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Like the composer La Monte Young, Max Neuhaus rigorously constructs sound experiences by working with the specifics of a given space or location and the tuning of frequency: audibility becomes inconceivable outside the functioning qualities of architectures and the particulars of a given place. Whereas Young seeks the intensity of frequency and psychoacoustics through just-intonation, Neuhaus aims for a tuning of sound and place as an expanded instrument.

Working as an established percussionist throughout the 1960s, Neuhaus shifted his practice to more artistic modes after confronting what he saw as an “inadequacy” in the traditions of musical presentation. Rather than situate the musical moment within a concert hall, determined by conventions of the proscenium stage and directed by the musical argument, Neuhaus sought to reach for a more public realm in which the experience of sound might surprise perception:

The impetus for my first sound installation [Drive In Music, 1967] was an interest in working with a public at large. Inserting

works into their daily domain in such a way that people could find them in their own time and on their own terms. Disguising them within their environments in such a way that people discovered them for themselves and took possession of them, lead by their curiosity into listening.¹

The move from the concert hall and its over-determined conventions to the “public at large” articulates an underlying move from “music” to “sound,” a process already initiated in the works of Cage and others. What distinguishes Neuhaus though is the construction of the sound material and its ultimate positioning. For Neuhaus, the “public at large” meant that strategies for making and positioning sounds needed to take on more “public” processes, thereby expanding the aesthetical and philosophical frame in which sounds may enter and exit. Echoing some of Cage’s concerns for shattering the musical object with ordinary sound, Neuhaus positions such ethics within a bolder public position by seeking the uninitiated, in the time of their movements, within the spaces of the everyday.

¹ Max Neuhaus, *Max Neuhaus: inscription, sound works vol. 1* (Ostfildern, Germany: Cantz Verlag, 1994), p. 82.

Drive In Music and Public Supply

Following Neuhaus, sound installation is founded upon the idea of making a sound work more public, or rather, making the experimental strand of musical practice susceptible to a different set of conditions and questions.² To consider the public at large is to announce both a frustration with certain cultural parameters within one sphere and a belief in a possibility exposed by another. Such a possibility for Neuhaus exists outside of a territory defined by his own musical education and tradition, however experimental, and inside a larger set of terms given currency within the domain of the visual arts. For the visual arts and in particular its cultural atmosphere around New York in the 1960s makes explicit modes of addressing a public, producing objects and events in conversation with bodies and spaces, thereby

² Certainly music has always functioned as a social bond, featured in practically every public gathering and event, from state fairs to wedding ceremonies to Sunday barbecues. What Neuhaus, and others, articulate is dissatisfaction with conventions of art and music stemming from the classical traditions in which audience is found through a cultural filter defined according to class, taste, education, etc. For more on the subject, see the work of Richard Leppert, particularly his co-edited anthology, *Music and Society: The Politics of Composition, Performance and Reception* (Cambridge, UK: Cambridge University Press, 1989).

undoing the art object for a more integrated and live experience.

Drive In Music from 1967 is considered Neuhaus' first sound installation.³ Situated on Lincoln Parkway in Buffalo, the installation consisted of a series of seven radio transmitters located intermittently along a half-mile stretch of the roadway. Each transmitter broadcast a particular frequency, thereby defining a particular area or zone of the roadway by giving it its own sound signature. Listeners could hear the work while driving down the roadway, tuning into the specific radio frequency, each sound mixing and overlapping as one drove through one zone and into the next. Drive In Music existed in the ether, as material picked up by an individual car radio and mixed by the driver's speed, location, and trajectory. In addition, weather conditions played a crucial factor in the experience and given sound mix, according to the particulars of any given day. "Depending on which direction a driver entered the piece, how far to the left or right side of the road he was, how fast he moved through it, and what the weather conditions were, the work was different. He

³ Described by Neuhaus in a lecture in Tokyo, 1982. In *Max Neuhaus: inscription, sound works vol. 1*, p. 63.

assembled it for himself as he passed through it and for himself only."⁴ Thus, the presentation of a sound work had to contend with an increased set of conditions determined and made explicit by that space of the public. In this regard, Neuhaus invites an audience or listener to claim the work for him or herself, "where the shifting location was suddenly enhanced to become one's very own musical performance."⁵ Directed by invitation,⁶ an audience comes to play a part in the works operations — here, listening, driving, and the conditions of weather activates and partially determines the final outcome.

