Sound Art and the Sonic Unconscious

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This essay develops an ontology of sound and argues that sound art plays a crucial role in revealing this ontology. I argue for a conception of sound as a continuous, anonymous flux to which human expressions contribute but which precedes and exceeds these expressions. Developing Gottfried Wilhelm Leibniz's conception of the perceptual unconscious, I propose that this sonic flux is composed of two dimensions: a virtual dimension that I term 'noise' and an actual dimension that consists of contractions of this virtual continuum: for example, music and speech. Examining work by Max Neuhaus, Chris Kubick, Francisco Lopez and others, I suggest that the richest works of sound art help to disclose the virtual dimension of sound and its process of actualisation.

As both a term and a practice, 'sound art' has become increasingly prominent since the late 1990s. The label has been embraced by artists, curators and critics, and the number of museum and gallery exhibits dedicated to (or prominently featuring) sound art has grown exponentially in recent years. While showcasing a new generation of audio artists, many of these exhibitions have also traced a genealogy of sound art that stretches back to the emergence of the art form in the 1960s and have thus given the current boom an historical footing.[1]

In 2001, sound installation pioneer Max Neuhaus responded to this situation by questioning the nature and viability of the practice. So-called 'sound art', he wrote, is nothing but an 'art fad'. As a term and a category, he maintained, it does no useful work and does not helpfully supplement existing categories such as music or sculpture (Neuhaus 2000). Neuhaus' response captures a set of prevalent misgivings about 'sound art', in particular the suspicion that the category is merely a way to repackage music for an art market and art-critical discourse that value visual objects more than they value ephemeral sounds and recordings of them. It also resonates with the view of many contemporary artists that 'sound' is not the basis for an art form but is simply one tool in the contemporary artist's increasingly multi- (or post-) media toolkit (Cox 2004).

Neuhaus is a venerable figure whose engagement with sound is both broad and deep. Nevertheless, I want to defend the distinction between 'music' and 'sound art' – not in the interest of drawing up a table of inclusion and exclusion, but in order to explore some important philosophical distinctions between these two fields of sonic art. The distinction, I contend, is an ontological one, a distinction between two different domains of auditory existence. At its best, 'sound art' opens up or calls attention to an auditory unconscious, a *transcendental* or *virtual* domain of sound that has steadily come to prominence over the course of the twentieth century.[2] In contrast with music, speech and signal, I will call this domain *noise*, though we will see that the reach of this term extends far beyond that of its ordinary usage.

1. NOISE

Background noise [*le bruit de fond*] is the ground of our perception, absolutely uninterrupted, it is our perennial sustenance, the element of the software of all our logic. It is the residue and cesspool of our messages […] It is to the logos what matter used to be to form. Noise is the background of information, the material of that form [… .] Background noise may well be the ground of our being. It may be that our being is not at rest [… .] The background noise never ceases; it is limitless, continuous, unending, unchanging. It has itself no background, no contradictory [… .] Noise cannot be made a phenomenon; every phenomenon is separated from it, a silhouette on a backdrop, like a beacon against the fog, as every message, every cry, every call, every signal must

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[1]For example: *Sonic Boom*, Hayward Gallery, London, April–June 2000; *Volume: Bed of Sound*, P.S. 1, New York City, July–September 2000; *S.O.S.: Scenes of Sounds*, Tang Museum of Art, October 2000–January 2001; *Sounding Spaces: Nine Sound Installations*, NTT InterCommunication Center, Tokyo, July–September 2003; *Treble*, Sculpture Center, New York City, May–July 2004; *Sonambiente 2006*, Akademie der Künste, Berlin, 1 June–17 July 2006; and *Waves*, Latvian National Museum of Art, Riga, 25 August–17 September 2006.

