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The voice and the machine- and the voice *in* the machine

- now you see me, now you don't-

Artistic Research in voice, live electronics and improvised interplay

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Abstract

The basic focus of this project is how the use of live electronics can open up new musical possibilities and roles for the improvising vocalist in the musical interplay. The project is rooted in my background as a vocalist taking part in what could be called the Modern European Jazz Scene, and the musicians I have been cooperating with in this project are all important contributors in this musical field. The project has been carried out as an artistic research, where the artistic result has been presented in the form of recorded music and concerts. Recordings of the music are also presented as sound examples in this critical reflection. The main focus areas in this artistic research project are the following:

- I have explored how the use of live electronic processing can open up for *new musical parameters*, compared to the sole acoustic voice as instrument in music. These new possibilities are related to the experience of how electronic processing can create *distance from* and *transformation of* the natural voice sound.

- Furthermore, I have investigated how the use of these parameters can create *new roles* for the vocalist in the *improvised interplay* of my genre.

- As a part of my project I have also explored how an audio tracking system created for the theatre scene can be used as a live electronic tool for an a capella ensemble, and contribute to new strategies in the improvised performance.

- In another part of my research I have studied artistic possibilities through implementing the role of the storyteller in a musical performance with vocal and live electronics. I have wanted to find out more about how this implementation affects the relationship between performer and audience, and the perception of the performance as a whole. This part of my project has been carried out as a solo performance, in research collaboration with musicologist Andreas Bergsland. The research is using audience feedback, both to feed the artistic process, and to generate new knowledge about the perception of the performance.

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Preface

When I was introduced to musical improvisation, it changed the way I experienced music, both as a listener and a performer. The unpredictability and the processual character of the interplay gave an intense feeling of freedom and excitement, quite different from earlier experiences. I wanted to take part in this type of interplay. I wanted to be in a new position as a performer; to create the music while playing it.

When I discovered the possibility of changing voice sound and the use of it as musical material through live electronics, this also put me in a new position as a performer. I could take part in the improvised interplay in new ways.

This did not make me want to leave my position as a singer, the acoustic voice sound and the melodic lines and lyrics were important parts of my identity as a performer. I just wanted to have other opportunities as well.

In 2008 I became a fellow in the Norwegian Artistic Research Fellowship Programme. The goal for my research was to explore further these opportunities. The following reflection is about this exploration.

The online version of this reflection is to be found at www.toneaase.no

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1. Introduction

1.1 Background

As an improvising singer since the early 90s I see myself as a part of a modern Norwegian/European jazz tradition represented by musicians like Sidsel Endresen, Nils Petter Molvær, Jon Balke and Bugge Wesseltoft among others, and not least by a lot of my fellow students at the Conservatory in Trondheim in the 90s: Eldbjørg Raknes, Arve Henriksen, Christian Wallumrød, Ståle Storløkken, Trygve Seim and their various ensembles. The open attitude towards music, and the act of improvisation, were responsible for my decision to shift from classical music, where I was formally educated, to improvised music. I had an interest in vocalists with an experimental and instrumental approach, like Diamanda Galás, Maria Joao, Shainko Namtchylak, Bobby Mc Ferrin and Cathy Berberian, etc. At the same time, the use of electronics by artists such as Laurie Anderson, Elin Rosseland and Eldbjørg Raknes, awakened my fascination for the use of processed voice sound as such. Since then I have been operating in musical scenery which I experience as genre crossing, mixing impulses from both contemporary music, jazz, world, pop, rock and noise, etc, but with improvisation as an important starting point and principle.

The electronic manipulation of sound presents, as I see it, a possibility for *expanding,* or even *re-defining* the voice as an instrument – and therefore also a vocalist's role in the musical interaction. This redefining of the voice is not only present in electronic sound manipulation; many performers and composers have challenged the traditional roles of the vocalist through the use of voice experimentation and new musical approaches. As I see it, the use of electronic processing can create different forms of distance, or abstraction, from the natural voice sound. This opens up even more, and in another way, the possibilities of *interacting with other instruments* and taking on *new roles* in the musical interplay. In addition, different devices and techniques for recording and playing back in real time (sampling) also change the musical functions that the vocalist and the voice can have. From my experience, this is particularly interesting in improvised music.

1.2 Artistic project and focus

In this artistic research project I have been exploring new *possibilities* and *roles* as an improvising vocalist. I have been working with a mix of electronically processed voice sound and the use of acoustic voice sound in the improvised interplay. Further, I have explored artistic possibilities for the vocalist in the continuum ranging from narrative storytelling to "abstract" sound manipulation, within the same performance/form. This last part has been carried out as a solo performance, and also as a specific research project.

The first part of my research has focussed on the artistic use of equipment/tools for the electronic manipulation of sound; exploring and developing technical and musical skills and methods, and developing further the musical ideas generated by these. This has been related to my work with specific musical settings, which represent various frameworks for improvisation with a mix of acoustic and electronic sounds. The ensembles and the musicians taking part in them can all be recognised within an open, contemporary European jazz/improv tradition. It has been important for me to reach the point where I can work with electronics in an intuitive way, to find new ways of using them in the interplay and also to find musical solutions for needs that have been discovered during the process. This work has been an ongoing process throughout the whole period of my project.

As a second part of my research I have worked with a project entitled "short-story of sound ". My idea has been to make use of the spoken, narrative text, as a counterpart to the more abstract, processed sound of the voice. I wanted to go into the role of the storyteller and try to combine this with my role as a musician, in a musical "monologue" which explored and combined different vocal expressions. I wanted to examine what happens in the relationship between audience and the performer, when the voice moves back and forth in this continuum between referential meaning and "pure sound". In this project I have been cooperating with NTNU researcher Andreas Bergsland, also as part of his postdoctoral project entitled *Live electronics from a performativity perspective*.

1.3 Methods and theories

One of my obligations as a research fellow has been to reflect critically on – and in – my working process along the way, and on the artistic results. Before going into my working methods, I will therefore discuss the critical discourse in my project.

1.3.1 Artistic research and practice

I am operating in a field where embodied, intuitive knowledge has top priority, and where the word "intellectualisation" is often used as a description for something that can be disturbing rather than fruitful to the artistic process. (This seems to be a parallel to the term 'academisation', used in Borgodoff: *The Debate on Research in the Arts*, 2006, p. 8. [1]) This situation – which is probably recognisable to many artistic researchers – has made me worried. Transparency through critical discourse is an ideal and a keyword in academic research, especially in the Humanities. In my field of practitioners, the verbal discourse in academic terms and language is – very often – *not* recognised as being transparent, but rather as a closed field for specialists. So I ask: *Can* the critical reflection in my research, in its *form*, become valid and transparent for this field of practitioners? And what is – in my project – *theory*, recognised as the valid discourse that can make my artistic work open for reflection?

1.3.2 Language as a processual tool

In her essay "Lighting from the Side, Rhetoric and Artistic Research"[2], Aslaug Nyrnes suggests a model for discussing artistic research from a *rhetorical* point of view (Nyrnes, 2006). Adopting a position between classical rhetoric (you know what you say and why you are saying it) and new rhetoric (you know that you *do not* know what you are saying and why you are saying it), she points to language as being not only as a communicator of findings, but also as being embedded in the entire research process.

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[1] Borgodoff: *The Debate on Research in the Arts*, Bergen National Academy of the Arts, Bergen 2006
[2] Nyrnes,Aslaug: Lighting from the side, Bergen National Academy of the Arts, Bergen 2006

It is important that rhetoric includes both logical and artistic language and recognises that there are no definite borders between or clear classifications of these different types of language. Nyrnes points to the fact that there will always be verbal language connected to the research process, but that verbal language and the "language of the art" could never be interchangeable (cf. Nyrnes, 2006, pp. 6-7).

In this perspective, the verbalising of an artistic research project is not primarily a way of *presenting* it, but also a means for *understanding* and developing it further. This has also been my experience, i.e. that language is a tool for *me* in this process.

1.3.3 Theory in artistic research

Nyrnes also suggests an understanding of art research in spatial terms. As in rhetorical theory, there is already an existing "landscape" connected to the subject or topic discussed, which one has to orientate oneself in. She suggests a model where the artistic researcher is moving between three main places, or sites, in this landscape: The language of the researcher – The language of the material/research object/artistic field – Theory (systematic language) (cf. Nyrnes, 2006, p. 14). The language of the researcher includes the already familiar artistic register. The research object is the material developing into an artistic production. Theory is a systematic language, inherent in the artistic field. Nyrnes argues that one can discuss theory in the arts' own language:

> "Theory is revealed in the principles that can be spotted in the pile of examples at hand. This means that theory has to do with a comparative view rather than induction or deduction". (Nyrnes, 2006, p. 16)

This partly answers some of my questions. Nyrnes' model suggests a flexible use of language, and a search for the language and "theory" that lies inherent in the field that the artistic research relates to. This "theory" is what my work is seen *in the light of* throughout the research process.

1.3.4 Intertwined theories, practical work and the outline of my critical reflection

With a definition of theory in the critical discourse, as *comparative* and *inherent in the field*, I can focus on the critical reflection in my project more clearly. I can see how the relationship with other artists and genres has been supplying my work with parallels and opposites. My solo and group rehearsals, the recordings and evaluations of rehearsals, the notes in my log on different levels after rehearsals and performances, reflections on the postproduction of recordings, playing with other musicians, conversations with other musicians, colleges and supervisors, researching audience feedback, adjusting and discovering new things, listening to other musicians, reading what other musicians are thinking, writing my reflections for someone to read and understand, presenting my project and taking part in the compulsory programme activities… all of this involves constantly moving between the different *sites* of Nyrnes' model: the language of the researcher – the research object – the theory. The theories in use will not necessarily stand out as *theories* along the way: often they will intertwine naturally and rather be identified as theories when taking a step out of the artistic process – taking a comparative view.

This intertwining of theories is therefore unavoidable when giving form to the critical reflection. I find it useful now, in this regard, to create an outline where I point out where these theories are *most obviously* implemented and used in my writings and examples.

Outline of my critical reflection:

In the present section (1.8), I see my artistic background, development and choices – *in the light of* important principles and developments in my genre and its surrounding artistic fields.

In Chapter **2,** I look at my choice of tools and techniques – *in the light of*:

- The act of improvisation
- The aesthetics of my genre
- Discussions and developments in music technology

In Chapter **3,** I look at new musical parameters made available through the use of technology, and I also describe an experience-based model for categorising processed voice sounds – *in the light of*:

- The position of the sole acoustic voice as an instrument in music
- Theories and research on how the natural and processed voice is perceived in music
- The experience of voice, *meaning* and language in sound poetry and the *spoken word*
- The need for structuring choices, predictability and the "inner ear" in improvisation

In Chapter **4,** I look at new roles for the vocalist through the use of live electronics – *in the light of*:

- The singer's traditional role in music and interplay
- The different musical structures and situations in the improvised interplay

In Chapter **5**, I describe how technological tools also can create new strategies in the performance situation for a vocal ensemble – *in the light of* the connection between control and intuitive action in improvisation.

In Chapter **6**, I look briefly at challenges and strategies in my field of genre –crossing improvisation – *in the light of:*

- The mediation between sound-based and intervallic improvisation
- The *Eurological* and *Afrological* elements in modern improvisation

In Chapter **7**, I look at the process of bringing in the role of the storyteller into a musical performance with the voice and live electronics – *in the light of* audience feedback collected through research collaboration with musicologist Andreas Bergsland.

