Spaces as Voice Teachers

Mareike Dobewall

SPACE VOICE

Biography
Mareike Dobewall is a director and scenographer. *Spaces as Voice Teachers* is a part of her artistic research project *Voicelanding – Exploring the scenographic potential of acoustic sound in site-sensitive performance* at Stockholm University of the Arts.
The complete dissertation is available on www.researchcatalogue.net

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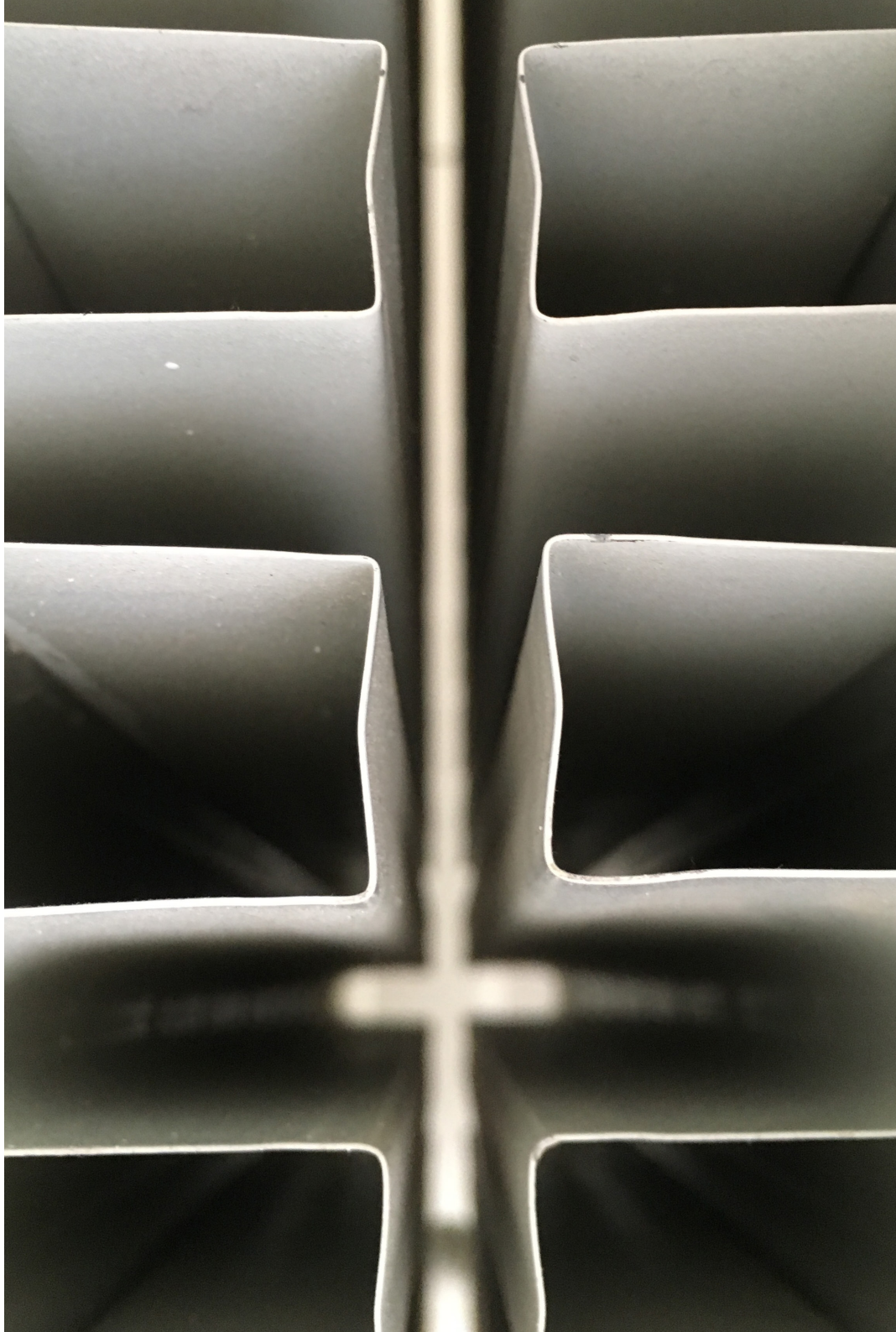



10
11
12
13
14

Content

"Every space and every instrument has a unique personality"
(Blesser & Salter, 2007, p.119)

Introduction

Spaces as Voice Teachers is an individual practice that I developed to deepen my understanding and knowledge of the interaction between voice and space. This book is a description and contextual analysis of my working methods from within this newly cultivated practice. In dialogue with a literature study that engages with vocal performance art, voice as a musical instrument, acoustics, sound studies and philosophical writings on voice, practical explorations with and of my voice were carried out in three different spaces. *Spaces as Voice Teachers*, therefore, outlines a vocal-explorative practice whereby I interact with three particular spaces over a period of two weeks each, working site-sensitively in each case.

Spaces are forms that circumscribe a part of boundless space. Architecture and natural structures define spaces that one can enter. These structures are in turn a part of all space. When I speak of spaces in this book, I mean the interior of an architectural construction in combination with the space that it holds. But I will also speak of spaces as bodies: this relates to the impression that I got during my investigations of *Spaces as Voice Teachers*, where it felt like I was inside of bodies of space that surround me fully.

Over the past six years in my work as a director and scenographer of site-sensitive performances, voice has proven to be a very precise instrument when investigating sonic interaction with spaces. It is also flexible when exploring in a free improvisational dialogue with a space. As a director I learn through observation and dialogue with the instrumentalists. In the practice of *Spaces as Voice Teachers* it was my intention to learn about the dialogue of sound and space from within. Voice is the only instrument that I have experience in using, which made it the most reasonable choice. In *Spaces as Voice Teachers* the exploration of my voice and the interaction with spaces are not separate, they become more like a joint body.

In the following book I will give an insight into how this investigation came to be, my thoughts on voice as an instrument and what I have learnt about the relationship between voice and spaces. I will share my experience from working with three spaces as voice teachers, followed by a reflection on the practical investigations that took place, and what understanding these methods led to in my research.

The individual reader will have a unique understanding of voice. I intend to create accessibility for readers of diverse backgrounds and different training as vocalists. Therefore, the first part of the book gives an overview on the different terrains the practice of using *Spaces as Voice Teachers* brings together. If the reader already has a good understanding of the vocal apparatus, they can skip the chapter *Voice as an instrument*. A reader who is less interested in the philosophy of voice may choose to skip *The human voice*.

This book is part of my dissertation *Voicelanding – Exploring the scenographic potential of acoustic sound in site-sensitive performance*. References to the exposition of my artistic research project will connect the reader to the broader landscape of which *Spaces as Voice Teachers* is one part.

Motivation

In my artistic research into the scenographic potential of acoustic sound, I investigate the dialogue between musicians and spaces through the creation of musical performances. My curiosity about this dialogue is connected to my practice of composing on site. This includes my collaboration with the musicians and the space. During the creative process I bring attention to the conscious dialogue between the musicians and the performance space. I have learned that an awareness of this interaction increases attention to breath, movement and articulation, and it expands the possibility of listening. Voice has proven to be particularly valuable for the exploration of instrument-space collaboration in general, due to its flexibility in expression and its accuracy in directionality.

The character of a space is expressed through its acoustics. As the acoustics of a space alter sound, active collaboration and conscious adjustments are needed when one desires the unfolding of a *spatial expression*. Spatial expression always includes the transformation of the sonic expression, influenced by the space. The alteration of sound by its interaction with the environment is a natural occurrence. As composer Barry Truax states, “Even our own voice comes back to us with the properties of the immediate environment embedded within it” (Truax, 1984, p.32). To consciously work with the transformation of sound through interaction is a cornerstone of my artistic practice when I create spatial sound performances.

The desire to understand how voices and spaces can communicate, and how this relational attention to site can allow new vocalities and new musical expressions to develop, led to my decision to work with spaces as voice teachers. This original concept corresponds with my research into site-specific acoustic sonic expression. *Spaces as Voice Teachers* can be understood as an extended studio practice, working with designated spaces as temporary studios, in correspondence with studies of literature relating to voice and acoustics. Reading together with practical explorations in three spaces is the base for this text. My strategy was to be in dialogue with my reading material while working *with* the spaces. Most references are cited directly in this text because the wording inspired my thoughts and exploration as much as their content.

In workshops with singers over the past five years, I began to explore what spatial vocal expression could be. *Spaces as Voice Teachers* as an individual practice allows for an intense and intimate search in-to, out-to, and in-between the singer and the space. In this practice an individual spatial vocal expression is fundamentally searched for.

The aim of vocal training is usually an ideal refinement, an adding of something concrete to the voice’s repertoire, propriety and correctness (Fisher et al., 2016, p.12-13). I respect this notion of ‘perfection’ and I can appreciate a ‘beautiful voice’. For me, however, these ideas of properness are not inspiring. I am interested in how the interaction of voice with space can lead to creativity with the voice, and to new realities for vocal expression. What I nonetheless decided to integrate from traditional voice training is the combination of physical work and imagination. Vocal training is usually focused on the interior spaces of the body (Fisher et al., 2016, p.14). Vocal educator Jeremy Fisher describes these as an “imaginary corporal architecture of galleries, corridors and booming cathedral-like vaults” (Fisher et al., 2016, p. 14). I would like to borrow and expand this beautiful and helpful image for interior resonance spaces, and allow it to also describe spaces that surround us. Spaces include us and our body and, in that way, they hold space for the voice and imagination.

The training with *Spaces as Voice Teachers* is not one-sided – one active, one passive – it is an active dialogue or even multilogue. When collaborating with spaces I have found flexibility in both voice and space. When I sing in spaces, I experience the spaces inside me as flexible and moving. These spaces are of course bound to their location, but surrounding the resonant spaces are many muscles that allow for multiple variations and adjustments of the inner spaces. To think, then, of seemingly fixed structures in architectural spaces as flexible in some way is one of the perspectives that guides this exploration.

The individuality of voice is becoming more intriguing for me the more the spectrum of how the voice develops and expands in my practice. The interaction with spaces as voice teachers is one of performers (and composers, arrangers, scenographers, audiences) being taught by spaces as non-human entities. These spaces are as individual as their students. I believe that to nurture spatial music as an acoustic sound art (by exploring the nature of acoustic sound in relation to spaces and other environments) is a promising journey with many discoveries ahead.

The abstract of my artistic research project *Voicelanding - Exploring the scenographic potential of acoustic sound in site-sensitive performance* can be found on www.researchcatalogue.net

The space inside

In movement
Expanding
For resonance
For vibration
Restricted

Intuitively
Partly clear
How
Partly hidden

The opening allows
Gives way
To new paths
For frequencies
That did not exist
A moment ago

A stream of air
Taken in
From outside
Now transformed
Shaped
Inside

Sent out
On a journey
An expansive one
Not selective
But influenced
By encounters
Outside

Voice as an instrument

When I approach voice, both in my work with other singers and in my newly developed voice practice, I see it as an instrument. Singing is playing an instrument. As with many instruments, much of its construction and mechanics are hidden inside the body. The investigation of this instrument can be approached quite practically. Within this inquiry one can go into the smallest details of a sonic expression. In search for spatial vocal expression, I seek intuitive and technical ways to elicit sounds whose emergence are only possible together with the space. In my practice the instrument's expression is not complete if not consciously engaged with the space. Therefore, the instrument that is explored includes the individual space that the voice is in dialogue with.