[2]I use the term 'transcendental' in its philosophical sense, one established by Immanuel Kant, who distinguished between 'empirical', 'the transcendental' and 'the transcendent'. In keeping with traditional metaphysics, Kant uses the term 'empirical' to refer to the domain of (ordinary and scientific) sensory experience and the term 'transcendent' to what lies entirely outside of this experience. The novelty of Kant's epistemology is to carve out a third domain, 'the transcendental', which designates the conditions for the possibility of experience, conditions that are not discovered directly within experience but without which experience as we know it would not be possible. In this essay, I draw on Gilles Deleuze's reformulation of the Kantian transcendental as providing *the genetic conditions for real experience* rather than *the general conditions for all possible experience*.

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; as soon as a form looms up or pokes through, it reveals itself by veiling noise. So noise is not a matter of phenomenology, so it is a matter of being itself. (Serres 1982: 7, 13)

We tend to think of 'noise' as a *secondary* phenomenon, as something *derivative*. Noise is disruptive. It disturbs or interrupts an initial state of calm. It interferes with communication and thought, making it difficult to hear, speak, understand or concentrate. In any case, noise is a nuisance that we wish to eliminate and that we believe *can* be eliminated. The discourse of information theory lends scientific support to this everyday position, taking noise to be what interferes with the transmission of messages and signals. For the information theorist, noise is the muck that accumulates on or around a message as it makes its way from sender to receiver. As a practical science, information theory takes as its aim the elimination or suppression of such detritus and a restoration of the message or signal in all its original purity.

The opposition between signal and noise (or music and noise) would thus seem to conform to the traditional metaphysical oppositions between substance and accident, essence and appearance. Yet from Hume and Nietzsche through Quine and Derrida, such oppositions have come under serious philosophical attack. Likewise, a rigorous philosophical consideration of sound should want to deconstruct the distinction between signal and noise. One way of doing so is to show that the distinction is *relative* rather than *absolute*. Hence, the composer Edgard Varèse, for example, asserts that it is simply matter of perspective: 'Subjectively,' he quips, '*noise* is any sound one doesn't like' (Varèse 1962: 20). Cultural theorist Abraham Moles concurs by way of a telling example. He notes that – though certainly musical – an orchestra tuning up is generally considered to be noise, while the clapping of an audience – a form of 'white noise' – is taken to be meaningful and, hence, signal. 'In short,' Moles concludes, 'there is *no* absolute structural difference between noise and signal. They are of the same nature. The only difference which can be logically established between them is based exclusively on the concept of *intent* on the part of the transmitter. *A noise is a signal that the sender does not want to transmit*' (Moles 1966: 78).

This sort of relativity would seem to put signal and noise on a par with one another, allowing noise an ontological place of its own, one no longer subordinate to signal. Yet this relativism, too, privileges signal. It construes the distinction between signal and noise (or music and noise) solely from the perspective of communication and meaning, and of human intentions and values. And yet, before there were creatures to exchange signals, there was a generalised

noise: the crackling of cosmic radiation, the rush of the wind, the roar of the sea. And, even now, every signal is issued against the backdrop of this noise. As Serres puts it, 'noise' is the background hubbub of life, the ceaseless sonic flux. Just as objects fill visual space, noise is what fills the auditory field: the hum of fluorescent lights, the rustling of leaves or fabric, the sound of traffic, radio static – indeed, all of these combined. It is from this background that any signal comes to the fore, temporarily drawing our attention to it and away from the background noise.

In this sense, 'noise' is not an empirical phenomenon, not simply one sound among many. Rather, it is a transcendental phenomenon, the condition of possibility for signal and music. To get at this transcendental dimension, I want to turn to the great early modern philosopher Gottfried Wilhelm Leibniz, who, two centuries before Freud, presented a powerful theory of the unconscious that has particular relevance to auditory experience.[3]

2. LEIBNIZ AND THE AUDITORY UNCONSCIOUS

Leibniz is often grouped with René Descartes as a European rationalist. But the two developed significantly different theories of knowledge, mind and metaphysics. For Descartes, the mind is completely transparent to itself, and all thought is conscious thought. Clear and distinct ideas serve as the standard for truth and epistemic certainty, and Descartes insists that clear ideas are necessarily distinct, and vice versa. Leibniz objects that clear ideas always have an element of confusion or indistinctness about them and that conscious thought makes up only a small portion of mental content. To illustrate this claim, he routinely offers the example of a man who lives near a mill or a waterfall. Such a man, he notes, no longer distinctly hears the sounds made by the mill or waterfall even though they are ever-present. Now Leibniz maintains that such a person does, in fact, register these sounds, but only unconsciously, as background, as something ordinary and not singular. And this is true of so-called 'white noise' generally, Leibniz's favourite example of which is the sound of the sea. He writes:

Each soul knows the infinite – knows all – but confusedly. It is like walking on the seashore and hearing the great noise of the sea: I hear the particular noises of each wave, of which the whole noise is composed, but without distinguishing them. But confused perceptions are the result of impressions that the whole universe

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[3]Leibniz's differential theory of the unconscious has been revived by Gilles Deleuze, who finds in it a compelling alternative to Freud's conflictual model. See, for example, Deleuze (1968: 107–8; 1980b).

makes upon us; it is the same for each monad (Leibniz 1989: 211).[4]

When I walk along the seashore, my perception of 'the great noise of the sea' is clear; that is, it is fully and powerfully audible. But it is also confused, since I hear this sound as a mass and don't distinguish its elements – the individual waves – which remain obscure. Yet I must in some sense hear the individual waves, otherwise I could not hear the aggregate. Hence the sound of each individual wave must be distinct for me, though in an unconscious and, hence, obscure sense. What is clear, then, is also confused, and what is distinct is also obscure.

The sounds of the mill, waterfall and sea are cited by Leibniz as evidence for his theory of 'minute perceptions' (*petites perceptions*). According to this theory, each of our conscious perceptions is grounded in a vast swarm of elements that do not reach conscious thought.[5] Such unconscious perceptions have what Leibniz calls a virtual existence.[6] They determine conscious perception but are not present to it. Leibniz notes that memory, too, has such a virtual existence. Our present experience takes place against the backdrop of a vast reservoir of memory, which, for the most part, remains unconscious. Yet a photograph, a song or a chance encounter can draw a portion of this reservoir into actuality, temporarily illuminating it and offering a glimpse of the totality.[7]

This virtual field has, for Leibniz, a truly cosmic significance. Each of the 'minute perceptions' that unconsciously determine conscious perception is itself the effect of causes that ramify out to infinity. Each individual wave is the result of a multitude of forces: the speed and direction of the wind, air pressure and temperature, the temperature and viscosity of the water, and so on. As a result, each conscious perception is the local registration of the entire state of the universe at any given moment. And the same is true of memory. The reservoir of memory contains not only particular memories or experiences – traces of all the past events I have experienced – but everything to which those experiences and memories are connected – namely,

the entirety of the past.[8] This is not an extravagant idea if we acknowledge that, evolutionarily speaking, I am my entire past – not only my personal past but the past of my entire species and, indeed, of natural history in general. Such forces or tendencies are in me or are contained in memory in a virtual state, an obscure state of indistinction, latency and dilation. When we manifest a particular tendency or remember an event or experience, we draw it from this reservoir, actualising it or contracting it. Hence, in the passage cited above, Leibniz can conclude that each individual (each 'monad') 'knows the infinite', 'knows all', albeit 'confusedly' – that is, virtually.

So, too, what we call 'white noise' contains, in principle, all frequencies of sonic energy in a sort of dilated state such that no one element comes to the fore or draws our attention. In his book *Sound Ideas*, Aden Evens reminds us that

> Vibrations do not disappear, but dissipate, echoing all the while, for energy is conserved. Every vibration, every sound, hangs in the air, in the room, in bodies. Sounds spread out, they become less and less contracted, they fuse, but they still remain, their energy of vibration moving the air and the walls in the room, making a noise that still tickles the strings of a violin playing weeks later. Every sound masks an entire history of sound, a cacophony of silence (2005: 14).

If we accept Leibniz's argument, we *hear* each of these sound waves – past and present – but we hear them confusedly. Indeed, like the man who lives near a watermill, this sound remains background to us and constitutes what we call 'silence'. Only the singularity of a signal – speech or music, for example – stands out against this background, contracts it, and renders sound clear and noticeable.

