



Max Neuhaus during *Listen*, March 27, 1966, photo by Peter Moore

Installing Duration: Time in the Sound Works of Max Neuhaus

Christoph Cox

It was a fascination with time that drew Max Neuhaus into the world of music, and time that led him out of it. “Intoxicated” by Gene Krupa’s sense of time and by the drummer’s role in “building time,” Neuhaus decided to become a percussionist.¹ By the age of nineteen, in 1958, he was working with some of America’s foremost musical experimentalists: Henry Cowell, Harry Partch, John Cage, Morton Feldman, and Earle Brown. A few years later, Neuhaus was touring Europe with Pierre Boulez and Karlheinz Stockhausen and giving solo recitals at Carnegie Hall. After recording his repertoire on an LP for Columbia Masterworks in 1968, Neuhaus promptly ended his career as a musician and began to devote himself to what he was the first to call “sound installation.” Such works eschewed live performance in favor of electronic transmission, the concert hall in favor of public spaces and institutions, and metrical music in favor of meterless drones.

Neuhaus consistently articulated this career change as a move from time to space, a shift of interest from the *time of music* to the *space of sound*. In a program note from 1974, he wrote:

Traditionally composers have located the elements of a composition in time. One idea which I am interested in is locating them, instead, in space, and letting the listener place them in his own time. I am not interested in making music exclusively for musicians or musically initiated audiences. I am interested in making music for people.²

This idea is echoed in Neuhaus’s 1994 introduction to his collection of Place works:

Communion with sound has always been bound by time. Meaning in speech and music appears only as their sound events unfold word by word, phrase by phrase, from moment to moment. The works collected in this volume share a different fundamental idea—that of removing sound from time, and setting it, instead, in place.³

In 2002, reflecting on his permanent sound installations, Neuhaus told an interviewer: "The important idea about this kind of work is that it's not music. It doesn't exist in time. I've taken sound out of time and made it into an entity."⁴

Neuhaus casts the music/sound art dichotomy in terms of time/space—a distinction embraced by younger sound artists such as Stephen Vitiello.⁵ Yet the time/space distinction is a red herring, for the real distinction concerns different conceptions of time. To see this, we need to situate Neuhaus's sound work within the general shift in temporal thinking that took place during the 1950s and 1960s and was manifest in both the Cagean tradition in experimental music and Postminimalism in the visual arts.

Beyond the Musical Object: From Being to Becoming, from Time to Duration

John Cage's work of the 1950s launched an attack on the musical object and, along with it, initiated a refiguration of musical time. Cage articulated this most clearly in a series of lectures, collectively titled "Composition as Process," delivered in Darmstadt in 1958. He notes that the essential formal aspect of European art music is the production of "time-objects": "the presentation of a whole as an object in time having a beginning, a middle, and an ending, progressive rather than static in character, which is to say possessed of a climax or climaxes and in contrast a point or points of rest."⁶ Such time-objects bind musical flow within definite temporal limits and tend to give it the narrative shape characteristic of traditional conceptions of time and history. Against this notion, Cage sought a different conception of time, one that transcends human construction. Hence, Cage endorsed a theory of music as "a process essentially purposeless," "a process the beginning and ending of which are irrelevant to its nature." In place of the bounded, narrative conception of time characteristic of the traditional musical work, Cage affirmed duration and simultaneity. He wanted his music to mirror and to become part of the open, ateleological flux of the world—"art," he was fond of saying, "must imitate nature in her manner of operation"⁷—and he affirmed that this flux is not singular but multiple, a conjunction of many different flows.

The two notions of time contrasted by Cage—that of the time-object and that of the purposeless process—match the terms of an opposition made by the twentieth century's greatest philosopher of time, Henri Bergson, who, after a long period of neglect, has become a central figure in recent philosophical and cultural debates. Bergson famously contrasted two different experiences of time. The first is exemplified by the figure of the clock, on which moments—discrete, present entities—are laid out side

by side in spatial succession. This is the concept of time that has dominated our thinking since at least the seventeenth century: time as an objective, quantitative measure of events, as something that is not part of events, movement, or change but that measures them from the outside. The concept of *number*, as discrete, discontinuous, and infinitely divisible, is inherently spatial, and the notion of time as a quantitative measure subordinates time to space. Insofar as it treats time as a matter of discrete moments, clock time cannot account for the *passage* of time, without which time is nothing at all. This key feature of passage points to a more fundamental experience of time that Bergson calls *duration*: time as a qualitative process, a flow in which past, present, and future permeate one another to form a genuine continuum.⁸

Cage's compatriot Morton Feldman drew just this distinction. Feldman objected to Stockhausen's idea that the composer could "reduce . . . [Time] to so much a square foot" and to Stockhausen's view that "Time was something he could handle and even parcel out, pretty much as he pleased." "Frankly this approach bores me," Feldman bluntly declared. Alluding to Bergson, he continued: "I am not a clockmaker. I am interested in getting to Time in its unstructured existence." "I feel that the idea is more to let Time be, than to treat it as a compositional element. No—even to construct with Time won't do. Time simply has to be left alone." Recalling Cage, he concluded: "Not how to make an object, not how this object exists by way of Time, *in* Time, or *about* Time, but how this object exists *as* Time. Time regained, as Proust referred to his work."⁹ This interest in time as duration, in making music that would not control time but would flow *with* it and *as* it, led Feldman, late in his career, to compose works of immense length, for example, the four-hour *For Philip Guston* (1984) and the five-and-a-half-hour *String Quartet II* (1983). "Up to one hour you think about form," he wrote, "but after an hour it's scale. Form is easy—just the division of things into parts. But scale is another matter. Before my pieces were like objects; now they're like evolving things."¹⁰

These two conceptions of time are also directly at issue in Cage's most famous composition, *4'33"* (1952), which Cage himself felt to be his most successful and important piece.¹¹ *4'33"* sets up a confrontation between measured time and limitless duration. The title of the piece explicitly refers to the spatialized time of the clock—a fact Cage underscores by noting that the title could also be read "four feet, thirty-three inches."¹² And, of course, the performance of the piece is regulated by a stopwatch. Yet the arbitrariness of this temporal scope (compositionally determined through chance procedures) and the sonic experience it discloses indicate that *4'33"* aims to engage another experience of time—the time of duration, a time that does not parse out musical events but bears witness to the general acoustic flux of the world.

