

Becoming Air: On Sonic Spatial Metaphysics

The Echo and the Trace

The study of music as an object—as a recorded or written art form, and one that is understood primarily in connection to its formal properties—has diminished or even prevented a wider understanding of music as a spatial practice: as an art form of place, and one that has emerged in dialogue with space.

Music loses its meaning when divorced from the spaces and places in which it happens. Many, if not all, the world's musical traditions developed in relation to specific places, geographies, landscapes, soundscapes, architectures, sites; the translation of these sites through musical migrations; as well as in connection to the social and political spaces that music both reflects and produces.

In Armenia, I listened to musical gatherings as constituted and produced in dialogue with space and place. Adopting a space-based perspective enabled me, for example, to hear a vocal quintet singing sacred music in a fourth-century monastery carved into a mountain not only as transmitting centuries-old music, but as mapping space with the voice. In one chant, four voices accentuated the resonant properties of the chamber through long, sustained tones. A single voice hovered above them, moving slowly in stepwise and ornamental fashion, the voice carving out the acoustic properties of the space as well as its para-acoustic properties—*what* it is about the sound of this space, and this acoustics, that makes it sacred.

The meaning of this architectural-vocal practice was not lost on either the musicians or the audience. Indeed, those categories made little sense in the moment, since everyone was part of a community, or perhaps a communion, created from sound as it emerges in, becomes part of, and transforms a space.

In the same rock-cut chamber, which has a reverberation time five or six times that of most modern interior spaces—which is to say, an acoustic space diametrically opposite to the clean, dry, non-reverberant acoustics described by Emily Thompson in *The Soundscape of*

*Modernity*¹—I heard whispers become a mesh of sound that lingered, in which voices freely intermingled, even in their most contemplative, hushed forms.

In this super-reverberant space, sound was so sustained through its reflections that the room seemed to act as a *recording device* for the voice. It captured voices as they circulated inside it, filling the empty chamber where only four grand columns stood beneath stone-cut arches, and where religious symbols and texts were etched onto stone surfaces and walls. As a recording device for the voice, this sacred site captured the traces of sounds that people made, sounds that were ultimately absorbed into—and thus became part of the very materiality of—the chamber. Through these sonic inscriptions, the chamber also captured a trace of those human souls.

A monastery thus becomes a space that is created of and with sound: it is a repository not only of the religious traditions that developed there—traditions that hid from persecution by sheltering inside a mountain—but, equally, a repository for souls as they were once manifested in sound.

Entering the Air

A spatial metaphysics of sound shaped the work of Terry Fox (1943–2008), an artist who, starting in the late 1960s, developed a practice in which he made sound-producing actions continuously for hours or even days inside various architectural spaces (a ruined church, an abandoned attic), with the idea that the movement of sound inside those spaces would transform them.

For Fox, the idea of transforming a space through sound was not metaphorical but literal. Although he created these works privately, specifically out of sight and earshot of an audience, he nevertheless hoped that people who entered a space after he had completed his sonic actions would perceive it as having changed. He said, “I tried to

1 Emily Ann Thompson, *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900–1933*. Cambridge, MA: MIT Press, 2004.

activate [...] space in such a way that a residue would exist afterwards, just a feeling, an intangible thing [...]. And it worked.”²

Just as the categories of “audience” and “performer” seem inappropriate in describing musical encounters in the cave-monastery in Armenia, the concept of “performance” seems inadequate in describing Fox’s practice. Fox, who believed that “all sound is sculpture,”³ *himself* arguably formed a communion with the spaces he activated through sound. He used sound to become one with the air and the architecture around him, producing “sculptures” through which the body, air, and architecture were conjoined in the common realm of vibration.