We saw that, for Leibniz, each individual 'knows [and hears] the infinite – knows [and hears] all – but confusedly'. He goes on to imagine God as one who knows and hears the totality. In the passage quoted above, Leibniz writes that 'confused perceptions are the result of impressions that the whole universe makes upon us [… .] God alone has distinct knowledge of the whole'.[9] This theological posit may seem outmoded, but, in his recent book on noise, electrical engineer Bart Kosko offers a strikingly similar conclusion. 'Is the universe noise?' Kosko asks, and then continues:

> That question is not as strange as it sounds. Noise is an unwanted signal. A signal is anything that conveys information or ultimately anything that has energy. The universe consists of a great deal of energy. Indeed a working definition of the universe is all energy anywhere

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[4]This example (and the associated examples of the mill and waterfall) are recurrent in Leibniz's corpus. They appear in the *Discourse on Metaphysics*, the letters to Arnauld, the *New Essays on Human Understanding*, and elsewhere.

[5]This theory receives its fullest elaboration in Leibniz (1704: 53ff, 115ff). 'Apperception' is Leibniz's technical term for conscious perception, while unconscious perceptions are generally termed 'perceptions' or 'minute perceptions'.

[6]What Remnant and Bennett translate as 'potentialities' and 'potential' are, in Leibniz's French, *virtualité* and *virtuel*, respectively.

[7]Henri Bergson explores this issue in great detail And, indeed, it is from Bergson that Gilles Deleuze derives his distinction between the virtual and the actual. Yet we see that this distinction can be traced back further to Leibniz.

[8]See, for example, Leibniz (1704: 54–5, 113) and *Discourse on Metaphysics*, §8–9, *Principles of Nature and Grace* §13, and *Monadology* §61, in Leibniz (1989).

[9]See also *Discourse on Metaphysics*, §§8–9 in Leibniz (1989).

ever [… .] [T]he noise-signal duality lets a sincere pantheist counter that he loves or wants God and that God just is the entire universe but spelled with fewer letters. So to him the universe is not noise but one big wanted signal. (Kosko 2006: 65)

Kosko and Leibniz thus seem to figure the distinction between signal and noise as an epistemological limitation. What *we human beings* hear as noise (as confused perception) would be perceived by *a superior intellect* as a clear signal. For God, there are no confused ideas, no noise. As such, Leibniz and Kosko fall back on the idea that the distinction between noise and signal is merely a matter of perspective and that noise is ultimately a secondary, superfluous phenomenon, the result of a deficiency.

Yet Leibniz's theory of 'minute perceptions' suggests an alternative understanding that dispenses with the theological posit.[10] Instead of construing the relationship of signal to noise as a horizontal distinction between part and whole (I clearly grasp this small zone or segment, but the vast whole escapes me), this theory construes the relationship as a vertical distinction between conscious perception and an auditory unconscious. The sound of the sea, we saw, is derived from an infinity of small perceptions (the sound of all the individual waves), which we unconsciously register but do not consciously perceive. What we do consciously perceive is the differential result of these minute perceptions that manifests itself as the ocean's roar. Leibniz's other prominent auditory example approaches this idea from the other side. For the man who lives next to the watermill, it is not the parts but the entire sound that is – or has become – imperceptible. This sound has ceased to be remarkable and has become ordinary, unconscious, background. Leibniz thus makes it possible for us to grasp the distinction between signal and noise not as one between *part* and *whole*, *ignorance* and *knowledge* but as one between *the singular* and *the ordinary*, *perception* and *its conditions of genesis*, the *actual* and the *virtual*.