A year before composing *4'33"*, Cage wrote a piece called *Imaginary Landscape No. 4 (March No. 2)*, scored for twelve radios. For Cage, the radio was a tool of indeterminacy, since the composer and the performers had to submit themselves to whatever happened to be on the air at the time. Radio is also a perfect model for acoustic flow: it is always there, a perpetual transmission, but we tap into it only periodically. Moreover, the simultaneous activation of twelve radio transmissions acknowledges the multiple layers, streams, and speeds of flow that make up the general acoustic flux of the world. Indeed, *4'33"* functions like a radio. For a brief window in time, it tunes us into the infinite and continuously unfolding domain of worldly sound. As Cage once put it: "Music is permanent; only listening is intermittent."¹³

The sequel to this work, *0'00"* (1962), intensifies this argument about temporality. The piece calls for "nothing but the continuation of one's daily work, whatever it is . . . done with contact microphones, without any notion of concert or theater or the public." "What the piece tries to say," remarked Cage, "is that everything we do is music, or can become music through the use of microphones; so that everything I'm doing, apart from what I'm saying, produces sound." Again, Cage includes the temporal marker. But, at the same time, he reduces it to zero, puts it under erasure. "I'm trying to find a way to make music that does not depend on time," he said of the piece. "It is precisely this capacity for measurement that I want to be free of."¹⁴

The aim of *4'33"* and *0'00"*, then, is 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. "I think music should be free of the feelings and ideas of the composer," Cage famously remarked. "I have felt and hoped to have led other people to feel that the sounds of their environment constitute a music which is more interesting than the music which they would hear if they went into a concert hall."¹⁵ To this end, Cage urges the composer "to give up the desire to control sound, clear his mind of music, and set about discovering means to let sounds be themselves rather than vehicles for man-made theories or expressions of human sentiments."¹⁶

Chance and silence were Cage's transports into this domain. These two strategies allowed the composer to bypass his subjective preferences and habits in order to make way for sonic conjunctions and assemblages that are not his own. And "silence," for



John Cage, page from the score for *Imaginary Landscape No. 4 (March No. 2)*, 1951

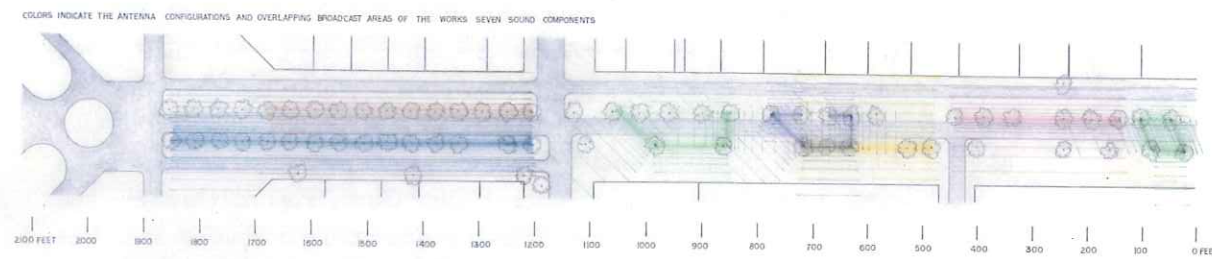
Cage, names not the absence of sound (an impossibility, he points out) but the absence of *intentional* sound and discloses the sonic life of the world or nature. *4'33"* remains Cage's most elegant attempt along these lines. But so much of his work reveals that he conceived of sound (natural and cultural alike) as a ceaseless flow and of composition as the act of drawing attention to or accessing it.

Cage's understanding of an open, purposeless process affirms duration, affirms a post-theological, ateleological universe that is without origin, end, or purpose. Musical Minimalism affirmed a similar conception of time. Composers such as La Monte Young, Tony Conrad, Steve Reich, Philip Glass, Pauline Oliveros, and Charlemagne Palestine explored what Gilles Deleuze calls "nonpulsed time," as opposed to the "pulsed time" of classical composition. Pulsed time has nothing to do with regular, even repetitive, pulses (a key feature of musical Minimalism). Rather, it is the time of narrative development that organizes the musical piece into identifiable sections and landmarks, allowing the listener to know where he or she is and is going. It sets up conflicts to be resolved that actively solicit the listener's sense of narrative time. Hence, Deleuze tells us, pulsed time is the time of the *bildungsroman*, the novel of education, which "measures, or scans, the formation of a subject."¹⁷

The nonpulsed time of the Minimalists is something else entirely. Minimalist compositions dispense with narrative and teleology and show no interest in charting the progress of a hero, whether it is the composer, the solo instrument, or the listening subject. Rather, as Belgian Minimalist composer Wim Mertens notes, "the music exists for itself and has nothing to do with the subjectivity of the listener . . . the subject no longer determines the music, as it did in the past, but the music now determines the subject."¹⁸ Reich notes that his early Minimalist compositions "participate in a particular liberating and impersonal kind of ritual. Focusing in on the musical process makes possible that shift of attention away from *he* and *she* and *you* and *me* outwards towards *it*."¹⁹ That is, the nonpulsed time of Minimalist composition places composer, performer, and listener on a wave of becoming that flows, shifts, and changes, but extremely gradually so that one loses any clear sense of chronological time (what Deleuze calls *Chronos*) and instead is immersed in a floating, indefinite time, a pure stationary process (Deleuze's *Aion*).²⁰

Installing Duration: Postminimalism in the Visual Arts

Cage was content to call this sonic flux "music" and remained more or less satisfied with the role of composer, even if he vastly expanded the scope of the term and relinquished a great deal of compositional authority. Yet his work had a profound effect on



Plan of antenna configurations for Max Neuhaus's *Drive-in Music*, 1967, Lincoln Parkway, Buffalo, New York

artists interested in exploring sound outside the musical context. Neuhaus's first work as a sound artist,²¹ his project *Listen*, begun in 1966, for example, carried 4'33" beyond the concert hall. Hands stamped with the word *listen*, audience members were taken on a tour past a nearby power plant, a highway overpass, and other sites that were to be experienced aesthetically as sound environments. At the same time, Neuhaus extended Cage's work with radios. *Public Supply I* (1966) used the radio studio to perform a live mix of sounds phoned in by listeners, while *Drive-in Music* (1967) employed short-range transmitters to sculpt a sequence of sound fields received by the radios of passing cars.

