

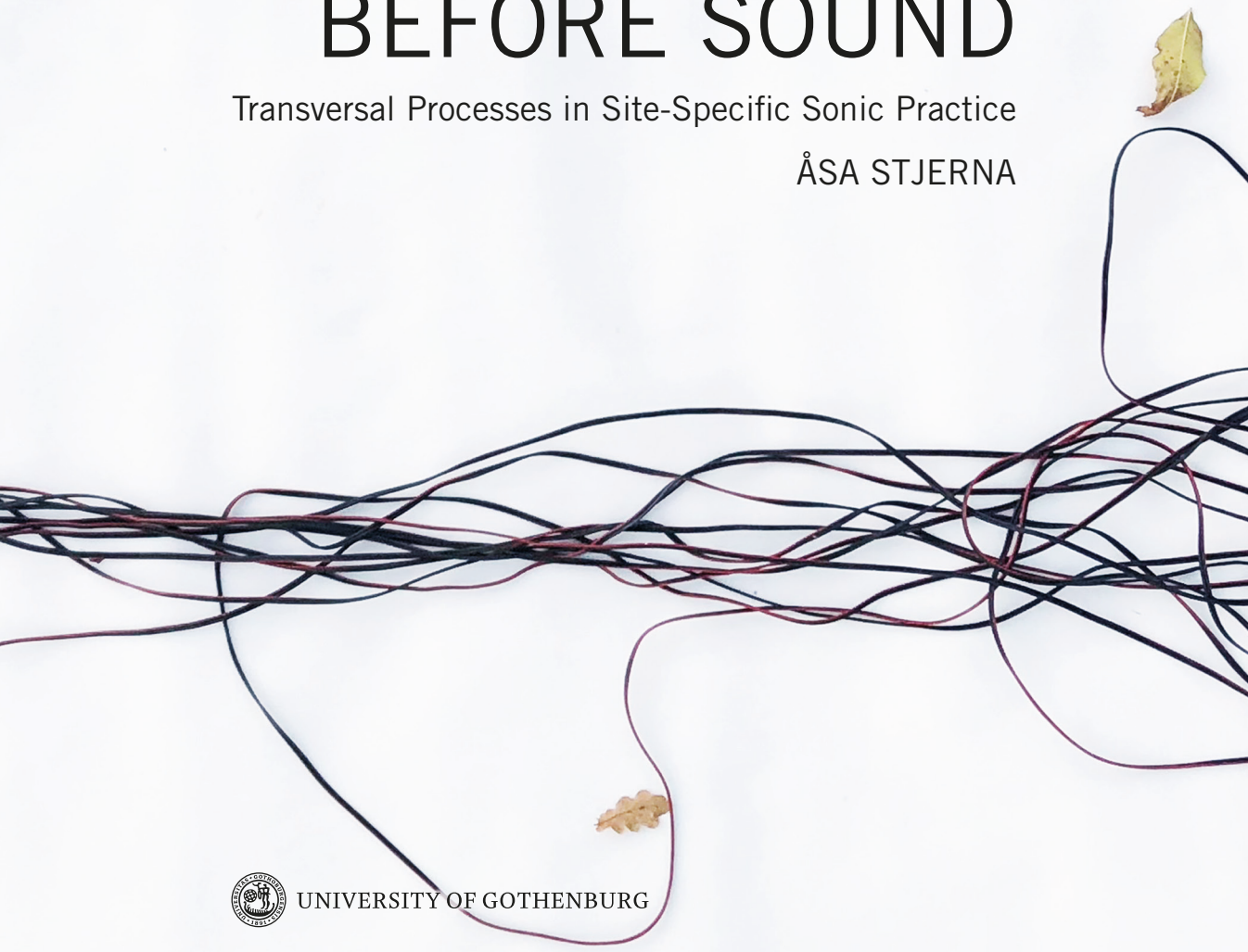
BEFORE SOUND

Transversal Processes in Site-Specific Sonic Practice

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UNIVERSITY OF GOTHENBURG



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Two of the sound installations in this dissertation are permanent works: *The Well* and *Sky Brought Down*. This means they are possible to visit at their respective sites in Paris and Gothenburg.

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Abstract

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This doctoral research explores the capacity of site-specific practices of sound installation to bring about transformation. It claims that in order to understand this capacity, we need to address the complexity of the transversal processes that make up artistic practices in this field, and understand that these transversal processes in fact precede sound. This includes understanding site-specificity as a complex, affective practice spanning across and connecting the material, social, discursive, artistic, and technical realms at the same time in a given situation in public space.

Based on experiences from the author's site-specific practice of sound installation, the thesis explores three approaches, and a series of related conceptual tools, in order to articulate the nuances of such transversal processes. These approaches, informed by a philosophy of immanence, are: mapping the affective lines, establishing new connections, and becoming non-autonomous. These three approaches look to re-negotiate some of the traditions, tendencies, and assumptions that dominate existing artistic sonic strategies.

By exploring these three approaches, the dissertation suggests that it is possible to emphasize and practice transversality. This in its turn, has the potential to affect site-specific sonic practice artistically and in terms of re-

search and education. Further, the dissertation shows how such an approach activates the ethical dimension of site-specific sonic practice. In particular, it involves dismantling the established separation between artist-subject, site, and work, in order to acknowledge the transversal affective relations between specific and diverse “bodies” with agencies—human as well as non-human.

Beyond making visible the transversal nature of site-specific sonic practice, the explorations also open up future perspectives in thinking about the field. Not least, the research points towards the importance of overcoming hierarchical models of thought that dominate within a range of discourses and institutions central to art practice. Such a shift has the potential to radically transform the power structures that exist between commissioners of art, artists, a site’s own inherent agencies, and the visitor. Further, a change in our thinking of the type described in this work is also needed if we are to broaden existing dialogues on the artistic work, representation, material, and process.

What do you not have to do
in order to produce a new sound?

Deleuze & Guattari: *A Thousand Plateaus*

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CHAPTER 1: INTRODUCTION

Prelude

This thesis explores artistic transformation in site-specific sonic practice. At its core, the doctoral research has addressed sound installation as a multidisciplinary, transformative practice that takes place in public space and demands complex approaches of artistic renegotiation in a range of spatial situations.

This research takes as its point of departure my own artistic practice, which spans more than 20 years; of that time, more than a decade has specifically been devoted to site-specific processes in Sweden and internationally. The artistic projects discussed in this thesis constitute long-term, site-specific processes that were performed in urban and public spaces rather than institutional art spaces. I have undertaken more than 25 site-specific sound projects in public space, and, whether they have been temporary or permanent, mono- or multi-channel, all of these projects have shared the same core: they have each explored a specific site's unique conditions, and engaged in the renegotiation and transformation of the experience of that particular site through sound.

The practice that I describe in this thesis builds upon many years of experience with respect to what it actually means to “renegotiate” and to “transform” a site. The account set out here thus reflects an everyday that has been filled with negotiations and encounters with the specific site's infinite intensities. A loudspeaker cable installed in a certain way that suddenly made possible an unexpected setup, a change of plans at the last minute, an unforeseen shift in weather patterns: the tiniest and often most banal minutiae can harbour the most visionary potential, and it is in these almost invisible details that acts of renegotiation and transformation can be located. Through such experiences, the sonic work—with its capacity to affect—emerges it-

self as an effect of a complex inter-relational spatial process that takes place *before sound*, a temporal sequence that is alluded to in the title of this thesis.

On a day-to day basis, site-specific sonic practice demands an engagement with the site. A range of different spatial discourses, disciplines, and established norms shape the practice on site, framing it in terms of what art theorist Miwon Kwon describes as “not as a genre but as a problem idea, a peculiar cipher of art and spatial politics” (Kwon, 2004, p.2). Referring to the work of art historian Rosalyn Deutsche, Kwon argues that site specificity should be conceived as an “urban-aesthetic” or “spatial-cultural” discourse, which combines “ideas about art, architecture, and urban design on the one hand, with theories of the city, social space, and public space, on the other” (Kwon, 2004, pp.2-3).

From the very outset, I therefore wish to advance an understanding of the site specific not as a fixed form that is to be filled with predefined content, but rather as a complex, affective practice that experiments with certain “transformative”—by which I mean “deteritorializing”—approaches. Such approaches must constantly be negotiated and reinvented, experimented with, and tested out, in direct conjunction with each specific site and its material and ideological circumstances. As a result, the capacity for an artistic practice to become transformative is always dependent on its relation to a given moment’s politico-spatial conditions—on what contemporary political and ideological conditions actually look like—and in what ways they can and do affect artistic practice in turn.

Normalization, Commercialization, and Simplified Forms of Representation

As an artistic medium in public space today, “sound” takes in a multiplicity of established practices from fields as diverse as aesthetics, critical theory, technology, the history of music, urban theory, architecture, conceptual art, choreography, soundscape design, philosophy, and sound studies, as well as artistic activism.

Despite the wealth of research that has been undertaken in relation to sound, a lack of knowledge exists when it comes to sound’s basic transformative capacities. The pre-conditions, insights, and actions that together form the basis for site-specific sonic practice remain obscured to an academic audience as well as the art public, as the knowledge embedded in complex processes of renegotiation and transformation is rarely articulated or taken into consideration.

There are several reasons for this. First, as a consequence of an increasing integration of sound as an artistic medium in artistic, academic, and urban planning contexts, a tangible normalization of sound is being witnessed within site-specific practice. Second, established models of knowledge production within the field of sound rarely take processes of transformation and renegotiation, or their conditions of possibility, into consideration. Third, the increasing extent to which society is informed by neoliberalism and capitalism also affects artistic practices.

The normalization of sound as an artistic medium (both in general and in site-specific sonic practice), the first reason for the gap in knowledge referred to above, is one result of sound becoming an established field of practice.¹ Since the 1990s, curatorial institutions

1) This discussion mainly refers to Sweden and Germany, the two geographical areas that I am most familiar with in my artistic practice.

have specialized in site-specific sonic practices.² Sound as an artistic medium and site-specific practice, further, has also long constituted an integrated and self-evident element in contemporary art and music festivals, offering contemporary sonic interventions in urban areas as part of festivals.³ Public commissions involving sound have, moreover, become more and more common, not only in relation to temporary interventions but also from the perspective of urban planning practice, which has come to view sound as an artistic medium able to provide public space with an artistic expression. In Sweden, an increasing number of permanent sonic artworks are being commissioned at present by municipalities, county councils at the regional level, and at the national government level through Public Art Agency Sweden. The same tendency is evident in other Scandinavian countries. Germany also has a long and ongoing tradition of commissioning permanent sonic artworks.

With regard to the second explanation for the knowledge gap that exists in our understanding of sound's transformative capacity, the international academic discourse on sound has inscribed the medium's contextual, social, political, and perceptual capacities and both described and shaped its relation to urban issues from a range of different perspectives.⁴ Educational programs that focus on sound as a contextual artistic medium currently exist at graduate, postgraduate, and PhD level at a number of academic institutions and universities

2) For instance, see *Singuhr Hoergalerie* (n.d.) in Berlin and *Bonn Hören* (n.d.) in Bonn.

3) See, for instance, *Donaueschingen Musiktage* (n.d.) and *documenta* (n.d.).

4) For instance, see the work of Brandon LaBelle, *Background Noise—Perspectives on Sound Art* (2006); Seth Kim-Cohen, *In the Blink of an Ear – Towards a Non-Cochlear Sound Art* (2009); and Salomé Voeglin, *Listening To Noise and Silence* (2010).

in Europe.⁵ Thus from having been a more or less unknown artistic medium when site-specific sound installations began to emerge often as self-initiated explorations, in the 1960s and 1970s,⁶ today sound is recognized as an artistic medium within academia and by cultural institutions and planners.

The positive potential within this expansion lies in a possible increase in the quality and volume of knowledge production around artistic sonic urban practices and an increasing awareness around sound. Less positive is the exhaustion that often follows processes of integration or what I here refer to as “normalization”. When incorporated into cultural, academic, or commercial markets, what were once experimental artistic approaches of exploration in a practice that was understood as unstable and in a state of constant experimentation risk becoming a kind of common *a priori* that is neither questioned nor critically articulated. Further, established models of knowledge production within sound have had a direct effect on how, and what kind of, knowledge is being produced. Whilst the site-specific practices working with sound installation from the 1960s onwards have expanded the notion of listening and context beyond an acousmatic tradition and made it possible to conceptualize sound in terms of a relational and contextual practice, the theories that have illustrated and contextualized such practices have often been dominated by phenomenological approaches. Thus even though the field emanates from a range of different traditions of thought (which are difficult to summarize shortly here), the common focus seems to lie in an interest

5) For instance: the Department for Sound Art at the Hochschule für Bildende Künste, Braunschweig; the Master’s program in Sound Studies at the Universität der Künste; and the Master’s program Nordic Sound Art Programme (2007-2015).

6) For instance, see Maryanne Amacher’s *City Links* (1967-81).

in interrogating the human limits of perception, interpretation, and the listening experience. This interest, I would claim, has been pursued at the cost of recognizing the actual processes embedded in the material and immaterial, and human and non-human, circumstances of sound installation—circumstances which I as an artist have had to engage with deeply in every single process in order to actually develop a work.

The third reason given above for our lack of knowledge about sound's transformative capacities—namely, relation between sound and neoliberalism—demands that we consider what it means to live in a world deeply characterized by advanced capitalism, the effects of which, as urban theorist David Harvey (2012) already warned in the 1960s, have long coloured the urban sphere, surfacing in processes of commercialism and gentrification. Today, the operations and effects of capital are global. We are witnessing rapid accelerations in the pace at which goods and services are exchanged, and through the “experience economy” it is less the product itself than the atmosphere within which it is sold that is emphasized as crucial (Pine and Gilmore, 1998). Even though sound has indeed historically been used as a political and ideological tool of power and control, one only has to look to the functionalized music of Muzak for evidence of the way in which these developments have permeated sound in the public domain. The technological acceleration fuelled by neoliberal market thinking has paved the way for the establishment of artistically decorated places whose art-like installations seek to contribute a certain atmosphere or identity, or particular market-driven qualities to a site. The pursuit of such an aim in turn conditions the validity of the art work *as art*, as well as the validity of the artist. I use the term “art-like” here to signify the sense in which whilst at first glimpse such installations might look like art, one soon realizes that their sole purpose is

to create a certain aesthetic atmosphere in support of a commercial situation. We experience such work as a sound backdrop to the hyper-designed semi-public sphere that we encounter in airports and shopping malls the world over.

These commercial tendencies also permeate the notion of the sonic at play amongst commissioners of art. I have several times been forced to confront the very subtle line that divides permanent commissions from county councils and municipalities and this kind of backdrop design. Restrictions are set in calls for work that specify that the work should be “calming” or that it not be allowed to “disturb,” a quality which forms the ground of the practice. I am not only referring to levels of amplitude here (i.e., sound volume in number of decibels) but also to the limitation of what sound is allowed to express and problematize as an artistic medium in conjunction with the site that it is inevitably part of.

Current trends towards normalization, epistemological models of knowledge production, and capitalism—to sum up the discussion presented here—are not making visible the very pre-conditions that together inform sound installation as a transformative practice. Whilst this obfuscation occurs in different ways and is performed from a range of different positions, it is consistently informed by an understanding of production that is founded on notions of representation and transcendence. Established notions that circulate within art institutions and the free market have become a form of “common sense” when it comes to sound. As a consequence, it is the mimicry of established conventions that is supported, rather than the creation of new artistic expressions. This problem with representation can, further, be connected to the philosophical notions of transcendence—that is, the idea that the genesis of entities requires the external imposition of form upon an inert matter—that characterize Western

culture's understanding of production. Christoph Cox, philosopher of sonic art, describes the way in which the Western tradition of representation is grounded in "the ancient and venerable hylomorphic model according to which the genesis of entities requires the external imposition of form upon an inert matter. Such is the account of formation in the Judaeo-Christian tradition, Plato, and Aristotle; and it continues its grip on the scientific and aesthetic imagination today" (Cox, 2011, p.151). As a consequence, Western culture is, as Cox points out, informed by a separation between and the establishment of "dual planes of culture/nature, human/non-human, sign/world, text/matter ..." (ibid., p.148). Contemporary philosophical models of knowledge production thus originate from and continue to maintain a separation between the material conditions that generate artistic production and those that generate the artistic content, favouring the latter at the cost of seeing the material aspects and conditions of production as crucial for the practice. Notions of representation and transcendence in this way found an understanding of production that is informed by resemblance and identity rather than difference. When taken as a condition of possibility for sonic spatial practice, it is, however, *difference* (and not resemblance or identity) that allows focus to be placed on what sound, as a site-specific critically explorative practice, is capable of producing.

Aim

Against the backdrop of the theoretical and "common sense" underpinnings that inform a great deal of our knowledge about sound as an artistic medium today, throughout this thesis I emphasize the transformative and negotiatory capacities of sound installation practices. I see these capacities as being established not through mechanisms of

representation and transcendence but rather by means of affective, immanent relations of power, and complex, inter-relational, material-immaterial processes of differentiation, wherein each single component possesses its own specific agency. Adopting such a view also challenges established notions of artistic autonomy, reframing the artist as one agent amongst many in transversal, site-specific processes. Knowledge is always situated: acknowledging this, I argue, directly and inevitably affects the artist's role in a process of artistic production.

The point of departure for this dissertation lies in the belief that a strong need exists for the articulation and critical exposure of how transformation emerges in site-specific sonic practice. This in turn demands the development of a vocabulary that is able to contextualize *the site* and thus *site-specific sonic practice* in a manner that exceeds simplified forms of representation and transcendence. Drawing on a philosophy of immanence, particularly as formulated by philosophers Gilles Deleuze and Félix Guattari, in this thesis I propose a view of artistic spatial production, and thus of public space, as the constitution and reformulation of a complex set of affective relations between different components and forces. From such a position, sound installation is viewed as “a mode of thinking,” and an affective, transformative, and site-specific practice that on one hand emerges as an *exploration* of the heterogeneous and complex affective force relations which together constitute the assemblage that is a place, and on the other that acts as a *modification* of those very relations through strategies of deterritorialization and the production of affective territories. Spatial production in this sense should be regarded as a vital process: it is an encounter between affective bodies. Such a view encourages artists to understand site-specificity as *renegotiation*. This thesis thereby adopts an anti-essentialist approach, wherein the relation between

“artist-subject” and “world” brings other, existing-but-not-yet-actualized, fully virtual/potential forces to light, producing place as an always-unfinished process. Operating in such a manner, site-specific sonic practice is both situated and transversal, running through a series of discourses that are themselves understood as nodes, which may be more or less connected but which are always somehow interlinked.

Based on my own artistic practice, this research project explores how artistic transformation is established as a *transversal process*. “Transversal” here refers to an understanding of artistic production as the creation of affective, immanent relations between components in mutual continuous processes of becoming. These relations span between material and discursive, and human and non-human, components. In exploring the acts performed by the artist within transversal processes, the aim is to develop explorative approaches and concepts that might contribute to a more complex understanding of the processes at work in site-specific sonic practice.

By focusing on the work process in terms of its transversality, the common view of the artist as an “autonomous subject” and the audience as “passive recipients” is brought into question, and the two figures are exposed as active components or agencies that are each part of the transversal process. Moreover, the sonic is made visible as a component with its own specific active agency and as an effect of a transversal process that precedes sound.

The inquiries documented in this thesis each focus on the transformative capacity of art; whether it is the site, situation, material, the work, or the role of the artist that is the focal point, each account aspires to move beyond simplified notions of representation. In this way, the research project aims to expose alternatives to present knowledge paradigms within the field of site-specific sonic practice. The

relevance of this research will be further discussed in the concluding discussion.

Research Questions and Explorative Approaches

In order to examine the artist's conditions and possibilities to generate transformation through the transversal artistic processes at work in site-specific sonic practice, this research project addresses three key research questions:

- In which way can I, as an artist, develop explorative approaches to site-specific sonic practice that favour a transversal process of production?
- Which concepts do I, as an artist, need to be able to articulate in order to understand the nuances of those transversal processes?
- Which consequences do these explorative approaches and concepts have for understanding site-specific sonic practice?

In the thesis, I provide an account of three distinct explorative approaches that were developed through my own site-specific sonic practice, each of which also necessitated the development of a specific set of related concepts to be articulated. I term these approaches *mapping the affective lines*, *establishing new connections*, and *becoming non-autonomous*. These three approaches connect to and renegotiate the traditions and assumptions at work in a number of artistic strategies that I see as crucial for sound installation as a site-specific sonic practice, namely: the initial thematic exploration of the site, the establishment of spatial sensibility, the creation of the sonic material, and the development of technology and the on-site installation process. The three approaches are subject to an in-depth examination and analysis in Chapter 4, following the elucidation of a conceptual

vocabulary and theoretical framework informed by a philosophy of immanence that is set out in the theory review at Chapter 3.

The three approaches were developed in the course of working on a number of specific artistic processes, which in this thesis are termed “cases” and are analyzed and discussed in Chapters 5-8. In each case, the three approaches allowed me to develop particular knowledge about the transversal process of transformation at work (see research question 1). The following three issues are addressed in relation to each of the cases, albeit with varying degrees of emphasis. In this way, I explore how the three approaches play out in concrete (daily) artistic practice, with each account of a case also documenting a development of the approaches. Specifically, I therefore deal with:

- in which ways *mapping the affective lines* can challenge the process of thematic exploration at work in site-specific sonic practice, and thereby contribute to our understanding of transversal processes of transformation;
- in which ways *establishing new connections* can increase our awareness of the different inter-relational agents and conditions that are established through site-specific sonic practice, and thereby contribute to our understanding of transversal processes of transformation; and
- in which ways *becoming non-autonomous* can reframe the artist-subject as one agent among a myriad of agencies in site-specific sonic practice, and thereby contribute to our understanding of transversal processes of transformation.

As the discussion of the cases evolves, the thesis elucidates how, in the midst of artistic practice, the artist can make space for transformation through transversal processes (see research question 1). The value of

these three approaches is highly dependent on whether or not they are capable of articulating what it is that actually takes place in the acts of transformation that occur in transversal processes. For this reason, it was also crucial that I develop a conceptual vocabulary in parallel to the work of defining the three approaches to practice (see research question 2). As part of my analysis of each case, I also tried to conceptually articulate how transversal processes of transformation actually can be understood in artistic daily practice. Throughout the research process, these two tasks influenced each other deeply: the development of a conceptual vocabulary to describe and better understand transversal processes of transformation made other ways of working artistically possible. In the thesis, I show how this led to a development in my artistic practice.

Following the exploration of the three approaches in relation to each of the four cases, in Chapter 9 I return to the three key research questions. It is in this chapter that I draw conclusions, and discuss the insights offered by the research and the contribution that it makes to knowledge production in the field of site-specific sonic practice (see research question 3).

Artistic Processes and Material in the Research Project

This research project was based on four artistic processes that I also refer to as “cases,” namely: *Currents* (2011); *An Excursion to Nairobi* (2013); *The Well* (2014); and *Sky Brought Down* (2017). Together, these processes resulted in three site-specific sound installations.

Within the thesis, these explorative artistic processes are analysed in detail, but they are also used as the starting point for developing new concepts and discussions. The first three processes are discussed in detail in Chapters 5-8, which make up the body of the thesis. The

discussion of the fourth sound installation, *Sky Brought Down*, forms the Prelude and the Epilogue, and is only briefly mentioned in the intervening chapters. In addition to the written thesis (which contains text and photographic and visual documentation), three film-based pieces of documentation are available at the Faculty of Fine, Applied, and Performing Arts' website at University of Gothenburg.⁷ It should also be mentioned that two of the installations in this thesis are permanent works: *The Well* and *Sky Brought Down*. This means they are possible to visit at their respective sites in Paris and Gothenburg.

The artistic processes described in this thesis span from already initiated projects to artistic commissions. From the outset my intention has been to use ongoing or new commissions, or self-initiated works in order to explore the everyday conditions of my artistic practice. Instead of a representative sample of my most "successful" works, I have selected processes that in different ways articulate the dynamics of my artistic practice and are especially suited to exposing and triggering exploration on the complexities of transversal processes. I have chosen, for instance, to address one artistic project (*An Excursion to Nairobi*) that was suspended during its phase of realization due to a lack of financing. Set against the other processes discussed in the thesis, I find that the inclusion of such a project exposes important aspects of the artist's practice and conditions that would otherwise have been missing in the thesis.

The four processes addressed here differ from one another in a variety of ways: they differ geographically and in terms of spatial context, and they also differ with respect to artistic context and artistic approach. I believe that this diversity generates a necessarily broad perspective on the complexity and dynamics at work in site-specific practice. A common denominator in the four different processes is

7) URL: <http://hdl.handle.net/2077/157878>

their long-term timeframes, with each of the processes involving years of negotiation as they moved from idea and intention to work and final realization.

I. *Currents* (2011)

Currents was an 18-channel site-specific sound installation and real-time controlled sonification of the North Atlantic Current that was developed for the foyer of the Oslo Opera House. It was initially a self-initiated project, which later became a commission for Ultima, the Oslo Contemporary Music Festival, Norway.

Producer: Jøran Rudi, Norwegian Centre for Technology in Arts and Music, Norway.

Scientific coordinator: Peter Sigra, Department of Meteorology, Stockholm University, Sweden.

Software developer: Florian Goltz.

Technical concept and realization: Manfred Fox.

The work takes as its conceptual point of departure measurement data extracted from the North Atlantic Current that was generated by a scientific research project measuring the melting process of the Northern hemisphere's ice caps and Polar ice, a process caused by global warming. From real-time current measurements made in the North Atlantic outside the Faroe Islands to the work as it stands in the Oslo Opera House, these data were transformed into a multichannel sonic experience that was subjected to real-time processes of alteration, which were dependent on the measurement data. By letting the measurement data, which had a direct connection to global warming effects, control the sonic texture in the Opera House thousands of kilometres away, my intention with this work was to ask how sound

as an artistic material can mediate issues of high political relevance, and how those issues can in turn be made to constitute embodied experiences in public space.

II. *An Excursion to Nairobi* (2013)

An Excursion to Nairobi was a site-specific sound installation in Nairobi that was never realized.

Commissioner: TYP Kultur Capital (Culture Capital), Sweden and GoDown Arts Centre, Kenya.

This work was to be the result of a ten-day excursion to Nairobi, intended to lead to the realization of a site-specific sound installation, to be exhibited as part of the cultural festival Nai Ni Who? (in English, Who Is Nairobi?). Due to financial as well as organizational issues, the project was never completed.

III. *The Well* (2014)

The Well is a permanent site-specific sound installation at the Institut Suédois (in English, Swedish Institute) in Paris.

Commissioner: Public Art Agency Sweden.

Curator: Ann Magnusson, AM Public.

Software development: Andre Bartetzki.

Technical concept and realization: Manfred Fox.

Voices: Astrid Bayiha, Amaya Lainez, Yana Maizel, Mathieu Saccucci, Olivier Hahn, and Emmanuel Gautier.

The Well is a site-specific sound installation developed for the garden of the Swedish Institute in Paris. The work's sound material is based on the names of people connected to the place from the 16th century

to the present. The sound material is compiled into a vital live patch comprising hundreds of names. The work is located in a dried-out well in the centre of the garden. From the well emanates a low-voiced sound texture based on the names that, through an aleatoric real-time process, themselves undergo a transformation that seeks to create a link between past and present.

IV. *Sky Brought Down* (2017)

Sky Brought Down is a 16-channel real-time-controlled sonification of the sky outside Sahlgrenska University Hospital, Gothenburg, Sweden.

Commissioner: Konstenheten, Västra Götalandsregionen (in English, the Arts Division of Region Västra Götaland).

Curator: Brita Bahlenberg.

Software developer: Andre Bartetzki.

Technical concept and realization: Manfred Fox.

Sky Brought Down was developed for a new indoor atrium and main staircase at the Center for Imaging and Intervention at Sahlgrenska University Hospital, where a glass ceiling allows a visual direct contact with the sky, which is subsequently sonified in the building through the work.

The work takes as its conceptual foundation the sky outside the hospital. A weather station on the roof of the hospital forwards weather data in real time to the sound installation. This data is transformed into different types of sound textures. Low pressure systems, high pressure systems, precipitation, wind speed, wind pressure, and light all generate different sorts of sonic expressions in real time, according to a complex structure of algorithms. A total of 16 speakers, which are

mounted behind the wooden panelling that runs through the atrium from floor to ceiling, provide for a vertical listening experience.

The Structure of the Text

“Chapter 2: Contextualisation—Artistic Strategies within the Field” provides a brief introduction to what it actually means to work with sound installation as a site-specific practice, as an artist, taking into consideration the fact that the practice spans between a variety of different traditions, other practices, and genealogies that are together connected to the broad field that is often referred to as “sound art in public space.” Here, I also introduce and problematize a series of *artistic strategies*—including traditions and established assumptions—that I see as crucial to understanding sound installation as a transformative practice. Firstly, I address the initial phase of the thematic exploration of site; secondly, I outline the establishment of spatial sensibility; thirdly, I turn to the sonic strategies connected to sound’s contextual capacity, specifically focusing on sonification as an artistic strategy; and fourthly, I outline the development of technology and the on-site installation process. In each instance, I trace the genealogies of these traditions and discuss the notions of representation and transcendence that they express, which—I argue—in fact run counter to the practice’s inherent transformative capacity. Based on this critique, I propose that the practice is understood as being transformative in nature, drawing on a philosophy of immanence which I see as critical to articulating sonic practice beyond simplified forms of representation.

“Chapter 3: Conceptual Framework” presents the conceptual framework and a number of the core theoretical concepts that have informed this research. In particular, it draws on Gilles Deleuze and Félix Guattari’s notion of production as “immanent.” Here, I articu-

late how this forms a foundation for the task of making visible the central aspects of the artistic practice in this thesis.

“Chapter 4: Explorative Approaches—Towards a Transversal Practice of Sound Installation” introduces the three explorative approaches that were developed throughout the course of this research and in my work on the four cases: namely, “Mapping the Affective Lines,” “Establishing New Connections,” and “Becoming Non-Autonomous.” This chapter describes how these approaches make visible and bring to the surface crucial aspects of the transversality of the artistic practice.

The “Prologue” works as a short “fade-in” to the body of the text, which addresses the cases. Here, I reflect on what it actually means to have a complicated, long-term, site-specific project ahead of you as an artist—in this case, the work *Sky Brought Down*.

“Chapter 5: Case 1, Transforming the Global Warming into a Sonic Experience” explores the process of artistic sonification as transversal practice. Further, “Chapter 6: Case 2, Failing to Map Nairobi’s Affective Lines” explores the process of thematic exploration in site-specific practice, and the implications of viewing it as a situated, immanent process. “Chapter 7: Case 3, Transforming Hôtel de Marle’s History into an Embodied Experience” articulates a position on the compositional aspects of spatialization, which I view as a transversal process; this is followed by “Chapter 8: Case 4, The Machinic Everyday of a Loudspeaker Cable,” which addresses aspects of the on-site installation in terms of an interaction between different agencies. “Epilogue” works as a short “fade-out” in relationship to this discussion of the cases. Here, I return to *Sky Brought Down* in order to reflect on the experiences obtained in having completed a complicated, long-term site-specific process, and discuss how this experience affected me as a practitioner, with a view to future projects.

In the last chapter, “Chapter 9: Before Sound—Transversal Processes in Site-specific Sonic Practice, By Way of Conclusion,” I address the outcomes of the doctoral research in terms of the conceptual tools and explorative approaches developed through the research and put forward in this thesis. Both, I argue, contribute to our understanding of what it means for artists to work with transversal and immanent processes in practice.

**CHAPTER 2: CONTEXTUALISATION
—ARTISTIC STRATEGIES
WITHIN THE FIELD**

Prelude

When, as an artist, I engage in sound installation as a site-specific practice in public space, I take up a position as one node of many in the interdisciplinary and heterogenic field of practices that is often referred to as “sound art in public space”.⁸ Like the vast field of sound art to which it often is referred, sound art in public space should not be considered a homogenous category of work—rather, it cuts through multiple discourses and its offshoots take root in a range of different material domains, drilling through and leaking into areas as diverse as politics, aesthetics, critical theory, technology, the history of music, urban theory, intermedia, soundscape design, philosophy, sound studies, and artistic activism.

From the perspectives of art theory and musicology, a wide range of traditions and genealogies can thus be discerned which have informed the practices of sound art in public space, and these in turn have their roots in a variety of different theoretical perspectives and positions. Together with musicologist Andreas Engström I have written on this topic and its consequences in the publication *Ljudkonst* (In English: *Sound Art*) (Stjerna and Engström, in press).⁹ In that text,

8) As a historical and contemporary field of practices, as well as a theoretical discourse, sound art (including sound art in public space) has been described extensively in a number of other publications, some of which can be described as canonical, including: Helga de la Motte-Haber ed. *Klangkunst. Tönende Objekte und Klingende Räume* (1999); Brandon LaBelle, *Background Noise—Perspectives on Sound Art* (2006); Alan Licht, *Sound Art* (2007); Seth Kim-Cohen, *In the Blink of an Ear – Towards a Non-Cochlear Sound Art* (2009); Marcel Cobussen, Vincent Meelberg and Barry Truax, *The Routledge Companion to Sounding Art* (2017).

9) The publication *Ljudkonst* (in English, *Sound Art*) (Stjerna and Engström, 2018, in press) brings together 14 different texts on sound art from the early

we trace the disparate field of voices (which emanate from an equally disparate range of traditions and vocabularies) that artistic practices of sound art, and associated theoretical discourses, rely on.

The ontological status of the term “sound art” has formed a central topic of debate since the field’s inception. What does this term actually imply? Opposite and often discordant definitions abound, particular when it comes to the question of what kind of practice can be included in the category of “sound art” and how that category should be formulated and interpreted from art theory or musicology perspectives.

One established view, first articulated by the German musicologist Helga de la Motte-Haber, regards sound art (in German, *Klangkunst*) as a distinct, autonomous art form—a synthesis between space-based and time-based art forms, which, as an effect of the dissolution that took place in the 20th century, was established as “an art form in its own right, alongside the traditional genres” (de la Motte-Haber, in press, p.38, my translation). It should be noted that de la Motte-Haber specifically claims that sound art must be considered equivalent to spatially explorative practices connected to sound (i.e., sound installation).

Beyond what could be considered a rather formalistic and exclusive understanding of the term, more critical approaches to sound art can also be located. One such approach is that offered by the sound theorist Douglas Kahn, who challenges the relevance of the term and its ascension in the early 1990s, noting that “[i]n my experience, artists started to use *sound art* in this way during the 1980s, although

1980s to 2016. Together with musicologist Andreas Engström, I chose to describe the concept less as it is framed around formalized expressions and specific genres than as a field of genealogies, traditions, and discourses, which have in common a problematization of notions of sound and listening.

there were plenty of artists doing similar things with sound earlier and not necessarily calling what they did *sound art*” (Kahn, 2006, p.1). What later was labelled “sound art,” according to Kahn, was thus already present in the terms and practices of for instance art, intermedia and radio art.

If sound art’s ontological status formed a central topic of investigation within musicology and its related discourses during the 1990s and early 2000s, contemporary discourses on sound art have rather tended to approach sound using contemporary critical theory and philosophical models of knowledge production, drawing on discourses within phenomenology, poststructuralism, and a philosophy of immanence.¹⁰

However, less than explicitly mapping the subject of sound art, my aim here is rather to point out that the different perspectives, positions, and opinions on the field that abound today deeply affect the artistic practitioner’s everyday practice on both a practical and theoretical level.

Being an artist engaged in site-specific practices of sound installation implies being embedded in a vast field of influences, traditions, practices, and genealogies, which converge in the course of an artistic

10) For an extended discussion of sound art and phenomenology, see, for instance: Salomé Voegelin’s *Listening To Noise and Silence* (2010), which explores sound art using Merleau-Ponty’s phenomenology of perception. For a discussion of sound art and poststructuralism, see: Seth Kim-Cohen’s *In the Blink of an Ear: Toward a Non-Cochlear Sonic Art* (2009). This will be further discussed in the section “Sound’s Contextual Capacity”. For a discussion of sound art and immanence theory, see Christoph Cox’s “Beyond Representation and Signification: Toward a Sonic Materialism” (2011), which is influenced by Gilles Deleuze’s philosophy of immanence. This is discussed in “Chapter 3: Conceptual Framework”, in the section “Sound and Immanence.”

process. On an everyday basis and in each artistic process, the artist encounters a multidisciplinary complexity that demands a variety of different, coexisting, mutually affecting artistic approaches and strategies. This interdisciplinary complexity also demands a theoretical knowledge of a variety of artistic practices and their respective discourses in order to be able to make the practice visible. Overly simplified attempts at interpretation are thus common, as understanding such practices requires an in-depth knowledge of the multi-disciplinary and multi-discursive conditions that inform the practice.

Sound Installation as a Multidisciplinary Practice

To engage in sound installation as a site-specific practice is thus to position oneself, as an artist, as a node in the heterogenic field of what often is referred to as “sound art” respectively “sound art in public space.” It is to understand that sound installation, in all its specificity emanates from a variety of different practices and traditions, which together generate a spatially explorative, multi-disciplinary practice. It is from this perspective that musicologist Gascia Ouzounian describes sound installation as a practice

in which properties of space and place are explored through an interface with sound. Sound installations may be site-specific, non-site-specific, or mobile; they may include performance or recording elements; and they may be networked across multiple and hybrid (real, imagined, and virtual) spaces and times. In contrast to traditional musical practices that emphasize temporal aspects of sound, sound installation highlights the relationship of sound to spatial forms, whether these are physical forms, social forms, imaginary spaces, or otherwise (Ouzounian, 2006, p.71).

The visitor’s own spatial and corporeal explorative approach is thus a crucial point of departure not only in terms of their own artistic

experience but also for the artistic process itself. This importance is acknowledged by musicologist and media theorist Golo Föllmer, who claims that through the audience's active approach the artistic process (in German: *Der Prozeß der konkreten Ausgestaltung*), emphasis shifts to a large extent from the artist to the visitor (Föllmer, 1999, p.193).

When the site of exploration and artistic transformation in such practices is *public space* rather than institutional art space, possibilities open up in terms of the transformative approaches that might be employed. Unexpected multimodal and contextual cross-connections can be established, generating new types of artistic experiences that in turn intensify the relation between the audience and the specific site. From a practical, day-to-day perspective, this has meant that I have had to be able to deal with several multi-disciplinary artistic strategies at the same time within a single artistic process, each of which in turn have had to be articulated in relation to the specific site in question. Explorative, spatial, sonic, and technological strategies together constitute the artistic work within my practice—in tandem, these strategies establish an intensified experience that is capable of transforming a visitor's relation to the specific site in question.

In what follows, I examine four artistic strategies that are of crucial importance to my own artistic practice. My aim in this is double. Firstly, I wish to provide the reader with a view of the complex multi-disciplinary conditions that I must deal with in each artistic process, as an artist. As previously described in “Chapter 1: Introduction,” I understand sound installation as constituting a site-specific practice that exceeds “genre” or “art form”—instead of a predefined form to be filled with a content, I see it as a practice wherein specific artistic approaches must be constantly negotiated and reinvented, experimented with and tested out, in direct conjunction to each specific site and its circumstances. Secondly, in the coming discussion I

also wish to critically examine the ways in which the established conventions at work in these multi-disciplinary strategies harbor binary traditions that can be connected to notions of representation and transcendence. This latter critique forms the basis for the exploration of the transformative conditions of these artistic strategies—which I ultimately describe as transversal, immanent processes—in relation to the four cases, which is set out in Chapters 5-8.

The artistic strategies addressed here are: *the site as specific topic of exploration*; *the reinforcement of spatial sensibility*; *sound's contextual capacity* (including *sonification*); and *the development of technology* and *the on-site installation process*. References to a range of artists' work, including my own, are woven throughout the discussion of these modes.

The Site as a Topic of Exploration

The Issue of Site-Specificity

Throughout the years, I have thematically explored a broad palette of different sites—from the subaquatic soundscape of a city to a square's geographical demarcation or a street's abandoned nature; as well as (in the cases that make up the body of this thesis) a spot in the Atlantic Ocean, harboring crucial information about the global warming (*Currents* 2011), a place's forgotten history (*The Well* 2014), the weather outside a hospital (*Sky Brought Down* 2017), and even a whole city (*An Excursion to Nairobi* 2013).

The common ground in all these explorations lay in an ambition to critically investigate and bring to the surface new insights into and experience of the site in question. Offering a perspective on the (usually) imperceptible opens up both new approaches to a site and an

intensified immersive relation between visitor and site. Rather than defining a thematic focus in advance and subsequently simply applying it, I have therefore attempted to work with a curiosity and an openness regarding the site's own endless and multiple perspective as the point of departure in each artistic work.

Working with sound installation as a site-specific practice implies becoming part of a field of artists who each operate from different positions and perspectives in their engagement with the thematic exploration of site. Some works are enshrined in the history of site-specific sound art, such as American artist Max Neuhaus' permanent sound installation *Times Square* from 1977,¹¹ today one of the sound art discourse's most referenced works. Often ascribed the status of being the first sound installation in public space, the work is located in a ventilation shaft that is covered by a metallic grid at a former pedestrian crossing at Times Square in central New York. The work consists of a low-voiced, overtone-rich sound texture that emanates from the shaft. This texture might be discerned by an observant flaneur passing over the pedestrian crossing (and thus the ventilation shaft) by day or night, as it contrasts with the surrounding sonic environment. As the ventilation shaft's construction is asymmetrical, acoustic effects makes the sound appear different depending on where the flaneur is positioned on the grid of the lid. In this way, the site's specific architecture becomes the very premise for the work's creation and experience.

11) For a detailed analysis of *Time Square*, see: Cox, "Installing Duration: Time in the Sound Works of Max Neuhaus" (2009, pp.112-132); LaBelle, *Background Noise—Perspectives on Sound Art* (2006); Stjerna, "The Vulnerability of Permanence in Site-Specific Sound Art in Public Space" (2013); Eppley, "Times Square: Strategies and Contingencies of Preserving Sonic Art" (2017).

Another more recent work is Susan Philipsz' sound installation *Study for Strings* from 2012, a work that was commissioned by documenta 13 in 2012. Developed for the railway station Kassel Hauptbahnhof, Philipsz took as a starting point the composer Pavel Haas' orchestral piece with the same name, *Study for Strings* (1943). Haas was deported to the notorious Theresienstadt concentration camp, and this composition was written during his imprisonment there. In Philipsz' installation, all orchestral parts other than a cello and a viola were removed. Installed in the Hauptbahnhof, Philipsz' work acted as a multichannel, monumental sound installation, in which hidden loudspeakers were distributed across the railway platforms of the station, the site of a number of deportations to different extermination camps in Germany during the Second World War. By spatializing a sound material that included long passages of silence (which had a strong symbolic connotation in themselves) through one of Kassel's most symbolically loaded spaces, given its role in the deportation of the German Jewish population, the work sought to make perceptible aspects of the site's history.

Far from complete analyses, these short descriptions of the works by Neuhaus and Philipsz highlight the way in which site specificity can involve very different approaches to how the site is explored. Two imperceptible elements—in the first case, the normally non-audible architecture of Times Square, and in the second case, the embedded history and politics in Kassel's Hauptbahnhof—are retrieved and offered up as an artistic theme for spatial exploration and experience.

What we mean by "site" conditions how sites can be explored, thought about, and subjected to artistic practices: as British social scientist and geographer Doreen Massey points out, how we think about space has a direct effect on how we understand the world and thus on the ways in which we approach and produce space (Massey, 2005).