In dispersing the art/sound object across radio frequency broadcast from multiple transmitters, the work activates a geographic area infused with the uncertain patterns of weather and a visitor's own decisions. Such a far-reaching work is indicative of Neuhaus' approach, and in turn, contributes to the legacy of sound installation as a

⁴ Max Neuhaus *Max Neuhaus: inscription, sound works vol. 1*, p. 64.

⁵ Dasha Dekleva, *Max Neuhaus: Sound Vectors* (University of Illinois at Chicago Master of Arts dissertation, Art History department 2003), p. 39.

⁶ The work was supported by the Albright-Knox Art Gallery in Buffalo and was announced through an advertisement taken out in a local newspaper. In addition, maps were provided at the driveway of the Gallery.

practice by charting out this expansive potential. Such a shift explodes radically the confines of Minimalist sculpture and music, and how the perceptual exchange of object and viewer is sought. Whereas Minimalism houses a body and an object within a neutral space, focusing on the optical and acoustical properties of perception, Neuhaus' sound installation mixes such terms into a partially uncontrollable situation, unsettling perception by introducing greater input.

In a similar fashion, his *Public Supply I* from 1966 dramatizes the degree to which Neuhaus sought out the public at large:

We installed ten telephones at the radio station, and I built a kind of switching/mixing system and semi-automatic answering system. You've got to remember there were no telephone answering machines in 1966, and live call-in shows didn't exist. The only answering machines around were huge things that the telephone company had. So there was nothing to draw on. The system for answering the calls was incredibly simple. There was a lever that went under the receiver, and as the phone

rang the thing lifted up the receiver. There was a plastic cup with a small speaker in it over the microphone. There was also a microphone in a cup over the earpiece; this sent the sounds of the incoming call into the mixer. All these phones were sitting on the floor popping up and popping down!⁷

Developed and presented at WBAI in New York, *Public Supply I* set in motion a process by which the public contributed sonic material. Calling in, sending sounds over the telephone lines, Neuhaus mixing and controlling the incoming calls, creating combinations of sounds, feedback loops, and soundscapes of textures and noise, the work connected people from around the city, forming a spontaneous orchestra, for “people heard the sound that they were making but also the other people [through their own radio] that were combined with them. At that moment it became a group activity — a process of people making sound together,

⁷ Max Neuhaus, *Max Neuhaus: inscription, sound works vol. 1*, pp. 45-46. *Public Supply I* was the first in a series of “broadcast” works which uses radio as an infrastructure, followed by *Public Supply II – IV*, from 1968 – 1973, culminating in his work *Radio Net* in 1977, which linked together 190 radio stations across the United States.

listening to it, and adjusting what they did according to what was going on. I think this is the heart of the musical process — this dialogue.”⁸

Making connections - Music as dialogue

Musical process as dialogue, sound work as public participation, composition as the orchestration of environmental conditions, Neuhaus’ work from the late 1960s can be heard to extend a process initiated by Cage, and furthered by Fluxus and experimental music’s concern for the extra-musical, and the relational dynamic of Minimalism. Yet what Neuhaus adds and makes explicit is the degree to which the extra-musical, and listening as act, must find new contexts in which to operate. With Neuhaus, the extra-musical is no longer “extra” for it operates outside the musical terrain to which the extra is but a supplement. Rather, Neuhaus seeks the specificity of sound through its situatedness, directing the ear to the found not by pointing it out as necessarily musical, or by housing it within a controlled cultural context, but by modulating its volume, shifting the proximate with the distant, the visible with the invisible.

⁸ Ibid. p. 46.