Singer and composer Joan La Barbara calls voice the "original instrument". She explores "the human voice as a multi-faceted instrument expanding traditional boundaries in developing a unique vocabulary of experimental and extended vocal techniques" (La Barbara, 2002, p.35). In order to free herself from the self-control that she had learned as a classically trained singer she would, in *Hear what I feel* (1974-1975) for example, deprive herself of sensual impression in order to react vocally to what she felt through touch with a sonic response during the improvised performance. Another helpful example of how Joan La Barbara approaches voice in a unique way is *Voice Piece* (1976). This is a one-note internal resonance investigation where she explored the inner resonance spaces. This led to *Resonance area identification and the placement of sound* (Weber-Lucks, 2008, p.159). The intuitive and physical approach used here is relevant to my practice as my inner spaces were as much part of the exploration as the space that surrounded me. La Barbara has analysed sounds and their physical creation, and she has continuously been searching for "new vocal territory" (La Barbara, 2002, p.40). In her later work she increasingly includes interactive technologies. Such spatial works are related more to loudspeakers than they are to an acoustic dialogue with 'real' spaces. While for Joan La Barbara emotions play an important role when accessing her vocal potential, I will elaborate in the chapter *The human voice* (pages 13 - 19) why emotions are kept to a minimum in the vocal expression that takes place in my work.

Instruments are usually first described by how they are built and how they function. The instrument voice will be discussed in a similar way here. Phoniatric doctor Gerhard Friedrich states that "the vocal apparatus is the most complicated motoric system in the human body, and the vocal movements are the most complex movements the human is capable of (…) not only in its precision but also in its speed" (Mathelitsch and Friedrich, 1995, p.9). The descriptions on the following pages are informed by what was most significant during my experiments with the spaces. The drawings and descriptions aim to help the reader to follow my thinking. A brief description and illustration of the vocal system, based on the literature study connected to this practice and expanded by my experience during the practical explorations, shall give further insight into this instrument.

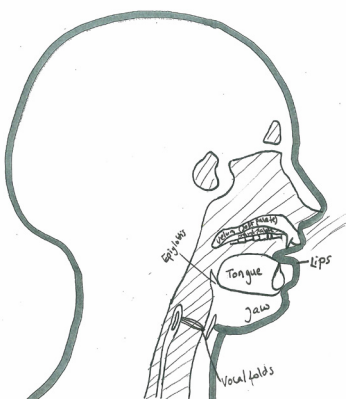
Resonance spaces

As I work intensely with *inside-listening* and the conscious variation of inner spaces, the resonance spaces within the human body are of great importance. *Inside-listening* is a sensing of the inner physical spaces and of flexible and vibrating parts that one activates or rests consciously. The ways in which the resonance spaces can be manipulated are many. One can sense how the muscles expand or contract spaces, one can push in with other body parts, twist or expand a specific part of one's body. In addition, one can consciously address certain resonance areas with the help of imagination and attention. Jeremy Fisher suggests that "by using vocal tract shaping… we can consciously shape our resonance: a larger resonating chamber will boost the lower harmonics of the sound signal and a smaller or narrowed chamber will boost the higher harmonics" (Fisher et al., 2016, p.36). Here you can see in what areas the voice can resonate.

1) Forehead
2) Nasal cavity
3) Oral cavity
4) Windpipe and chest

Mouth

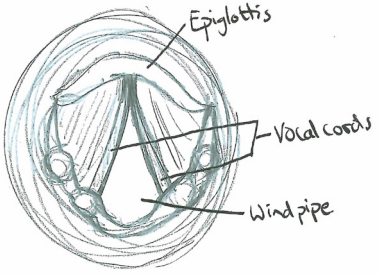
Lips, tongue and jaw are the main phonetic components for articulation. When working non-verbally these tools for articulation are not bound to predetermined connections and combinations. They are fast, and one can vary between them with little effort and without the need for transition. The mouth is a “variable filter” through mode, length and opening (Weber-Lucks, 2008, p. 51). This can be explored well when varying between the vowels. There is a lot that changes when we go from *u* to *a*. There are changes in frequency and overtones. If one varies back and forth between *u* and *a* one can notice that the vowels not only change the shape of the mouth but also the placement of the sound in the mouth.

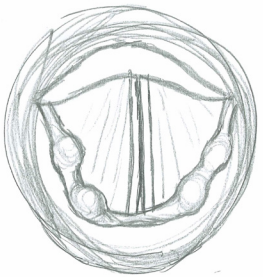


“Tension modification” in this area also alters the reflection and absorption of sound energy (Weber-Lucks, 2008, p.59). This fact is important for the engagement with spaces. And this reveals how much the mouth is a space of its own. The way we use this reflection and absorption will have a direct effect on how the sound interacts with the space.

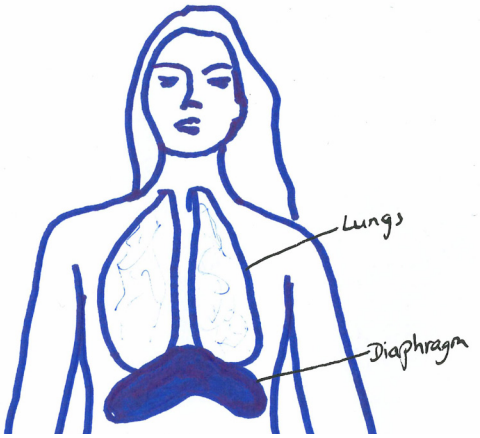
Larynx and vocal folds

The larynx houses the vocal folds that produce the vibrations that we hear as voice. The opening and closing of the vocal folds are factors that define the frequency. This is an area where one can play with the opening, narrowing and closing. This can be achieved by being attentive to how one lets the air through, through a change of body posture (stretching the neck by leaning the head back, for example), or one can operate the airflow in combination with careful pressure from one’s hands.





“The voice is never fully given; rather, it demands investment and investigation, work and care.” (LaBelle, 2014, p.145)



Lungs

Then there is “motor” (Mathelitsch and Friedrich, 1995, p.16). The lungs are the area where the energy for the voice, the breath, comes from. The breath, an in-and-out exchange of air, is active all the time. It is the basis for our survival and for the emergence of vocal sound. The lungs of adults have a capacity of about 6 litres. When one practices breath control, it is not so much the capacity that is trained or expanded, but rather the control of in-breath and exhalation (Mathelitsch and Friedrich, 1995, p.16-17). The diaphragm is an important part of this motor. Imagination is the tool to control this system.

The instrument voice, like all other instruments, is individual. Instruments are shaped by time, and in humans, by our lives. When it comes to individuality, I find it important to underline that I don’t work with letting the individual express himself or herself emotionally when singing. I am interested in their *individual expression*. By this I mean the expression of their own voice which holds their personality and shows the unique qualities of the instrument. The individuality of my instrument consequently guides the exploration of *Spaces as Voice Teachers.* It is worth noting that what I learn from the spaces is therefore specific. Another singer would take different lessons. The regulation of voice is guided by our hearing, and by the brain analysing and sending signals to the muscles. In *The human voice* (pages 13 - 19) I will come back to this correlation.
The voice is the expression of how one uses the instrument voice. The instrument is affected by many elements in our lives but also by how we employ the many areas of the instrument. As with all other forms of expression, we can expand it by practice and in doing so by engaging in its change over time with curiosity. Understanding the physical structures and their functions, including the exploration of this inside space, has helped me design more precise exercises when engaging with a space, and has given me a broader spectrum of practical knowledge to explore and respond when in dialogue with a space.

Abilities of the Voice

The following capacities are specific for voice as an instrument, and they set it apart from other instruments. In thinking about the specific abilities of the voice I aim to establish a dialogue between literary sources, my own experience working with vocalists, and my own voice.

Your voice goes wherever you go. You cannot forget it on a train or lose it when you work somewhere high up. This gives the singer an advantage in movement and spatial flexibility. “The human is instrument and player of the instrument at the same time” (Mathelitsch and Friedrich, 1995, p.11). This means that the daily shape of the vocalist is also the condition of the instrument, and means that we must consider the connection we have with our surroundings, and the fact that it isn’t only when singing that we use our voice. The voice is therefore influenced by our surroundings and affected by its use in daily interactions, all the time. It is always in relation.

Anybody with the necessary physical capacity can access this instrument, which makes it the most inclusive instrument. Its capacity for articulation is broad. It can even convey text. According to Mathelitsch and Friedrich, it is the capacity to not only articulate information but also to transport language, i.e. words, that makes the voice a superior instrument (Mathelitsch and Friedrich, 1995, p.12). This possibility can deeply connect those who understand the shared language of performer and audience, and means that the voice can express meaning that stands in contrast to the music.

The spectrum of the voice is flexible and can be developed in desired directions. Even though there are voice ranges that are defined, there are zones to expand into, in several directions. Most people fall naturally within two vocal ranges. The voice can effortlessly change in expression and volume (here: loudness and dimension). Through different modes of vocalisation, we can change the texture of the sounds we create with our voice. Expressions like ‘open’ and ‘squeezed’ for example, which can be reached by changing the shape of the mouth and including the nasal area, change the make-up of a sound strongly. In addition, there are several ways to adjust loudness. “It is not only through increased pressure that we can increase loudness but also through the pitch, the timbre and the use of our resonating chambers” (Fisher et al., 2016, p.35).

There are also ‘disadvantages’ of voice to be considered. Brian Eno addresses what makes it difficult to create ‘New Ways of Singing’ and to improvise as a singer. He writes:

“These are the things that make it difficult:

- He only makes one noise at a time
- He has to invent language as well as music
- The options for sonic improvisation are much more limited than other instruments
- Whatever he does is going to be focused upon in a way that other instruments will not be

These are the conditions under which singers labour: they just do not have the range of options available that another instrument might have. So, here’s a simple solution: change the conditions!”
(Eno, 1996, p.371)

I agree with Brian Eno here, that the limitations can be overcome, and I can see in my approach that these limitations can be counteracted as the space expands the possibilities of the voice in many ways. In my work language is optional and the focus on the human in my practice leads to a deeper understanding of the relationship with the environment.

The human voice

Voice is both an instrument and expression. Both forms of voice are not only connected to the body but to the whole person. “Persona is a noun from the verb per-sonare, to sound through” (Fisher et al., 2016, p.16). Voice is an extension of a person.

Do we have a voice or is the voice becoming? We are born with our voice, it develops during our lives, and changes until the end. The relation we have to our voice is a multi-perspective: “the sound of our voice comes to us, not just through the air, but cloaked in the bones of our own skulls and enriched by their vibrations within our bodies, making the sound deeper and richer than reality” (Fisher et al., 2016, p.9). We express ourselves with our voice and connect in this way with our environment but, as Barry Truax describes in *Acoustic Communication*, “the self we hear is not the voice others hear” (Truax, 1984, p. 31). Singers therefore learn to take on different perspectives on the sound of their voice to be able to train it. This is called *audio-vocal control*. Spaces as voice teachers can inform this learning through enabling different aural perspectives.

To give an overview of some of our relations to voice, I will briefly discuss forms of vocal expressions and perspectives on voice that came up in my reading in relation to this practice. The expressions and perspectives I survey here cover selected themes that are relevant for my research, particularly for my practice with *Spaces as Voice Teachers*. They are by no means exhaustive.