In site-specific practice, site must thus be understood in close relation to contemporary notions of space as a manifestation of ideology. Like space, site specificity connects a variety of practices, discourses, and traditions.

Because it is contextually based, art theorists tend to associate site specificity with the abandoning of the Cartesian model (also known as the Euclidian model) of spatial production, an established historical theory of spatial production that sees space as an empty container that is to be filled with a content (for instance, sound) in line with the hylomorphic model described in Chapter 1. Site-specific practice deviates from this conceptualization, advancing a contextual understanding that sees the establishment of a work as actively relating to factors outside of the work itself. In this way, the site's specificities (understood in the broadest possible way) constitute the point of departure in processes of artistic production.

Miwon Kwon's *One Place After Another—Site-Specific Art and Locational Identity* from 2002 has become an important reference in attempts to chart the development of site-specific art. Swedish architecture theorist Catharina Gabrielsson, in her 2006 doctoral thesis *Att göra skillnad: Det offentliga rummet som medium för konst, arkitektur och politiska föreställningar* (in English, *To Make a Difference: Public Space as a Medium for Art, Architecture, and Concepts of the Political*), argues that Kwon's work can be read as both a historiography of site-specific art and as a model that might be used in analyzing artistic tendencies in approaching site as an ideological-architectural construction (Gabrielsson, 2006, p.245). Through *One Place After Another*, Kwon sets out to elucidate the theoretical and historical conditions that led to the development of site-specific art in its contemporary expression, which she sees as being motivated by a perceived commercialization of this initially highly critical, explorative, and anti-com-

mercial art practice. In this task, Kwon explores and documents two types of transformation: the transformation of the concept of site in and through site-specific art practice, and the transformation of the practice itself through the loss of its initial critical potential. Both of these tendencies are, I believe, useful in understanding contemporary site-specific sonic practice, even though *One Place After Another* does not address sound per se.¹²

From a historical point of view, the impetus to engage with site as a thematic can be linked to expansions in the dominant conceptualization of space in the 1960s and 1970s, and the attendant critique of the division between artist-subject, artwork, and audience (which had previously been regarded as fundamental to the art work). What had hitherto been a clear distinction between visitor-subject and artwork-object began, at this time, to collapse; as a result, the artwork (increasingly understood in terms of as spatial and temporal expansion) was to be experienced through the corporeal presence of an experiencing, embodied subject (Kwon, 2004, p.11-12). This shift is also underscored by art theorist Seth Kim-Cohen, who concludes that this expanded situation resulted in a “new constitution and conduct of the sculptural object, which now must ‘perform’ or interact with the viewer and the environment—both components of the expanded situation” (2009, p.44). This expansion has taken several turns since—in fact, Kwon distinguishes three distinct paradigms in terms of artists’ approaches to site: the *phenomenological* site, the social or *institutional* site, and the *discursive* site. Whilst they can be understood as separate historical trajectories, these three approaches

12) For a historical overview of the emergence of site-specific sonic art, see: LaBelle (2006).

can also be found working in parallel in today's site-specific practice and thus also in sonic practices engaging in site-specificity.

What Kwon refers to as a “phenomenological” or “experiential” understanding of the site demanded the direct physical presence of a site in both the completion and reception of the work (Kwon, 2004, p.3). This type of practice often investigated the purely architectural dimensions and materialities of a site (ibid., p.12), and was connected to the move to abandon the institutional spaces of art galleries and engage in artistic explorations outside the white cube, as seen in both urban practices and land art. As regards site-specific sonic practice, this concerns, for instance, art works created in relation to certain architectural or urban spaces or in unusual settings, such as Max Neuhaus' sound installation *Times Square* (described previously).

Artistic explorations of site further intensified throughout the 1970s through practices of “institutional critique.” Rather than understanding site as a purely physical space, through this development site could be critically interrogated as an institutional phenomenon, condition, and economy that directly informed art practice and its capacity to act. Kwon describes the social or institutional site in this context as having been “reconfigured as a relay or network of interrelated spaces and economies (studio, gallery, museum, art market, art criticism) which together frame and sustain art's ideological system ... complicating the site of art as not only a physical arena but one constituted through social, economic, and political processes” (ibid., p.3).

When addressing the “discursive site” as a more recent thread, it is valuable to remember that Kwon's book was first published in 2002, in the aftermath of postmodernism's rise to dominance within the art world. This paradigm rather sees site in terms of an intertextual and dispersed concept that spans multiple cultural, social, and discursive

fields (ibid.). In particular, this third phase in site-specific art was characterized by the emergence of “new genre art”—that is, art oriented towards the production of social relations and participatory forms, that “shifts the focus from artist to audience, from object to process, from production to reception, and emphasizes the importance of a direct, apparently unmediated engagement with particular audience groups (ideally through shared authorship in collaborations)” (ibid., p.106). In new genre art practice, a specific agenda or rhetoric dealing with the democratization of art also became a prevalent thematic.

The idea of site specificity thus transformed over a period of thirty years, moving from what Kwon describes as a state of permanence, wherein site was “grounded, fixed, actual,” to a phase that privileged the temporary and immaterial, wherein site became “ungrounded, fluid, virtual” (ibid., p.30). Kwon’s analysis of this transformation of site-specific art should not only be understood in terms of a shift in thematics—at its heart, *One Place After Another* is a critique of the effects of the disappearance of local, material understandings of the site within art practice. In the wake of neoliberalism’s ascent in the 1990s and the arrival of postmodernism’s decentered subject on the scene, Kwon observes a related commercialization of art, which saw artists positioned as “nomads” who traveled “from place to place,” performing short interventions along the way. The resulting nomadic view, in combination with the textual and discursive paradigm within site-specific art, led—in Kwon’s account—to the collapse of “site” as a concept. She advocates for the re-uptake of a relational sensibility via the pursuit of a more prolonged relationship to site and sees this change not in terms of a non-dialectic shift between opposing binaries, but rather in terms of the production of “sustaining relations.” As she puts it:

it is not a matter of choosing sides—between models of nomadism and sedentariness, between space and place, between digital interfaces and the handshake. Rather, we need to be able to think the range of the seeming contradictions and our contradictory desires for them together; to understand, in other words, seeming oppositions as sustaining relations (ibid., p.166).

For Kwon, the important task is therefore less related to distinguishing between the local, the global, the discursive, or the material aspects of site, and rather more about understanding the complexity that is present in the contradictory trajectories of various nodes in various systems: it is about relations.

Today, more than 15 years after Kwon's book was published, it seems to me that relations between the global and the local, and the discursive and the material, are understood and emphasized to a greater degree than they once were. We certainly confront these extremes all the more often in our daily lives. The forest fires witnessed across ever larger parts of the world in recent years are just one example of the way in which individual contributions to global climate change are increasingly experienced locally. Similarly, whilst carbon dioxide molecules have traditionally been regarded as both very *small* and highly *material*, their political and discursive effects are becoming increasingly hard to refute.

For artists engaging with site as a topic of exploration today, however, site specificity and thus site-specific sonic practice is still influenced by binary models of production. Models of knowledge production exercised in relation to site-specific production continue to be oriented towards textual practices in ways that obfuscate the relation between (artistic) practice and its site, and the tools needed to articulate those relations are still lacking. Not only are crucial parts of the work process (for instance, material issues and condi-

tions) pushed into the background in the course of this exclusion, but on a more visionary and thematic level, the material's discursive potential is systematically ignored. Political theorist Chantal Mouffe's oft-cited essay "Artistic Activism and Agonistic Spaces" from 2007 in many ways concretizes the hierarchy that results from such preferences. For Mouffe, it is temporary and ephemeral artistic interventions which take on political thematics like 'Reclaim the Streets' and 'Tute Bianche' that constitute successful examples of critical art practice within public space. Whilst Max Neuhaus' *Times Square* (which I have discussed previously) is, in my view, a highly critical engagement with public space—producing as it does a consciousness of the relations that form its site—this work would likely not be considered a critical artistic practice in Mouffe's terms. Preferences like these set the bar with respect to the kinds of thematics that are allowed to be called critical and those that are not. In the end, this creates hierarchies wherein certain artistic practices (for instance, discursive engagements with a site, or examples of new genre art) are given higher status and considered to be more "critically explorative" than others, often to the disadvantage of more time-consuming practices. In my view, however, this fails to account for the fact that a single tone can sometimes express much more than a thousand words: a single tone can harbor complex discursive insights and correspondences.

Within the field of critical art practice in public space there also exists, as Gabrielsson repeatedly points out, a persistent avant-gardist critique of site-specific art's assimilation to market forces and its dependence on art institutions. This critique is founded on the established but obsolete ideal of criticality as an act of remaining outside the system, an idea which, Gabrielsson claims, can be traced to site-specific art's emergence in the critical, anti-commercial art movement at the end of the 1960s and beginning of the 1970s. The persistence of

this ideal within art effectively manifests the way in which the legacy of the avant-garde has been assimilated as part of the discipline's self-conscious and transformed into a given fact (Gabrielsson, 2006, pp.300-301). If we choose to understand spatial production in ways that avoid such binary thinking, Gabrielsson argues, then we can also no longer lay claim to a position "outside" the institution, from which art can operate. Everything rather must occur in the same space: or, as Gabrielsson puts it, everything is inside. Rather than succumbing to the binary division between "inside" and "outside," the task is thus one of formulating tools that can produce space for criticality within the frame of that "inside" (ibid., p.298).

To conclude, then, what is needed in site-specific practice, here emphasizing sonic practices, is a new set of approaches to production and new analytical tools that are capable of exposing and critically articulating site as a theme and as an exploratory means, thereby setting aside dominant binaries. With this task in mind, this doctoral research is founded on a view of site-specific artistic practice as an immanent and transversal process that *traverses* the material, the social, and the discursive, which are themselves understood as ongoing processes. The approach described in this thesis does not allow the physical or material to be disconnected from the discursive—rather it elects that the relation between the two might form a ground for thematic exploration in itself.

In "Chapter 3: Conceptual Framework," in the sections "Sound Installation as Affective Practice" and "Public Space, Art, and Politics," I present a conceptual framework based on the notion of site-specific exploration and production as immanent transversal process. In the section of "Chapter 4: Explorative Approaches" titled "Mapping the Affective Lines," I develop an approach that aims to articulate artistic

site investigation as a transversal process, which is elaborated in relation to the different cases described in Chapters 5-8.

Site Investigation Through Walking

While the previous section examines the aesthetic and ideological construction of our understandings of “site,” this section addresses corporeal experience (and specifically the corporeal experience of walking) as a form of thematic engagement with a site.

Through our direct corporeal interaction with the city, discursive, perceptual, and material aspects converge. Understanding a specific site is thus closely connected to corporeal experience. For an artist, such experiences contribute to the thematic process of exploration, generating important findings that can be used in constituting the work. These experiences are also important on a practical level—walking the site, for example, is crucial to the task of finding a location for the installation of the work.

Urban walking practices and their relation to the dynamics of the city has formed a topic of investigation amongst numerous thinkers, artistic groups, and urban social practitioners over time. Baudelaire, Benjamin, the Situationists, and contemporary urban activists¹³ all share a common ground in their interest in the specific and unique insights that the experience of the city gained through walking can generate.

From the perspective of urban theory, the exploration of urban space through corporeal experience goes hand in hand with the cri-

13) The Situationists launched important concepts like “drifting” and “psycho-geography” as unintentional modes of moving through urban space, and of experiencing and mapping its spatial relations and intensities. See: Sadler (1999).

tique of Cartesian space that effectively dominated all forms of spatial production prior to the 1970s. The act of approaching urban space and the city as topic of exploration can thus be linked to a strong and politically informed critique of contemporary politics and top-down power structures, which emphasizes social action as a constitutive element in the production of cities. Musicologist Gascia Ouzounian summarizes this development in the following terms:

Until the 1970s, the term “space” was used almost exclusively to describe physical forms as outlined by the axioms of Euclidean geometry. With *The Production of Space*, the French Marxist philosopher Henri Lefebvre (1974) helped launch a notion of spatiality that included in its scope the body, action, and the constructed environment. Arguing that space is produced within a dialectic relationship between social action and “spatialization,” Lefebvre showed that space is a socially and politically constructed, and not an absolute or naturally occurring phenomenon (Ouzounian, 2006, p.71).

Urban culture scholar Monica Degen further underscores the importance of this understanding of how space is produced, and of seeing spatiality as both a product of and produced by multiple forms of spatial practices. Through *The Production of Space*, Degen argues, Lefebvre was able to make visible the ways in which spatial forms of power structures are established. He did this primarily by distinguishing between the spaces produced as a result of bottom-up processes initiated by the inhabitants of a place (which he refers to as “lived” or “experienced” space) and the spaces that result from top-down processes shaped by structures of calculations and the efforts of architects and planners. The former emphasize our experience of space first and foremost as perceiving bodies (Degen, 2008, p.18).

Also addressing the social production of space, the French philosopher Michel de Certeau specifically addresses walking as practice of urban exploration. De Certeau was informed by both the Situationists and Lefebvre, and the essays collected in English translation in *The Practice of Everyday Life* (1984) have become a widespread reference within urban discourse, particularly on the psychological experience of walking. Deploying an explicitly psychological and linguistic analysis, de Certeau juxtaposes top-down urban processes (i.e., those of city planners, bureaucrats, and strategists) against the flaneur's intuitive and explorative bottom-up processes. As urban sociologist Cameron Duff (2010) points out, this juxtaposition allows de Certeau to expose how bottom-up tactics are able to "deterritorialize" top-down strategies, making them their own. Here, the dialectic between the regulated processes of city planning's "top-down" processes and the flaneur's specific "bottom-up" perspective is played up in a manner that is not only agonistic but in fact approaches an antagonistic position. De Certeau's agonism has functioned as a source of inspiration that has colored contemporary theory of sonic art. Taking listening as outset in exploring the urban city, sound artist and theorist Salomé Voeglin, for instance, positions herself between the two poles that defines de Certeau's work, which she summarizes in the following terms:

The difference lies, as Michel de Certeau points out, between the desire for the godlike view, the gnostic drive for total knowledge, satisfied from high above at a distance from the urban text, and the walking of the "Wandersmänner" down below, producing the city blindly through their temporal and individual trajectories (Voegelin, 2010, p.4).

From the outset, my everyday practice as an artist seems to confirm—as Voegelin and many other artists claim—the invaluable nature of the specific experience offered by the direct corporeal encounter with

the city. In fact, this experience constitutes a foundation and point of departure for my practice. At the same time, a number of differences exist between how I experience this encounter and how it is theorized within the canon that de Certeau represents.

Firstly, it is important to acknowledge the ways in which the strongly antagonistic approach in de Certeau's work has fueled distinctions between "bottom-up" processes and "top-down" perspectives in urban artistic practices. This can be linked to the legacy of the twentieth-century avant-garde in critical practice, which continues to privilege a view of the artist as operating outside of the system (which I critique in the previous section of this chapter). In my experience, day-to-day practice is much more complex than this, and the artistic process often implies standing with one foot on each side of such dichotomies. While on the one hand, engaging with the specificities of a site demands a unique encounter through experience, at the same time as an artist one is also located within an institutional framework (which often has its own specificities and conditions). These two parallel roles are, however, rarely brought to light or critically discussed in relation to each other—rather, common models of knowledge tend to emphasize their division, consolidating dichotomies rather than critically exposing how and why the conditions of artistic production actually look like they do.

Secondly, de Certeau's work is rooted within a semiotic tradition which sees the city as a "text" to be read. This implies the presence of an active subject who approaches and engages with the city and in those acts produces the city as content. As Cameron Duff points out, quoting *The Practice of Everyday Life*, walking enables individuals "to 'compose a manifold story' out of the 'cursives and strokes of an urban text,' producing along the way a dynamic sense of place, a history, and a poetics of belonging" (Duff, 2010, p.883). However, as

Duff emphasizes, to experience place is to be affected by place. Experience, feeling, and a place's resonance all harbor affective relations. For Duff, de Certeau misses the innumerable acts of co-creation in the incalculable material and immaterial, human and non-human actualizations at work in the city—such co-creation is fundamental to engaging with and understanding urban space. In my experience of the explorative process, engaging with the site is as much as about being affected as affecting: the urban encounter is a simultaneous, co-constitutive act of engagement with a site. From such a position, spatial production can be understood as an effect of complex, affective force relations, which together constitute the assemblage that is a place. When site-specific practice is treated as an explorative process, it becomes evident that tools and approaches for engaging with the site as immanent affective process are necessary.

Thirdly, the outcomes generated by encountering the site are highly conditioned by the explorative subject's specific perspective. For example, in my case being a woman contributes to the fact that I tend to avoid certain sites if they feel unsafe: equally, as a Northern European I bring with me a range of particularly coded perspectives regarding what public space is, which in turn color my capacity to engage with situations outside my comfort zone. These perspectives deeply affect the artistic process. In their explorations and investigations, artist groups and theorists like the Situationists or de Certeau maintain a white, male, North American or European subject position without paying any attention or performing any analysis in relation to how this position actually conditions the explorative process. As urban theorist Kajsa Lawaczeck Körner points out, such normativity derives from an implicit notion of consensus, which neglects differences in identities (Körner, 2016, p.205). The artist-subject, however, always engages with the world on the basis of a partial, situated perspective,

which is connected to their background, class, and gender and which radically affects their artistic process. For site-specific sonic practice, a clear need exists for conceptual tools and approaches that are able to make visible and articulate the specific, situated nature of perspective, and the crucial part that it plays within the artistic process.

The corporal exploration of a site through transversal and situated practices of walking forms a topic of analysis and critical discussion in “Chapter 3: Conceptual Framework,” and specifically in section “Engaging With Other Bodies.” In the sections “Mapping the Affective Lines” and “Becoming Non-Autonomous” in “Chapter 4: Explorative Approaches” I set out a series of approaches that I believe can be used within situated and transversal practices of exploration, which I also articulate in relation to the cases presented at Chapters 5-8.

Site and Soundscape

The soundscape constitutes another central topic of exploration in engaging with site. Even though the soundscape does not constitute a conceptual thematic in any of my works discussed in this thesis, I have treated soundscape as a conceptual thematic within my work in a range of artistic processes—for instance, basing my work on sound recordings from the underwater landscape of the Baltic Sea in *Mare Balticum* (Stjerna, 2015) or making sound recordings of an entire municipality as in *A Sonic Portrait of Sala* (Stjerna, 2018).

Just as the site in site-specific practice invokes a diverse field of traditions and practices, a variety of different approaches have been applied in dealing with soundscape as a topic of artistic exploration. One approach is that taken by the American sound artist Bill Fontana.

Since the mid-1980s, Fontana has created so-called *translocations*.¹⁴ Using satellite links, Fontana uses the possibility to record sounds in one place and translocate them—that is, to transport them to another place—in real time. In *Metropolis Stockholm*, from 1986, part of his Klangbrücken works, inhabitants of Sweden’s capital, Stockholm, were confronted by recordings from different parts of Stockholm’s inner city (for example, from inside the clock tower of Storkyrkan (in English, The Great Church); Stockholm Central Station; the City Hall; and a traffic pole), which were translocated in real time to the terrace outside of the City Hall. Here, visitors could walk around and experience an acoustic portrait of sonic Stockholm at a single spot. The work was also broadcasted in real-time on Swedish Radio as a sixty minutes concert (Berndtson and Hiort af Ornäs, 1989). German musicologist Barbara Barthelmes describes Fontana as performing a kind of photographic “double exposure,” in which an imprint from one site is transported and inserted into another in real-time, “creating of new sensorial connections through spatial and contextual transportation of sound” (Barthelmes, 1986, p.77, my translation).

A different approach to dealing with sound and environment is taken by Christina Kubisch in her *Electrical Walks*, a work that was first launched in 2004 and which has been performed worldwide ever since. The work is a public walk where the visitor is provided with specially designed headphones, which amplify and make audible the existing but normally inaudible electromagnetic fields of the city. Here, the transmission of sound from electromagnetic waves is achieved by way of built-in coils (also termed induction). In addition to the headphones, the visitor is equipped with a city map where sonically interesting sites are marked as suggestions for a route. Light sys-

14) See, Föllmer, “Klangorganisation im Öffentlichen Raum” (1999) for a detailed description on the area of translocation.

tems, wireless communication systems, anti-theft security devices, cell phones, computers, streetcar cables, public transportation networks, etc., all have unique electroacoustic signatures, which are translated through the headphones into unique sonic experiences (Kubisch, n.d; Stjerna, 2006).

As a topic of exploration in site-specific sonic practice, soundscape can historically be linked to the critical tendencies present within institutional art, land art, and urban interventions in the 1960s and 1970s. The World Soundscape Project forms a key point of connection between these practices. The World Soundscape Project and the related development of the field of “acoustic ecology” were initiated by a loosely organized network of composers and researchers connected to Simon Fraser University in Canada in the 1960s. This group included composers and researchers such as R. Murray Schafer, Barry Truax, and Hildegard Westerkamp. This work, which was founded on a critique of industrialization’s destruction of urban and natural soundscapes, also laid the foundations for acoustic ecology as an area of research dedicated to the study of the relationship, mediated through sound, between human beings and their environments. Today, soundscape constitutes a self-evident topic for critical exploration in contemporary sonic practice.

As previously mentioned, the soundscape does not constitute a conceptual thematic in any of my works discussed in this thesis. Nevertheless, it plays a crucial role in the artistic process, as the sonic work and the soundscape on site operate in the same material and perceptual domain—the sonic—and the relation between them, as such, directly affects the artistic process.

In the process of establishing the artistic work on site, it is clear that sound installations affect but are also affected by the soundscape of the site in question. From my experience, this is not only evident

in how the work might need to be adjusted sonically, but also in the entire artistic process and in ways that even *precede* the sonic. The specific site's soundscape, for instance a very noisy site, might affect choices of how and where to establish the sound installation on site, which in its turn will affect the spatialization process, thereby impacting on the technological construction work on site. As I have stated previously, I view the artistic work as emerging as an effect of transversal affective connections between a wide range of heterogeneous components. The soundscape is one of those components. As such, it possesses a very specific capacity to affect the artistic design process on a range of levels, even in ways that at first glance might not seem to relate to the sonic. Acknowledging and articulating this process, however, requires conceptual tools and approaches capable of making visible the impact of the soundscape as a transversal component in the artistic process on site.

In "Chapter 3: Conceptual Framework," and specifically in the section "Sound and Immanence," I discuss an alternate understanding of sound as a transversal, immanent process, which I develop in relation to each of the cases in Chapters 5-8.

Concluding Reflections

To conclude, site has been addressed as a topic of exploration within a range of different traditions with distinct genealogies, encompassing themes of spatiality, ideology, corporeal walking practices, and the soundscape. It has also formed the basis of a great number of practices, discourses, and traditions that have engaged with ways of interpreting, exploring, and approaching space through artistic investigation. The various approaches that have and can be taken with respect to site within site-specific sonic practice must (as has previously

been emphasized) be understood in close relation to how we think about the production of places, and how places produce themselves. Even if we ostensibly abandoned a Cartesian model long ago in our thinking and exploration of site, in my everyday artistic practice I continue to encounter deeply embedded and highly persistent notions of representation and transcendence. A clear need exists, therefore, to develop new approaches and tools in the task of accounting for our explorations of site that do not depend on such outdated and binary ideals.

Spatial Sensibility

Having dealt with the site as a topic of exploration, I would now like to turn to the second central artistic mode in site-specific sonic art practice: namely, the process of establishing spatial sensibility, here also referred to as “spatialization.” Spatialization takes in both the *localization* of sound in space and the *movement* of sound in space (called “panning”), both of which can heighten and affect corporeal experiences of a given site. The aim in applying such spatialization approaches is to establish an immersive relation between visitor and site, by reframing the act of listening as a whole-body experience.

In my practice, spatialization has been used in a range of ways: speakers were placed high up in the trees in *Klangwäldchen* (Stjerna, 2007a); 47 speakers were buried in a historic cemetery in *Ein Meer aus Herzschlag* (Stjerna, 2017); or in the cases explored in this thesis, 18 speakers were attached to the edge of the large panorama window of the Oslo Opera House (*Currents*, 2011), a speaker was lowered to the bottom of a dry well (*The Well*, 2014), or 16 speakers were placed vertically within a five-story stairwell (*Sky Brought Down*, 2017). By subtly incorporating loudspeakers into the site in ways that directly

connect to its specificities, the artist invites the flaneur to explore the work as a spatiocorporeal experience, via a sound interface that establishes an immersive relation between visitor and site.

The process of establishing spatial sensibility thus takes as many expressions as there exist sites. Neuhaus' *Times Square*, Philipsz' *Study for Strings*, and Fontana's *Metropolis Stockholm* all exemplify complex processes which, through entirely different strategies, establish spatial sensibility by means of the connection they produce between the flaneur's corporeal experience and the site's specificities.

Spatiality as Embodied Listening

Austrian Bernhard Leitner is another example of an artist who throughout his career has explored the relation between corporeality, sound, and spatiality. Initially trained as an architect, Leitner has since the 1960s explored the relation of body, sound, and space through his art. The *Sound Space* works, which include chairs with built-in multichannel loudspeaker systems as well as large-scale installations and complex multichannel choreographies, Leitner's sounds establish invisible but highly perceivable sonic spaces that surround the listener, reinforcing the relation between spatiality, corporeality, and immersive perception (Stjerna, 2010). One of these works, the permanent sound installation *Sound Space* (in German, *Ton-Raum*) from 1984, which is located in the Technical University of Berlin, is today considered a classic example of site-specific public sound art. The work was created for a level of the building that connects a range of corridors and staircases to other floors. The ceiling and walls of this level have been covered with white, perforated metal plates that contrast with the building's 19th-century architecture. Behind the plates lies an ingenious, multichannel sound system that is made up of 24 loudspeak-

ers that have been installed into the walls and ceiling. Leitner has created around thirty multichannel sound space compositions for this system. Through strategies of spatialization, Leitner is able to produce sonic spaces that are understood as fluid, continuously changing processes, creating distances and directions in which listening becomes a sensory activity that includes the whole body. As Leitner points out, “perceiving, scanning, apprehending space becomes an activity which incorporates the whole body” (Leitner, 1998, p.295).

Time as Spatial Experience

Listening is thus refigured as an act of active participation that is performed by the entire body, and this is further emphasized by the fact that none of the sound installations mentioned here, including my own works, have a set beginning or end. Challenging the classical idea of sound as a time-based material which the recipient experiences in terms of a predefined beginning and end, in sound installation, it is rather the visitor’s own time—understood as spatial experience—that is emphasized. By moving through a space in response to their own inclinations and taste, the visitor is herself able to decide how the work will be experienced. The visitor’s “completion” of the work is fundamental to it. Max Neuhaus refers to this act of completion in terms that have today become synonymous with what traditionally is referred to as sound installation as a spatial art form, stating:

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 (Neuhaus, 1994, p.34).

From a musicological frame of interpretation, German musicologist and media theorist Golo Föllmer explains that such an approach demands that the work is to be understood as a discrete process in a state of continuous flux, in which the visitor should be treated as a constitutional element. This has implications for the design process, placing focus to a greater degree on the visitor rather than the artist (Föllmer, 1999, p.193). This shift of focus is further underlined by the German musicologist Helga de la Motte-Haber in what she describes in terms of the historical transformation that replaces the composer (seen traditionally as a supreme subject) and the listener (seen traditionally as a receiver or recipient) with two or more active co-creators (de la Motte-Haber, 1999, p.231). Helga de la Motte-Haber points out that the idea of the recipient as co-creator, which forms the very foundation of artistic interactivity in its most open form, stands in relation to early modernism's avant-garde movements (for instance, Dadaism or Futurism) and the dissolution of distinct borders between the classical art forms that were the foundation of Baumgarten's aesthetics in the 18th century. This dissolution of distinct borders between art forms, and between audience and work, intensified during the 1950s and 1960s. Through action art, happenings, and intermedia art, experimental forms of action—including chance, interactivity, and a mix of compositional material—made the work appear less as an object to be listened to or viewed by a listener, and rather more as a situation, wherein by dissolving and transforming the work, hierarchies between author and viewer were, de la Motte-Haber claims, effectively erased.

The Fluxus movement's perceptual explorations in the 1960s are commonly considered to have played an important role in this historical transformation. As sound artist and scholar Brandon LaBelle points out, in contrast to intermedia art's often noisy experiments,

Fluxus' work highlighted low-voiced everyday events as aesthetic experiences, calling for a sensitivity to the life that surrounds us, through what LaBelle calls "a shift in perception" (LaBelle, 2006, p.59).

Concluding Reflections

As a result of these shifts, site-specific sonic practice has witnessed a refiguring of the artistic work: rather than offering up a finished work that is consumed by a listener, the work incites its audience to transform it, to make it a "complete" aesthetic experience through active perceptual engagement with it. Here we do not confront a space filled with sound, but rather an act of spatial creation that takes place in conjunction with a specific site. The stimulus to act is therefore linked to the specificities of the site, and the act that is incited is one of corporeal exploration. This exploration in turn is understood as being capable of establishing an immersive relation to a specific site. In this way, the work intervenes and challenges everyday understandings of the site in question, offering up other ways of experiencing and engaging with it.

Despite these radical shifts, the Cartesian model continues to exert influence within my field and site continues to be portrayed as an empty space that is to be "filled" with sound. I am often reminded of their persistence in the final phases of an artistic process when I am forced to confront the idea that spatialization is simply the placement of standardized loudspeakers in a (random) room. Art commissioners often request that I use a known technological solution that is "already there" and that is used in "every other performance or exhibi-

tion” in order to reduce costs. Such requests, however, ignore the vital and active role that such technologies play in spatializing a work.¹⁵

Further, established notions of spatiality directly affect the daily reality of the artistic process, and the complex negotiations that are required as part of the establishment of spatial sensibility are often ignored in accounts of site-specific art practice. Instead of establishing new ways of listening through immersive spatial sensibility, established approaches rather tend to generate a separation between visitor and space, in which the site in question becomes a container for sound.

In contrast, I would like to propose an idea of spatiality as a mode of artistic practice that stands in direct relation to the innumerable expressions and possibilities presented by a site. I would advocate that spatial sensibility or spatialization should rather be regarded as an effect of a transversal affective process, which is in active relation with the agencies of the specific site. Site-specific artistic process demands a long-lasting relation with the site in question. In order to show how such a practice actually operates, tools are required that are able to elucidate the transformative conditions presented to and through spatial production. Such tools must in turn be founded in an understanding of artistic production as immanent, affective, and transversal.

Spatial sensibility, or spatialization, will be further discussed as a transversal process in “Chapter 3: Conceptual Framework,” and in “Chapter 4: Explorative Approaches” in the section “Establishing New Connections,” and specifically explored and articulated in relation to Chapter 7.

15) This role is further discussed in the section “Technology and On-Site Installation.”

Sound's Contextual Capacity

The third artistic mode that I would like to address concerns sound's capacity to create an immersive relation between visitor and site, as a carrier of information and meaning. Throughout the years, I've explored several different sonic approaches, which have each aimed at strengthening the relation between visitor and site: for instance, bell sounds that acted as a *connection* to the site's history as in *Pendula Bergiorum* (Stjerna, 2007c), or a crispy sound carpet that produced *associations* with the wind sweeping through the foliage of surrounding trees in *Klangwäldchen* (Stjerna, 2007a); or—with reference to the works discussed in this thesis—a glittering sound texture that *sonified* changes in the North Atlantic Current (*Currents* 2011); a perpetual transformation between the sound of water and murmuring voices that constituted an *interpretation* of the site's history (*The Well* 2014); or dripping, wind-like, organic sounds that *sonified* the weather outside the site of the sound work, inside Sahlgrenska University Hospital (*Sky Brought Down* 2017).

In sound's ability to carry information lies a capacity to transform the experience of a particular site, generating a reaction that expands the visitor's relation to the context at hand. As a mode of artistic practice, the treatment of sound as carrier of information requires complex contextual strategies that span from the micro to the macro—from sound's most material to its most conceptual registers.

In this chapter, I have discussed the works of a range of artists, as examples of different strategies of artistic practice capable of establishing an immersive relation with the specific site through sound. In Susan Philipsz's sound installation *Study for Strings*, described earlier in this chapter, Philipsz used a sonic material which could be connected to the Holocaust. This material was further reworked and exhibited

in a space that maintained a strong connection to the German deportation of people to concentration camps. Philipsz establishes what traditionally would be described as a *symbolic* approach to exploring sound's capacity to carry information: she uses a history specific to the site in order to open up for a new reading and thus experience of the Kassel Hauptbahnhof. As a visitor, this symbolic dimension emerges when the historic sonic material confronts the site, and this is what creates the intensity of the work. A different sonic material (for example, a partita by Johann Sebastian Bach), which did not possess the historic information and symbolic value of the material taken from the work of Haas, would never have been able to evoke the reactions that Philipsz's work did.

In Bernhard Leitner's *Sound Space*, the sonic material is treated as a carrier of information in the same way that an architectonic material like glass, steel, or concrete can be (Stjerna, 2010). Unlike Philipsz's symbolic approach, it is the perceptual capacity of the sonic material which is placed in focus. Here, traditionally sonic or musical parameters such as frequency and the gradual transformation of amplitude become tools to empathize a sound movement's direction, paving the way for a corporeal, architectonic spatial experience.

Bill Fontana's Klangbrücke piece *Metropolis Stockholm* experiments with field recordings and degrees of documentarism as an artistic approach. Through sound's documentary capacity, this work uses real-time recording technology to establish what Kwon would refer to as an "indexical and indivisible" relation between the (sound) work and the site in question. In *Metropolis Stockholm*, it is the visitor's awareness of the fact that the sounds are actual recordings of this specific site that give the work its transformative capacity. A sound material based on synthetically generated sounds wouldn't have achieved the same effect—it is the awareness that one hears the site's *own* sounds,

albeit from unexpected perspectives, that establishes a unique relation between visitor and site in *Metropolis Stockholm*. Traditionally, one may refer to this relation between recorded sounds and site as an *indexical* relation, which is discussed further in the next section of this chapter.

Sound, Representation, and Meaning

These different works by Philipsz, Leitner, and Fontana thus present different sonic modes of practice which, treating sound as a carrier of information, span from a focus on sensory experience to what is traditionally referred to as the conceptual “meaning” embedded in sound. Each work therefore establishes quite different contextual strategies in conjunction to the specific site’s complexity.

From a historical perspective, the materiality of sound and its capacity to harbor information can be connected to the expanded concept of sound and listening that emerged during the course of the 20th century. This expansion was also witnessed in our understandings of sound as an artistic material, a development that was sparked by the work of the early modernist explorations of everyday sounds (by, for instance, the Futurists and the Dada movement) and taken further in American composer John Cage’s incorporation of the soundscape of reality as a compositional parameter. The French Musique Concrète school’s exploration of recorded sound material as an outset in generating sound should also be seen as central to this shift.¹⁶

Unlike the Musique Concrète school, which included composers as Pierre Schaeffer and Pierre Henry and essentially ignored sound’s contextual capacity, in sound installation and other contextual prac-

16) For further reading on this subject, see: de la Motte-Haber (1999); LaBelle (2006); Licht (2007); Kim-Cohen (2009).

tices, recorded sound has played a crucial role in expanding the sonic palette. Historically, this technological expansion accentuates a lengthy struggle, from the 18th century until today, over whether music actually can express meanings beyond itself.¹⁷ This struggle plays out most clearly in relation to “documentary” approaches within sonic practice (for instance, in sonification, field recordings, and sonic strategies relating to recording and sound production technologies), which have traditionally been associated with representation or *indexicality*. The latter term refers to Charles S. Peirce’s semiotic theory from the 19th century, which proposes that *icons*, *indexes*, and *symbols* constitute the three main categories of signs. Indexicality is the phenomenon of a sign pointing to (or indexing) an object in the context in which it occurs, and has been discussed in relation to recording technologies’ dependence on a direct physical relation between site and sound.

American art critic Rosalind Krauss addressed the idea of index in relation to photography in the 1970s, arguing that “As distinct from symbols, indexes establish their meaning along the axis of a physical relationship to their referents” (Krauss, 1977, p.70). In this statement, Krauss essentially defined and established photography’s unique position in contemporary art discourse. Swedish media theorist Jesper Olsson argues that just like the indexical genealogy of photography, which can be traced to the daguerreotype (the first silver plate from which traces from reality were revealed during the act of development in the darkroom), a similar genealogy exists within the discourse on recorded sound, which can be traced back to the first wax cylinder recordings. Olsson states that recorded sound operates as “a form of

17) Music has historically been referred to as an absolute art form that does not “reproduce” reality. See: Demers, *Listening through the Noise—The Aesthetics of Experimental Electronic Music* (2010).

inscription” that can be assigned to the types of signs that Peirce identifies as “index-signs”—physical “causal traces of the real” (Olsson, 2011, p.18). As Olsson writes,

Rather than representations, based on resemblances and similarities with that which is depicted, or codified by a cultural convention as is the case with symbols, one should understand the structures operating behind the indexicality in terms of traces of a reality rather than reproduction or references to (ibid., my translation).

In this thesis, recorded sound is addressed as a “contextual sonic strategy,” wherein the direct, physical, material relation between the recorded sound and site can establish an immersive relation between visitor, sound, and site. I elaborate this position in relation to the work of Fontana and other artists, and include myself amongst those working in this way. Like many others, I often use documentary or symbolic strategies in order to establish a strengthened relation between visitor and site. Because of the association of sound installation with the indexical, however, practitioners and theorists of this contextual practice sooner or later have to confront one of the most complex issues within contemporary sonic practice: namely, whether sound needs to operate as a sign (as *representation*) in order to establish meaning within a given social system, which is the case in the earlier examples of documentary strategies that use recorded sound or sonification.

Even though the idea of an unfiltered reality has been heavily discussed and criticized in recent decades, and despite the fact that technology (including recording technology) is no longer accepted as being “neutral,” the idea of recorded sound as an indexical representation and sound practice as dependent on signification has formed a kind of convention and consensus in sonic practices.

Within my field of practice, I notice a number of fundamental problems in this. As current models of knowledge treat the documentary as a representation of reality, artists continue to uphold the status of indexical and representational qualities of documentary practice, and this occurs at the cost of complexity and of rich and illuminating accounts of artist processes. Whilst the making of site-specific sonic work is rarely a straightforward process, this is seldom discussed as it risks subverting the value of the artistic work in terms of the capacity of the work to accurately represent “reality.”

Historically, established notions of sound and meaning are inevitably linked to the Western concept of representation. This view in turn is characterized by its relation to essentialism, a relation described by philosopher Christoph Cox in terms of the way in which “conceptions of representation and signification that construe images and signs as picturing or designating a pre-given world” (Cox, 2011, p.151). It can also be linked to contemporary textual theories that, in contrast to an earlier essentialism, seek to “account for and foster the contingency of meaning, the multiplicity of interpretation, and the possibility of change” (ibid.). Cox explains this link in the following terms:

Culture is construed as a field or system of signs that operate in complex relations of referral to other signs, subjects, and objects. Cultural criticism and theory is taken to be an interpretive enterprise that consists in tracking signs or representations (images, texts, symptoms, etc.) through the associative networks that give them meaning, networks that are always in flux, thus ensuring that meaning is never fixed or stable. Rejecting realism, which would claim direct access to reality, contemporary cultural theory and criticism tends to maintain that experience is always mediated by the symbolic field” (ibid., p.148).

The latter theorization, which sees sound as a sign, is well established within my field, and is supported by amongst others the sound theorist Seth Kim-Cohen. In his *In the Blink of an Ear—Toward a Non-Cochlear Sonic Art* (2009), Kim-Cohen explains the underrepresentation of the field of sonic practice within contemporary art history by noting that the theoretical discourse on sonic artistic practices to a larger extent missed the postmodern conceptual turn that occurred within contemporary art in the 1960s. Contemporary art at this point turned away from a modernist notion of art, which located the experience of the artwork as form and materiality as central, replacing this with a view of art that emphasized its capacity to operate as a “carrier of meaning,” as ideas and concepts that formed part of a contextual linguistic system. The theoretical discourse on sound within art, according to Kim-Cohen, missed this conceptual turn. The contemporary discourse on sonic practices has been and is still fixed to a notion that can be described as “sound-in-itself,” which in turn is characterized by both Pierre Schaeffer’s reduced listening and acousmatic sound object *and* by John Cage’s notion of listening to the sounds themselves. Together, these effectively deprive sound of its political, conceptual, and social meaning. In order to operate conceptually, that is to communicate meaning and follow political and social issues, sound is understood as having to take part in a semiotically signifying system of representation. This basic condition generates what Christoph Cox describes as “an epistemological and ontological insularity,” as “theories of textuality or discursivity implicitly support a separation between culture (the domain of signification, representation, and meaning) and nature (the domain of inert, dumb matter)” (Cox, 2011, p.147). From my perspective, and following Cox’s theorization, the established ideas linking sound to representation leave many of the material aspects and conditions of production that are

crucial to documentary sonic strategies—and to the production of meaning through sonic practice more generally—uncommented.

In order to be capable of articulating the complex conditions that characterize site-specific sonic processes, in this thesis I advance a view that sees the production of sound in site-specific sonic practice as an affective, immanent process of exploration. Such an approach rejects the idea that sound must operate as a sign, or a simplified form of representation, acknowledging that the sonic emerges as an effect of an immanent and transversal process.

Sonification and the Problem with Representation

Through this thesis, I am expressly interested in exploring artistic sonification in terms that exceed the established notions of representation described above. Sonification traditionally refers to artistic practices that translate inaudible information or data into sound. By translating normally non-audible information into the audible domain, relations are established that heighten our awareness of daily life.

I have described Christina Kubisch's *Electrical Walks*, which can be understood as a type of sonification, previously in this chapter. Through the use of headphones, which by means of induction make audible electromagnetic phenomena in urban spaces, aspects of the city that are normally hidden are made available to experience. Kubisch describes on her website this strategy in the following terms:

The perception of everyday reality changes when one listens to the electromagnetic fields; what is accustomed appears in a different context. Nothing looks the way it sounds. And nothing sounds the way it looks. (Kubisch, n.d)

Another example of the application of sonification strategies is the collaboration project *N.*, by American artists Andrea Polli and Joe Gilmore, a real-time multichannel sonification and visualization of weather data from the Arctic. In this work, the artists use raw sound material from what they describe as “live sferics” (which is short for atmospherics) as well as electromagnetic transmissions of lightning from the INSPIRE VLF (very low frequency) receiver that is located at NASA’s Marshall Space Flight Center (Polli, 2017). Several of Fontana’s installations work in the same manner, by transferring sound from one place to another.

Sonification is traditionally defined as a sub-type of the broader category of auditory display, which uses non-speech audio material to represent information (Kramer et al., 2010).¹⁸ Sonification in this way translates relationships that occur in data or information into sound(s) that “exploit the auditory perceptual abilities of human beings such that the data relationships are comprehensible” (Walker and Nees, 2011, p.9). The field of sonification comprises a wide interdisciplinary landscape of practices spanning between science and music,¹⁹ and between a range of different areas of application. It also

18) An auditory display can be broadly defined as any display that uses sound to communicate information (Walker and Nees, 2011, p.9).