Drive-in Music marks Neuhaus's break with music and the inception of his sound installation practice. Installing sound allowed Neuhaus to dispense with live performance and thus to remove what he called "the onus of entertainment" that burdened music but of which, Neuhaus felt, the visual arts were largely free.²² Indeed, for Neuhaus, the concerns of sound installation are shared more fully by the visual arts than by music. "In terms of classification," he told William Duckworth in 1982,

I'd move the installations into the purview of the visual arts even though they have no visual component, because the visual arts, in the plastic sense, have dealt with space. Sculptors define and transform spaces. I create, transform, and change spaces by

adding sound. This spatial concept is one which music doesn't include; music is supposed to be completely transportable.²³

This interest in site-specificity was just one of the concerns that Neuhaus shared with visual artists of the time. Indeed, while the impetus for Neuhaus's sound installations came, in part, from the Cagean tradition in experimental music, it was equally due to the emergence, at the same time, of installation practices in the visual arts. Not coincidentally, these practices shared Cage's dismissal of clock time and discrete artistic objects in favor of works that engaged the temporality of process, becoming, and duration.

Michael Fried's enormously influential 1967 essay "Art and Objecthood" took aim at these installation practices, drawing a fundamental distinction between, on the one hand, autonomous works of art that suspend time and absorb the spectator's attention and, on the other hand, "theatrical" or "literalist" works that engage the spectator's physical presence in space and time and thereby short-circuit the achievement of an epiphanic aesthetic experience.²⁴ Much has been written about Fried's essay, and I have no wish to rehearse those critical polemics here; I want simply to show that, despite its utter silence about sound (a silence characteristic of contemporary art history and criticism), "Art and Objecthood" helpfully illuminates the importance and radicality of the sound art that emerged concurrently with Minimalism and "expanded field" practices in the visual arts, and that it does so via an examination of aesthetic temporality.

In the essay, Fried espouses a formalist modernism, according to which art is essentially self-sufficient and self-aware, concerned with its own nature and medium. The modernist paintings and sculptures Fried champions have, he argues, an interior, syntactic unity. They are whole and complete and, as such, possess a magisterial presence that absorbs the spectator in a peculiarly aesthetic experience that transcends the banality of everyday life. By contrast, the theatrical works Fried decries are heteronomous. They offer not self-sufficient unities but instead essentially incomplete or open situations that solicit the spectator's presence and draw attention to the material conditions of their exhibition. As Fried's major target Robert Morris famously put it, sculptural installations such as his own "take . . . relationships out of the work and make . . . them a function of space, light, and the viewer's field of vision."²⁵ That is, such works do not absorb the viewer into a contemplation of their interior formal relationships but rather explore the temporal and spatial relationships that obtain *between* the work and the viewer's mobile body. This betweenness, these relationships, this distance between beholder and artwork, Fried writes, "make . . . the beholder a subject

and the piece in question . . . an object."²⁶ Literalist or theatrical work, then, threatens to collapse the distinction between works of art and mere ordinary objects in all their dumb obstinacy. "Whereas literalist work aimed to project and hypostatize objecthood," Fried writes in a retrospective essay, "the abstract painting and sculpture I admired sought to undo or neutralize objecthood in one way or another."²⁷

Yet, despite the title of the essay and the attention it gives to the topic, "objecthood" plays a secondary role in Fried's analysis. For Fried's true concern lies elsewhere.²⁸ That concern emerges in Fried's notorious discussion of Tony Smith's revelatory night drive on the unfinished New Jersey Turnpike. Fried quotes Smith's recounting of this anecdote:

It was a dark night and there were no lights or shoulder markers, lines, railings, or anything at all except the dark pavement moving through the landscape of the flats, rimmed by hills in the distance, punctuated by stacks, towers, fumes, and colored lights. . . . The road and much of the landscape was artificial, and yet it couldn't be called a work of art. On the other hand, it did something for me that art had never done. . . . [Its] effect was to liberate me from many of the views I had had about art. It seemed that there had been a reality there that had not had any expression in art. The experience on the road was something mapped out but not socially recognized. I thought to myself, it ought to be clear that's the end of art. Most painting looks pretty pictorial after that. There's no way you can frame it, you just have to experience it.²⁹

Smith's experience is not one of objects but, as Fried notes, of "empty, or 'abandoned,' situations." "What replaces the object," Fried continues, "— what does the same job of distancing or isolating the beholder, of making him a subject, that the object did in a closed room—is above all the endlessness, or objectlessness, of the approach or onrush of perspective."³⁰ Indeed, what vexes Fried about Minimalism and installation practices generally is not really objecthood at all, since such works may be void of objects. What aggravates him is something else, namely, the conception of *time* affirmed in such work, namely, the experience of temporal "endlessness," "inexhaustibility," "persistence in time"—in a word, "duration." "The literalist preoccupation with time," Fried writes,

—more precisely with the *duration of the experience*—is, I suggest, paradigmatically theatrical, as though theater confronts the beholder, and thereby isolates him, with the endlessness not just of objecthood but of *time*; or as though the sense which, at bottom, theater addresses is a sense of temporality, of time both passing and to come, *simultaneously approaching and receding*, as if apprehended in an infinite perspective.³¹

Minimalism and installation, then, affirm a conception of time in its unlimited flow, its interminable fluid duration. And this Fried finds intolerable, for, following a modernist trajectory that extends back to Roger Fry and, ultimately, to Kant's metaphysics, Fried enlists art in the project of escaping this temporal flux. For Fried, art is, or ought to be, metaphysical. With "modernist painting and sculpture," Fried remarks,

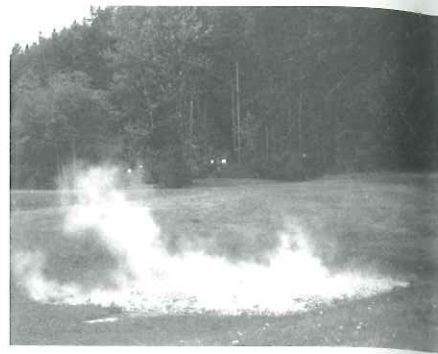
it is as though one's experience . . . *has no duration* . . . because *at every moment the work itself is wholly manifest*. . . . It is this continuous and entire *presentness*, amounting, as it were, to the perpetual creation of itself, that one experiences as a kind of *instantaneousness*, as though if one were infinitely more acute, a single infinitely brief instant would be long enough to see everything, to experience the work in all its depth and fullness, to be forever convinced by it.³²

Such has been the dream of metaphysics and theology from Plato through Kant, Hegel, and Laplace, the dream of transcending time altogether, the fantasy of a God's-eye view to which all time and history would be present at once and in which becoming would be annulled by pure, simple, present being.³³ Nietzsche relentlessly criticized such metaphysical and theological fantasies, revealing them to be symptoms of a profound contempt for nature, life, and the sensuousness that is at the heart of aesthetic experience. Fried acknowledges the "overtly theological" cast of "Art and Objecthood," which, after all, opens with a quotation from the Calvinist theologian Jonathan Edwards and famously closes with the salvific couplet "We are all literalists most or all of our lives. Presentness is grace."³⁴