The "theories" are of a different nature and operate on different levels. Some of them are inherent in the processual nature of real-time improvisation, some are inherent in

the aesthetic practices in my field, and some are based on observations, reflections and formulations in the field of musicology. All of the "theories" are not necessarily chosen as a starting point for the research, but are recognised as being relevant – or also as *already implemented* – along the way. In this way, I experience the situation as an artistic researcher closely connected to my situation as a practitioner –which is important, not only for me, but, as I see it, for the question of *validity* in the research.

1.3.5 Transparency, language and form of the critical reflection

I have already questioned the *transparency* of this research, if it is conveyed in academic terms and language, in the form of the thesis. One could of course argue that the artistic results *in themselves*, as performed in the artistic language, would convey the research to the artistic field in a satisfactory way. I will not go into that discussion, but as I see it, there is an opportunity – and, in this research project, also an obligation – to make the artistic research valuable as *something more* than the artistic results – also for the field of practitioners. To me, this is a challenge that is reflected in the way I choose to present my *critical reflection*.

Internet design as a form

I have chosen to present my critical reflection on the web. Compared to an academic thesis, even when supplied with sound and video examples, I regard the possibilities provided by presenting my work in a web-based way, as being dramatically different. I experience putting music and video examples directly "into the text", sometimes with important comments popping up in real time, as being a much more efficient and precise way of presenting my work compared to finding the right sound example, turning it on, and then going back to where you were in the text and reading about the music (as with a "thesis with a CD solution".) This form, as I see it, adds to the *transparency* of the reflection. There are some implications to be mentioned; reading 150 pages on a computer screen can be tiresome: many of us prefer to print out articles, partly because this provides an opportunity to make notes in the text. Still, I think that having the text with the sound examples on the computer, even when reading from the printed text, makes a difference. Links to other relevant information inside and outside my text also provides a great opportunity – still there are choices to be made in this

respect (when will the opportunity to use a link disturb the reader?). My website has also been established as a place for me to convey my music and activities, and it has a global reach. In contact with students, audiences, other musicians or curators, my website is a place where I can provide information efficiently. I can also promote my website in other networks. Still, perhaps the most important aspect of this form is the opportunity provided for creating *levels*. In order to communicate this research, I have established three possible entrances on this website:

-Level 1: Music (the artistic product)

- Level 2: Music and comments on work

- Level 3: Full research text, including music

The music is what you meet when you enter my website. From the music there are links, for those who are interested, to "comments on work", which are shorter comments, directly connected to the musical examples. The comments have further links to relevant parts of the full research text. This is not a solution I have seen at work elsewhere – and in this respect it is an experiment that I will continue to develop after the end of this project. After a while I will also want to present other, new music, and I may need to have a link and a level dedicated solely to the musical product of this research.

The use of examples

I have chosen to use quite a number of sounding examples and also videos in my reflection, in order to easily connect the reflection to the sounding and visual material – the *artistic language* (c.f. Nyrnes, 2006). In some places I have used the same examples to demonstrate different aspects of what I have been working with. Focusing on the artistic work from different angels like this, is also, as I see it, a way of seeking transparency.

Verbal language

I have chosen to write my reflection in English, which is not my first language. This is a choice related to the opportunities provided for conveying my research. In order to be

able to present my work in English, which has already been necessary at some of the conferences I have attended, I have needed to work with my project, to "know it" it, in this language. I also realise that my rather "simple" English will probably compare to the English of many of the non-English practitioners in my field, and that therefore this also adds to the *transparency*.

1.4 Research goals – what is "new"?

A main goal for this research has been to explore *new possibilities and roles as an improvising vocalist*. This might appear to be a rather vague goal – if the musical landscape in which I operate, with its inherent "theories", is not considered to be the framework of this research.

> "Theory is a strong language form. It is the bearer of the principal ways of viewing the world, and makes this view more specific. On the other hand, when one theory is selected, another is excluded. Thus, theory can clarify a situation by means of selecting some perspectives, and excluding others. This is very important when it comes to posing research questions. Theory encourages us to pose certain questions, and exclude others. One might say that this is the core of research methods." (Nyrnes, 2006, p. 17)

During, and through my research, I have gradually become more aware of the *genre* and *field* I relate to, i.e. my *artistic landscape*. Even if I still look at my work as being genre-crossing and open to a variety of impulses, the process has made me aware of some important borderlines by reflecting on my personal choices. This demonstrates to me the importance of the artistic field's "theories" as a way of *selecting perspectives*, and also it clarifies how the field's implemented "theories" may become clearer through a research process. My goal: *to explore new possibilities and roles as an improvising vocalist* is fundamentally related to a genre. My relationship with this genre has emerged from my musical background, and this relationship is also mirrored by my choice of ensembles and musicians in this project (as pointed out in the project description (c.f. 1.1 and 1.2)). To summarise everything in one sentence, my goal could perhaps have been formulated more explicitly as: "To explore new possibilities and

roles as an improvising vocalist, in the improvised interplay in the genre-crossing field of modern European jazz-improvisation". This would not sound too good, but the formulation would point to the "theories" involved: the voice as an instrument, the genre, and the act of improvisation – in interplay. By bringing in these fields of "theory", it will be easier to identify *the new* in my research:

- The *new possibilities* in sound are new in the light of the *acoustic voice as an instrument,* and in the light of the *use* of these possibilities *within my genre*.

- The *new roles*, made available through these new possibilities, are new *in the light of the singer's traditional role in the improvised interplay – in my genre*.

By using these new possibilities, I experience that new kinds of musical expressions are created in the interplays I take part in, that are contributing to my *genre*.

A second goal, connected to the work on my solo project, has been to "explore artistic possibilities for the vocalist in the continuum ranging from narrative storytelling to "abstract", processed sound, within the same performance/form." I wanted to *"examine what happens to the relationship between the audience and the performer, when the voice moves back and forth in this continuum between referential meaning and "pure sound"*. What theories are involved? There could be many, and the questions are in some ways ambitious – but also fairly simple; I wanted to know how the audience experienced the performance, and to use this information as a perspective and reference in my artistic development of a – to me – new form. What gave me the courage to go through with this idea, as a part of my research, was the opportunity provided for collaborating with musicologist Andreas Bergsland, who could use *his* theory and methods to set up a research situation and collect feedback from the audience. This feedback then became part of our "theory". This performance form is new in the light of my genre, although not new in form, when seem from the perspective of vocal performance art. However, the expression is individual, especially through the choice of the personal and "simple" story. When performed in the Norwegian language, it serves as a new contribution to the Norwegian contemporary scene.

1.5 Background and context

I see this artistic research project as a further development of the ideas, techniques and some of the music that I have been listening to and working with for the last 20 years. In this section I will try to draw some parallels with what my work has been motivated and inspired by, and how it connects to and can be seen in the light of – other artists in the field. I will refer to a lot of musicians who have been important musical influences for me, or who are in other ways relevant to my work. Some of these names are linked to the artists' respective homepages, where this has been possible and seemed natural. Some sound examples have been linked directly to the text, (on the website) with the generous approval of the Norwegian colleges concerned. The recordings they have been taken from, and the other recordings mentioned, will be found in the list of references.

1.5.1 Musical background

Operating in genre-crossing musical scenery, I see that many of my early experiences with music are still important and evident in what I do today. Therefore, as a start, I will explain briefly where I come from.

Like many singers, I started singing as a child, continued throughout my youth and started my formal musical training at the age of 20, as a classical singer. Side by side with Grieg, Bach and Mozart, I was singing in rock bands and gospel choirs, and gradually discovering and singing jazz. I was introduced to and inspired by a lot of records, concerts, fellow students and enthusiastic friends. In order to describe these musical influences briefly in a concrete and efficient way, "namedropping" actually seems to be the best method. Ella Fitzgerald, Billy Holiday, Monica Zetterlund, Radka Toneff and Chet Baker were some of my vocal jazz inspirations. Jan Garbarek, Keith Jarrett, Jan Johansson and Chick Corea were important among my first strong instrumental jazz experiences. At the same time I listened to a wide range of artists;

Joni Mitchell, Stevie Wonder, Kate Bush, Aretha Franklin, Van Morrison, The Police, Manfred Mann, Bob Dylan, the Rolling Stones and Bob Marley were among the most important ones, representing different times and styles in the field of jazz/pop/rock music. I was also introduced to a fascinating new world of classical contemporary music through composers like Stravinsky, Berg, Schönberg, Nordheim, Valen and Cage, and traditional music from all over the world, with vocal music from Burundi perhaps making the strongest impression.

Still, throughout my initial years of formal education, I think it was the meeting with Tom Gamble, the British pioneer of children's music education, and his course in classroom composition, that made the strongest impression[3]. Gamble introduced us to a method for practical and creative work where the focus was on the sound and timbre of group improvisations/compositions. To me, this opened up aspects that I had never previously been conscious of as a listener, performer and creator of music. I see this as my first experience with free improvisation, without knowing anything about the traditions behind it. After teaching and studying part-time for some years, I spent the last year of my Bachelor's degree course as a classical singer at the Music Conservatory in Trondheim (now the Department of Music, NTNU). I chose this institution because of the opportunities provided for working with improvisation; at that time it was the only place in Norway where one could study jazz, and I was lucky enough to get extra classes in improvisation with one of the founders of the Jazz Section, the saxophone player John Pål Inderberg. Meeting and working with a fellow student and jazz singer, Eldbjørg Raknes, in both the cappella group called Kvitretten and working with Raknes' music for children, was an important inspiration and influence towards exploring further the possibilities of voice and improvisation. I was introduced to the music of singers who worked with the voice in a (to me) new and more instrumental way, some of them using alternative or *extended vocal techniques:* they introduced me to new ways of making voice sound, using special skills that differed from traditional singing techniques. These techniques were sometimes inspired by different types of

[3] Cambridge University Press 1984, Gamble, Tom: "Imagination and Understanding in the Music Curriculum".

traditional singing or the imitation of instruments or "real-life" sounds (like the overtone song and bird imitations of Shainko Namtchylak, or Bobby McFerrin's "flageolet sounds"). I listened to the works of artists like Diamanda Galás, Maria Joao, Shainko Namtchylak, Bobby Mc Ferrin, Cathy Berberian, Meredith Monk and others. Further, the whole creative environment in and around the Jazz Department at the Conservatory in Trondheim was extremely important for focusing on different kinds of improvisation in further education and musicianship.

In 1989, during my period of teaching, I met the Norwegian trumpeter Jan Magne Førde, who used a small effect pedal at a concert with the "The Brass Brothers" ensemble. The sound produced by the effect pedal and the trumpet led me immediately to buy a similar pedal, and I started (slowly) to try out some electronic devices, which gradually became part of my live performances. I was not the only one working in this way: both my fellow students, Eldbjørg Raknes and Kristin Asbjørnsen, were experimenting and developing the use of electronics at that time. During this period I also started working with what later became the trio BOL (www.bol.no), with Ståle Storløkken and Tor Haugerud. I return to the impact that this band had on my work with electronics in Chapter 3. My Master's degree in musicology, with jazz vocals as my main instrument, commenced in 1994. My vocal teachers were Elin Rosseland and Sidsel Endresen, two great performing artists who have been inspirational for me both then and now. After years of professional practice as an improvising performer and teacher (and being a mother), I finished my Master's degree doing research on my own practice (NTNU 2007).