According to this reading, noise is not some linear accumulation of signals (which would still subordinate the former to the latter). Rather, noise is the set of sonic forces that are capable of entering into differential relations with one another in such a way that they surpass the threshold of audibility and become signal. Noise and signal, then, are not differences in degree or number but differences in kind, distinct domains. Noise is no longer merely one sound among many, a sound that we do not want to hear or cannot hear. Rather, it is the ceaseless and intense flow of sonic matter that is actualised in, but not exhausted by, speech, music and significant sound of all sorts. Indeed,

in a lecture on Leibniz, Gilles Deleuze offers just such a suggestion. 'One can […] conceive of a continuous acoustic flow […] that traverses the world and that even encompasses silence', he writes. 'A musician is someone who appropriates something from this flow' (1980a: 78). This is the idea I want to pursue here: noise as the ground, the condition of possibility for every significant sound, as that from which all speech, music and signal emerges and to which it returns.

3. SOUND ART AND THE VIRTUAL

If 'music' actualises this sonic flux, what then is the role of sound art? I suggested at the outset that sound art turns an ear towards the transcendental or virtual dimension of sound that Leibniz has helped us to grasp. While this domain remains generally unconscious and inaudible, Leibniz notes that certain bodily and mental states – illness, dizziness, swooning, head injury, dreamless sleep, and so on – allow an influx of 'minute perceptions' and an opening onto this virtual dimension.[11] Leibniz has little to say about art, but it is clear that aesthetic forms can also offer access to this dimension insofar as they suspend our ordinary sensori-motor habits and the aim of practical communication in favour of an exploration of the very stuff of perception and sensation. Such an aesthetic extension of Leibniz is proposed by Friedrich Nietzsche who, in *The Birth of Tragedy*, attempts to show that the formal organisation of music is grounded in a chaotic flux of sonic forces, drives and energies that he termed 'Dionysian'.[12] Sound art, I suggest, opens up just this virtual dimension of the sonic.

Leibniz traced the auditory unconscious through ordinary experience. Yet sound recording amplified it and brought it to the fore. In his *Gramophone, Film, Typewriter*, Friedrich Kittler nicely captures the significance of Edison's and Cros's invention of the phonograph in 1877, a watershed event in the history of sound. 'The phonograph', Kittler writes, 'does not hear as do ears that have been trained immediately to filter voices, words, and sounds out of noise; it registers acoustic events as such. Articulateness becomes a second-order exception in a spectrum of noise' (Kittler 1986: 23). Edison wished to capture the human voice in speech and song; yet he could not help but also capture the reverberations of the room, the hum of electricity, the whir of the machine, and countless incidental sounds that make up the auditory field. For the

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[10]On the two interpretations of Leibniz's theory of perception, see Deleuze (1968: 213–14; 1988: 87ff; 1980b).

[11]See Leibniz (1704: 113; 1989: 215–16).
[12]For a reading of *The Birth of Tragedy* along these lines, see Cox (2005). In a brief remark, Deleuze suggests this rich connection between Leibniz and Nietzsche: 'Leibniz very nearly encountered Dionysus at the sea shore or near the water mill. Perhaps Apollo, the clear-confused thinker, is needed in order to think the Ideas of Dionysus' (1968: 214).

phonograph is an indiscriminate register, and its machinic contraction is markedly non-human. As a cultural device, the phonograph performs a sort of *trompe l'oreille*. It draws the ear to attention but, instead of delivering articulate sound, it transmits 'acoustic events as such', the 'spectrum of noise'. For more than a century now, audio engineers have attempted to eliminate or reduce this field of noise, which, however, sound artists embrace as their very material.

Seventy years after the invention of the phonograph, Pierre Schaeffer exploited this potential of recording devices (initially phonographs and, later, tape recorders) to produce a set of 'noise studies' that substituted worldly sound for the rarefied realm of musical tones, musical instruments, musicians, conductors and concert-going audiences. A radio engineer rather than a composer or musician, Schaeffer was attuned to the virtual domain of sound – its transmission of an invisible and inaudible field of waves to be contracted or actualised by radio receivers and amplifiers at singular points within the broadcast range. The phonograph and tape recorder further deterritorialised sound, detaching it from any determinate time and place and giving it a floating existence. Moreover, to Schaeffer's delight, phonography withdrew sound from its visual source and field of reference, calling attention to its abstract sonic substance and autonomous fluid existence (Schaeffer 1966). Indeed, in its very name and in its operation, Schaeffer's *musique concrète* took up residence at the borderline between the virtual and the actual, amplifying the process of actualisation whereby worldly sound and background noise are conscripted into the domain of music.

