual stench of decaying flesh but the audible collisions of otherwise inaudible bodies, the friction of particular matters. These particular emissions determine an intensive and individuating space within which material temporalities are necessarily implicated, a space both individuated and individuating, a confused somatic complex conceived as particular objectility. The definition of the somatic objectile accordingly depends upon its expressive and affective capacities, both in terms of emission and reception, as this affective capacity defines its intensive, protean being, and recurrent individuations functioning in a place constantly slipping between that defined by discretion.

Individuation expressed in the terms of haecceities, as the individuation of *any* body, considered atop and as a development of the theory of dramatization and spatio-temporal dynamisms, provides the necessary framework for a theory of sonorous individuation that accounts not only for the individuation of individuals considered as the listening and occupying subjects of acoustic space but the individuation of sounds as equally protean beings, the sound event individuated alongside its listening subject, each constituting a node within a concrete and continuous assemblage. The individuation of the listener as a distortion of the same is considered equal to, or on the same 'plane' as, an individuation of sonorities, waveforms as individuated individuals which set any number of bodies in motion, organic or otherwise, intensive movements constituting progressive individuations. Individuated are sonorous, architectonic and organic bodies, through which waveforms pass, rendered different in each instance or their reception; equally we may also consider the individuation of each element to occur with a degree of independence from one another,

Kondo and Matthias Schuler have experimented with the interior production of clouds. Producing a cloud within a building and a walkway by which occupants can move beneath, through and above the cloud, an experience of particular meteorological spatial determinations is made possible through nephological synthesis at an altitude more accessible to humans. See http://www.tetsuokondo.jp/project/bnl.html for more information (accessed 29/09/10).

³¹⁵ Deleuze and Guattari, A Thousand Plateaus, 289.

insofar as they can be identified as differently contingent, considered as the constitutive classes of diverse aggregates, aggregate *any* bodies.

Haecceity names a becoming or individuation that is progressive and procedural, a fact that finds expression in Deleuze and Guattari's simple statement that 'taking a walk is a haecceity'. 316 This walk being taken in the name of haecceity is perhaps better thought of in the sense of Debord's dérive than a walk to the bank, a walk driven not by the necessity of a goal or the need to make a deposit, but a drifting walk, driven by the contours of the environment as a collection of unfolding events that includes the walker's immanent interaction with it. In the undertaking of such a walk, the walker must 'release themselves to the solicitations of the site and of the encounters suiting it', the walk or dérive being defined not solely by the human subjects in motion but by a certain openness to a far broader field of influences, agents and ecological dynamics.³¹⁷ It is the definition of this broader field as the site of both subjective and impersonal interactions that is of particular interest as for Debord, 'the objective field of passion in which dérive is propelled must be defined at the same time according to its own determinism and according to its relations with social morphology'. This definition outlines a field defined by the relation between intensive material or objective agencies and the socio-subjective relations informed by them, a space in which movements and changes of direction are propelled by the agitative or generative topology of this 'objective field', a field which is defined and determined with a degree of distance or independence from its appearance. In directing attention back towards the definition of haecceities, we are able to draw upon certain distortion or interference that adds necessary complication to what might otherwise be presumed to be a unilateral field of influence and determination. It is the walk as collective and aggregate process of individuation, walking that brings something new to light, uncovering new trajectories and movements through the production of an assemblage in motion that is encapsulated within the walk as haecceity. The grouping of new sensations, associations and thoughts inform and influence the walker, defined in relation to the path taken and the objects determining the route's topography. Of the objects that contribute to this topographical determination—to the formation of an 'objective field of passion'—we of

318 Idem.

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³¹⁶ Deleuze and Guattari, A Thousand Plateaus, 290.

³¹⁷ Guy Debord, 'Theory of Dérive' in Tom McDonough (ed.) *The Situationists and the City* (London and New York: Verso, 2009), 78.

course include sound objects, the particular objectilities catalogued and described in precisely this faculty by Augovard and Torgue, sound events and objectiles that inform the structuration of place.³¹⁹ If we imagine this walk as having taken place in a city, we might then just as easily refer to the event of urban audition recounted by Lefebvre in 'Seen from the Window', where the noises of the city are allowed to drift into the home and inform the listening subject within, who is lead not only through nearby streets of Paris in the course of his rhythm-analytical exercise, but along the intensive lines of the invasive yet invited noises, enabling an opening or weathering of the consistent boundary of both home and occupying self. In this auditory exercise the ear constantly reterritorializes those fleeting objects, the multiplicity of noises and fluxes that separate themselves one from the other and each from themselves, to be recomposed. An individuation according to the noises without that seep within: 'To understand and analyze rhythms, one has to let go, through illness or technique, but not completely [...] to capture a rhythm one needs to have been captured by it. One has to let go, give and abandon oneself to its duration'. To let go, to open up, to be captured and to capture; individuation according to a confusion of sound, space and listener, the listener lead along a path defined according to the trajectories of fleeting waveforms. We find a clear example of such a practice, an opening onto the auditory determination of movements, in Max Neuhaus's Listen project, which took participants on 'field trips through found sound environments', a formative event in the now popular practice of sound-walking wherein environments are approached and traversed according to the contours of an acoustic topography as much as the more solid components of a landscape. 321 Often the intention of such walks is to produce a heightened awareness of the auditory components of an environment through an opening onto ambient noise towards a restructuration of audile technique, elements that are frequently and easily ignored according to the relative thresholds and sensitivities of culturally determined perception and the delimitation of a common sense. Such a heightened awareness of auditory space may be attained through focused listening to the given sonorities structuring a particular domain, or through the uncanny displacement of events, as is carried out in the work of Janet Cardiff. In the sound-walk, where we are concerned with the sonorous individuation of

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³¹⁹ Augoyard and Torgue, *Sonic Experience*.

³²⁰ Lefebvre, 'Seen from a Window', 219.

³²¹ See Max Neuhaus's *Listen* poster, reproduced in Lynne Cook, Karen Kelly and Barbara Scröeder (eds.) *Max Neuhaus: Times Square, Time Piece Beacon* (New York: Dia Art Foundation, 2009), 103.

assemblages, of somatic complexes, it is the individual in the act of walking, hearing and listening, opened up to noise as Lefebvre describes, considered as a constituent element of a larger somatic aggregate, that constitutes the processual individuation described under the complex rubric of haecceity, not simply the walkers themselves. It is the aggregate process of walking, listening, hearing that constitutes and individuating process, one which captures the open individual and is reterritorialized in the emergent audile technique of a listening subject.