1.5.2 Contextualising in a practical field

Understanding my work as part of a musical scene and history as a whole is, as discussed in Section 1.3, crucial. This is what I see my project *in the light of*. Since my project is first and foremost a practical investigation, I will have to leave the oversight of music and art history to the musicologists, and rather focus more on what has been

most important for my practical musical development. A former fellow in the Norwegian Artistic Research Fellowship Program, Andreas Aaase, puts it like this:

> I don't think performing musicians practice *source critique* in the academic sense either, but gather influences instead, and establish new platforms of expression in a hunter-gatherer process. Consequently, I think I need to meet the demands for *contextualization* not through interdisciplinary theoretical art theory, but rather by naming my musical *influences*, showing what I have borrowed from whom. (Aase 2009[4])

Andreas Aase's project and mine are both similar and different. We are both working in the field of real-time improvisation, where embodied knowledge ("reflection in action" [5]) seem to have more crucial importance for the artistic outcome than the "reflection on and around action", as pointed out in Section 1.3.1. Aase's project, "Improvisation in Scandinavian and traditional guitar", is strongly connected to methods relating to jazz and traditional music. These are both oral traditions where (at least in the earlier part of jazz history) the performer's sense of tradition and stylistic detail is crucial. In both traditions direct imitation and "borrowing" are important methods for gradually "reconstructing" your play to a larger or lesser degree, and thereby creating your own style rooted in tradition. Aase's influences are very clear and outspoken, and can easily be traced in his practical work. My project is however, not quite as clear as Aase's when it comes to tradition and sources. In my project it will be more difficult to show in a concrete way "what I have borrowed from whom" as Aase puts it. After finishing my period of singing jazz standards and Joni Mitchell tunes, practicing imitation and studying stylistic details has not been my method. My method has rather been, along with creating and performing music for the acoustic voice, also experimenting and exploring new musical possibilities with electronic instruments and sounds, and

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[4] Aase, Andreas: "Documentation and reflection, *Improvisation in Scandinavian traditional guitar".* Department of Music, NTNU, The National Norwegian Artistic Research Fellowship Programme, October 2009.

[5] Donald Schøn suggests that the practitioner "knows more than she is able to tell", and that this tacit knowledge first becomes visible through action. Donald Schøn: "The reflective practitioner: How professionals think in action. London: Maurice Temple Smith, 1983.

investigating the new roles this work has opened up for me as a vocalist in the field of improvised music. My work is not concentrated on one type of musical expression alone. It is based on influences from a diversity of genres, and also the musical expressions and personalities of the musicians I have played with along the way. Many of these expressions can be recognised as part of the large, highly diverse and genre-crossing field of modern jazz; others as part of the smaller, but diverse field of vocal performance art – and some crossing both fields. Other influences have also been important for my project. In the following I will therefore try to reveal how I experience my influences under these "labels":

- *The field of modern jazz*
- *The field of vocal performance art*
- *Other influences*

Further, I will look briefly at how my work relates to and also differs from some of the (to me) relevant artists in these fields, which I will do in the section entitled *"Other artists – and me"*.

1.5.3 The field of modern jazz

I see myself as a part of the modern Norwegian /European jazz scene. When I "discovered" this scene in the early 90s, it was through the music of artists such as Jan Garbarek, Sidsel Endresen, Radka Toneff, Nils Petter Molvær, Jon Balke/Jøkleba, Elin Rosseland and Bugge Wesseltoft among others, and not least during the following years through a lot of my fellow students at the Conservatory in Trondheim at that time: Eldbjørg Raknes, Arve Henriksen, Christian Wallumrød, Ståle Storløkken, Trygve Seim and others. I literally fell in with a bunch of extremely creative musicians during a period when a lot of new things were happening in Trondheim. So, looking back, I am trying to see how this has influenced my development as a musician. It is also natural, to some degree, to try to understand how the modern Norwegian jazz scene that I

experienced in the 90s, is reflecting important developments in the history of jazz, improvisation and music. This history has many versions, depending on who is looking and listening. It also has, for each musician and music listener, an individual version, based on personal experiences along the way. Instead of trying to create an objective, general overview of the historical lines in this very diverse picture, it seems more fruitful to start with my own peak experiences and trace some musical connections from there.

For me, there is a link between three very important vocalists: Billy Holiday, Joni Mitchell and Sidsel Endresen. They are very different stylistically, but what strikes me is their free and distinct approach to rhythmic and melodic phrasing, that often makes me think that they are not actually *singing* a composition, but interpreting it freely, creating it anew with great liberty and originality. They are not "fulfilling clichés", but rather creating their own stylistic language. A similar freedom is also clearly present in the work of Karin Krog, who is certainly also a very important member of the modern Norwegian jazz scene. I can of course find an even more virtuoso, although different freedom in the work of Ella Fitzgerald and Sarah Vaughan, not to mention the inventiveness and more experimental approach that Betty Carter represents. And Chet Baker's elegant phrasing resembles for me 'the Billy Holiday approach', but in a smoother, more distanced way. The kind of "instrumental freedom" that these singers represent to me is still based on a rather strict stylistic language and framework. These latter singers were therefore important for me as an introduction to harmonic improvisation, but though inspiring and impressing, they were not as relevant for me as I moved on to other musical approaches.

There is also an obvious link between Miles Davis's genre-crossing works and his minimalistic and sound-oriented approach on his instrument, to the works of Nils Petter Molvær, Arve Henriksen and Trygve Seim. They are all musicians who have inspired me because of their focus on sound, both acoustic and (in the case of Molvær and Henriksen) electronic, and also because of their play with genres.
What really attracted me when meeting the modern jazz scene in the 90s was the

collective approach displayed by some of the improvising ensembles I was listening to, especially *Jøkleba* (Ouvertyre, Jøkleba! Live! 1996) and *Veslefrekk*. (Rundgang,Veslefrekk NorCD 1994). Moving away from the defined roles of soloist and accompaniment, from the distinction between improvised parts and composed parts, and from chord-progression as a static, defined form, the music became very open for what happened in the interplay. Each musician could take an improvised initiative at all times, and various musical ideas could be played out simultaneously without being in conflict, creating several layers and unpredictable developments. Musically, both these bands related somewhat to the mix of jazz, rock, traditional music and pop which was introduced in the 70s by Weather Report/Joseph Zawinul and Miles Davis among others, but at the same time with a freedom inspired by the movements of free jazz, modal jazz and the 'open form'/ Fluxus movement in experimental music.

I have experienced the same approach to improvisation, by opening and confronting traditional musical forms, structures and roles, ranging from musicians like pianist Paul Bley and the Svein Finnerud Trio to Christian Wallumrød's *Close Erase*. (Close Erase No 2: Who Grew Too (What) Nor CD 1999) One of my important concert experiences involved the latter two trios, sharing a concert at the Kongsberg Jazz Festival in 1997. Looking back, I can see that this meeting with the modern jazz scene at that particular time in history had a deep impact on me, later shown through four important lines of development in my own work:

- The collective approach to improvisation
-The freedom in melodic variation and rhythmic phrasing
-The focus on sound and timbre as musical parameters
-The openness towards different expressions and genres

Vocalists in modern jazz

Since the 90s (and even before that), it has been difficult to define 'jazz' since it has become mixed with expressions from other genres, especially electronica, pop and rock, but also traditional music, contemporary music and noise. So once again, it would

be most interesting to look at what has had the strongest impact on me during these years. I will do this by starting with the vocalists.

Sidsel Endresen has always been an important singer for me, although she does not use live electronics. Her "speech-song" -"Epilogue" at the end of the beautiful ballade "OK" (on *Duplex Ride* with Bugge Wesseltoft, Curling Legs, 1998) shows very clearly how new vocal expressions can be an integrated, organic part of works that use more traditional musical elements, and thereby create new music. Going from being a pop/soul singer in the 80s, and gradually working towards an increasingly more experimental expression, Sidsel has always seemed to be deeply rooted in genuine and worked-through individual aesthetics – and she is constantly developing her expression further, one step at the time. Her combination of having a very personal vocabulary of vocal "sound sculpting" and her deep sense of rhythm, melodic phrasing and not at least musical dramaturgy, puts her in a special position for me as an improvising vocalist. Over the years she has moved increasingly towards a more experimental expression, this can be heard on *Merrywinkle* (Jazzland Recording, 2004, with Christian Wallumrød/Helge Steen: "Wobber"), her Solo album *One* (Sofa Music, 2006) and her live recordings with Humcrush, *Ha!* (Rune Grammofon, 2011: "Ha! 4")

Elin Rosseland was among the first Norwegian singers I heard using electronics live. Her record with the band Fairplay (*Fairplay*, Odin Records, 1989: "Sound Around") was a combination of pop, jazz and contemporary music that I had never heard before. Compared to Sidsel she has, in my opinion, had a more "composing approach " in her work, she is also experimenting and improvising, but with a very different expression. (Elin Rosseland Trio: *Trio*, NorDC 2007: "Alenen"). She is a master of advanced harmonic developments, both as a composer and as an improviser. Her compositions are sometimes very complex, but often with very clear original melodic lines. (*Moment*, with Rob Waring and Johannes Eich, NorCD 2004: "And all the different voices".

Eldbjørg Raknes has been an important inspiration for me through the years in several ways. In her different musical projects, she has often combined lyrics from poetry with

a very original musical approach, sometimes very free and improvised, sometimes composed and arranged, with influences from jazz, soul, pop and rock, but also experimental and traditional music. Both in her solo work, like in the example *Againgain* from *Solo* (MYrecordings, 2006) and with her various ensembles, like the one Stian Westerhus and Eirik Heggdal, *Like lighter* on *From frozen feet heat came* (MYrecordings, 2008), she has integrated live electronics as a part of her musical expression, often with a clear focus on sound as an important musical parameter.

The modern Norwegian jazz scene, newer influences

The modern Norwegian jazz scene includes several artists and groups that incorporate elements from the pop/rock/electronica of our time in their improvised music; Nils Petter Molvær, Susanna Wallumrød and Bugge Wesseltoft, and bands like Wibutee, Puma, Shining and Pelbo. When the aforementioned trio *Veslefrekk* included sound-artist Helge Steen ("Deathprod") in their group, renaming the band *Supersilent*, this represented a natural move towards incorporating the expression of noise and electronica in their improvised musical scenery (*Le Jazz Non*, Smalltown Supersound 2000: "C 2. 1") Different types of pop/rock have, among other things, influenced my trio, BOL. This is most obvious on our second CD *Silver Sun* (Curling Legs, 2005: "Calling to myself").

Other obvious influences in our time are those of the American free jazz and the European contemporary Improv and Experimental music. This more open and sound-oriented approach is often combined with different strategies for improvisation, sometimes in combination with different types of composed material. Examples are the Norwegian duo *Vertex*, (*shapes & phases*, SOFA 2010: "Morphometrics") and Eirik Heggdal's *En, en, en*, (Rød &Blå, Øra fonogram 2010: "B9". The improv ensemble *Lemur* is mainly influenced by contemporary music, European Fluxus and 'open form', but also free jazz. (*Aigéan* , Job Records 2010: "Panthalassa")

Further, moving outside jazz-related improvisation, the link between electroacoustic music, improvisation and noise is obvious in Maja Ratkje's *SPUNK (Den øverste toppen på en blåmalt flaggstang*, Rune Grammofon 2002*: "*Møff"*)* and *Fe-mail*.

(*Money will ruin everything*, Rune Grammofon : "Jacobs Leketøy") The use of live electronics as such has expanded greatly among musicians, and naturally brought in, to different degrees, elements from the genres that these instruments and devices have been developed for/within; rock, pop and electroacoustic music.
Performers as Thomas Strønen http://www.thomasstronen.com/, Eldbjørg Raknes http://www.eldbjorgraknes.com/ and Maja Ratkje, http://ratkje.no/ are examples of Norwegian improvising performers that I relate to, all using live electronics to create very different musical expressions, and they are still somewhat connected through the genre-crossing field of improvised music.