Emotion

Singing is often used to express feelings. This is probably the most common form of and reason for solo singing. The sung utterance can be for oneself, as a connection to one’s own feelings. For instance, “crying turns distress into a pattern of vocal stresses - creating a kind of personal tune that soothes the pain to which it gives expression” (Fisher et al., 2016, p.8). Vocalisation can also have the aim of being heard. Barry Truax reminds us that “unlike the passive quality of ‘being seen’, to ‘be heard’ requires an active gesture” (Truax, 1984, p.31).

But as the voice is connected to our breath and our whole being, it can also reveal something that we do not intend to share. “One is ashamed of using one’s voice because it exposes some hidden intimacy to the Other” (Dolar, 2006, p.80). There is a fear of “disclosing ‘too much’ of ourselves by our own noise” (Dolar, 2006, p.188). On the other hand, emotions can also be an expression of a “voice not yet understood” (Dolar, 2006, p.136) - which reveals that our voice sometimes has a more direct connection to our feelings than we have, mostly through the common factor of breath. However, as emotions belong to the individual, they are very specific. We have the capacity to respond with empathy and therefore ‘feel with’. I, however, work more with the idea of allowing the audience to discover their own emotions instead, by offering more abstract vocal expression. The emotional expression that I strive for in my training with spaces is as neutral as possible.

Finally, in relation to emotions, there is the “sheer physical pleasure of making a sound” (Fisher et al., 2016, p.4). Already the increased attention to breath strengthens the relationship with the body. The combination of physical activity, the creation of sound and the sensing of sound is a joyful experience.

Language

I am not specifically interested in “voice as a vehicle for language”, as Alice Lagaay describes it (Kendrick, 2011, p.1). When employing abstract vocal expression to communicate sonically with a space, language becomes secondary. I am therefore more interested in voice as a tool for communication. Voice can communicate without words. When exploring the voice as an instrument in dialogue with the space, non-verbal vocal expression gives me the freedom to communicate sonically in a free way. This way, I am able to physically and dynamically explore with bodies of sound and textures in sound. Kurt Schwitters’ *Ursonate* (1922–1932), for example, performed by vocal performer Jaap Blonk, is a good example of the affordances that playing with vocal sounds has. Even though absurdity and meaninglessness as strived for in the Dadaistic approach (with all its ways of deconstructing language) is not my intention, the physicality of vocal expression and the liberation from meaning holds a space for playful vocal explorations here.

In the exploration of voice, I find *nonverbal vocal sonority* (“Nonverbale vokale Schallsignale”) intriguing as a broadened understanding of singing (Weber-Lucks, 2008, p.71). Communication is possible and meaningful without wording. Some vocal performers who explore non-verbal methods, techniques and materials are Jaap Blonk, Diamanda Galás, Joan La Barbara, Fátima Miranda, Phil Minton, and Meredith Monk. In *Körperstimmen* music scientist Theda Weber-Lucks describes their practices and attempts to compare their approaches to vocal art. I will address their practice individually in relation to specific parts of my practice. What they all have in common is that their non-verbal vocal explorations result in an enhanced physicality. This is something that I have also experienced in my practice. The more I learn about my body as the inner space and the motor for my voice, the more vocal expressions became available. Sound needs space to expand and change. The physical engagement with the space therefore becomes crucial for spatial vocal expression.

As Mladen Dollar writes, voice “raises the expectation of meaning… it is a sound which appears to be endowed in itself with the will to ‘say something’” (Dolar, 2006, p.15), but with language comes a gorgeous “excess of sound over sense” (Dolar, 2006, p.146). He writes that “singing brings the voice energetically to the forefront, on purpose, at the expense of meaning” (Dolar, 2006, p.30). Often we do not understand all the words that are being sung. However, I would be tempted to say that we will still understand the meaning. Or rather that we receive more meaning. One could say that a deeper meaning, a more universal meaning, emerges in the paralanguage.

When it comes to the phenomenology of voice, Alice Lagaay highlights the observation that when we pay attention to the meaning, we lose the awareness of the “sounding materiality of the medium”. In turn, when we attend to texture, we lose track of meaning (Kendrick, 2011, p.5). I would suggest that this is because the texture has its own meaning to be explored.

Physicality

Voice is a physical, bodily instrument. Not only do we use our body to create sound, the voice needs the body. “There is no voice without the body” (Dolar, 2006, p.60). But hearing the body in the voice is not necessarily desired. Many physical sounds are still taboo. Sometimes we can hear the body, even the particular body parts, that produce the sound. The fluids that are involved may be audible, as much as the tongue or teeth. This potential for sound creation is not to be ignored when it comes to an artistic use of these skills or potentialities. In my exercises I noticed that bodily sounds can develop into unfamiliar vocal expressions when explored further.

There is a physicality in listening too. Spatial listening connects our bodies to other bodies. In my practice this listening includes all bodily senses available for the reception of sound or other sound-related impressions. Listening also ‘connects’ by the way that it reaches out when listening for things. Poet Susan Stewart said that “hearing is how we touch at a distance” (Hamilton, 2015). This way of connecting to other bodies also includes non-human bodies, and in my investigation with *Spaces as Voice Teachers* this includes the reactive body of spaces.

Presence

“A vocal sound never simply occurs; it has always been made” (Fisher et al., 2016, p.6). It is an active making present and making presence. This is true for all sounds. But the voice is special in the way that it “wrap(s) the body in its own vocalizations and the primary power of voicing” (LaBelle, 2014, p.98). It therefore immerses itself and others in this vibrant presence.

M. Dolar in *A Voice and Nothing More* discusses the ambiguous link that voice has with nature and divinity. In some religions this division exists, whereas in other cultural beliefs nature and the divine are one (Dolar, 2006, p.31). The latter leads to an understanding of divinity being inherent in nature. The human, as a part of nature, can bring the voice into existence. The voice as nature can therefore be divine. Voice also gives us presence through the connection with our environment. It can touch physically and emotionally, ourselves and our surroundings. The fact that the voice is only present for a short moment gives its fleeting materiality attention in the moment, and presence in the present. I use voice as a way to connect with my environment. I am not searching for any state of mind or emotional relation. The way it ‘makes me feel’ rather disturbs my perception of sonic interaction and forms. Sometimes, however, the sounds can be so intense and physical, either in my body and/or the space, that the effect has to go through my body before I am able to re-connect to the dialogue that happens in-between my body and the space. There is a response in everything that is touched by sound. “When your voice is propelled from your mouth, it travels through the air and makes contact with objects in your vicinity, causing tiny vibrations on their surfaces” (Rodriguez Munoz, 2016, referring to Lawrence Abu Hamdam. In his multimedia installation *A Convention of Tiny Movements* (2015) he made the minute vibrations of the object visible and recovered the sound that produced them). The impression of sound lingers. It affects as far as it reaches.

From the perspective of a listener, the presence of the voice and what it expresses is dependent on their perception. The presence of sound does not necessarily carry meaning for us or even trigger our attention. As I am exploring the spatial expression of voice in order to share its presence with an audience, the perspective of the “listening participant” (Böhme and Engels-Schwarzpaul, 2018, p.130) shall be touched upon briefly. In *Spaces Speak, Are You Listening?*, Blesser and Salter underline that “from the psychological perspective, we do not so much hear sound as perceive sonic events into our consciousness” (Blesser and Salter, 2009, p.15). As Alice Lagaay puts it in *Voice in Philosophy*, sound is perceived not just with the ear but with “aural imagination” (Kendrick, 2011, p.6). This aural imagination is individual and voluntary. The translation process from sonic impressions to aural imagination leads to an “attentiveness towards that which is not yet fully there - but might be, could be there on the brink” (Kendrick, 2011, p.8). Therefore, “to sing then is to capture the imagination of the other” (LaBelle, 2014, p.51). This is a capturing with an open cage. Both sides, the sounder, and the listener, must give in and open up towards a shared other, an *in-between* and a *within*.

Political

Economist and polymath Jaques Attali claims that “innovation in music precedes social change” (Goldsmith, 2015, p.8). Does that mean that musical thought or intuition can anticipate change, or is it our desire for change that thinks aurally, ahead of what is given? Regarding the power of music Plato warns that “the modes of music are never disturbed without unsettling of the most fundamental political and social conventions” (Dolar, 2006, p.43-44). I am convinced of the power of the voice, especially as a connecting force. As with all powers, it is the way in which voice is used that defines its true value.

The human voice appeals. When we hear a human voice, it sets itself apart from the other noise. “I instantly become aware that someone is possibly trying to say something, possibly to me and possibly requesting my response” (Kendrick, 2011, p.5). We feel our responsibility for others when a voice calls and our ability or will to respond gets involved.

During my research in the past four years, I have come to acknowledge that it is especially due to its fragility that voice has power. The vulnerable demands our attention. In the voice it reminds us of our own vulnerability, and that of our community. The voice is fluid, personal, immediate and it is related to its environment, to where it is situated. It affects because it is social and reminds us of the fragility of our existence.

But “power is exercised not only through the voice but over it” (Fisher et al., 2016, p.10). When voices are silenced the power of having a voice in a community becomes clear. “Silence is the ocean of the unsaid, the unspeakable, the repressed, the erased, the unheard. It surrounds the scattered islands made up of those allowed to speak and of what can be said and who listens” (Solnit, 2017, p.17).

Silence

In my work with voice as an instrument in dialogue with spaces, silence is naturally a component in this dialogue. Everything that is alive creates sound, even if very quietly or outside of our hearing range. I was reminded of this when I was at an artist residency in Finland at Mustarinda in 2011. We artists were talking about the inspiring silence in the forest. One of the artistic directors of the residency replied that the forest was quiet but not silent. If it were silent, it would be dead. For spaces, which are never separate from their environment but a part of it, and often even sounding environments themselves, the same is the case.

For the voice, Mladen Dolar describes the function of silence as “a negative of the voice, its shadow, its reverse”, as “a presence of a trait and its absence” (Dolar, 2006, p.152). When one shifts perspective slightly, voice has the “possibility of silence” (Kendrick, 2011, p. 6). Alice Lagaay writes that when dealing with vocality “silence can be considered as a mode of vocal expression” (Kendrick, 2011, p.6). It is therefore not necessarily a limitation but can be a potentiality of voice.

When the voice is silent, it can connect us, as much as sound can. “Mutual silence is one of the few acoustic forms which everyone participates in simultaneously on an equal level” (Truax, 1984, p.38). Being silent together and/or listening to our environment together, situates us in a shared space. When exploring spaces together with other instrumentalists, being silent together and listening together brings an atmosphere of attention, curiosity, and care into the space.

In performances, I like to introduce moments where the instrumentalists are silent. This gives room for the space to resonate out (the German *ausklingen* describes the process of sound quieting until it has no more physical effect on the body/space). It offers the audience a moment to let things resonate within.

Space-Body-Relation

When we sing, it becomes clear that voice comes into existence as it leaves the body. Its journey to that point and in the moment of utterance is corporeal and sensual. The expression already starts inside. It forms from our breath, not yet audible but already physical. Its physicality is shaped by vibration. It then becomes audible, and felt. Coloured by the body of the individual singer, it forms through the template that surrounds it. It takes up space outside of the body. It changes this new surrounding, and is in turn transformed by multiple encounters until its energy is no longer audible.

The voice connects the body and its environment through sound. Both - the body and the environment - reveal themselves through sound. It is a reciprocal relation, it sounds and resounds. The interactions involved are complex. In this chapter I will describe how our voice takes form in a space, I will note the difference between hearing and listening, and I will describe the interactions that sound has with its surrounding as described according to the laws of physics. The acoustics of spaces will be considered and thoughts around the presence of the voice will elaborate the importance that I give to the acknowledgement of the body in vocal utterance. All these areas are connected to space-body-relation when working with voice. It might be that not all of these elements will be immediately relatable to the reader. But as this book continues, and with the video and sound examples connected to this practice accessible on the Research Catalogue, I hope things will fall into place for the reader of this book as theory and practice interact.