Thus, sound is never an extra-musical addition, but more a perceptual and spatial event infused with urban space, environmental conditions, traffic and driving, phone calls and their radiophonic orchestration.

The dialogue he refers to is a doubling up, an answering back and forth, a returning of the found transformed, as a concert of disparate elements. Such dialogue is further developed throughout later works. Installed on a traffic island between Forty-fifth and Forty-sixth streets, and Broadway and Seventh Avenue in Manhattan, his legendary Times Square installation is technically located under the traffic island, inside the subway tunnel beneath. A large loudspeaker mounted below emanates a deep resonating drone, like a ventilation hum or some mysterious mechanical object.⁹ Sonically, the work converses with the existing sound environment so as to bring it into relief:

From the grillwork in a
small concrete island set
between complex

currents of traffic an
equally complex set of
tonalities flows. It is
adjusted to compete with
the harshness of the
aural environment — that
is, to make itself heard —
and at the same time to
comment on its setting,
to accent the sound of
traffic, to question it, and
to shift the nature of its
comments as one moves
about in the vicinity of
the piece.¹⁰

Neuhaus' site-specific sounds thus begin with the found by drawing upon its inherent characteristics: tonal sonority, reverberant and resonant space, the sociality of environments, and the ebb and flow of amplitude. Each element adds to an observable environment, building up character through their intensities, their presence and impact on perception, over the course of time.

As an artist, Neuhaus "enhances an aural situation in such a manner that the change is almost imperceptible to listeners accustomed to its sounds, thus making the perception of a space, an environment, a location with its specific features a conscious

⁹ Initially installed in 1977, and de-installed in 1986, then re-installed in 1987 only to be de-installed in 1988, and re-installed again, with the support of the Dia Foundation, in 2000, *Times Square* demonstrates not only Neuhaus' commitment to a certain artistic ethos, but also his obstinate dedication to working through bureaucratic structures.

¹⁰ Carter Ratcliffe, untitled article, in *Max Neuhaus: inscription, sound works vol. 1*, p. 26.

act.”¹¹ By sculpting aural experience, Neuhaus’ work raises aurality as an issue bound to the specifics of place and location. What are the limits and measurements of the aural environment, and how am I situated within it? How do I add or subtract from the topographical evolution of the audible environment? What is my role in perceiving sound and how do such sounds define place? Thus, in dispersing a sound work across a much greater geography, in seemingly unbounded fashion, Neuhaus in turn fixes sound to its spot: in its unbounded intermixing, between source and environment, sound is wrapped within certain limits, fixed to particular locations, proximate to a given found soundscape, whether a particular bandwidth in Public Supply, roadway in Drive In Music, or traffic island in Times Square.

Such operations are furthered in his installation *Time Piece* exhibited at the Whitney Museum in 1983. *Time Piece* reiterates the artist’s general involvement with existing environments and their aural life, but this time by reflecting back, through a process of transformation, found sound. *Time Piece* was installed in the front sunken sculpture garden

at the Whitney Museum on Madison Avenue in New York. Working with live microphones placed facing the Avenue, the work appropriated these sounds and fed them through a series of computers, which then generated a transformed reproduction: the pitch of sounds were altered, and their location within the present was shifted by delaying their transmission. Thus, the audible environment was given an additional layer that altered its existing tonal range and real-time relay. In addition, the work was structured to run through a 20-minute cycle, beginning with total silence, slowly rising in volume, until finally reaching the level of the given environment, then suddenly disappearing into silence, only to start again. The 20-minute cycle directed attention through both an addition and subtraction: we begin with silence, then increase the additional sonorous layer, only to remove it in a way so as to heighten consciousness of what is already there.