1.5.4 The vocal performance art scene

Early inspiration and the genre of vocal performance art

Looking back, I find that many of the singers who have inspired me outside the field of jazz, belong to what musicologist Theda Weber-Lucks (Weber-Lucks, 2003[6]) calls the 'genre of vocal performance art'. What they have in common, and what has had an impact on me, is their experimental and instrumental approach. Widening my perception of what could be thought of as musical voice sound, singers like Cathy Berberian (Italy) http://www.cathyberberian.com/, Jaap Blonk (Holland) http://www.jaapblonk.com/, Shainko Namtchylac (Russia/Austria) http://www.sainkho.ru/, Meredith Monk, (USA) http://www.meredithmonk.org/ and Diamanda Galás (USA) http://www.diamandagalas.com/ among others, opened up for me a new world of possibilities and freedom of expression in the 90s. The improvising vocal a cappella group *Kvitretten*[7], of which I was a member for the 11 years that the group existed, was an important arena for this type of approach to voice sound making. We were exploring (to us) new vocal possibilities as a part of a musical expression,

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[6] Weber-Lucks, Theda: Electroacoustic Voices in Vocal Performance Art - A Gender Issue? Organized Sound: Vol. 8, no.1. Cambridge: Cambridge University Press: 61-69.

[7] Kvitretten: Norwegian improvising a cappella group from 1992 - 2001, with Eldbjørg Raknes, Kristin Asbjørnsen and Solveig Slettahjell during the latter years. The former members were Kjersti Stubø, Hans Jørgen Støp and Anna Sundstrøm.

especially in collective improvisations, and I think we all had been listening to these types of singers. (*Voices*, Curling Legs 1996, "Women")

At the same time, the use of electronics by Laurie Anderson was one important reason for my going further into the live electronics. Hearing "O Superman" made me realise that I was deeply attracted to the sound of the electronically processed voice. Her use of speech as a natural and strong integrated part of her performances was groundbreaking. These artists were presented to me by other singers or musicians, or discovered in other ways (before the Internet, Google, MySpace and YouTube…) After already having been introduced to the aforementioned freedom in experimental jazz, the *sprechgesang* in the music of Arnold Schönberg and other techniques in more experimental contemporary vocal music, this new interest seemed like a natural further step. But where did these artists come from, and how are they related? There has been little research in this field, but German musicologist Theda Weber-Lucks has examined the history and aesthetics of what she calls the "genre of vocal performance art". I find her article "Electroacoustic voices in vocal performance art – a gender issue?" [8] very useful and informative when trying to understand more about what has been going on in this field. I will not, due to the nature of my writing, discuss her article compared to other writers and findings, but rather use it as a source of information in addition to my own experiences. The genre 'vocal performance art' is in this article described as follows:

> From a historical perspective, this genre evolved in the context of Fluxus, happening, dance-performance, and body art. It bears stylistic relationship to expressionistic monodramas and theatre, as well as to folk-song traditions, ancient ethnic vocal styles and new extended vocal techniques. A central aesthetic component is the use of the voice as emotional or abstract language. (Weber-Lucks 2003)

She continues to describe a genre that is difficult to define, constituted by performers and works that had something in common, but who worked quite independently of each other. This is still the case, according to Weber-Lucks, even in our time. In her opinion, the relatively new *Institute For Living Voice*, where artists such as David Moss and Jaap Blonk are central, …"provide only a loose feeling of community"… – compared

to more defined genres like earlier avant-garde artists, referring to the voice-experimenting sound poets within the Dadaist and Futurist movements.

> In fact, the suggested term "vocal performance art" simply functions as a construct to help illustrate possible forms of coherence within these developments" (ibid).

The genre started, according to Weber-Lucks, in North America in the 70s. Voice experimenting as such was already going on, as mentioned in the sound poetry movement, and also in contemporary vocal music, in both Europe and America. She also sees the genre as a result of the turn in American art history from the activist collectives in the 60s towards a more individual and professional focus. The performers were mostly women; Meredith Monk, Joan La Barbara, Diamanda Galás and Laurie Anderson are mentioned as being among the most important. It is also important, according to her views, that vocal performance art evolved not only in music, but came from several other artistic genres.

Weber-Lucks has a gender perspective in her research. She suggests that the new freedom in music, influenced especially by John Cage, together with new developments in electronic sound technology, opened up for a new aesthetic approach. This approach made way for several female composers, and also for what she calls "vocal composer-performers", which seems like a good description of many of the artists I have been listening to.

Sound poetry

Weber-Lucks points out that vocal performance art was initially separated from the sound poetry movement, but that sound poetry later on became an important part of the picture. As the influences of the North American vocal performance scene grew in Europe in the 1980s, featuring performers like Sainkho Namtchylac and Fatima Miranda, the male-dominated sound poet tradition and the female vocal performance art tradition began to intermingle. This is exemplified by important performers such as Jaap Blonk and later David Moss, clearly operating with a mix of these genres.

> Sound poetry is an artistic form bridging between literary and musical composition, in which the phonetic aspects of human speech are foregrounded instead of more conventional semantic and syntactic values; "verse without words". By definition, sound poetry is intended primarily for performance. (Wikipedia)

In the book "Playing with words – the spoken word in artistic practice", editor Cathy Lane has collected interesting articles from artists, scholars and others concerning use of the spoken word in music, art and related fields (Lane, 2008[9]). In this book, Clive Graham presents a brief overview of the history and the different developments of sound poetry, based on his work with a three-year radio program on the field. (Graham, in Lane, 2008, pp. 26-30). Sound poetry emerged from Dadaism and Futurism and represented a movement in both literature and the visual arts. The movement was steering away from traditional writing in poetry, and also represented a more graphic and typographical liberation of the poem in visual art. This is a genre that developed in several directions and with a lot of performers over the years. Early important works are Italian F. T. Marinetti's *Zang Tumb Tumb* (1914) and Kurt Schwitter's *Ursonate* (1922-32, "Primal Sonata"). For me, later works in this genre have been inspiring, and include performers such as Jaap Blonk and David Moss. I also experience a link from sound poetry to Cathy Berberian's *Stripsody*, (1966) – an important work for me. I recall a childhood memory of Norwegian Karin Krog, from a performance (in black and white) on Norwegian Television. This made a tremendous impression on me. She was making cartoon-like sounds, and the "text" was shown as subtitles. It might have been *Stripsody*, but I am unable to confirm this.

Sound poetry introduced a new vocabulary of sounds for practitioners in the field of vocal performance. This included, as an example, different types of onomatopoetic sounds and vocal sounds like breathing, sighing, shouting and throat-clearing etc, and later a deep dive into, and an extension of, international phonetic language – as found

9 Lane, Cathy (ed.) Playing with words - the spoken word in artistic practice, CRiSAP/RGAP, London, 2008.

in the works of Jaap Blonk. Listening to the work of many contemporary vocal performers, it is obvious that sound poetry, through introducing this new vocabulary, must have been important for the development of new vocal expressions in vocal performance art. Another significant and influential aspect of this genre is the focus on text and language as sound material and sound structure, rather than meaning.

The singer's role extended

The "individual aesthetics and poetics" of the vocal performance art genre is emphasised throughout Weber-Lucks' article (Weber-Lucks, 2003). This is also what I find most important. I experience these performers' freedom in expression as being derived from their very individual and personal choices of expression. What connects them then, besides being vocal artists, is perhaps the approach more than the musical expression. By removing themselves in different ways from the traditional role of the singer, they can explore the voice more freely as an instrument. Some of them have also explored voice sound in connection to a visual expression or/and to bodily movements, and vocal performance as an integrated part of a visual, sometimes theatrical, expression as a whole.

Vocal sound sculpting

Weber- Lucks' research includes an analysis of the use of sounds produced by the actual performers, finding categories like "pitch glissandos", "bird cries", "rough screams" and "biphonic sounds", etc. in the group of female vocal art performers, while the sound poets Blonk and Chopin focus on speech sounds including "sounds from tongue" and "upper larynx", etc. (Weber-Lucks, 2003). I have experienced a need for a term to describe these very varied kinds of vocal activities in a more general way. For a long time I have been thinking about vocal sounds that are not melody, rhythm or words as just "sounds", "sound-focused", or "sound- oriented". I realise that these terms leave out an essential part of the activity: the forming, or sculpting, of the sound. A sound, made by the vocal performer in a performance, has a particular volume and timbral quality, but the sound also has an intended form or characteristic "shape" that has (or at least usually is intended to have) a musical meaning. I have chosen to call this

part of vocal performing, where the main focus is on voice and mouth sounds rather than traditional text and melody, *sound sculpting*, as a very wide and general term.

Voice performance art and electronics

The use of electronics, in different ways, seems to be a natural part of development for many of the artists involved in vocal performance art, or at least a means for experimenting along the way. As Weber-Lucks sums up:

> One can also observe that: (i) electroacoustic sound-altering devices are used to expand or stretch vocal abilities according to individual poetics or aesthetics (La Barbara, Galás, Anderson, Blonk, Chopin); (ii) multiple -microphone speaker systems are used to structure and create the acoustic dimensions of the performance space according to individual aesthetics or poetics (Chopin, Galás, Anderson, Blonk); (iii) multitrack tape is used to combine the rich sounds, colours and noises of a vocal orchestra created by the voice (La Barbara, Namtchylak, Miranda, Chopin). (Weber-Lucks, p. 66)

This development and the use of electronics as an extension of the voice has continued in various directions and in different fields. The field of vocal performance art has also become more interconnected with the field of popular music, and I will return to this briefly later on. In retrospect this seems almost unavoidable due to new approaches in both vocal performance art and sound poetry. When searching for new expressions and ways of making music with the voice, new technology could do new things and open up radical new ways of creating for both composers and performers. Without going into the history of music technology, I will return to some of the most important techniques in Chapter 2.

To sum up, there are for me three important developments in the field of vocal performance art that are highly connected:

- The instrumental approach; the voice as a source of sounds, not as the bearer of melody and lyrics.

- The experimental and individual approach: to seek out and implement new, unconventional sounds for vocal performance, in an individual expression.

- The use of text and language as sound and musical structure.

1.5.5 Other influences

Processed vocal sound as a signature

Listening to some artists involved in the field of popular music who adopt the more traditional role of the singer, I experience sound processing as an integrated part of their individual vocal expression. I heard the use of a vocoder for the first time as a 15-year old, in the recording of "Don't kill it Carol" by Manfred Mann's Earth Band (*Angel Station*, 1979). I was deeply fascinated by it, without exactly knowing why. As already mentioned, I got a big kick from Laurie Anderson's use of the vocoder and octaver on her speech and song, first with "Oh Superman" (*Big Science* 1981). Another peak experience with processed voice sound was Josef Zawinul, singing beautifully with a vocoder on his composition "You Understand" (*The Immigrants*, 1988). Further, the highly compressed, filtered and "dry" sound of Swedish Stina Nordenstam on her record *And she closed her eyes* (1994) became a kind of reference sound for me; I still think of it as the "Stina Nordenstam-sound" when I try to produce something similar.

Playing with sounds

The use of sound as musical material more or less disconnected from traditional functions such as melody, rhythm and harmony has developed in a variety of genres. I find that some of the artists involved in the improv and noise scenes, such as the Norwegian artists Lasse Marhaug and the former duo Fe-Mail, are interesting to me both because of their approach to performing and their use of sound as musical material:

- A free jazz approach: improvising with relatively open structures/concepts

- Influences from Western Avant-Garde, Fluxus and experimental music, including the French *musique concrète*, often using field recordings as material

- Influences from popular music and techno, both in the choice of sounds and techniques (or was it the other way around?)