During the time he developed this unique approach to sonic sculpture, Fox had a desire to levitate. He wrote of his 1970 *Levitation Piece*—which took place inside a room whose floors and walls he covered with bright, white paper such that it produced a sense of buoyancy—that “I lay for six hours [...] trying to levitate [...] I was trying to think about leaving the ground, until I realized I should be thinking about entering the air. For me that changed everything, made it work. I mean, I levitated.”⁴

This simple but transcendent shift in perspective—to think not of leaving the ground but of “entering the air”—embodies the kind of perceptual reorientation needed for experiencing architecture as comprised of vibration; to experience one’s body as a source and medium of vibration; to become a channel; to become entangled with architecture and space through sound.

For *Levitation Piece*, Fox himself lay on a bed of earth he had gathered from the freeway. He wrote, “When the freeway was built, the earth was compressed, held down. You can conceive of it expanding when you release it rising, becoming buoyant. Of course, it’s physically

- 2 Terry Fox, *SiteWorks: San Francisco Performance 1969–85* (2000), <https://siteworks.exeter.ac.uk/items/show/17>, accessed July 6, 2022.
- 3 Matthias Osterwold, “Terry Fox: Economy of Means—Density of Meanings,” in Terry Fox (ed.), *Works with Sound/Arbeiten mit Klang*. Berlin: Kehrer Verlag, 1998, pp. 17–30, here p. 17.
- 4 Terry Fox, “I Wanted my Mood to Affect their Looks,” *Avalanche*, no. 2 (Winter 1971), pp. 70–81, here p. 71.

impossible. But for me the mere suggestion was enough. I was trying to rise too.”⁵

Hant Variance

In Paris, I attended an open studio by Sabisha Friedberg, an artist who engages esoteric phenomena, including the phenomenon of levitation, which she has explored in connection with both mystical and scientific discourses (discourses which were not always so distinct).

The final movement of Friedberg’s three-movement multichannel composition *Hant Variance*, which I heard over an eight-channel system that Friedberg had tuned for hours, features low-end bass tones that she “recorded live with a subwoofer configuration that allowed for rapid directional shifts.” She writes, “Sustained pure tones shift minimally and the allocation of sound engenders a sense of aural disorientation. This landscape, with the premise of summoning a new phantom or haunted sonic space, exists in an interstitial, albeit present zone.”⁶

In experiencing *Hant Variance*, I had a feeling of profound but precisely controlled dislocation. The low-end tones were somewhere, but it was impossible to say where that “somewhere” was. They permeated the space while also being located “in place”—and were simultaneously unplaceable, residing in an interstitial zone. The low-end tones were still and sustained, yet spinning and alive. As sounds I could locate inside my body and simultaneously outside it and away from it—moving, in motion—they disrupted my sense of my body’s dimensions, and troubled the distinction between my body and the environment: those realms, and the “things between them,” began to overlap.

To my mind, *Hant Variance*, and Friedberg’s work more generally, belongs to a category of sonic practice that occupies a space between acoustics (the physical behavior of sound and vibration), psychoacoustics (the psychology of hearing), and sonic metaphysics: engaging the nature of reality through sound and sonic experience.

5 Ibid.

6 Sabisha Friedberg with Peter Edwards, *The Hant Variance* (February 15, 2015), <https://www.sabishafriedberg.net/projects/category/LP>, accessed July 7, 2022.

A sonic metaphysics might unfold ideas of time and space; of materiality and energy; of object and event; of being and becoming. It might invite us to contemplate the nature of “things”—whether and how matter can become energetic; where the line between the material and immaterial lies; and whether that line, or that space, can be activated through sound.

The Inversion of Everything Solid

In his notes to *The Sound of Distance*, Jan St. Werner writes that “Sound doesn’t imply an ideal observational position. We cannot claim that the sound of an instrument is an object with sharply drawn contours, which from a certain perspective becomes ideally graspable in its shape, statement and purpose, and which presents itself as an absolute. On the contrary, sound is incompleteness. It is the essence of the porous, the corrupt, the inversion of everything solid. As soon as sound appears, it resonates and vibrates in complex relationships with its environment. Sound *is* its environment.”⁷