Of particular importance to this argument has been the notion of an opening onto noise as an opening onto difference as the generative site of material interactions. Of a more specific importance has been the attempt to consider ways in which this opening might be carried out by way of influential sonorities and agitative sound objects, by the affective power of a sound always leading beyond itself. Here we appeal to the extent to which sound can be considered to lead both beyond itself and beyond selves, as that which drags and impels movements beyond subjective discretion and delimited territories to the site of individual interactions and 'impersonal becomings'. Such affectivity is thought to cut the apparent discretion of the self from its contingent and continuous conditions, affirming its protean being or becoming. Such a cut does not mark the dualistic opposition of matter and mind, but rather determines discretion and autonomy as appearance, determined as such according to thresholds of perception, drawing one beyond, beyond the apparent that nonetheless remains efficacious. We can here—once again—take the work of Alvin Lucier as an example.

Lucier is most commonly discussed for his approach to the physicality of sound, a bias which has been rightly addressed by LaBelle who affirms a necessary subjective dimension to his work. This affirmation is carried out most clearly with reference to his most famous work, *I am Sitting in a Room*, a piece which demonstrates, excites and draws to the foreground of perception the background influence of architectural acoustics shaping sonic expression and perception through resonant capture and determination. LaBelle draws specific attention to the fact that it is Lucier's voice which constitutes the impulse sacrificed in the excitation of auditory spatial determinations, a space, a room, being excited and acoustically mapped by Lucier's patient actions. This is all the more significant for the smoothing function that this process carries out, gradually removing the 'irregularities' or

³²² LaBelle, *Background Noise*, 125-30.

stutter from Lucier's voice, leaving a smooth shimmering waveform expressive of the architectonic volume it occupies as much as the speech which excites and rhythmically shapes this resonance. While there is, as LaBelle points out, an important implication of the subjective within Lucier's fascination with the physical, we must take this assertion of the subjective further still in pointing out Lucier's use of sound to strip something away from himself, to remove the specific, characteristic and identifiable irregularities of his speech through the aggregate mechanism of tape recorders, voice, and architecture. While the subjective element of this piece must undoubtedly be considered as catalytic amidst its conditions, we should also note that it is the identifiable subject of speech and language which is stripped away and set apart, leaving a waveform that runs through the individual that remains, the space he occupies and the mechanisms which have facilitated its extraction. While the subjective component is of specific importance it is nonetheless the case that the subjective is not all, even where our considerations are of the personal amidst this particular compositional assemblage; the self itself must be taken as a complex aggregate and a subtraction from the individual that persists in excess of the subjective and the personal through its connections with the noise of the world.

The voice is sacrificed to the room in soliciting a response, which is then inserted into a potentially endless machinic cycle, Lucier's voice is stripped away from Lucier, and then from itself. The I is literally cut away from the voice—by the end of the piece the "I", the opening enunciation, is unidentifiable—the voice from *the* body and the voice from itself in the production of a waveform that expresses its aggregate conditions more than subjective expressions of intent and identity. This particular and cutting affectivity of sound receives significant attention in *A Thousand Plateaus*, as we have already seen, yet it is where sound is described as possessing the power necessary for the catalysis of such openings—making possible recursive individuations—that these considerations are particularly important:

Sound owes this power not to signifying or "communicational" values [...] nor to physical properties, but to a phylogenetic line, a machinic phylum that operates in sound and makes it a cutting edge of deterritorialization. But this does not happen without great ambiguity: sound invades us, impels us, drags us, transpierces us.³²³

The particular 'power' or 'cutting edge' of sound is here identified as residing not in its representational or communicative potentials, as a means of signification, but within its

³²³ Deleuze and Guattari, A Thousand Plateaus, 383.

saturating material affectivity, that which cuts into and cuts out an opening in the consistency and delimitation of a specific subjective territory. It is by means of this particular power or cutting edge that the sonorous attains the force of a pure perception outside of recollection, representation and signification. We should, however, ask what this ambiguous 'power' is that performs the saturation and cutting open of the subject, or to rephrase the question, how sound attains the power by which such openings are produced beyond the oblique prescription of an inherent 'machinic phylum' and 'phylogenetic lines'. The 'power' by which sound cuts an opening is that defined in the notion of intensity, the drawing into relation and processual determination of bodies as an initial disorganization leading towards their redetermination through 'impersonal becomings'. Cut through is the consistency of defined and delimited thresholds—both proxemic and perceptual—forcing new relations and interactions, a production of extimate events, objectile confusions of interiority and exteriority whose imposed rhythms draw the subject away from itself in an operation that can be thought as occurring through a sympathetic resonance. The squeaking and squealing of a knife on china, the breaks of a car coming to a halt, sounds whose frequency can be felt to cut into and pierce the body, disturbing, distracting, distorting, drawing attention away from the thoughts occupying the mind to the intensity of the events occurring within and without the boundaries of somatic territory. Such sounds are only the most obvious examples of a material affectivity that operates not according to signification but intensity, transpiercing the body, often by more subliminal means. That a disc brake should find a particular resonance in the ear canal produces both disturbance and relation perceived near the threshold of pain, its intensity interrupting thought and forcing movement; it disturbs the autonomy and interiority of subjective thought—the inner world of the self—while forcing an objective relation between metal, air and ear, a relation that in its disturbance of interiority forces an experience of intensive extimacy.

Why this Privileging of the Ear?

The cutting power identified in sound by Deleuze and Guattari, the forcing of an opening or continuity upon the otherwise apparently discrete subject, has been described as operating according to the processual determination of intensity and the excitation of resonant potentials. Yet can we simply ascribe the privilege sound receives solely to resonance? The

particular privileging of sonority in Deleuze and Guattari's work results from a comparison between 'the powers or coefficients of deterritorialization of sonorous and visual components', powers measured against the extent to which their respective deterritorializations lead to a 'refinement' and a freeing of objects—our particular interest lying, of course, with the sound object—from territorial determination or fixity.³²⁴ The privilege of sound is therefore ascribed according to its openness to deterritorialization, an openness that describes its being malleable and mutable, and therefore particularly susceptible to the production of new territorial assemblages, the circuit of which constitutes a process of individuation. Yet the driving function or mechanism of deterritorialization remains obscure. Deterritorialization can be thought as a certain mobility or movement between territories, a mobility attained by sound, according to Deleuze and Guattari, through its refinement or simplification, a certain shedding of overtones and spectral complexity: 'what is necessary to make sound travel, to travel around sound, is very pure and simple sound, an emission or wave without harmonics (La Monte Young has been successful at this) [...] a material that is not meager but prodigiously simplified, creatively limited, selected. 325 This position would seem to identify a particular if not essential purity in simple tones as the clearest expression of non-referential frequency, temporality and duration, a frequency that nonetheless remains itself perfectly individuated as such. While this assertion of simplification and reduction must be taken in the context of the functionalism or infraesthetic orientation already discussed—a focus upon the impacts and implications of sound within a broader systematic assemblage—there remain aesthetic implications that should be addressed.