Many popular music artists have, along with the development of music technology, and influenced by the contemporary and experimental music scene, incorporated the use of "sound" as a musical parameter in different ways, both in studio productions and live. For me, Anja Garbarek's *Balloon Mood*, Radiohead's *KidA*, and Bjørk's *Post*, are examples of contemporary studio productions where deliberate and conscious use of electronic devices is creating a rich and individual expression.

1.5.6 Other artists – and me

Looking at some of the artists that I consider important to me and to the field I relate to, it seems that the individuality and the variety in the expression of these performers is striking compared to other genres. Instead of categorising, I will therefore look at what some of them do that I also recognise in my own work.
Both Sidsel Endresen and Eldbjørg Raknes, described above, could be seen as part of the vocal performance art field as well as the jazz scene. Of the two, Raknes is the most "similar" to me in the way she works; we both use live electronics in solo performances and in musical interplay with other musicians, and we both work with vocal sound sculpting and more traditional elements in a mixed expression. Some of the differences between us lie in the way we use the live electronics, the choice of techniques and sounds, who we choose to play with, and perhaps most importantly our personal musical language. Raknes also uses the solo format more than I do.

I experience Jaap Blonk, Phil Minton, http://www.philminton.co.uk/ and David Moss, http://www.davidmossmusic.com/index.html as being more "experimental-oriented" singers; they are in some ways related to each other through their development and use of extended techniques based on the acoustic voice, and also through their orientation towards Western contemporary music. However, two of them use electronics (Blonk and Moss) and the third does not use any electronics. I think that I share their

experimental approach in some of my work, but with less focus on the acoustic voice alone; rather the extension of sound possibilities through the combination of voice and electronics. I also use traditional musical elements, like repetitive rhythm and recognisable melody, a lot more than these artists, even in my free-improvised situations.

The "sound poet approach" to text in works by Blonk and Moss is also recognisable in some of my work. In his work with his band Denseland, (http://www.denseland.de,) Denseland: *Chunk* (Mosz, 2011), David Moss works – in some ways – in quite a similar manner to me in my duo with Thomas Strønen, combining his experimental approach with the use of electronics, and also, like me, sometimes mixing it with more traditional jazz/pop elements. Further, in Denseland he is working with processed voice sounds as a part of an "instrumental whole", taking on other roles than the soloist, in the improvised interplay with instrumentalists. Apart from this, we differ both in the choice of sounds and techniques, and not at least in the choice of musical parameters.

I also consider the Norwegian Maja Ratkje (as improvising performer) and some of the American Mike Patton's work as being experimental, but more oriented towards contemporary music and noise when compared to my work, although I feel related to and inspired by their world of sounds and their open approach. These performers are also working with extended techniques, and often with electronics as well. I feel that my some of work with Thomas Strønen has adopted a similar "sound-flavour" and attitude.

An interesting turn in music technology has been the development of new interfaces to control electronic processing and techniques. This obviously comes from a need for a stronger connection between body gestures and sound than that supported by traditional devices. Working with custom-made MIDI controllers and programming, artists like Pamela Z (San Francisco) http://www.pamelaz.com/ and Alex Nowitz (Germany) http://www.nowitz.de/ produce visual performances, mostly solo, where body movement is an important part of the whole, and incorporating unique musical

expressions. In our "Skylab Audiovsion" project, my trio BOL experimented briefly with the use of infrared sensors and hand movements. One important aspect of this was the visual connection between movements and sound, but it also made things sound different and new through this new way of sound control. This is something that I have just touched upon (also literary speaking…), but which I would like to experiment with further. Still, in my project exploring the *improvised interplay*, I found the sensors to be not quite satisfactory, as I will get back to in Chapter 2

Laurie Anderson and AmyXNeuberg (http://amyxneuburg.com/) are both performance and concept-oriented artists, but perhaps not "as experimental" as others in the field of vocal performance art. They often have, in their performances, a musical expression that is based on traditional musical elements in their genre. This is also partly a starting point for me. In some of my work I search for ways to implement new vocal roles in music that is based on more traditional, genre-rooted elements, like BOL's more structured compositions. With the project "Nature is not Beautiful!" (BOL) we are moving towards a (for us) new performance form, through the playback of recorded text cycles as a structuring element, and by bringing in the role of the storyteller/commentator/speaker. My solo project, where I play with roles in the range between the storyteller and the sound -sculpturer, is also performance-*oriented*, though still within a "small scale" compared to the vocal performance art scene. This solo project is, among other things, inspired by the "musical stories" of Laurie Anderson, like Langue d'Amour (*Home of the Brave*, 1984), although I have a very different approach, seeking a more natural/less theatrical expression.

Norwegian performers in the field

In addition to the Norwegian vocalists already mentioned, contemporary artists like Hanna Gjermundrød, http://www.myspace.com/petterohanna, Anita Kaasbøll, Ingrid Lode http://www.ingridlode.com all seem to be related to some of the various artistic and experimental approaches used in the vocal performance art field. Like myself they also work (to various degrees) with live electronics in their interplay with other musicians in different ways. Some of the more pop/jazz- oriented artists in this field,

Jarle Bernhoft, Mari Kvien Brunvoll and Ine Hoem, are all exploring electronic possibilities as solo artists with looping techniques as an important basis for their live performances. Their musical approach is rather different from mine, due to the choice of musical parameters and genre. Still, it interesting that their use of electronics as a "one man band", allows them take on new musical roles in the interplay with themselves, producing both the accompaniment and the soloist. Ine Hoem also uses live electronics in her interplay with the band "Pelbo", as does Ingrid Lode with "Kobert", and along with Eldbørg Raknes' various bands that were mentioned earlier, these are what I see as being the most obvious parallels to my work with BOL.

In the light of something else

In the foregoing I have discussed briefly some differences and similarities in how I work with music and live electronics compared to others, both in my field and in related fields, and I have some difficulties in finding very clear parallels to my work. The orientation in the field of voice and use of electronics has been a necessary part of my process, and important differences have made me see more clearly what *my* project is about. One particular strong experience in this respect was my instant fascination with a very different kind of artistic work: I "discovered" Alex Nowitz – who I have already mentioned briefly in this chapter.

Alex Nowitz is a German vocal performer and composer. He was invited to undertake a residency at STEIM[10] in 2007, where he collaborated with composer Daniel Schorno to develop a live electronic setup for vocal performance. He worked with gestural controllers (Wii[11] remote controllers), a computer (MacBook) and STEIM software (LiSa and junXion). An article about this work, with a video demonstration, can be found here: http://cec.sonus.ca/econtact/10_4/nowitz_voicelive.html

(Nowitz has subsequently been developing a new set of controllers as well.)

[10] Studio for Electro-Instrumental Music in Amsterdam, http://www.steim.org/steim/
[11] Wii : Nintendo home video game

I was genuinely fascinated by his work, because his controllers seemed very intuitive and flexible, and his use of them was exiting. I started thinking seriously about going to STEIM to possibly create a setup that I could use in my work. (I even contacted Nowitz to hear if there was any chance of meeting him there.) Then, after further consideration, I realised that this would be a big step *out of direction* – in relation to my project and my artistic goals. There were several reasons for this:

- Such a setup would involve learning a new and rather advanced instrument. It would demand a long period of training to control it. This made me realise that my project is rooted in my experiences and skills with the tools I already know, as an important part of my musical context and references.

- Nowitz's invention is a great instrument for the *solo performer*. It is very "visual" and it is exciting to see Nowitz's performances. My project is very much about being able to *blend into the interplay with other musicians*. It was obvious to me that an instrument like Nowitz's instrument would make it (even more) difficult to achieve this musical goal.

- I experienced Nowitz's performances and musical project as being very connected to the way his instrument was designed. He was playing with sound and structure in a very free and experimental way. His playing could sometimes remind me about the structures in some noise music, fragmented and thematic, with sudden shifts and extreme dynamics. He worked, as I do, with a range extending from natural voice sounds to abstract, processed sounds. The different processing techniques and his use of them gave him a very *wide* range of expression. This made me aware that the *scale* of my own expressional range is quite different to that of Nowitz. As far as I can see, when compared to Nowitz's work (at least in some of his performances using remote controllers), I work with *a closer relationship to the acoustic voice* – even if I think of my voice as being transformed by the use of effects and reverbs (this will be described further in Chapters 3 and 4). I also work with sounds that I experience as being abstract in relation to natural voice sounds – but in this respect I have a limit,

i.e. when I experience that the sounds become "too digital" to my ears. ("Too digital" is not a proper term (I work with digital devices that probably sound very "digital" to other people's ears) – still it is actually a term used by musicians in my field to describe a negative experience of computer-processed sound.) I tried to imagine Nowitz's way of working with advanced computer-processed sound in my ensembles. Many of the sounds and techniques in use would, as I experienced it, conflict with my relationship with my other musical vocabulary, the other musicians in the interplay and the music as such. This made me fundamentally aware of the *genre* which my project is rooted in – even if I think of my work as being "genre-crossing" and inspired by experimental music and vocal performance art. I became aware of clear aesthetic preferences, musical premises and borderlines regarding sound, musical components and structure in my music. *These preferences and premises are defined by the music I have related to and been part of throughout the years*, as described earlier in this chapter. It is a genre that *mediates* between *sound-based* and *intervallic* improvisation, between musical paradigms that can be recognised as *Afrological* and *Eurological*[12]. These are terms that will be discussed further in Chapter 6.

1. 6 Closing comments

In this chapter I have presented and discussed what my artistic project is about and the perspectives in which it can – and should – be seen. The context I am relating to is multi-faceted, as is my genre. I recognise *both* the rich influences and some clear limitations between this larger context and my genre and personal style. This recognition has been part of my process, and will therefore also be pointed out in relation to different topics in this reflection.

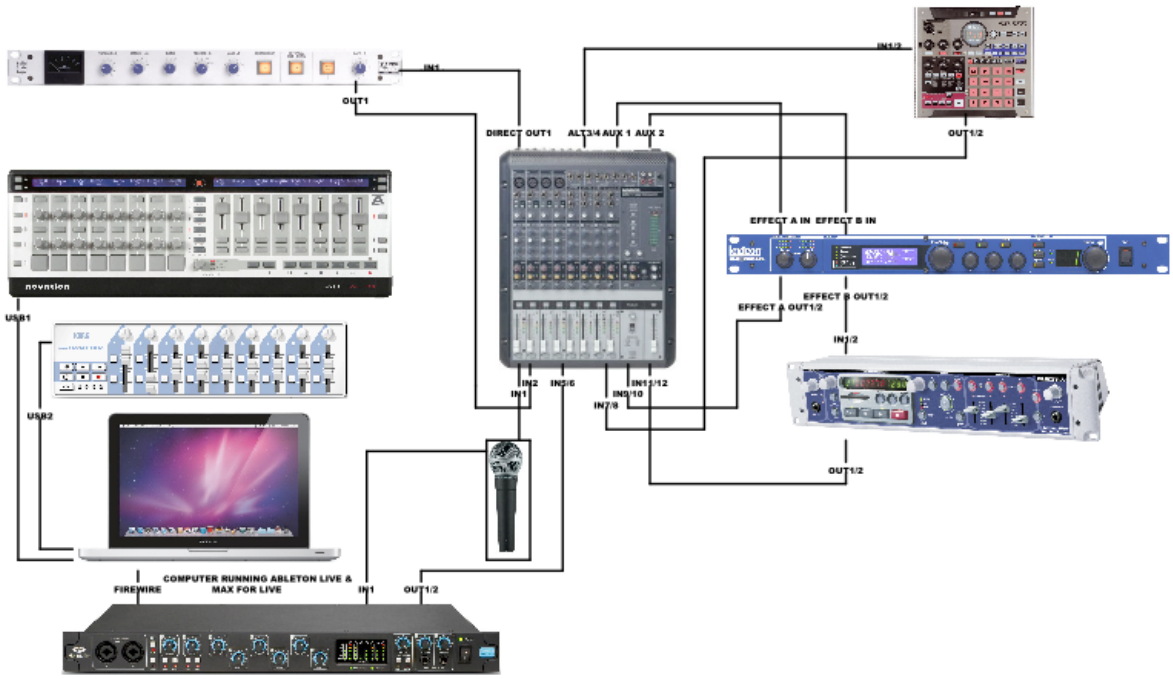
[12] Lewis, George E.: "Improvised music after 1950: Afrological and Eurological Perspectives" in Cox &Warner (ed): *Audioculture-readings in modern music*, Continuum, NewYork/London, 2009, pp. 282-283.