As Fried rightly noted, the new generation of artists in the sixties rejected this conception of time and its underlying theology, asserting instead an antimetaphysical notion of time as duration. In a text published in *Artforum* a year after the appearance of Fried's essay in that same magazine, Robert Smithson explicitly countered Fried with a celebration of the artist's immersion in the Dionysian flux of time and matter that dissolves all objects and subjects. Art critics and the art market, Smithson noted, fasten on "art objects" and assign them "commodity values." Yet such objects are merely souvenirs from the artist's plunge into the "dedifferentiated," "oceanic" flux that constitutes the real aesthetic experience. "When a *thing* is seen through the consciousness of temporality, it is changed into something that is nothing," he wrote. "Separate 'things,' 'forms,' 'objects,' 'shapes,' etc. with beginnings and endings are mere convenient fictions: there is only an uncertain disintegrating order that transcends the limits of rational separations. The fictions erected in the eroding time stream are apt to be swamped at any moment."³⁵

A year later, and once again in *Artforum*, Morris concurred with Smithson, celebrating “the detachment of art’s energy from the craft of tedious object production” and favoring an art composed of “mutable stuff which need not arrive at the point of being finalized with respect to either time or space.”³⁶ In this final installment of his “Notes on Sculpture,” Morris criticized early Minimalist three-dimensional work (his own included) as still too objectlike and instead championed installations (for example, those of Barry Le Va) composed of “fields of stuff which have no central contained focus and extend into or beyond the peripheral vision.” In his 1967 project *Steam*, Morris had already given up the use of solid objects in favor of that most ephemeral, intangible, and amorphous of visible entities. Two years later, he exhibited his *Continuous Project Altered Daily*. Over the course of its three-week exhibition, the artist made daily changes to the installation, which concluded with an almost empty space that simply presented a set of photographs and a tape recorder that played back the sounds of Morris’s cleanup.³⁷ Such installations, Morris argued, shift the viewer’s focus from “figure” to “ground,” affirming a “dedifferentiated” mode of vision that implies “constant change” and encounters “chance, contingency, indeterminacy—in short, the entire area of process.”³⁸ Morris’s words echo those of Cage, who a decade earlier had called for a shift from musical objects to sonic processes, and precisely by means of chance, contingency, and indeterminacy.³⁹

Sound art grew out of this artistic milieu, emerging via a radicalization of musical Minimalism, on the one hand, and Postminimalist sculptural installation, on the other. Sound was better suited than other media to satisfy Smithson’s and Morris’s desire for artworks that resisted reification and modeled Dionysian flux. The temporality and ephemerality of sound allow it to bypass objecthood and the instantaneity of opticality. Combined with the often site-specific nature of sound installation, these qualities make sound art resistant to commodification and, instead, encourage experience and participation. In this respect, early sound art joined forces with Conceptualism, which aimed at what Lucy Lippard famously called “the dematerialization of the art object.”⁴⁰ Yet while Conceptualists, such as Lawrence Weiner, Joseph Kosuth, and the Art & Language group, tended to abandon the production of objects or to declare that physical objects are only indices of art’s true content, namely, ideas,⁴¹ the medium of sound allowed artists to find common ground between this austere idealism and a powerful physicality. For sound is at once thoroughly material and also invisible and



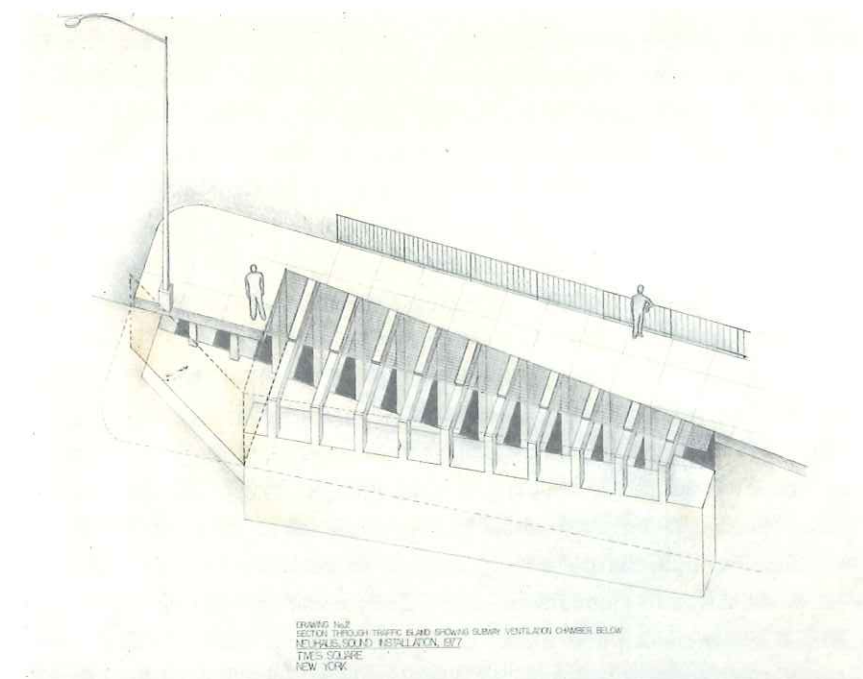
Robert Morris, *Steam*, 1974 refabrication of the 1967 original. Western Washington University, Bellingham

intangible, made of ephemeral movements of air. A sound installation could be at once empty and full: void of objects but replete with sensory material.

Sound is the most immersive of sensory qualities, and at low frequencies it is non-directional. As such, it draws attention to the total field or situation rather than directing it to a thing or set of things. Much in the way that Morris, Le Va, and others sought a dedifferentiated form of installation that shifted focus from figure to ground, sound art shifted perception from the rarefied cultural domain of music, with its selection of discrete tones and timbres, to the engulfing field of environmental sound.

Time’s Square

Both the Cagean tradition in experimental music and Postminimalist installation practices in the visual arts, then, presented critiques of aesthetic temporality. Though not identical, both critiques were directed at a notion of time that has held sway in European culture, a conception of time that accords with the metaphysical and theological privilege of being over becoming and for which the only genuine temporal



Rendering showing underground ventilation chamber for Max Neuhaus’s *Times Square*, 1977

modality is the present.⁴² The ideal, autonomous musical work of European modernity attempts to master time's elusive flow by making it a measured, closed, integral totality—an entity or time-object. Likewise, the ideal work of visual art is an integral, autonomous whole that, at each moment, is fully present. In both cases, the auditor or spectator is placed at the center of this aesthetic experience—or, rather, like Laplace's God, he or she is placed at its transcendent apex, able to survey the whole and dominate the temporal field. Against this conception of time, Cage and the Postminimalists posed a notion of time as duration and proposed an infinite, open process in which presence and completeness are forever deferred, a boundless flow that engulfs the auditor or spectator in a field he or she can never totalize.