A decade prior to Schaeffer's experiments, John Cage was calling for a shift from music to background noise. 'Wherever we are, what we hear is mostly noise', he wrote in 1937. 'When we ignore it, it disturbs us. When we listen to it, we find it fascinating. The sound of a truck at fifty miles per hour. Static between the stations. Rain. We want to capture and control these sounds, to use them not as sound effects but as musical instruments' (Cage 1937: 25–6). Cage remained fascinated with noise but eventually lost interest in controlling it or making music with it. His justly famous 1952 composition *4′33″* simply offers an auditory opening onto background noise, drawing attention to the sonic field ignored or suppressed by everyday hearing. Like Luigi Russolo before him, Cage's attunement to noise was facilitated by the machinery of modern life, particularly by the 'oscillators, turntables, generators, means for amplifying small sounds, film phonographs, etc.' celebrated in his 1937 credo. Its non-technological simplicity notwithstanding, *4′33″* owes its inspiration to technologies of sound reproduction and transmission. Under the title *Silent Prayer*, it was initially

conceived in 1948 as a submission to the Muzak Corporation.[13] And it immediately followed the composition of *Imaginary Landscape #4*, scored for twelve radios. For Cage, the radio was a tool of indeterminacy, since the composer and performers had to submit themselves to whatever happened to be broadcast at the time. And, of course, radio is a perfect model for acoustic flow: it is always there, a perpetual transmission; but we tap into it only periodically. Indeed, *4′33″* functions like a sort of radio. For a brief window in time, it attunes us to the infinite and continuously unfolding domain of worldly sound. As Cage once put it: 'Music is continuous; only listening is intermittent' (1982: 224).

Against the conventional conception of 'noise' as loud and disruptive, Cage equated 'noise' with 'silence'; by the same token, he rejected the conventional conception of 'silence' as the absence of sound.[14] For Cage, 'noise' meant precisely what I have been calling 'background noise', the intensive murmur that fills every silence or, rather, that of which so-called 'silence' is made. Indeed, Cage's conception of 'silence' (and, by the same token, 'noise') is double. In one sense, he takes 'silence' to be *a sound* – namely, 'background noise' in the conventional sense. In this sense, Cage asks us to shift our auditory focus from foreground to background, from one field of sounds to another. In another sense, he takes 'silence' to be something inaudible – namely, the transcendental dimension of sound: the perpetual sonic flux of the world that is the condition of possibility for the audibility of any sound. Cage thus recapitulates Leibniz's sonic figures. Silence is the sound of the mill or waterfall, the perceptual background that we no longer hear. But it is also the sound of the seashore, whose roar registers the inaudible intensive forces that produce it, a noumenal essence that we grasp without distinctly hearing it.[15] Cage's *4′33″* offers us an aural opening onto a region of this sound, which we perceive more or less clearly – the shuffling of feet, wind and rain, the muttering of the audience – but this experience also draws our attention to what remains out of earshot: the global field and flow of noise, which we perceive only obscurely.

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[13]'[I have a desire] to compose a piece of uninterrupted silence and sell it to the Muzak Co. It will be 3 or 4½ minutes long – those being the standard lengths of "canned" music, and its title will be *Silent Prayer*. It will open with a single idea which I will attempt to make as seductive as the color and shape and fragrance of a flower. The ending will approach imperceptibility' (Cage 1948: 43).

[14]'There is no such thing as an empty space or an empty time. There is always something to see, something to hear. In fact, try as we may to make a silence, we cannot' (Cage 1957: 8).

[15]I use 'noumenal' here not in the Kantian sense of that which is inaccessible to experience but in the Deleuzian sense of the intensive, differential forces that produce empirical entities. See, for example, Deleuze (1968: 222).