Sound, St. Werner suggests, is inextricable from environment—and it is its condition of porousness, its state of incompleteness, its status as the antithesis to that which is solid—that makes it such. Through vibration and resonance, sound sets that which appears to be solid into motion. Sound reveals solid matter to be vibrant. It both embodies and produces the “vibrant materiality” that, as Jane Bennett has suggested, connects human and nonhuman worlds.⁸

A feature of sound that has been contemplated for centuries, yet remains poorly understood, is that it is both “corrupt,” as St. Werner writes, *and corrupting*. Writing in the early seventeenth century, the English natural philosopher Francis Bacon suggested that “Audibles” were distinguished from “Visibles” in that “Audibles” (sounds) had the power to disturb a medium like water or air, whereas “Visibles”

⁷ Jan St. Werner, “Beyond the Sweet Spot: Questions about Sound, Distance and the People In Between,” in Arno Raffener (ed.), *The Sound of Distance: New Conceptions of Music, Space and Architecture*, program booklet. Berlin: Haus der Kulturen der Welt, 2021, pp. 9–13, here p. 11.

⁸ Jane Bennett, *Vibrant Matter: A Political Ecology of Things*. Durham, NC: Duke University Press, 2010.

(light) did not.⁹ In contrast to light, sound could disturb a medium and produce changes in it—in other words, “affect” and “corrupt” it.¹⁰

It is this affective capacity of sound that perhaps most distinguishes its potential, yet remains largely mysterious. In *Sonic Warfare*, a treatise on sound and affect, Steve Goodman argues for a vibrational ontology of sound that “delves below a philosophy of sound and the physics of acoustics toward the basic process of entities affecting other entities.”¹¹ While Goodman’s study makes a critical intervention into the aestheticist and formalist bent of sound studies, a recognition of sound’s capacity to “affect other entities” has imbued Western philosophies of sound since at least the time of Aristotle. As early as 350 BCE, in Aristotle’s *De Anima (On the Soul)*, we can find both a conception of sound-as-movement, and of sound *as moving and affecting*.

In contemplating the production *as well as the perception* of sound, Aristotle regularly referred to movement, describing sound as “a kind of movement of the air,” and as “a movement of that which can be moved.”¹² The historian of philosophy Mark Johnstone reflects on the spatial conceptions of sonic movement in Aristotle’s writings, remarking that: “The air that has been moved is said to ‘reverberate’ inside a hollow object, to ‘bounce’ back, to ‘rebound’, to be capable of ‘dispersing’, to ‘vibrate.’”¹³

However, it was not only sound’s capacity to make the material and the immaterial (“the void”) move and vibrate that was of concern to Aristotle, but also the *qualities* of that movement and its effects upon the receiver—what we might imagine as a kinetics of the soul. It is the nature of those kinetics that have evaded Western philosophers and physicists for centuries, and for which we must turn to musicians

9 Francis Bacon, *Sylva Sylvarum; Or, a Natural History in Ten Centuries*, 10 vols. London: William Rawley, 1626.

10 Gascia Ouzounian, *Stereophonica: Sound and Space in Science, Technology, and the Arts*. Cambridge, MA: MIT Press, 2021, p. 7.

11 Steve Goodman, *Sonic Warfare: Sound, Affect, and the Ecology of Fear*. Cambridge, MA: MIT Press, 2010, p. 82.

12 Aristotle, *Aristotle On the Soul; Parva Naturalia; On Breath*, trans. W. S. Hett. Loeb Classical Library. Cambridge, MA: Harvard University Press, 1957, p. 117.

13 Mark A. Johnstone, “Aristotle on Sounds,” *British Journal for the History of Philosophy*, vol. 21, no. 4 (2013), pp. 631–48, here p. 634.

and mystics—to those who used sound to “enter the air”; and to enable others to “rise.”