Breath – the live-giving force – is the energy we use when we create vocal sounds. It starts with the inbreath. The air for the voice comes from the volume of the air inside the space and is returning back into the space, now transformed. I have to literally take the space in before I can make a sound. The sound is then vibrations travelling through the air. The human body reacts to the changes in the air. We can feel sound. Sound artist Bernhard Leitner describes this as corporeal hearing. For him acoustic perception not only takes place by way of the ears, but through the entire body, and each part of the body can hear differently (Lopez, n.d.). Fish sense sound with their ‘neuromats’, which contain hair cells just like our ears (Goldsmith, 2015, p.2). The information in the air is vast and is picked up by many receptors in the body.

Our auditory system follows several steps. The sound waves enter the ear. They are registered and the information is transported to a membrane. The membrane gives this information as a stimulus to the auditory nerve that passes the information onto our brain, which analyses the complex information.

Directional hearing is well-developed in us humans. When I think of my work, and why I find acoustic sound experience so important to investigate artistically, I recognize that this is due to the fact that our ears are not in the front of our head, as our eyes are, but on the sides. For survival we need this all-around, directional hearing. Since we are predators, we have our eyes in the front. The consequence is that we always have our eyes on the prey/prize. The focus in my work on all-surrounding sound experience has to do with the fact that I think that we as humans can shift focus, maybe even lose (visual) focus (on the prey) for a while and trust our surrounding (while it embraces us) as we expand our attention aurally. By connecting to our surrounding multidirectionally with the attention of the ears, and adapting this way of interacting to our other senses, instead of trying to make all other senses catch up with the eyes, I explore how we can exist differently in terms of our ecological space.

Our attention to human sounds seems to be particularly developed. According to Mathelitsch and Friedrich, nothing is as equipped to analyse the complexity of vocal utterance as well as the human ear (Mathelitsch and Friedrich, 1995, p.9). How we listen and what we listen for is shaped biologically, culturally, historically and through individual preferences. This in turn shapes how we express ourselves with our voice. Voice seems to connect us foremost to other humans. This prioritization is, however, more connected to hearing than listening. Hearing is connected to a kind of automatic selection of what may be important information for the person. In order to not discriminate sounds, one needs not only to hear but to listen. 'Inclusive listening' is a method that Pauline Oliveros developed in her *Deep Listening* practice. "Prompted by experience and learning, listening takes place voluntarily. Listening is not the same as hearing and hearing is not the same as listening" (Oliveros, 2005, p.xxi). In her teaching she provided attention strategies to practise listening. "Attention strategies are nothing more than ways of listening and responding in consideration of oneself, others and the environment" (Oliveros, 2005, p.29).

R. Murray Schafer called the acoustic environment the soundscape, by which he meant "the total field of sounds wherever they are" (Schafer, 1992, p.8). He suggested ways to listen more effectively. "Listening goes on continuously whether we like it or not, but the possession of ears does not guarantee its effectiveness" (Schafer, 1992, p.7). Like Pauline Oliveros he too was concerned that we must learn how to listen. "We must sensitise the ear to the miraculous world of sound around us" (Schafer, 1992, p.11).

Ethnomusicologist Steven Feld termed the "knowing a world through its sounds" as *acoustemology* (Rice, 2014, p.111). This knowing through sounds means for me a learning and understanding through listening. In my practice listening is a conscious placing of myself into the world, a way of actively participating in the present moment. It is a reaching out towards my surrounding. It is the tactility of the sonic impression that my surrounding leaves on and in me.

From these theories and contemplations, we can learn that our interconnectedness with our surrounding becomes evident through sound. The environment I explore is spaces. When it comes to the acoustics of spaces and the effects spaces have on sound, there are acoustic properties and principles one can apply. The shapes of a space, structures inside the space, and the materials used in the architecture can help foresee certain acoustic characteristics. Usually, the most noticeable factors are in the direct sound and the direct reflections of sound that reach the listener. In an open space (either interior or exterior) the sound waves would spread spherically in all directions. In reality sound meets objects. Physically, what can then happen with the sound is that it is reflected if the object is bigger than the wavelength of the sound. For example, when you sing towards a wall, the sound will be reflected at a mirrored angle. What the reflection does to the space is dependent on the form of the surface that reflects the sound and the distance between the singer and the surface. The laws governing this are similar to those that we know from optics. Sound can also be diffracted around the corners of an obstacle or through an aperture into the region of geometrical shadow of the obstacle/aperture. This means, for example, that when you sing through an opening the sound spreads when it exits the opening.

Sound is absorbed frequency-dependently. High frequencies will be better absorbed in soft or porous material, while lower frequencies are rather absorbed by swinging planes. This understanding can be used practically when one explores frequencies in relation to a space. When teaching students at the opera department at Stockholm University of the Arts, I let the singers explore the acoustically designed stage area in Hugoteatern with their voice. The absorbent or reflective panels can give a clear lesson on what can happen to our voice when in interaction with different materials, and what changes if we change frequency. Usually, we start this exercise by walking quietly through the dark space because the materials' effect on the already present sound atmosphere of the space can be experienced by the perception that the 'space changes' in some areas.

Spaces are created by objects in relation. This makes spaces complex dialogue partners for sound. "The passive acoustic modifiers of that inject sound energy are the physical objects that comprise the acoustic space: walls, statues, people, doors, and balconies. These acoustic objects reflect, disperse, shadow, diffuse, and absorb sound" (Blesser and Salter, 2009, p.150). The complexity of working *with* sound in real spaces becomes evident. What counts for acoustic architects as described in *Spaces Speak, Are You Listening?*, is also true for instrumentalists: "Navigating real spaces involves hearing walls, openings, passive acoustic objects, and extracting their relationship to the location and properties of sound sources" (Blesser and Salter, 2009, p.42). Even spaces that are acoustically designed do not lack complexity. "Although we speak of a concert hall as a single space, more accurately, it is multiple coupled subspaces with similar but subtly different acoustics" (Blesser and Salter, 2009, p.130). Simultaneously, as the sound is affected by the environment, everything is touched and excited by the sound. This animation makes the reactions and therefore the transformations of sound specific for the relation between the sound and the space with all its elements. In other words, as it is usually not one sound wave meeting one obstacle, the aforementioned reactions of the space occur in combination.

In relation to voice (or active sound creation in general), I would like to add that acoustic sounds in a space not only carry the information of the sound but also their location of origin. In addition, we can use the voice to scan the physical elements of the space and make them audible. When we use our voice, we also give voice to the space.

In a performance the position of the musician, the direction they send the sound to, and the position of each audience member play an important role on the sonic impression. Decay is a loss of energy until it is no longer audible. Here it is important to note that "every frequency has a different decay time" (Blesser and Salter, 2009, p.63). Using these reactions and their effects for the creation of spatial compositions allows the space to become a true collaboration partner. 'Co-sonances' (Dolar, 2006, p.151) can develop into elaborate networks. Echo and reverberation can be used as a *Verfremdungseffekt*, as Francois Dufrene found (Weber-Lucks, 2008, p.36). In *Die Physik des Klangs* ('The Physics of Sound') Klaus Gillessen describes how reflected sound is generally experienced as good for the "fullness of sound" ("voller Klang"). Here the direct sound becomes one with its reflection and therefore "fuller". "We only experience sound events as separate if they have a distance of about 0,03 seconds. That would mean that the sound has travelled 10 meters. Therefore, an echo occurs if a musician stands 5 meters away from a reflective wall" (Gillessen, 2013, p.111). In addition, the qualities of reflection are often used to "direct a bigger part of the reverberation into the direction of the audience during orchestra concerts" (Gillessen, 2013, p.111).

In big spaces the reverberation is what is usually noticed first. It grows proportionally to the volume of a space. Reverberation time defines how long it takes for a sound to no longer be audible in a space. A long reverberation time can make musical performances difficult, but it can also amplify the experience. Choir performances, with their polyphonic patterns, can be very beautiful in spaces with a long reverberation time. In my choir works I make use of the reverberation time as much as all the other spatial-acoustic elements mentioned. In the description of my experience with 'spaces as voice teachers' I will go into details regarding the acoustic characteristics of the spaces and how they enable and restrict – and therefore enable in a different way – my explorations.

Returning to the human body in relation to the acoustic space, we will now attend to the perspective of a listener: What does the space do with the voice on a phenomenological level? Mladen Dolar writes that "when the voice gets attached to the body, it loses its omnipresent charismatic character - it turns out to be banal" (Dolar, 2006, p.67). What is at play when the voice is not visible is described by Michel Chion when he writes about the bodiless voice in cinema. This voice is omnipotent. To describe this he coined the term *acousmêtre*. Chion describes in the book *Audio-Vision* that *de-acousmatization* leads to a taming of the voice by revealing its source and fixing the voice to an individual. The powers the voice has when not embodied are then drained (Chion et al., 1994). Chion describes this impression in the context of film but the fascination for the voice in the absence of its source (or rather its invisibility) exists in regards to other fields too: from Pythagoras' lectures, to performed storytelling, to church music, to Pierre Schafer's acousmatic music.

Acousmatic sound is, simply put, a sound that can be heard in the absence of the sound creator. Dolar and Chion seem to agree here that the voice without the presence of the body is more appealing and powerful than the embodied voice. This brings up the question of if the mystery around the sound source automatically produces a divine effect? After all, "revelation is always an acoustic phenomenon" (Agamben and Fort, 1997, p. 94). Returning to the idea of the divine and nature being the same, and the human being a part of nature, wouldn't the voice in the presence of the vocalist be an expression of the divine in nature?

I would argue that an embodied voice holds a direct power with a strong effect on its surroundings. Is it not then exactly the experience of the sonic expression in its accessibility to all the senses, including sight, in the presence of the sound creator, that makes the power of nature evident and connects us to some sort of divinity? Additionally, relating to Dolar's reference to the banal: Isn't there a beauty in the banal, in the commonplace that we share? I would argue that the charm of the banal, the embodied voice involved in physical relations, is not to be underestimated.

I insist on the presence of the body together with its voice. I find their relation in dialogue with spaces and in care for other bodies most fascinating. In my work the body moves the voice, spreads it, directs it, and it learns to form it. Voice enters into a choreography with the body. It is a learning through expression and impression of spatial listening and spatial sounding involving the whole body. Meredith Monk describes her relation to voice as "the singing body, the dancing voice" (Weber-Lucks, 2008, p.12). Initially trained as a dancer, she developed an individual vocal style that is in correlation with physical movement. I find her idea of a dancing voice beautiful in its amplification of the body-voice relation.

Singer Demetrio Stratos, who investigated free vocal expression at the boundaries of human vocal ability, put it like this: "One first has to have knowledge of one's own body before one can have knowledge of one's voice" (Weber-Lucks, 2008, p.237). I strongly support this emphasis. The body and the voice are inseparable and interdependent. I might add that since I see a space as a body, it consequently follows that one needs to know the space before one can find one's space-specific vocal expression.