19) Walker and Nees (2011, p.9) write that: “The theoretical underpinnings of research and design that can apply to (and drive) sonification come from such diverse fields as audio engineering, audiology, computer science, informatics, linguistics, mathematics, music, psychology, and telecommunications, to name but a few, and are as yet not characterized by a single grand or unifying set of sonification principles or rules ... Rather, the guiding principles of sonification in research and practice can be best characterized as an amalgam of important insights drawn from the convergence of these many diverse fields” (ibid.). Walker and Nees divide sonification into four different areas: (i)

encompasses diverse strategies regarding how to transform non-audible data to sound.²⁰

Just as the sound discourse in general is dominated by semiotic models of interpretation that are based on notions of representation, a similar issue is present within the more specific discourse on sonification. Here, sound is commonly understood as representing inaudible data, a view which places the sonified sound in a direct representational relation to the original data, whereby recorded sound represents the site. German musicologist Volker Straebel points out that both scientific sonification and artistic sonification are commonly understood as having a direct contact to the data that is sonified—i.e., the sound is understood as giving us direct access to the scientific information. As a result, sonification reveals information about the matter represented by the sonified data. Data exploration is thus commonly described as “immersive,” and claimed to establish “a direct and intimate connection to the information” (Straebel, 2010, p.287). This emphasis on representation in sonification is frequently articulated in the literature and its vocabulary, and can be seen in sonification scholar Thomas Hermann’s heavily quoted position, which holds that “the sound reflects objective properties or relations in the input data” (Hermann, 2008, p.2). A further example of this tendency can also be located in Walker and Nees’ introduction to the chapter

alarms, alerts, and warnings; (ii) status, process, and monitoring messages; (iii) data exploration; and (iv) art, entertainment, sports, and exercise (ibid., p.12).

20) According to Walker and Nees (2011, p.17) the three most common methods of mapping include firstly “event-based” sonification, also referred to as “parameter mapping,” which implies that changes over time in the data are represented by proportional changes in the acoustical domain; secondly, “model-based” sonification, which refers to the construction of data-virtual systems that the practitioner interacts with; and thirdly, “continuous sonification,” which refers to periodical data that is sampled and reproduced as sound.

“Representation and Mapping” in *The Sonification Handbook*, today a well-established reference within the field. Here, they claim that “once the nature of the data and the task are determined, building a sonification involves mapping the data source(s) onto representational acoustic variables” (Walker and Nees, 2011, p.22).

The notion of sound as sign and Peirce’s semiotic triad of the symbol, icon, and index are also present in this literature. Greg Kramer’s established semiotic system, for instance, suggests a scale which implies “a representation continuum for sounds that ranges from analogic to symbolic. At the extreme analogic end of the spectrum, the sound has the most direct and intrinsic relationship to its referent” (ibid., p.23). Within the discourse of sonification, the index also plays a key role, claiming a direct physical access to what is to be represented. In *The Sonification Handbook*, Stephen Barrass and Paul Vickers state that:

In sonification practice indexicality becomes a measure of the arbitrariness of a mapping (in semiotic terms an indexical signifier is non-arbitrary and has a direct connection (physically or causally) to that which it is signifying. ... In sonification it is the data that makes the sound (parameter-based sonification) or user interactions with the data that make the sound (model-based sonification). A sonification system exhibiting high indexicality is one in which the sound is derived directly from the data (for example, through the use of direct data-to-sound mappings). Low indexicality arises from more symbolic or interpretative mappings (Barrass and Vickers, 2011, p.157).

In such way, sonification has traditionally been linked to approaches in which sound is treated in terms of its “documentary” function, “representing” or claiming “objective access” to its source as an ex-

pression of meaning. This view often becomes part of the sonic approach or strategy.

It should be mentioned that the discourse on sonification often distinguishes between *scientific* sonification and *artistic* sonification. Here, the level of representativeness (i.e., the directness between translated data and sound) is claimed to be higher in scientific sonification than in artistic, in which aesthetic issues tend to interfere with the act of direct representing. My experience, however, is quite the opposite. For most artists who work with sonification, the issue of directness is highly relevant, if not absolutely central. Kubisch, Polli, and Gilmore's works all take as their point of departure the production of a direct contact between sound and site.

Concluding Reflections

The privileging of representation affects sonic strategies, including sonification, by discouraging the theorization or description of the actual efforts and complex negotiations that are necessary to site-specific artistic processes. And—echoing my comments in relation to previously discussed artistic strategies—beyond representation, new conceptual tools and approaches are thus necessary that understand sonification—like the other strategies discussed in the thesis—as an immanent transversal process.

This discussion is further developed in “Chapter 3: Conceptual Framework” in the section “Sound and Immanence,” and is articulated in “Chapter 4: Explorative Approaches” in the section “Establishing New Connections.” I also discuss sonification as a foundation to my own practice, particularly in relation to Chapter 5.

Technology and On-Site Installation

The fourth artistic strategy of practice that I wish to elucidate in relation to site-specific sonic practice concerns the development of technology in a given artistic process, including the technological installation on site.

Over the years, I've installed incalculable meters of loudspeaker cable, attached innumerable loudspeakers in the most inaccessible spots, and devoted months—sometimes even years—to developing sound technologies together with technical specialists.

The technological setups required by the different cases addressed in this thesis varied greatly, including the development of a real-time sound technology, hundreds of meters of cable, and 18 loudspeakers, designed in conjunction with the Oslo Opera foyer's own spatialities (*Currents* 2011); a sound technology, a 20-meter cable, and a single loudspeaker (*The Well* 2014); and a real-time technology, hardware, several hundred meters of cables, and 16 loudspeakers vertically installed behind the wall of a new, five-story atrium (*Sky Brought Down* 2017).

The Impact of Technology and the On-Site Installation on the Artistic Process

Working with sound installation as a transformative spatial practice in many cases requires the advance setup of both software and hardware, including players, computers, and amplifiers, as well as loudspeakers and loudspeaker cable. These technologies are developed specifically for each project, together with technical specialists and in conjunction with the site's own specificities. Both the development of technology and the on-site installation should therefore be considered to constitute active components in an artistic process, with their own

specific affective qualities and agencies. This idea was crucial from the outset in developing most of the works addressed in this chapter.

For example, Bernhard Leitner's *Sound Space*, described earlier in this chapter, is part of a long legacy within sound art that, founded in values of technological curiosity and creativity, can be connected to electro-acoustic music's strong traditions of spatialization and the exploration of multichannel perception. These lines of exploration can be exemplified by the composer Karlheinz Stockhausen's early five-channel compositions, or Luigi Nono's experimentation with several loudspeakers and groups of instrumentalists located at different spots surrounding the audience. The same tradition gave rise to advanced musical architectures like the Philips Pavilion, part of World EXPO 1958, which was created by Le Corbusier, Iannis Xenakis, and Edgar Varèse. The German pavilion in Osaka at EXPO 1970 also forms an important example; its specific architecture—the spatial setup of which was based on Stockhausen's artistic intentions—was realized with help of a team of engineers led by Manfred Krause at the Technical University in Berlin. Here, fifty groups of loudspeakers, arranged in three dimensions, surrounded the audience. Electro-acoustic compositions were spatialized using a purpose-built sensor that controlled the positioning of the sound in space in real time (Föllmer, n.d). The same engineers from the Technical University in Berlin who created this complex system of spatialization later teamed up with Leitner to develop the first live-generated version of the spatialization system for Leitner's *Sound Space*: the so-called Raum-Klang-Steuergerät 1, RKS 1 (Stjerna, 2010). In this way, technological innovations intended for a concert environment were modified and developed specifically for the stairwell at the Technical University in Berlin that today hosts *Sound Space*.

A further example lies in Max Neuhaus' *Times Square*. This work resulted from a two-year residency at the former Bell Labs in New Jersey (today, Nokia Bell Labs), the American company specializing in industrial research and scientific development within telecommunications that was responsible for the transistor and the Unix operative system. It was here that Neuhaus developed the skills needed in order to construct, modify, and adapt electronic circuits to create the sound technology needed to generate sound for the ventilation shaft in Times Square (Zwerin, 1999).

Like my own projects, these examples emphasize technology's affective agency, understanding technology not as a container (a loudspeaker) to be filled with content (sound) but instead as an active component with a specific ability to affect, as an important part of the artistic process of transformation.

Media theory has, since the 1960s, spoken of the affective capacity of media (in this case sound technology): from media theorist Marshall McLuhan's famous standpoint that the medium is the message (McLuhan, 2001[1964]) we are to understand that it isn't what a given media *means* so much as what it *produces*—how it changes our ways of thinking and acting—that matters.

The “specific” in site-specific practice also implies that a given technological setup is established in direct correspondence with a given site. In such a relation, both technology and site possesses agency throughout the work process. Despite this, commissioners, from public agencies to art institutions, continue to predefine the technical setup, specifying the sound generating hardware as well as the type of loudspeaker and even their spatial location when commissions are announced. Such situations manifest the cemented idea of technology in terms of “neutral container” to be filled with sound, ignoring the

practice's complexity and revealing an ongoing reliance on Cartesian understandings of space in the process.

Concluding Reflections

Contrary to these tendencies, I want to rather argue that the inherent agencies of both the technology and the on-site installation constitute crucial factors in the establishment of the work. Their development on site, further, must be understood as the effect of a complex transversal process, which takes place over a long period of time in direct connection to the myriad of agencies at work in the specific site in question.

A strong need exists for conceptual tools and approaches capable of making visible the technology and on-site installation in terms of this immanent, transversal process. I set out my ideas for such tools and approaches in “Chapter 4: Explorative Approaches,” in the section “Establishing New Connections” and discuss them in relation to my own artistic practice in Chapter 8.

Conclusion

The artistic strategies that I discuss in this chapter have *all* constituted central parts of every single artistic process where I have worked with sound installation as a site-specific sonic practice. The site as a topic of exploration, spatial sensibility, sound's contextual capacity and technology and on-site installation should all be considered effects of multidisciplinary conditions, which are initiated, modified, and established through the concrete encounter with the site's specific agencies, in confrontation with the idea of a Cartesian model of spatial production.

As outlined in this chapter, my position runs counter to many of the established conventions, based on representation and transcendence, within my field. These conventions can be located in established models of knowledge, in the attitudes and expectations of commissioners, and sometimes also in the orientations of artists themselves. The persistence of such norms is tangibly present in the terminology that is regularly used to describe and articulate artistic practice. Concepts like “composition,” “composer,” “curator,” “artist,” and “exhibition space” all work to ingrain outdated epistemological models and in particular to perpetuate the causal logic that sees the artistic process as one wherein a “material” is formed in accordance with the artist’s initial “idea” into a finished “work,” which is then exhibited within a space and only then met by an audience. To a large extent, we lack a model of knowledge capable of shedding light on artistic capabilities and competences with respect to the complex conditions of daily practice at the present moment.

To summarize: new conceptual tools and approaches are sorely needed that go beyond outdated notions of representation and transcendence. In particular, we need tools and approaches that would allow artists and theorists to articulate *how transformation is established*, based on an understanding of the artistic work and the artistic process as effects of and engagements with complex transversal processes. These new ways of working form the focus of the next chapters.

CHAPTER 3: CONCEPTUAL FRAMEWORK

Prelude

This research project explores the immanent and transversal processes of transformation that inform and emanate from artistic practice within sound installation. In confronting the task of explaining how such transformation occurs, I propose a conceptual framework and set of concepts that draw on a philosophy of immanence informed by the French philosopher Gilles Deleuze and the French psychoanalyst and activist Félix Guattari, mainly through the texts *A Thousand Plateaus: Capitalism and Schizophrenia* (2009 [1980]), Deleuze's *Spinoza: Practical Philosophy* (1988 [1970]) and Deleuze and Guattari's *What is Philosophy?* (1994 [1991]). I also use the ideas and concepts of a number of urban and social theorists who have been informed by Deleuze and Guattari and whose work has helped me to articulate and explore critical issues within my own field of research and artistic spatial practice.

The chapter explores this theoretical framework over a number of sections, setting out an introduction to the specific ideas and related concepts that have informed the research, and a conclusion which specifies how these have been used in this doctoral research itself.

Production and Immanence

Central to all philosophies of immanence is the idea that all “production”—which is to be understood in the most open possible way—emerges on the same “plane of production,” that is without any external influencing factors. Everything that emerges is thus understood as constituting effects of various factors within this system. Viewing production as an immanent process in line with such a philosophy, I have therefore accorded the terms *assemblage* and *body* particular weight in this thesis.

“Assemblage” is a key concept in a number of discourses that pursue a “flat” ontology by rejecting ontological transcendence. Philosophers who have defined and applied the concept include Bruno Latour, whose Actor Network Theory (ANT)—particularly as it is expressed in the book *Reassembling the Social* (2007)—originally written in a social science context as a critique against social constructivism. Further, Manuel DeLanda’s *A New Philosophy of Society: Assemblage Theory and Social Complexity* (2006) also constitutes a form of assemblage theory that draws loosely on the work of Deleuze and Guattari. Jane Bennett’s *Vibrant Matter—A Political Ecology of Things* (2011) also utilizes the concept of the assemblage, combining Deleuze and Guattari’s position with that of Actor Network Theory. In this thesis, I use the concept of assemblage in the sense that it is elucidated by Deleuze and Guattari, particularly in *A Thousand Plateaus*.

Assemblage (in French *agencement*), like all of Deleuze’s philosophical concepts, should be understood as an attempt to respond to a philosophical problem. In this case, the problem being addressed is the prominence of notions of representation in Western philosophy since Plato, to which Deleuze offers a direct critique and an alternative (Adkins, 2015, p.10; Spindler, 2013, p.12). Philosopher Christoph Cox sums up this legacy by reminding us that “the ancient and venerable hylomorphic model according to which the genesis of entities requires the external imposition of form upon an inert matter. Such is the account of formation in the Judaeo-Christian tradition, Plato, and Aristotle; and it continues its grip on the scientific and aesthetic imagination today” (Cox, 2011, p.151). The Western idea of production (of life) is, in line with Cox’s critique, historically based on notions of transcendence and genesis, favouring the external imposition of form upon inert matter and the subsequent separation of

form from content. The notion of assemblage is a reaction against this model of understanding and offers us a way out from it.

A philosophy of *immanence* sees all production as emerging on the same “plane of production,” without external factors affecting its emergence. Deleuze thus describes “a *common plane of immanence* on which all bodies, all minds, and all individuals are situated” (Deleuze, 1988, p.122). Everything created within a system or context is generated solely depending on processes within that system. The notion of assemblage, or body, can in this way be used to articulate a view of production as an immanent process. This operates on every level—at all scales, and across all domains, from a sound to the urban social body. Or as Deleuze’s oft-quoted formulation:

A body can be anything; it can be an animal, a body of sounds, a mind or an idea; it can be a linguistic corpus, a social body, a collectivity”
(Deleuze, 1988, p.127).

Assemblage, in this conceptualization, figures production as occurring not through transcendence but through the *emergence* of inter-relational connections. Production (of life, of urban space, of a sound installation) is to be understood as a *machinic* and *transversal* process: a flow of emergent interconnections that are generated by the establishment of affective relations between heterogenic components. Both functions and identities emerge from the flows between these components, and the flows themselves span between chaos and relative points of stability. “What we term machinic,” Deleuze and Guattari explain, “is precisely this synthesis of heterogeneities as such” (2009, p.330). Through life’s machinic or transversal character, through the establishment of new connections between distinct domains—between the biological and the non-biological, and between

the discursive and the non-discursive—life operates *rhizomatically*. Deleuze and Guattari write:

We think that the material or machinic aspect of an assemblage relates not only to the production of goods but rather to a precise state of intermingling of bodies in a society, including all the attractions and repulsions, sympathies and antipathies, alterations, amalgamations, penetrations, and expansions that affect bodies of all kinds in their relations to one another (ibid., p.90).

The notion of assemblage should, when viewed from such a position, be considered a direct critique of the binary divisions of subject and object, idea-matter, nature-culture, form-content, which together constitute a red thread that runs through the Western cultural tradition.

In this doctoral research, the concept of assemblage has enabled me to articulate a mode of artistic practice in which site-specific sonic conditions and production operate as immanent, inter-relational, machinic, and transversal processes. I acknowledge the importance of this way of thinking in the subtitle of the thesis, “Transversal Processes in Site-Specific Sonic Practice,” and its influence can be seen in the previous chapter’s presentation of the field. As I have suggested through my descriptions, the initial explorative process, the establishment of spatial perception, the development of sonic strategies and technology, and the construction process on site, all emerge as the result of complex, machinic interconnections that span transversally *between* “the site,” “the artwork,” and the “artist-subject.” In this, I advocate a move beyond the traditional separations that establish these as three distinct entities.

Affectively Engaging with Other Bodies

I view artistic practice as a dynamic and “affective” process, wherein the sonic work emerges in encounters and confrontations between assemblages or bodies and their internal components. Deleuze and Guattari’s notion of assemblage and the idea of one production plane, a “plane of immanence” characterized by transversal becomings in constant flux, is directly informed by the 17th-century philosopher Baruch Spinoza and his work *Ethics*. In this text, Spinoza described life as one substance, one body, or one immanent plane that both produces and expresses life. In Deleuze’s reading of Spinoza, a body or assemblage is created on the basis of two principles: on the one hand, a “kinetic” principle, and on the other a “dynamic” principle. The kinetic principle, also termed “longitude,” concerns the incalculable number of particles and their internal relations of different degrees of speed and rest, which together establish the body and express its form of individuality—what we refer to as “the subject.” The dynamic capacity, which is also termed “latitude,” concerns both the body’s own capability to *affect* (to impinge on) other bodies and its capacity *to be affected* by other bodies (Deleuze, 1988, p.123). The study of the affective relations between bodies, the affects that bodies are capable of, and how affective relations generate bodies, is what Deleuze, in *Spinoza: Practical Philosophy*, terms “ethology” (ibid., p.125).

As a state of relation between heterogeneous parts, including the capacity to act and be acted upon, “affect” is a crucial force for production. Affect should, as philosopher Brian Massumi cautions, be understood as a pre-perceptual and pre-personal trigger, which is caused by an external force and *only later* transformed by individuated subjective perception into feeling and emotion (Massumi, 2002). In terms of individuated emotion, affect and perception should be un-

derstood as different states in the establishment of the constitution of a body. While affect is a pre-personal force that occurs *between* bodies, perception or feeling should be considered as an act of individuation *of* a specific body (the self). In this way, affect and perception are always connected but are not equivalent, and affect is the precondition that is required in order to establish a feeling. In order to understand what is truly radical in affect, one must therefore consider affect not as a force created within the body, or a response to something which in its turn is individualized as a feeling, but as a force created between bodies in becoming. Massumi describes this in terms of an act of participation and involvement in (and confrontation with) the world—an intensive glow, which sets the world into motion and thus resists entropy. As he puts it:

affects... do not simply *belong* to a body. Rather, there is always something that goes beyond felt and recognized affection and its “capture” within a body. There is always an excess of affect that is inseparable from but inassimilable to any *particular* functionally anchored perspective... if there were no escape, no excess or reminder, no fade-out to infinity, the universe would be without potential, pure entropy, death (ibid., p.35).

In this thesis, the conceptual tools of body, affect, and ethology have allowed me to explore artistic practice’s spatial conditions *as* affective processes, and to argue that these conditions are not only established by subjects or objects but are inter-relational, affective, and emergent. As a transversal process emerging from such conditions, the sonic work traverses human/non-human and material/non-material domains, establishing complex assemblage of politics, culture, and ideology. This position on sonic artistic practice resonates strongly with urban sociologist Cameron Duff’s take on urban space, which I return to repeatedly in the thesis. In Duff’s view:

Rather than distinguish bodies from the complex places they construct—subjects from their contexts—Deleuze’s ethology offers a processual vision of city life, highlighting events and encounters and the affects and relations by which these events compose or construct the city (Duff, 2013, p.222).

This conceptualization makes visible the ethological potential of artistic practice: such practices literally emerge as encounters between “bodies.” Understood from a non-anthropocentric perspective, these bodies—the loudspeaker cable, the artist subject, soundwaves, the topology of the site, discursive models of interpretation, etc.—all constitute elements that possess an affective capacity in the establishment of the work. The artwork, places, cities, and life itself can all be understood in these terms, as affective processes that occur between bodies in encounter. An “ethological-ecological” approach to artistic practice encourages that we understand each of these things as trajectories, as fleeting and as interconnected. Even when the connections between different spheres might not at first glance always be visible, what is happening in one part of the system has an impact on the system as whole.

Sound and Immanence

Understanding artistic practice as dynamic and the artwork as the effect of transversal, affective processes radically changes how we might think about sound. In the view that I am advancing here, sound emerges *as an effect* of affective, transversal, and immanent processes that take place before sound. This is an argument which I develop throughout the research project.

In “Chapter 2: Contextualisation—Artistic Strategies within the Field,” in the section “Sound’s Contextual Capacity,” I address the

established canon in contemporary sound theory. These canonical understandings of sound all hold that in order to being able to have meaning, sound must operate as a sign of representation. This common outset, I argue, ignores the transversal and immanent processes that are evident in actual artistic practice. In this thesis, I therefore choose to depart from that canon, exploring an alternate trajectory whereby sound is understood in terms of immanent and affective processes. In tracing this alternate path, I draw on both Steve Goodman's notion of sound as an affective, "vibrational" force (Goodman 2009)²¹ and Christoph Cox's immanent approach to sound which sees it as material forces of nature, and thus not ontologically "representing" anything (Cox: 2011).

Goodman's position, which is informed by the ontology of affect formulated in Spinoza's *Ethics*, claims sound to be the consequence of confrontations between affective elements, and the effect of a universe filled with "basic processes of entities affecting other entities" (Goodman, 2009, p.71). Sound, for Goodman, is the effect of a universe made up of affective processes that appear in constant becoming and between bodies in affect, in which only a few of these effects fit within the human audible register—in the category of what we call "sound." In this way, sound ontologically exceeds the anthropocentric dimension. Goodman advocates that as a result "the linguistic imperialism that subordinates the sonic to semiotic registers" must be rejected, as it fails to see "the more fundamental expressions of their material

21) Goodman writes: "If affect describes the ability of one entity to change another from a distance, then here the mode of affection will be understood as vibrational. In *Ethics*, Spinoza describes an ecology of movements and rest, speeds and slownesses, and the potential of entities to affect and be affected" (Goodman, 2009, p.71).

potential as vibrational surfaces or oscillators” (ibid., p.71). Beyond this critique of the hegemonic status assumed by semiotics, he also critiques dominant phenomenological models of sound within music and sonic analysis, stating that “the phenomenological anthropocentrism of almost all musical and sonic analysis, obsessed with individualized subjective feeling, denigrates the vibrational nexus at the altar of human audition” (ibid., p.71).

A similar approach can be found in the work of the philosopher Christoph Cox. Cox claims that the primary reason why sonic practice has been so profoundly under-theorized is that “the prevailing theoretical models are inadequate to it. Developed to account for the textual and the visual, they fail to capture the nature of the sonic” (Cox 2011, p.145). Informed by Deleuze’s philosophy of immanence, Cox argues that ontologically sound *does not represent anything*. As one material force among others, sound should instead be understood in terms of (sonic) virtual forces and intensities in constant becoming, a transformation whose nature Cox claims is immanent (ibid., p.150). Instead of understanding sound art as signs and forms of representation, sound should instead be understood as a complex of such material forces of nature (ibid., p.148). Through their different approaches to sound, Goodman and Cox direct a strong critique against phenomenology and against poststructuralist semiotics, denying textual and visual forms of representation as a legitimate basis for understanding sound as a carrier of meaning.

In this research project, I argue that sound or the sound work can be understood as an effect of affective processes. This position forms the basis of how I explore and attempt to make visible the ways in which site-specific sonic practice emerges as an *effect* of a complex, transversal, affective process that spans various modes of operation which take place *before sound*. In order to understand sound as an

artistic practice, one therefore needs to understand the complex process that precedes sound. An example of this approach lies in my treatment of artistic sonification: rather than acknowledging and maintaining sound in terms of representation or depicting inaudible data, I rather argue that sonification must be treated as an effect of transversal immanent processes. Equally, in exploring the sonic environment from such a vantage point, a site's soundscape becomes one affective entity amongst others in the design process behind the sonic work, affecting the artistic process in multiple ways, many of which exceed the sonic.²² In these explorations, I have used Goodman and Cox's work primarily in order to advocate a non-representational on-

22) See for instance urban sound designer Jordan Lacey's *Sonic Rupture—A Practice-led Approach to Urban Soundscape* (2016), which addresses acoustic design as area of research. The notion of soundscape and acoustic ecology is explored through a perspective founded in a philosophy of immanence, in particular by Brian Massumi's reading of the work of Deleuze and Guattari, and Félix Guattari's *The Three Ecologies*. With these theorists as support, Lacey's works aims "to align acoustic ecology with affect theory" (Lacey, 2016, p.viii), by developing a model for designing sound installations in terms of creative elements in urban cities that is informed by Deleuze and Guattari's concept of "rupture." Explicitly addressing the urban soundscape, Lacey seeks to create a model which through the introduction of sonic ruptures deterritorializes the established patterns of the urban soundscape, such as the rhythm of cars or ventilation systems.

Lacey's *Sonic Rupture* represents an important contribution in the application of post humanist and affect-theoretical perspectives in sound and urban design, fields which, as Lacey himself also mentions, have traditionally been (and still are) dominated by phenomenological orientation. Unlike Lacy and many researchers within acoustic ecology and urban design who deal exclusively with the sonic domain as an area of research, my firm view (as previously stated in this thesis) is that as a site-specific explorative practice, sound installation is not limited to the sonic. Rather, when viewed as a transdisci-

tological approach. This does not mean that forms of representation do not emerge as an effect when assimilated in the human domain of interpretation, or that I deny sound's associative capacity to evoke "images," "symbols," and "associations." Rather, I argue that these should be considered the products of an immanent process that takes place before human forms of representation are engaged.

Sound Installation as an Affective Practice

I am suggesting that artistic sonic practice operates as a transversal process and an ethological practice that occurs between bodies in affective encounter, in which art aims to renegotiate "site." From an artist's perspective, this view encourages that we pay attention to the transformative capacities of an artistic process, not staying with what the place in question *is* but what it actually could *become*. The (artistic) work of initiating this kind of transformation can be located in the relation between what is and what could be; Deleuze and Guattari's notion of the *virtual* and the *actual* is thus particularly helpful in articulating how such a practice might operate. Understanding "the virtual" and "the actual" as Deleuze and Guattari articulate these terms requires that we adopt a view that sees life as a continuous process consisting of both fully real capacities that have not been yet actualized and actualized forms of expressions. Life, according to Deleuze and Guattari, consists of two aspects or domains in constant correspondence. On one hand, the *virtual* is the state in which life flows in a domain of capacities that is real but yet non-differentiated, and thus comprises non-actualized forms of affective intensities—this domain is what they call the "plane of immanence." On the other, there also

plinary, contemporary, artistic practice, sound installation operates across all domains of a society, from the highly perceptual to the highly discursive.

exists an *actual* domain in which life is expressed as *actualized* expressions of subjectivities, individualizations, and identities—what we traditionally refer to as “subjects” or “objects” (for instance, a person or a building). Such forms of expression should however be understood as complex affective force relations—emergent properties—on the plane of immanence. The *virtual*, in terms of not yet actualized capacities, here constitutes the genealogical ground for the *actual*.

Deleuze and Guattari consider art to be a link between the actual and the virtual: art, for them, puts us in contact with life’s infinite pre-personal forces. They describe this in the following terms:

Art wants to create the finite that restores the infinite: it lays out a plane of composition that, in turn, through the actions of aesthetic figures, bears monuments or composite of sensations (Deleuze and Guattari, 1994, p.197).

From this point of view, rather than the creation of forms, art should be considered to be a “capturing of forces.”²³ Through the artwork, a link is established that makes perceptible forces that are not normally possible to experience, transforming the living body in the process.²⁴ Artistic practice thus emerges as the act of capturing these non-per-

23) The notion of art advanced by Deleuze and Guattari could be considered to be informed by an academic and modernist tradition, which could be questioned in many ways (including its choices of artists). However, I am less interesting in these aesthetic preferences, which were coloured by their time, and rather more interested in their ideas about affect and immanence in relation to art. This forms the outset for my attempts to articulate the role played by transformation in sound installation as a site-specific practice.

24) In his work on Francis Bacon, Deleuze writes that “It is in this way that music must render nonsonorous forces sonorous, and painting must render invisible forces visible” (Deleuze, 2003, p.57).

ceivable yet fully existing forces, and making them perceivable. In so doing, art expands and breaks boundaries in relation to the experience of what life actually could *become*, exceeding the symbolic subjective domain in order to become an extraction of real affective forces that possess a strong capacity to affect. In *What is Philosophy?*, Deleuze and Guattari describe art as a “thinking modus” that passes through affects and percepts, and an affective practice that relates the virtual and the actual and thereby establishing a “compound of sensations” (Deleuze and Guattari, 1994, p.164). This compound of sensations exceeds the artwork itself, putting us in contact with life’s infinite forces.

In my everyday work with the practice of sound installation, my pursuit of a philosophy of immanence has demanded that I constantly focus not on what is, but what could be. I see this in turn as depending on an ability to experiment with and elaborate upon a site’s inherent capacities, as an artist, and the transformation of those capacities into new affective experiences. Further, the concepts of “the virtual” and “the actual” have allowed me as a researcher to expose and articulate the inherent virtualities and expressions of actualization that constitute crucial aspects of sound installation as a site-specific process. These two concepts have been useful in explaining the initial act of mapping a site’s embedded virtualities and its specific expressions of actualization, just as they have helped me to elucidate the way in which the process of establishing the artwork on site can be understood as a process of transformation. These concepts have further allowed me to articulate my practice through a discussion of the way in which inherent virtualities within a specific site are actualized and take on new affective expressions.

I argue in this thesis that through a number of artistic strategies (the thematic exploration; the development of spatial, sonic, techno-

logical strategies and the on-site installation) sound installation creates compounds of sensations, affective forces that put the recipient in contact with life's unformed intensive forces. As a site-specific practice, sound installation can thus be considered to constitute a mode of thinking which, through these affective approaches, transforms our specific notion of and relation to a particular site.

Public Space, Art and Politics

As a real, affective force able to expand and break boundaries, sound installation thus possesses a transformative capacity, and it is this capacity that forms the point of departure for my own artistic practice. All of the cases addressed in this thesis were projects that took place outside of institutionalized art exhibition spaces. In each of these projects, the transformative capacity of sound installation was explored in the specific context of the conglomerate of political, social, and architectural bodies that is "public space."

I have found French philosopher Jacques Rancière's philosophy of "the distribution of the sensible" (in French, *le partage du sensible*) particularly useful in thinking through the transformative and affective capacities of sound installation in public space. In particular, Rancière's *The Politics of Aesthetics* (2004) and Swedish editors Jonas Magnusson and Kim West's introduction to the publication *Texts About Politics and Aesthetics* from 2006 (in Swedish, *Texter om politik och estetik*) have been important references.

Rancière's philosophy can be read as a political theory or *poetics*, which addresses the political experience's "aesthetic dimension," by means of political and historical inquiry. Here, aesthetics does not primarily relate to art and taste, but rather to time and space as sensory and perceptual forms of configuration, which in turn affect each

person's place in society and forms of sharing of the common and the private (Magnusson and West, 2006). Rancière proposes the notion of "the distribution of the sensible" in order to elucidate the ways in which the political is aesthetic. According to Rancière, the political is to be understood as the distribution and redistribution of certain forms of sense perception in society. In *The Politics of Aesthetics*, he writes:

I call the distribution of the sensible the system of self-evident facts of sense perception that simultaneously discloses the existence of something in common and the delimitations that define the respective parts and positions within it. A distribution of the sensible therefore establishes at one and the same time something common that is shared and exclusive parts (Rancière, 2004, p.12).

Magnusson and West explain that Rancière uses this key concept in order to define "the political" as what is permitted and not permitted, or accessible and inaccessible in the order of the perceptible in a specific situation in time and space. Furthermore, it is this distribution which dictates what can be said and what cannot be said, what can be displayed and not displayed, and what constitutes a community and what doesn't, by deciding who is included and who is excluded, whose words are counted as meaningful and whose words are not, and who is eligible to govern and who is not (Magnusson and West, 2006).

Through the distribution of the sensible, politics should be understood in terms of the configuration of a specific space and the distinctiveness of a certain sphere of experiences. Politics, as Rancière points out, is the very conflict over the existence of this space (Rancière, 2004, p.94). Rancière claims that representative democracy (which he also refers to in terms of "consensus") must be considered to constitute a

hegemonic power order, which in itself implies an exclusion of parts of a society and the exclusion of what never came to be represented. In response, the philosopher defends the notion of dissensus within democracy, emphasizing the importance of seeing society as a process, wherein there always exist forms of sense perception waiting to be actualized. Politics, according to Rancière, is about re-configuring the distribution of the sensible by defining the “common” of a given society, by introducing new expressions of subjects and objects, and in this way making visible that which was previously invisible.

From this perspective, public space emerges as a temporal and spatial distribution of *certain* expressions of sense perceptions. When connected to Rancière’s conceptualization of dissensus, public space can be understood as the place where the heterogenic, the disparate, and the non-representational elements of society are allowed to appear, through an ongoing process of differentiation of new perceptual experiences. The aesthetic, in such a model, is found in the configurations of experience that create new modes of sense perception and induce novel forms of political subjectivity (ibid., p.9).

As Magnusson and West point out, for Rancière art is not political through its “messages” or the “feelings” it mediates. Equally, even though it reflects on the structures of society and different social groups conflicts or ideas, it is not “politics” per se. Rather, it is in the very distance it takes from these functions—or, using Deleuze and Guattari’s terminology, through forms of actualization—that art can be considered political. Through this distance, art possesses a capacity to establish new expressions of distributions of the common world, reconfiguring the common territorium. In this way, Magnusson and West claim, art occupies a place in order to redistribute the relations between “bodies, pictures, spaces, and temporalities” (Magnusson and West, 2006, p.95).

I have used Rancière's ideas about art's capacity to redistribute the sensible less as a conceptual approach to be applied through my artistic practice and rather more as a point of departure and a way of positioning myself in relation to working in public space. My interest in research and artistic terms lies in sound installation's transformative and affective capacities, and public space as a situated node from which a society's embedded potential, its forgotten and suppressed forces, can be reactivated and exposed through art. From a clang, a noise, or a tone, other possible worlds can appear. Working as an artist is always to be engaged in a practice, and the position I have sketched in this chapter is one that is oriented towards bringing to the surface what life could become. This way of working, I argue, involves creating alternatives; foregrounding subjects, narratives, relations, and identities that are not or never have been present; and giving these absences presence by giving them a sonic dimension.

**CHAPTER 4: EXPLORATIVE APPROACHES
—TOWARDS A TRANSVERSAL PRACTICE
OF SOUND INSTALLATION**

Prelude

“Chapter 2: Contextualization” of this thesis provides an account of the multidisciplinary of sound installation, a practice that I see as engaging in several artistic strategies simultaneously, involving the thematic exploration of site; spatial sensibility; sound’s contextual capacity; technological strategies; and the on-site installation process. In that chapter, I also address the deficiencies of established theoretical traditions within my field, arguing that in their reliance on notions of representation and transcendence they in fact contradict and even conceal the actual conditions of site-specific sonic practice in terms of its transversality.

“Chapter 3: Conceptual Framework” of the thesis outlines the ways in which production can be understood to be “immanent” and site-specific conditions and production to operate as “transversal, machinic processes.” In that chapter, I explain that the artistic modes described in Chapter 2 can in practice be understood in terms of affective encounters and interconnections, which together establish the sonic work as an effect. It is through the establishment of complex, machinic interconnections that span transversally between the site, the artwork, and the artist subject that a sonic work thus emerges. In Chapter 3, I also describe the practice’s “ethological” capacity, showing how it quite literally constitutes an encounter between bodies. In addressing sound installation in these terms, I emphasize the importance of adopting a non-anthropocentric perspective: the loudspeaker cable, the artist-subject, sound waves, the site’s topology, as well as discursive models of interpretation all comprise components which possess an affective capacity in the establishment of the artwork. Building on this, I also outline how sound installation operates as an affective practice, which creates compounds of sensations

and affective forces. This artistic practice, I argue, through its ability to act as a link between the virtual and the actual, puts the recipient in contact with life's unformed intensive forces. As a site-specific practice, sound installation constitutes a mode of thinking which, through these affective approaches, transforms our specific notion of and relation to a particular site. Finally, in Chapter 3 I also argue that from the perspective of site specificity, when public space is addressed as site for exploration, it should be considered less a specific topic and more a situated node from which a society's embedded potential, its forgotten and suppressed forces, can be reactivated and exposed through art.

In the present chapter, I outline three distinct approaches: namely, *mapping the affective lines*, an approach that addresses the initial process of thematic exploration; secondly, *establishing new connections*, which involves the artistic process; and thirdly, *becoming non-autonomous*, which concerns the role of the artist subject in the artistic process. Each of these approaches build upon an understanding of the artistic process as being transversal, which is also explored and articulated in relation to the cases in chapters 5-8.

The three approaches described here should be considered a consequence of my long-standing practice as artist, although they have also been informed by Deleuze and Guattari's philosophy of immanence and the related work of a number of urban and sound theorists that I address in elucidating my conceptual framework. My everyday artistic practice has given me in-depth knowledge into the complexities of sound installation, and in many cases my professional experiences did not match the common (theoretical) articulation of the field. In addition to this discordance, I have also noticed the absence of a vocabulary capable of articulating crucial conditions within the artistic process. This realization could be considered to spark a preliminary

phase of research that preceded my formal doctoral studies, in which I began to think through these issues as part of my daily artistic practice. The second phase of the research begun in connection to commencing doctoral studies. This phase constituted a more formal mapping of problem areas, including the identification and differentiation of critical nodes of interest within the artistic process. It was then that I also began to map artistic processes and develop conceptual tools in order to be able to articulate the complexity of the practices that I was addressing. The third phase of the research, which coincides with the final part of my doctoral studies, dealt with the process of designing the three explorative approaches described in the present chapter. Moreover, it was in this phase that I also carried out the four artistic processes that are articulated in this thesis, and began to develop a vocabulary and conceptual framework in close conjunction with my research findings and reflections on the artistic processes undertaken.

It should be emphasized that the aim has less been to establish new artistic strategies (for instance, alternatives to “sonification” or “spatialization”). Rather, the approaches that I have arrived at should be regarded as tools or keys that articulate and shed light on the transversal conditions that provide the foundation of artistic modes from a practice-based perspective. The three approaches were specifically developed in order to explore transformation as a transversal process in site-specific sonic practice. Thus despite the fact that some parts of the artistic process of sound installation already possess established methodologies for the analysis and articulation of the process (for instance, the initial thematic process of exploration),²⁵ my aim has

25) For example, auto-ethnography has gained a lot of attention in recent years as a reaction against established binaries between researcher-subject and object of inquiry in ethnography and site-related practices. See, for instance: Kajsa Lawaczeck Körner, *Walking Along Wondering Off and Going Astray—A Critical*

been to develop approaches that specifically enable the visualization of various crucial instances of transformation. Rather than two distinct levels, the artistic process and the analytic tools offered by the approaches should be considered to act as two different modes of the same process. The process and approaches engaged in an affective encounter, constantly interfering with and affecting each other, when writing this thesis.

Over the course of my doctoral studies, these approaches altered and transformed. Initially, I used them as tools for analysing already completed processes, with the aim of proposing alterations to make them more active in the artistic process. This meant that the approaches weren't fully developed when the first artistic process, *Currents*, was undertaken. In addressing this case in the thesis, rather than choosing to ignore this incompleteness, I have chosen to make this gap visible by juxtaposing my earliest artistic intentions of developing the sonification in line with an established notion of representation with the subsequent analyses of the sonification process, in which the actual process of sonification is exposed as being highly transversal. This in turn emphasizes the dynamics and complexity of sonic practice.

In the cases set out in Chapters 5-8, the different explorative approaches are used in parallel in order to explore the breadth of the complexity available to artistic practice, albeit with different weight in different cases.

Normativity Approach to Walking as a Situated Architectural Experience (Körner, 2016).

Mapping the Affective Lines

In the section “The Issue of Site-Specificity” in “Chapter 2: Contextualization,” I outline the ways in which established notions of site—and thus also the artistic process of site-specific exploration—are rooted in traditions that, in their reliance on the notion of representation, tend to separate the material, the discursive, and the perceptual. This separation, I warn, creates binaries between “top-down” and “bottom-up” processes. In order to move beyond representation and instead shed light on the extent to which spatial production and site are affective and machinic assemblages, other ways of contextualizing artistic exploration and the practice of mapping must be developed.

Responding to this challenge, in this research project *mapping the affective lines* is put forward as a first explorative and analytical approach in relation to the initial site-specific process of exploration. This approach is supported by the conceptual tools of *line*, *cartography*, and *haecceity*²⁶ (the latter of which I also referred to in terms of *thisness*), which I have found helpful in articulating affective and transversal ways of exploring and mapping a site. I use Deleuze and Guattari’s elucidation of the line and cartography in tandem with the urban theorist Doina Petrescu’s application of these concepts in relation to an urban discourse, a theorization which she sets out in the essays “Relationscapes: Mapping Agencies of Relational Practice in Architecture” (2012) and “The Indeterminate Mapping of the Common” (2007).

The “line” is a central concept in *A Thousand Plateaus*. Deleuze and Guattari’s mapping of the social uses the concept of the line in

26) Pronunciation [hek'si:ti,]. Source: <https://en.wikipedia.org/wiki/Haecceity> (Accessed 20180827). Definition will follow later in this section.

order to describe how assemblages operate as affective machinic processes. As Doina Petrescu acknowledges, their use of the line is as an abstract and complex metaphor, which maps a society's whole social sphere in terms of affective forces and intensities (2012, pp.137-138). The line could from this outset be acknowledged as a tool which directs our attention to the intensive emergent processes that form a site and a society. Unlike the actualized expressions that are referred to as "points" in their schema—that is, what we usually refer to as subjects or objects, but also more abstract entities such as politics, ideology, and the expressions that form a site's identity—the line emphasizes affective processes that are in becoming and are located on the plane of immanence or consistency, which create the points and the relations between the points on that plane. As Deleuze and Guattari put it, "A line of becoming is not defined by points that it connects, or by points that compose it; on the contrary, it passes *between* points" (2009, p.293). A society's affective lines describe the expressions of power structures within that society, whilst also calling into question these structures. As opposed to the "point," the line, as Petrescu describes it, is a dynamic element—it is thus abstract and complex enough to address the entire social field and its affects, politics, desires, and power. It is able to map the way that life proceeds at several rhythms and at several speeds. "Deleuze and Guattari's *agencements*," she explains, "are made out of lines which do not measure spatial distances but forces and intensities" (Petrescu 2012, p.137).

The practice of *cartography* deals with mapping the affective force relations—the urban body's lines—which constitute a place. Petrescu points out that in addition to the concept of cartography, Deleuze and Guattari use a range of other terms to refer to the mapping of how affective relations are established and how the inherent forces affect each other. "What we call with different names—schizoanaly-

sis, micro-politics, pragmatics, diagrammatics, rhizomatics, cartography—is nothing else but the result of the study of the lines that we are,” she explains (Petrescu, 2007, p.90). As a mapping or diagramming of public space, Petrescu sees cartography as dealing with the capacity to localize how flows of desire, affect, and forces organize the lines that together constitute the assemblages we refer to as “public space” and “society.”