2. Instruments, techniques and choices

This chapter contains a brief description of my electronic equipment. I find it natural to call the units involved *instruments*, *machines* and/or *devices*, since their functions at different times might be associated with all of these labels. I will describe some important features and techniques, while the musical aspects relating to some of these techniques will be further described and discussed elsewhere, particularly in Chapter 3. Reflections about my choice of instruments on an operational level will be presented as I go along, while other important and underlying reasons for these choices will be reflected on towards the end of the chapter. I wish to emphasise that these descriptions are not based on the *technological* aspects of music technology. Being a trained musician, not a technologist, I focus on the practical *use* of my instruments and the *sounding results*, not on the technology involved.

Studio setup, NTNU 2011

2.1 Technical setup



This is an overview of my present setup. (A larger version will be found in the appendix.) As shown in the figure, the microphone signal is split and sent both to the mixer and to the audio interface. In the centre is the Mackie Onyx 1220 mixer, which receives input from all of the connected devices. Then, clockwise from the upper right:

Roland SP 555 Creative sample workstation (input from Alt 3-4, output to mixer Ch. 7/8)

Lexicon MX 400 Dual stereo/Surround Reverb Effects Processor, processors A & B (input from aux 1&2, output: A to mixer Ch. 9/10, B to Electrix Repeater Loop Based Recorder)

Electrix Repeater Loop Based Recorder (input from Lexicon B-processor, output to mixer Ch. 11/12)

Focusrite Saffire Pro 40 Audio Interface (input from split mic signal, output to mixer Ch. 5/6)

MacBookPro computer, running *Ableton Live* and *Max for Live* (connected through FireWire to audio interface)

Korg Nano Kontrol, controlling Ableton Live with Max for Live patches (USB-connection)

Novation Remote Zero, controlling the Granular/Filter patch in Max for Live (USB-connection)

SSL- compressor (input from Direct Out 1, output to mixer Ch.2)

2.2 The electronic devices and their functions as instruments

My equipment has changed, and also expanded since I started working with electronics in the early 90s. The devices I use have been chosen for special reasons, based on earlier experiences. These choices are not choices between *either* practical aspects/usability *or* musical qualities. The motivation for and results of my choices are often intertwined. On the one hand, the usability of a device clearly has consequences for the musical use and results, and on the other hand, musical motivation gives premises for the choice of instruments, the setup of controllers and the mapping of the various functions. In a way, performing with live electronics, you build your own instrument, even if the different components consist mainly of mass-produced devices. Furthermore, this is an ongoing process, always with room for improvements and changes. It is also a fact that usability is not always concerned with the structure and design of the device, but is also dependent on personal preferences and not least habits and internalised skills. I

will describe the different devices in my setup, focusing on what made me choose them, how I use them in relation to each other, and, where relevant, their strengths and shortcomings.

2.2.1 Mixer, Mackie Onyx 1220

This is a 12-channel analogue mixer that I obtained in 2003[13]. It is relatively large (for travelling), but I chose this model for two main reasons: it has high quality pre-amps, and it has volume -faders (not knobs). There are also several options available for sending signals to other devices, as shown in my setup overview: aux sends 1&2, direct outs and routing on each channel (Alt. 3-4 out). This makes it possible to connect to and mix between all of the devices. I could not work this setup with a mixer that did not have these options.

The importance of faders instead of knobs is also reflected in my choice of loop machine and MIDI-controllers. The reason for this is my physical experiences of having more "contact with" the levels and being more in control of them. There is also a visual aspect in this choice; it is much easier for me to obtain a visual impression of the levels by watching faders rather than knobs.

[13] One of the great concert sound-designers I have worked with over the years is a Norwegian, Asle Karstad. In those days he expressed his frustration saying: "you get great singers working with very good microphones and effect-machines -but with cheap and noisy mixers!"… I took his point.

If I were to wish for a perfect mixer, it would be smaller in size, but with the same features as this one – and it should have 4 aux sends!

2.2.2 Lexicon MX 400 Dual stereo/Surround Reverb Effects Processor

I obtained this after my first effect-machine broke down in 2004, and I wanted it because of how it sounded, for its programming options and for practical reasons, i.e. getting two processors in one machine/unit. I send from Aux 1&2 (mixer) to processors A & B. I use one bank of programmed reverbs and effects, sorted by numbers and names, and choose which processor I operate (by turning the *select* knob). Processor B sends through the Repeater Loop Machine back to the mixer, so the effect signal can be recorded there if necessary. Some of the effects are used as programmed by the manufacturer, but most of the ones I use have been programmed (the different pitch shifter effects) or modified (the reverbs, chorus and flanger) by me .

System and overview

When I first started using the machine, I needed a system that seemed logical to me, in order to remember where I could find the different effects and reverbs. This is especially important during a live performance when you need to be able to make choices quickly. I have 34 different programmed reverbs and effects that I use at present, and I sort them in a (to me) natural order: from 1-20 I move from "dry" reverbs to longer reverbs, and also from short delays to longer delays. From 20- 30 I have different chorus, flanger and pitch-shifter effects, and from 30-34 some "special effects". Furthermore, the aux 1 on the mixer is dedicated mainly to "reverbs and delays", while the aux 2 is for chorus, flanger, pitch-shifter and "special effects".

Usability

The effects can be programmed, named and sorted rather easily, and the names of the effects show up in the display. Ideally I would have one display and one *program select* button for each processor, but the lack of this is probably the price to pay for having one machine unit instead of two

2.2.3 Electrix Repeater Loop Based Recorder

4 separate loops with faders

This is the loop machine that replaced my earlier loop machine (a *Lexicon Jam Man*) in 2001. The *Jam Man* had options for overdubbing each loop, but you had to choose which one to play at a time. The biggest difference in changing to the *Repeater* was the option available for creating four different loops with overdubs, that could be played back at the same time with separated volume controllers, one fader for each loop. This was a great improvement, and something that I had really wanted. Another big improvement was the option for storing recorded loops on memory cards. I used this option a lot in the beginning, especially for solo performances, while nowadays I tend to use the Roland sampler for storing recorded sounds and loops (for reasons that I will return to later). The Repeater also has other important features that I use, like the option for reversing and panning the loops.

Example II, 1: http://vimeo.com/34333448

Usability

The recording, overdubbing and playback of loops is fast and easy, as is the selection of tracks. Controlling with faders is very important, and so is the option to have the machine mounted in a rack rather than placed on a table. (It is placed next to the reverbs and effects-machine, which I often operate in close combination with the looping). Working with this machine is limited by the fact that the length of the first loop defines the length of the other loops, even if they are separated on different channels. The method used for finding previously recorded loops from the memory card, and using them, is also a bit awkward.[14]After I acquired my first Repeater, several newer loop machines have been produced, with different features. There are also new options available for designing computer programs which functions as loop machines. Still, based on what I know about the field of "outboard-devices", and the fact that my computer is assigned to other tasks in my setup, I think that this is one of the best solutions I can have for the time being.

2.2.4 Roland SP 555 Creative sample workstation

[14] The loops on the Repeater only have numbers, so you have to remember which one you want and turn the knob until you reach the number, then select it. If you want to overdub the selected loop, you have to copy it to the internal memory, and then go back to the loop in the internal memory by turning a knob once again.

Being both sampler and effect-machine, the *Roland SP 555*[15] has functions that overlap the Repeater loop machine and the Lexicon effect machine, but it has a very different structure. It has a lot of different functions and I will focus on what is important for me *now* with this machine, and at the same time look at how it is complementary to the instruments it overlaps with.

Pre –recorded sound library with easy access

Pre-recorded sounds are accessible in a quite different way here, than on the Repeater: the Repeater loop-machine operates with numbers on a display, selected one at a time by turning and pressing a knob, and playing a maximum of four loops at the same time. This Roland machine has 16 sounds for each of the 10 banks (8 of them stored on memory cards), assigned to 16 pads – so it is faster and easier to find and play back the samples. Also, the Roland has an option for playing back a sound "one time only"; it does not automatically loop the sound like the Repeater does. As mentioned before, the consequences of this for me are that most of my pre-recorded sound samples are played back from this machine.

Organising sounds

Some different "setups" of sound-samples are designed for specific projects, but I also have "palettes" that are possible sources for improvisational use in several projects (as demonstrated in Chapter 3). As with the Repeater, I have to remember the sounds as numbers and banks, and this can sometimes be a challenge. The grouping of sounds that belong together has been one of my strategies here, and it is also important to prepare and remember ("go through the sounds") during the hours before a performance.

Pads and control functions

When triggering pads on the Roland, there are three options for playback: the sample can be played back once, it can be repeated as a loop, or you can select

[15] This is my second machine of this kind, from 2009. It replaces the BOSS SP 303, a much similar, but smaller machine, with fewer features and less memory.

"Gated playback", which makes the sound stop when you release the pad. This last function is especially important because of the percussive effect that you do not get with faders on the Repeater, and using "on and off" will not give the same sensation as the gated pad-function. The pads can also, if selected, be pressure-sensitive. The pads as controllers, especially when triggered in "gate" mode, give a very physical feeling of playing (more than just controlling).

Example II, 2: http://vimeo.com/34218542

Filter and D-beam control

The effects on the Roland Machine can be assigned to each sound sample, and also to everything that is routed from my mixer and into the machine. One of the effects I use quite often is the EQ filter-effect called *Super Filter*. By using 3 knobs, I can choose between four types of filters[16] and adjust the cut-off frequency and the amount of peak in this area. Like all the effects on this machine, this is a very "rough" type of processing, and my choices are also very "rough", with the most important being the variation in sound and the kind of transformation that the filtering gives. It is also an effect that I use sometimes instead of the volume control to make the sound fade in and out. In addition to the filter-effect that can be assigned to each sample, there is an option for filtering the total sound of all the samples and sounds by using a so-called "D-beam controller function" in "filter" mode. I can then control the cut-off frequency by moving my hand over a sensor on the machine after selecting a pre-programmed filter (assigned to the pads). The movement of my hand produces quite a different effect and sensation than when using the knobs.

Example II, 3: With Michael Duch (see 4.2.4).

http://vimeo.com/36187000

[16] Filter types: Low pass filter (LPF): passes the frequency region below the cut-off. High pass filter (HPF): passes the frequency region above the cut-off. Band pass filter (BPF): passes the frequency region around the cut-off. Notch filter (NTF): passes the frequency regions other than near the cut-off.