Overtones can be considered as the timbral signature of a sound's material conditions, an expression of the diverse components constituting its possibility. Timbral qualities and the presence of overtones can be thought to assert the conditional or site specificity binding sound to its objective and inaudible origins. The simplification of sound can be thought to constitute its deterritorialization insofar as this specificity, the timbral and qualitative matters of expression, ties sound to the image of its somatic origins, asserting a specific referentiality. If what we hear sounds 'metallic' or 'woody', associations bound according

³²⁴ Deleuze and Guattari, A Thousand Plateaus, 383.

³²⁵ Ibid., 380. This reductive approach has been identified in the work of a number of contemporary practitioners characterized by Cox according to their neo-modernistic practices. See Christoph Cox, 'Return to Form', *Art Forum*, November 2003, available at http://findarticles.com/p/articles/mi_m0268/is_3_42/ai_110913969/?tag=content;col1 (accessed 29/09/10).

to that which is expressed spectrally or harmonically, it is better equipped to conjure the image of a metal pipe, a whistle, a hollow log or wooden flute. Each object or instrument may sound the same note, sharing a common fundamental frequency, but its overtone structure gives clues as to its origin, helping to tie it into a 'territorial' system comprised of the instrument or object, the way in which it is played or the circumstance of its sounding as well as its cultural and symbolic significance within a specific performance situation. It is this overtone structure that renders a common note emitted from each object or instrument—determined according to a fundamental frequency—different in each instance, according to a more complex overtone structure. The eradication of overtones effaces this potential referentiality in the production of a tone that does not appear to be of anything specific, a sound object determined as such through the presentation of a fundamental frequency alone. Concomitant with this reductionist trajectory is the difficulty in locating or localizing simple tones, a point that is significant considering Deleuze and Guattari's isolation of simplicity and reduction in the deterritorialization of sound. The simple tone's resistance to emplacement, to localization in spatial and somatic origins, contributes to an apparent autonomy, yet also, and more importantly, to a mobility constituting it as a material event capable of capturing other properties or qualities, drawing out extensive resonances embodying consecutive harmonic structurations according to the conditions in which it is reterritorialized or the instance in which it is rendered audible.

What we must take from this reductive position that appears as an aesthetics of the pure and simple is not that the simple tone alone is capable of affective displacement and the simultaneous production of differences, but that the emphasis placed upon it carried out according to its expression of a 'pure' and simple frequency that is more easily thought in terms of an intensive quantity than an expressive quality, and therefore constitutes the element of a pure infraesthetics. Accordingly it is not so much the qualities of the sound itself that are of concern but its particular impacts, displacements and affective consequences within a broader assemblage or somatic complex that are of primary concern. Furthermore, in moving beyond the insufficiency of Deleuze and Guattari's emphasis upon a pure and simple tone, appearing as a kind of naïve reduction, we must assert the infraesthetic context of this position whereby it is not the aesthetic qualities of the simple tone that are focused upon so much as the affective capacities of a wave that is conceived as a reduction or subtraction from the white noise of the Idea of sound, and therefore the element of a subtractive synthesis more than a pure formal element. Deleuzian purity is

thereby located at both extremes of the sound event, at the point of its absolute reduction to a pure, durational and intensive quantity, as well as the point of its absolute confusion in the potentials of all audibility, both of which define the limits of the imperceptible.

The deterritorialization of sound as a process of refinement is thought to entail a shedding of timbral referents or bindings, whereby the sound event is not thought to refer to the sound of something but to sound itself, understood in this simplified form as a more direct expression of a pure frequency, temporality and therefore an uncomplicated duration. It is on the point of this durational orientation and reductionism that Deleuze and Guattari's reference to LaMonte Young is particularly apt. Before too hasty an adoption of this refinement or rarefaction as if uncovering the essence of sound in pure synthetic simplicity, a certain emphasis must be placed upon the prerequisite conditions of a deterritorialization, upon the 'sober' gesture of peeling away, a careful stripping back of territorially defined features and qualities, not as the revelation of an inner essence but an enhanced mobility through a lack of specificity, the amplification of intensive quantities towards enhanced affective capacities. Such a gesture that is clearly evident in Bain's occasional use of synthetic simple tones to saturate and confuse the architectonic and somatic, wherein tones identify particular and common resonant capacities, as well as the use of such tones within Kirkegaard's Labyrinthitis, wherein aesthetic qualities are sacrificed in order to attain a precise affectivity and excitation of the active event of audition. Yet, against too forceful a consolidation upon such an aesthetics of purity and a purity of tone we should bring to the fore the act of a procedural and selective subtraction, the determination of—with Young's Composition 1960 No. 10 taken as a case in point—a line to be followed. Here we find an example of how a 'becoming-sonorous' is not necessarily the becoming of sound, nor a sonification, but is rather the adoption of its functional imperative: its inherent durations and spatio-temporal deformations, its determination of distinct territories, this being exemplified in the manner in which Young's line has since run through the work of George Maciunas, Yoko Ono and Nam June Paik, amongst many others, and passed through while avoiding total explication within musical scores, poetic text, performance and visual art. Following Young's line we find an example of how, just as becoming-sound is not necessarily the becoming of sound, the charge put by Deleuze to musicians—and by extension sound artists—of 'making audible forces that are not audible in themselves' can be considered as a sound becoming-light, becoming-haptic, becoming-duration, a charge that can be read as a request for artists and composers to become-sonorous, as this simply

calls for artists to do what sound does, to follow the lines it carves out, to make available through audition otherwise inaudible and imperceptible interactions.³²⁶