In conjunction with the key concepts of the line and cartography, I also use the term *haecceity* (or, *thisness*). *Haecceity* (a *haecceitas*, from the Latin *haec*, means “this”) originally derives from the work of medieval philosopher John Duns Scotus. The term refers to a phenomenon not initially in terms of a subject but rather as the sum of a body’s complex material-immaterial processes, which are experienced through its capacity to evoke affect at a certain moment, through certain tendencies or thresholds. The term orients us towards the qualities that produce a phenomenon’s individuality—not merely its physical and extensive qualities, but its intensive and affective qualities, and its ability to create affect in connection to our perception, sensation, and experience. *Haecceity* can thus broadly be explained as the threshold of consistency that holds together a phenomenon as it is experienced as that specific phenomenon. The concept of *haecceity* therefore differs entirely, as Deleuze and Guattari point out, from a “subject, thing, or substance” which refer to something fixed and static (Deleuze and Guattari, 2009, p.261).

In my daily practice on site, spatiotemporal phenomena are not easily delimited, and recognizing, exploring, and articulating such phenomena is an important part of my everyday work. The weather, for example, plays a crucial role in steering a process on site. Similarly, a site’s social activities transform over the course of the day, significantly impacting on how the site in question is experienced and how

it is dealt with through an artistic process. I use the term *haecceity*, or *thisness*, in order to articulate and expose the specific and temporary thresholds of intensities that constitute a site, as well as to talk about the ways in which the site affects the (site-specific) artistic process in ways that in turn constitute the artwork.

The explorative approach *mapping the affective lines* is thus reliant on the conceptual terms *line*, *cartography*, *diagram*, *mapping*, and *haecceity* or *thisness*, which I deploy in order to explore and expose the affective conditions present on site. I see these conditions as a crucial part of the initial explorative process. A key, intended to open up for the articulation and exploration of the processes, relations, and transformations that transversally span between different domains on a site, *mapping the affective lines* addresses not only what a place *is* but also what it *could become*. It serves as help to expose and deal with the very concrete encounters and confrontations with a site, which play out in terms of an ethological, affective, and generative process. The approach and its related concepts make it possible for me to articulate the ways in which my practice in fact constitutes an encounter between bodies (my body, the site's infinite bodies), and how it operates as a generative, rather than generalized, reading. Hence, mapping here should be understood as a critically situated, affective practice and an approach in which the site's inherent agencies and capacities are exposed and engaged with. It is crucial that the practice and explorative approach of mapping is understood not as an act of representing a reality, but as an affective encounter and confrontation with the forces—virtual and actual—that generate a site. Mapping as a practice, as Petrescu states, is not primarily about “representing” or “conceiving” but rather about “enhancing experience” (2012, p.137). Her position is thus at odds with a notion of mapping as standing outside, looking *at* an object. Instead, it considers mapping to be an engagement *with*

the force relations constituting a place. This will be further highlighted below in relation to “Becoming Non-Autonomous.”

Establishing New Connections

If one part of the site-specific sonic process deals with the exploration of the affective lines that together compose a place, another part lies in tackling the complex question of how the creation and development of a transformative sonic work of the kind I address in this thesis in fact modifies the existing assemblage of the place.

I have previously outlined an understanding of sound installation as an affective practice, which creates compounds of sensations and affective forces. Artistic practice here acts as a link between the virtual and the actual. From the artistic practitioner’s perspective, transformation is dependent on the capacity of incumbent forms of actualization, already present on the site, to be modified in order that the inherent virtual capacities might be extracted and something new produced. My approach to this artistic design process of producing transformation is discussed here in terms of *establishing new connections*.

As discussed previously in “Chapter 2: Contextualization,” the artistic process of sound installation continues to rely on established traditions of thought that privilege notions of representation and transcendence. In contrast to such thinking, I have argued that transversal understandings of the site-specific artistic process emphasize the making of *new* connections between the existing components of a context (“components” understood in their broadest form—i.e., as material, human, political, etc.) and the components that the artist includes, inserts, or finds (e.g., the loudspeaker cables or sound waves). Together, these two sets of components reformulate the con-

text, establishing new affective relations. Site-specific practice is thus never simply about placing a finished work in a context—rather, it constitutes an act of *redistribution* in relation to the agencies of a site.

In this thesis, I draw on Deleuze and Guattari’s concept of *machine* in order to articulate and make visible this redistribution of agencies and establishment of new connections. In “Chapter 3: Conceptual Framework,” I describe how Deleuze and Guattari’s notion of “immanence” radically revises our understandings of artistic and spatial production. There, I sketch out an understanding of production as a flow of emergent interconnections, generated by the establishment of affective *machinic* relations between heterogeneous components. “What we term machinic,” Deleuze and Guattari state, “is precisely this synthesis of heterogeneities as such” (2009, p. 330).

The *machine*, the *machinic*, the *transversal*, and *deterritorialization* are all relevant to *establishing new connections*, helping us to explore how transformation actually takes place in the everyday realities of artistic practice. With reference to my own work with sound installation, these concepts allow me to describe how such a “synthesis of heterogeneities” actually takes place. Deleuze and Guattari describe the machinic process itself as a deterritorializing process, stating that “a machine is like a set of cutting edges that insert themselves into the assemblage undergoing deterritorialization, and draw variations and mutations of it” (2009, p.333). If the concept of *assemblage* describes the affective, machinic, inter-relational connections that emanate from structures of disparate elements, then in contrast *territorialization*, *deterritorialization*, and *reterritorialization* describe how these structures are organized and how identity is formed and transformed. Territorialization, according to Deleuze and Guattari, should be understood as the form of organization through which all forms of life occur, and through which they establish their forms of identity in or-

der to become “expressions.” A function, however can become important enough to establish its own autonomy and develop the capability to deterritorialize its original territory. Establishments, demolitions, and reestablishments are therefore part of this continuous process. Deterritorialization is thus inseparable from the process of transforming identities, while reterritorialization constitutes the final stage of such a process, which in turn is always followed by new processes of territorialization. Consequently, the transformation of the coding of a phenomenon is embedded in territorial practices—or, as Deleuze and Guattari claim in *A Thousand Plateaus*, “The territory is just as inseparable from deterritorialization as the code from decoding” (ibid., p.505).

In *establishing new connections*, the artistic process is revealed as both transversal and transformative, a reframing which also exposes the establishment of machines. The establishment of new connections is a crucial part of the artistic process in the different artistic modes described in “Chapter 2: Contextualization” (e.g., “sonification,” “technology,” and the “on-site installation”). Through this approach, the artistic process can be understood as the production of *deterritorializing* machines and “cutting edges,” and resulting in the establishment of new affective territories.

Becoming Non-Autonomous

If the two explorative approaches of *mapping the affective lines* and *establishing new connections* deal with the initial explorative process and the artistic process, *becoming non-autonomous* deals with the role of the artist-subject in transversal artistic practice. In “Chapter 2: Contextualization,” I discuss the way in which established traditions in contemporary art practice still harbour segments of binaries that sep-

arate an autonomous active (white, male) subject and a (passive) urban text. Rejecting this traditional view, in proposing that we *become non-autonomous*, I advocate that we view the artist-subject's agency in artistic production as transversal.

This is in part the result of my pursuit of an affective, ethological practice. To *become non-autonomous* requires that we address production as a generative encounter between bodies, in which (emphasizing non-anthropocentric perspectives) the artist-subject is one body among a multiplicity of others. This implies that the artist subject is always non-autonomous and in continual relation and emergence with its environment. Urban sociologist Cameron Duff claims that such an idea of ethology *spatializes subjectivity*, implying "an embodied subjectivity, a situated or *spatialized* subjectivity that is always, already a multiplicity. It is a subject of connections and relations in the mind and of affects and relations in the flesh, all constituted in the manifold encounters of immanent experience" (Duff, 2013, p.222). Through their encounter with the city, the subject is distributed "among and between the diverse objects, encounters and bodies that characterize everyday life" (ibid.).

By proposing the approach of *becoming non-autonomous*, I make use of Duff's conception of the artist-subject in terms of an ethological or spatialized subjectivity, exploring and articulating how this figure emerges and actually affects the site-specific artistic process. This approach allows me to address how the encounter with the diversity of agencies through the artistic process actually affects me as an artist-subject and in this way exerts a direct impact on the artistic outcome. This is something that is explored further through the cases.

Rather than rejecting the existence of the artist-subject from the outset, my aim is to investigate and shed light on the complexity of the artistic practice in which the artist as one affective body stands in

continuous relation with a multiplicity of other bodies. This point of departure encourages us to explore the decision making that occurs throughout the artistic process—from the mapping process to the establishment of transversal deterritorializing machines within the artistic process—as an affective, transversal process that bypasses traditional binaries like “artist” and “subject,” “artwork” and “site,” and the causality that traditionally characterizes the relation between the “artist-subject” and the “artwork.”

In conjunction with Duff’s work, I also use theorist of science and feminist Donna Haraway’s notions of *situated knowledge* and *partial perspective*. However “spatialized” the artist-subject is understood to be, it must always be considered as a subjectivity that is established by *specific* unique relations between *specific* conglomerates of biology and environment. In her famous essay “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective,” from 1988, Haraway critiques the traditional notion of “objectivity” in Western knowledge as the outset for the production of knowledge. She uses vision/seeing as metaphor to expose how knowledge has traditionally relied upon the so-called “god trick”—or, visual practices that emphasize an omnipresent, distanced, white, male vision, and define this as “objectivity.” Instead, Haraway claims that seeing is always specific: “all eyes, including our own organic ones, are active perceptual systems, building on translations and *specific ways* of seeing, that is, ways of life” (1988, p.583). In searching for an alternative to universalism, Haraway proposes an epistemology based on location, positioning, situating, and partial perspective, claiming:

I am arguing for politics and epistemologies of location, positioning, and situating, where partiality and not universality is the condition of being heard to make rational knowledge claims. These are claims on

people's lives. I am arguing for the view from a body, always a complex, contradictory, structuring, and structured body, versus the view from above, from nowhere, from simplicity. Only the god trick is forbidden (Haraway, 1988, p.589).

As part of the third approach—*becoming non-autonomous*—I make use of situated knowledge and partial perspective in order to explore how I, as an artist-subject, always operate from a specific, situated perspective, and how this affects the artistic process. My capacity to “decode” or not “decode” a specific situation actually affects the process of mapping; my own aesthetic preferences, which are strongly informed by a Western notion of fine arts, also affect the practice on a range of levels.

Conclusion

The three explorative approaches outlined in this chapter—*mapping the affective lines*, *establishing new connections*, and *becoming non-autonomous*—should be considered direct consequences of my involvement with site-specific sonic practice, and my theorization of its transversality. In Chapters 5-8 of the dissertation, these three approaches will be elaborated in terms of the artistic process and the specific situations that they occur within in practice.

PROLOGUE: SKY BROUGHT DOWN

Beforehand:
Creating a future. 2012.

I sat, staring at a plan of the new Bild- och Interventionscentrum (BOIC), a center for medical imaging technologies at the Sahlgrenska University Hospital, on my computer screen. I had been sent the file in connection to a proposed commission, which had been issued by the arts division of Region Västra Götaland, a regional governing body in western Sweden.

The BOIC, I discovered from the document, would use advanced imaging technology in managing life-threatening diagnoses and in the field of cancer treatment. The center would be one of the largest investments made in the hospital's history, and was to be housed in a brand new building adjacent to the central part of the existing hospital complex. Two of the proposed seven floors were to be constructed underground, and the center would sprawl across a total of 24,000 square meters of interior space.

I immersed myself in the minutiae that filled that package of technical drawings, trying to imagine, amongst all those color-coded fields, dotted lines, and symbols, a place that did not yet exist. These fields and lines traced, I reasoned, the contours of a body that had not yet been brought into being. The different zones of use of that body each had their own color: white denoted corridors, stairs and lifts were marked in orange, workplace was designated in blue, treatment rooms in green, and voids were grey. Pouring over these plans, I tried to read the building into existence, to bring it to life through my search for an entry point—a way in—amongst its technical specifications.

The commission related to a sonic artwork that was to be installed in one of the smaller patient waiting rooms. This space was marked

on the plans with a thick black outline. The room was to be used by patients who were awaiting treatment, and was adjoined by a smaller waiting room with a reception desk. People would either sit here, or lie down, each in her or his own space.

What could an artwork possibly do in this space? The artistic practice of sound installation relies on the ability of the artist to read a place, to try to locate an artistic entry point, to understand the consequences of that initial premise, and then to engage in an artistic negotiation with the site. In this case, producing an artwork would also require a high degree of honesty with respect to art's capacities. From the plans in front of me, I tried to locate any possibility for undertaking an artwork, and found none. No sound installation would be possible here, I realized: not in these silent spaces.

And so it was that I left the patient waiting room in peace, breaching the zone in which my intended work was to be sited, and began wandering further afield, through the clusters of lines that signified the corridors of the future facility. My gaze passed through fields of symbols, color-coded operating theaters, and various ducts and storage rooms, until it finally came to settle on the proposed atrium that would link the new building to the existing one.

Here, I stopped. From the 3D model illustrations, I tried to get a sense of overview with respect to the space. It was big: a five-story void that was dominated by an enormous staircase that led from the bottom floor all the way up to the top level. This was a circulation space that would connect a variety of different hospital functions and spaces. I envisaged people moving through the space, the bustle of everyday life in the hospital filling the space. Above the stairwell space, a glass ceiling would provide a direct connection with the sky. Beneath that ceiling, I imagined the daily lives of all the people who would spend their day within the vast spaces of the hospital building,

without contact with an exterior. Without being outside. I decided that it was here, in the momentary passage of all those bodies through this space, that the work could be situated, and its affects explored.

I knew what I would do: I would punch an imaginary hole in that ceiling and let the sky fall through it, tumbling down through the huge stairwell. I would let the sound of the wind gush from the upper levels to the ground floor and up again, in gusts, as wind does. I thought about how raindrops might at random fill the entire stairs with their sound, increasing in intensity with the intensity of the rain outside, permeating the crowd below as people made their way from one part of the hospital to another.

It is only now, half a decade and thousands of work hours later, that I understand that it was in that precise moment, in front of the computer, when I finally arrived at an approach for undertaking the work *Sky Brought Down*, that the ground was laid for my participation in what that site would later *become*.

CHAPTER 5: CASE 1
TRANSFORMING THE GLOBAL WARMING
INTO A SONIC EXPERIENCE
—ARTISTIC SONIFICATION AS A
TRANSVERSAL PROCESS

Prelude

October 2011. Foyer of the Oslo Opera House, Norway.

After pressing the amplifier's "on" button, I recall taking a moment to look across the foyer of the Opera House, watching visitors stroll around the enormous glass-covered space. The building sits on a bay of the North Atlantic, and fixing my eyes on the ocean harboring a contextual level, I allowed my mind to follow the Gulf Stream to its source in the Arctic, to imagine the meltwater from the glaciers flowing, via this swift ocean current, from the Arctic to northern Europe, to a scientific measurement station situated on the northernmost part of the Faroe Islands. At this station, changing patterns in the Gulf-stream were being registered and transformed into digital data. This data was then being sent to a computer inside the Opera House, to the foyer where I was standing, where it controlled a subtle, constantly changing, glittering sound texture, thousands of kilometers away from its source.

The 18-channel sound installation *Currents* used *sonification* as an artistic sonic strategy. In this project, I produced a real-time connection between a spot in the Gulf Stream—a place where scientific researchers measure data from melting processes in the Northern Hemisphere—and the foyer of the Oslo Opera House, where I let the incoming data control a sound installation there. My artistic intention was to transform non-audible scientific data, which harbors information of global political significance, into an audible experience in public space. In establishing a link between places situated thousands of kilometers away from each other, the project emphasized the fact that places are always connected to other places, each affecting the other as part of the same ecosystem.

So how did this transformation actually play out in reality?

In “Chapter 2: Contextualization,” I discuss sonic strategies of sonification. As explained there, sonification is traditionally connected to theories of classical representation, in which the “transformation” and “representation” of non-audible data are considered to imply a kind of immediate, authentic connection with the information that is sonified. According to musicologist Volker Straebel, it is common within the field to assume that “sonification reveals some information about the matter represented by the sonified data” (Straebel, 2010, p.287), just as it can be seen in Thomas Hermann’s argument that “The sound reflects objective properties or relations in the input data” (Hermann, 2008, p.2). In that chapter, I also discuss how established notions of sonification are colored by documentary approaches to sonic material. As a result, received understandings of sonification tend to focus solely on issues of representation—on the maintenance of an indexical connection between the data and the sonic expression—rather than exploring, problematizing, and thus contextualizing the artistic complexities embedded within the practice. In order to leave the relation between data and its sonic representation in as unsullied a state as possible, established artistic strategies consequently neglect a wealth of crucial information that is embedded in the situated and specific artistic practice of sonification. Such information in fact forcefully affects the relation between data and the sonic experience and in so doing constitutes, I argue, the very foundation of the practice. In order to investigate and make visible the complex processes at work in artistic sonification, other types of tools and methods are therefore required. Contrary to the established theories of sonification that are based on representation, Chapter 2 of the thesis explores the process of artistic sonification in terms of a *transversal*, immanent process. It is with this orientation in mind that I map the artistic sonifica-

tion process at work in *Currents*, describing the project in terms of a site-specific sonic process.

The first issue that I address in the coming chapter revolves around the production of the sonic work *Currents* and the transversal and machinic nature of the sonification process employed in that artistic process, whereby *Currents* emerged as the “effect” of a set of “machinic interactions” between assemblages that were in turn constituted by a diverse range of affective components, including the scientific research project, the extraction of scientific measured data, the opera foyer as an artistic site for the realization of the work, the artistic development of a software and hardware technology, and, finally, even myself as an artist. Viewing the artwork in this way—as a *transversal process*—enables me to explore the way in which relations are established between heterogenic agents and between different assemblages, and to articulate what these relations looked like and how they were established.

The second issue to be addressed in this chapter, which can be understood as a consequence of the first, concerns the artist-subject’s minimized autonomy. Drawing on an argument that I make throughout the thesis, I advance a view of artistic, site-specific production that sees it as a site-specific transversal process in which the artist is one agent among many. Here, I argue that in developing *Currents*, the figure of the artist-subject was far from autonomous, and was rather implicated in a continuous, affective relation with a myriad of agencies that affected the artistic process.

The third issue discussed deals with what conceptualizing sonification as a transversal practice and method might do to the field, and how understanding sonification as a transversal process in fact changes its relation to concepts such as transformation, representation, and objectivity.

I would like to emphasize that when I began working with *Currents*, I had an idea which in many ways resonated with Straebel's analysis and Hermann's definition of sonification—that is, I saw it as a process of transformation in which non-audible properties of data are made audible, where sound stands in an immediate objective relation to the data. It was from such an outset and with such an intention that the artistic process was initiated. During the actual artistic process, however, I became aware that seeing sonification in this way gravely simplifies the complexity of the affective forces at stake in the process of sonification. Vast fields within the actual process and its negotiations in this way became a *terra incognita*, which could not be articulated without disturbing the cemented notion of the direct and objective relation between data and sound. Whilst analyzing the process and writing this thesis, this gap between the established idea of sonification that I started with and the actual artistic process' complexities became highly apparent; bridging it became vital in the task of making the circumstances of the practice visible.

The Assemblage of the Scientific Project and its Measurement Method

Earlier in this dissertation I describe being a practitioner in site-specific practice in terms of the acts of mapping of places as affective assemblages and of modifying such assemblages. To work in this way is, I argue, to understand “places” as complex assemblages consisting of a myriad of affective lines, which can take dramatically different expressions.

As a topic of thematic exploration in *Currents*, the “site” was not a physically perceivable place but rather an unreachable point in the middle of the Atlantic and a repository for information about the

melting levels of the Arctic. Embedded in very local conditions, the site was also linked, via the information that it collected and disseminated, to the global. Mapping the affective lines here dealt with tracing and extracting the site's intensities, which were not possible to physically experience other than through the scientific data collected there. This inaccessibility placed an emphasis on what the scientific data collected at this very particular site actually contained, and what could be extracted from it in terms of raw material for my artistic project.

In 2008, I made contact with representatives of a research project at the Department of Meteorology at Stockholm University, whose work involves the continuous observation of the inflow of the North Atlantic Current into the Nordic seas. The scientific measurements made by these researchers are based on electromagnetic induction. An electric voltage is induced when a conductive body moves in the Earth's magnetic field, and increased ocean currents result in an increased induced voltage. The voltage is thus proportional to the flux of the ocean current (in their case, the North Atlantic Current). Scientists suggest that a change in ocean current correlates with the melting of ice in the Arctic. To observe the induced voltage, the measurement system has to be in contact with both sides of the ocean current; in the research being undertaken at Stockholm University, this required that one test point near the Faroe Islands and one point 100 kilometers north of the Faroe Islands be established. To span these distances, parasitic use is made out of the CANTAT-3 telecommunication cable.

The CANTAT-3 cable runs through a shore station at the Faroe Island test site. The cable consists of both fibers and copper conductors; the latter are used to feed amplifiers on the cable, with the task of regenerating the optical pulses. The copper conductor carries an

electric current, variations in which are directly related to the induced electric voltage. The induced voltage is thus measured by connecting a voltmeter to the reading of the electric current, and these measurements are in turn stored on a computer that was connected to the Internet. A new reading is sampled every 20 seconds and sent to a second computer at Stockholm University, where an archive, which contains data from 2003 onwards, is located. The time between a reading being made and its appearance in Stockholm is estimated to be 1 millisecond.

The affective agents involved in this process of measurement thus include electrons, the Earth's magnetic field, copper conductors, ocean water, tele transmission technology, plastic, silicon, salinity levels, and sediments, as well as the researchers themselves.

The Artistic Process of Analyzing and Extracting Scientific Data

Having obtained access, via the scientific team at Stockholm University, to the signals from the Golf Stream, I needed to understand *if* and *how* I might use those signals. In order to study and analyze the data, I needed to learn how to operate—at least on a very basic level—the software used by the researchers, Matlab.

Raw data from the Faroe region not only records the Golf Stream but also captures a range of other phenomena. Only the Golf Stream data is of interest for the scientific project, and as the spectral properties differ between sources, the different phenomena registered within the data are separated out by filtering. The scientific project's observations are undertaken in order to gain knowledge about the changing patterns of the Golf Stream, and the scientists use empirically coherent methods, built on observations of a single phenomenon. Al-

though at the time of starting the project I still thought about sonification in terms of representation, already here the idea of sonification as an immediate relation between audible data and sonified sound thus began to break down.

In earlier chapters, I describe sound installation as an affective practice, which through the artistic process of transformation actualizes virtual capacities in order to produce a sonic experience. Beyond the establishment of a direct connection between the scientific data and a sonic material, the approach that I describe also requires the artistic capacity of being able to transform that data into an affective, artistic sonic experience in public space. From such a perspective, the scientific data gathered in *Currents* could be considered to constitute a set of existing virtual capacities which, through the artistic transformation process, might be actualized in order to produce a new sonic expression and form of actualization in direct relation to the specific site.

To understand *Currents* in terms of a site-specific process of actualization is thus to emphasize the interaction between a multiplicity of agents, where the specific site of realization also possesses a crucial agency. In the earliest stage in the process—in 2008—I didn't yet have a specific site for the realization of the project (or a budget for that matter), beyond vague imaginings of a site with a direct, physical connection to the Gulf Stream. As I didn't know *what* might be useful or *how* it could be used—or if any of it could be used at all—my strategy at this point was to remain as open as possible to the data. This approach likens the process of searching through a dumpster in the street: an open, plan-less search, without any expectations of what would might be found. The thing with such searches is that it is only after something is found, deep down under all those layers of

refuse—under all that other crap—that one starts to understand how it might be useful.

Unlike the scientific project, in my work I was not only interested in the Golf Stream but also in the auxiliary information that could be extracted from the cable data. Using Matlab, I was able to extract four different types of signals: beyond the slowly varying signal from the Golf Stream, I also extracted information on the electric currents in the ionosphere, which lies above the atmosphere, at a height of 60 to 1,000 kilometers. These high-altitude electric currents induce electric voltages in the ocean. Two further phenomena were also found to be superimposed on the total measured voltage, namely the semi-diurnal and diurnal tides, which also generate a voltage in the same way that the Golf Stream does. All of this—the tides, the ionosphere, and the North Atlantic Current—can be regarded as electronic fingerprints, left at the site where the measurement is performed.

Matlab is a software made for studying data visually, but it also offers the possibility to transform visual data into WAV files, which in turn can be played back. For me, this built-in capacity offered the possibility to experiment, since the central properties from the time and frequency domain are maintained in the conversion process. The parameters of the phenomena that is transformed retain their properties, but in an audible format. This is a commonly used sonification strategy, termed “event-based” sonification or “parameter mapping,” in which changes in the data are represented as proportional changes in the acoustic domain (Walker and Nees, 2011, p.17).

The four phenomena present in the data—the four sets of “fingerprints” that I traced (the Golf Stream, the ionosphere, the semi-diurnal tide, and the diurnal tide)—all progress slowly, but can theoretically be made audible even if their original pace is too slow. The two tidal signals, for instance, can graphically be interpreted as low-frequency

sinusoidal tones, and one period corresponds to between 12 and 24 hours. To make the signals audible, I multiplied the sampling of the signals nine million times, with one year of data being shortened to 10 seconds as a result. A spectral analysis of the ionosphere shows that it is broadband. It can be sensed as regular clicks, which correspond to seasonal ionospheric storms that can be graphically visualized as vertical lines. The two tidal signals have cyclic properties and are sensed as clear tones with one octave difference, corresponding to the tones A and A1.

The Golf Stream signal itself, however, is so devoid of variation that I found that not even a whole year of data would result in audible sound. My conceptual idea was, however, based on the centrality of the Golf Stream, and as such I needed to reconsider how to best make use of it by employing transformation methods that could make even small variations perceivable. I started to investigate a mapping process through which voltage might be converted into digital streams in real time.

Exploring Transversal Connections Between the Scientific Data and the Oslo Opera House Foyer

In 2010, two years later, I got in touch with Jøran Rudi, former Director and producer at NOTAM, the Norwegian Centre for Technology and Art in Oslo. Rudi proposed that my project be implemented in the following year's Ultima festival for contemporary music in Oslo. He suggested that the grandiose foyer be the place for the realization of *Currents*. The Opera House is located just a few meters from the Oslo bay, and thus borders the same ocean—the Atlantic—in which the scientific research project was making measurements of the Golf Stream in order to register the melting process at work in the North-

ern hemisphere. By now, I had analyzed the traces left from this process at a single fluid point in the middle of the Atlantic over a series of months, and had compiled these traces into digits, graphs, and diagrams of the fluctuations that took place over several years.

When I finally arrived at the site at which the work would be developed, the Oslo Opera House, the process of mapping the Opera's affective lines was less about pursuing an openness to the Opera as a conceptual thematic and more about how the site might give shape to the issue of global warming. Practices of transformation were therefore crucial. If as previously described the initial explorative phase in my own site-specific art practice deals with a situated capacity that is rooted in the sensibility of being able to *explore* affective lines (in the case of *Currents*, the scientific data), the second phase concerns the process of *modification* with respect to the site's intensities. I articulate the process of working with these transformations in terms of the approach of *establishing new connections* and the concept of the "machine," both of which I describe in "Chapter 4: Explorative Approaches." In that chapter, I argue that processes of re-negotiating or deterritorializing, as Deleuze and Guattari point out, are always *machinic* in their operation. The generation of a deterritorializing machine can, drawing on Deleuze and Guattari's theorization, be understood as the creation of a *cutting edge* caused by the implementation of new components. As they put it, "[a] machine is like a set of cutting edges that insert themselves into the assemblage undergoing deterritorialization, and draw variations and mutations of it" (Deleuze and Guattari, 2009, p.333).

In the artistic process of creating a sonic material like that of *Currents*, (scientific) data can be understood to constitute *virtualities with an inherent capacity to become* a sonic material. *Currents*, however, also demanded that the heterogeneities of existing and possible agencies in

the Opera also be confronted. It was only through such a confrontation that I was able to artistically explore how these virtualities might become “cutting edges” and form new deterritorializing machines in line with the intensities of the place that is the Opera.

This approach to the process of producing the sonic material rejects the idea that there is on one hand a sound and on the other a Cartesian space in which the sound is played. To *establish new connections* is to understand that the production of the sonic material constitutes a machinic process in which transversal components—in this case, the scientific data and the multiplicities of the opera—are connected and actualized as new forms of expression. If in *Currents* the artistic process began with an open-minded, unprejudiced attitude to the analysis of the scientific data, it was only in my confrontation on site with the agencies of Opera that the inherent *capacity* of the data could be grasped.

The Oslo Opera House was designed by the architectural office Snøhetta. It was inaugurated in 2008 and as social geographer Tone Huse points out can be regarded as a landmark in Oslo’s new posh and glamorous harbor-side business district (Huse, 2014). Owned by the public sector administration company Statsbygg, at least legally the opera constitutes a public space. Thousands of tourists and curious flaneurs flood to the location every week. The spectacular architecture, which comprises a series of planes that slope downwards and into the Oslo fjord, has been both criticized and acclaimed: on one hand, it has been charged with acting as a symbol for the gentrification of the city of Oslo, on the other, it has been praised as an innovative manifestation of what architecture can become and how architecture can be experienced.

Using exclusive materials and an approach not unlike Cubism’s perspectival manipulation, Snøhetta challenges the classical partition-

ing of what has formerly been termed “ceiling,” “walls,” “floor,” and as well as what is “inside” and what is “outside.” In this way, interior ceilings become an exterior ground plane. The building’s different levels intersect in the enormous glass foyer. In my explorations of the Opera House, I confronted the building’s agencies from a variety of different perspectives, from the material to the discursive, and I imagined how these diverse agencies might work together with the scientific data to create new *cutting edges*, or deterritorializing machines, and form new expressions.

I spent much time strolling around in the enormous volume. Despite its hard materials (marble, wood, and glass) and thousands of cubic meters of empty space, the reverberation is outstandingly well-balanced in comparison to other buildings of similar dimensions (I counted it at less than a half second in the most heavily frequented and noisy parts of the foyer). Snøhetta solved the acoustic issues by dressing the paneling with wooden ribs that cover the balcony sections, which function as both decoration and (more importantly, in this case) as absorbers, preventing sound from bouncing between walls. The great care taken in the design of the construction and the choice of materials, together with the perfectly balanced acoustics, makes the building resonate with a sense of wealth and exclusivity. You can hear the billions invested in the building through the reverberation.

Every single registration and confrontation with a site’s intensities generates new discoveries, which in its turn generate new issues connected to how new affective lines can be woven. In *Currents*, what needed to be connected was the scientific data and the location. How, I asked myself, does this space and its inherent resonance affect our understanding of the scientific data in terms of its *capacities* to become sonic? And vice versa, how does my lengthy analysis of the sci-

entific data affect my understanding of the ways in which this space might be transformed into a sonic expression? Each issue bifurcated upon reflection, and a range of new aspects appeared, which in its turn opened up new issues, spanning from the material to the political in a single moment. What strategies of spatialization could be possible? What sort of sound synthesis would they require? How does the transversal transformation implied in each creation of a new *cutting edge* affect the connection to the scientific data and the important political data that it harbors? In each moment in *Currents*, I struggled with the process of taking the original data into consideration, and then transforming it in order to create an embodied sonic experience in a public space, with all the implications that that publicness carried with it.

I remember gazing out of the enormous panorama windows out across the Oslo fjord, which glittered in the distance, and attempting to analyze the visual experience of seeing the ocean, calculating how to merge this experience into a synesthetic expression in my work. How, I wondered, could I emphasize the visual experience of standing in front of the same sea and at the same time hearing it? If, as musicologist Helga de la Motte-Haber and other theorists—especially those working within the German discourse on sound art—stress, sound art is inherently synesthetic and multimodal, my practice must constantly deal with how such a synesthetic approach can be actualized. How, I wondered, would I be able to get someone looking at the ocean to also listen to my work? And, conversely, how would I be able to make someone listening to my work in the Opera House foyer make the visual connection to the ocean outside? What kind of transversal machines would need to be created, between the scientific material and the Opera House as a site of realization, in order to generate such an effect? Issues like these have no clear answers.

In the foyer, I listened in on events, on the activities of the people, and on the materialities around me. Different sections of the Opera's foyer manifest different types of social use, which change over the course of the day. The exterior of the building consists of enormous surfaces for flaneurs to traverse, providing a topographical overview of the Oslo bay; the interior of the foyer is a central spot for people on their way to or from an opera performance or the restaurant, a place for tourists but also for companies renting conference spaces in the non-public part of the Opera House. The employees of the opera are also present in this space. Guided tour groups temporarily appropriate the building, momentarily filling the foyer with the acoustic imprints of multiplicities of voices, steps, and bodies. The rush hours in the restaurant are expressed through cascades of tiny sounds generated from plates, glasses, and cutlery, as well as the murmuring of people in intimate conversations. All of these movements together constitute the Opera foyer's many temporalities, its different appearances at different moments and over different durations in the course of the day.

I came to understand the foyer as a complex configuration of spatiotemporal processes, which were manifested through material and immaterial expressions. Processes of *territorialization*, *deterritorialization*, and *reterritorialization* all affected the site, engaging it in a constant, ongoing process in which the place's structures of identity were negotiated, and reformulated content was de- and re-coded over time, and through such shifts, its identity changed. Some processes took place over long periods of time, so long that they are impossible to grasp, others took place over a shorter duration, and were possible to experience. Within minutes, the foyer could be transformed by visitors filling the space, changing the experience of the place. Temporary transformations like these can recur periodically and ultimately become part of a place's transient, permanent identity.

In my exploration of possible cutting edges, I traced the intensities that constituted the foyer's ambience, noting how they appeared at different moments and different times.²⁷ With the explicit intent to explore possible machinic relations in becoming, and how these relations might be affected by the temporalities of the day, I began to understand my intended sound installation as having the potential to constitute an experience that would be shared between different social categories and people: the temporary tourist, just spending a short time in the opera, walking around; guests dining in the restaurant, sitting down for a while; and staff working in the restaurant, spending the whole day in the foyer. Each of these groups, I thought, would surely experience the work differently. Duration and corporeal modality strongly affect how one approaches and might be willing to listen to a work, and thus what kind and degree of aesthetic experience is possible in a space. The experience of working on *Currents*, and on several earlier projects, has made me aware that the border between a work dominating or simply vanishing is razor-thin, and it constantly changes over the day as the space continually transforms.

My experience as an artist in the initial process of establishing transversal connections between the scientific data and the Oslo Opera House foyer through *Currents* resonates with the description of a similar engagement that is provided by urban sociologist Cameron Duff. Duff points out that the confrontation with a place should be understood not as the meeting between a subject and a number of objects, but rather as processes in becoming—processes that take the

27) Urban researcher Jean-Paul Thibaud describes this phenomenon as “modulated ambience” in his “The Three Dynamics of Urban Ambiances.” Thibaud uses this term to describe the way in which one and the same place can transform (change) over time depending on its social constitution and how this constitution affects the place's ambience (Thibaud, 2011, p.48).

form of actualizations generated by the “meeting of elements in time and space, of time and space” (Duff, 2013, p.223). I did not enter the Opera House as an autonomous subject, bringing a sonic material with me; rather, I consider my work to be one of exploring “cutting edges” and possible “transversal machines.” These edges and machines in turn should be understood in terms of the production of an effect between a plurality of actors and agencies, both virtual and actual, spanning between the Opera site as an assemblage, me as an affective body, as well as the scientific project’s data, with its inherent capacity to act and to be acted upon. This was, all in all, an extremely complex process, undertaken in many steps, where most capacities had to be abandoned and only a few were taken further to actualization. The next section discusses this process further.

Establishing a Sound Machine Based on the Actual and Virtual Findings in the Oslo Opera House

Throughout this dissertation, I advocate a view of sound installation that sees it as a transformative practice that spans between a range of different artistic strategies, which each should be understood as the effect of a transversal, machinic process. What I have described so far of the process of making *Currents* can be understood in terms of the investigative exploration of *virtual capacities*—that is, of the existing but not yet actualized forms of capacities, between a heterogenic field of agents including scientific data, my artistic intentions, and the agencies of the Opera House.

The next step in the artistic process that I would like to address concerned the artistic process of “realizing new machinic connections.” This stage dealt with the actualization of some of these virtual capacities that I found in the scientific material and the Oslo Op-

era and the transformation of those capacities into *functions*, in order to create new forms of sonic and spatial expressions. This work to a higher degree than the preceding step dealt with the development of a technology of realization, which implied a process of systemizing, programming, and the development of loudspeaker technology. I understand these tasks as constituting processes of actualization, wherein certain *virtual capacities* were reduced or even discarded, or alternately retained and elaborated upon by being actualized as functions; such decisions were made in line with the inherent ability of those agencies to become sound.

This process directly resonates with Deleuze and Guattari's description of the synthesizer, which at its most basic is simply a program for sound synthesis based on a particular software. The synthesizer, they write, is:

a musical machine of consistency, *a sound machine* (not a machine for reproducing sounds), which molecularizes and atomizes, ionizes sound matter and harness a cosmic energy. If this machine must have an assemblage it is the synthesizer. By assembling modules, source elements, and elements for treating sound (oscillators, generators, and transformers), by arranging micro intervals, the synthesizer makes audible the sound process itself, the production of that process, and puts us in contact with still other elements beyond sound matter. It unites disparate elements in the material, and transposes the parameters from one formula to another" (Deleuze and Guattari, 2009, p.343).

Just like the synthesizer as it is described by Deleuze and Guattari—a “sound machine” that transforms inherent capacities into sound—the artistic sonic process can thus be read as a complicated *machinic* practice in which *agencies* constitute *capacities*, which are capable of acting and being acted upon and which can be coupled together.

Such coupling, further, is performed on the one hand through the programming software and on the other through the programmer; both, it is important to remember, possess their own distinct agencies.

The Process of Systemizing and Programming

In the development of *Currents*, as in a number of my other artistic projects, I used the programming environment SuperCollider, which can be described as a platform and programming software specialized for sound. The SuperCollider software allows the analysis and synthesis of sound, as well as the possibility of creating algorithms that are useful for composition as well as for generating and controlling sound in real time.

Even though I have a basic understanding of the modifying functions used in the software to write patches, I don't write code myself. As such, I need to work with someone else who can develop the code. In the first phase of the *systemization* process, my requirements are essentially processed and translated into written and visual forms of functions and information models, which are later transformed into code by the programmer—in *Currents*, Florian Goltz.

In most of my projects, including *Currents*, this process commences with me trying to communicate my artistic intentions in written and verbal form, in an attempt to describe the tools that I *think* I will need. The programmer then responds to this description, trying to read and understand my intentions as a non-programmer, commenting on what is possible and not possible. This first initial phase of communication is followed up by a simple SuperCollider patch, developed by the programmer, whose functions I explore before sending a further specification, which in its turns generates new discussions, and new versions of the code. In this way, through an extensive, on-

going feedback process between me and the programmer, a more and more advanced body of code with functions is developed. The agencies of the programmer as well as the programming environment, in this case SuperCollider, are thus exceedingly present, modifying my capacity to act as an artist.

This process can be described as critical and is, to a large extent, rather onerous. Difficulties in communication immediately arise when my artistic visions are to be implemented as *functions* in a programming environment I do not fully master. My visions or ideas—regarding, for instance, how a work like *Currents* should sound in a space like the Opera foyer—can, from a programmer’s perspective, be understood as *effects* generated by a complex sequence of programming functions. If my artistic vision takes these effects as its point of departure, placing a clear focus on how I *intend* the work to be experienced, the programmer, in my experience, starts from the diametrically opposite perspective: the system must be designed and developed before one can start talking about functions. The system’s design, however, facilitates certain functions and not others. This means that depending on the system (which needs to be developed before the functions), certain possible functions are inevitably already excluded from the start.

Already right from the beginning, then, I needed to reduce and even abandon an enormous number of the various *capacities* present in the scientific material, the agencies of the Opera House, and my own intentions that *could* have been actualized as part of the sound work. What is thrown away, what is left out, and what remains and is developed all necessarily affect the final outcome. Based on what from a programming perspective is actually possible, the initial patch includes a broad spectrum of functions, which over time are scaled down to only a few through a method of exclusion, wherein what

is simply not possible to carry out is discounted. Other approaches are therefore often needed, and in the end, “systemizing” becomes a process of mapping out the instances where possibilities can be transformed into functions.

As I describe earlier, both the initial phase and most part of the realization process in *Currents* were undertaken in line with an understanding of sonification that positioned it as a form of representation, implying a direct correspondence between the scientific data’s capacity to harbor information about global warming and the final sonic outcome. The signal from the Golf Stream—the very core of the work, which so to speak was to “mediate” the global warming—however turned out to be so weak that it basically couldn’t be transposed into an audible sound file. Given that the conceptual core of the work lay in the transformation of the information embedded in this ocean current into a sonic experience, I needed a way to use this signal. My solution, ultimately, was to use the signal from the Golf Stream not as an audible signal, but as a control signal in relation to a number of other central parameters in my installation. Thus, even if the signal’s transformation over time could not be used as an audio signal, it could be perceived using digital mapping, that is by converting measured volts into digital numbers, and letting each of the different digits control different parameters in the sound installation. In this way, the incoming signal from the North Atlantic Current was rigged to control the choice of sound material, how long the material should play, and the type of spatialization performed through the 18-channel system. Rather than the Golf Stream, I used the other three signals found in the scientific material as audio material: the signal from the ionosphere, and the signals from the diurnal and semi-diurnal tides.

The two signals from the tides can be described as having a sinusoidal, tonal, musical capacity. Further, even if their material shapes

are not affected by global warming, they can conceptually be understood as electronic imprints, and could thus be connected to the place where the measurements were being taken. When processed as a WAV file, the signal from the northern hemisphere's ionosphere, in contrast to that from the tides, formed a rather "crunchy," almost noisy, material; even though from my personal point of view this material is not uninteresting, it would most likely not have worked as unprocessed sound in the kind of social environment that is the Opera House. With this in mind, but also aware that I needed a sonic texture that, together with strategies of loudspeaker spatialization, would be able to accentuate the huge space of the foyer, I decided to use the ionosphere signal as a starting point in creating a granular-synthesis tool.²⁸ By cutting up the sound into "grains" as short as a micro-second, which were then spatialized through the 18 loudspeakers, I used the ionosphere as a spatial material that maintained a material connection to the place where the measurements were taken.

The processes of systemizing and programming, and the subsequent creation of a sonic material for *Currents*, can thus be described as being developed through three parallel processes:

Firstly, the conceptual intention of "transforming non-audible scientific data, which harbors information of global political significance, into an audible experience," which connected to the scientific data's embedded information about global warming, needed to be addressed. Scientific data from a place in Golf Stream was therefore analyzed in Matlab, and was extracted to non-real time sound files. These sound files were then used as a foundation for the development of sound synthesis functions like sampler and granular-synthesis in-

28) Granular synthesis is an artistic method in which microscopic sound grains build up acoustic events. See also: Curtis Roads', *The Computer Music Tutorial* (1996).

struments in the programming environment SuperCollider. Via digital mapping, the incoming signal of the North Atlantic Current could be used in real time, to control the functions mentioned above.

Secondly, from the perspective of systemization and programming, a process was required to “establish a link between places.” This second process involved the development of protocols and programming software capable of receiving and sending information about the North Atlantic Current in real time from the computer at the Faroe Islands to a computer in the Stockholm University, and then to a computer in the Oslo Opera House, where the signal was transformed into control functions in the installation.