Other effects

As mentioned earlier, I use the Lexicon effect machine for different reverbs, delays and pitch-shift effects. The effects I use from the Roland are the more extreme ones, which I do not have on the Lexicon, e.g. the Ring Modulator, the Slicer, the DJFX Looper, the Fuzz and Overdrive (more about this in Chapter 3). Alternative sources for producing these effects could be more specialised effect-boxes (one dedicated to each effect), or also possibly plug-ins in Ableton Live. More specialised effect-boxes might sound better, but for the time being I have placed priority on having a user-friendly setup, and I will return to this later on.

Usability

As described here, the Roland has some qualities that complement my setup, and this is primarily due to the structure of the machine. Both the pads as controllers and the visual oversight serve to make this an important instrument, especially for working with pre-recorded sounds. As with live recording and the playback of loops, I find the Repeater to be more suitable for intuitive operations, especially when working with several layers. (For me, the live sampling -operation does not seem to be quite as easy on the Roland if you want to make more than one loop with overdubs "on the fly"[17]).

2.2.5 The SSL Compressor Clone[18]

The compressor in my setup has one important function: the option for making the sound of the voice more "present". It is only used for compressing the clean microphone signal (coming from *direct out 1-4* on the mixer), and it makes it possible to put "small" sounds, like whispering or talking with a low sound level, up front in the musical scenery. Furthermore, I sometimes use it for very loud passages where the voice sound needs more "power" in order to be heard. The

[17] To record and play back several loops in realtime on the Roland, you have to do more than just push the record-button twice and select another track, as is the simple operation on the Repeater. It can be done in two ways, both of them demanding several buttons to push. So, it is just slightly more complicated, and for me that means that I will usually be selecting the easiest and fastest method.

[18] My compressor was actually built for me by Ståle Storløkken. It is a "homemade" clone of an SSL Compressor.

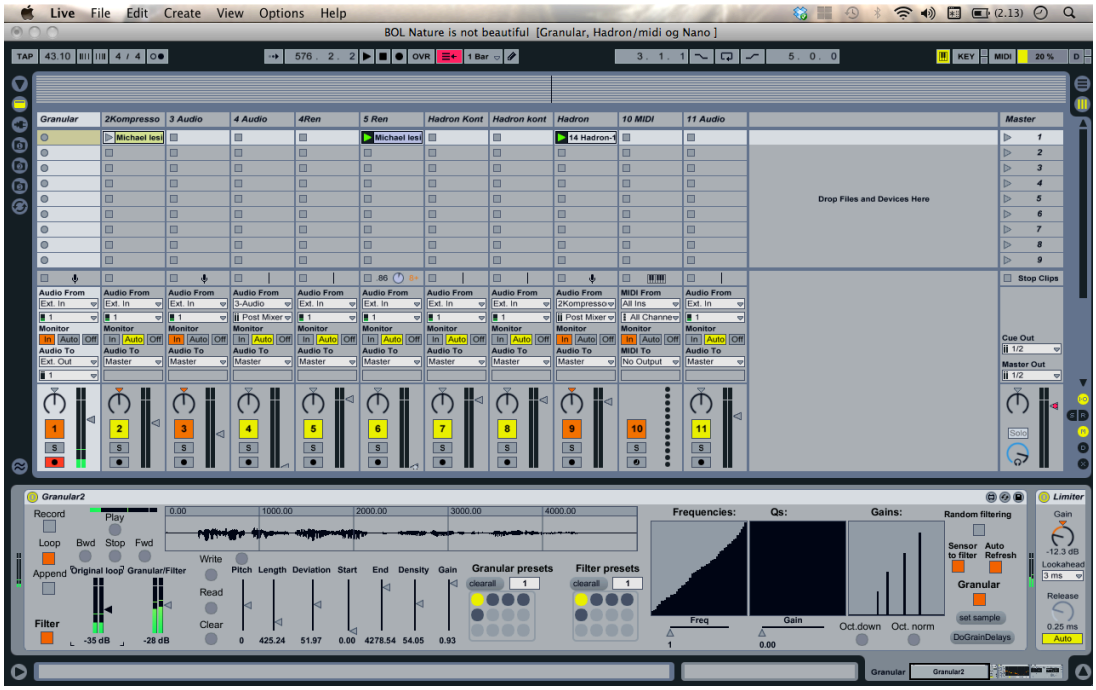
settings for the compressor are normally not changed during a performance, only the level on the return channel, so the usability is not an important issue here. The challenge involved in using a compressor live on stage is of course to avoid compressing the instruments around me.

2.2.6 Computer, Ableton Live and MIDI-controllers

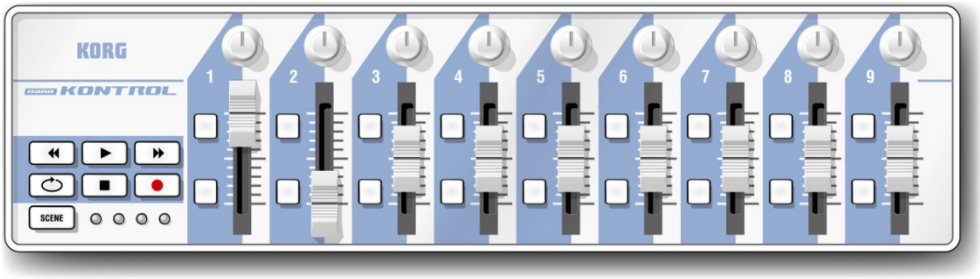
Up until about a year before the start of this project, I had an idea about "not becoming a laptop musician". This idea came partly from having experienced several concerts where the musicians were looking at their laptops and displaying few signs of interacting with the musicians around them, and sometimes not even with the music played. Furthermore, I had some prejudices about the musical opportunities available from something that I regarded as being "computer music". Working with sensors and a granular synthesis-patch made in the MaxMSP program[19] in a BOL-project, made me change my mind about this. I discovered that the computer software-based processing in this particular patch could create musical components that were very different from, and also in a sense more organic than, the sounds my outboard machines could produce. For me, much of the organic character derived from the possibilities of randomness that could be implemented during processing. It was also important that the sound that was processed came from my voice. Working with sensors as controllers was exiting, but I also experienced limitations in respect of what I actually could control and play with. I realised that MIDI-controllers with knobs and faders could give me more detailed and varied control than the sensors, and in a more physical and intuitive way than (what I experienced that) the laptop keyboard could offer. I therefore included the Novation Remote Zero MIDI controller with the computer, the audio interface and MaxMSP in my setup. I realised that I wanted the option to include several MaxMSP patches in my setup. To do this, I needed a new setup on my computer, and this led me to the Ableton Live when they introduced Max for Live.

[19] Max is a visual programming language, and in MaxMSP it is used to create sound patches. It was originally written by Miller Puckette, the *Patcher* editor for Macintosh at IRCAM in the mid-1980s,to give composers access to an authoring system for interactive computer music (wikipedia: http://en.wikipedia.org/wiki/Max_(software)).

Abletone Live with Max for Live



Ableton Live, scene view



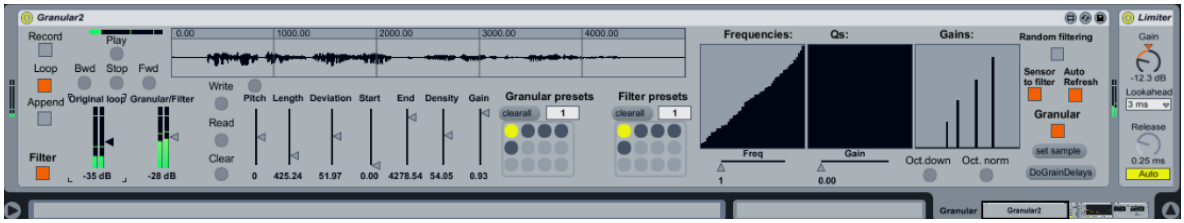
Korg Nano Kontrol, small midi-control unit

With the *Ableton Live*, extended to *Max for Live*, I have an "extra mixer". At the moment I control it with a small *Korg Nano Kontrol*. This was chosen mostly because of its size, in order to maintain a good working position with my setup, and also because it seemed to have the functions I needed at the time. (I am considering replacing it with a controller with more functions, and I will return to this later on.) With this setup, I can use several MaxMSP-patches as plug-ins:

- The MaxMSP Granular/Filter Patch
- The Live Convolve Patch
- The Hadron Particle Synthesizer

These will be presented below.

MaxMSP Granular/Filter Patch



MaxMsp Granular/Filter Patch as plug-in in Ableton Live

The Granular/Filter- patch – hereafter referred to as the G/F patch – was designed for me by Ståle Storløkken. This is a patch that combines granular synthesis[20] and frequency filtering. To explain the granular synthesis in simple words: the sound input is divided into small grains and played back with variables such as length of grains, density, deviation (random variation in length of grains) and pitch. All of these variables can be controlled to a certain degree. Furthermore, in this patch the sound can be filtered through a graphic EQ-filter where I can single out very narrow frequency areas, or also use a random function, to make the EQ filtering change randomly.

Example II, 4: http://vimeo.com/34334296

[20] Granular synthesis is a basic sound synthesis method that operates on the microsound time scale. It is based on the same principle as sampling. However, the samples are not played back conventionally, but are instead split into small pieces of around 1 to 50 ms. These small pieces are called grains. Multiple grains can be layered on top of each other, and may play at different speeds, phases, volume and pitch. (Wikipedia, http://en.wikipedia.org/wiki/Granular_synthesis)

Usability

Remote Zero SL midi controller

Ståle Storløkken also helped me to map the different functions in the patch to the *Remote Zero SL* midi controller. To work with this patch in realtime, I wanted the controller to "connect" with the visual picture of the patch. As an example, the left upper knobs on the controller are assigned to each variable as listed over (pitch, density, etc.) Furthermore, the two faders to the right are assigned to frequency and gain in the filter frequency control, and the two faders to the left control the original loop and the processed loop.

The Live Convolve patch

The *Live Convolve Patch* (hereafter referred to as *Convolution*) was made by my colleges Trond Engum[21] and Øyvind Brandtsegg. It is based on the principle of

[21] Engum, Trond: Beat the Distance, Music technological strategies for composition and production, NTNU/Norwegian Artistic Research Fellow Programme 2012, (pp. 16-20).

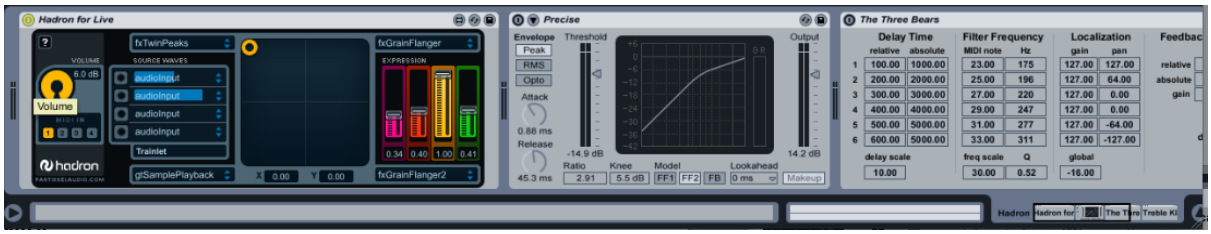
convolution reverb.[22] In short: I sample a sound or a phrase, in the same way as an *impulse response* (see footnote). When I activate the convolution-function, the next sound I send will be *convolved* with the sample, and the resulting sound will be a mix of the two. I often use it to blend one vocal phrase with another.

Example II, 5: http://vimeo.com/34336235

Usability:

This is a Beta version that requires some adjustments in order to be fully functional. It is fairly easy to operate, and I am looking forward to a version that is even more suitable for a live setting. For now I have used it mostly in studio sessions and as part of live sequences with low volume.