This situation is characteristic of sound art in general, which tends to focus on the conditions of possibility of audition and the noisy substrate of significant sound. In Max Neuhaus' seminal installation *Times Square* (1977–92, 2002–), for example, a set of rich metallic drones emanate from deep inside a subway vent, blending with and subtly altering the din of New York City's busiest district. Without explicitly drawing attention to themselves, they define an indefinite region of aesthetic consideration that extends beyond them to the city as a whole. Broadcast 24 hours a day, they allude to the general sonic flux of the world. The same can be said for many other sound art projects, for example Christina Kubisch's *Electrical Walks* (2003–), which employ purpose-built headphones to make audible regions of the electromagnetic flux in which we are constantly bathed.

A spate of recent projects investigate what sound technicians call 'room tone', the low-level sonic murmur generated by the minute movements of air particles in enclosed spaces. Filmmakers record room tone to establish the soundtrack's foundation, a subconscious sonic field without which dialogue and diegetic sound would seem artificial and unmoored. Film practice, then, provides a technical acknowledgment of background noise as the necessary condition for significant sound. Recent sound art has foregrounded this background. Chris Kubick and Anne Walsh's *Room Tone* (2007) catalogues hundreds of room-tone recordings, which are selected, fragmented and combined by a generative audio program and sent through a four-channel speaker system that emits an ever-shifting collage of 'silence' in its infinite variety. The differential juxtaposition of these recordings makes audible their unique characteristics, as do a series of text sketches that offer a playful taxonomy ('Off-Screen Room Tone', 'Neo-Platonic Room Tone: Abbey Church of St Denis, Fr.'; 'Room Tone "La Vide"'; 'Silence, Confession Booth Tone'; 'Bassy Fox Hole Rumble', and so on).[16]

The uniqueness of each room's 'silence' is the starting point for Brandon LaBelle's *Room Tone (18 Sounds in 6 Models)* (2008). In Leibnizian fashion, this project takes room tone as a dense perceptual multiplicity that, in principle, registers the complex materiality of a given space: its dimensions, the materials of its construction, the nature and placement of its contents, its geographical location, and so on. LaBelle made three different recordings of his Berlin apartment and sent them to six architects, each of whom were asked to use them as the sole basis from which to construct a three-dimensional rendering of the space. Not surprisingly, the infinite complexity of the sound sources – manifested as a multitude of minute perceptions – made their full explication a practical impossibility, resulting in architectural models that diverge widely from one another.[17]

Andy Graydon's *Chora* series (*Chora in Three* and *Chora for*, both 2008) also works with the complex implications and foldings that constitute 'silence'. Both projects contrast the site and temporal specificity of room tone with the portability made possible by recording and the modulating or complicating effect of the new spaces and times into which such recordings can be played back. Graydon began with recordings of room tone that were then broadcast in the same space at a later time (*Chora in Three*) or in a different space (*Chora for*). They thus produce sonic folds of space and time that challenge audiences to unfold them or to recognise the impossibility of such a task.[18]

All these recent projects pay homage not only to Cage but also to Alvin Lucier's classic sound work *I Am Sitting in a Room* (1970), which, via sonic folding, explores the resonances between sound and architectural enclosure. Lucier's piece begins with a short text that reflexively describes the procedure of its construction and outlines its aims:

> I am sitting in a room different from the one you are in now. I am recording the sound of my speaking voice and I am going to play it back into the room again and again until the resonant frequencies of the room reinforce themselves so that any semblance of my speech, with perhaps the exception of rhythm, is destroyed. What you will hear, then, are the natural resonant frequencies of the room articulated by speech. I regard this activity not so much as a demonstration of a physical fact, but more as a way to smooth out any irregularities my speech might have.