While Young's work is exemplary of this point, of Deleuze and Guattari's emphasis upon a refinement, simplification and effacement of overtones, this reductive position risks becoming fixated upon an aesthetics of purity at the expense of both more complicated and confused sonorities as well as a process of creative subtraction and selection as the prerequisite of deterritorializations, a reification that leads not towards the absolute definition of the sound event but to the amplified affectivity of a sound unbound. On this point of a rarefaction, subtraction and selection, it would appear that this particular process is expressed more clearly and thoroughly by Lucier than by Deleuze and Guattari. Here we once again refer to Lucier occupying and exciting that room, undergoing a process whereby his voice is stripped down to shimmering spectral presence, pulled away from both Lucier and itself, thoroughly deterritorialized, its timbral and identifiable personal traits having been utterly obliterated in the revelation or drawing out of a simple and refined tonality far simpler than the complexities of identifiable speech—that does not expose an autonomous inner essence, a fundamental frequency that persists, but rather the excitation of fundamental contingencies. Lucier established a situation and technical schema within that room, carefully constructed to allow for the iterative deterritorialization of his voice by means of patient extraction, subtraction and selection, a process that reveals not a vocal essence or pure fundamental but the contingency of a tone that is simple only in appearance, in its individuated frequency and spectral components, yet complicated and confused within the architectonic and technical conditions in which it is reterritorialized. What remains after that systematic extraction is a sound, simple yet fundamentally impure, that is not—and could not be—completely stripped of harmonics but nonetheless far simpler in comparison with the spectral form in which it was an identifiable and territorialized voice, engaged in a symbolic and signifying practice. The stripping away of the voice's 'signature' harmonics, its simplification as a displacement and deterritorialization marks not an essence but a transience, the amplified mobility of originally vocalized sonority, which is inevitably emplaced, reterritorialized through its subjection to the resonant potentials of the occupied architectonic site in a process of complex deformation through the attainment of different harmonics and timbre, the matters

³²⁶ Gilles Deleuze, 'Making Inaudible Forces Audible' in *Two Regimes of Madness: Texts and Interviews* 1975-1995 (New York and Los Angeles: Semiotext(e), 2006), 160.

of expression making apparent its emplacement.

The singling out of sound within Deleuze and Guattari's discussion of individuation can be thought to have its origins in the perceptibility of its inherent temporality, the ease of its description in the terms of spatio-temporal dynamisms, of the temporality that is expressed in a manner far subtler at the frequencies of light and other forms of radiation. The importance of the temporal or rather durational—the reason why the perceptibility of flux and temporal variance might be considered important in the emphasis placed upon sound in Deleuze and Guattari's work—can be considered to be of Bergsonian origin, wherein duration and continuity describe the proper state of being as a process of becoming and the appearance of the state, static identity or stability of a thing are considered to be 'artificially taken snapshots of the transition' that subtends this appearance.³²⁷ This emphasis upon the temporal can be thought to underlie that bestowed upon the sonorous, insofar as sonority is understood to embody an inherent affirmation and clearly perceptible expression of ephemerality and duration. This emphasis and the consequently identified power or 'cutting edge' can in this way be thought as residing within perceptible fluctuations, a perceptibility enabling the description of events in the terms of spatiotemporal dynamics—dynamics that force the openings, consolidations and contractions entailed in processes of individuation and actualisation. 'Beneath' the identification of pitch, phonemes and individuated frequencies, the experience and sensation of a waveform's oscillations, its additive, subtractive and phase dependent relations, reveals a continuous temporality and ephemerality beyond its discrete representation and recollection. In attempting to discern the particular reasons for this privileging of sonority, we can contrast the assertions made regarding sound as both medium and object itself, with those of light. There is, of course, an informative intensity to light capable of bringing about a particular ideal function by way of sight—such as that exemplified in the work of Turrell and more explicitly in Rahm's use of UV light within the Hormonorium, directly exploiting its metabolic affectivity—yet it is perhaps due to the difficulty with which the internal temporality of light is perceived that it is not the recipient of the particular privilege Deleuze and Guattari place upon sonorous affectivity, insofar as it operates at a speed inhibiting its *perception* as other than a static constant. This privilege might then be thought to receive further grounding in the confusion of the sonorous and the haptic, most clearly

³²⁷ Henri Bergson, *Duration and Simultaneity* in *Key Writings* (New York and London: Continuum, 2001), 205.

and commonly felt at the thresholds of audibility wherein its durational determination and temporal fluctuation is most pronounced.

While there has been an emphasis upon the spatial aspects of sounds throughout this text it has not been without referral to its inseparable temporality, as to separate out the spatial from the temporal constitutes what Ray Brassier has referred to as Bergson's 'bald dichotomy, the interdependence of these terms being essential and the clear expression of the temporal and durational within and by the sonorous determination of space being a reason for Deleuze and Guattari's singling out of sound as a deterritorializing force and, by extension, spatio-temporal dynamism. 328 The perceptibility of an inherent temporality or duration within sonority, taken as a cause for this particular emphasis upon sonority, can as was briefly mentioned above—be recognized as being of Bergsonian origin, a claim clarified by the work of Christoph Cox. For Cox, the perception of sound's inherent, 'unorganized' or 'non-pulsed' temporality—a temporality wholly different from that of both meter and the clock, that which understands time as broken up into discrete units rather than the continuous passage between those units—serves to open perception onto the process of becoming according to duration, a perception of the time of things or the temporality of matter as specific to and inherent within bodies, as opposed to being externally enforced and organized according to discrete units. Perhaps the most important instance of such an opening onto time as qualitative duration or material temporality is, for Cox, Cage's 0'0" and 4'33", which opened the musical organization of sound onto the disorganized durations of noise, works which aimed to 'open time to the experience of duration and to open musical experience to the domain of worldly sound. It is also to open human experience to something beyond it: the nonhuman, impersonal flow that precedes and exceeds it'. 329 The notion of duration being inherent within the noises of impersonal and worldly things, in the movements saturating and perturbing environments while producing sonorous events, conceives of a sonority displacing temporality as organizing discretion towards time as durational continuity, while simultaneously being that which pulls us away from ourselves, opening us up to material interactions, to the noise that constitutes our impersonal (ungrounding) ground, both our conditions of existence and means of dissolution. Noise, as that which transpierces us, pulling us towards non-human

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³²⁸ Brassier, Nihil Unbound, 164