Neuhaus's recurrent rejections of *musical time* in favor of *sonic space* must be read in this context. For, via sound installation, Neuhaus did not escape or reject time itself (surely an impossibility, particularly given the irreducibly temporal medium of sound). Rather, he rejected a particular conception of time: the measured, bounded temporality of the musical time-object. By the same token, Neuhaus's sound installations affirm duration. They are, in his words, "sound continuums," "sound works without a beginning or an end."⁴³ Indeed, from early to late, Neuhaus's "permanent" installations took time as their explicit subject. In the earliest of these, *Times Square* (1977–92; 2002–present), the titular reference to time is not incidental, not merely a designation of the work's location. Rather, the piece is a profound invitation to duration. Twenty-four hours a day, the installation has broadcast a stream of rich metallic drones from deep inside a subway vent on a pedestrian island in New York's busiest district. Audible but unobtrusive, the drones blend with and subtly alter the bustling sonic environment. This sonic stream is continuous, but it is experienced by visitors and passersby at particular moments within this temporal continuum. Such moments of conscious or unconscious apprehension serve as openings onto a flow of duration of which we are a part but that also surpasses us.

To some degree, of course, this is true of any work of art, which, though durable, is experienced in temporal slices. But, as Nietzsche and Schopenhauer pointed out, sound is fundamentally durational. It draws us out of the *principium individuationis* affirmed by the plastic arts and, instead, plunges us into the flux of time.⁴⁴ It is not a *thing* that *undergoes change* but change, flow itself. Bergson describes duration as a "qualitative multiplicity," a temporal flow that is heterogeneous and continuous, composed of different elements or states that are inextricably fused.⁴⁵ One could hardly find a better description of the drone: a complex, fluid mass composed of myriad tones, microtones, overtones, and combination tones that interpenetrate one another. Indeed, in a rich passage on sound, Bergson seems to point to the drone as the ideal

sensuous presentation of duration. "A melody to which we listen with our eyes closed, heeding it alone," he writes,

comes close to coinciding with this time, which is the very fluidity of our inner life; but it still has too many qualities, too much definition, and we must first 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 rediscover basic time. Such is immediately perceived duration, without which we would have no idea of time.⁴⁶

A melody—a series of overlapping pitches that we draw together in memory—provides a fine first approximation of duration. Yet these pitches are still too discrete, distinct, and defined, and the whole composed by these pitches—the melody or phrase—is itself too bounded. So Bergson suggests that we melt these pitches together into a continuous, fluid mass—in short, a rich drone. To grasp duration, perhaps we need to go a step further, generalizing this flux beyond sound. Even so, the drone provides the richest sensuous manifestation of duration.

The drone has always been a figure of temporal continuity and endlessness. To emphasize this aspect, the Theatre of Eternal Music often began its drone performances before the arrival of the audience and continued to play for hours, reaching the point where, as Feldman noted, form gives way to scale.⁴⁷ Regardless, a musical performance is always temporally bounded. And so, in pursuit of duration, La Monte Young eventually moved to electronic sound generation and long-term installation. Nevertheless Young's installations remain carefully controlled environments, refuges from their sonic and temporal surroundings. By contrast, Neuhaus's *Times Square* is an open system comprising not only the tones broadcast by the artist but also the ever-changing cacophony of its environment; sounds that color one another and blend. It thus richly figures the open-ended, differential flow of duration.

Just as the title of Cage's *4'33"* implicates both space and time,⁴⁸ so, too, does Neuhaus's title: *Times Square*. Indeed, the two works are fundamentally akin, though the latter performs a sort of spatiotemporal inversion of the former. *4'33"*, as noted above, explicitly engages two conceptions of time: the chronometric time of its title, which provides a determinate temporal opening, and the durational flux of sound onto which it opens. For the temporal marker in Cage's title, *Times Square* substitutes a spatial, geographic reference. This is apt, for what is fixed in Neuhaus's piece is not the temporal window but the spatial region. *Times Square* (which we might read as "time's square") also offers an opening onto duration: a kind of spatial chasm through

which a temporal flux emerges. In Cage's piece, what performs this opening is a period of silence; in Neuhaus's, it is a zone of continuous sound. Through Cage's silence, we hear the particular sonic field that fills the space and time of the performance—a synecdoche for the vast flux of time and sound that stretches beyond us. Neuhaus's unobtrusive drone draws the ambient flux into it, implicating the vibrational field of Times Square and, by extension, the vibrational flux of the world.

Time Pieces

The relationship between sound and time is even more explicitly at issue in the series of *Moment* works, or *Time Pieces*, that Neuhaus installed in various public contexts from the mid-eighties on. In each of these works, a regular temporal interval is marked by a slow sonic crescendo that abruptly ceases, leaving what Neuhaus describes as an "aural afterimage."⁴⁹

This series was inaugurated by Neuhaus's contribution to the 1983 Whitney Biennial, a piece he later titled *Time Piece "Archetype"*. It deployed a live electronic-processing system that collected street sounds from the stretch of Madison Avenue outside the museum, sent these through a computer program, and then broadcast the result into the Whitney's courtyard sculpture garden. Over the course of fifteen minutes, the computer program increasingly altered the pitch and timbre of the sampled sounds and layered this over the live material. Every quarter hour, the cumulative coloration of the street sounds was suddenly wiped away, leaving an undistorted sonic reflection.

For subsequent realizations of this idea, Neuhaus abandoned live processing in favor of using the recorded electronic drones that have become his signature, sounds that he describes as "resembling the after ring of large bells."⁵⁰ These later *Time Pieces* retain the basic form of *Time Piece "Archetype"*: the sonic material gradually increases in volume and culminates in an abrupt break. Yet their crescendos are reduced to five minutes and appear only once an hour on the half hour in the installation at Kunsthalle Bern (1989–93), five minutes before the hour in the version at Graz (installed in 2003), on the hour in the installation at Dia:Beacon (installed in 2005), and on the halachic hours of the Jewish ritual day in the version at Stommeln-Pulheim (installed in 2007).