"A space does not react to our visual presence" (Blesser and Salter, 2009, p.16)

Reactive teaching - active learning

Spaces are fixed structures. In their acoustics they are specific. Their sonic presence is stimulated by their co-existence with interacting sonic events inside and outside of the space. Spaces are intra-active in the way that their potential to re-sound, carry sound, absorb sound, stop sound, along with their other sonic abilities, emerge from within their relationships with other entities. The term 'intra-active' relates to Karen Barad's definition here. In intra-action no part is fixed or complete. Their abilities to act depend on the encounter with the other (Juelskjaer, 2012).

It is through listening that I start my journey into the not-yet-known. Brandon LaBelle suggests "that to listen is to adopt a position of not knowing; it is to stand in wait" (LaBelle, 2014, p.x). It is through listening that I can learn. "Listening is an unsettling of boundaries – what draws me forward, away from what I know" (LaBelle, 2014, p.x). Singer Fátima Miranda recommends training the ability to listen in order to educate the voice. She says: "The more you can differentiate with your ear, the more your larynx can differentiate. It is a kind of circular reasoning" (Weber-Lucks, 2008, p.174).

Sound has to be brought into existence. This pressure wave will move according to the medium it travels in, in the space that it was activated in, with all its elements and other entities in the space that may interrupt its journey. A wave will interact with its surrounding, until it has faded away. When working with voice the sound waves are made physically, through the body of the singer.

The interaction between the space and the singer is a learning situation where I as the student am active and reactive, while the space teaches through reaction only. Interaction means here that the elements involved affect each other. One could also prefer the term 'correspondence' as defined by Tim Ingold, where all parts are able to move in co-participation (Ingold and Chiasmi International, 2012). The material through which the singer learns about his/her voice is sound. The ability of the space to teach the singer is dependent on the relationship the singer encourages. Spaces support a dialogue with the singer's body. Ground for this exploration is therefore a landscape marked by site-specific and person-specific capacities.

Attuning to a space requires a readiness in the whole body. It is through the surrendering to the space that the expansion of possibilities emerges. My individual vocal possibilities merge with my environment and we become one instrument.

When I work with voice and spaces, the response has to be to both external and internal impressions. This process can be initiated with just one sound. Sometimes the exploration starts from the body, from a formation (possibly felt as a deformation) of the mouth, or a restricting/ opening body posture.
Explorations of attack, steady state and decay can be supported and challenged by the space. This helps to pay attention to what it actually is that one does in these states. Transitions from one sound to another are a great way to trigger the space to reveal something about itself through its reaction. In these exercises repetition and variation are the key to discovery. The spaces call forth a flexibility in the voice, even a plurality.

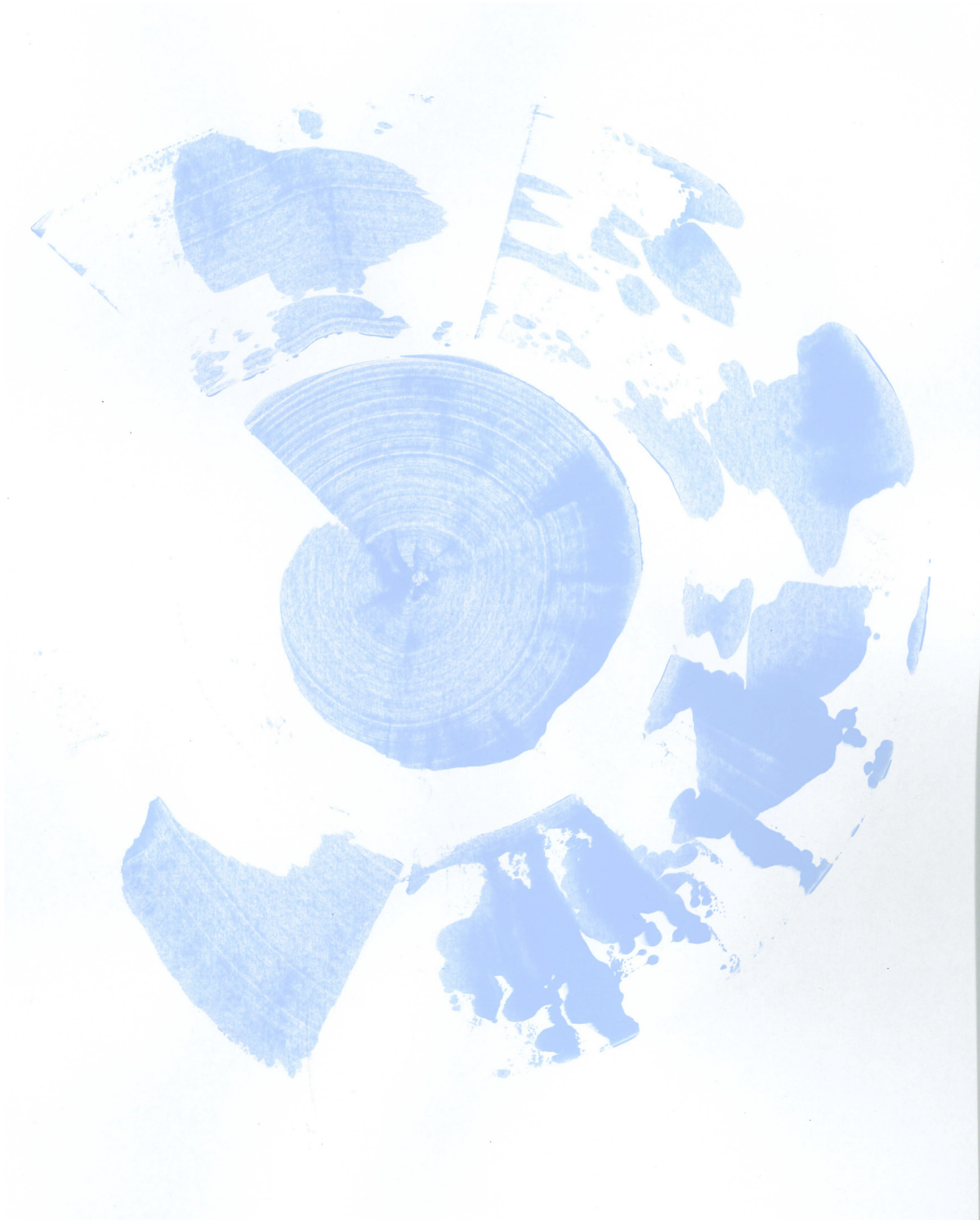
Material

I am interested in the discovery and creation of sounds. In *Spaces as Voice Teachers*, I search for undiscovered spatial vocal expressions. However, it needs to be acknowledged that we have a sound library inside ourselves, that we access when we improvise. As Phil Minton puts it: “When I am on stage, I have memory. A full data bank with many things that I normally do not know” (Weber-Lucks, 2008, p.164). This library, which can also be seen as a repertoire, informed by habits, memory, and preferences, is a good base for vocal investigation. As Phil Minton implies in his quote, there are lots of things in that library of sounds that we are not aware of and that we are able to access in the moment of improvisation. Also, imagination starts inside, and “the sound of the inner voice conditions… the possibility of the outer voice” (Kendrick, 2011, p.7). It is, however, also limiting in that some expressions from this source are our safety-zone where we have a certain idea of what it is and what it can be developed into. To find new material, I try to get the inspiration from the space, and through the active changing and manipulation of my instrument. Here, the idea is to try to get a new expression through a new way of playing.

“All instruments have possibilities between sound (Klang) and noise (Geräusch)” (Weber-Lucks, 2008, p.50, referring to Walter Giseler *Komposition im 20. Jahrhundert*, p.69). Sounds of all sorts, tonal and noisy, are material. They can vary in dynamics, weight and how the sound waves spread. The direct sound has qualities that I want to resonate in the space. Their true value for me in my work is revealed in their interplay with the space.

Normally, for the creation of sound our breath is controlled – through long controlled in-breath and an actively slowed down out-breath (which is normally passive) (Mathelitsch and Friedrich, 1995, p.20-21). However, both in- and out-breath can create vocal sound. This expands the possibilities for vocal expression. Voiced and unvoiced breath becomes matter and voice takes form as a *Body of Sound*. The concept of sound as body has emerged gradually in my research and can be seen as a three-dimensional image for the learning of spatial vocal expression. Recognising the *Body of Sound* opens up conversations on possibilities for sound forms in interaction with other sound forms and for a concrete collaboration with the space. Consequently, new ways for improvisation with voice can come from this physical image.

Whistling was at first difficult for me because I come from a theatre tradition where it means bad luck if one whistles on stage. Even if I rarely work in theatre spaces, the spaces I work in receive the same respect and attention as I have learned to offer theatre stages. Whistling is an important part of vocal expression though. It uses mouth and breath but excludes the vocal cords. It works on in breath and out breath. In my compositions I have used whistling to reach high frequencies that are usually difficult to achieve with voice. Whistling is possible to be combined with sounds from the vocal cords. This gives possibilities to collaborate with different acoustic qualities of a space simultaneously.



Reporting from Spaces

My decision to interact with spaces as my voice teachers came out of a curiosity for spaces and from a trust that the feedback a space could give me on my voice would be stimulating for its development, and would deepen my research into site-specific sonic expression as an element for site-sensitive sonic scenography.

Spaces have character. In my experience they can reveal their preferences through resistance, indifference or through support. The way I have learnt to listen, and my preferences, guide the encounters with the spaces. Taste is always a selective factor in all our experiences and decision making. Therefore, preference is a given and this experiment is not neutral or objective. As artists we learn to combine our preferences and experience and let them guide our intuition in our creative processes. *Spaces as Voice Teachers*, however, is not about creating something. It is about learning. In this case, it specifically means learning from spaces, about spaces and with spaces. Preferences should therefore be put on hold, when possible, to enable unexpected discoveries.

When I enter a space, it reacts to my presence. Already when taking the first steps in a space, I can hear its reactions and sense them in my body. The dimensions of my body help me relate to the size and the volume of a space. The temperature and smell of the air give me an idea of the atmosphere in the space. I usually walk around in the space for a while. This might be called a kind of mapping, but it is more a sensing; not analytical but still sharp. Sometimes, I may find an area where I want to remain for a while. Cues that guide this can be visual or aural, or something else that caught my full-body attention. The research is a listening with all senses at this point. It really is a ‘re-search’, as in ‘searching again in a different way’. During the time that I spend in and with a space this simple being-there with alert senses is repeated many times. It is a strategy with many goals, not only one. The body scans again and again in different states of mind and body, which are determined by many factors every day.

The next phase is to activate the space with sounds. Often these are sounds that seem to be common when people are trying to get an idea of the acoustic character of a space quickly. I have noticed this when entering spaces with different people. These sounds can be short vowels, clicking, or clapping. There is a reason for this. The information that we get from these short, pointed sounds through the reverberation, especially the first reflection, tells us a lot about the size and the volume of the space, and the materiality of its architecture. I guess we do this naturally when we enter an unknown space in order to get a sonic confirmation of what we see. When I spoke with architect Jörg Kuemmel, who is Professor of Acoustics in the Architecture department at the Leibniz University Hannover, he told me that people find it disturbing when the visual and the acoustic impression do not match.* After listening to the first reactions of a space, a playful dialogue between my voice and the space follows in order to hear how we ‘get along’. The first reactions to my voice usually cause even more curiosity and simultaneously increase my respect for the space.

In my work with choirs and individual singers I have noticed that warming up exercises can be a great way to test the acoustic characteristics of a space. Therefore, I decided to integrate the warmup exercises into the ‘formal’ exploration of the space. This approach also guides my attention towards an inside-outside perspective, which I need for the investigative and intuitive process. By inside-outside attention I mean that I have to give as much attention to what is happening inside of me, physically and mentally, as I do to what I send out, and how the space reacts. I would describe it as a listening that travels continuously between inside and outside.