³²⁹ Christoph Cox, 'Installing Duration: Time in the Sound Works of Max Neuhaus', in *Max Neuhaus* (New York: Dia Art Foundation, 2009), 116.

and impersonal becomings, to the material interactions of the world at large, is in this way understood to account for the force of the 'cutting edge' or deterritorializing power identified as being operative within the ideal function of sonority. In his discussion of the work of Max Neuhaus, Cox also foregrounds the Bergsonian origins of an ideal temporality inherent within sonority to be drawn out through its qualitative reduction, simplification or subtraction—realized in Neuhaus's work in the form of the drones heard in *Times Square*—drawing on the following passage taken from *Duration and Simultaneity*:

A melody to which we listen with our eyes closed, heeding it alone, comes close to coinciding with this time which is the very fluidity of inner life; but it still has too many qualities, too much definition, and we must efface the difference among the sounds, then do away with the distinctive features of sound itself, retaining of it only the continuation of what precedes into what follows and the uninterrupted transition, multiplicity without divisibility and succession without separation, in order to finally rediscover basic time. Such is immediately perceived duration, without which we would have no idea of time. 330

Where listening opens out onto that which inheres beyond the pitch class and phoneme we find the material flux of both impersonal and imperceptible becoming. For Bergson, there inheres in sound a temporality or duration that lies just beneath the surface of its recollection and well within the grasp of perception and sensation. In opening listening onto such temporality one dissolves discretion through a disorganization and confusion of sonorities, an act which while seeking to 'efface the difference among sounds' might also be thought, in a manner more consistent with the present argument, to occur through the letting in or heightened awareness of difference where difference is equated with noise. This effacement of difference is rather that of distinct appearances, carried out through an opening-up, a movement away from discretion and towards a point of confusion, towards duration as the becoming of things operative within a field of intensive material interactions. Here we are presented with an argument in which Bergson identifies in sound the potential for an 'ideal sensuous presentation of duration', the inherence in sound of a perceivable flux and temporality that draws both sound and subjects away from themselves and towards their constitutive and continuous multiplicities, towards the noise of an intensive field of material interactions.³³¹ Yet the same openness to duration that entails the

³³⁰ Bergson, Duration and Simultaneity, 205.

³³¹ Cox, Installing Duration, 124-5.

dissolution of discretion—that which makes possible what Deleuze and Guattari identify as sonority's 'signifying or "communicational" values'—draws one not only towards the affectivity of sound itself but necessarily beyond sound, towards its conditions and fundamental contingencies. This opening onto a temporality or duration that remains perceivable, if just 'below the surface', within sonority, pulls not only sound from signifying practice but sound from itself; it is this process, when taken recursively, that identifies the force of the deterritorializing and 'cutting edge' in sound, that which leads beyond discretion and into the void. It is in the above excerpt taken from Bergson and through Cox's elaborations that we are able to identify something of the origins in Deleuze and Guattari's emphasis upon sound as both a deterritorializing and individuating force, operating according to the infraesthetic functionalism of spatio-temporal dynamisms.

We should now address what Deleuze and Guattari refer to as the 'great ambiguity' of the opening or deterritorializing power identified in sound, that which describes its being always en route to or implicated within reterritorializations. The ambiguity of sonority is most clear when its particular operations or powers are considered within Deleuze and Guattari's functionalist schema. Sound is considered as operating as a 'cutting edge', creating openings and dissolving territorial discretion, as that which saturates a subjective territory or personal space to the point of bursting, or at least forcing it to spring a leak, its interference impelling or dragging us away from ourselves towards the reconstruction of a territoriality according to the components of an inter-assemblage. The ideal function of sonority is ambiguous insofar as its intensive production of openings is accompanied by a necessary restructuration, by a spatial production and redetermination. We have discussed the extent to which sound can be identified as operating according to displacement, yet such displacements contribute or are easily subject to a consecutive emplacement. Displacement can easily be thought to entail a production of space, such as that of the burrow, a space which emerges around the movements of the body as it squirms within the earth. To burrow is to displace matter, to create a space around the body through its own movements. In an analogous fashion the movements of bodies cause displacements in the air, movements which therefore produce space through the displacement of matter.³³² Burrowing or the displacement of matter, as a production of space, entails a corresponding emplacement: the burrow which becomes a home, the sounds which contribute to the construction of personal

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³³² For a discussion of such spatial productions see Gaston Bachelard, *The Poetics of Space* (Massachusetts: Beacon Press, 1994), 90-104.

territories and an auditory proxemics.

Territorialization and the Refrain

Awaiting each displacement is the instance of its emplacement; where we speak explicitly of proxemic determinations amidst the objective confusion we call noise, a vacillation is posited between the receptive audition of the individual embedded in the world, and the territorializing practice of the analytical ear which sets the auditor apart from the confusion of the world towards a selective definition of identity. Neither state is taken to be sufficient, as strict adherence to either leads only to catastrophe in either absolute confusion or stifling containment, thus it is the vacillation that is of primary importance. While throughout this text a particular emphasis has undoubtedly been placed upon the operations of the former position, a certain 'celebration' of an aberrant and anomalous audition opened up to a degree of confusion in noise, it is championed insofar as it undoes the tendencies of the latter, of an analytical constriction or singular and sufficient audile technique, which may cast the aberrant as detrimental negativity or as insidious and homogeneous informality. In closing, it is towards a more explicitly stated vacillation that I now wish to turn.

Displacement entails a consecutive emplacement, a fact disregarded insofar as deterritorialization is considered the attainment of an ideal and 'pure' state of being rather than one 'side' or component of an oscillatory movement. Each opening is an opening onto something else, a something that may nonetheless remain an imperceptible constituent of the void. In this constant motion of displacement and emplacement we find a description of the production of space, or, more specifically, a production of territories. The territories with which we are concerned are, in accordance with the informative durations of our subject matter, ephemeral and roughly localized in accordance with audible emissions and their immediate conditions. Such territories are not those of the nation-state but the refrain, the definition of which will be returned to shortly. The particular production of territories to which I refer describes a process of consolidation, a drawing or knitting together, a relational delimitation through resonance or prescription productive of inhuman and extrahuman somatic complexes. The production of a consistent territory, however fleeting its appearance may be, is synonymous with an internal organization, a contraction and containment of chaotic influences and trajectories always leading elsewhere. The definition

of a particular territory does not occur according to a single event or class of elements but, as in the cases considered so far, draws on and selects from a diverse field of objects and events; the territories with which we are concerned are, of course, not solely comprised of contractions and rarefactions of the air, but delimit a field that encroaches upon or is inclusive of architectural, organic, geological, biological and technological matters and objects. It is in the subtractive and selective relation of elements and events from diverse and confused fields that the territory is determined, set apart, constituting the territory as a somatic complex. The territories with which we have concerned ourselves have drawn lines through the earth, the architectonic and human bodies, lines that mark out the trajectory of a sympathetic resonance in diverse matters, lines demarcating the passage of a waveform. The territory can, of course, be taken according to common understanding, according to a kind of proxemic determination, as 'the critical distance between two beings of the same species', beings whose boundaries or thresholds are not static but oscillatory. 333 Yet the particular requirements we have of a territory to be understood as a functional process, a processual production of space with a particular capacity for sonorous determination, requires that we take the territory to be a specific modality of a more general understanding of assemblages: the territory as a particular structuration of elements.