These *Time Pieces*, then, would seem to be just that—timepieces, clocks—and Neuhaus would seem to have acceded to the circumscription of sound by measured time. Yet in fact, these installations resonate with a different practice of marking time: the liturgical, ceremonial, and civic practice of bell ringing that preceded the mechanical clock by centuries.⁵¹ In his magnificent history of this practice, cultural historian Alain Corbin notes that bell ringing not only preceded the quantitative, homogeneous

time ushered in by the mechanical clock but was, in many respects, at odds with clock time and with the scientific and economic rationalism that mandated it.⁵² Where the clock marks a sequence of equidistant, equivalent, indifferent, and interchangeable instants, village bells announced privileged moments: births, baptisms, marriages, funerals, festivals, liturgical hours, holidays, etc. In the ordinary flow of time, such events were singularities, remarkable moments of change where what followed differed fundamentally from what preceded. Peals of bells thus referred not to the abstract, indifferent time of scientific measure, but to the concrete life of the community and to its collective rhythms.

Neuhaus's *Time Pieces* engage both conceptions of time at once. Their regular sonic signals accommodate the time of the clock. Yet they simultaneously force an opening within clock time that resonates with the very different, qualitative time of the bell. This opening is achieved by reversing the natural envelope of the bell stroke, which begins with an abrupt, loud attack and is followed by a slow, steady decay. By contrast, Neuhaus's installations build amplitude over the course of five minutes, and the sudden end to his harmonic drone heightens the listener's awareness of the ambient sound that had mixed with it. The effect is similar to that generated by dub-reggae producers, whose remixes of reggae singles suddenly drop out vocal or guitar tracks to open up cavernous, ghostly spaces and provoke vertiginous, hallucinatory experiences. Rather than dubbing music, Neuhaus dubs environmental sound. Precisely tuned to their sonic sites, Neuhaus's drones slowly insinuate themselves into the environment, drawing ambient sounds into their flow. They then swiftly withdraw the leading sound, effectively amplifying the ambient elements in the mix while producing a psychoacoustic after-ring, a symmetrical sound envelope that doubles (dubs) the sounding drone and colors the ensuing "silence."

In the courtyard at Dia:Beacon, for example, the low rumble of institutional HVAC units is overlaid with the clatter of silverware and bits of conversation from the museum café and punctuated by the occasional rattle and howl of a passing train, the flutter and chirp of a bird, or the muted moan of a distant airplane. Invisibly and inconspicuously, a low, dense chord emerges from within this sonic field—a wavering drone in which various tones and partials seem to quiver and bounce, emerge or withdraw. Present but unobtrusive, the drone could easily escape conscious awareness, except at its peak, when the courtyard is bathed in a rich, consonant sonority. No sooner is it fully audible than it disappears. Suddenly, voices and birdsong seem louder and crisper, and the hush of air vents more aesthetically appealing. Neither present nor fully absent, the after-ring recedes slowly from auditory memory. As it does, ambient sound is gradually drawn down to its ordinary amplitude.

Like Neuhaus's other Moment pieces, *Time Piece Beacon* marks time. But it also marks a temporary rift in time akin to the spatial breach encountered in *Times Square*. It presents a temporal and sonic singularity that alters ordinary experience: an opening onto a different time, a nonchronological time. I have noted that chronological time subordinates time to space, such that time becomes what Bergson calls "the fourth dimension of space."⁵³ Discrete moments are laid out side by side, and time is conceived as the quantitative measure of movement or change. What chronology cannot account for is the most crucial aspect of time: *that it passes*. For, if moments are discrete entities, how can the present pass? Where does one moment end and the next begin? How can one moment dislodge another and send it into the past? And does the past come into being *after* the present has passed? If so, into what could the present pass and what sort of existence would it then have? Bergson and Deleuze solve these puzzles by positing a deeper, nonchronological, nonspatial conception of time: what Bergson calls duration, and Deleuze nonpulsed time or Aion. In order for the present to pass, they argue, it must not be a discrete entity but a continuity inextricably bound with moments past and to come. Moreover, in order for the present to pass, there must exist a *domain* of the past into which it can pass. That is, the past must coexist with the present whose past it is. It must exist (or subsist) as a (virtual) field into which the (actual) present can pass. Memory shows us that this is the case, for when I am prompted to remember some event or idea, I do so by drawing it from a reservoir of the past that coexists with my actual, present experience but that remains, for the most part, latent or virtual. What this argument reveals, Deleuze notes,

is the most fundamental operation of time: since the past is constituted not after the present that it was but at the same time, time has to split itself in two at each moment as present and past, which differ from each other in nature, or, what amounts to the same thing, it has to split the present in two heterogeneous directions, one of which is launched towards the future while the other falls into the past. Time has to split at the same time as it sets itself out or unrolls itself: it splits in two dissymmetrical jets, one of which makes all the present pass on, while the other preserves all the past. Time consists of this split . . . [which reveals] the perpetual foundation of time, non-chronological time.⁵⁴

For Deleuze, this conception of time flashes forth in the "crystal-images" of post-World War II cinema. It equally emerges in Neuhaus's Time Pieces. In place of the bell stroke that marks chronological time, the sudden disappearance of the drone creates a caesura, a gap or break, in chronological time. In this gap, the drone lingers, but virtually, in memory. This virtual domain of the past, ignored or suppressed by ordinary

experience, becomes suddenly sensuous and evident. At the same time, the ambient flux amplified by the drone presses into the future. Though the drone will return again an hour later, this ambient flux will not be the same but ever new. We witness, here, the splitting of time that is the condition of time's passage, the division of the present into a simultaneous past and future. Rather than marking the instants of the clock, then, Neuhaus highlights temporal passage, becoming itself. Here, time does not measure anything. It is not external to the movements and changes it charts. It is that movement and change itself, the fluid element in which all entities are borne along, from which they emerge and into which they recede.

Like *4'33"* and *Times Square*, the Time Pieces reveal temporal passage or duration by way of sonic flux. And this connection between sound and time is not incidental, for the sonic flux is, as we have seen, the privileged sensuous modality of duration. It is not surprising, then, that time has become the explicit subject of recent sound art, from Christina Kubisch's *Clocktower Project* (1997), which rewires a nineteenth-century bell tower to respond to varying conditions of light rather than clock time, and David Grubbs's *Between a Raven and a Writing Desk* (1999), a repeating, hour-long composition that at once marks and slackens clock time, to Jem Finer's *Longplayer* (1999), a thousand-year-long composition broadcast from a London lighthouse, and R. Luke Dubois's *SSB* (2008), which digitally stretches *The Star-Spangled Banner* across the four-year span of the American electoral cycle. The founding father of sound installation, Neuhaus investigated this relationship between sound and time for more than twenty-five years. From *Times Square* to the Time Pieces, his installations set sound into space not to circumvent time but to reveal its most fundamental dimension.