Listening

Neuhaus, in aiming for a spatialization of sound, draws out a listening experience by underscoring what Pauline Oliveros refers to as “listening to listening”: “When I discovered that hearing is not

¹¹ Jean-Christophe Ammann, untitled article, in *Max Neuhaus: inscription, sound works vol. 1*, p. 21.

necessarily listening I began to listen to my listening. As ways of listening unfold I feel an expansion of possibilities."¹² Referring to her own musical development, Oliveros points out a distinction between listening and hearing that features throughout forms of sound practice. Listening and hearing as separate modes of perceiving, of being attentive to sound, oscillate across levels of consciousness, echoing Roland Barthes' proposal that hearing is a physiological condition whereas listening is a psychological act.¹³ As a psychological act, listening is decisive; it expands outward and draws inward by attentively incorporating surrounding environments and their audibility into the folds of consciousness. Oliveros' "deep listening" remains open and sensitive to the "field of sound," for "listening... means that it is possible to focus at any time in any direction..."¹⁴ Concentrating on this field of sound creates a heightened involvement with a given environment, as a means of cartographically locating sounds, their possible sources, and their meanings, not entirely as communicable message, but

as an environmental condition. "Through listening a development unfolds that seems both open and enigmatic: a development of relationships that become knitted together into an ever increasing involvement."¹⁵ Listening thus sparks understanding by remaining open, susceptible, attuned to things outside oneself. In creating possibilities, listening weaves self and surrounding into sympathy, or what Oliveros calls "inclusive listening," where "many places at once are treated as one rather than many."¹⁶

Deep listening, which I take as that point when listening attends to the whole field of sound, as a partner in the unfolding of time and space, acting upon and being acted upon in a mutual intensity, underscores a relation to sound and its inherent situatedness through the lens of time. For sound and space, in being wed in acoustical and environmental dynamics, activate time by inaugurating inclusive listening: listening follows events through a sonorous unfolding. Inclusive listening embraces sound as a perceptual link to a broader sense of awareness by a process of "listening to my

¹² Pauline Oliveros, in an interview with the author, 2001.

¹³ Roland Barthes, "Listening," in *Responsibility of Forms*, trans. Richard Howard (Berkeley, CA: University of California Press, 1991), p.245.

¹⁴ Pauline Oliveros, in an interview with the author, 2001.

¹⁵ Gemma Corradi Fiumara, *The Other Side of Language: A Philosophy of Listening* (London: Routledge, 1995), p. 114.

¹⁶ Pauline Oliveros, in an interview with the author, 2001.

listening." What one then listens to is not so much the space of listening, the ambient noise and the performative sound one is also making, but the time of one's own listening: to attend to sound is to temporally live the passing of its sonorous flow, its repetition over the course of time, the unfurling of cycles of audibility, daily, seasonally, and other.

To "make the perception of space a conscious act" is to not only subscribe to a certain phenomenological observation or analysis, but in turn to articulate, through cultural practice, a "politics." While Oliveros' "inclusive listening" gently positions itself in balance with surrounding environments, it nonetheless hints at an underlying potentiality found in relational dynamic fostered by such conscious acts of listening. For listening, as instances of both surveillance and investigation work reveals, may in turn uncover a range of possibilities in which truth shifts from the environmental to the political. To hear "many places at once as one rather than many" is to piece together multiple threads of information, assembling narrative out of disparate elements, lending significance to the relational and associative connections found between the many. Inclusive listening from this perspective may charge the environment

not only with the sensitive ear that while identifying harmonious possibility may also eavesdrop on forces operating against it.

Neuhaus' concern for the public at large, and the breadth of public space, in all its humming and vibrating and resonating, insinuates listening into a field of cultural politics where sound and space intermesh in the fabrication of urban conditions, the sociality of the built environment and artistic practice converse. I raise the issue of a politics of listening with the intention of problematizing a certain criticism that keeps Neuhaus within a purely "aesthetic" domain, that is, as pure form directed at the senses. While this is certainly a dynamic and poignant aspect of Neuhaus' work, it is not the only operation or current moving through his projects. For what in turn marks Neuhaus as an interesting artist are the multiplicity of cross-currents that pull in the facticity of space and place through aurality and its materiality. Neuhaus' installation works are contextually specific, appropriating a given spatial situation and turning it inside out, revealing its properties through invigorating perception. Such invigoration though is not without its tension, for to appropriate found space,

amplify environmental sounds, and assert sound into the public realm brings with it a critical perspective. Such perspective finds articulation in a form of modulating the built environment — reflecting back, recording, and transforming, shifting perspective and turning environments into instruments, of performance and audition, Neuhaus creates audible commentary on how public space is conceived. Such perspective may be glimpsed more fully in his ongoing interest and work with warning signals for emergency vehicles.