Following the work of Deleuze and Guattari we take the territory as a well defined volume to be midway along a tripartite system, according to which an assemblage may be understood not as a fixed or static state of things but as a processual productivity. An assemblage is considered to develop according to three stages of progress: the infra-, intra- and inter-assemblage. The production of an infra-assemblage constitutes a transition from chaos to the production of a territorial threshold, a minimal definitional assemblage, a simple line or repetition marking a distinction from the chaotic noise of a pure difference. With the emergence of the intra-assemblage, comes the clear definition of a territory, entailing a minimum of organization and an internal dimensional complexity. It is this degree of organization—a transition from linear trajectories to volumes—that makes possible a personal architectonics and auditory proxemics, attained according to a complex process of internal definition and distinction from a chaotic point of confusion. It is this internal organization or structuration of the intra-assemblage that marks the consistency or consolidation of a territory, the point at which the elements from which it is drawn 'cease to

³³³ See Deleuze and Guattari, A Thousand Plateaus, 352-3.

be directional, becoming dimensional instead, when they cease to be functional to become expressive'. 334 It is with the production of a territory as intra-assemblage that it is well defined and recognizable according to its 'expressive' qualities, qualities which demarcate its thresholds, its identity and distinction, a tonality, timbre or rhythmic expression that sets a territory apart from the murmur of a background or subterranean noise. It is with the inter-assemblage that the consistent volume of the territory is inevitably breached, as further development and deformation is sought out, opening the territory up once again to difference, to the noise simultaneously embodying the potential of its reproduction and dissolution. 335

Particular emphasis is placed upon this theory of assemblages as a schema of territorial production as the elaboration of such notions is carried out in explicitly architectonic and sonorous terms within Deleuze and Guattari's exposition of the process. The infra-assemblage demarcating a minimal territory is determined according to the sounding of a line whose shape is determined according to the contours of the simplest of melodies, selected through an interpolation of noise. The complex internal organization of the intra-assemblage marks the production of a proper domesticity, a complexity and fortification which keeps the unconditioned and chaotic generativity of pure noise or difference at bay. It is at this stage, in the production of the intra-assemblage as domestic, personal or individualized territory, sonority made familiar and as an expression of individual territoriality, that sonority is expressly considered as a material of spatial production in the form of 'a wall of sound, or at least a wall with some sonic bricks in it'. 336 Here sound is expressly considered as a material component in spatial production and determination, one of the numerous elements of material states used in the production of space and the determination of personal territories. The specific examples given by Deleuze and Guattari are those of televisions and radios, machines which acoustically define territories through their spatial and subjective determination, their information of both place and subjective state, examples shared by McLuhan in his descriptions of auditory space. The instruments of acoustic determination—to which we can of course add the voice, the car, the washing machine, and many other objects that contribute to the production of domestic noise and the definition of space—operate according to a kind of atmospheric

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³³⁴ Deleuze and Guattari, A Thousand Plateaus, 347.

³³⁵ On this tripartite schema of assemblages Ibid., 343-4.

³³⁶ Ibid., 343.

occupation, producing and defining diffuse spatialities that overlap with, breach and confuse what might otherwise be visibly discrete territories. Such is the annoyance caused by the neighbour's music that seeps through the walls, invading private spaces through an extension of both their space and their actions into yours, threats against which the commodification of silence detailed by Thompson protect the listening subject. In this way, where sound events are considered as material constituents of space, the passing of sound through the walls of a home is literally the extension of one place into another. Yet to limit the operations of diffuse spatial sonority to such instances of annoyance is, as Brandon LaBelle has discussed at length, to place an unproductive and conservative emphasis upon instances that serve only the compartmentalization, stagnation and negatively problematic alterity that limits both community and processual development of spatial praxis and territorial relations.³³⁷ It is where noise is invited within as the agent of a subtle and subliminal influence that the importance of difference is noted and that a heightened sensitivity towards sonorous spatial productions and their implications are developed and put into practice. It is such a nuanced awareness and refined praxis of noise as spatial determinant that can be drawn from the processual determination of the sonorous assemblage, which can be understood as putting into practice vibrational productions, organizations and a willful submission to noise and an openness to difference.

According to the necessity of change and difference, from within the territorialized or domesticated space of the intra-assemblage, one opens 'a crack, opens it all the way, lets someone in, calls someone, or else goes out oneself, launches forth'. Such openings invite others into the territorial assemblage, into the domesticated situation is subjected to the agitations of alterity. We find examples of such openings assumed as a principal of spatial practice in the work of both Achim Wollscheid and Henri Lefebvre, both of whom are responsible for the opening out of architectonic territories onto the noise of the world. This gesture is performed by Wollscheid in *Wallfield*, a piece which enforces a further auditory extimacy upon the work of architects Seifert and Stoeckmann. The exterior walls of Seifert and Stoeckmann's *Livingroom*—a house constructed in Geinhausen, Germany, in 2005—are constructed of white aluminum, perforated by a uniform grid of windows, a

³³⁷ See Brandon LaBelle, *Acoustic Territories*, 43-79, where domestic noise is considered within the context of private territories, the need for personal space, but also the importance of an openness to difference, the sounds of others, as component in the life and establishment of community.