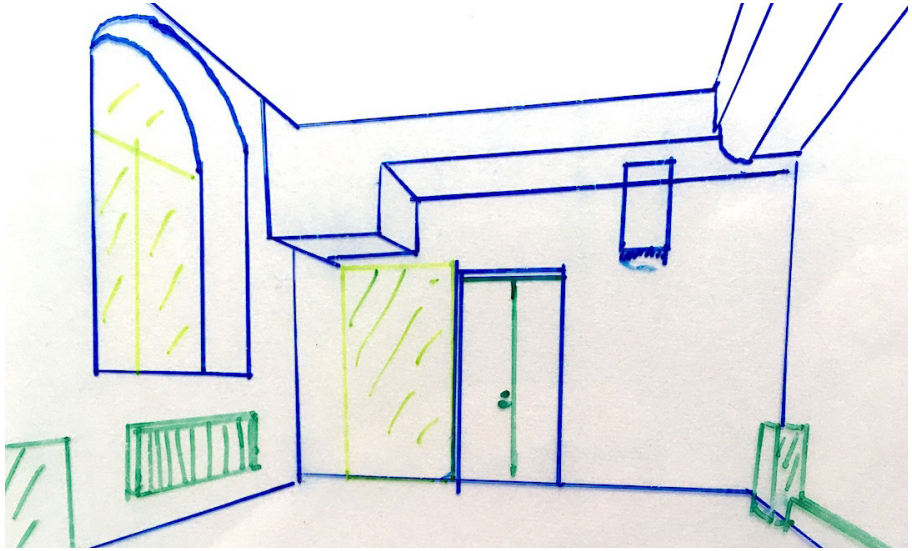
My method of including the daily vocal warm up in the investigation of the voice-space-relations allows for an exploration at the beginning of the daily interaction with the space that is guided by my curiosity in the moment. Even though I plan the subsequent exploration the evening before, based on reflections on the experience from earlier sessions, it is important for me to be open to what I discover in the warmup. This can be something inside, outside, or in-between. Since the body and therefore the voice is different every day, I find it important to examine what emerges at the beginning of a session. Letting these small changes affect the investigation allows for a research through change in repetition. The seemingly familiar action-reaction can reveal nuances in change. Every element can become less known and freshly stimulating.

The following text gives an insight into my studies with the three different spaces: my temporary studio (Stockholm), Kesslhaus (Hanover) and Reaktorhallen (Stockholm). It includes notes from my work diary which I used during all three encounters.

*Jörg Kuemmel and I had a conversation on the 15.7.2019 about my work with Kesselhaus as my voice teacher.

The three Spaces

Studio at Linnégatan



drawing from the studio

The Research Centre of Stockholm University of the Arts is situated in Garnisonen in Linnégatan.

Garnisonen are the old barracks of Stockholm. Situated in Östermalm, it is now a popular office building for start-ups and entrepreneurs. In parts of the building the past is still visible. The studio I worked in, however, was (like most studios) a white box. Only the rounded windows revealed the thick walls of the building and therefore its age. The architectural elements of this space that I enjoyed exploring especially were the pocket door made of glass, the many corners and the metal structures.

My temporary studio at Stockholm University of the Arts was my first space as voice teacher. I had already used it as my office/studio for a full year before I started this investigation. What was interesting in while working with this space was the possibility of searching for the unfamiliar inside the seemingly familiar. Quickly it became evident how much I had not known of this space. In preparation for the practice I had removed almost all objects from the space and only kept a table and a chair. I usually try to have the spaces that I work in as bare as possible, so that the space is as accessible as possible, and reveals its details.

This first encounter with a space as my voice teacher needed to be simple. It was important to me that the complexity could arise from the investigation with the space, not from overly pre-predetermined vocal exercises. I needed to observe what my body did in simple vocal expressions and how that felt. Small changes of position and direction in relation to spatial elements needed to be analysed without aural clutter.

Exercises were, for example, to go through the alphabet, separating the vowels and consonants. At the studio I started with vowels, including international variations (mainly English and German) and then moved onto consonants, unvoiced and voiced and in combination with a vowel. My approach was exhaustive. I would go back and forth between the formation of the mouth, the vocal expression, the sonic impression, variation through change in pressure; I would compare to a similar expression, investigate differences, exchange impressions with different areas of the space, etc. It took me several days to get through the alphabet this way. Combinations of vowels and consonants could then develop into small units that started or ended with a sharp consonant or landed smoothly on a soft letter. Sonic shapes could develop from these combinations and these shapes could turn into complex evolving structures.

Experiments with different breath lengths, voiced and unvoiced, would lead to experiments with volume (as in capacity, the air that is held within a certain frame). For example, there is an imagination exercise that helps relate one's body to the space one is in. I imagine a small ball developing from my mouth like a chewing gum bubble. It grows into a ball, expanding until it is big enough to surround me entirely. I then let it expand further until the space is filled entirely with my breath sound. This ball can then shrink again. When I move through the space while doing this, I can let it contract and extend playfully in relation to spatial elements.

Body positions turned out to be a great way to explore the relation one has to the space. They allow the exploration of smaller areas and experimentation with projections into areas further away. A clear focus on what one relates to is important when working with position. Body posture can help one to experiment with the inner space, as well as the space that the body takes up, and to see how the voice and the breath are affected by these spaces as they contract and expand.

The methods for basic enquires that I developed here at the studio in Linnégatan set the ground for my explorations in the other spaces. I continued using them and developed them further. During my work with the different spaces the described experiments usually developed into playful improvisations. It may have become evident that these exercises always start from the voice. When working with spaces as voice teachers, creating a sonic event is one way to learn from them. This, however, never goes without the other method that I described earlier - listening. Listening to what is already there and how the space and its environment sound.

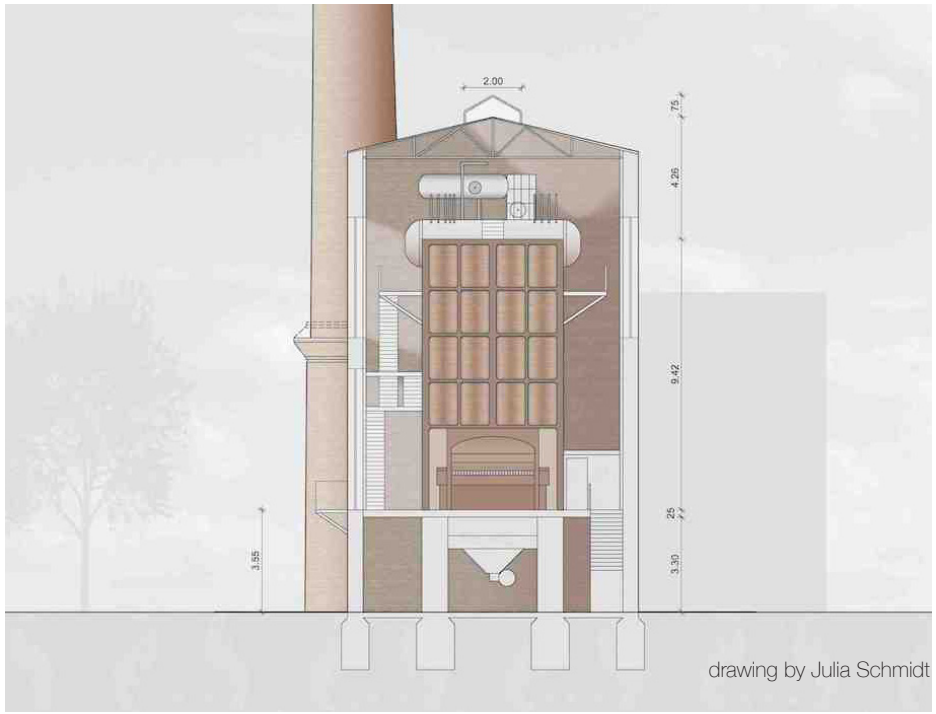
The inward-outward attention is the guide through the explorations. It is intense and requires a lot of energy. Usually, one session would not exceed four hours. If the access to the space allows for it, I would return after a break and explore further, based on what resonated with me from the earlier session.

After about 3-4 days I usually would have discovered certain voice techniques that were joyful to explore. At the same time there would be certain elements that were challenging. I would then combine these to both find reward in the exercises, and to continue to investigate what and why some things did not ‘lift off’.

My studio at Linnégatan was a good space to begin. The space was not overwhelming and gave me enough room to understand how much attention needed to be given to my own body, the movements required for the playing of the instrument voice, and it helped me learn the basics of inward-outward listening.

In both situations a great way to expand the search was to work more with the inner space (as discussed on pages 7 - 11). Experimenting with the resonance spaces inside, mouth formations and tongue positions, as well as making grimaces can reveal a lot. Body posture was again another option to trick the breath and voice to do ‘something else’. This physical trying, without knowing where it may lead or starting from something that may seem minor, guided my search into the unknown which then in turn stimulated the imagination.

Kesselhaus Linden



Linden is a part of Hanover, in Lower Saxony, Germany. A large factory complex was built on the river Ihme in the 19th century since water and steam were indispensable for industrial development. In 1890, feather and down bedding factory Werner & Ehlers moved its headquarters from Hanover to Linden to what is now called the 'Faust' site.

In 1920 the 'Rote Linden' became a district of Hanover. The period after the First World War was marked by inflation and mass unemployment, and some of the traditional factories had to close temporarily, while others completely disappeared. In the 1960s, most factories finally ceased production. As the last factory of the once so important factory belt in Linden-Nord, the factory Werner & Ehlers filed for bankruptcy in August 1990 (Kesselhaus-Initiative, 2019).

The steam-powered factory of Werner & Ehlers, of which now only the 'Kesselhaus' is left, is the space that I worked in. Its dimensions are mesmerizing. It is several stories high, and these heights can be reached through several rusty ladders along the brick core. Old red bricks, rusty metal and thin windows are the main architectural materials. The air is dusty and cold even in the middle of summer. Through the thin windows one can hear the immediate surroundings.

Kesselhaus is a complex space that acoustically subdivides into several very different spaces. In some areas deep tones would resonate so well that I searched for ways to create deep tones with my voice. The area around one metal cone reacted most strongly to deep tones. I do not have a deep voice, but I am aware that the affordance of voice is vast. Tutorials on throat singing helped me to access a deeper aspect of my vocal expression. This vocal expression, like most, takes a lot of practice but when you start an investigation from a space that reacts positively to deep sounds, as in this example, even the first steps are rewarded with supportive reactions.

One particular quality of working in this space was how very light breathy sounds became changed in some areas, becoming more vast the lighter the vocal expression was. A training in lightness can seem easy but it is actually quite a challenge to keep voice to a certain limit and then to try to reduce it even further without it becoming unvoiced breath.

Another thing that I explored at Kesselhaus was polyphonic overtone singing. I noticed that certain sounds would linger in certain areas, and that different parts of the building would react to different components of a vocal sound. In order to work with different frequencies simultaneously when alone, I tried polyphonic overtone singing guided by Anna-Maria Hefele's video tutorials (Hefele, 2014). In addition, I searched for other ways to create different sounds at the same time, like using the consonant *m* while creating microcosmic sounds with lips, tongue and teeth.