Finally, the third process can be linked to my intention to, through *Currents*, create an “audible experience in public space.” Through this process, I would develop a technology to deal with perceptual and spatial issues such as which sounds to process and which not to, strategies of spatialization, and the length of the sound events to be played. This final process relied on my own explorations of the Opera House’s agencies and affective lines—of how, for instance, the architecture’s volume and materiality works together with the building’s social temporalities to generate the site’s specific “ambience”—and also on the findings from my analysis of the scientific data, which acted as the foundation of the project.

These three parallel processes should not be understood as isolated cells, but rather as a complex, transversal process whereby each process constantly interfered with and modified the others during the course of the artistic process.

The Loudspeaker Technology's Inherent Agency

In parallel to the process of systemizing and programming, the loudspeaker technology also played a fundamental role in establishing a transversal sound machine in *Currents*. In Chapter 2, I pinpoint the fact that like all the components (human and non-human, material and immaterial) that are involved in the various fields that are linked by a project like *Currents*, loudspeakers, cables, amplifiers, and all the other technological details that are directly or loosely associated with “loudspeaker technology” each have their different agencies and capacities to interact within a specific environment. Depending on the loudspeaker's specific constitution, its capacity to reproduce a specific frequency range differs radically and in ways that affect its output. This in its turn has a direct effect on the functions implemented through the systemizing and programming process.

Selecting loudspeakers is therefore never a neutral activity and this choice constitutes an active agent in establishing new transversal machines, rather than something that simply happens at the end of the artistic process. Just like the other components developed in the process of systemizing and programming, the loudspeaker implementation starts from an early stage, through an on-going exploration of the kind of loudspeakers that will be used and how many channels might be required.

In *Currents*, like in most other projects, I used exactly the same kind of loudspeakers in my studio that were later used on site, to avoid unexpected surprises. It is, however, extremely difficult to calculate how a sound tested in a smaller space—in a studio space, of let's say, 20, or perhaps 50 square meters—will be transformed when, as in *Currents*, it is transmitted through 18 speakers in an enormous space, with a very specific and entirely different atmosphere. The placement

of the loudspeakers, and where one is in fact allowed or not allowed to place them, is another fundamental factor in the sonic outcome, that emerges together with specific site's inherent intensities (this is further discussed in "Chapter 8: Case 4, A Loudspeaker Cable's Machinic Everyday"). The development of loudspeaker technology must, to a large extent, be understood as a central part of the creation process, and establishing an intimate relation between this technology and the intensities at work on site is a fundamental phase in the site-specific process.

All of this is further compounded by the fact that, when working with large-scale sound installation projects such as *Currents*, it is almost impossible to test the work on site before the very final phase of the artistic process. My experience has been that the more complex the connections and the greater the number of affective agents that are to be involved or merged, the more difficult it is to develop the work on site during an early phase of the artistic process. *Currents* was a highly complex assemblage consisting of an incalculable number of connections of different sorts, consisting of almost half a kilometer of loudspeaker cables and 18 loudspeakers mounted in inaccessible places, in a location with continuously high social intensity. This made *Currents* too complex and too demanding to be set up and tested at full scale in advance. When I arrived at the Opera House with my colleagues—electronic engineer Manfred Fox, who helped me to implement the loudspeaker technology, and programmer Florian Goltz—in order to undertake the last phase of this process, any larger modifications, for example implementing a new loudspeaker technology or changing the programming syntax, would have demanded that the artistic process be restarted. The last phase of modification of *Currents* therefore dealt with "minor adjustments," which rather than *altering* only *modified*

the assemblage. For example, in order to receive a satisfying and broad spatial sound, when spatializing sounds through the 18 speakers, we needed to assign to each channel not only one discrete speaker but also a group of speakers. We also had to set the length of how often the different sound events would be activated, insert pauses, and set the volume levels.

Artistic Sonification as a Transversal Process —Closing Remarks

Returning to the moment in *Currents* when all the cables were installed, the loudspeakers connected, and the real-time connections between the Opera and the measurement station at the Faroe Islands were up and running, I remember pushing the “on” button and thereby activating a machine that had taken almost two years of negotiations to build. Information from the Faroe Islands, which is extracted every 20 seconds in accordance with a predefined schedule, began to be forwarded to the computer in the Opera. The incoming data began in turn to generate new parameters that controlled panning, volume, and the selection of sound events.

From the 18 loudspeakers, visitors could for the first time experience the ionosphere as a low-voiced texture of glittering, sparkling sound drops, accentuating the spatial qualities of the foyer. They also experienced the sound texture slowly evolving, as the back-of-house computer at the Opera received new information from the North Atlantic Current. The two signals from the tide could be perceived as two low-voiced tonal textures and together the sounds from the ionosphere and the tides established a contrasting texture: one in constant evolution, the other stable and unchangeable; one manipulated, split into microscopic sound grains, and the other almost unprocessed.

Together, these established a strong spatial experience on site. During rush hours, the work became part of the background and the common atmosphere of the site, while during tranquil moments it became more prominent.

Currents provides an example of artistic sonification being performed as a transversal practice and an example that stands in stark contrast to established accounts of sonification that rely on representation and neglect crucial conditions of artistic practice in the process. In addressing the production of *Currents*, in this chapter I have set out an alternate conceptualization of sonification as a transversal, machinic process, understanding *Currents* as an *effect* of the establishment of new connections—that is, of the machinic interactions between assemblages constituted by affective components of entirely different characters. Here, I am particularly interested in exploring the way in which relations were established between heterogenic agents and between different assemblages, what the process looked like, and how the different relations were established. As a site-specific sound installation based on sonification, *Currents* took almost two years of exploration, interaction, and modification, which resulted in a complex body of processes, connecting heterogenic transversal agents like the Gulf Stream, the scientific research project, the extraction of scientific data, the Opera House, the process of producing software and loudspeaker technology, and myself as an artist. This chapter also describes that assemblage, which consisted of a multiplicity of agencies, each with its own specific capacity to affect and be affected.

The second issue that I address in this chapter concerns the artist subject's minimized autonomy. Through *Currents* I show the ways in which the artist subject is implicated in a continuous, affective relation with a myriad of agencies, all with their specific capacity to affect the process. This implies a model of daily practice that exceeds the

established idea of an active, sovereign artist-subject exercising their power to produce a work, which is subsequently placed in a space. On the contrary, the account given here emphasizes an ethological process in which I as artist stand in continuous encounter with the different agencies spanning from the scientific data to the Oslo Opera, the programmer, as well as the software, which all had a direct effect on the artistic process of developing *Currents*.

The third issue that emerges from this account concerns the way in which understanding *Currents* as a transversal process affects the idea of sonification as an artistic method and its relation to concepts such as transformation. Contrary to a view that foregrounds the representation of a fixed and given reality through sonification, I rather advocate a transversal understanding of this practice which sees sonification as a process of the *actualization* and *realization* of the *virtual capacities* that are embedded within the different assemblages constituting *Currents*. From this outset, sonification emerges as a practice of transforming affective forces between bodies—material, social, discursive—in which the practice of transformation should be considered to constitute a creative, machinic process that generates new expressions of becoming. This process is always situated and dependent on its specific conditions, meaning that the sonification process of *Currents* must be understood in relation not only to the scientific data but to all the other assemblages involved, including the Oslo Opera's unique ecology.

Many of the thousands of visitors strolling through the foyer of the Opera had no idea that the site had become a projection surface for the forces of the global warming, which were transformed into the low-voiced sonic body they now and then glimpsed. In this, *Currents* does not differ from contemporary art in general: like the foyer's permanent art work *The Other Wall*, by Olafur Eliasson, it too

harbors a conceptual level. However, whilst the work's contextual ambition and its relation to the environment were also fully articulated via textual information, this does not mean that the work acted as a representation of the scientific data or that the text was a representation of the work. In this sense, the information about the work that was accessible on site in the Oslo Opera should also be considered an affective body with a capacity to affect, to establish new affective connections, and thus found new transversal machines in complicity with the work's body and the multiplicity of bodies of visitors who together were establishing new affective relations.

Using *Currents*, I here attempt to articulate artistic sonification as a practice in which new transversal connections are established and the artwork emerges as the effect of the establishment of those crucial, multiple, affective force relations.

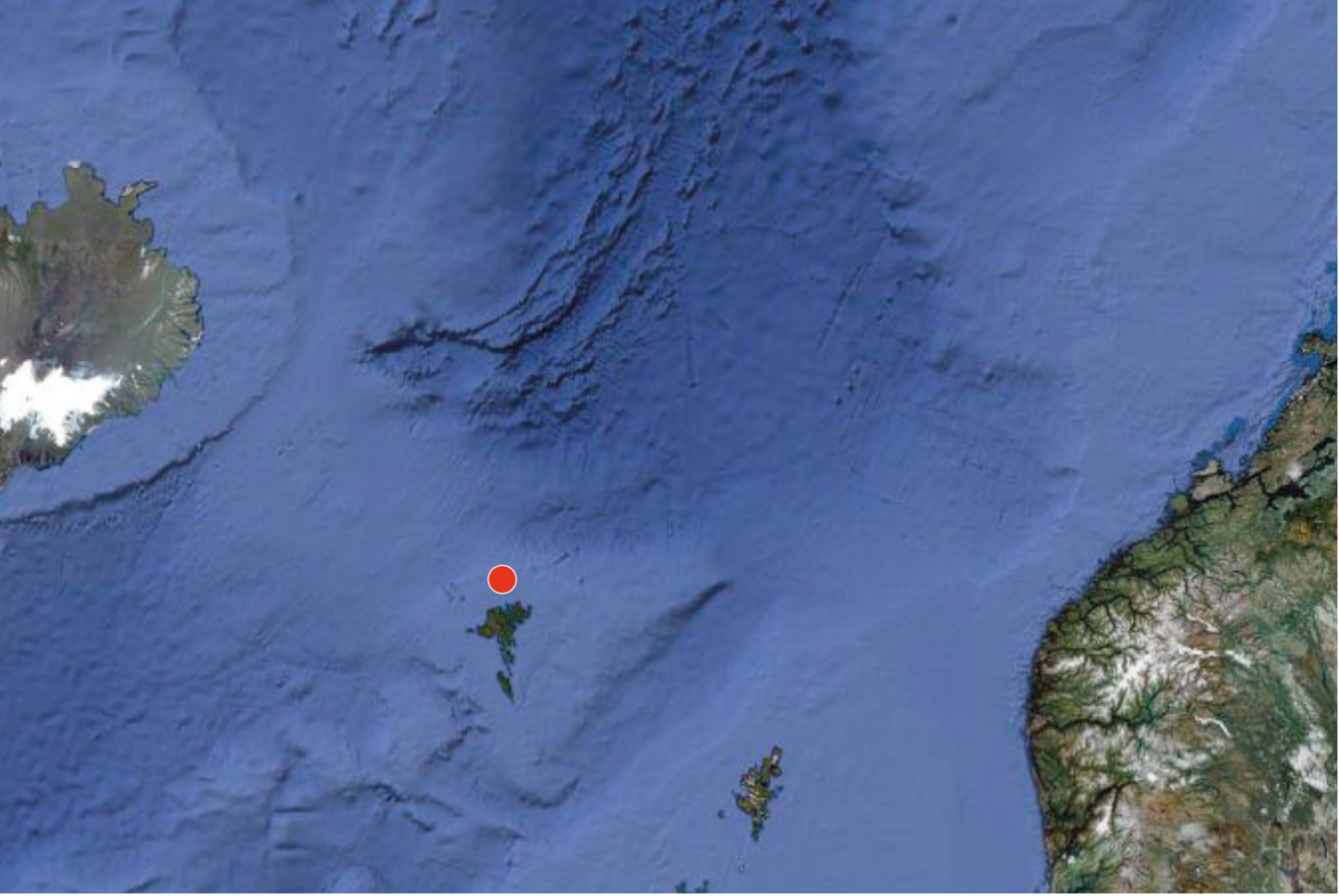


Currents:

The Oslo Opera House.

(Photo: the author, 2010)



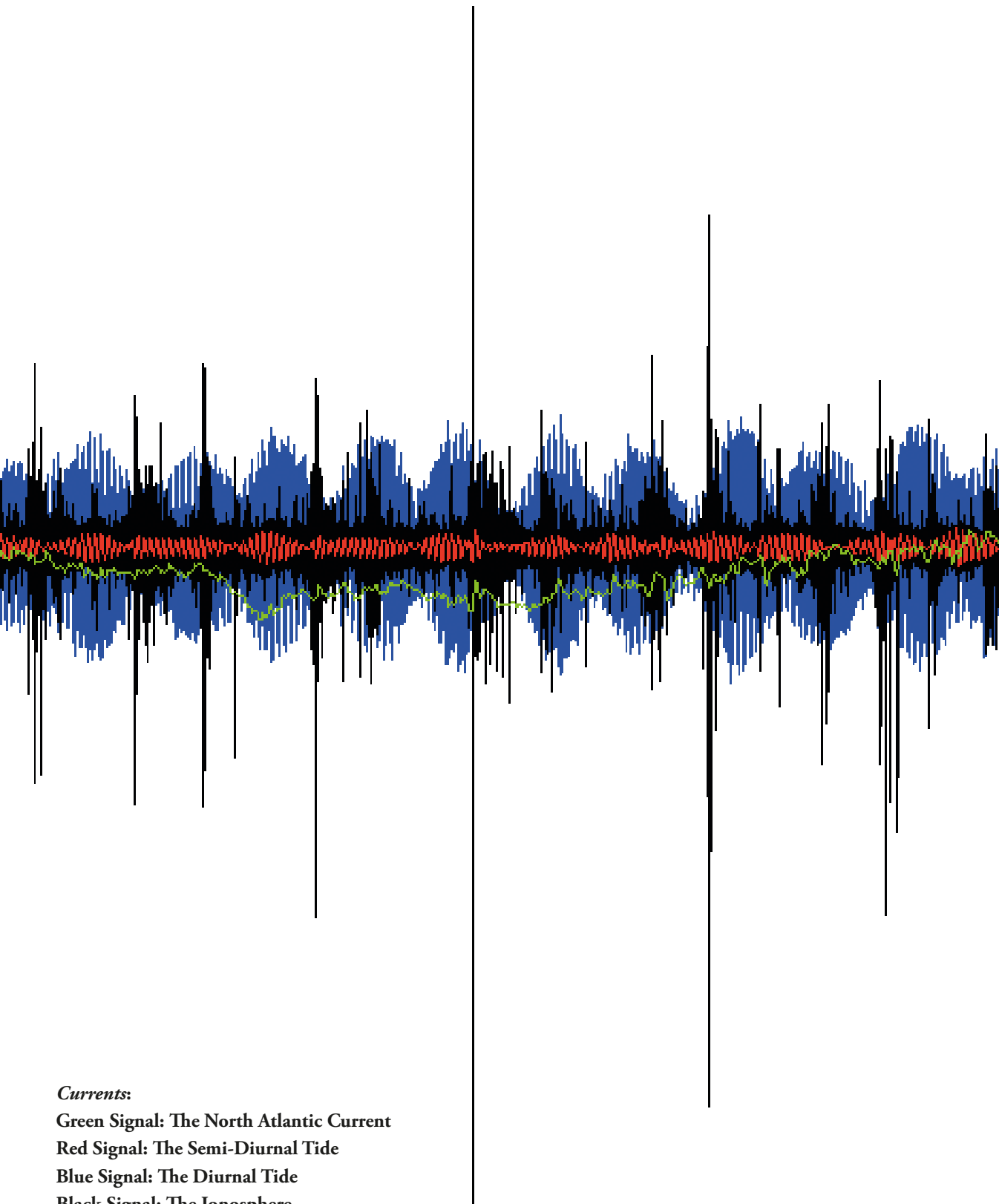


Currents:

Data from an automatic research station north of the Faroe Islands were piped to servers at the Department of Meteorology at the Stockholm University. From there, data were sent onto the installation in the Opera...



...where they were continually transformed into a sonic artwork that unfolds in real time. From 18 loudspeakers (red spots) small drops of sound were projected in all directions. (Photos: the author, 2011)



Currents:

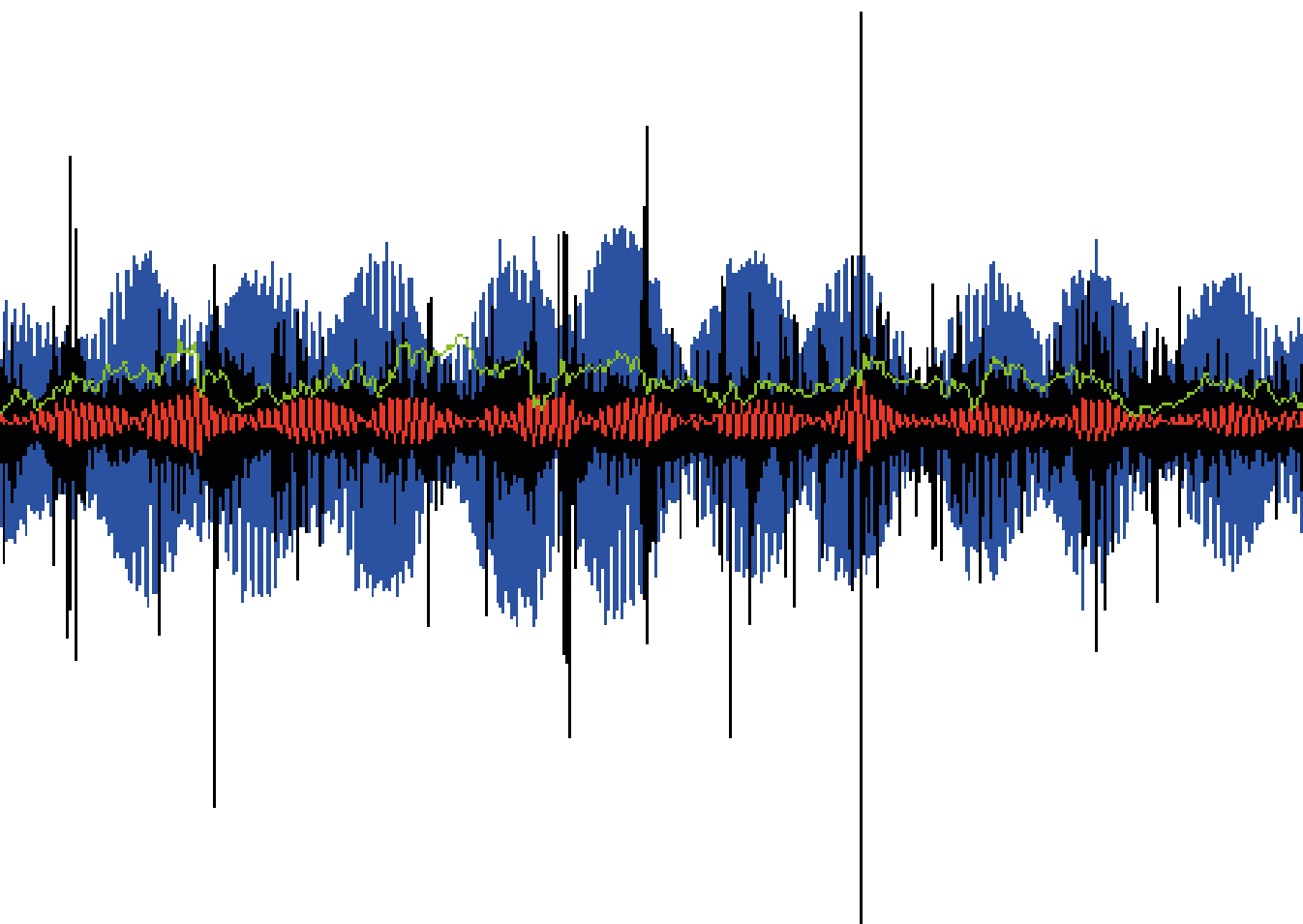
Green Signal: The North Atlantic Current

Red Signal: The Semi-Diurnal Tide

Blue Signal: The Diurnal Tide

Black Signal: The Ionosphere

(Illustration: Peter Sigray, 2010)



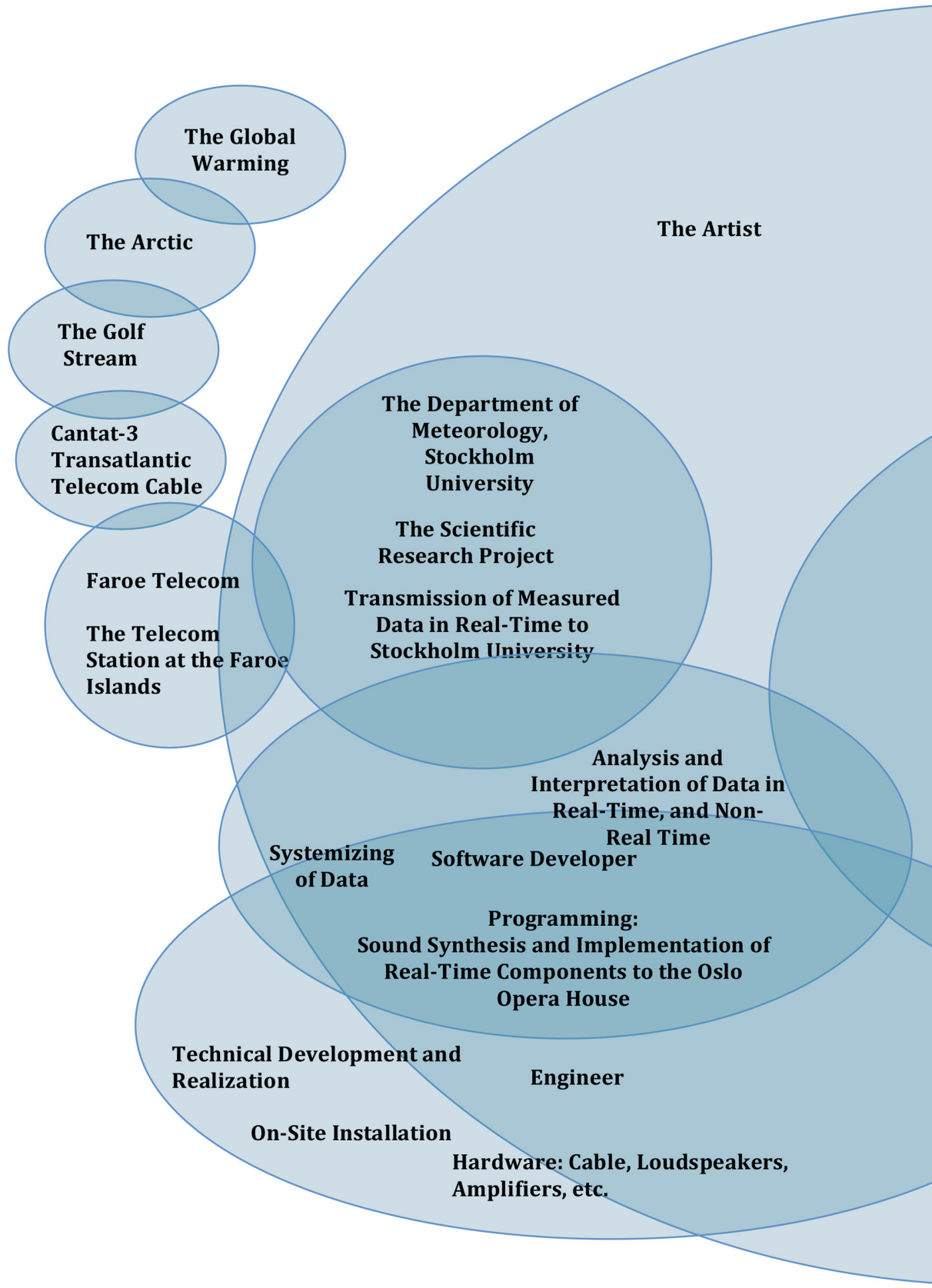


Currents:

The Oslo Opera House.

(Photo: the author, 2011)





The Global Warming

The Arctic

The Golf Stream

Cantat-3 Transatlantic Telecom Cable

Faroe Telecom

The Telecom Station at the Faroe Islands

The Artist

The Department of Meteorology, Stockholm University

The Scientific Research Project

Transmission of Measured Data in Real-Time to Stockholm University

Analysis and Interpretation of Data in Real-Time, and Non-Real Time

Systemizing of Data

Software Developer

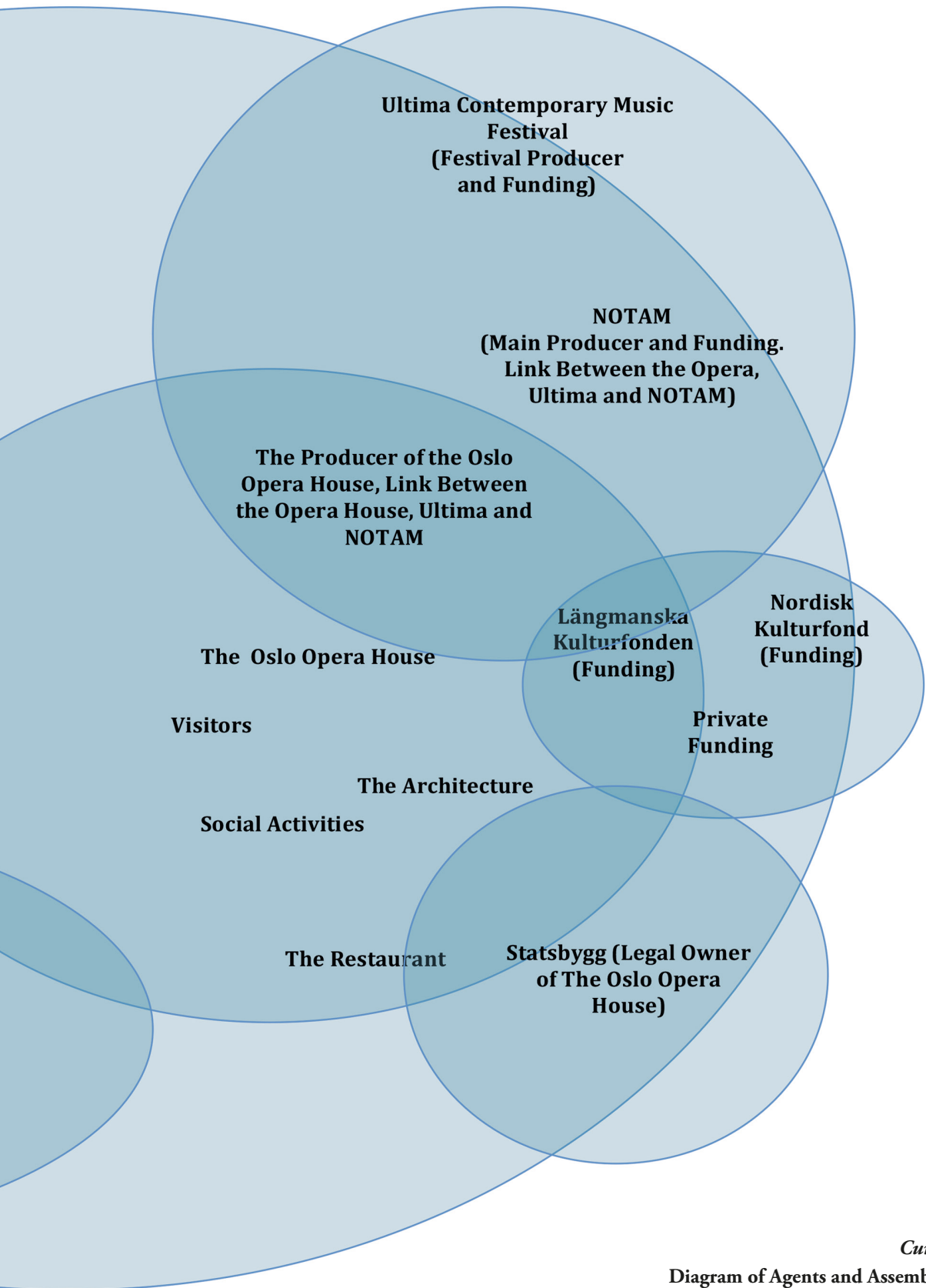
Programming: Sound Synthesis and Implementation of Real-Time Components to the Oslo Opera House

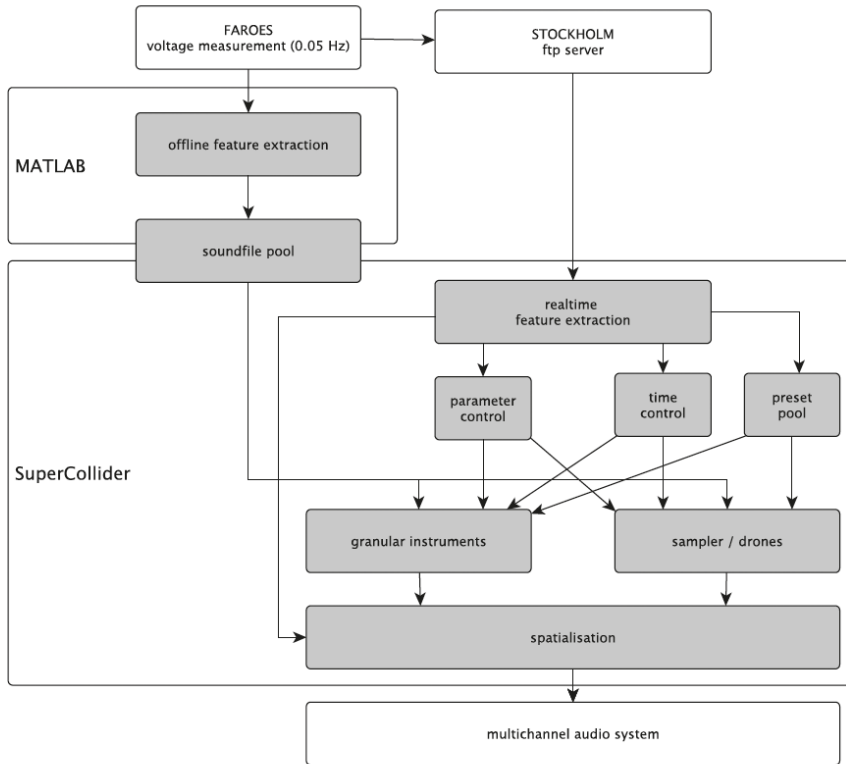
Technical Development and Realization

Engineer

On-Site Installation

Hardware: Cable, Loudspeakers, Amplifiers, etc.





Currents:

Overview of the System Design.

(Illustration: Florian Goltz, 2011)

CHAPTER 6: CASE 2
FAILING TO MAP NAIROBI'S AFFECTIVE LINES
—EXPLORATION AS A TRANSVERSAL
AND SITUATED PROCESS

Prelude

One late evening in January 2013, I found myself standing at Arlanda airport in Stockholm, waiting for my luggage, having returned from a ten-day journey to Nairobi. The trip was part of an artistic project, which was to take place as part of the culture festival *Nai Ni Who?* (in English, *Who Is Nairobi?*).

The project was an outcome of years of networking between several prominent cultural institutions, the Swedish firm TYP Kulturkapital, and the Kenyan GoDown Arts Centre. TYP Kulturkapital is a consultancy firm, which specializes in advisory services like “strategic analysis, advisory services, networking, and cultural and business development” in relation to governmental and private cultural commissions, as they write on their webpage (TYP Kulturkapital, n.d.). The Nairobi-based GoDown Arts Centre is the first interdisciplinary center for the arts in Kenya. Situated in a former industrial area, the 10,000-square-meter complex contains studios, offices, and rehearsal and performance spaces, accommodating a variety of art media, residency programs, and host organizations (GoDown Arts Centre, n.d.).

The cooperation between TYP Kulturkapital and GoDown Arts Centre was initiated in order to promote an exchange between continents, and to facilitate the creation of a Kenyan-Swedish network for exploring the identity of urban cities from social, political, and cultural perspectives. Focus was placed on “how culture could fuel city- and societal development,” including “how identity, participation and a social coherent city could be emphasized through artistic processes” (ArkDes, n.d., my translation).

The partnership would firstly focus on Nairobi and then at a later stage on Stockholm. This exchange involved the participation of a

range of different cultural actors, including the Swedish architecture firm White Arkitekter and Sweden's National Center for Architecture and Design, ArkDes, in Stockholm. These actors carried out a series of workshops, seminars, and walking studies "in order to investigate infrastructural, democratic, and sustainable development" (White Arkitekter, n.d., my translation) in the former industrial area where GoDown Arts Centre is situated.

The cultural festival *Who Is Nairobi?* was one of several outcomes in relation to this cooperation project. Whilst the overall thematic for the cooperation focused on urban issues connected to identity, the specific idea behind the festival was to explore Nairobi's multicultural and heterogeneous identity, in terms of both its historic establishment and the contemporary condition of being a global metropolis. The festival was to promote cultural outcomes across the whole city during a limited time period. The idea was that this first part of the project was to be specifically devoted to site-specific explorations of Nairobi's twelve sociogeographical districts, in order to find a thematic that would later be realized as a site-specific work.

While standing at the baggage claim, I contemplated the week behind me, realizing that despite the fact that the intentions and the institutional set-up had in theory been excellent, nothing had actually worked out. Based on my experiences on the Nairobi trip, this chapter address the terms of artistic exploration in a complex global context, and asks how such processes are affected by the demands posed by an organizational framework.

Being an artist engaged in site-specific practice often means taking part in projects with limited time between the initial explorative process and the completion of the artwork. Due to the set budget, I often only have the possibility to visit the site a limited number of times in order to undertake the mapping process. In addition to

this, the organizational frameworks often operate across national borders, meaning that I carry out my projects in an international, even “global,” context. This means that in order to undertake the initial explorative process, I have to be able to work in contexts that I am not familiar with, finding relevant and interesting points of departure for the work from very early on. This emphasizes the role played by the organizational framework in which I work, as well as placing focus on the importance of the artistic process of exploration. Architecture theorist Catharina Gabrielsson also emphasizes the importance of organizational frameworks, pointing out that despite art’s ambition to tear down borders and exceed the traditional art institution throughout the 20th century, the very concept of “art” and, importantly, the art institution, have remained a necessary precondition for the existence of the field. Art is, she maintains, thus completely dependent on a context that is not only aesthetic and conceptual, but also radically organizational and economic (Gabrielsson, 2006, p.298).

The exploration process, as I have previously defined it, constitutes a process of mapping that I see as both transversal and situated. The process of spatial exploration is, from the outset, immanent: the production of space, I argue, is an *affective* process that is generated by the establishment of machinic relations between a range of heterogenic components that span between the human and the nonhuman, and the material and the discursive. These components together constitute the complex assemblages of ideology, politics, and material formation that we refer to as “public space.” From such perspective, the initial stage of a site-specific project constitutes a process of mapping or investigating these affective force relations, or agencies. I also speak about this in terms of the exploration of a place’s affective lines.

Each site, however, has its own specific composition of affective force relations, each of which can be mapped during the ethnologic process of artistic exploration. The excursion to Nairobi differed in one fundamental way from most of my experiences in that when I arrived, I had no previous experience of the city to rely upon. Actually, it was the first time I ever visited Kenya, and the first time that I'd visited any of the fifty-four nations that make up the continent of Africa.

The first issue that I wish to address in this chapter concerns the way in which the specific organizational conditions of the project affected my capacity to transversally map and explore Nairobi's affective lines. The second issue deals with the "non-autonomous" nature of the artist-subject, and how this lack of autonomy can affect the artistic process of mapping. As I previously outline, the production of knowledge is never simply about the transformation of "neutral" information, but is rather, as Donna Haraway points out, always situated and partial (Haraway, 1988). Gender, class, ethnicity, biological constitution, and cultural background together constitute the body with which I approach and intersect with other bodies. Given this, it's important to acknowledge that I belong to the category "White European Woman," that I have a middle-class background, and that I am therefore subject to a series of coded preconceptions. To these categories, I can also add that of my own field of professional practice—site-specific sonic practice—which is to a large extent rooted in a Western cultural-ideological framework. Building on the above, I here attempt to articulate the way in which a situated and partial perspective affects the act of mapping a site's affective lines, as well as the artist-subject's relation to their own minimal autonomy. In this chapter, I discuss the way in which such a perspective affected my own capacity to experience and thus explore Nairobi's affective lines

in connection to the specific conditions of the organizational and institutional framework that I found myself within.

Four Different Attempts at Mapping Nairobi's Affective Lines

Mapping Nairobi's Affective Lines Through Seminars

The implicit outset for the project, and particularly the initial journey to Nairobi, lay in the idea that the participants would arrive in Nairobi without any particular prior preparation or knowledge about the context. This precondition was to a large extent in line with those of several similar projects that I'd been involved in, where the details of the project were also to be explained and concrete plans articulated "on site." Focus here also seemed to have been placed on the creative encounter that ensues from encountering a new environment, seeking to understand what that might spark in terms of creativity and artistic outcomes for us participants.

All of this meant that upon arrival Nairobi, I hadn't been prepared with any specific material from the organizers, except my own preparations, which consisted of buying some books about Nairobi and Kenya and doing some internet research. When finally there, the organizers had prepared an intensive "crash course" about the city, which took place at GoDown Arts Centre and constituted the very first part of the project. The course, which was given by experts from the different urban areas, aimed to produce an understanding of Nairobi from social, political, and cultural perspectives. As part of the program, Dr. Lydia Withira Muthuma gave a talk about Nairobi's architectural history and its public artistic monuments. Through this part of the course, we learned that even if it was in reference to the River Nairobi that the Maasai, a people who once populating the

area, named the city, it is around the railway that the city developed. The area between Lake Victoria and Mombasa, we were told, was part of the British colonial protectorate. During the 20th century's colonial expansion, it was the area around the rail sidings that in fact developed into a central node for trade, eventually becoming the center of the contemporary city of Nairobi. The tension between indigenous peoples—the Maasai and Kikuyu peoples—and their struggle over the territory, as well as the subsequent colonial appropriation of land, paved the way for the development of a city scarred by colonial conflicts, liberation, dictatorship, and new phases of liberation.

From this initial description, contemporary Nairobi appeared to be a melting pot of ethnic heterogeneity, including indigenous peoples, descendants of the immigrants who came to construct the railway, merchants from Gujarat, groups from Somalia and Sudan, descendants of the British colonizers, as well as the constantly increasing economic and social presence of the Chinese. The city also seemed to be characterized by economic extremes: Nairobi is regarded as one of Africa's most prominent financial cities at the same time that it harbors Kibera, Africa's largest urban slum district. During the crash course, fragments were added to fragments, in order to create an understanding of Nairobi's cartography and the way in which interactions between heterogeneous components (trade, materialities, bodies, and capital) were over time organized into the affective lines of the city, thereby constituting the politics, history, and social striations that constantly reconstitute Nairobi as an assemblage.

Already then, in the initial days of seminars, I glimpsed an unspoken pressure, an expectation on behalf of the organizers, that we would each find a thematic point of departure in order to start our various artistic process. At the same time I realized that even though the these first discursive and theoretical conversations about the city

constituted a first preparatory step of exploring the site, they would be insufficient in the long run, as the exploratory process ultimately requires *direct contact with the site* and can never be undertaken from a distance.

Returning to my earlier proposal that spatial production emerges as an effect of transversal affective relations between heterogenic elements that span between the discursive and the material, it should be added that such machinic processes cannot be separated from each other. The discursive realm must therefore always be connected to material conditions, and this connection is a crucial part of the explorative practice. These affective forces—these “lines”—can as such only be explored through the direct, embodied experience of the site. Urban theorist Doina Petrescu, who I refer to earlier in the thesis, maintains that these lines can be “represented, mapped out only if they are performed, acted upon, experienced through” (Petrescu, 2007, p.189). The direct meeting is thus critical: the lines can never be grasped from a distance, and the explorative process can only be experienced through a confrontation with specificities and an affective encounter with the site. The site in this way constitutes a focal point for site-specific practice’s interest in complexity and dynamics.

Mapping Nairobi’s Affective Lines by Car

After the introductory crash course, it was finally time to meet the city, body to body. That is at least what I thought. Immediately, though, it became apparent that much of our time had been planned and would be spent on a guided group tour in a minibus. The reasons for this, the organizers explained, were dual: on the one hand, it was in line with the initial idea of introducing us to Nairobi’s twelve socio-geographical districts, which cover a huge area; on the other hand,

and more importantly, the danger associated with walking around in areas of the city without knowledge of the social and cultural codes required that our organizers take safety precautions on our behalf.

I sat on the minibus with the other participants, and we were driven through Uhuru, Woodley, Kibera, Eastleigh, Karenland, Downtown, and Hamza. These districts encompass a range of socioeconomic extremes—from the highest upper-class areas to slums—that are simply not comparable to any of my experiences of social inequality in Europe. We were driven through these districts in order to gain a glimpse of the social topologies of the city—to gain knowledge and to find a perspective, something to grasp, something that we could use in initiating an artistic process. However, if the site-specific process is understood as an affective encounter between specific bodies that must be “performed, acted upon, experienced through,” then it must be recognized that *the way that this encounter takes place* heavily affects the outcome of the process of exploration.

That our encounter took place from within a bus is thus not insignificant. From the specific, partial, and situated location that is the inside of the minibus, I looked out upon the city. The bus cut through Nairobi’s social stratifications, tracing a winding line. From the inside of the bus, direct contact with the city disappeared. Scents, sounds, and haptic tactility, central sensory forms of information in the affective confrontation with a site, were absent. During our many excursions, the impossibility of any attempt to grasp the city’s intensities became increasingly obvious, and increasingly frustrating. From the bus window, the city was a frozen gesture, a narrative made up of disparate pictures dislocated from their contexts. Our bus ride through the socially vulnerable areas of Eastleigh in the Somalian district in particular felt extremely problematic to me, contradicting the very core of my artistic practice as a direct encounter between specif-

ic bodies. Sitting inside the bus looking out accentuated my subject position as observer of others' lives, who would remain unknown to me. With few exceptions, where we visited spots that were already selected in advance, I continued to observe the city from a position of invisibility, inside the bus, always ready to leave at a moment's notice.

Mapping Nairobi's Affective Lines by Foot

Having followed the organized arrangements over a number of days, it was clear that the bus held extremely limited possibilities with respect to a direct encounter with the city. I finally managed to convince the organizers of the necessity of making some individual tours by foot. I was thus given the opportunity to take some walks together with Lydia Withira Muthuma as my guide. We walked through some of the less socially loaded areas in Nairobi, mainly around the district of Downtown.

I have previously outlined the way in which walking can be understood to constitute an explorative practice based on affective encounters between bodies. Such an approach differs from established ideas of an autonomous subject—rather, through the “affective modulation” that is walking, bodies are understood to be generated and actualized through each other (Duff, 2010, p.882). To walk in the city is thus to be affected by the city, just as one's walking affects the city that this walking produces. The poetics of place, Duff states, generated in this walking is “as much a function of practice, of a doing and a making, as it is a function of feeling and affective modulation” (ibid.).

What does seeing the process of walking as an “affective modulation” actually imply in reality, though? Decidedly less poetic than Duff's walking experiences, my first immediate experience of such an “affective modulation” in encountering Nairobi was characterized

by the tactile, haptic, and embodied experience of what I would describe as an absence: that is, a lack of what I would normally take for granted in terms of urban infrastructure, namely pavements and footpaths. Step by step, following Uhuru Highway to Uhuru Park (Uhuru means freedom, referring to the national liberation 1964), my bodily choreography slowly adapted to the topology of the bare ground. I recall arriving at a huge intersection, and a monument to Nobel Peace Prize Laureate Wangari Maathai. Here, the intensity of the eternal flow of car traffic, which one seldom perceives directly, was directly available to experience. Street vendors waited on corners for the traffic lights to turn red, so that they could approach the cars, hoping to sell goods like sunglasses or soft drinks. A stream of people walked along the sides of the roads. When we reached the intersection, Lydia became, I noticed, suddenly more careful in observing the scene—using a low voice, she asked me to be careful, explaining that such intersections are one of the few points in Nairobi where the socioeconomic extremities of the desperately poor and the rich for some moments are exposed. This intersection, Lydia informed me, implies a drastic increase in the risk of robbery and assault.