³³⁸ Deleuze and Guattari, *A Thousand Plateaus*, 343.

permeable exterior that caters in equal amounts for optical transferal and exclusion between interior and exterior. Should these potential openings be considered insufficient, the house's master bedroom can be extracted from the main body of the building in the same way as a drawer is extended from the chest which houses it, exposing both the inhabitants and the bedroom—often the most personal and private of spaces within the home—to the open air. While exposing the bedroom to the elements, this opening occurs on the first floor, therefore maintaining a critical distance from the street and the town's human inhabitants, an openness to the noise of the world that nonetheless maintains the consistency of the territory. Wollscheid's intervention in this space contributes to a further and specifically auditory opening out, setting an array of microphones and speakers into the exterior wall of the building, both inside and out, allowing for the production of an extimate auditory environment that further opens up the boundaries of the dwelling. Yet this simple gesture finds altogether more elegant expression in Wollscheid's Inlet Outlet (2006) in which a number of first floor windows automatically open and close allowing an influx of noise here invoked in a Cagean sense as much as any other—within the boundaries of an architectural interior. This influx of noise is punctuated according a rhythm—considered distinct from meter—determined by the occupants' movements, a responsive sequencing algorithmically mediated—that allows for a certain control and limitation to be applied to this influx, a punctuating limitation that enforces a certain durational consistency of both interior and exterior as such, preventing a complete confusion of signals. We must submit once again to the most obvious of references in considering Lefebvre's simple gesture of opening the window and listening, a gesture from which a wealth of information was drawn, providing depth and background to these later openings. From within his flat—an instance of the domesticated intra-assemblage—an opening is created in its defining threshold through which noise, the expressions of new elementary interactions are allowed to pass constituting a reconditioning of both the spatial and subjective components of the occupied territory. It is this act of opening, the production of a crack, that describes the productivity and potentials of the inter-assemblage, an opening of the defined territory to new elements and interactions, a break with the defined intra-assemblage towards the production of a new territoriality. This break is carried out by means of an immersion or submission to difference or noise, to the individuating interference of rhythms and frequencies that, in Lefebvre's case, were the expressions, noises, rhythms and durations of Paris' populous, machines and plant life.

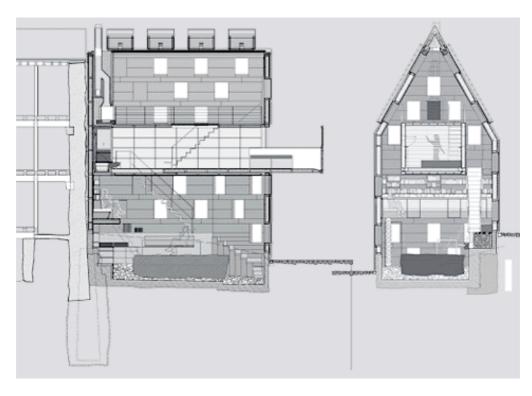


Figure 6: Seifert and Stoeckmann's Livingroom, Gelnhausen (2005).

This elaboration of territoriality, emerging midway along a tripartite schema of assemblages, suggests a linearity that is something of an oversimplification, as within the territory operate the agents of its own undoing or endless deformation. We find that, somewhat paradoxically, it is precisely the force of deformations, openings and undoings that, for Deleuze and Guattari, maintains or determines the consistency of the territorial assemblage: 'what holds all the components together are transversals, and the transversal itself is only a component that has taken upon itself the specialized vector deterritorialization'. We find that, somewhat paradoxically, it is precisely the force of deformations, and the transversal itself is only a component that has taken upon itself the specialized vector deterritorialization'. We find that, somewhat paradoxically, and the transversal itself is only a component that has taken upon itself the specialized vector deterritorialization'. We find that, somewhat paradoxically, it is precisely the force of deformations and the transversal itself is only a component that has taken upon itself the specialized vector deterritoriality, the territory not being singularly defined but determined according to a constitutive set of oscillatory movements or the interferences of a polyrhythmic structuration. That the transversal elements of this deformation should be thought to determine its consistency is important where form is not understood solely as the result of geometrical prescription of hylomorphic assertion but as the product of material forces, where objective or territorial morphology requires the notion of an internal generativity and

³³⁹ Deleuze and Guattari, A Thousand Plateaus, 371.

dynamics, as is evident in the intensive architectonics described by Fernández-Galiano. The maintenance of a territorial consistency according to the generativity of transversal elements or objectiles is clearly not the assertion of a static form but rather an account of the maintenance of a capacity for change. The inter-assemblage as the 'branching out' of a territory is not necessarily to be considered, therefore, as its inevitable conclusion, as that which must follow the structuration of the intra-assemblage—a voluminous or dimensional production of domestic, personal or personable space—but rather as a necessary state of its protean being, as the internal dynamics of the territorial assemblage.



Figure 7 : Achim Wollscheid's *Inlet Outlet* (2006), photo by Régine Debatty.

Where there is a certain synonymity between the notions of territoriality and assemblages, the interest in this relation is driven by what we might refer to as a specific modality of the territorial assemblage, a modality summarized by Deleuze and Guattari's notion of the refrain. Our particular interest in this notion comes from its detailing of explicitly sonorous assemblages, refrains taken in what Deleuze and Guattari describe as

the 'narrow' sense of the term: 'In the general sense, we call a refrain any aggregate of matters of expression that draws a territory and develops territorial motifs and landscapes [...] In a narrow sense, we speak of a refrain when an assemblage is sonorous or "dominated" by sound'. Once again we find the spatio-temporal assemblage defined according to a processual determination, the minimal delimitation of a territorial threshold, yet in this instance it is conceived as being determined more explicitly according to qualities, sounds, timbres, colours—'matters of expression'. Such qualities become 'dimensional' or voluminous in their determination of 'motifs', constituting the internal organization of a territory. Where the determination of a spatio-temporal assemblage or somatic complex is dominated by either incessant or subliminal sonority this processual determination is summarized under the rubric of the refrain.

In connecting this notion of the refrain to the schemas of spatio-temporal individuation outlined below, it should be noted that the transversal element maintaining both the consistency of an assemblage through an excitation of its capacity for change—'a component that has taken upon itself the specialized vector of deterritorialization'—can be understood to function in accordance with the method of dramatization, constituting the precursor of actualisations, the fleeting 'object which is not exactly an object', the intensive determinant of the qualitative extensities marking the expressed limits of a territory.³⁴¹ The refrain provides a summary notion for the territory dominated by, yet not solely comprised of, sonic events or a sonorous objectility that constitutes its transversal element. While qualities determine the identifiable boundaries of a territory, within the refrain the material emphasis shifts from that of matters of expression—of qualities—to that of 'materials of capture', matter understood according to affective capacities more than expressive qualities, a shift that marks the transition from an explicitly aesthetic orientation to one defined by an infraesthetic or particular functionalism. The production of a refrain, of a primarily sonorous territorial assemblage whose deformational progress is characterized not as a zealous charge into uncertainty and difference—a route which promises little other than ruin—but as an oscillation between consolidations and careful openings into a differential field of noise, a vacillation between displacement and emplacement. This progression is marked by a series of 'sober gestures', a rarefying selection or subtraction that serves less to impoverish than to 'free up' sound matter to territorial reformations and alternate

³⁴⁰ Deleuze and Guattari, A Thousand Plateaus, 356.