In an improvisation with breath-sounds I wondered about how to explore them to their limits without using emotions as a support. I wanted to stay close to a purely sonic expression. The solution was to manipulate my throat and mouth with the help of my hands. This very practical approach to the voice as an instrument reminded me of Helmut Lachenmann's precision in the direction for the actions of the players, the placement of their hands, their touch and use of pressure in his scores (For example *Pression for one Cellist*, 2011)

On the 18th of July 2019 I wrote in my work diary: *"I wonder what makes a good teacher? When working with Kesselhaus I have the feeling that I have a good teacher. Kesselhaus guides me, makes qualities in sounds audible and opens up the possibility to explore them further. With some sounds it seems to say 'sorry, I cannot support you in this. Don't waste your energy. Let's do something else that I can actually help you with'. I find the clarity that evolves from the abstract dialogue that I have with the space very interesting."*

After my time with Kesselhaus, I wrote on the 26th of July 2019:

“It is only about the process. It is about being in the moment and about the development between these moments. I entered Kesselhaus respectfully. It was a bit like entering the inner body of a huge animal. Through small details and through some familiar elements the space seemed to gently guide my exploration. I was a small human in an enormous space. A space that had experienced a lot already, and still seemed open to play with me. (Maybe spaces age differently ;-) Yes, in all the seriousness of my research and the physical exhaustion from the daily practice, it was a playing together. Sometimes it was catch, sometimes hide and seek, sometimes tickling, sometimes storytelling.

Two goals are pursued in this ‘basic research’:
1) To train my listening and sensibility for different sound qualities in spaces
2) To get to know my voice better, to broaden the spectrum of my vocal expression and the connected imagination for other voices therein.

The result shall not be a spatial composition but an understanding, a stimulation of curiosity, an appreciation of the individuality of the voice, of the listening and of the spaces.”

Reaktorhallen R1

Reaktorhallen (also called R1) exists 25 meters under KTH (The Royal Institute of Technology) in the middle of Stockholm. R1 was completed in 1954 and became Sweden´s first nuclear reactor. It was used for research on neutrons. In 1970 the work was discontinued (KTH, 2020).

The unusual experience at R1 already starts when one enters one of the two elevators that only have one direction from the ground floor: downward. When exiting the elevator, one enters a short hallway that leads to this underground sanctuary for science. These days it is also used for experimental art forms, and anything at the crossing of these two fields. The longitudinal space is reminiscent of naves in churches, only this architecture is not built reaching into the sky. It is rather a space carved into a body of rock, seemingly disconnected from life above ground. The subway, however, is audible and its vibration noticeable at regular intervals. The numbers that are painted on the walls give away the fact that this is not a natural cave and that human logic had authority here. A big hole in the ground in the centre of the space reveals the absence of the core. Now this hole is a space within a space. At one of the ends of Reaktorhallen there is a wall with office spaces on three levels. They can be accessed by a spiral metal staircase.

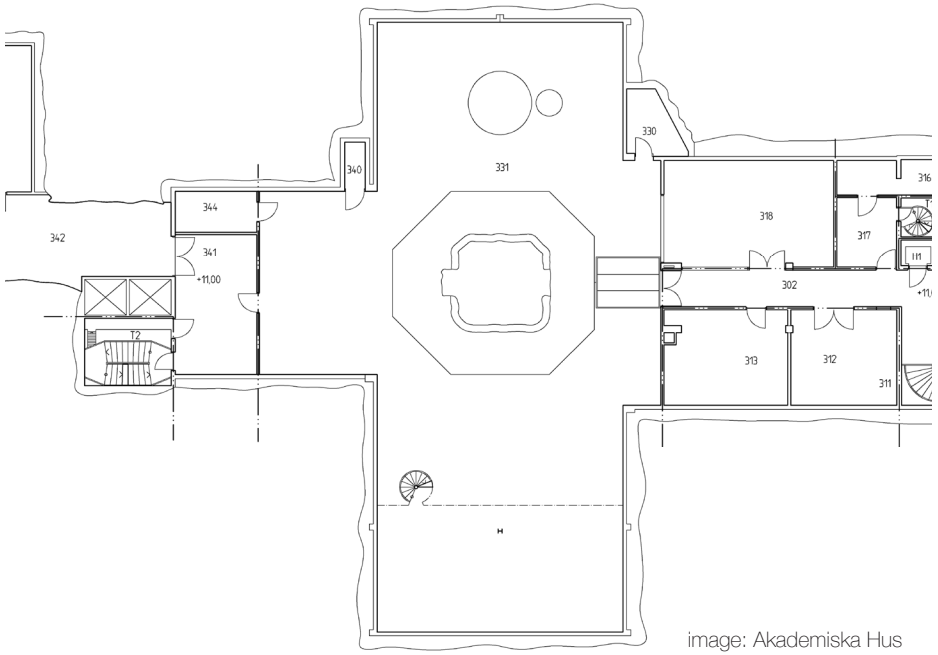


image: Akademiska Hus

At Reaktorhallen the space is characterised by its long reverb. In the beginning it felt much more difficult to work dialogically with the reverberation here because often the sound would have lost so much energy by the time it reached a surface that it felt too late to react. In my work diary I wrote on the 2nd of October 2019 *"Sometimes, it's like a fingerprint where you cannot see the lines"*.

On that day I felt so inferior to the space that I searched for help online and I found a video of Diamanda Gallas in Emanuel Vigeland's Museum (Galas, 2013). She used the reverberation in order to go higher and louder. That was something that felt impossible to me in Reaktorhallen, but I approached the space in a similar way, with an attitude of challenging the space. It brought up for me unusual vocal expressions that felt very 'earthly' (by which I mean terrestrial), connected to my rocky environment, and non-spiritual. This approach was very physical and cost me quite a bit of energy but felt very energizing at the same time. When looking at the documentation I wrote *"There is a different body of sound developing in the air. It seems to dislodge from my body quickly and then linger in the space."* In retrospect I feel that the powerful vocal engagement was more a way of learning to listen to the space than it was about sounding. Over time I learned to understand the complexity of the responses of this space better and very quiet sounds could be accompanied by a strong spatial expression.

Since it is underground, the temperature in R1 is cold. As a reaction to this, one day I investigated how to create 'warmth' in different vocal ways. This led to a lot of awareness of voice placement in my body and how that would change the 'temperature' of the sound. Here, I also found that soft sounds are supported very well when close to the centre in R1. Hearing subtle differences in this soft vocal expression is very different from similar expressions one knows from singing close on a microphone. The sounds don't stay by the body. The transparent *Body of Sound* takes form in the space and its character is elevated and can be explored from a distance and in proximity simultaneously.

At Reaktorhallen it is possible to ride a wave with the voice. One can collaborate with it. This can be heard in a video from Reaktorhallen where I send a sound with the understanding of how it will linger in the space and then create a second sound that moves parallel to the vocal form uttered earlier. (See online exposition of *Voicelanding* on www.researchcatalogue.net)

One more discovery I made for my voice at R1 is the singing of a deep tone while whistling a high note. After trying it, the next day I wrote *"I don't know what I did differently last time, why it felt less difficult when I discovered it. Funny how this way of learning has so much to do with what the body offers on a particular day".* The fragility of this lonely, embodied practice became evident. Eventually, I found my way back to it through watching the video documentation and reading my notes.

On the last day in Reaktorhallen I wrote *"I am so happy with what the space has given me access to. It was totally unexpected to find so many very human, ritualistic, ancient, bodily sounds here in Reaktorhallen"*.

Taking notes and watching and listening to my documentation is important for me when I develop site-specific tasks for myself. In the absence of a real outside perspective, the documentation in sound and image gives me a lot of information on how the space reacted to the sounds I made. I would however say that the outside perspective is more important for my general research into acoustic sonic scenography. As voice teachers the spaces function very well, without the inquiry into the documentation. When I am inside the situation, I notice different things and there is a lot to learn from that rather central perspective. Taking notes in the moment was most helpful for the understanding of the process and the development of my lessons.

Things that did not work out that well/ Further opportunities for learning:

Initially I thought that it would be nice to always have a local musician join me towards the end of my learning on site. However, when I invited local singer Susanne Kautz to Kesselhaus it felt strange to ask someone to enter quickly into a situation that I had had more time to explore. It felt like I ended up directing too much, and did not feel like learning together. I am still interested in looking more into the process of learning together from a space, but I have postponed this until I have more practice in the methodology.

I tried to work practically with “the human repertoire” by Trevor Wishart (Wishart and Emmerson, 1996) and the book *The 21st Century Voice* by Michael Edward Edgerton (Edgerton, 2004). Since the books only had written descriptions and audio files, I sometimes found it hard to find the vocal expressions they explored. If I didn’t get the expression intuitively, I would often put too much pressure in trying to find the right expression. It was straining my voice and body. At this point of my practice, I decided that it worked better when I started working in the space and then, as a reaction, looked for possibilities to develop the work. However, I am sure when I continue working with spaces that what I heard and read in these books will come up at some point. For my own documentation this problem was also good, since now I know how helpful video documentation is for the learning of unusual vocal expression (at least for my way of learning).

My search was never about ideals, neither for the voice nor for ideal usage of spaces. It is a search into what I can learn from spaces and on a bigger scale what I can learn from my environment. The method was by definition differently manifested each time, in sensitivity to the spaces themselves. I refer to the video documentation of my explorations and improvisations during my space-voice encounters as intermediate results of this investigation. The differences and similarities between them will reveal how specific the outcome of each teacher-student-experiment was.*

In 2019 I had planned to work with additional spaces, for example an anechoic chamber and echo chamber in order to explore two extremes, but this was hindered by the COVID-19 pandemic. I considered my flat as a possible voice teacher during the lockdown as I had learnt in my studio at Linnégatan that a familiar space held hidden potential for spatial-vocal learning. However, the space was already filled with all aspects of my life and that hindered my listening to the space itself. Additionally, there is something in the vacated nature that the other spaces I had as voice teachers offered that inspired an openness in me and stimulated an explorative approach.

Even though I think that any space can teach us something about our voice if we engage with it, I do not find domestic spaces the right choice for my exploration of *Spaces as Voice Teachers* at this point. At the moment, I am still most stimulated by spaces that are different from my regular environment.

* See *Spaces as Voice Teachers* in my thesis *Voicelanding - Exploring the scenographic potential of acoustic sound in site-sensitive performance* on www.researchcatalogue.net

Studio at Linnégatan in Stockholm, June 2019

Kesselhaus Hannover, July 2019

Reaktorhallen KTH Stockholm, October 2019

Reflection

Having a body and being a body. There is an important difference here that reveals a lot about the relationship we have with our body. The somehow estranged relation to our body is connected to all other presences that we are connected with and might have disconnected ourselves from.

Singing can be “a form of self-sensing: to feel oneself as a body, through the body” (LaBelle, 2014, p.101, referring to Steven Connor). Our breath is always active, it keeps us alive. The voice is therefore “endlessly shaped by movement in and through the mouth, and the overall structure of the senses. The voice is pressed out of us - to support us by literally taking away our breath” (LaBelle, 2014, p. 145). The teaching in vulnerability that voice can give, I became aware of when working with the consonant *h* in my practice. When using the consonant alone for a longer time one feels how strongly it is connected to breath itself and how the letter keeps the mouth open. This experience could be linked to the word “Hello”, and laughter: “hahah”. Both open us up to our surroundings. If we said “Kello” instead of “Hello” when we greet another person, we would still send the word well with the consonant *k*, but it is through the *h* that we open up, and truly welcome the other. It is by doing this that we make ourselves vulnerable. In my experience the subtle difference is how the *k* sends sound away. The throat closes, the connection is cut. *H* keeps the throat open and expands into the *e*, elongating the connection to the addressee.