As Permeable as a Membrane

In his own practice, St. Werner resists conceptualizations of sound-as-object and the idea of a fixed or idealized listening perspective by developing a sonic and musical language rooted in dynamism, movement, and relationality. In *Squares Will Fall* (2021), for example, three acrobats perform a choreography with three loudspeakers suspended over a circus stage, each speaker transmitting one channel of a three-channel composition. The acrobats dance with the loudspeakers, hang and spin from them, and swing through the air with them, thereby mixing the sound elements—St. Werner writes, by “animating the speakers in real time.”¹⁴ In contrast to multichannel works in which an engineer “diffuses” a composition over a fixed set of loudspeakers, the acrobat-mixers collectively *dance* and move the music into existence, the movements of their bodies in space inextricable from the music’s trajectory and unfolding.

With the collaborative project *Robodynamic Diffusion: RDD*, Werner—together with Michael Akstaller, Oliver Mayer, and Nele Jäger—explores the kinetics of sonic space by manipulating the movements of a “sound robot”: a roving loudspeaker whose movements can be remotely controlled, and whose speakers can be made to point in any direction. The movements of the sound robot inside an architectural space, they write, “set[s] the environment into vibrations, thus influencing the sound result [...]. The venue itself becomes part of the instrument and is actively involved in the composition: a transformation of space into sound.”¹⁵

RDD makes sensible the idea that, as sound sets an environment into vibration through reflections, reverberation, and resonance, vibrating space also influences the movement of sound inside

14 Jan St. Werner, *Squares will Fall* (2021), see the Ural Industrial Biennial of Contemporary Art Festival website, <https://uralbiennial.ru/en/we/artists/person12-jan-st-werner>, accessed July 7, 2022.

15 *Robodynamic Diffusion: RDD* (2021), see the Ural Industrial Biennial of Contemporary Art Festival website, <https://uralbiennial.ru/en/we/artists/person368-robodynamic-diffusion-rdd>, accessed July 7, 2022.

it. Sound both affects and is affected by its environment, enmeshed in a feedback loop whereby the interrelations of sound and architecture are dynamic, complex, intersecting, overlapping, and impossible to disentangle.

The sonic sensibility of flux that characterizes St. Werner's practice is in sharp contradistinction to Western art-music concert traditions in which musicians and loudspeakers occupy fixed positions on a stage, "projecting" sound outwards from those positions. In these traditions, multichannel compositions typically use volume control or filtering to create an *illusion* of spatial movement. By contrast, projects like *Squares Will Fall* and *RDD* are predicated on the *actual* movement of sounds in space. *RDD*'s creators stress that what is most important is not the robot itself, but "the displacements it can affect: controlled disorientations and sensory redirections [...] [producing] a sense of space that is multi-perspectival and responsive."¹⁶ Listeners, too, are imagined as active collaborators, invited to "displace themselves from their passive position as audience-receivers into a system of feedback and response as listener-collaborators."¹⁷

In its desire to "affect displacements" and release music from its fixed perspectives, St. Werner's practice shares an impulse with that of Edgard Varèse, who, before the technologies existed to realize it, imagined a "spatial music" "made of sound set free."¹⁸ St. Werner's anarchic aesthetics of sonic dynamism extends not only to the interrelations of sound and space, however, but also to the interrelations between bodies and spaces. He not only seeks a different degree of freedom to sound and to music, but also to *people*, whose active participation he considers vital: "One must be consciously present, constructing one's own experience and thereby experiencing its constructedness in real time. It's about staying in motion, pulsating and becoming as active and permeable as a membrane," he writes.¹⁹

There is a politics to this aesthetics of movement, fluidity, and flux. If we understand space and place as not-fixed, not-static, re-

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Edward Downes, "Rebel from Way Back: Varèse, Composer of Electronic Works, Likes Music that Explodes in Space," the *New York Times*, November 16, 1958, X11.

¹⁹ St. Werner, "Beyond the Sweet Spot," p. 13.

sponsive, changing and changeable, we have a different sense of its potential futures—*what can happen there*. And, if through sonic displacements and disorientations we experience ourselves as permeable and corruptible, as being both affected and affecting—as active participants and collaborators in the production of space—we too have a different sense of our own potentials, our own possibilities of being.

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