In an everyday situation like this, the reality of the partial and situated perspective with which I approached Nairobi is clearly exposed, and I was made aware of how much it affected my encounter with the city. Even though I had always been aware that public space implicitly harbors a certain amount of danger and risk, a situation like that which I encountered at the crossing and my incapacity to deal with it as a “northern European, white, middle-class” body exposed my incapacity to decode the embedded specificities of this particular site. Without Lydia as guide—without her partial perspective and her awareness of the social codes—I wouldn’t be able to identify situations of danger, I realized.

This vignette highlights the importance of understanding our perspectives as both situated and partial in our meetings with a site. Our perspectives clearly affect the way in which we interact (or fail to interact) with a place. Moreover, reflecting on this everyday moment, it also exposed the unarticulated normativity present in established discourses of walking. The Situationists' "right" to get lost and to drift away, or de Certeau's ability to confront a city that could be "read" and interpreted as a text, which I address in Chapter 2, both require a self-assuredness which is highly dependent on the perspective from which one acts (the perspective, for instance, of a male subject) and the context in which this specific subject is located (an ostensibly safe European or North American context). Such normativity is based on an implicit notion of consensus or objectivity which at its root neglects differences in identities (Körner, 2016, p.205). My encounter with the intersection stands in stark contrast to the autonomous subjectivities implied by de Certeau or the Situationists. My situated perspective colored my behavior at the site and therefore shaped my *affective* encounter with the city. I felt fear, and behaved accordingly—that is to say, I behaved as discretely as possible.

Moving on from this point, we made our way through Downtown, and Lydia pointed out the City Library, which is close to the Technical University of Kenya. Libraries have formed sites of exploration in several of my previous projects. From my—as it turns out to be, decidedly Western—perspective, the library is as a metaphor for and symbol of democracy's foremost legacy: freedom of speech and the right to make one's own voice heard. As a pamphlet produced by Biblioteksstrategi (The National Library Strategy) in the Swedish municipality of Mölndal states, "Libraries are symbols of the free, open society of knowledge, and of everyone's right to free access to literature, information, and media as well as freedom of speech" (Mölndal

stad, 2015, my translation.) When passing by the library from a distance, however, I recalled at the time an earlier comment from one of the organizers, Judith, who had reminded us some days before that the library's function as a symbol of freedom of speech must always be put into context in terms of Kenya's colonial past and the written (English) word's suppression of traditional, local oral languages and narratives. In this specific context, the library, one of the Western tradition's strongest symbols, suddenly shifted in its connotations, and understanding this shift, I realized, required knowledge that I never would have gained myself, but could only acquire as shared knowledge, through others' partial perspectives.

My experience of approaching Nairobi was thus not only characterized by a sense that I had missed a specific bodily confrontation when driving through the city inside a bus, or that I had missed some information totally (as at the intersection), but also by an awareness of the fact that my frame of interpretation was entirely reliant on the coding resulting from my own background. As a consequence, I constantly misinterpreted crucial information embedded within the site. A partial and situated perspective unfolded over time, during Lydia's and my walk, but this process ended too quickly, before I was able to find a point of entry or approach in relation to the city around me.

Mapping Nairobi's Affective Lines by Listening

I have previously described the way in which soundscapes exert a crucial impact on the artistic process of developing site-specific sonic installations, regardless of whether the site's soundscape forms a thematic topic of exploration or not. Operating transversally, the soundscape impacts on the spatial as well as the technological development of an artistic work. The soundscape's agency can thus never be neglected

and is thus always a subject of inquiry. Taking into consideration the partial and situated nature of the process of mapping therefore also reinforces the importance of the *sonic* confrontation with Nairobi.

During my few walks, and some temporary stops during the bus trips, it became obvious that the conglomerate of becomings taking place at certain moments were also expressed through the city's sonic intensities. Some of these intensities were distinct and clearly perceivable, and some almost unnoticeable. In some of the socioeconomically depressed districts, for instance, business and industrial activities have historically been pushed together in a minimum of square meters. Labor, materialities, and bodies are expressed in the intensity of the soundscape in such places, in this case through drilling, sawing, background music, and voices, to an extent that borders on being painful. In contrast, at the residence of the Swedish Embassy, embedded in the greenery of the former coffee plantations in the Rosslyn district, silence reigned of a kind that only the aristocracy's grand estates can offer. Whether one lives in Nairobi, Stockholm, or Berlin, voluntary solitude, delivered by the opportunity to withdraw, costs money, it seems. Economic standards, apparent in the absence or presence of space, are thus expressed in the sonic density.

If amplitude and density affected my perception in a rather direct way, there were other forms of expression that were more or less explicitly embedded in the soundscape. Such forms of territorial expressions, which each have their specific codes, form the identity of a place, playing—as in the earlier examples of the intersection and the library—an enormously powerful role in shaping encounters with a site. Some of these codes are easy to detect. For instance, when walking around in Kibera, the sounds from manual, peddle-driven sewing machines caught my attention. It is not so much the perceptual experience of the sounds in themselves—their texture or density—which plays the most

important role in this observation, but rather what they express. The sound of feet working mechanical peddles revealed the fact that some people have to live without electricity in one of Africa's largest capital cities. This constituted a reality which instantly clashed with my situated perspective and references, as I up until that point had thought of a sewing machine as something fast, high-tech, and definitely electric.

Some expressions, however, are embedded in the cultural segments of a site in a highly sophisticated manner, that requires—again, like at the intersection and the library—someone with an internal knowledge of the site to explain them. For instance, during one of the walks, I suddenly experienced the distinctive sound of hands clapping coming from one of the *matata* buses, a kind of privately owned yet official transportation system for the inhabitants of Nairobi. I primarily experienced this sound as music in its rhythmic expression, and reacted to it as if it were music: I listened to the beat of the rhythms appropriating and territorializing the space, increasing and decreasing in intensity depending on the intensity of car traffic. Artist James Muriuki, one of the participants, however, informed me afterwards that clapping is used as a communication tool in Nairobi, to inform people that the bus will soon depart, and that it is time to hurry get on board. This information opened up a totally new dimension, making me aware of the information embedded within this perceptual material, which I never would have received without someone able to decode it. From an almost musical experience, once this was revealed, my relation with the situation was inevitably altered.

Vision, hearing, smell, and tactility are all crucial to experiencing a specific site. The partiality of perspective and situatedness however, is also fully implicated in notions of perception. Taste, sonic perception, and tactility are all impregnated with meaning and carefully incorporated into a society's social system and cultural codes. As anthro-

pologist of the senses David Howes puts it: “the human sensorium, however, never exists in a natural state. Humans are social beings, and just as human nature itself is a product of culture, so is the human sensorium” (Howes, 2005, p.3).

Despite several attempts at mapping Nairobi’s affective lines—through theoretical seminars, through the bus rides, through walking and through listening—during my ten days in Nairobi, a feeling of alienation remained. The experience of being unable to decode the essential information necessary to get beneath the surface of the city was constant, and an opening failed to present itself.

Exploration as a Transversal and Situated Process —Concluding Remarks

Drawing upon my experiences from the Nairobi trip, in this chapter I provide an account of the initial process of mapping a complex global context, placing specific emphasis on how this process was affected by the inherent conditions and regulations of the organizational framework within which I found myself. Throughout this chapter I trace a number of these conditions, setting them in relation to the specific context of Nairobi. In so doing, I address the way in which the organizational framework’s conditions impacted on my ability to map Nairobi’s affective lines, as well as the minimal autonomy of the artist-subject. Understanding perspective as being transversal, situated, and partial, I try to show how the combination of these organisational conditions and my partial perspective affected my capacity to explore Nairobi’s affective lines in relation to the conditions of the organizational framework.

The project’s ideological ambition, as I explain in the opening of the chapter, aligned with a view that positions art and culture as a

fuel for city- and societal development, which sees art as fostering “identity, participation and a social coherent city” (ArkDes, n.d., my translation). Further, the project also had the basic ambition of addressing all of Nairobi’s twelve sociogeographical districts, while at the same time the participants approached Nairobi with a limited previous knowledge about the cultural context. Moreover, I also explain that because of the risks implied in strolling around in the city, the process of exploration to a great extent took place from the inside of a minibus. The few possibilities to carry out walks took place collectively as stops on the way, or with guides. To sum up, the process of exploration, including the theoretical and discursive insights offered to us, the bus tours, and the walks, all formed conditions that were directed by the organizational framework. At the same time, my Western perspective also made Nairobi, with its specific affective lines and all of its cultural and political complexity, difficult to approach.

Treating the mapping process as a situated and ethological practice that is highly dependent on an in-depth experience, these preconditions meant that my approach to mapping Nairobi ultimately failed. Situated and ethological processes of exploration need time in order to establish a relation with a site. From an artist’s perspective, time is needed to overcome the gap between the situated partial perspective with which the artist approaches the site, and the site itself. Time is also needed in order to develop an awareness of one’s own shortcomings, and in this sense a great deal of the information embedded within Nairobi lay beyond my comprehension. Whilst my trip to Nairobi exposed this in a very direct and obvious way, the issue remains relevant in Northern Europe. Beyond asking “What do I see and what do I hear?”, we must also always pose the question “What do I *not* see and what do I *not* hear?”. The specific and partial perspective with which I—with humility, openness, and great effort—approach a site

must thus be understood as one specific perspective among multitudes of other possible perspectives. This insight resonates closely with the position advanced by art theorist Miwon Kwon, who I refer to in preceding chapters, who observes:

Only those cultural practices that have this relational sensibility can turn local encounters into long-term commitments and transform passing intimacies into indelible, unreachable social marks—so that the sequence of site that we inhabit in our life's traversal does not become genericized into an undifferentiated serialization, one place after another" (Kwon, 2004, p.166).

Through an exploration of the relation between the body I constitute and some of the incalculable number of bodies that the site constitutes, a number of the affective relations that generate the site as this very site, with its own history and its own social constitution, can be mapped out. These relations must in turn be thought of as specificities, rather than as generalized patterns. In the case Nairobi, the ten-day journey did not give the time and space necessary for developing such relations, despite the highly organized framework informing the project.

The Nairobi project, to conclude, constituted a complicated process, which had its own specific framework and conditions in addition to the site's specificities. Reflecting upon it now, however, the project nevertheless reveals a lot about the day-to-day conditions of artistic practice and the assumption that an artist like myself should within a limited timeframe be able to deliver high quality outcomes under complex and often very stressful circumstances. This assumption risks, I claim, landing in simplifications and generalizations, and missing what artistic practice can become: the development of a relation to a site, in all of its complexity.



An Excursion to Nairobi:

Mapping Nairobi's Affective Lines by Car.

(Photo: the author, 2013)





An Excursion to Nairobi:
Mapping Nairobi's Affective Lines by Car.
(Photo: the author, 2013)

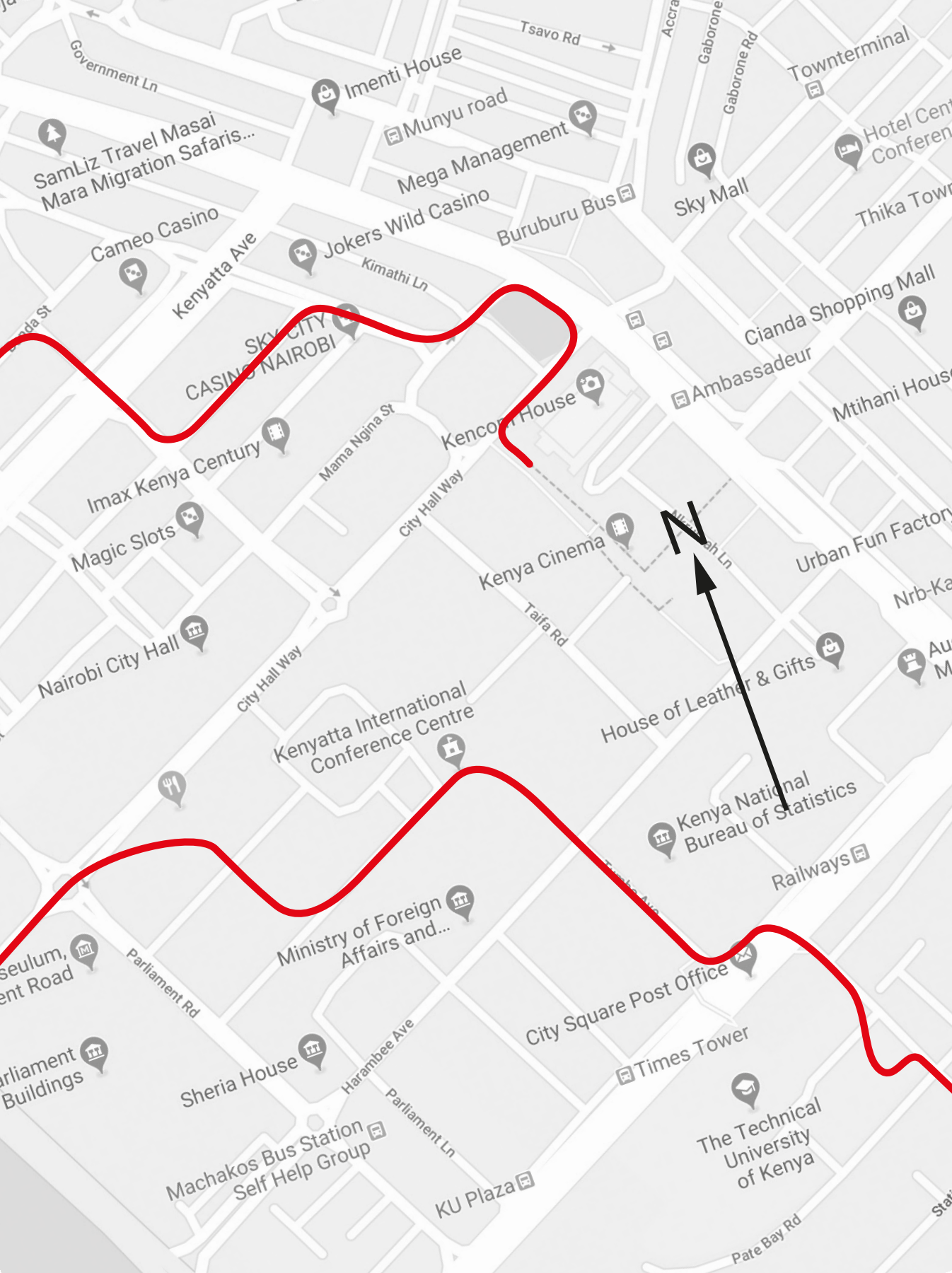


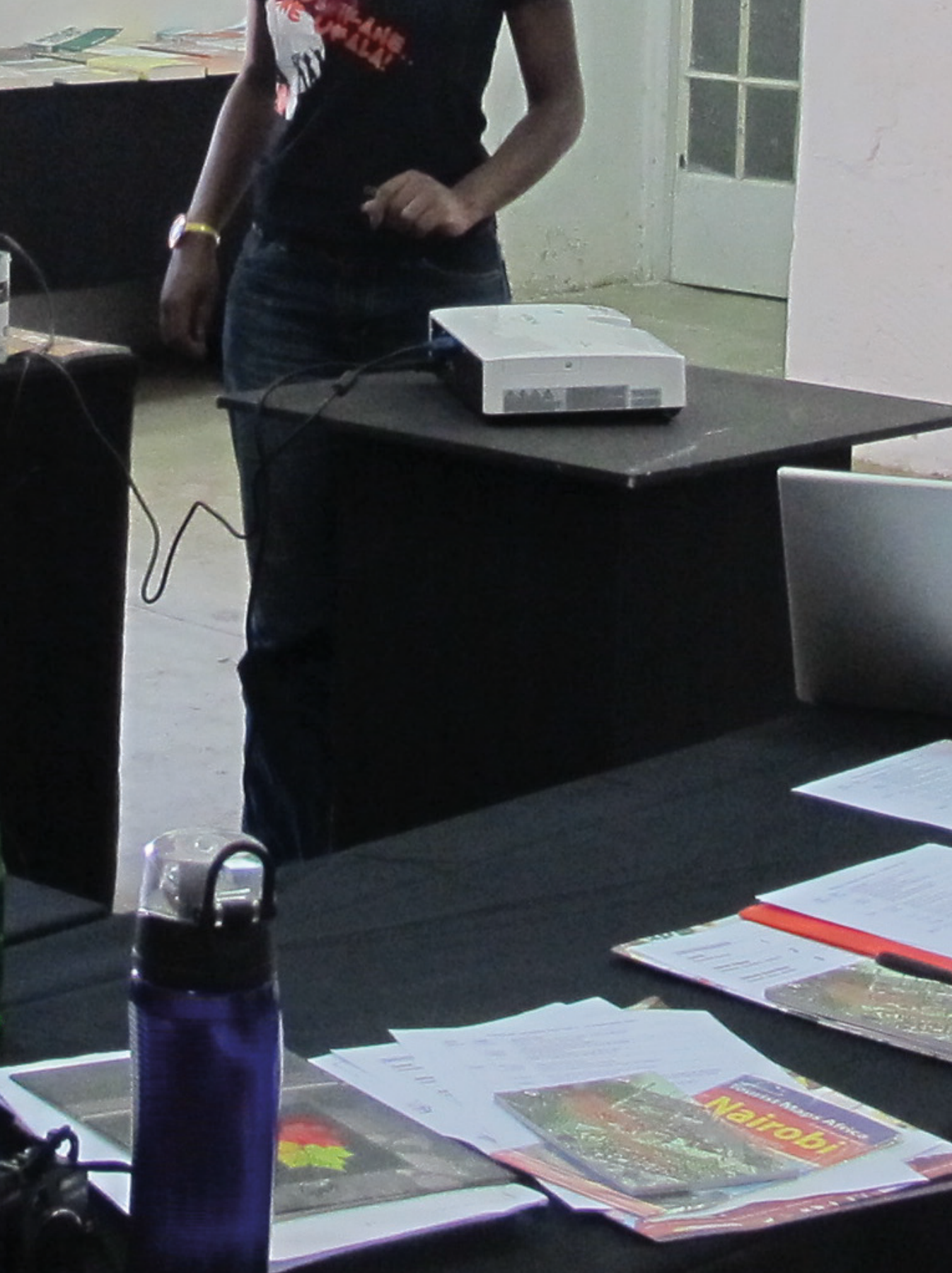


An Excursion to Nairobi:

Mapping Nairobi's Affective Lines by Feet.

(Illustration: Åsa Stjerna, 2015 + Fredrik Arsæus Nauckhoff, 2018)







An Excursion to Nairobi:
Mapping Nairobi's Affective Lines by Seminars.
(Photo: the author, 2013)

CHAPTER 7: CASE 3
TRANSFORMING THE HISTORY OF HÔTEL
DE MARLE INTO AN EMBODIED EXPERIENCE
—ESTABLISHING SPATIAL SENSITIVITY AS
A TRANSVERSAL PROCESS

Prelude

The Swedish Institute's garden, May, 2014.

From the terrace, I gazed out over the lawn. It was the inauguration of the permanent sound installation *The Well*, the result of nearly two years of intensive work with the site. I watch a group of visitors leave the main building, walk across the terrace, and follow one of the gravel paths that transect the lawn. They take the path only part of the way, leaving it at one point in order to head across the grass. They pause here, momentarily; it takes several seconds before they approach the overgrown well in the center of the garden. It is here that the work lies. They lean over the well, lingering in this position for a few moments, before returning to the opening in the building behind me—the Swedish Institute in Paris. The pattern that emerges in the movement of visitors as a result of their engagement with the work—the decision to deviate from the gravel path, to wander across the grass, and to lean conspiratorially over the old well—demonstrates the way in which spatial strategies can interact with visitor's embodied engagement. It is this exchange that I address in this chapter.

In this thesis I describe a number of similar instances wherein site-specific sound installations establish particular spatial “sensibilities” in visitors' bodily engagements with a site. I suggest that the production of such sensibilities constitutes a central artistic strategy within site-specific, multi-disciplinary, artistic practice. By increasing the corporeal experience of the site, different approaches to the process of spatialization—both the localization of sound in space and the movement of sound in space (called “panning”)—are at times able to establish an immersive relation between visitor and site. A sound installation can sharpen a flaneur's awareness of their surroundings, shifting sensibilities and deepening their relation to a specific place.

Key to the establishment of such immersive relations is the act of listening as a corporeal practice.

Exceeding a traditionally “musical” idea of a sonic work, whereby the audience experience the work in a predetermined, linear sequence that takes them from a beginning to an end, sound installation is, as I argue earlier in the thesis, based on a non-linear approach to sound, which accentuates the flaneur’s own corporeal experience of the sound work. In such a way, the work incites its own completion by the visitor (Föllmer, 1999, p.193). Time, in such a schema, becomes linked to embodied exploration, and the sonic material acts as an *incitement*, which is *actualized* via the flaneur’s corporeal performance. New expressions of corporeal forms of listening emerge in such processes, evoking a sensibility that is actualized through the flaneur’s corporeal activity. In this way, a deterritorializing capacity can be artistically incorporated into a sound installation in unexpected and surprising ways; it is, however, also actualized by the fact that people simply move differently. In this way spatialization generates bodies that suddenly lean, stand, or even lie down, and that in so doing exceed the everyday choreography of the site, actualizing the city from other possible positions. Under such circumstances, a pedestrian crossing or a square holds the potential to *become something else*. In this way, artistic approaches to spatialization challenge habitual causality, offering the flaneur the possibility to renegotiate the prevalent affective relations between her body and the body of the city.

In this chapter, I argue that through spatialization and the spatial sensibilities that it establishes, sound installation constitutes an affective, *ethological* practice which brings bodies into action. As I describe in “Chapter 2: Contextualization,” we currently lack approaches and tools that are capable of articulating the transformative and transversal potential of spatialization and the conditions that establish it.

Established notions of spatialization tend to be based on a Cartesian model of space, and as such fail to take into consideration a site's specific conditions. This chapter sets out an alternate account of spatialization, which I argue can act as a site-specific, transversal process that is capable of actualizing other forms of corporeal relations with and through the site. I explore this conceptualization by critically tracing the development of the sound installation *The Well*.

Two issues arise in this account. The first concerns the transversal and machinic nature of the process of spatialization that was employed in the *The Well*. The artistic process of *The Well* allowed me, I argue, to interrogate the interaction between assemblages consisting of agencies of entirely different characters. Together, these agencies established the spatialization of the work. The second issue concerns the artist-subject's relation to their own minimal autonomy. To view the artistic process of spatialization as being transversal in nature implies that one also views the artist as one agent among many, all of which are always situated, and in possession of only partial perspectives. The process of spatialization and the establishment of spatial sensitivity in *The Well*, I argue, provides an example of how such a view might affect and shape an artistic work.

Arriving at the Haecceities of Hôtel de Marle

Afternoon stroll, April, 2013.

One rainy afternoon, a year earlier, I found myself strolling through the garden of the Swedish Institute, a 16th-century palace also known as the Hôtel de Marle, which is located in the heart of the Marais district in the center of Paris. I had been commissioned to create a permanent contemporary sound artwork for the garden of the Institute, which houses a permanent sculpture collection. Unlike

the Nairobi project, in which the timeframe was really limited, this project was to take place over the course of almost two years. Further, a commission from the Public Art Agency Sweden, this work not only had a set budget, but it was to be conducted within the context of a Swedish institution, in a city that I was familiar with.

The garden of Hôtel de Marle is about six hundred square meters in size—the equivalent of a small, Swedish villa garden. It is dominated by a lawn, surrounded by gravel paths, and on the other side of the paths are flowerbeds, beyond which stone walls form the boundary to neighboring gardens and residences. The garden is a popular oasis, a visited place during the warmer seasons when the summer café is open. It is also a central place for several of the cultural activities organized by the Swedish Institute, for example, concerts, exhibitions, as well as artistic temporary interventions spanning from traditional sculptures to performances.

Like the sonic material that I describe in relation to the work *Currents*, the practice of spatialization involves the establishment of new connections (or transversal machines) and the development of de-territorializing “cutting edges” (Deleuze and Guattari, 2009, p.333). With such an outset, spatialization generates microscopic lines of transformation, re-negotiating the embedded striations of the site and opening up for new corporeal ways of experiencing it. Establishing such transversal machines is a precondition for transformation, and from a transversal perspective the crucial issue when arriving at a place is thus how transformation can be established—how such “cutting edges” can be created so that they will act as “incitements” for flâneurs to actualize, taking the particular site’s conditions as outset.

Just like the other parts of the explorative process, the initial phase in establishing spatialization is the mapping of the site’s affective lines—that is, investigating the affective force relations between

bodies in becoming that together constitute a place by means of an assemblage. This is a matter of trying to understand what such lines are, and how they operate, and above all what they can become. Some expressions of such affective relations are easy to map, while others take place over longer durations and are thus more difficult. Nevertheless, each site contains specific momentary or permanent expressions of individuality, or what I refer to in “Chapter 4: Explorative Approaches” as *haecceity* or *thisness*. The central aspect of the process of mapping thus deals with exploring the site’s *haecceities* as they appear at specific moments of time and in specific spaces.

Architectural and Social Haecceities

The architecture of a site maintains an intimate relation with the site’s social constitution through the affective responses it incites in visitors. This relation in turn forms a central concern for site-specific art practice. Architecture can, for instance, affect how visitors move, how much time they spend at a site, or whether they simply pass by. Knowledge about these effects is crucial in the task of localizing embedded capacities and developing “cutting edges” that encourage the visitor to establish new unexpected ways of moving and thus experiencing a site.

In “Chapter 2: Contextualization,” I discuss the work of the Austrian sound artist Bernhard Leitner, and his explorations of spatiality, corporeality, and reinforced perception. There, I address Leitner’s permanent sound installation *Sound Space*, which is situated in a staircase at the Technical University in Berlin, a central space that hundreds of visitors pass by each day. Through its spatiality, the work establishes a direct contrast to the rest of the building, permeating the experience of the flaneur with sounds that are spatialized in all directions. From

the perspective of spatial perception, Leitner's approach to creating multi-channel systems understands listening to be an activity that not only includes the ears but the entire body. This can be juxtaposed against Max Neuhaus' classical sound installation *Times Square*, which I also mention earlier in the thesis, in which sound is localized to a single point—a ventilation shaft covered with a metal grid, situated at one of Manhattan's most frequented crossings, Times Square. Here, the visitor experiences a rich sonic texture emanating from the grid, consisting of overtones that come from the shaft. When crossing the grid, the sonic texture changes. Both of these works were developed in a direct conjunction with the architectural and social constitution of the site, in which the visitor's corporal engagement to experience the work is regarded as a central premise.

In contrast to many of Leitner's multi-channel installations, which use sophisticated choreographies of spatialization (particularly panning) in order to embrace the listener with sound from all directions, in *Times Square*, the flaneur must move through the installation in order to experience the different frequency fields. Experiencing an installation *walking* or *standing still*, respectively, must be related to whether sound is experienced as *omnipresent* or as emanating from a *single spot*, as these two works demonstrate. This demonstrates the fact that different artistic approaches to spatialization—that is, the development of transversal spatial machines—in the end radically affect the approach to deterritorialization and, ultimately, the resulting transformation of the flaneur's corporeal experience of the site.

This also forms the outset for my exploration of the garden's architectural and social haecceities. In my first encounter with the garden, I decided to explore the most obvious and graspable of experiences. Choosing an ordinary weekday in April, I visited the place, trying to pay attention to the length and number of my steps, attempting to

grasp the garden's dimensions through my body. I did this over and over again, each time trying to find a new perspective and new information about the site.

I therefore began by exploring the habitual movement patterns that were present on the site, investigating how the garden was structured for visits, and what walking patterns seemed to dominate. The garden, I noticed, is accessible to visitors by means of either a glass door from one of the Institute's public exhibition spaces, or alternatively through an entrance from a side street next to the palace. This immediately prompted a range of questions in me, and I began to reflect on how the different entrances to the garden affected visitors' movement patterns, and whether it might be possible to actualize other ways of perceiving the garden. What other paths and what other new relations with the site, I wondered, would be possible to actualize through strategies of spatialization? A significant proportion of the area of the lawn, the garden's center, seemed to be seldom frequented, as the paths surrounding the lawn invite visitors to avoid crossing the grass. This observation immediately raised a range of new questions: What kind of spatial approach could transform, that is, deterritorialize, the social walking pattern, making the lawn more accessible and activating this very central part of the garden, which for long periods remained unused?

With these questions in mind, I spent time in the garden observing the visitors strolling there. I noticed that the movement patterns they generated generally supported my own experiences of walking in the garden. Most people entered the garden through the glass door, walked along the gravel path surrounding the lawn, sat down on one of the benches next to the path or near the glass door, and after some time re-entered the palace. In this way my exploration of the relation between the architectural and social constitution dealt with the site's

micropolitics—with the question of how material and social stratifications generated certain structures, which the visitor had to relate to and perform in the garden. How I established a work there might alter this balance, I realized.

In my first contact with the site, I therefore spent time trying to detect these politics and to understand how they operated, with a view to developing spatial strategies for opening up other ways of experiencing the garden. Just as in *Currents*, people's movement patterns constituted a crucial factor for the social constitution of the site. I noticed how the number of visitors increased and decreased over the course of the day. I also observed that at certain fixed times such as breakfast, lunch, and coffee breaks, the employees of the Institute appropriated and territorialized the group of chairs and tables in the garden, through their own specific temporal rhythms. During my exploration, I also noticed these haecceities changing over the course of the weekend, when more visitors were present in the garden and fewer of the employees were at work.

In my discussion of the work *Currents*, I describe how changes in haecceities affect the establishment of the sonic machines—for instance having an impact on the choice of texture, amplitude, and periods of stillness in the work. Similarly, in the garden these changes affected the development of *spatial* machines: they had an impact in relation to *where* in the garden the work actually could be established, *how* it actually might engage spatially with the site, and if it should constitute a multi-channel embodied experience or be experienced from a distance. Should, for instance, it be experienced both temporarily by a visitor wandering around in the garden, as well as by the employees sitting down during their dinner breaks? Walking, standing, and sitting, all create entirely different expressions and approaches to spatial machinic deterritorialization.

Sonic Haecceities

The site's sonic haecceities thus quickly became a central aspect of the process. As in the previous cases I discuss in this thesis, the site's soundscape did not constitute a thematic in the work. Despite this, it did transversally affect the process of the work—in this case, the process of spatialization.

Just as in the mapping process that I conducted in relation to both the Oslo Opera House and Nairobi, listening in on the garden's affective lines as they were expressed in the sonic domain was a crucial part of the explorative mapping. The plastered facade of the 16th-century palace, the stone walls which surrounded the garden, the cobblestones of the streets in the nearby area; together, these generated a specific resonance, I noticed, which was characterized by the presence of the historic stone buildings. Hard surfaces make sound waves bounce, and this effect transformed the site into as a sonic magnifying glass. The sound from dry leaves scraping against the paving, the sound from flaneurs several blocks away: each of these sounds appeared clearly distinguishable to me when standing in the garden.

In traditional spaces for musical performance, spatial specificities like reflection, interference, reverberation, and absorption are taken into consideration only in order that they be eliminated. Being engaged in sound installation as site-specific practice, however, means engaging with and exploring how these acoustic specificities and their potential agency could be articulated through the work rather than eliminated. As musicologist Barbara Barthelmes points out, the site's acoustic can either become part of the preconditions for developing an installation or simply be accepted as a random event among many others that take place, which does not have to be removed or ameliorated (Barthelmes, 1986, p.87).

As I wandered through the garden, I listened to how the reverberation from the plastered facades altered character depending on where I was in the garden. Each new piece of information about the site's acoustic and its soundscape have the potential to become part of the establishment of the spatial machine. The acoustic magnifying glass constituted by the architectural and material conditions of the garden, which clearly articulated each individual sound, presented a strong risk that sound from a potential sound installation might spread to neighboring gardens. This in its turn immediately put pressure on the implementation and location of sound in the garden, and in particular approaches of panning between speakers: I wanted to achieve certain effects and at the same time avoiding disturbing the neighborhood.

Alongside the choice of spatial approach—which is connected to implementation, location, panning, and making use of existent acoustic conditions on site—stands the sonic material's capacity to establish psychoacoustic effects, through the psychological responses associated with sound. The experience of pitch, as Barthes stresses, does not only relate to increases or decreases in pitch; other psychoacoustic dimensions tend to be present, particularly among very high pitched or low pitched frequencies, including “clarity, volume, weight, and density” (*ibid.*, my translation). Low-pitched tones can be simultaneously experienced as “low, expansive, massive, rounded, heavy, stable, matte, or faint” (*ibid.*). High pitched tones, conversely, can be experienced as “small, thin, high, slim, ethereal, sharp, solid, and angular” (*ibid.*).

Our perception of sound can thus broaden our experience of space. In a manner that is analogous to visual spatial perception, Barthes points out that an acoustic three-dimensional space appears to us through our localization of a sound source—that is, through our ability to discern the direction of and our distance to external sound

sources (ibid.). An awareness of how this psychoacoustic behavior operates is fundamental for composers and sound artists in producing a bodily experience. This also involves changes in amplitude. Gradual transformation of volume from crescendo to diminuendo works as a strategy of underlining the direction of sound moving in space (ibid.).

The domain of psychoacoustics also involves the study of how sound is perceived in connection to a certain environment. A sound that potentially could be part of an environment generally creates less attention than a sound that could not; familiar sounds, in other words, generate fewer expressions of deterritorialization than unfamiliar sounds. This also affects the spatial strategy deployed by an artist in relation to a work. The degree of spatial deterritorialization in a fragile urban place like a garden of the Swedish Institute, where each discrete sound can be recognized, thus often stands in direct proportion to the degree of sonic deterritorialization offered up by the sound material. A strongly deterritorializing sound—for instance, a bell-like sound—issuing from an “unexpected place” could thus act as an invitation for people to search for the source of that sound, though it would most likely risk becoming a rather unwanted *sound mark*, i.e., a sonic foreground figure, specifically associated with a certain place (Schafer, 1993).

Attention must also be paid to *how* sound behaves physically, when it is transmitted through air. Low frequencies generally travel further, spread out, and transgress sound barriers, to a greater degree than higher frequencies (Sundberg, 1989, p.27). In the specific situation of the garden, a sound work consisting of mainly low frequencies would easily leak into the surrounding gardens and residences, which would directly impact upon the spatial process. As such distances would greatly affect the experience of the intended work in the gar-

den, I understood that my approach to spatialization would have to take this into account.

While all these aspects constitute a form of knowledge that is crucial for the practice, it is important to note that I am not suggesting that emphasis be placed on the spatial effects that one might achieve per se, but rather that consideration be given to how these effects might help to establish a new immersed relation—a spatial sensitivity—between site and visitor.

To conclude this discussion, the establishment of spatiality is thus highly dependent on the sonic environment and the creation of the sound machines, both with their specific approaches to and capacities for deterritorialization. Sound's impact on spatial experience could thus be considered to be both a problem and capacity when developing spatial strategies. For me, in the end, working in public space is always about the work's right to be heard connected to the ongoing activities at a site. Ultimately, the work becomes part of the site's ecology—it brings with it its own specific agency and becomes part of the sonic politics of the site. Developing a permanent work such as *The Well* in a fragile environment like that of the garden of the Swedish Institute required consideration of such politics and their spatialization.

Historical Haecceities

At a rather early stage in the process of mapping, I decided that the site's history would form a thematic focus. As described previously, Hôtel de Marle today hosts the Swedish Institute, which is owned by the Swedish state. However, beyond the "Swedishness" that has appropriated the place in the last four decades, tiny gaps in the site's history reveal glimpses of an entirely different place. I found traces of

this history everywhere: at the location itself, in the archives, and in people's diverse relations to the place.

The names that feature in the official history of this former private palace are mostly those of famous people. Here, my intention was to find a way to let other unknown voices speak, to give these forgotten people and names a kind of presence. I started to research the archives, collecting the names of people working or living in that specific location from around 1550 onwards. I also extracted the professions of those named; often, they were working-class people, many of whom were most likely only remembered as a name with an ancient profession in the national registration folders, found in the Archive Nationales (France). This initial survey was followed by a longer period of transcribing and compiling the names into a list.

Throughout this dissertation, I emphasize the artwork as an effect of machinic relations that transversally span between heterogeneous domains. As regards the establishment of the spatial machines of *The Well*, the conceptual thematic also had a direct impact on the spatial process. Just as the development of the sonic material and the process of spatialization should be considered to be as transversal and impacting upon each other (rather than distinct and separated), the conceptual thematic thus—in this case, the site's history—should be regarded possessing a strong agency capable of affecting the establishment of spatial sensibility.

In parallel with the investigation of the archive material, I undertook inquiries into the history of the architectural history of the site and the garden, referring to old photographic negatives, archive material, and architectural drawings. During these investigations, one of my discoveries concerned the old bush in the center of the lawn, which was revealed to hide an old, dried-up well beneath it. The well, which was almost a meter in diameter and up to five meters deep,

took the form of a stone cylinder, overgrown now with ivy. This well, together with a subterranean tunnel that I also found ran underneath the garden, formed the fundamentals of a forgotten part of the site's history, which was not shown in the architectural drawings of the garden. I started to investigate these places in order to see if these part of the garden's history might be able to be incorporated in the work.

Establishing a Spatial Machine Based on the Actual and Virtual Findings in the Garden

Having mapped the affective lines of the garden and its inherent capacities, the next step in the process concerned the transformation of some of these capacities into a spatial form of actualization. This process of transformation could be described as being similar to the establishment of “cutting edges” and the creation of a transversal sonic machine that I describe in relation to *Currents*, although instead of a sonic material my focus was on spatial issues. In particular, I was interested in how particular capacities might be transformed into functions, in order to create new spatial expressions. Like in *Currents*, the establishment of a transversal spatial machine “unites disparate elements in the material, and transposes the parameters from one formula to another” (Deleuze and Guattari, 2009, p.343), using a similar process of systemizing and programming—a process that can be understood in terms of “actualization.” Like in *Currents*, such actualization to a large extent revolved around the act of incrementally removing a number of capacities detected in the garden, despite their inherent ability to become spatial functions, whilst retaining, elaborating, and permitting other capacities to be actualized. What emerged was a complicated *machinic* process, in which *agencies* (by which I mean *capacities* capable of acting and being acted upon and

discoveries from the garden of the Hôtel de Marle) were coupled together in order to form sets of functions.

The first finding in the mapping of the site related to the lawn that occupied the center of the garden. I observed that despite constituting a significant portion of the garden's area, the lawn was rarely frequented, due to the fact that the garden's network of paths invited visitors to walk around the lawn rather than across it. Aside from the fact that visitors tended to avoid the lawn, I also found out that employees tended to appropriate a specific corner of the garden for their lunch and coffee breaks. These people would likely be disturbed if a sound work would be located in this immediate area. This constituted my second finding. From these observations, both made early on in the process, and both related to the *inherent agencies of the social haecceities* of the site, I decided to situate the sound work on the lawn, which—in terms of the spatial deterritorialization of the affective lines of the garden—would invite the strolling visitor to a new experience of the site, transforming her relation to the garden, and at the same time avoiding the area where employees had their breaks.

The third finding concerned the *inherent agencies of the historical architectural relics* uncovered in my archival investigations. The bush in the center of the lawn, I found, in fact concealed an old, dried-up well, which was covered by ivy. Together with a subterranean tunnel, these two components constituted a part of the ancient architectural foundations of the site. From the perspective of spatialization, the well and the tunnel not only carried conceptual and historical agencies, but also a spatial agency. With this in mind, I decided to use the well as a resonating space for my planned work, installing a loudspeaker at the bottom.

The fourth of my findings related to the *inherent agency of the historical archive material*. I had compiled a list of three hundred names

of people living and working on the site, spanning from the mid-16th century until today. This list formed the basis for studio recordings with eight different French actors of mixed genders and voice qualities, spanning from low to high voices, with and without accents, which constituted the raw sonic material of the work. Even though the raw sound material consisted of voices declaring a series of names, artistically this material could be processed in a multiplicity of ways, from focusing on the conceptual to the explicitly material embedded properties. As discussed earlier in this chapter, such choices strongly impact on the spatial result, and the capacity of the work to establish lines of deterritorialization.

Sonic—and thus spatial—forms of deterritorialization must in its turn be understood in relation to a site's specific situation. The fifth finding addresses *the inherent agencies of sonic haecceities of the garden*. Due to its specific constitution—its walls, surfaces, and size—the garden is experienced as a sonic magnifying glass, wherein each individual sound is perceivable. Sounds from the garden also easily leak into its surrounding environment, and abutting residences and gardens. Further, a sonic material that a listener does not naturally connect with the soundscape of a specific site—that is not coded as belonging to that site—tends to have a stronger deterritorializing impact than sounds which naturally can be found in that environment. This, was also something to take into account.

Together with software developer and programmer Andre Bartetzki, a live generated aleatoric patch in the programming environment SuperCollider was developed.

Similarly to what I describe in relation to *Currents*, as a programmer, Bartetzki constituted a crucial agency, exerting a great impact on what could be realized depending on his personal preferences and skills.

The patch was constructed on the basis of two sonic materials conceptually connecting to the Hôtel de Marle site. First, it integrated the archive material, which took the form of the recordings of names of people once connected to the site, in which each name can be distinctly perceived. Secondly, it worked with a generated, synthesized sound texture, operating with clear associations such as dripping and rippling water, in direct reference to the forgotten well.

Referring to the previous discussion of sound and the degree of deterritorialization possible in a certain environment, either of these two sound textures could be regarded as quite modest in terms of deterritorialization, in that both naturally could have been found in the garden. In most areas of the garden, the work would thus most likely be experienced as a low sound texture that blended in with the other activities in the garden. In line with the artistic concept of the work, I decided to increase the degree of deterritorialization from time to time. In using granular synthesis and interpolation, the sound materials irregularly and for different durations were made to blend with each other.²⁹

From a perceptual perspective, the sounds of “voices naming names” and “water” thus began to move away from constituting a narrative, becoming less and less semantically distinguishable until exceeding a threshold and becoming abstract. This process was then reversed and the voices over time were made to return to a more semantically distinguishable narrative expression. The final effect was one of a never-ending, constantly changing stream of transformation.

The use of an interpolation technique in order to blend the two types of material can be understood as establishing a sonic cutting edge not likely to be found in the garden, raising the degree of deter-

29) Interpolation is an oft-applied technique within Electroacoustic Music, see for instance composer Trevor Wishart's *Red Bird* from 1977.

ritorialization in slipping between a conceptual and perceptual mode of listening and prompting the flaneur to ask herself “What is that sound?”. This cutting edge was intended to form a sonic material, but it also operated as a spatial deterritorialization machine: perceiving something, the flaneur would, in the ideal case, cross the lawn. Reaching the edge of the old well, she would lean over it to get closer, thereby establishing a new corporeal engagement with the garden.

The Impact of Stone, Wood, and a Season —Unexpected Agencies During the Process of Modification

The spatial process could accordingly be understood in terms of a complex, machinic process operating transversally. Within that process, capacities were extracted which were in turn actualized into a set of functions. Just as I describe in relation to *Currents*, the modification of the sound installation on site constitutes a crucial part of the process of its realization. The agencies found in the garden that were transformed into functions in a software patch and transmitted through loudspeaker technology needed to be coupled together and ultimately to be modified in relation to the haecceities of the garden; this formed the final stage of the transformation.