Hi Siren Project developed initially in 1978 and partially realized in 1989 aims to redesign the warning signal of emergency vehicles. Having recognized the warning signals of police cars, for example, often traumatize a public, causing panic and a general sense of uncertainty as to where the vehicle is coming from and where it's going, Neuhaus began to research the history of siren-design. Recognizing that the acoustic conditions surrounding warning signals had changed drastically since early versions — of trumpet blowers, loud bells, and whistles — all of which rang out across a less dense urban environment, tests were conducted using disused police cars in an abandoned air-field in Brooklyn, and then in a canyon in the Californian desert.

Finally arriving at a series of alternative designs, Neuhaus sought to make the siren more “informative” and less “startling” so as to lead a public out of the way by announcing the coming of an emergency vehicle. Rather than startle and panic a public, the signal should inform and direct a public toward safety, allowing officers to navigate more efficiently through the density of the city. After persistent work, Neuhaus partially realized the Siren Project in 1989 by constructing a series of sound patterns based on bursts of sound punctuated by periodic silences.¹⁷ Though still waiting for a siren manufacturer to implement the work, Neuhaus continues to speak out for more sensitivity and discussion on sound in the city.

Working with urban planners and city politicians comes as part of Neuhaus' desire to address the “public at large” so as to move beyond the conditioned structures of museums and concert halls. The Siren Project definitively

¹⁷ Neuhaus conducted tests (under the guise of shooting a film) in the city of Oakland in the early 1990s, and in 1991 the US Patent Office registered the sounds. Patenting sounds can be extremely difficult as seen in the recent court case with Harley Davidson in which the motorcycle manufacturer sought to patent the sound of its engines. After years of deliberation, the courts declined the patent, claiming that there was no way to specify the quality and exactness of the sound.

articulates the artist's "aesthetic" project as motivated by additional interests that must be positioned in and amongst urban planners and city politicians. Not that the artist is a politician, but rather, his works meaning contain a political shadow that in turn must be kept within the sounds themselves: engaging his work is to also position one's listening perceptually and critically.

Following the shadow

To work with public space through usurping given bureaucratic structures, working through and against them, stands out in Neuhaus' overall project, and finds echo in the work of Gordon Matta-Clark. A contemporary of Neuhaus working in New York in the late 1960s until his death in 1978, Matta-Clark's artistic works span an incredible breadth, from drawing, film and photography to his renown building cut-outs, such as *Days End* (1975). Indicative of his cut-outs *Days End* uses the derelict structure of a 19th century steel warehouse on Pier 52 in Manhattan to dissect and transform architectural space. Making cuts into the building, along its south west corner, across the roof and floor, with a dramatic sail-like crescent cut out on the west façade, the warehouse's dark interior was

opened up and suffused with shafts of light. Another of Matta-Clark's works, *Office Baroque* (1977), set out to redefine a derelict office building in Antwerp into a playground of the senses: cutting across the symmetrical lines of space, openings that break apart the figure-ground relation, *Office Baroque* altered the foundations of architectural usage by inserting a sculptural intervention.¹⁸

Though Matta-Clark is not directly related to or involved with the medium of sound, I want to use his work in contrast to Neuhaus as a way to discuss forms of spatial practice. For Matta-Clark, like Neuhaus, surprises architecture with an altogether different order, one based on an appropriation and subsequent reworking of form, opening up altered perspectives on and through buildings, expanding the sculptural notion of an object through multiple spaces. Matta-Clark's cut-outs are radical alterations of space that reposition the body so as "to convert a place into a state of mind."¹⁹ Such urban infiltrations pose counter-narratives as to how

¹⁸ For further information on Matta-Clark see Pamela M. Lee, *Object to be Destroyed: The Work of Gordon Matta-Clark* (Cambridge, MA: MIT Press, 1999).