“In antique Greek theatre we find screams that have no meaning but to give ‘Body Voice Knowledge’” which, according to singer and Opera director Mirka Yemendzakis, is an ancient knowledge (Weber-Lucks, 2008, p.72). The development of a Body Voice Art (*KörperStimmenKunst*) which combines Performance Art and Vocal Art (Weber-Lucks, 2008, p.42) seems to be a natural development from this knowledge. I wonder: What about a Spatial Voice Art then? Could it make knowledge of our interconnectedness with others and our environment accessible through *spatial vocal expression* and the inter- and intra-active performance of the *Body of Sound*?

Spaces function well as voice teachers because we are actively connected with our environment through our breath, always. The sounding breath can then be a conscious dialogue within the already existing relationship. Our voice may still be partly inaccessible but it will reveal itself in small steps if it gets enough attention. Since spaces react to our voice, they give us access to unknown information about our voice. They are therefore voice teachers in that if I listen carefully to their response, I will learn more about my voice.

In the way that I perceive sound and how I relate to my environment, the place for exploration is the relationship between spaces and voices. My body in combination with different spaces is the frame for the expression. The transformations that occur in the space become a part of the shapeshifting voice that left my body and then exists temporarily as a material in the space. Some of the expressions are not fully developed until they have encountered the space. These *Bodies of Sound* leave room for its reaction. On my second day with my former studio as my voice teacher I noted in my work diary “I realized yesterday that the space patiently provides beautiful acoustic areas that I can discover, secrets that are opening up. It makes me wonder about my space, my body. Maybe it is actually possible that these spaces as voice teachers can make areas of vocal sound production accessible to me that are hidden now?!”

The spaces I choose for my work are spaces that are not meant for musical performance. Reaktorhallen is however regularly used for music projects, and it has a cinema organ installed. I think that I can learn more from these character-spaces. The acoustic qualities are in the foreground in the choice of a space. I see these qualities as an expression of all the space holds, including its materials and its possibility for holding space for the creation of social space. “When music was linked to a dedicated space, it became stylised and constrained in order to fit with the unique acoustics of the space” (Blesser and Salter, 2009, p.92). There has been a back and forth of music being created for certain spaces and spaces being created for certain music. These days it is mainly the second category that holds most true. If possible, spaces are now created in such a way that they can adjust to the music. This is the case for concert houses and multi-purpose-halls. My nomadic approach gives me the possibility to stay flexible and learn continuously from my interaction with spaces.

I am curious about the presence of spaces. This aspect is dependent on our attention, and not on the presence or absence of the space. How do spaces influence us, and how do we share them as we experience them? In a dialogue with sound, spaces can make a lot of things audible and, in that way, bring them into our awareness - just like when we make something visible. “Rather than remaining neutral, the space reacts to the presence of some frequencies and not to others. Spaces may thus be said to have tonal preferences” (Blesser and Salter, 2009, p.63). When a space and a singer meet there are potentialities and limitations that adjoin. These include specific expressions and unique possibilities for the development of the voice of the singer.

When we speak of ‘the environment’ and ‘our surrounding’ we are facing a similar dilemma as with ‘having a body’. We are never apart from our environment; we are a part of it. *Stimmung* (the German word for atmosphere) also means ‘tuning’. Giorgio Agamben describes atmosphere as the “term that would express the unity of the feelings experienced by man face to face with his environment” (Agamben and Fort, 1997, p.89). A sonic dialogue with our surrounding is therefore a way of realizing that we are a part of it. Blesser and Salter, in a discussion of virtual spaces, write that “the real revolution in musical space may, in fact, be that space becomes a real-time artistic activity” (Blesser and Salter, 2009, p.129). I find this even more exciting in a shared reality. The voice’s “potential to somehow change our perception of the world” (Fisher et al., 2016, p.4) holds great promise for this endeavour. I find the possibility for sonic worlding through *spatial instrument expression* as a form of sonic scenography intriguing as real-time activity.

The spatio-temporal* spreading of voice allows for a light and flexible body. Singer Diamanda Gallas described her appreciation for the voice due to the “elasticity and rapid navigation, absolute precision, flexibility of the instrument” (Weber-Lucks, 2008, p.151). Jeremy Fisher writes: “The voice is more energy than object, more force than form” (Fisher et al., 2016, p.6). I would say that voice is both energy and form - an energetic form. We can perceive sound as complex textures and as plastic. Some sound artists work with it in a sculptural way, like Bernhard Leitner and Susan Philipsz. Susan Philipsz’ site-specific sonic works invite the passer-by or the museum visitor to move between loudspeakers and to explore the relationship between the sound projectors. Bernhard Leitner creates structures of loudspeakers in spaces, and he experiments with the bodily perception of sound. I see sound formations as active. They have a reciprocal relationship with their surroundings. The body of sound and spaces have an interactive and an intra-active relationship that exists independently from its effect on the human senses. With this physical, yes bodily, idea of sound, I develop my spatial compositions and musical choreographies. Imagine the expression and impression exchange, in a physical sense, that can be experienced in this kind of sonic dialogue!

*spatio-temporal means across space and time

Voice is individual expression but who is it that sings? This is a question that arises when dealing with voice. Singer Sainkho Namtchylak addresses the question in the following way: “I try to be myself, just me, not as a woman or Sainkho, but something, a part of me, where I believe that this has always been there and will always be there” (Weber-Lucks, 2008, p. 218). In the work with the spaces, I could sense the presence of something timeless. A voice expressing something that is known and unknown at the same time. Something that is individual but not mine entirely. A voice that is there but not always accessible, now made accessible in dialogue with another body, an entity that reacts to my sonic expression in such a way that I can search deeper and wider.

When thinking of the creation of an artistic work based on my experience, I must acknowledge that individual vocal possibilities are difficult to transfer directly to others. I am developing methods to teach *spatial vocal expression*. In my site-sensitive and voice-specific approach this needs to be combined with a search for individual variations that carry similar sonic character but include individuality, of the singers and of their relationship with the space through their voice. The desired sound then appears only in collaboration with the space. Therefore, when looking for specific new vocal expressions it is a relational phenomenon that needs to be strived for which reveals itself through the *Body of Sound*.

Just as Meredith Monk describes her work process as “an alive combination process without a score” (Weber-Lucks, 2008, p.191), I too would say that my explorations are not made in order to say “do this like this” but rather to develop a vocabulary to communicate with for the creation of physical spatial sonic works. *Spaces as Voice Teachers* connects me closer to my collaboration partners in the way; so that when we work together, I am with them from an inside and outside perspective.

The interaction with the audience holds the potential for an us and the "beingness-for-another" (Kendrick, 2011, p.8). Swiss musicologist, writer, and music critic Hansjörg Pauli asked during the student revolutions in 1968 "Who do you actually compose for?" (Weber-Lucks, 2008, p.35). I see this as an important question at all times. A solution at that time was and I think still is to work more collectively and with open forms in order to simultaneously open up who this work then could be for. Dieter Schnebel, for example, developed *Maulwerke* in 1968-74. *Maulwerke* focuses on the physical act of sound creation, as the composition investigates the use of the breathing and articulation organs. It is possible to be performed by anybody. It has always been important to me that my work is inclusive. No entrance fees, using spaces that don't define who belongs and creating possibilities for different ways of being in the space.

The work is only complete with the audience actively receiving. Evidence shows "that cognitive processing of spatial attributes is plastic, flexible, adaptive, and dependent on the way individual listeners conduct their lives" (Blesser and Salter, 2009, p.46). The abstract sonic scenography that is held in the spatial musical composition is connected to transcendence in such a way that it "relies centrally on the human senses insofar as these are capable, essentially, of sensing beyond themselves and the moment" (Kendrick, 2011, p.8).

My interest in the *Body of Sound* as a phenomenon is a reaction to a tendency away from the body in our times. Strangely enough, now that we have to keep distance during COVID-19, we pay more attention to our bodies again, to our own at least. It will probably take time until we can find attention for the bodies of others and social bodies again. By this I mean a recognition of bodies that is unrelated to control, distance, or avoidance of touch.

The ignorance of corporeality and/or acceptance of loss of body these days advances a lack of interest and lack of care for other bodies. This expands into spaces and our environment. "Most listeners have neither the ability nor the interest in hearing a musical space as a space. Rather, they simply enjoy music that is enhanced by spatiality" (Blesser and Salter, 2009, p.148). I have developed a practice of space-care which brings attention to spaces and other environments, and nurtures response-ability towards that which surrounds us.

I am proposing a new orientation, a reorientation when it comes to sound. To re-focus on the sensing of sonic impressions. My exclusion of electronic sound-manipulation is strongly related to this. The core of my research lies in the direct physical touch of sound that meets the whole body and connects bodies. This is reached through the connection from human to human in a shared space, a space that facilitates certain possibilities for vocal expression and physical sensation.

Acoustic community is “a group of individuals who are able to hear the same sonic events” (Blesser and Salter, 2009, p.26). I am interested in how sharing a spatial musical performance can create an *ephemeral community*.* This experience of sharing a space can allow us to experience ourselves and others in a different way from our ordinary lives. I wonder if we will understand more about shared spaces in general and find ways to expand a shared listening into other spaces.

There lies a potential for community-building in the voice. Brandon LaBelle writes: “Singing thus brings us into a highly relational and expansive web, where single bodies link into local communities” (LaBelle, 2014, p.55). Blesser and Salter join this idea of the social potential of sound when they mention that the “auditory awareness led to a social response” (Blesser and Salter, 2009, p.94). Because “auditory spatial awareness includes all parts of aural experience: sensation (detection), perception (recognition) and affect (meaningfulness)” it makes us active and aware participants of the environment we are a part of (Blesser and Salter, 2009, p.14).

The human factor lies here neither in emotions, nor in the personal motivation for making a sound. The human factor is the connection that occurs through sound. Especially through an open sound, a sound that allows multiplicity in interpretation. It is inclusive and allusive. Sensation and imagination are shared in this openness. It is this that materialises between and among us.

The audience can be a co-creator of these social sonic spaces. “The acoustic arena is the experience of a social spatiality, where a listener is connected to the sound-producing activities of other individuals” (Blesser and Salter, 2009, p.26). I see this possibility in the choice of positions and negotiation of aural attention that each audience member has in my works. This is meaningful for the shared space because, like social space, aural architecture is “adaptive and dynamic, even though the physical space may be static” (Blesser and Salter, 2009, p.24).

* See *dictionary* in my thesis *Voicelanding - Exploring the scenographic potential of acoustic sound in site-sensitive performance* on www.researchcatalogue.net

There is a connection between spatial awareness and social behaviour. “Spaces are, first, an expression of the possibility of pluralities; second, they point to the possibility of overlapping and reciprocal relations; and third, and for this very reason, they are always open and indefinite with respect to future formations” (Löw, 2008, p.26). This lively constitution of space relates similarly to the formations that can derive from sharing one’s voice with others. The voice can become a connection as much as it can become an object one can relate to. Singer Demetrio Stratos said that “in the voice manifests the materiality of life itself”. (Weber-Lucks, 2008, p.237). Maybe it is “the voice’s ability to escape the condition of singularity that seems most to define it, by blending with other voices in the many forms of chorality or collective vocalisation” and the inextricable collective listening that opens us up towards an experience of a common space, with our whole being, our bodies and minds (Fisher et al., 2016, p.16).

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