From an artistic point of view, such modification is a very complicated process. To understand the machinic as a generative and creative process is to also allow for a great deal of unpredictability when the inherent capacities of different components are encountered. This became highly tangible during the process of modification of *The Well*. Referring to the work of Bruno Latour (2005), Cameron Duff writes that concrete cannot make its voice heard in public discussions, but that its resonance can be transformed in different ways (Duff, 2013, p.226). Duff’s statement became unexpectedly prescient in the mod-

ification process with respect to the old well. In contrast to *Current's* 18 loudspeakers, in which sounds were spatialized throughout the entire monumental foyer of the Oslo Opera House, in *The Well*, only one single loudspeaker was used (even though a second loudspeaker was installed as a backup). From an outside perspective one might assume that the modification process must have been far more complicated in the former case. However, as this process deals to a large extent with the task of engaging the site's inherent agencies, even the tiniest detail can bring about major effects in relation to the work. This was definitely the case in my work on *The Well*.

During the modification process, unpredictable low-frequency effects occurred time after another when modifying the sound material in the well. As mentioned earlier, low-frequency sounds spread further than high-frequency sounds, meaning the work became perceivable in large parts of the garden with the risk of disturbing the neighbors and the employees. Despite several acts of filtering, I wasn't able to attenuate this unwanted effect. Struggling with the problem for weeks, it wasn't until the wooden box protecting the speaker accidentally fell apart that I finally got rid of the unwanted low-frequency sound. Despite the modesty of only using one speaker, the sound waves emanating from this single loudspeaker turned out to create surprising and palpable effects when these waves connected with the well's stone-clad walls and latent capacities for becoming a sound resonator. The embedded capacities of the well's stone surface and the speaker box had established a machinic alliance of their own, producing a very strong resonance at certain frequencies that directly affected the spatial experience. In this way, non-human components and their embedded capacity for becoming can actualize into something else, depending on the context and the new forms of relations they enter into. These unpredictable alliances constitute part of the

site-specific everyday. All of this became very present in the process of modification for *The Well*.

In the process of modifying a work, time also possesses a great amount of agency and a specific capacity to affect the work process. As described in *Currents*, the process of modification often takes place within a very limited timeframe and stressful circumstances. The development of *The Well*, however, was a commission, which spanned over a period more than a year, which allowed for a longer processes of on-site modification, which at least theoretically should have paved the way for a calm and relatively peaceful process. The issue of time however, also raises the impact that the site's haecceities, that is, its occasional expressions of individuality over time, its thisness—has upon the spatial process. This impact was particularly noticeable during the modification process of *The Well*. Even though the whole commission spanned more than a year, the initial investigations and the modification on site mainly took place through a number of excursions during the late fall, winter, and early spring. A season, I was reminded, has its own specific haecceity. Deleuze and Guattari write:

A season, a winter, a summer, an hour, a date have a perfect individuality lacking nothing, even though this individuality is different from that of a thing or a subject. They are haecceities in the sense that they consist entirely of relations of movement and rest between molecules or particles, capacities to affect and be affected (Deleuze and Guattari, 2009, p.261).

Consequently a season has a strong affective capacity. The two final work periods of modification of *The Well* were in the beginning of March and, eight weeks later, at the end of April. Somewhat unexpected, in that time, the unique “relations of movement and rest between molecules or particles, capacities to affect” that characterize springtime rapidly altered—as the sun draws closer to the earth, tem-

peratures increase, and in the Institute's garden, vegetation grew. This growth directly affected my work. What had, during the initial processes of exploration and modification, been old and rather bare trees, had exploded like fireworks, forming a dense cloud of new, green foliage when I arrived in April, only weeks before the inauguration. The garden's acoustics, which earlier were so distinct and brilliant, were as a result heavily muted. The ivy, which had always covered the well, also flourished in the spring, totally covering the grid and affecting, by muffling, the sound work, necessitating a new round of modifications.

Establishing Spatial Sensitivity as a Transversal Process —Closing Remarks

The case of *The Well* reveals the transversal nature of the process of establishing spatial sensibility. The first issue that I address in this account of the artistic creation of *The Well* is the issue of how spatialization (understood as both a transversal and machinic practice) is established. Here, the establishment of spatialization is shown to have spanned between several assemblages and their respective haecceities, each with its own specific capacity to impact on the work. These included the site's architecture, its social movement pattern, the soundscape, its history, the software used, the programmer, the process of modification on site, and me as an artist. Moreover, I trace how have these assemblages transversally impacted on each other throughout the artistic process, from the initial exploration to the process of spatialization. Like the process of sonification in the work *Currents*, the process of creating spatial sensibility detailed in relation to *The Well* can be described as a process of realization, wherein the virtual capacities embedded in the different assemblages were actualized. Here, the

process of spatialization, like artistic sonification, involved the transformation of affective forces between different bodies and discourses. Transformation in turn should be acknowledged as constituting a creative, machinic process, capable of generating new expressions of becoming. This process is always situated, which means that in *The Well* the process of establishing spatial sensibility could only occur in direct relation to the specific site and ecology of the Hôtel de Marle, which today hosts the Swedish Institute, as well as all the other bodies included in the process.

The second issue to emerge from the preceding account, which stands in direct relation to the first, concerns the artist-subject's relation to their own minimal autonomy, as one agent amongst a multiplicity of others, whose perspective always is situated and partial. As was the case in *Currents*, the process of spatialization in *The Well* also exceeded the idea of production based on a Cartesian model of production. Instead, in this chapter I articulate a view of the artist as one affective body among others, in constant relation and part of a constant exchange of influences with respect to other processes, other bodies, and other assemblages. At the core of this proposition lies a sensibility in "listening in" on the capacities that are embedded in the site.



The Well:

Overview of the Garden, Hôtel de Marle—Swedish Institute. Spring 2013.

(Photo: the author, 2013)













































The Well:

In the Garden (left). The Well from Below (above).

(Photo: the author, 2014)

 006.Galibert.wav	6 februari 2014 18.09	Wavef... audio
 012.Ledit.Passemard.wav	6 februari 2014 18.22	Wavef... audio
 013.Passemard.wav	6 februari 2014 18.23	Wavef... audio
 015.Genot.wav	6 februari 2014 18.24	Wavef... audio
 018.Hyon.wav	6 februari 2014 18.26	Wavef... audio
 021.Rousseau.wav	6 februari 2014 18.28	Wavef... audio
 024.Dame.Henry.wav	6 februari 2014 18.29	Wavef... audio
 025.Lefevre.wav	6 februari 2014 18.29	Wavef... audio
 026.Dame.Lamarre.wav	6 februari 2014 18.30	Wavef... audio
 027.Macquart.wav	6 februari 2014 18.30	Wavef... audio
 028.Dame.Lamort.wav	6 februari 2014 18.31	Wavef... audio
 029.Veuve.Wigniska.wav	6 februari 2014 18.32	Wavef... audio
 030.Lamarre.wav	6 februari 2014 18.33	Wavef... audio
 031.Fleury.wav	6 februari 2014 18.49	Wavef... audio
 032.Passemard.No2.wav	6 februari 2014 18.50	Wavef... audio
 034.Galibert.wav	6 februari 2014 18.52	Wavef... audio
 037.Mion.wav	6 februari 2014 18.55	Wavef... audio
 038.Lafleche.wav	6 februari 2014 19.06	Wavef... audio
 041.Fromont.wav	6 februari 2014 19.16	Wavef... audio
 042.Devilleneuve.wav	6 februari 2014 19.17	Wavef... audio
 043.Leb Blanc.wav	6 februari 2014 19.17	Wavef... audio
 044.Cordelat.wav	6 februari 2014 19.19	Wavef... audio
 047.Mausselet.wav	6 februari 2014 19.23	Wavef... audio
 050.Hyon.wav	6 februari 2014 19.26	Wavef... audio
 052.Chapron.wav	6 februari 2014 19.41	Wavef... audio
 055.Lamarre.wav	6 februari 2014 19.55	Wavef... audio
 058.Mme.Guyeu.wav	6 februari 2014 19.57	Wavef... audio
 059.Roussaeu.wav	6 februari 2014 19.59	Wavef... audio
 060.Deviller.wav	6 februari 2014 19.59	Wavef... audio
 061.Chauvin.wav	6 februari 2014 20.00	Wavef... audio
 062.Hubert.wav	6 februari 2014 20.00	Wavef... audio
 063.Coller.wav	6 februari 2014 20.01	Wavef... audio
 064.Mary.wav	6 februari 2014 20.01	Wavef... audio
 069.Marie.Augustine.Marie.wav	6 februari 2014 20.06	Wavef... audio
 070.Isabelle.Mary.wav	6 februari 2014 20.06	Wavef... audio
 071.Isabelle.Mary.fille.wav	6 februari 2014 20.07	Wavef... audio
 074.Auguste.Edouard.Mary.wav	6 februari 2014 20.09	Wavef... audio
 077.Eulalie.Elisa.Doublet.wav	6 februari 2014 20.12	Wavef... audio
 078.Eulalie.sa.famme.wav	6 februari 2014 20.13	Wavef... audio
 080.Jean.Eugène.Brunel.wav	6 februari 2014 21.07	Wavef... audio



The Well:

The archive material was compiled into a vital sound archive comprising hundreds of names, with help from eight actors. Above: Recording session with Yana Maizel.

(Photo: the author, 2014)



The Well.

Overview of the Garden, Hôtel de Marle—Swedish Institute. Fall 2013.

(Photo: the author, 2013)



CHAPTER 8: CASE 4
THE MACHINIC EVERYDAY LIFE OF
A LOUDSPEAKER CABLE
—THE ON-SITE INSTALLATION AS
A TRANSVERSAL PROCESS

Prelude

A crucial part of working with sound installation as a site-specific practice in public space involves *the on-site installation process* in locations that were not created for exhibiting art. The process of installing the work in my practice always takes place in a direct encounter with the site's complex social, material, and ideological specificities, and often in close conjunction with the programmer and technological specialist that I am collaborating with at the time.

I have carried out a number of site-specific projects in cooperation with the electronic engineer Manfred Fox. Fox, who specializes in technical solutions for complex sound technology is a crucial part of the sound art scene, both in Berlin and internationally, and he provides artists and cultural institutions with technology and expertise.³⁰ Fox has been responsible for the technical development and on-site installation of technical equipment in most of my projects. An important part of the on-site installation process lies in our common preparatory discussions, on-site excursions, the development of concrete solutions with respect to the technology, and our planning of the loudspeaker cable's path from loudspeaker to amplifier.

Throughout the years, this has led to some peculiar situations. For instance, during the exhibition *Klangraum Kurfürstenstrasse* and the sound installation *Klangwäldchen* (Stjerna, 2007a) in central Berlin, we had to install the electronic equipment, that is the amplifiers and a hard disk player, on a generous stranger's balcony. The balcony turned out to be the only possible way to get electricity to the

30) Fox has throughout the years supported artistic and academic institutions like sound art gallery Singuhr Hoergalerie, Universität der Künste, and Elektronisches Studio at the Technical University in Berlin, as well as being involved in long-term co-operations since the 1980s with sound artists Bernhard Leitner and Christina Kubisch.

site, an outdoor space on a small abandoned plot some fifty meters from the apartment building. The fact that, after having connected the speakers, switched on the electrical equipment, and adjusted the volume, we wouldn't get access to the equipment again—the tenant was spending subsequent weeks in Hannover—was something that just had to be accepted as part of the process on site.

Other experiences border on the comical. For example, during the installation process of another version of *Klangwäldchen* (Stjerna, 2007b), which was exhibited at the Nordic Embassies, also in the center of Berlin, we came to the conclusion that the only safe place to store the electrical equipment was behind the cake buffet at the frequently visited outdoor restaurant. This in its turn required many meters of loudspeaker cable to be installed in order to connect the loudspeakers, which were located at another spot in the area, to the amplifier hidden behind the sumptuous buffet of Swedish desserts.

In another project we had to lay hundreds of meters of loudspeaker cable in order to provide the multi-speaker installation *Sonic Promenade* (Stjerna, 2008) in Stavanger with electricity. Although, like the previous examples, the installation was located in one of the city's most central spots, the only way to get access to electricity and to secure the electrical equipment was through a complex procedure whereby the loudspeaker cable had to be laid in a ventilation system, and then hidden in a niche covered with a huge oil canvas in a local restaurant.

In these examples, the installation process exerts a direct agency in relation to the “becoming” of the work, and the artistic transformation that the work stimulates. As I highlight earlier in the thesis, artists' insights and experiences in the installation process, including reflections on the transversal conditions that this process must engage with on site, are regularly neglected in accounts of the practice. Fur-

thermore, cemented ideas about the use of standardized equipment continue to dominate the way in which commissions are framed and announced, predetermining what is possible from the very start.

With this in mind, in this chapter I explore the complexity and transversal nature of the process of installing a work, showing how it plays out on site. By “on-site installation” also referred to as “installation process,” I refer to the process of installing loudspeakers, loudspeaker cable, and electrical equipment on a site. In articulating how such processes proceed, I will return to the artworks *Currents* and *The Well*, specifically focusing on the installation process required for each work.

Currents, which I describe earlier in the thesis, was a real-time sound installation that spatially appropriated the monumental foyer of the Oslo Opera House, a space that is several hundreds of square meters in area. The installation process on site involved installing 22 speakers, which were mounted on wooden paneling, largely below the spacious panorama windows of the building; and laying three-hundred meters of loudspeaker cable, meter by meter, in order to connect the loudspeakers to the amplifier, interface, and computer, which were stored far away in the non-public parts of the Opera.

In comparison to *Currents*, *The Well* required only one loudspeaker, which was attached to the lower part of a dried-up well. All in all, the equipment installed included this single loudspeaker, around 20 meters of loudspeaker cable that ran from the well, through a subterranean tunnel, and into the library of the Institute, and an amplifier storing a micro-processor. Whilst *Currents* was only exhibited for a period of ten days, *The Well* is a permanent commission and a partly outdoor project.

The first issue I address in this chapter revolves around the transversal and machinic nature of the process of installing *Currents* and *The*

Well. As I explain earlier in the thesis, I understand sonic works to emerge as *effects* of machinic interactions between assemblages that are in turn constituted by affective agents of entirely different characters. In this chapter, I'm particularly interested in exploring the way in which relations are established between heterogenic agents and between different assemblages, including the technical equipment, the Opera House, and the Swedish Institute as sites for the realization of the works; the technical developer Manfred Fox; myself as an artist; and also the organizational framework in terms of the festival, curator, and commissioner of the work. This requires that I address how this process played out, how different relations between these heterogenic agents were established, but also how these processes differed from one another.

The second issue concerns the artist subject's minimal autonomy and how this affects artistic practice and the process of installation. Here, I again advance a view of the artist as one agent among many in a site-specific process, a figure who is thereby implicated in a continuous, non-autonomous, affective relation with a myriad of agencies.

Machinic Interferences in the Oslo Opera House as a Smooth and Striated Space

A shipping pallet with a box containing equipment finally arrived at the Oslo Opera House, after having been detained at the Norwegian customs office for several days. Inside the box, which was actually a form of cupboard that had been meticulously designed and prepared by Manfred Fox in Berlin over a period of several months, everything lay neatly in place despite the long journey. The loudspeaker cable was perfectly wound, the transformers carefully wrapped, and every single item, down to the last screw, present in its specific compartment.

When Manfred and I opened this box, we were fully aware that a prodigiously complex process of negotiating with the site lay ahead of us.

This moment—standing at the construction site in front of a box filled with hundreds of kilos of equipment that is to be installed in the most inaccessible nooks of the Opera Foyer—was preceded by several months of meetings with representatives from the Oslo Opera House and the municipal company Statsbygg. During these meetings, eventual problem scenarios connected to the sound installation as an artwork and the process of installing on site were analyzed in the most minute detail. These problem scenarios spanned from aesthetic issues (whether the sound might disturb the visitors, and whether the loudspeakers and large quantities of cables might aesthetically disturb the clean, exclusive character of the architecture in terms of its landmark status in Oslo) to safety issues (if, for example, visitors might risk being injured by accidentally stumbling over a loudspeaker cable). These initial conversations with the institutional actors served to highlight the way in which the transversal, machinic process of on-site installation often brings about conflicts with the regulations that are taken for granted on a site. When the equipment (in this case, several hundred meters of loudspeaker cable) interferes with the components of a site (for example, visitors or the interior), voluntary and involuntary relations are established, which transform the site's affective lines.

The Oslo Opera House can be understood as comprising a wide topology of actors, spanning between the material and the non-material, the human and the non-human. Earlier in the thesis, I narrate the ways in which these actors together establish The Oslo Opera House by means of haecceities and processes of territorialization and deterritorialization, which temporarily or over longer durations become part of its identity and transformation. A site, however, can also be un-

derstood in terms of how these actors establish forms of actualization over time that are more or less regulated by laws, norms, and informal forms of use. To use Deleuze and Guattari's terminology, the Opera is both a *striated* and a *smooth* space. These concepts should be understood as describing two opposite modes of structuring space. Smooth space should be understood in this schema in terms of interconnections between processes of relation, or affective lines between points, the nodes of which cannot be measured with distinct measures like the meter, but rather must be understood as "nomadic." The figure of the nomad is here associated with divergence, lines of flight, and deterritorialization in relation to spatial structures of power (Deleuze and Guattari, 2009, p.474).

From such perspective, the artistic process of transformation connected to the installation process on site can be described as relating to both smooth and striated space(s). These spaces constantly need to be acknowledged and negotiated with in terms of the concrete effects that they have on an artistic work. In the case of *Currents*, issues revolving around simple material matters—for instance, whether we would be allowed to attach a loudspeaker at a specific spot or not—directly confronted the Opera House's striations as a site of regulations and implicit norms. If some of these regulations and norms were obvious, many were invisible and impossible to foresee before they suddenly needed to be confronted. These regulations and routines were often exposed in the tiniest of practical, material issues. During one of the meetings, for instance, by chance I was given information about the cleaning procedures of the monumental panorama windows. The cleaning, I discovered, was usually executed by an automated cleaning machine, which was in fact programmed to clean the windows during the period of the exhibition. Such information, mentioned only in passing, had a direct impact on the work, as the loudspeakers partly

were to be installed on the niche below the enormous windows, with the consequence that they would be drenched with water during the cleaning process. Preventing a catastrophe required a chain of negotiations with the employees in order to reprogram the cleaning machine. This in its turn required authorization from the municipality.

In such a way, what at first glance might appear to be a minimal negotiation exposes how the material (a loudspeaker, an automatic cleaning machine) and the discursive (the routines and the framework of regulations controlling them) always stand in perpetual relation to one another. The on-site installation process thus demands that as an artist I constantly take into account this relation, consider it part of the process, and try to understand the consequences of situations wherein the agencies embedded within the site form affective relations with the agencies embedded within the electronic equipment.

Renegotiating the Striations of the Oslo Opera House

If crucial part of the process of installing the work on site deals with being able to adapt to and navigate the site's regulations, part of the same process deals with the capacity to deterritorialize and renegotiate the established functions. After months of negotiation, Manfred Fox and myself finally managed to commence the process of installing the work in the Opera House foyer. If some of the regulations and routines could be exceeded (for instance, changing the cleaning procedure for the panorama windows), others needed to be observed—for example, the technical installation was not to interfere with the everyday social activities in the building. This turned out to exert a palpable impact on the actual work conducted on site.

In order to reach the niche of the enormous panorama windows, where the loudspeakers would be fixed and from which the loud-

speaker cables would need to run, we had to use a sky lift. In order to avoid disturbing the daily activities in the Opera House, the installation work needed to be done before the building's ordinary opening hours. Shortly after 5am, Manfred and I drove the sky lift through the monumental foyer, totally alone in the big space. In order to reach the windows, we had to cross the restaurant with its striations, which included its furnishings. In order to provide access for the sky lift, we realized that we would need to move a large number of tables and chairs, and the counter with the cash register. Each table, however, had already been set for the coming day—linen tablecloths, wine glasses, china, and cutlery were all arranged perfectly in anticipation of the first service. In order to be able to restore the scene to its original state, including re-folding the linen serviettes and laying out the forks and knives, afterwards, I took photos of the arrangement that we had encountered. Table by table, and fork by fork, we therefore proceeded slowly through the installation process.

Parallel to our confrontation of these *striations*, and others like them, at the same time we needed to deal with the foyer in terms of *smooth space*, overriding established norms and functions in order to explore the *capacities* that were inherently embedded within the site. Even if the two concepts of the smooth and the striated operate as “two different modes of approaching, understanding, and operating in the world” (Deleuze and Guattari, 2009, p.474), they should not, as the installation of *Currents* shows, be understood as constituting a binary dichotomy. Rather, they emanate out of and in relation to each other. As Deleuze and Guattari write:

What interests us in operations of striations and smoothing are precisely the passages or combinations: how the forces at work within space continually striate it, and how in the course of its striation it develops

other forces and emits new smooth spaces (Deleuze and Guattari, 2009, p.500).

The ledge of a balcony that normally fulfils a protective function was thus transformed into an armature for many meters of loudspeaker cable—together, the two were encouraged into establishing a machinic alliance. The panorama windows' previous function of providing transparency between inside and outside was transformed into that of providing acoustical reflection for the sound waves, which would emanate through the speakers that were attached below it.

Contrary to established notions of the installation process as one of placing “loudspeakers” and “loudspeaker cables” in “a space” (any space), the process that I outline here is rather more fruitfully understood as a generative process. Here, material, functions, and systems of agreement all become *capacities*, or, using Deleuze and Guattari's term, *virtualities*, in the establishment of the artwork, wherein latent but not yet actualized capacities or virtualities are brought into use, actualizing and establishing the new machinic relations necessary in order to realize the art work. From this perspective, the installation process' renegotiations over-code the site's striations, in order to establish invisible yet perceivable smooth spaces.

The Hole in the Wall

Sound installation is a technologically complex practice, and electricity forms a critical prerequisite. Despite this, the on-site installation process continues to form an unarticulated area of sound installation practice, and accounts of how artists and technicians manage to provide electricity to their installations are almost non-existent in the existing literature. In reality however, the issue of finding an electricity source and laying cables between the equipment and the electricity

socket is one of the installation process' most crucial, if not most problematic, issues. These two acts possess great agency, impacting heavily on how and whether the work can actually be realized.

After several installation processes together, Manfred and I have come to refer to the process of finding an adequate connection to an electricity socket as “finding the hole in the wall.” This process refers to the necessity, which often comes at an early stage in the process, to strategically secure access to electricity, and to find a protected place to store or mount the electronic equipment, which is well away from sources of humidity and from the threat of vandalism. The hole in the wall can be described as the dividing line between public and non-public: this line doesn't necessarily have to be a wall, but could be anything that protects the equipment, while providing it with access to electricity.

In the Oslo Opera House, conscious of the fact that a stream of people flow through the foyer every day, we arrived at the conclusion that the only reasonable solution was to place the electronic equipment—that is, the computer, interfaces, and amplifiers—in the non-public parts of the building that are connected to the foyer. Confronting this placement would form our first task in our first meeting with the site. The public parts of the Opera, we came to learn, are hermetically separated from the non-public parts, in order to fulfil strict fire safety regulations. With this knowledge, we devoted hours to going over the construction of walls, doors, wooden paneling, and door thresholds in order to find a hole. All we needed was a tiny interstice, an opening not larger than two by two centimeters, big enough to “drag” the three multichannel speaker cables that connect the amplifier in the non-public part of the opera and to the loudspeakers in the foyer through it. Not even the staff of the Opera House seemed able to provide us with the information that we needed in order to

get the cables through this boundary. It was only when I happened to glance out of a window on one of my shorter visits to the non-public part of the Opera House, that I suddenly noticed a minimal opening in one of the glass plates that cover one of the partitioning walls—literally a hole in the wall. In order to lay the loudspeaker cables, which stretched over a hundred meters from amplifier to loudspeaker, I needed to crawl through a space between several partitioning walls that was covered with mineral wool, where no one seemed to have been since the building was completed.

The process of installing *Currents* in the Oslo Opera House foyer was, as is shown in the preceding account, dependent on the artistic capacities of mapping and acting in relation to the inherent capacities of the site. The negotiations that form a necessary part of any on-site installation process demand and generate alternative expressions of actualization, in which materialities are put to alternative uses. In the case that I describe here, the loudspeaker and the cable together transformed the site, and by actualizing capacities that were latent before the initiation of the artistic process, smooth spaces were established in which norms and systems of regulations were decoded. During this process, components were added and modified in conjunction with the situation that was found on site.

This account also highlights the importance of making use of the lucky coincidences which sometimes appear in the middle of all that hard work. In installing *Currents*, these moments were many. The inherent agencies of a water scraper that is used for cleaning floors, for instance, which we happened to find in a corner of the rear part of the Opera House, allowed it to be transformed into a tool that helped us to adjust the loudspeaker cables at heights which even the sky lift couldn't reach. Beyond these moments of serendipity, the situation on site regularly serves up surprises that force the installation process

to take an unexpected turn, which one simply needs to accept. After having mounted 18 of the 22 speakers in an area of several hundreds of square meters, we discovered that the sky lift simply couldn't reach the necessary height to fix the last four loudspeakers. With the first sunbeams of sunrise hitting the space, signaling that it was 6am and that we would need to leave the foyer in at most an hour, we took the decision to leave the last four speakers uninstalled, which in the end directly impacted on the acoustic result.

Machinic Interferences in the Hôtel de Marle as a Smooth and Striated Space

A couple of years and artistic processes later, Manfred Fox and I found ourselves standing in front of another box containing equipment from Berlin, this time in the basement of the Hôtel de Marle, which houses the Swedish Institute in Paris. Unlike the box in the Oslo Opera House, which was several hundred kilos in weight, this box weighed less than 20 kilos. We were about to commence another on-site installation process: in the subsequent days, we would install a loudspeaker at the bottom of the dried-up well and lay around 20 meters of loudspeaker cable that would stretch from the loudspeaker (via the subterranean tunnel and through a wall) to an amplifier that housed a built-in microprocessor in the Institute's library. In comparison to *Currents*, this might sound like an easy task, but as *The Well* was commissioned to be a permanent work, which at least theoretically must last forever, each step of the installation needed to proceed in accordance with this expectation. Nevertheless, as I describe earlier, even the tiniest component might harbor enough agency to have an enormous impact on the installation work on site.

Earlier in the thesis, I discuss the importance of the organizational framework as another central agent of the artistic process in the process of installing *Currents*. Like in *Currents*, the installation of *The Well* was preceded by several meetings with actors within the organizational framework, in this case representatives of the Swedish Institute and a curator employed by the commissioner, Public Art Agency Sweden. Appointed by Public Art Agency Sweden, the curator was not only the person who proposed giving the commission to me, but was also legally responsible for making sure that the commission was fulfilled: as such, they had prepared for the installation of the work for some time prior to my appearance on site. The organizational context—by which I mean the framework in which I work within as an artist in order to realize an artistic project—emerges in this account as a crucial actor with very specific agencies in relation to the realization of the work. When I began work at the Hôtel de Marle, the curator has thus already prepared the way for my subsequent process by establishing an organizational structure on site. This had involved a number of steps, including involving the employees of the Institute in a dialogue around the project, and creating a consensus concerning the specific kind of artwork to be developed (in this case, this resulted in my invitation to develop a sound installation). The curator had also established a contact amongst the employees on site to whom I could turn with regard to practical issues. The curator and the organizational framework thereby accordingly exerted a high level of impact on the artistic process behind the creation of *The Well*.

This differs greatly from *Currents*, which was initially a self-initiated project and only later became part of the Ultima Oslo Contemporary Music Festival. As an organization, the festival was a collaboration between a number of formal and informal cultural associations and societies. Responsibility was thus divided between several actors,

in my case between the producer; NOTAM—the Norwegian Center for Technology in Music and Art; the curator and formally the organizer—Ultima; the legal producer of the Oslo Opera House; and the legal owner of the Opera House—Statsbygg. As a result, several issues that were directly connected to the process of the realizing *Currents* fell between the chairs due to a lack of clarity in terms of organizational structures and institutional responsibilities. This led to difficulties in finding the correct decision maker to consult when problems became apparent in the construction process on site. It wasn't until one of the producers from the Opera by chance attended one of our very last meetings that we were finally able to obtain the approval required to over-code, deterritorialize, and thus exceed the Opera's regulations. This example, which reflects my experience in several other work processes, shows that when the organizational responsibility is divided between several actors, the issue of who I happen or do not happen to meet during the process impacts heavily on the realization of the work; in many cases, this can be described as arbitrary and largely coincidental. This in its turn heavily affects the artistic process and its capacity for transformation.

Renegotiating the Striations of the Hôtel de Marle

I remember starting to unpack the equipment from the box in the library, which abuts the subterranean tunnel that leads to the well. The tunnel, which connects the library to the site where we intended to install the loudspeaker, has an outdoor climate and a constant humidity level of approximately ninety percent. For this reason, the electronic equipment needed to be stored in the library, which is also used as a classroom for Swedish language courses, which took place regularly throughout the week. Being able to store the equipment in

the library, however, required getting the loudspeaker cable through the wall, and despite several attempts, we yet again were unable to find “the hole in the wall.” As a result, the staff member responsible for technical installations helped us to drill a new hole for the cable. In reflecting on this moment now, it starkly exposes the fact that, beyond the degree of regulation present on site, the spatial distance between the organizational framework and the actual site of the work has a direct impact on the installation process on site. Unlike the decision makers in *Currents*, who to a large extent were spread out across a range of organizations, many of which were not located in the Opera House itself, in the Hôtel de Marle, the decision makers (the Swedish Institute) were at hand, being located in the building. In fact, both the Director of the Institute, as well as the technical coordinator, both live in the building. This accessibility made them far more responsive when it came to dealing with practical issues in the installation process.

Whilst the experiences of the construction processes in the Oslo Opera House and the Swedish Institute differed fundamentally in terms of their organization and decision-making structures, these two sites had, just as all sites have, their own very specific, formalized regulations, which I had to relate to. We commenced the work in the library of the Swedish Institute around 9am, shortly after the burglar alarm was turned off. In order to work as effectively as possible, we needed to unpack the box and sort all the items, from loudspeaker cables to different working tools, taking over several tables. We quickly learned, however, that as well as being used as a library and for hosting the Swedish courses, this room was also used as a dining room for the employees every weekday from 11.30am until 1pm. This meant we needed to pack up everything again before lunch, and unpack again after lunch. We were then able to work again until around 6pm, when

the Swedish courses started. In this way, as a result of the inherent agencies on site, the construction process was characterized by long interruptions and periods of waiting. Moreover, this experience also emphasizes how the site's social haecceities appear and become part of the site's atmosphere and identity, affecting the installation process in a highly concrete manner.

The work of installing the equipment in the tunnel, just as in the Opera House a few years earlier, was also characterized by confrontations with the embedded striations on site. Tasked with establishing a smooth space in which capacities would be actualized into new expressions, we also engaged in a series of renegotiations in installing *The Well*. In order to avoid drilling, except when absolutely necessary, a plastic pipe protecting the cables for the lighting system was, for instance, transformed in order to carry the 20-meter loudspeaker cable; together, these two components actualized the connection of the loudspeakers with the amplifier in the library.

In comparison to those described in relation to *Currents*, one might find these processes of renegotiating rather modest. However, the actual experience on site, for example the experience of one of those rainy days in March when the humidity had transformed the ground in the tunnel to mud, and when, after hours of work, we finally managed to get the loudspeaker in place, appears in retrospect quite complex. Even though we were dressed in winter clothes, the cold and humidity made our bodies tense up with cold; we froze. As a consequence, we constantly needed to interrupt the work process in order to take short breaks. In this thesis, I repeatedly return to the impact that the agency of non-human agents can have in relation to the artistic process, describing this impact from a variety of different perspectives, from the creation of the sonic material in *Currents* to the approaches of spatialization pursued in *The Well*. The agentic quality

of the site became evident during the installation process on site at the Swedish Institute, as the agencies of cold and humidity, together with the constitution of our bodies, constituted a workflow characterized by regular rhythms of work and recovery. This became an invisible but highly real component in the becoming of the work.

Deleuze and Guattari describe the ocean as “smooth space” in contrast to the city, which they in turn describe as “striated space par excellence,” with its regulations and norms (Deleuze and Guattari, 2009, p.481). But as the striated and the smooth are not binary opposites—rather their existence is always related to each other—this makes the ocean always latently striated and the city always latently smooth. In their words, “the sea is smooth space fundamentally open to striation and the city is the force of striation that reimports smooth space” (ibid.). This appeared most real to me during the installation process in the tunnel. The agencies of the weather in conjunction with the installation process deterritorialized the formal functions of the tunnel, made this experience of being in a tunnel in the international metropolis of Paris as lonely and smooth as being in the middle of an ocean.

The On-Site Installation as a Transversal Process —Closing Remarks

In providing an account of the installation process behind the two sound installations *Currents* and *The Well*, my aim has been to explore the construction work on site in transversal terms: as a machinic process.

The first issue that comes to light in such an account lies in the question of how the installation process develops: how different relations between heterogenic agents are established, but also how crucial

factors in such processes can differ markedly. It is for this reason that in this chapter I trace the heterogenic agents and the different assemblages that spanned between the technical equipment, the Opera House, and the Swedish Institute as sites for the realization of artistic works; as well as those that involved the technical developer Manfred Fox, myself as an artist, and the organizational framework in terms of the festival, curator, or commissioner of the work.

A transversal and machinic practice, the on-site installation process is here shown to a great extent to be about engaging with the site's and the organisational framework's implicit norms. It requires that the artist be able to navigate and relate to the inherent regulations and restrictions embedded as striations in a site. Inversely, the artist must also have the capacity to deterritorialize and decode inherent spatial power structures in order to actualize new virtual capacities embedded within a site. Further, the installation process on site is a practice by which heterogeneous components—a loudspeaker cable and a balcony ledge, a loudspeaker and a panorama window—are connected in a manner that paves the way for the establishment of the new, intensive, affective relations that will together constitute the sonic work.

The way in which these components can or cannot be connected has a direct impact on the sonic expression. The installation process on site is thus an important part of the how affective machinic relations are concretely established as part of the transformative and renegotiating practice of site-specific sound installation. This chapter sheds light on the crucial role that is played by the organizational framework in the installation process, which demands that practical issues be negotiated continuously. It should be added that the complexity of on-site installation processes can to some extent be understood as being proportional to the strength and number of regulations in place

in a given site. The greater the striations in terms of restrictions and regulations, the greater the confrontations with these striations and the more complex the artistic process, as the artist must relate to and confront these embedded, striated structures. The decision maker's physical distance from the site of the construction work, as I further show in this chapter, also has a direct impact of the process.

The second issue that emerges from the preceding account concerns the artist-subject's relation to their own minimal autonomy. Throughout this thesis, I seek to interrogate the implications of understanding of the artist as one agent among a multiplicity of other spatial agents in a transversal process. I argue for a view of the artist-subject that recognizes that our perspectives are always situated and partial, and this is particularly true with respect to the installation process on site. In this chapter, I demonstrate that the installation process on site means engaging with the multiple assemblages that are at stake in work, including the technology, the site's specificities, and the organizational framework. This task requires that one is constantly aware of and attentive to the situation's inherent agencies and the machinic nature of the practice of establishing "cutting edges." For this, I need to be aware of and employ my own specific abilities to deterritorialize and renegotiate.

Here we might return to Deleuze's understanding of art, which envisages a form of thinking that passes through "affects" and "percepts" to constitute links between the actual and the virtual, which put us in contact with life's infinite, pre-personal forces. The on-site installation process, in such a view, emerges as a practice through which virtual capacities are actualized, when components like loudspeaker technology and the site establish new affective relations which in turn directly affect the sonic expression of the work. These capacities must

be considered to constitute, I believe, a crucial part of sound installation as an affective practice.





Currents:
On-site Installation, Oslo Opera House.
(Photo: the author, 2011)



Currents:

On-Site Installation, Oslo Opera House.

(Photo: the author, 2011)





Currents:
The Art of Packing.
(Photo: Manfred Fox, 2011)







The Well.

On-Site Installation, Hôtel de Marle—Swedish Institute.

Manfred Fox and Andre Bartzki.

(Photo: the author, 2014)





Currents:

On-site Installation, Oslo Opera House.

(Photo: the author, 2011)



EPILOGUE: SKY BROUGHT DOWN

Afterwards:

Listening to a future made present. 2017.

I stood in the atrium to the Bild- och Interventionscentrum's new building, in the Sahlgrenska University Hospital. I looked around, amazed. Over five years, I have watched this place become real. It felt like an eternity. What was once millimeter-wide lines, color-coded fields, and carefully measured areas in an architecture office's sketches had now become a space of glass, cement, and stone; of visitors, and patients on gurneys, and hospital staff on their way from one place to another.

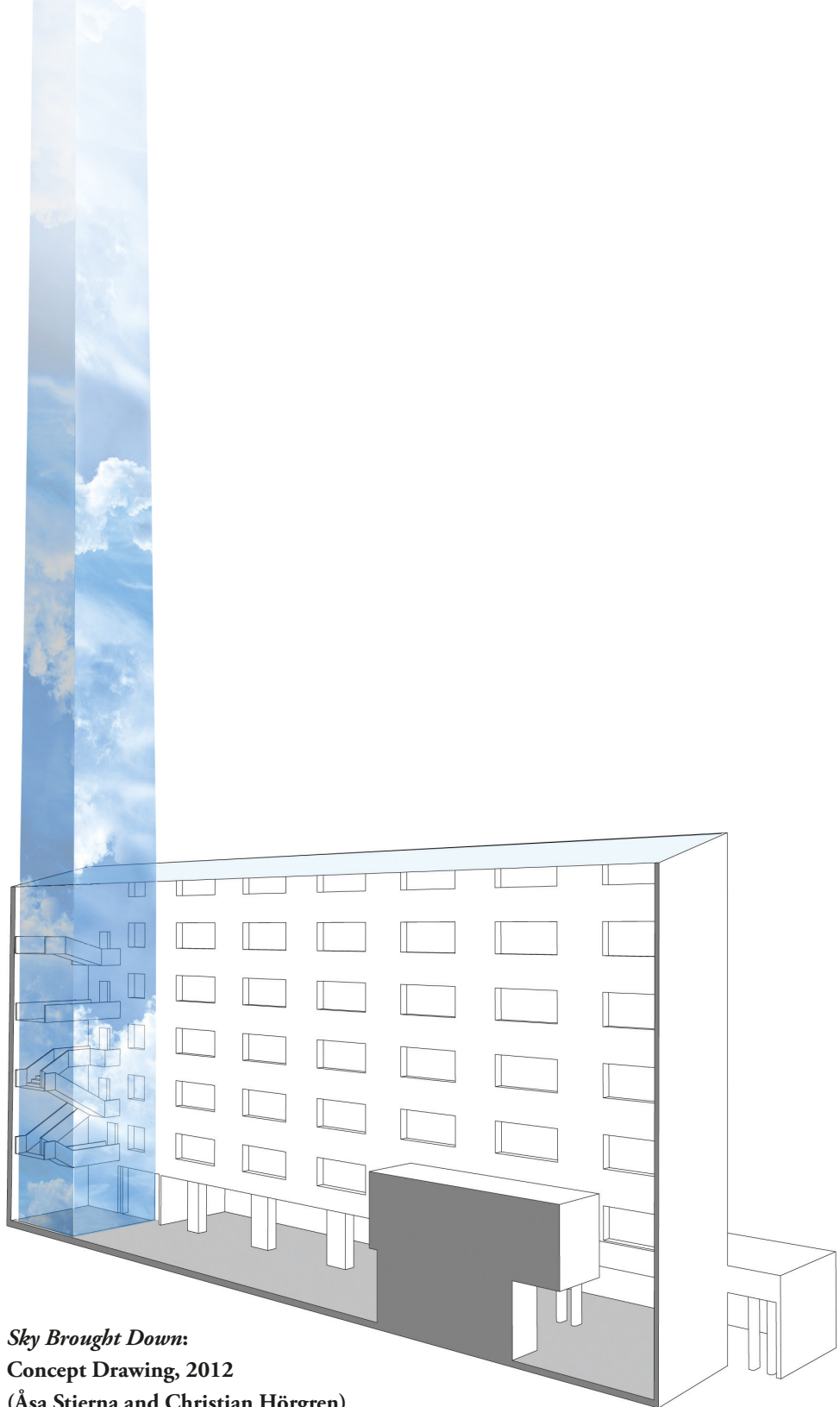
Within the swarm of activities that endlessly confronted each other in that space, with each new wave replacing the last, I could hear my vision of a sky that has been led into a space and left to fall, emanating faintly from the walls. The weather station on the roof of the building had been set up to send data continuously to a computer, located in a discrete storage space behind the main space. This data in turn affected a series of programmed sound parameters, triggering changes in response to the weather outside. Some 16 speakers had been placed behind the panels of enormous five-story stairwell in order to receive and transmit this signal. At times, a wind-like sound could be heard that rushed from speaker to speaker. Depending on whether a low or high air pressure system presented itself outside, the sound in the atrium was filtered in either a major or a minor key. Occasionally, a triad of notes wandered up the vertical space of the stairwell, guided by the direction of the wind outside, before disappearing slowly.

I stood and listened to the thousands of hours of negotiations that preceded this moment, between that initial sketch proposal and this moment. I thought about the task of finding a weather station able to withstand an arctic climate; about how, together with programmer Andre Bartetzki, we developed a program for the work. I

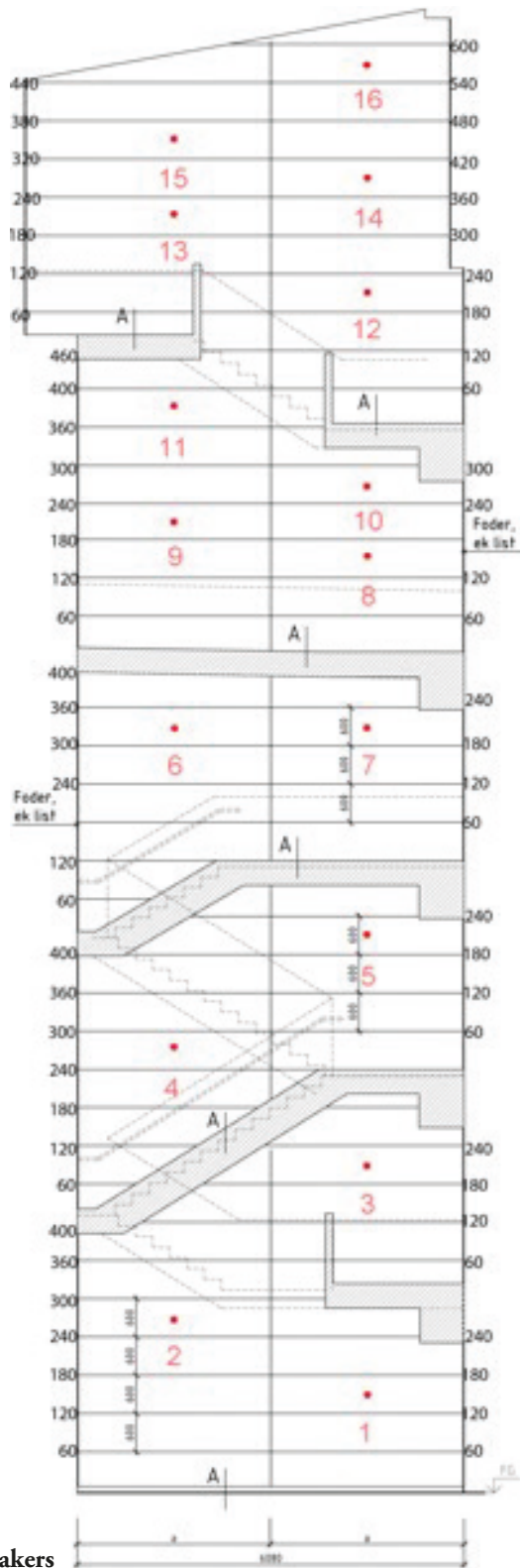
thought about all of the meetings that I'd had with the construction firm, Skanska; the realtor, Västfastigheter; the Arts Division of the regional governing body; and the architecture office, Pyramiden. And I thought about the endless drafts that sound engineer Manfred Fox and myself had exchanged in order to arrive at the perfect design for the speaker system: 16 red points in a sketch which after an astonishing amount of hard work became speakers that were installed behind the oak paneling that lined the space.