¹⁹ James Attlee, "Introduction: How to Explain?" in *Gordon Matta-Clark: The Space Between* (Tucson, AZ: Nazraeli Press, 2003), p. 40.

architecture may perform. What Matta-Clark enacts is a disruption and subsequent deconstruction of such order through extracting, cutting-up, digging, and splitting. Following Matta-Clark, architecture should be understood not so much as a single building, or act of design, but rather as a symbolic system that profoundly contributes to the formation of individual experience. As discussed, like language, we can view architecture as forming the basis for an understanding of the development of personal identity: against architectures subjectivity is brought forward, for architecture fixes one into a certain ordering that goes beyond physical spatiality — or rather, it complicates such spatiality by rendering it symbolic and culturally coded. In other words, architecture functions within the larger sphere of social values by partially representing a given bias. Such representation occurs through the physical contours of spatial design, where the body is held within architecture and partially determined by its design: it literally dictates one's movements as a cultural and social body. In turn, architecture liberates the individual, for spatiality in turn allows free movement, comfort, access, and connectivity. Like language, architecture operates as a system that lends definition to

the individual by allowing a conscious exertion of will (speech, articulation, reflection in language, and free movement, access and mobility through architecture), and by confining it to a set of values (conventions of speech, limits of articulation, and the harnessing of free movement and access). Architecture frees the individual and traps him or her at the same moment.

Neuhaus' own work has steadily infiltrated the public sphere, operating in unexpected places, from Times Square to the Paris Metro, and crucially, against architectural spaces. His work for Documenta IX (installed in 1992 and still open as a permanent exhibition) sets out to enfold a listener in a complex sonic event determined by sine-wave frequencies, acoustical reverberations and resonances, and an environmental intermixing of the found and the constructed. Installed in the AOK health insurance building in Kassel, Germany, *Three to One* creates distinct zones of sound on each of the three floors of the building. Using the staircase positioned in the middle of the building, a visitor moves up and down and through the varying environments, from the "full-bodied, vibrant note" of the first floor, to the second which is "filled to the brim" with sound, and finally to the third, which

"expands as the two notes [from below] converge, seeming to become a whole open landscape of a space."²⁰

Listener's here partially create the work, or perform as in Drive In Music, by maneuvering through the given installation, shifting space and sound according to their own physical location, and moving in and out of varied zones of intensity, sound color, and the temporal passing of auditory movements.

Whereas sound installation generally moves from the "time of music" to the "space of sound", Neuhaus' work suggests that it does so by temporalizing space: sound adds or subtracts according to durational movement; it pushes against spatial envelopes through reverberation and resonance, increasing spatial presence and then removing it through silence, sonic absence, decay and fade out. To encounter sound installation, one spends time within space, immersed in a listening that brings one to space through an acoustical unfolding wedded to movement and duration. Overlaying the inclusive listening described by Oliveros onto architecture adds a sonorous perspective outside pure acoustics, to include the inter-connective narratives

²⁰ Doris von Drathen, untitled article, in *Max Neuhaus: inscription, sound works vol. 1*, p. 110.

created only through paying attention to the relational involvement fostered by the built environment of which sound is such an active part.

Christine Kozlov's work from 1970 No Information: Theory brings to the fore the temporal dimension by replaying space.²¹ Consisting of a microphone, tape recorder and speaker positioned within a given space for a period of time, the tape recorder captures live sounds happening in the space over a period of 2 minutes, while amplifying the sounds recorded the previous 2 minutes. In essence, the work creates a loop in which one hears the recent past while participating in the new recording itself that is in turn recording the sounds being amplified. Sounds build up to create an aural composite of time and space, though in such a way as to make the two inseparable, as time-space fixed together. Sound thus acts as a glue binding duration to spatiality, the counting of 2 minute cycles to acoustic response, listening to one's presence as interfering contributor. Time here is not so much a dispersed flow moving into the future, but compounded

²¹ See Ursula Meyer, *Conceptual Art* (New York: Dutton, 1972), p. 172, and Lucy Lippard, *Six Years: The Dematerialization of the Art Object from 1966 to 1972* (Berkeley, CA: University of California Press, 1997), p. 80.

and brought into a form of acoustic materiality through repetition and recycling. It comes back, as a past dragging us into the present, only to return as a future event.