Danish sound artist Jacob Kirkegaard's *Four Rooms* (2006) follows the same procedure but with different aims. In each of four abandoned rooms in the heart of Chernobyl's 'zone of exclusion', the artist recorded ten minutes of room tone. He then repeatedly played back his initial recording and re-recorded it, effectively amplifying this room tone and highlighting the room's acoustic signature, which emerges as a complex drone composed of a cluster of unstable harmonics. Lucier's piece moves from personal, human and domestic speech to pure anonymous sound; Kirkegaard's project begins where Lucier's

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[16]Kubick and Walsh's installation was presented in 'On Being an Exhibition', Artists Space, New York, 12 October–7 December 2007. For more on the project, see http://www.doublearchive.com/projects/room_tone

[17]LaBelle's installation was exhibited at the Berlin branch of the Staalplaat Record Shop in July 2008. See http://www.errantbodies.org/Room_Tone_18sounds.html

[18]The installation *Chora for Three* was shown in the group exhibition 'Displacement' from 8 March to 30 March 2008 at Greenbelt, New York City. *Chora for* was presented at Issue Project Room, New York City, on 3 May 2008.

leaves off and aims, in a sense, to reverse the process. The depopulated rooms recorded by Kirkegaard are profoundly overdetermined by the nuclear disaster that, twenty years earlier, forced their sudden evacuation. Thus, the drones that emerge from these rooms are, presumably, inflected by the radioactive particles and electromagnetic waves that still invisibly move within them. They are also haunted by the human beings that once inhabited them. Like sound, radiation doesn't die but only dissipates, dilates, or loses energy. Kirkegaard's recordings, then, can be seen as an effort to amplify or contract these dissipated or dilated sounds, to rescue sonic emissions that outlive those who produced them. They disclose the immemorial background noise out of which human sounds emerge and into which they recede; and they point toward an elemental time the half-life of which dwarfs human history.

I will conclude with a final example that, like Kirkegaard's, foregrounds the temporality and intensity of background noise: Francisco López's recent CD *Wind (Patagonia)* (2007). On the face of it, the CD's content is simple and austere: an hour-long, unedited and unprocessed recording of wind as it sweeps through the Argentine Patagonia. Yet the recording is sensually complex and conceptually revealing.[19] It draws our attention to a host of auditory phenomena that ordinary hearing ignores or relegates to the background. Indeed, López's project works to disclose the very nature of sound, hearing and sound recording. 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. For wind is pure becoming, pure flow. It is immemorial, but never the same. And it is nothing but the play of differential forces, differences in air pressure and temperature that generate immense currents, fronts and bursts across the surface of the earth – phenomena that are contracted by our ears (and by the microphone membrane) as sound. Here again we hear not only empirical noise – background noise – but come close to grasping its inaudible conditions of possibility, the differential forces from which sound and hearing spring. If, as I noted above, Schaeffer's *musique*

concrète called attention to the process of actualisation whereby background noise becomes music, López's *Wind (Patagonia)* reverses this movement, offering a sort of deactualisation or virtualisation of sonic material (see Lévy 1998).

Let me sum up by returning to my initial question about the relationship between sound art and music. For millennia, the art of sound has been identified with music, or what the Greeks called *musiké*, which encompassed poetry and dance as well. If one accepts this identification, then 'sound art' is a superfluous, redundant and pretentious moniker. Yet, I have tried to show that, over the past century and a quarter, a new domain of sound has opened up and a new experience of sound has emerged, a domain and experience heard faintly by Leibniz and amplified by Edison and his heirs. Exploration of this domain has marked the entire history of sonic experimentation in the twentieth century: from the *intonorumori* of Russolo and Varèse's 'liberation of sound' through Schaeffer and Cage, the sound poetry of Henri Chopin and François Dufrêne, Luc Ferrari's 'almost nothing', Brian Eno's 'ambient music' and beyond. Sound art, I have argued, turns fully toward this virtual dimension of sound and makes it the subject of its inquiry. As such, it broadens the domain of the audible and discloses a genuine metaphysics of sound.

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[19]Of course any choice and framing of material is a form of editing, and the choice of microphones and recorders involves a degree of processing. Through passages of audible distortion, López makes us aware of these choices, while also highlighting the degree to which they are involved in any form of listening. For to listen is to edit; and, fabricated by millenia of natural selection, ears, too, are mechanical devices that contract sound.

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