I thought about all of the long weeks of sound testing, spent deep within the body of the building while it was still under construction, amidst the roar of the builders' work, the dust, and the smell of concrete. What would work and what wouldn't? How would it sound when the building was finished? So many details had not been apparent in the architects' sketches. A gangway appeared one day, blocking the furthest part of the stairwell where some of the speakers were installed. Noise from the entry to the hospital's emergency ward leaked into the space. The sonic environment that we confronted was nothing like that suggested by the initial drawings.

I believe in art's capacity to transform a space. Acting on this belief, I had started with the site, and found an artistic point of entry, and I had negotiated. And now, finally, standing in the space, it was time to hand over the work. I always meet this part of the process with a sense of sadness, because the realized work never fully aligns with the way that I imagined it. And this was no exception. But, I know now, it has to be this way. Because if *Sky Brought Down* is to be understood as the effect of the relations between all of those bodies, assemblages, and forces that generate it, then it is clear that these other actors together constitute something that is infinitely larger than my own individual agency with respect to a work. It is, I believe, precisely in its tendency to exceed us that the infinite richness of site-specific sonic practice lies.



Sky Brought Down:
Concept Drawing, 2012
(Åsa Stjerna and Christian Hörgren)



Sky Brought Down:
 Concept Drawing of Loudspeakers
 Behind the Wooden Paneling, 2013
 (Åsa Stjerna and Manfred Fox)

FONDEVAGG FV2



Sky Brought Down:
Overview of the Construction Site, 2013
(Photo: Västfastigheter ©)



Sky Brought Down: 2015
(Photo: the author)



Sky Brought Down: 2016
(Photo: the author)



Sky Brought Down: 2017
(Photo: the author)





Sky Brought Down: 2017

The Weather Station.

(Photo: Nadim Photography)

Konstenheten—Västfastigheter ©



**CHAPTER 9: BEFORE SOUND
—TRANSVERSAL PROCESSES IN
SITE-SPECIFIC SONIC PRACTICE:
BY WAY OF A CONCLUSION**

Through this doctoral research, I have explored the capacity of art—and in particular, of site-specific practices of sound installation—to bring about transformation by means of transversal processes. In the thesis, I put forward three approaches, and a series of related conceptual tools, in order to articulate the nuances of the transversal processes that I seek to address. These approaches, which reflect the experiences gained in my own artistic practice and are informed by a philosophy of immanence, I call *mapping the affective lines*, *establishing new connections*, and *becoming non-autonomous*.

These three approaches look to re-negotiate the traditions, tendencies, and assumptions that dominate existing artistic sonic strategies. Together, they suggest the importance of critically revisiting the different aspects of site-specific practices of sound installation, including the initial thematic exploration of the site, the establishment of spatial sensibilities, strategies involving sound's contextual capacity (in particular through processes of sonification), and the development of technology and processes of installation on site.

Three specific cases are presented in Chapters 5-8 of the thesis, which allow me to draw conclusions about the way in which these approaches affect and articulate a site-specific art practice, and the specific situations that together compose an artistic process.

In relation to the task of *mapping the affective lines*, I explain how the thematic exploration of the site in fact constitutes an affective encounter with the site's inherent, embedded capacities, as well the explicit forms of actualization at work, which I conceptualize in terms of the work of "bodies in becoming." I endeavour to make these bodies visible through the accounts that I give from my own practice, advocating that such bodies are established between a range of heterogenic components, and that they ultimately constitute the assem-

blages of ideology, politics, and material formation that we refer to as “public space.”

In proposing that art must engage in *establishing new connections*, I attempt to make visible the inter-relational agential conditions that are at stake in transversal processes of transformation. Transformation is consistently described throughout the thesis as a transversal process, and in my discussion of this second approach, I relate it to the artistic establishment and sonification; the development of spatial sensibilities, or spatialization; and the development of technology and the process of installation on site. I trace each of these different parts of the artistic process, arguing that they constitute processes of de-territorialization, wherein inherent virtual capacities that are embedded in different assemblages are actualized. On that basis, I attempt to demonstrate the way in which artistic transformation requires the establishment of new affective relations between bodies (material as well as discursive) and how transformation is a creative, machinic process, capable of generating new expressions of becoming.

Through the notion of *becoming non-autonomous*, the third of the approaches advanced in the thesis, I articulate a view of the artist-subject as one agent among myriads of other agencies, who as part of the artistic process both affects and is affected, and whose perspective is always partial and situated.

In this way, the approaches mapped under the auspices of *mapping the affective lines*, *establishing new connections*, and *becoming non-autonomous* emphasize the ways in which the practice of sound installation, like the notion of “sound” upon which the practice rests, emerge as the effect of a complex, machinic, relational, and generative process that spans transversally across a range of domains. In this process, which is bound up with the making of connections between domains,

I also emphasize that the artist-subject is only one agent amongst many others.

By practising these three approaches, which can be used to both generate and to analyze artistic processes and outcomes, I suggest the possibility of practicing transversality. This in its turn, I claim, has the potential to affect site-specific sonic practice artistically and in research and education terms. Further, I also advance the capacity of transversal approaches to activate the ethical within site-specific sonic practice. In particular, it involves dismantling the established separation between artist-subject, site, and work, in order to acknowledge the transversal affective relations between specific and diverse “bodies” with agencies—human as well as non-human. In this lies an ethics.

Beyond making visible the transversal nature of site-specific sonic practice, the explorations that make up this doctoral project also open up future perspectives in thinking about the field. Throughout, the research points towards the importance of overcoming the hierarchical models of thought that dominate a range of discourses and institutions central to art practice. I believe that such a shift holds the potential to radically transform the power structures that exist between commissioners of art, artists, a site’s own inherent agencies, and the visitor. Further, a change in our thinking of the type I describe here is also needed if we are to broaden existing dialogues on the artistic work, representation, material, and process.

These three approaches also hold the potential for future deepening and development through further research. Whilst this doctoral project is based on one specific artist-subject’s situated perspective, I see great potential in expanding the bandwidth of the present exploration by involving other agents whose perspective were not mapped and articulated within the framework of this doctoral project. Such work would include, for example, the perspectives of architects, cura-

tors, software developers, the workers involved in the construction of a building, as well as the non-humans agents that are also involved in the processes examined here. Mapping the affective lines, establishing new connections, and becoming non-autonomous should thus not be regarded as being limited to the conditions of an individual artistic processes, but are intended to serve as keys and tools to generate knowledge and to practice artistic transformation in transversal terms.

Together, the explorations that make up this thesis trace the importance of being able to deal with complexity as an artist, a capacity that relies on knowledge, integrity, and rigour. This ability might also be understood as what is needed to work *in public space*. I therefore situate the capacity to deal with complexity as the very basis of artistic competence within my field. It should be stressed, in thinking about complexity in this way, that the expanded notion of the artist-subject (as a fundamentally non-autonomous figure) that is advanced throughout this thesis is not only one who engages with other agents in a given artistic process. I also suggest that in working with such complexity, artistic practice is highly dependent on a set of artistic competences that I express in terms of three approaches, which extend from the initial explorative phase of a project to the completed, finished work. In all of my artistic processes—both those conducted during my doctoral research, and also those that occurred prior to this project—a consistent set of competences have been required: a consciousness of complexity, an ability to remain open to a given situation's agencies, and the capacity to bring those agencies together through the sonic work. Through this research, a number of underlying conditions have been brought to light and articulated in relation to the complexity of art practice; these insights have in turn also raised my artistic competence.

This thesis commences with Deleuze and Guattari's provocation "What do you not have to do in order to produce a new sound?" (2009, p.34). Throughout the doctoral research, I explored the act of "producing a new sound," which I consider to be a matter of creating new affective and sensory experiences in the specific sensorium of public space. I traced these affective sensory experiences, situating them as effects of complex and transversal artistic processes that go beyond "normalisation, commercialisation and simplified forms of representation."

If public space is understood as the site where new sensorial experiences are established and where art can be practiced in all of its complexity, then the artistic practices that work with and in public space must take as their conditions of possibility the unforeseeable and the unconditional. And in so doing, they must reject simplification. Ultimately, though, such practices—one of which is documented in this thesis—must also accept the central role played by the time-spaces that emerge from the production of new transversal relations. They must, in other words, be prepared to understand their work as occurring *before sound*.

SUMMARY IN SWEDISH

Innan ljud: Transversala processer i platsspecifik sonisk praktik

Denna avhandling utforskar konstnärlig transformation i platsspecifik sonisk praktik. Utgångspunkten är ljudinstallationen som en multidisciplinär, transformativ praktik i det offentliga rummet, vilket innebär en mängd komplexa moment och tillvägagångssätt av konstnärligt omförhandlande vad gäller platsliga situationer. Forskningsprojektet tar sin utgångspunkt i min konstnärliga praktik som spänner över mer än 20 års erfarenhet, av vilket jag under mer än ett decennium ägnat mig åt platsspecifika processer i Sverige och internationellt. Avhandlingen baseras på fyra konstnärliga processer: *Currents* (2011); *En resa till Nairobi* (2013); *Brunnen* (2014) och *Himmel nedtagen* (2017). Sammansatta resulterade dessa processer i tre platsspecifika ljudinstallationer.

De konstnärliga projekt som diskuteras i avhandlingen handlar om långvariga platsspecifika processer i urbana och offentliga rum utanför den institutionella konsthallen. Trots sina olikheter delar de en sak: De har alla utforskat platsens specifika unika villkor och deltagit i omförhandlingen och transformationen av upplevelsen av platsen i fråga, genom ljud. Denna praktik bygger på en långvarig erfarenhet av vad det egentligen betyder att ”omförhandla” och ”transformera” en plats genom den konstnärliga praktiken. Utgångspunkt är att detta handlar om en vardag fylld av förhandlingar och möten med den specifika platsens oändliga intensiteter. Det minsta och oftast mest oansenliga härbärgerar den mest visionära potential, och det är i dessa

närmast osynliga detaljer som möjligheten till omförhandling och transformation kan lokaliseras.

Avhandlingen utgår från en förståelse av konstnärlig praktik som befattandet med affektiva, *immanenta* kraftrelationer i vilka varje komponent innehar agens, det vill säga kapaciteten att både påverka och påverkas. Själva det soniska verket ska förstås som effekt av en sådan komplex, immanent, spatial transformationsprocess som sker *innan ljud*, vilket också utgör själva titeln på denna avhandling. Detta innebär en förståelse av det platsspecifika inte som en form som fylls med ett fördefinierat innehåll, utan snarare som en komplex, affektiv praktik som experimenterar med omförhandlande, det vill säga deterritorialiserande tillvägagångssätt. Dessa tillvägagångssätt måste konstant återuppträffas, experimenteras med och testas ut i direkt relation med varje specifik plats och dess materiella och ideologiska förhållanden. Utifrån detta är möjligheten att konstnärligt kunna transformera en plats alltid beroende av dess relation till den specifika samtids politiskt-spatiala villkor – det vill säga hur samtida politiska och ideologiska villkor faktiskt ser hur – och på vilka sätt de kan påverka och påverkar den konstnärliga praktiken.

”Ljud” som ett konstnärligt medium i det offentliga rummet idag kan länkas till ett flertal etablerade praktiker som omfattar en mängd olika fält som löper mellan samtida konst, kritisk teori, teknologi, musikvetenskap, urban teori, arkitektur, filosofi, ljudstudier liksom konstnärlig aktivism. Trots att det genomförts en hel del forskning kopplat till ljud, så råder det fortfarande en brist på kunskap när det kommer till den soniska konstnärliga praktikens grundläggande transformativa kapaciteter. Min utgångspunkt är att det finns ett flertal orsaker till detta. För det första, som en konsekvens av en tilltagande integrering av ljud som konstnärligt medium i konstnärliga, akademiska och urbana stadsplaneringskontexter, kan man se en tilltagande

normalisering av ljud som platsspecifik praktik som hindrar praktikkens experimentella potential. För det andra tar etablerade kunskapsmodeller inom ljud som diskurs sällan i beaktande processer som rör praktiken kring transformation och omförhandling, då dessa till stor del bygger på modeller med fokus på tolkningsupplevelse samt analys av det färdiga verket. För det tredje påverkar samtida samhälleliga strömmar av nyliberalism och kapitalism också de konstnärliga praktikernas villkor. Sammantaget konserverar detta konstnärliga platsliga ideal som i grund och botten bygger på mekanismer och etablerade idéer som har sitt ursprung i representation och transcendens, som betonar avbildning och identitetstänkande, snarare än nyskapande.

Utgångspunkten för avhandlingen är att det finns ett starkt behov att artikulera och kritiskt synliggöra hur transformation skapas i den platsspecifika soniska praktiken. Detta kräver i sin tur utvecklandet av språkliga verktyg och tillvägagångssätt som gör det möjligt att kontextualisera platslig produktion och platsspecifik sonisk praktik som överskrider förenklade former av representation och transcendens. Därför visar avhandlingen hur det är nödvändigt att förstå platslig produktion som affektiva, immanenta kraftrelationer och komplexa transversala processer av skillnadgörande, i vilket varje komponent har agens att påverka och påverkas. Med ”transversal” avses här en förståelse av konstnärlig produktion som etablerandet av relationer mellan komponenter i ömsesidig kontinuerlig process av tillblivelse. Dessa relationer spänner mellan både det materiella, diskursiva, mänskliga och ickemänskliga. Platsspecifik praktik ska utifrån detta å ena sidan förstås som *utforskandet* av de heterogena och komplexa affektiva kraftrelationer vilka sammantaget skapar det assemblage en plats utgör, och å andra sidan som *modifierandet* av dessa genom transformerande, deterritorialiserande strategier.

Genom att utforska ett antal konstnärliga transversala processer, är syftet att utveckla tillvägagångssätt och konceptuella verktyg, som kan bidra till en mer komplex förståelse och insikt vad gäller den platsspecifika soniska praktikens processer. För att kunna undersöka konstnärens villkor och möjligheter att skapa transformation genom de transversala konstnärliga processer som utgör praktikens vardag, utgår denna avhandling från tre centrala forskningsfrågor:

- På vilket sätt kan jag som konstnär utveckla utforskande tillvägagångssätt som understödjer en transversal skapandeprocess?
- Vilka begrepp behöver jag som konstnär kunna artikulera för att kunna synliggöra och förstå nyanserna av en sådan transversal process?
- Vilka konsekvenser har dessa utforskande tillvägagångssätt och begrepp i förståelsen av den platsspecifika soniska praktiken?

I avhandlingen, utgår jag ifrån tre *utforskande tillvägagångssätt* som jag utvecklat genom min egen platsspecifika soniska praktik och som även inneburit utvecklandet av en uppsättning begreppsliga verktyg för varje tillvägagångssätt. De tre tillvägagångssätten är: *att kartlägga de affektiva linjerna*, *att skapa nya sammankopplingar* samt *att bli icke-autonom*. Dessa tre tillvägagångssätt länkar till och omförhandlar traditioner och antaganden som genomsyrar ett antal konstnärliga strategier som jag ser som centrala för ljudinstallationen som platsspecifik sonisk praktik, nämligen den initiala tematiska utforskningen av platsen; skapandet av rumslig sensibilitet; skapandet av det soniska materialet; och utvecklandet av teknologi samt uppbyggnadsprocessen på plats.

De tre tillvägagångssätten utvecklades under det att jag arbetade med ett antal konstnärliga platsspecifika processer, vilka i avhand-

lingen benämns som ”fall” och som analyseras och diskuteras i kapitel 5-8. Genom de olika fallen, gjorde de tre tillvägagångssätten det möjligt för mig att utveckla specifik kunskap om transformation som transversal process med utgångspunkt i det aktuella fallet. På detta vis, utforskade jag hur de tre tillvägagångssätten artikuleras i den dagliga konstnärliga praktiken, i vilket själva de konstnärliga processerna också i sin tur ska förstås ha modifierat och utvecklat tillvägagångssätten.

Specifikt handlar det på vilket sätt *att kartlägga de affektiva linjerna* kan utmana den initiala tematiska utforskningsprocessen i platsspecifik sonisk praktik, och genom detta bidra till en förståelse av transformation som transversal process. Vidare handlar det om på vilket sätt *att skapa nya sammankopplingar* kan öka en förståelse för de olika interrelationella agenter och villkor som genereras genom den platsspecifika soniska praktiken och genom detta bidra till en förståelse av transformation som transversala processer. Slutligen handlar det på vilka sätt konstnären kan *bli icke-autonom*, det vill säga, omforma förståelsen av konstnärssubjektet som en agent sida vid sida om en myriad agentialiteter i den platsspecifika soniska praktiken och genom detta bidra till förståelsen av transformation som transversal process.

Då dessa tre tillvägagångssätt är direkt beroende av att kunna artikulera vad som faktiskt sker i transformationsprocessens olika händelser som transversal process, innebar central del av arbetet att också att utveckla en begreppslig vokabulär parallellt med att utveckla de tre utforskande tillvägagångssätten. Som del av min analys av varje fall, har jag även försökt att konceptuellt belysa hur transformation som transversal process faktiskt kan förstås i den dagliga konstnärliga praktiken. Genomgående under forskningsprocessen, kan dessa två uppgifter sägas ha influerat varandra djupgående: Utvecklandet av en konceptuell vokabulär för att beskriva och förstå transformation

som transversal process, gjorde också andra sätt att arbeta konstnärligt möjligt. I denna avhandling visar jag hur detta också ledde till ett utvecklande av min konstnärliga praktik.

I ”Kapitel 2: Kontextualisering – Konstnärliga strategier inom fältet” ger jag en introduktion till vad det egentligen innebär att arbeta med ljudinstallationen som platsspecifik praktik som konstnär, i och med faktumet att praktiken löper mellan ett flertal olika traditioner, andra praktiker och genealogier som sammantagna kan länkas till det breda fält som ofta benämns som ”ljudkonst i det offentliga rummet”. Här introducerar jag och analyserar kritiskt ett antal *konstnärliga strategier* – traditioner och antaganden – som jag ser som centrala för att förstå ljudinstallationen som transformativ praktik. För det första, handlar det om den initiala tematiska utforskningen av platsen; för det andra handlar det om skapandet av rumslig sensibilitet; för det tredje handlar det om soniska strategier kopplat till ljudets kontextuella kapacitet, med specifikt fokus på sonifikation som konstnärlig strategi; och för det fjärde, handlar det om utvecklandet av teknologi och uppbyggnadsprocessen på plats. I detta kapitel spårar jag dessa strategiers historiska rötter och hur etablerade former av representation och transcendens vidmakthålls vilket, och detta är min utgångspunkt, fungerar kontraproduktivt vad gäller praktikens potentiella transformativa kapacitet. Utifrån denna kritik, utvecklar jag i de nästkommande kapitlen tillvägagångssätt för ljudinstallationen som platsspecifik praktik, bortom förenklade former för representation, med utgångspunkt i immanensfilosofi.

I ”Kapitel 3: Konceptuellt ramverk” presenterar jag det konceptuella ramverk och ett antal teoretiska koncept som har influerat detta forskningsprojekt. Specifikt använder jag mig av Gilles Deleuze och Félix Guattaris idé om produktion som *immanent*. I detta kapitel ar-

tikulerar jag hur detta utgör grund för att kunna synliggöra centrala aspekter på den konstnärliga praktiken i denna avhandling.

I ”Kapitel 4: Utforskande tillvägagångssätt – Mot ljudinstallationen som transversal praktik” introducerar jag tre utforskande tillvägagångssätt som utvecklades under detta forskningsprojekt genom mina fyra konstnärliga processer: ”Att kartlägga de affektiva linjerna”, ”Att etablera nya sammankopplingar” och ”Att bli icke-autonom”. Detta kapitel beskriver hur dessa tillvägagångssätt synliggör och artikulerar centrala aspekter av den konstnärliga praktiken som transversal.

De följande kapitlen ägnas åt en analys av de olika fallstudierna som ingår i forskningsprocessen. De konstnärliga processer som beskrivs i denna avhandling, spänner från redan initierade projekt till konstnärliga beställningar. Min utgångspunkt har varit att utgå från redan påbörjade verk, nya uppdrag men också själviniterade projekt, för att på så sätt utforska min praktiks dagliga villkor. Istället för att försöka samla in de mest ”lyckade” verken, har jag valt processer som på olika sätt artikulerar dynamiken i min praktik, och som på så sätt synliggör komplexiteten i de transversala processerna. Kapitlet ”Prolog” kan ses som en kort intoning till denna del av texten. Här reflekterar jag över vad det egentligen innebär att ha ett komplext, långvarigt, platsspecifikt projekt framför mig som konstnär, i detta fall verket *Himmel nedtagen*. I ”Kapitel 5: Fall 1. Att transformera den globala växthuseffekten till en sonisk erfarenhet” utforskar jag processen kring konstnärlig sonifikation som transversal praktik. I ”Kapitel 6: Fall 2. Att misslyckas med att kartlägga Nairobis affektiva linjer” utforskas processen kring det initiala tematiska utforskandet i platsspecifik praktik och konsekvenserna av att förstå denna som en situerad, immanent process. ”Kapitel 7: Fall 3. Att transformera Hôtel de Marles historia till en förkroppsligad upplevelse” belyser och utforskar de kompositoriska aspekterna av spatialisering och upprät-

tandet av rumslig sensibilitet som transversal process. Detta följs av ”Kapitel 8: Fall 4. En högtalarkabelns maskiniska vardag” som behandlar aspekter på uppbyggnadsprocessen på plats, i termer av komplex interaktion med olika agentialiteter. ”Epilog” fungerar vidare som en kort uttaning från den del av texten som behandlar de konstnärliga processerna genom fallen. Här återvänder jag till *Himmel nedtagen* för att reflektera över vad det innebär att ha genomfört ett komplicerat långvarigt platsspecifikt projekt.

I det avslutande kapitlet ”Kapitel 9: Innan ljud – Transversala processer i platsspecifik sonisk praktik: Avslutning” reflekterar jag över avhandlingens resultat och relevans liksom möjliga framtida perspektiv. Genom de tre olika tillvägagångssätten, diskuterar jag hur jag genom avhandlingen utvecklat tillvägagångssätt som möjliggör att kunna artikulera och praktisera transversalitet. Detta i sin tur menar jag har potentialen att påverka platsspecifik sonisk praktik både konstnärligt, inom forskning och undervisning. Vidare visar avhandlingen hur ett sådant tillvägagångssätt betonar och aktiverar den etiska potentialen i platsspecifik praktik. Specifikt handlar det om att bryta ner etablerade separeringar mellan konstnärssubjekt, plats och verk och istället förstå dessa som transversala affektiva relationer mellan specifika ”kroppar” med sina specifika agenser, mänskliga liksom icke-mänskliga.

Genom att synliggöra den platsspecifika soniska praktiken i termer av transversal, öppnar avhandlingens utforskningar upp för framtida möjligheter att utveckla fältet. Inte minst handlar det om att avhandlingens resultat pekar mot vikten av att övervinna hierarkiska kunskapsmodeller som dominerar flertal områden, diskurser och institutioner kopplade till den konstnärliga soniska praktiken. En sådan förändring har potentialen att radikalt transformera existerande maktstrukturer mellan beställare av konst, konstnärer, platsens egna

agentialiteter och besökare liksom att fördjupa samtalet vad gäller det konstverket, representation, material och process.

Genomgående i avhandlingen har jag pekat på förståelsen av den platsspecifika soniska praktiken som en effekt av komplexa transversala kraftrelationer mellan kroppar, som föregår ljud. Om det offentliga rummet ska förstås som den plats där nya sensoriska erfarenheter kan etableras och konst ska kunna praktiseras i sin fulla komplexitet, pekar denna avhandling på vikten av att en central del av praktiken handlar om att som konstnär befatta sig med det oförutsedda och icke-villkorade och genom detta överskrida förenkling. Detta sätter fokus på praktikens behov av den tid som behövs för att etablera nya transversala relationer. Med andra ord, man måste förstå det komplexa arbetet *innan ljud*.

LIST OF REFERENCES

- Adkins, Brent (2015). *Deleuze and Guattari's A Thousand Plateaus A Critical Introduction and Guide*. Edinburgh: Edinburgh University Press Ltd.
- ArkDes (n.d) [online] *ArkDes*. Available at: < <https://arkdes.se/utställning/vem-ar-staden-moten-med-nairobi-och-stockholm/> > [Accessed 9 September 2018].
- Amacher, Maryanne (1967-1981). *City Links*. [Artistic project]. (Various cities).
- Barrass, Stephen and Vickers, Paul (2011). Sonification Design and Aesthetics. In: Thomas Hermann; Andy Hunt, and John G. Neuhoff, ed. 2011. *The Sonification Handbook*. Berlin: Logos Verlag, pp.145-172.
- Barthelmes, Barbara (1986). Musik und Raum—ein Konzept der Avantgarde. In: Thüning Bräm, ed. 1986. *Musik und Raum. Eine Sammlung von Beiträgen aus historischer und künstlerischer Sicht zur Bedeutung des Begriffes Raum als Klangträger für die Musik*. Basel: GS Verlag, pp.75-89.
- Bennett, Jane (2011). *Vibrant Matter—A Political Ecology of Things*. Durham: Duke University Press.
- Berndtson and Hiort af Ornäs (1989). Stockholm—En ljudskulptur [Radiobroadcast of Fontana's *Metropolis Stockholm*]. Studio Onsdag. [Radio programme]. SR P2, 26 July 1989.
- Bonn Hören* (n.d.). [online] Available at: < <https://www.bonnh hoeren.de> > [Accessed 28 September 2018].
- Certeau de, Michel (1984). *The Practice of Everyday Life*. Berkeley: University of California Press.
- Cobussen, Marcel; Meelberg, Vincent and Truax, Barry. eds. (2017). *The Routledge Companion to Sounding Art*. New York: Routledge.
- Cox, Christoph (2009). Installing Duration: Time in the Sound Works of Max Neuhaus. In: Lynne Cooke, ed. 2009. *Max Neuhaus*. New Haven: Yale University Press/Dia Art Foundation, pp.112-132.

Cox, Christoph (2011). Beyond Representation and Signification: Toward a Sonic Materialism. In: *Journal of Visual Studies*. London: SAGE Publications. pp.145-161.

Roads, Curtis, ed. (1996). *The Computer Music Tutorial*. Cambridge, MA: MIT Press.

Degen, Monica (2008). *Sensing Cities: Regenerating Public Life in Barcelona and Manchester*. London: Routledge.

DeLanda, Manuel (2006). *A New Philosophy of Society: Assemblage Theory and Social Complexity*. London, New York: Continuum.

Deleuze, Gilles (1988 [first published in French 1970]). *Spinoza: Practical Philosophy*. San Francisco: City Lights Books.

Deleuze, Gilles and Guattari, Félix (1994 [first published in French 1991]). *What is Philosophy?* New York: Columbia University Press.

Deleuze, Gilles (2003 [first published in French 1981]). *Francis Bacon – The Logic of Sensation*. London: Continuum.

Deleuze, Gilles. and Guattari, Félix (2009 [first published in French 1980]). *A Thousand Plateaus—Capitalism and Schizophrenia*. Minnesota: University of Minnesota Press.

Deutsche, Rosalyn (1996). *Evictions: Art and Spatial Politics*. Chicago, Illinois: The MIT Press.

Demers, Joanna (2010). *Listening through the Noise—The Aesthetics of Experimental Electronic Music*. New York and Oxford: Oxford University Press.

Digital Art Archive (n.d) *Andrea Polli, Joe Gilmore: N*. [online] Available at: < <http://digitalartarchive.siggraph.org/artwork/andrea-polli-joe-gilmore-n/>> [Accessed 15 September 2018].

documenta (n.d.). [online] Available at: < <https://www.documenta.de/en/>> [Accessed 28 September 2018].

Donaueschinger Musiktage (n.d.). [online] Available at: < <https://www.swr.de/donaueschinger> > [Accessed 28 September 2018].

Duff, Cameron (2010). On the role of affect and practise in the production of place. In: *Environment and Planning: Society and Space*, Vol. 28. pp.881-895.

Duff, Cameron (2013). The Ethological City. In: H. Frichot and S. Loo eds. 2013. *Deleuze and Architecture*. Edinburgh: Edinburgh University Press Ltd.

Eppley, Charles (2017). Times Square: Strategies and Contingencies of Preserving Sonic Art. In: *Leonardo Music Journal*. Vol. 27, pp.21-26.

Föllmer, Golo (1999). Klangkunst im öffentlichen Raum. In: H. de La Motte-Haber. ed. 1999. *Klangkunst. Tönende Objekte und klingende Räume*. Laaber: Laaber Verlag.

Föllmer, Golo. (n.d) *Stockhausen im Kugelauditorium*. [online] Media Art Net. Available at: <<http://www.medienkunstnetz.de/works/stockhausen-im-kugelauditorium/Website>> (Accessed 5 August, 2018).

Gabrielsson, Catharina (2006). *Att göra skillnad: Det offentliga rummet som medium för konst, arkitektur och politiska föreställningar*. Stockholm: AxlBooks.

Go Down Arts Center (n.d) *Go Down Arts Center*. [online] Available at: <<http://www.thegodownartscentre.com/>> [Accessed 6 November 2017].

Goodman, Steve (2009). *Sonic Warfare – Sound, Affect, and the Ecology of Fear*. Cambridge, Massachusetts, London: The MIT Press

Haraway, Donna (1988). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspectives. In: *Feminist Studies*, Vol. 14, No. 3, Autumn, 1988, pp.575–599.

Harvey, David (2012). *Rebel Cities—From the Right to the City to the Urban Revolution*. London, New York: Verso.

- Hermann, Thomas, (2008). Taxonomy and definition for sonification and auditory display. In: *14th International Conference on Auditory Display*, Paris, France, June 24 - 27, 2008.
- Howes, David, ed. (2005). *Empire of the Senses The Sensual Cultural Reader*, London: Bloomsbury Publishing.
- Huse, Tone (2014). *Everyday Life in the Gentrifying City: On Displacement, Ethnic Privileging and the Right to Stay Put*. Farnham: Ashgate.
- Kahn, Douglas (2006). *The Arts of Sound Art and Music*. [online] Available at: <http://www.douglaskahn.com/writings/douglas_kahn-sound_art.pdf> [Accessed 15 August 2016].
- Kim-Cohen, Seth (2009). *In the Blink of an Ear: Toward a Non-Cochlear Sonic Art*, New York London: Continuum.
- Kramer, G., Walker, B. N., Bonebright, T., Cook, P., Flowers, J., Miner, N., et al. (2010 [1997]). The Sonification Report: Status of the Field and Research Agenda. Report prepared for the National Science Foundation by members of the International Community for Auditory Display. Santa Fe, NM: *International Community for Auditory Display* (ICAD). Fall 1997.
- Krauss, Rosalind (1977). Notes on the Index: Seventies Art in America. In: *October*, Vol. 3, Spring, 1977, pp.68-81.
- Kubisch, Christina (n.d) *Electrical Walks*. [online] Available at: <http://www.christinakubisch.de/en/works/electrical_walks> [Accessed 25 September 2017].
- Kwon, Miwon (2004 [2002]). *One Place After Another: Site-Specific Art and Locational Identity*. Cambridge, Massachusetts, London: MIT Press.
- Körner Lawaczeck, Kajsa (2016). *Walking Along Wandering Off and Going Astray A Critical Normativity Approach to Walking as a Situated Architectural Experience*. Lund: Lund University.

- Latour, Bruno (2007 [2005]). *Reassembling the Social. An Introduction to Actor-Network-Theory*. Oxford, New York: Oxford University Press.
- LaBelle, Brandon (2006). *Background Noise Perspectives on Sound Art*. New York, London: Continuum.
- LaBelle, Brandon (2010). *Acoustic Territories Sound Culture and Everyday Life*. New York, London: Continuum.
- Lacey, Jordan (2016), *Sonic Rupture A Practice-led Approach to Urban Soundscape*. New York, London, Bloomsbury.
- Lefebvre, Henry (1974). *The Production of Space*. Cambridge, Massachusetts: Blackwell.
- Leitner, Bernhard (1984). *Ton Raum*. Berlin: Technische Universität zu Berlin.
- Leitner, Bernhard (1998). *Sound: Space*. Ostfildern: Cantz.
- Licht, Alan (2007). *Sound Art: Beyond Music, Between Categories*. New York: Rizzoli.
- Magnusson, Jonas, West, Kim (2006). Introduction. In: C. Kullberg; J. Magnusson; S-O. Wallenstein, and K. West, eds. 2006. *Jacques Rancière, Texter om politik och estetik*. Stockholm: Site Editions.
- McLuhan, Marshall (2001[1964]). *Understanding Media*. London: Routledge.
- Massey, Doreen (2005). *For Space*. Los Angeles, London, New Delhi, Singapore, Washington DC: Sage.
- Massumi, Brian (2002): *Semblance and Event—Activist Philosophy and the Occurrent Arts*. Cambridge, Massachusetts, London: The MIT Press.
- de la Motte Haber, Helga, ed. (1999). *Klangkunst. Tönende Objekte und klingende Räume*. Laaber: Laaber Verlag.
- de la Motte Haber, Helga (1995). Ljudkonst en ny genre? In: Å. Stjerna and A. Engström. eds. in press. *Ljudkonst*. Stockholm: OEI Editör.

Mouffe, Chantal (2007). Artistic Activism and Agonistic Spaces. In: *Art&Research. A Journal of ideas, Contexts and Methods* Volum1. No 2, Summer, 2007.

Mölndal stad, Ansvarig Förvaltningschef Kultur och fritid (2015.) *Biblioteksstrategi Mölndal* [pdf] Mölndal. Available at: <<https://bibliotek.molndal.se/documents/10844/210604/Biblioteksstrategi/5b4157f4-9041-4165-a234-253ac719c935>> [Accessed 9 November 2017].

Nancy, Jean-Luc (2007). *Listening*. New York: Fordham University Press.

Neuhaus, Max (1994). Program Notes. In: M. Neuhaus, and G. de Jardins, eds. 1994. *Max Neuhaus: inscription, sound works volume 1*. Ostfildern: Cantz Verlag.

Neuhaus, Max. (n.d) *Times Square*. [online] Available at: <<http://www.max-neuhaus.info/soundworks/vectors/place/>> [Accessed 10 October, 2016].

Olsson, Jonas (2011). *Remanens, eller bandspelaren som re-pro-du-aktionsteknologi*. Stockholm: CO-OP (editions).

Ouzounian, Gascia (2006). Embodied Sound: Aural Architectures and the Body. In: *Contemporary Music Review*. Vol. 25, No. 1/2, February/April, pp.69–79.

Petrescu, Doina (2007). The Indeterminate mapping of the Common. In: *Field. A free journal for architecture* Vol. 1, issue 1, October, pp.88-96.

Petrescu, Doina (2012). Relationscapes: Mapping Agencies of relational practice. In: *Architecture, in City, Culture, Society*, Vol. 3, pp.135-140.

Pine II, Joseph B., and Gilmore, James (1998). Welcome to the Experience Economy. In: *Harvard Business Review*, July-August, pp.97-105.

Philipsz, Susan (2012). *Study for Strings*. documenta 13. [online] Available at: <http://d13.documenta.de/research/assets/Uploads/Studyforstrings.pdf> (accessed 10 December, 2017).

Polli, Andrea (n.d) *Andrea Polli, Artist Bio*. [online] Available at: <<https://sites.google.com/andreapolli.com/main/bio>> [Accessed 27 September 2017].

- Rancière, Jacques (2004). *The Politics of Aesthetics*. New York, London: Continuum.
- Royal library of Sweden (n.d) *Nationell Biblioteksstrategi*. [online] Available at: <(http://nationellbiblioteksstrategi.blogg.kb.se/uppdraget/> [Accessed 15 August 2018].
- Sadler, Simon (1999). *The Situationist City*. Cambridge, Massachusetts: MIT Press.
- Schafer, R. Murray (1993). *The Soundscape: Our Sonic Environment and the Tuning of the World*. Rochester, Vermont: Destiny Books.
- Singuhr Hoergalerie* (n.d.). [online] Available at: <http://singuhr.de > [Accessed 28 September 2018].
- Spindler, Fredrika (2013). *Deleuze: tänkande och blivande*. Göteborg: Glänta.
- Stjerna, Åsa (2005). Elektromagnetiska stadsvandringar: Åsa Stjerna om att arbeta med den tyska ljudkonstnären Christina Kubisch. In: *Nutida Musik* no. 4, December, pp.15-19.
- Stjerna, Åsa (2007a). *Klangwäldchen*. [Artistic project]. (Berlin).
- Stjerna, Åsa (2007b). *Klangwäldchen*. [Artistic project]. (Berlin).
- Stjerna, Åsa (2007c). *Pendula Bergiorum*. [Artistic project]. (Stockholm).
- Stjerna, Åsa (2008). *Sonic Promenade*. [Artistic project]. (Stavanger).
- Stjerna, Åsa (2010) *Bernhard Leitner—en legendar inom ljudkonsten*. Monitor [Radio programme]. SR P2, June 16 2010.
- Stjerna, Åsa (2013) Aspects on Duration: The Vulnerability of Permanence in Site-Specific Sound Art in Public Space. In: *Leonardo Music Journal* (23), December, 2013, online supplement Available at: <https://www.mitpressjournals.org/doi/abs/10.1162/LMJ_a_00167> [Accessed: 20180910].
- Stjerna, Åsa (2015). *Mare Balticum*. [Artistic project]. (Various places).

- Stjerna, Åsa (2017). *Ein Meer aus Herzschlag*. [Artistic project]. (Braunschweig).
- Stjerna, Åsa (2018). *A Sonic Portrait of Sala*. [Artistic project]. (Sala).
- Stjerna, Åsa and Engström, Andreas (in press). *Ljudkonst*. Stockholm: OEI Editör.
- Straebel, Volker (2010). The sonification metaphor in instrumental music and sonification's romantic implications. In: *The 16th International Conference on Auditory Display*. June 9-15, 2010. Washington, D.C, USA.
- Sundberg, Johan (1989 [1973]). *Musikens ljudlära*. Stockholm: Proprius förlag.
- Thibaud, Jean-Paul (2011). Three Dynamics of Urban Ambiances. In: B. LaBelle and C. Martinho, eds. 2011. *Sites of Sound: of Architecture and the Ear*, Vol 2. Berlin: Errant Bodies Press.
- TYP Kulturkapital (n.d) *Typ Kulturkapital*. [online] Available at: <<http://kulturkapital.com/>> [Accessed 6 November 2017].
- Voegelin, Salomé (2010). *Listening to Noise and Silence. Towards a Philosophy of Sound Art*. New York, London: Continuum.
- Walker, Bruce and Nees, Michael (2011). Theory of Sonification. In: T. Hermann; A. Hunt and J. Neuhoff. eds. 2011. *The Sonification Handbook*. Berlin: Logos Publishing House. pp. 9-40.
- White Arkitekter (n.d) *White Arkitekter*. Available at: <<https://whitearkitekter.com/se/>> [Accessed 7 November 2017].
- Wishart, Trevor (1977). *Red Bird*. [Electroacoustic music work].
- Withira, Lydia Muthuma (2013). *Nairobi in Pictures: Political Icons 1899–2000*. Nairobi: Focus Publications.
- Zwerin, Max (1999). Max Neuhaus's 'Sound Works' Listen to Surroundings: Been There, Heard That, *New York Times*, 17 November 1999.

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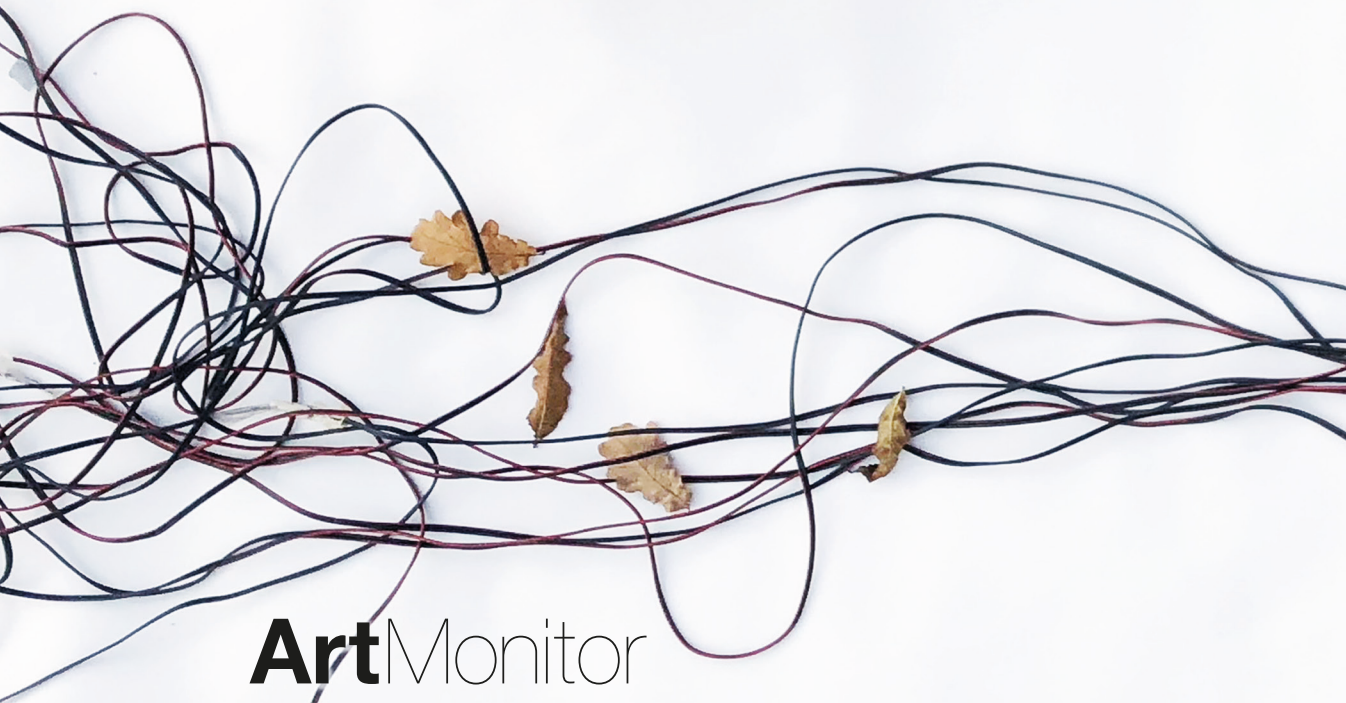
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