Such play with time and space through audio recording is also at work in Roelof Louw's installation works from the early 1970s. His Tape recorder Script 6 exhibited at the Whitechapel Gallery, London in 1971 consists of two rows of tape recorders at either end of the gallery space. Upon entering the gallery a voice comes from one of the recorders and instructs a visitor to "move from A to B." After a number of minutes, the voice reappears, across the room at another recorder, instructing us to move again to the other side of the gallery. Additional works, such as Tape Recorder Script 7 & 8, operate in the same fashion: arranging tape players at specific intervals or places within a given space, a performer records the work by following Louw's instructions, such as: "at requisite intervals [4 foot and 9 inches in the case of Script 7] in accord with the way the participant feels, reports are to be made in a negative, indefinite and affirmative manner."²² Recordings are made either instructing movement,

observing details of the space, or revealing personal feelings as to the experience of the participant. As in Kozlov's work, there is a jag in time and space, for the recording, as a past moment, is made present by inciting a participant's involvement, either directly (by recording live their presence) or through implication (by referring to the space and the visitor). Louw "transforms the gallery space into a space of imagination, laced with 'psychic tracks'"²³ that make space out of time, marking through temporal points a spatial delineation. In Kozlov's and Louw's works, time invades space, infiltrating its corners, its crevices by inserting sound, activating the body by repeating it, mirroring it back as acoustic materiality, as a body absorbing and deflecting, producing sound, as in Kozlov's work, for one could imagine visitor's yelling, clapping hands, and stomping feet to contribute to the instrument at work, as participant in the making of this space-time event.

As Elizabeth Grosz proposes: "Space is the ongoing possibility of a different inhabitation"²⁴ (my emphasis). Such possibility is both the fabrication of different spatial forms through which

²² Kenneth Baker, "Roeluf Louw: Challenging Limits," in *Artforum* (May 1972), p. 49.

²³ Ibid.

²⁴ Elizabeth Grosz, *Architecture from the Outside* (Cambridge, MA: MIT Press, 2001), p. 9.

inhabitation takes place, either covertly (in tearing down walls inside one's own house) or explicitly (cardboard cities for the homeless), as well as the twisting of temporal phenomena. For inhabitation is the embodiment of space, yet one which has to occur and thus, as an event is always situated within time. Matta-Clark's *Day's End* was a cutting up of space by appropriating, without permission, Pier 52, inviting visitor's into the project, inhabiting its spatial delights (and dangers!) by invading the warehouse, against the authority figures.²⁵ Kozlov's gallery installation invites the visitor to attend to a creative inhabitation in which embodiment means acoustic intervention and contribution always wed to the virtual: the acoustical future of one's own presence. And in Louw's work, inhabitation occurs through psychic identification in which a visitor follows the auditory tracks left by the performer. And Neuhaus' *Time Piece*, his *Times Square*, his *Public Supply* and *Drive In Music*, all of which

cast a sonic net across a given space or environment — Boston airwaves, New York highways and city streets, under ground or above ground — so as to activate how one moves, occupies, and engages in space: here, the possibility of different forms of inhabitation occurs through placing the ear at the center through which listening steps out of line to find its place within a different temporal zone, that of performative presence: I move through a listening-space and am made aware through time's physical event. Repetition, rhythms, flows and explorative pauses, accentuations and exclamations that punctuate spatiality with other vistas, passages, and meeting points.