³⁴¹ Here I refer again to Lefebvre's sound object, See 'Seen from a Window', 219.

resonances constituting both capture and connection, a process that 'molecularizes sound matter and in so doing becomes capable of harnessing nonsonorous forces such as Duration and Intensity'. This 'freeing up' or 'molecularization' of sound is understood in two ways, as an attention to the particular temporal conditions and intensive potentials of sound and its difference from symbolic extensity, being considered according to its affective capacities more than semantic operations. It is where we consider the potential harnessing of 'nonsonorous forces' that we focus our particular emphasis upon sound around an openness to its imperceptibility in itself and its inaudible conditions—an orientation laid out as a defining feature of the sound art practices considered at the beginning of this text—as well as its rendering audible of durations and intensive determinations, the legibility or perceptibility of which inheres within Deleuze and Guattari's privileging of the audible and the ear.

We can of course refer to sonorities implicated within the production of personal and interpersonal territories in a manner that does not rely upon their particular reduction or infraesthetic functionalism, but rather their symbolic extension; where territoriality is determined according to relational and signifying practices within subjective identity formation, the definition of a personal territory may of course be carried out according to the transmission of sound as sign, informing identity through association, appropriation and so on. 343 From the position established herein, territorial productions as 'molar' symbolic operations are more closely aligned with a notion of individualization considered distinct from the primary interest placed upon a particular schema of sonorous individuation. Here we again assert the position that individuation acts upon and within the 'background' order of being, functioning within a 'base', a pool or reservoir of singularities, 'a system of virtualities' active and implicated within the determination of a differenciation.344 Individualization is, therefore, considered to describe the organization and structuration of identities and the apparent, being operative within the domain of that which is given and qualitatively determined, implicated within both the expression and determination of subjective and personal identity. Such assertions in no way seek to belittle the notion of

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³⁴² Deleuze and Guattari, *A Thousand Plateaus*, 378.

³⁴³ I refer to such notions of identity formations in passing and with extreme haste as this topic has received extensive attention and been the subject of many excellent studies, most notably within the field of popular music studies and in particular the work of authors such as Tia DeNora, Keith Negus, Richard Middleton and Dick Hebdige.

³⁴⁴ Simondon, *Technical Objects*, 63.

individualization and that which is implicated within it, due to its presiding over 'foreground' expressions, as such expressions remain nonetheless efficacious, but it is with individuation, as a theory altogether more suited to a discussion of affective capacities and the material interactions of *any* body, that primary concern must reside. Where our concerns reside with such a theory of individuation, in addressing that which persists in excess of the symbolically determined, we draw upon a 'molecularization' of apparent objects, their being understood in the terms of mutable multiplicities, open to movements and deformations rather than constrained to an ideal atemporal consistency; this molecularization or particular orientation is considered necessary in coupling a notion of territorial production to that of individuation, a notion that itself is considered inseparable from the particularly catalytic functions of the refrain as sonorous territorial assemblage. Described as a sonorous mode of the intra-assemblage, it is under the rubric of the refrain that we find the clearest expression of the territorial assemblage in the terms of catalytic spatio-temporal dynamics:

The refrain is a prism, a crystal of space-time. It acts upon that which surrounds it, sound or light, extracting from it various vibrations, or decompositions, projections, or transformations. The refrain also has a catalytic function: not only to increase the speed of the exchanges and reactions in that which surrounds it, but also to assure indirect interactions between elements devoid of so-called natural affinity, and thereby to form organized masses.³⁴⁵

The refrain emerges as a kind of structured volume amidst a saturated spatium, a distinction from (within) the void. It is in the consideration of its catalytic functions that the co-implication of territorial productions and individuation is realized, the territory impacting upon the wider environment in which it subsists, drawing into relation disparate elements, objects and bodies in the determination of a territory as somatic complex. Sound here constitutes a principal matter in an architectonic production defined not as exosomatic artifact but extimate continuum, delimiting and defining a particular space, setting bodies in motion through an enforced resonant relation, a relation that while drawing on common capacities leaves something of the excitation to obscurity, imperceptibility, the void, a difference between instances of its actualisation. It is in this account of a sonorous territoriality that we find a description of the affective capacity of sound appropriate to the creative practices that have been of primary concern, an understanding of sound as an

³⁴⁵ Deleuze and Guattari, A Thousand Plateaus, 384.

active component and transversal objectility in anomalous individuations indissociable from spatio-temporal and territorial productions.

Towards a degree of clarification regarding the structure of the argument that I must now bring to a close it should be pointed out that where chapters one and two provided a discussion of practices broadly and diversely concerned with the production of acoustic environments and expressing the contingencies of auditory space, the present chapter has sought to explicitly relate the spatial orientation of the works considered herein to a spatiotemporally contingent model of individuation and the complexity of the individual, subject to diverse schemas of auditory influence. It has been a core concern of the present chapter to provide a detailed account of an identified difference within the self, engendering the notion of an auditory individual that remains distinct yet indissociably implicated within the listening subject, in order to properly account for the praxical expression of a theory of sonorous-individuation—as, it has been argued, is evident in the key works considered herein—that is essentially spatio-temporally contingent. The final half of this chapter has in many ways been concerned with reiterating and summarizing key points that appear in the preceding chapters, yet reframed in terms that reconnect the present argument with the valuable considerations of sound carried out by Deleuze and Guattari. Where each previous chapter has provided a discussion of reciprocal auditory influence or determination within the context of an assumed environmental contingency, it is the present chapter that has attempted to explicitly express the necessity of a relation between spatio-temporal determination and individuation, and more specifically the account given by Deleuze and Guattari that identifies sound as an agent with the processual production of contingent individuality, thereby outlining a theory of sonorous individuation.

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