- ¹ Max Neuhaus, "Background," <http://www.max-neuhaus.info/soundworks/vectors/performance/background>. Originally published in liner notes for the CD *Max Neuhaus: The New York School—Nine Realizations of Cage, Feldman, Brown, Alga Marghen plana-N 22NMN.052*, 2004.
- ² Neuhaus, "Program Notes" (1974), in *Max Neuhaus: Sound Works*, vol. 1, *Inscription* (Ostfildern-Ruit, Germany: Cantz, 1994), p. 34. Neuhaus repeated this claim in interviews during the 1980s and 1990s. See, for example, the 1982 interview by William Duckworth, in *Max Neuhaus: Sound Works*, vol. 1, *Inscription*, pp. 42–49; the 1990 interview with Ulrich Loock, in *Max Neuhaus: Sound Works*, vol. 1, *Inscription*, pp. 122–35; and the interview with Michael Tarantino, quoted in Tarantino's "Two Passages," all available at <http://www.max-neuhaus.info/bibliography>.
- ³ Neuhaus, introduction to *Max Neuhaus: Sound Works*, vol. 3, *Place* (Ostfildern-Ruit, Germany: Cantz, 1994). See also <http://www.max-neuhaus.info/soundworks/vectors/place>.
- ⁴ Neuhaus, quoted in Alicia Zuckerman, "Max Neuhaus: Times Square," *Arts Electric* (2002), http://www.arts-electric.org/stories2002/020530_neuhaus.html.
- ⁵ See the conversation between Stephen Vitiello and Marina Rosenfeld, *NewMusicBox*, March 1, 2004, <http://www.newmusicbox.org/article.nmbx?id=2414>, and "Audio Files: Sound Art Now: An Online Symposium," April–May 2004, <http://artforum.com/index.php?pn=symposium&id=6682>.
- ⁶ John Cage, "Composition as Process II: Indeterminacy," in *Silence: Lectures and Writings* (Middletown, Conn.: Wesleyan University Press, 1961), p. 36; reprinted in *Audio Culture: Readings in Modern Music*, ed. Christoph Cox and Daniel Warner (New York: Continuum, 2004), p. 178.
- ⁷ See, for example, Cage's introduction to his *Themes & Variations* (Barrytown, N.Y.: Station

Hill Press, 1982); reprinted in *Audio Culture*, pp. 221–25.

- ⁸ These arguments run throughout Henri Bergson's work but receive their most sustained formulation in *Time and Free Will: An Essay on the Immediate Data of Consciousness* (1888), "Memory of the Present and False Recognition" (1908), and *Duration and Simultaneity* (1922). See the selections from these texts in *Henri Bergson: Key Writings*, ed. Keith Ansell Pearson and John Mullarkey (New York: Continuum, 2002), pp. 49–77, 141–56, 205–19. I return to these arguments in the final section of this essay.
- ⁹ Morton Feldman, "Between Categories," in *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman (Cambridge, Mass.: Exact Change, 2000), pp. 85–87.
- ¹⁰ *Morton Feldman: List of Works* (London: Universal Edition, 1998), p. 3.
- ¹¹ See *Conversing with Cage*, ed. Richard Kostelanetz (New York: Limelight, 1988), p. 65.
- ¹² Cage, in *Conversing with Cage*, pp. 70, 81.
- ¹³ See Cage, introduction to *Themes & Variations*; reprinted in *Audio Culture*, p. 224.
- ¹⁴ Cage, in *Conversing with Cage*, p. 69.
- ¹⁵ *Ibid.*, p. 65.
- ¹⁶ Cage, "Experimental Music," in *Silence*, p. 10.
- ¹⁷ Gilles Deleuze, "Vincennes Seminar Session, May 3, 1977: On Music," trans. Timothy S. Murphy, *Discourse* 20, no. 3 (fall 1998), p. 211.
- ¹⁸ Wim Mertens, *American Minimal Music* (London: Kahn & Averill, 1983), p. 90. The relevant portion of this text is reprinted in *Audio Culture*, pp. 307–12.
- ¹⁹ Steve Reich, "Music as a Gradual Process," in *Writings about Music* (New York: New York University Press, 1974), reprinted in *Audio Culture*, pp. 304–6.
- ²⁰ On Chronos and Aion and their relationship to music, see the "Vincennes Seminar," pp. 209ff, and *A Thousand Plateaus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1987), p. 262. Deleuze first

introduces the Stoic distinction between Chronos and Aion in *The Logic of Sense*, ed. Constantin Boundas, trans. Mark Lester and Charles Stivale (New York: Columbia University Press, 1990). Deleuze and Guattari discuss the difference between Goethe's bildungsroman and Kleist's "pure 'stationary process'" in *A Thousand Plateaus*, pp. 268–69.

- ²¹ In a short essay from 2000, Neuhaus rejects the term *sound art* as a legitimate aesthetic category. See Neuhaus, "Sound Art?," <http://www.max-neuhaus.info/soundworks/soundart>. Nevertheless, I find the term to be helpful in distinguishing musical sound from other aesthetic uses of sound. For more on this, see my "Sound Art and the Sonic Unconscious," *Organised Sound* 14, no. 1 (2009), pp. 19–26.
- ²² Neuhaus, "Situation Esthetics: Impermanent Art and the Seventies Audience," *Artforum* 18, no. 5 (January 1980), pp. 27–29, reprinted as "Modus Operandi," in *Max Neuhaus: Sound Works*, vol. 1, *Inscription*, p. 18; and at <http://www.max-neuhaus.info/soundworks/vectors/passage/modusoperandi>.
- ²³ Neuhaus, interview by Duckworth, p. 45.
- ²⁴ See Michael Fried, "Art and Objecthood" (1967), in *Art and Objecthood: Essays and Reviews* (Chicago: University of Chicago Press, 1998), pp. 148–72.
- ²⁵ Robert Morris, quoted in Fried, "Art and Objecthood," p. 153.
- ²⁶ Fried, "Art and Objecthood," p. 154.
- ²⁷ Fried, "An Introduction to My Art Criticism," in *Art and Objecthood*, p. 41.
- ²⁸ This concern is discussed in detail by Pamela M. Lee in *Chronophobia: On Time in the Art of the 1960s* (Cambridge, Mass.: MIT Press, 2004), pp. 36–81.
- ²⁹ Tony Smith, quoted in Fried, "Art and Objecthood," pp. 157–58.
- ³⁰ Fried, "Art and Objecthood," p. 159.
- ³¹ *Ibid.*, pp. 166–67.
- ³² *Ibid.*, p. 167.
- ³³ Compare Laplace: "We ought then to regard the present state of the universe as the effect of its anterior state and the cause of the one

which is to follow. Given for one instant an intelligence which could comprehend all the forces by which nature is animated and the respective situation of the beings who compose it—an intelligence sufficiently vast to submit these data to analysis—it would embrace in the same formula the movements of the greatest bodies of the universe and those of the lightest atom; for it, nothing would be uncertain and the future, as the past, would be present to its eyes." Pierre-Simon, marquis de Laplace, *A Philosophical Essay on Probabilities* (1814), trans. Frederick Wilson Truscott and Frederick Lincoln Emery (New York: Dover, 1951), p. 4.