This temporalizing of space can be heard as an architectural performance, for auditory events conversant with space utilize it as an instrument. Space is a potential awaiting activation through durational insertion, whether the passing of sunlight through a cut-up warehouse or the shifting of sound colors throughout a building. While the aesthetic of sound installation, as Neuhaus himself articulates, aims for the "space of sound" by attending to perception, it is through time that such attendance is made possible. For "perception is that which propels us toward the real, toward space, objects,

²⁵ Visitors to the work were led through the warehouse, careful to avoid the large holes cut across the floor. As Horace Solomon recalls: "It was incredible to walk across the bridge over the cut he made in the floor of the pier. The interior section was of such a big scale that it was not possible not to feel threatened by it." Interviewed by Joan Simon in Mary Jane Jacobs, *Gordon Matta-Clark: A Retrospective* (Chicago: Museum of Contemporary Art, 1985).

matter, the future, while memory is that which impels us toward consciousness, the past, and duration."²⁶ The activation of perception through sound may draw attention to space, its material presence and any perceptual phenomena, yet it does so by activating our memory of spatial experience, of the event-space happening there, for sound installation is distinct by offering up information that is simultaneous and yet durational, present and passing: I glimpse the given installation as a set of information that is there all at once and yet that only comes to the fore through my movements, through my listening to, my attending to its evolution, as embedded within and conversant with space.

Matta-Clark's work performs two actions: it destroys one structure while creating another. Like the work of Neuhaus, his cut-outs undermine and renew architecture by deconstructing its inherent logic. Both do so through what I see as an addition of not strictly sculptural effects but durational movement: Matta-Clark's cuttings open space up to outside elements, particularly the introduction of light, inviting a renewed sense of embodiment. Opening up the

²⁶ Elizabeth Grosz, *Architecture from the Outside*, p. 121.

building, severing its seams, creates new apertures through which light may enter, as in Day's End, animating the cut-outs, the splits and the removals, while in turn inciting the spatial imagination.²⁷ His work then accentuates, and in a certain way, articulates the claim that architecture is an embodied and lived event, rather than a static object. If "Space... is emergence and eruption, oriented not to the ordered, the controlled, the static, but to the event, to movement or action," then Matta-Clark compels us toward new forms of occupation within the built.²⁸

Duration can be witnessed in Neuhaus' installations, equally inciting the spatial imagination through their auditory fracturing and demarcating. By positioning sound so as to activate the built environment, Neuhaus relies upon the durational movement of acoustical events and those situating within. As in Drive In Music and Times Square, sound not only accentuates space, through reverberation, movement, reflection and

²⁷ Such aspects of Matta-Clark's work are reiterated in the work of Shoei Yoh. His Light Lattice House in Nagasaki, Japan is constructed by inserting cuts into the walls at equal distances, thus forming a light-grid throughout the space. See Luca Galofaro, *Artscapes* (Barcelona: Editorial Gustavo Gili, 2003), p. 46.

²⁸ Elizabeth Grosz, *Architecture from the Outside*, p. 116.

volumetric addition, but it animates it through the time of its event, of walkers passing through its sonorous occupation of city space. And his work *Time Piece* functions in concert with Madison Avenue, its urban intensities, and in some respects, predictability, through a cyclical trajectory that pierces the Whitney courtyard throughout the day. The architectural order that Matta-Clark transforms so as to surprise the senses and the location of our own bodies in space finds parallel in Neuhaus' adding and subtracting, concerting and deconstructing, the given environment through appropriating space and turning it inside out, amplifying perception. Neuhaus' dedication to a site-specifics that bring together the listener and the environmental flux of events historically displaced the culture of new musical practice onto a larger context. Such a project, while making reference to certain musical attributes related to tonality, frequency, and compositional structures, moves more overtly into questions of spatiality, environmental relations, the mixing of found and constructed. What are the consequences for spatiality Neuhaus' work initiates? How does architecture change in relation to an active sound intervention that seeks to initiate forms of inclusive,

dynamic listening? The cultivation of sonic additions within the built environment seeks an individual's movements — sound surprises the ear by introducing a heightened dynamic, arising either from below in Times Square or from the ground in a park in Geneva. In doing so, Neuhaus reveals that inhabitation is not solely spatial, but temporal and auditory.

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