- ³⁴ Fried, "An Introduction to My Art Criticism," p. 46; "Art and Objecthood," p. 168.
- ³⁵ Robert Smithson, "A Sedimentation of the Mind: Earth Projects," *Artforum* 7, no. 1 (September 1968), p. 50; reprinted in *Robert Smithson: The Collected Writings*, ed. Jack Flam (Berkeley: University of California Press, 1996), p. 112.
- ³⁶ Robert Morris, "Notes on Sculpture, Part 4: Beyond Objects," *Artforum* 7, no. 8 (April 1969), p. 54; reprinted in *Continuous Project Altered Daily: The Writings of Robert Morris* (Cambridge, Mass.: MIT Press, 1993), p. 68.
- ³⁷ Morris had earlier used sound as a way of de-reifying objects, notably in his *Box with the Sound of Its Own Making* (1961).
- ³⁸ Morris, "Notes on Sculpture, Part 4," pp. 59, 61, 67.
- ³⁹ On the relationship between Cage and Morris, see Branden W. Joseph, "Robert Morris and John Cage: Reconstructing a Dialogue," *October*, no. 81 (Summer 1997), pp. 59–69. Joseph discusses Cage's reception by Fried in "The Tower and the Line: Toward a Genealogy of Minimalism," *Grey Room*, no. 27 (Spring 2007), pp. 58–81, a version of which appears in Joseph's *Beyond the Dream Syndicate: Tony Conrad and the Arts after Cage* (New York: Zone Books, 2008), pp. 109–51.
- ⁴⁰ See Lippard, "The Dematerialization of Art," in *Changing: Essays in Art Criticism* (New York: Dutton, 1971), pp. 255–76.

- ⁴¹ See, for example, Lawrence Weiner, "Statements," Sol LeWitt, "Paragraphs on Conceptual Art," and Joseph Kosuth, "Art After Philosophy," in *Art in Theory, 1900–2000: An Anthology of Changing Ideas*, ed. Charles Harrison and Paul Wood (Malden, Mass.: Blackwell, 2003), pp. 846–49, 852–61, 893–94.
- ⁴² Philosophical critiques of this conception of time have been offered by Nietzsche, Bergson, Derrida, and Deleuze.
- ⁴³ Neuhaus, cited in Tarantino, "Two Passages"; Neuhaus, interview by Duckworth.
- ⁴⁴ Nietzsche presents this argument most fully in *The Birth of Tragedy*. For a reading of *The Birth of Tragedy* along these lines, see my "Nietzsche, Dionysus, and the Ontology of Music," in *A Companion to Nietzsche*, ed. Keith Ansell Pearson (Malden, Mass.: Blackwell, 2005), pp. 495–513.
- ⁴⁵ See, for example, chapter 2 of Bergson's *Time and Free Will: An Essay on the Immediate Data of Consciousness*, trans. F. L. Pogson (New York: Harper & Row, 1960), p. 100; and the opening section of his *Creative Evolution* (1907), trans. Arthur Mitchell (New York: Henry Holt, 1931).
- ⁴⁶ Bergson, *Duration and Simultaneity*, in *Key Writings*, p. 205. Bergson goes on to extend interior, psychological intuition of duration, this "inner time," to "the time of things," "the duration of the universe." This passage is clearly a revision of his earlier view, according to which melody is presented as the best figure of duration. See Bergson, *Time and Free Will*, p. 100.
- ⁴⁷ For a rich, Bergsonian meditation on drones and duration, see a recent text by Theatre of Eternal Music member Tony Conrad, "Duration" (October 2004), <http://tonyconrad.net/duration.htm>.
- ⁴⁸ Recall Cage's suggestion that his title might be read "four feet, thirty-three inches."
- ⁴⁹ See the text panel in Neuhaus's drawing for "Time Piece Beacon," which is reproduced on the back endpapers in this book, see also the introduction to his Moment works, <http://www.max-neuhaus.info/soundworks/vectors/moment/intro>, and "Notes on Place and Moment" (1992), in *Max Neuhaus: Sound Works*, vol. 1, *Inscription*, pp. 100–1; also at <http://www.max-neuhaus.info/soundworks/vectors/moment/notes>.
- ⁵⁰ See the text panel in Neuhaus's drawing for *Times Square*, which is reproduced on the front endpapers in this book.
- ⁵¹ Neuhaus himself associates his Time Pieces with the history of bell ringing. See his introduction to the Moment works and his "Notes on Place and Moment."
- ⁵² See Alain Corbin, *Village Bells: Sound and Meaning in the 19th-Century French Countryside*, trans. Martin Thom (New York: Columbia University Press, 1998), pp. 110–12.
- ⁵³ See Bergson, *Time and Free Will*, p. 109, and *Duration and Simultaneity*, in *Key Writings*, pp. 214–15.
- ⁵⁴ Deleuze, *Cinema 2: The Time-Image*, trans. Hugh Tomlinson and Robert Galeta (Minneapolis: University of Minnesota Press, 1989), p. 81. This passage largely summarizes the conclusions of Bergson's 1908 essay "Memory of the Present and False Recognition," in *Mind-Energy: Lectures and Essays*, trans. H. Wilden Carr (London: Macmillan, 1920), pp. 172–85, to which Deleuze alludes throughout his corpus. See, for example, Deleuze's *Nietzsche and Philosophy*, trans. Hugh Tomlinson (New York: Columbia University Press, 1983), pp. 47–49; *Bergsonism*, trans. Hugh Tomlinson and Barbara Habberjam (New York: Zone Books, 1988), pp. 54–62; and *Difference and Repetition*, trans. Paul Patton (New York: Columbia University Press, 1994), pp. 79–80.