Hadron Particle Synthesizer



The *Hadron Particle Synthesizer* (link) – hereafter referred to as the *Hadron* – is an open source plug-in, created by Professor Øyvind Brandtsegg and several colleges at the Music Technology Section, Department of Music, NTNU. The Hadron is based on granular synthesis, and designed to make it possible to "morph" seamlessly between different pre-programmed sound processing techniques, called *states*. At the moment I do not have all the functions of the patch mapped to a controller, but by using only the *Korg nano kontrol*, I can record sound-samples

[22] In audio signal processing, *convolution reverb* is a process for digitally simulating the reverberation of a physical or virtual space. It is based on the mathematical convolution operation, and uses a pre-recorded audio sample of the *impulse-response* of the space being modelled. To apply the reverberation affect, the impulse-response recording is first stored in a digital signal-processing system. This is then convolved with the incoming signal to be processed. The process of convolution multiplies each sample of the audio to be processed (reverberated) with the samples in the impulse response file (Wikipedia: http://en.wikipedia.org/wiki/Convolution_reverb)

and morph the samples between the different "states". If I want to control the so-called "expression controllers" in the patch, I will need another MIDI controller, and that would be the reason for replacing the small NANO-controller.

Example II, 6: http://vimeo.com/34335170

Usability

This patch has a lot of possibilities, and is fascinating for this reason. The morphing between states gives it a very flexible and varied character. It is very complex, and for me it has been interesting, but after a while also frustrating to explore, because it seems very difficult to control. (I will discuss the need for control and predictability in Section 2.3.) It is possible that I can find a control unit that enables me to work with the Hadron in a (for me) more logical and intuitive way, and probably this would change this situation, at least to some extent. In contrast to the Live Convolve patch, which I could implement in my setup and vocabulary immediately, the Hadron seems to be a "new instrument". For now, I have implemented in my vocabulary just a small part of all the things that Hadron can actually do. I will discuss this choice further in the next section, but would point out that I experience the "small part of Hadron" that I use, as being sufficiently predictable, and both possible and valuable to implement in the musical vocabulary of myself and my fellow musicians.

2.3 Choice of instruments

In the description of my electronic devices, I have focused mostly on their different functions and usability, while I will go further into the musical parameters in Chapter 3. There are also underlying musical and aesthetic reasons for my choice of instruments that call for more general reflections. These reflections concern the relationship between different genres and the field of music technology, and also the act of improvising.

2.3.1 The role of music technology in music/the role of music in music technology

In the field of music technology and live electronics, new products and devices are being developed and presented all the time, both as commercial products (like most of my devices), and as a result of research and experimentation in a less commercialised, more academic and experimental field. (STEIM[23] in Amsterdam and IRCAM[24] in Paris are examples of important contributors, and also – as already shown – the Music Technology Section, Department of Music, NTNU.) Digital electronic musical instruments today can be many things, for example: Wii-controllers and a computer (Alex Nowitz, (see 1.5.6) http://www.nowitz.de/english/index_engl.html), a suit or a glove with sensors (Rolf Wallin, link: http://www.notam02.no/web/1994/06/controller-suit/?lang=en), a custom-made computer program with a conventional MIDI controller (Maja Ratkje, link: http://ratkje.no/), Ableton Live or other DAWs, an Ipad/Iphone with various apps, a DJ-sampler … – there are numerous possibilities. One important motivate for developing new devices is rooted in the need for a stronger connection between bodily impulses and sound. Hyper instruments[25], new instruments, and the use of motion capture, are all important fields of development in this regard. Many new contributions in this field were presented at the NIME Conference (New Interfaces for Musical Expression), 2011, in Oslo, which I attended (and where I also presented a project with my vocal ensemble, see Chapter 5). What struck me when presented with the range of new devices and techniques that were used in various concerts, was that I often felt a lack of musical coherence and ideas in the performances. Since this was a conference for technologists, rather than musicians, this was probably hardly surprising. Still, I think this experience reflects an important issue. This issue has often been addressed and discussed at conferences on music technology that I

[23] Studio for Electro-instrumental Music, Amsterdam; http://www.steim.org/steim/contact.html

[24] Institut de recherché et coordination acoustique/musique, Paris:http://www.ircam.fr/

[25] Traditional instruments that are expanded through the use of electronics, like the electric violin used by Victoria Johnson, former fellow in the Norwegian Artistic Research Fellowship Program: http://creativeviolin.wordpress.com/

have attended, by my colleges at the Section for Music Technology, and also by my fellow musicians in the field of improvised music. It is a discussion about the role of technology in music on very many levels and from different viewpoints and angles. In my field of musicians this is often simplified with the question: "What comes first, music or technology?" (i.e.: is your motivation based on a musical idea or fascination for a technical invention? Does the technology deliver the premises for the music, or is it the other way round?). This question represents a rather polarised and also biased view on "technology" (especially "advanced technology"), but it also reflects some key issues that I will return to in the following. I cannot go into all the aspects and perspectives of the discussion here, but the choice of tools and techniques in my work (and also the choices of other musicians in my field), should be seen both in the light of different approaches to the various musical tools delivered within the field of music technology, and as a basic consequence of different musical choices relating to aesthetics and personal musical expressions.

2.3.2 The electronic instrument as a contributor to new music

There seems to be agreement in the forums on music technology that I have attended on one important issue: a crucial part of the development of a new instrument is that it should be mastered musically and put into a musical context where the musical ideas are the main focus. This process has to involve a musician (or several). It is a demanding project, as Alex Nowitz has confirmed to me when sharing his experiences about developing and rehearsing his work using Wii-controllers[26] and his new *Strophonions*[27]. (I experienced the work of Nowitz, presented at the NIME, as an exception from other presentations in this regard – it is obvious to me that his musical work and the development of the instrument

[26] Remote controllers designed for the Nintendo Wii video game, handheld.

[27] I have attended both a demonstration (NIME) and a concert (Trondheim) with Alex Nowitz, working with these handheld controllers, and we have had very useful conversations at these events. Nowitz' work is described further in Section 1. 5. See also: http://www.steim.org/projectblog/?p=3715

have intertwined very closely along the way.) Furthermore, I find that Nowitz' project demonstrates how the development of new technology can contribute directly to new kinds of music, and that the technology and the new instrument can sometimes be a more important part of this development than the musician's genre as such.

2.3.3 Development and use of instruments within genres

The use of live electronics is not restricted to a special musical genre (as pointed out in Section 1.5) – on the contrary, it is important in popular music (electronica, rock, hip hop and indie-pop, etc.), noise, jazz, improv and experimental, as well as in modern contemporary music, electroacoustic music and performance art, etc. In the development and use of devices, one could suggest (very roughly and polarised), a principal difference between the major developments in popular music, seen as part of the commercial music industry, and other genres:

> -The digital devices are, in the commercial industry, often constructed to fulfil the genres' conventions, on premises that are defined by the genres.
>
> - The devices and instruments in other, more experimental genres are either constructed *or used in new ways*, in order to explore and create *new* musical possibilities. This use of technology, although experimental, can be seen as taking place *within* a genre (for instance: the genre of noise (Maja Ratkje), and the genre of interactive electroacoustic composition and improvisation (Victoria Johnson)). (It should be underlined here that there is also a long history of experimentation with technology in the history of popular music and rock, especially in connection with work in the recording studios, from the Beatles and Pink Floyd to Radiohead and Bjørk). Moreover, as pointed out earlier, the use of technology can also be seen as being more *loosely connected* to a genre, in individual expressions that are perhaps more closely connected to the technology involved, as in the case of Nowitz, for instance.

2.3.4 Premises for the use of technology in music

The rough polarisation above does not answer the question: "What comes first, music or technology? ", which was mentioned in Section 2.3.1. One could argue that the technology in popular music is designed with the music in mind, and therefore that the music is setting up premises for technological development. However, this would involve overlooking the fact that the technology in use definitely also sets up premises for the music produced (see Engum, 2012[28]). Moreover, one could perhaps argue that advanced and complex technology is so unfamiliar, uncontrollable and inflexible for the performing musician that it restricts performance and creates "unmusical" premises. In this respect I think that Alex Nowitz, as an example, demonstrates the opposite.

In my artistic research project, the premises for the use of technology are strongly connected to the musical field (or genre) I am rooted in, and intimately related to my choice of musical projects in which I take part in, the various improvised interplays with other musicians. My musical ideas, the need for control and flexibility, the intuitive appreciation of a sound or a technical option, the mix of acoustic and electronic sound – *all of this is fundamentally grounded in my musical experience, my development and my choices along the way.* During the period of my research project, I have become gradually become more aware of what actually constitutes my field and my music, even if I consider it to be open and genre - crossing. The discussions and reflections about technology and music also contribute to clarity in this regard.

Choice of sounds

I work with sounds in an intuitive way. My choices of sound reflect my *taste* for sound as such, and also whether I experience the sound and function as being suitable in the various interplays in which I take part. As an example, I tend to use a slightly different palette when playing the acoustic double bass than with the

[28] Trond Engum (Link: www.trondengum.com/documentation) has, in his artistic research project "Beat the distance", challenged the premises that standard software sets for creative work in the studio, both as a music technologist and as a rock musician.

duo with drums/electronics or with my trio BOL (drums and synthesizers). I have noticed that I often search for a kind of "organic" sound. I have registered (as discussed in Section 1.5.6) that if a sound is "too digital", it is harder to implement it in my mix of the acoustic and electronic. The "organicness" or "digitalness" in sound is not definable as such – it is a matter of experience and taste. An example of this is my experience with the *Hadron*, as mentioned previously (Section 2.2.6). I first found it to be exiting, but when trying to implement it in my vocabulary, I ended up using a "small part of it"; it was hard to find sounds that were experienced as being organic, and – more importantly – as connecting to my other sounds and the music as a whole. (This could change, as new states in Hadron are being developed.) As I see it, my choice of sounds constitutes my personal, *extended voice*. (The ideal of "personal storytelling" in my genre is briefly discussed in Chapter 6.) It also defines my relationship with my *genre*; I am avoiding sounds that are experienced as being *alien* in the musical expression.

Control and predictability in improvisation

The need to be in control varies from artist to another, and some of the choices to be made when using live electronics concern complexity, both concerns usability and processing. To be in full control (if that is a goal) will often demand either highly developed and specialised skills, or less complexity. To work with live electronics as an improvising musician, it has been necessary to *find an "operating level", where I can work intuitively*. I have gradually expanded my repertoire of sounds and techniques, implementing them in the improvised interplay, operating with different musical structures and premises (see Chapters 3, 4 and 6). I have chosen to have access to a certain variety of sounds and effects, and I have focused on simplicity and usability in the setup. My choices regarding instruments, controllers and sound-processors are based on how I experience them *at work*, however simple or complex. These choices are also based on my former knowledge and skills. [29] The question of *control* is something I reflect on

[29] A music technologist once asked me if I had ever "questioned the mixer", and suggested, as a vision, another type of device to replace it, with a dramatically different design and functions. I had

continuously. On the one hand, I want full control, to be able to "hear what I want to play", and this is something which I can compare with a jazz musician's "inner ear" when listening to a harmonic progression. On the other hand, unforeseen turns are often appreciated and welcomed in improvised music – where surprises and experimentation are a natural part of the playing. "Accidents" can create new music. Creating situations that bring in unforeseen elements is definitely an interesting possibility when working with live electronics. (It should be noticed that in the improvised interplay, this is always a possibility regardless of which instruments are involved, through the interactive impulses of fellow musicians.) As I see it, the ability to "control the situation of not being in control" is important, as well as deciding on the *level of control*. There are individual preferences here, as to what makes the improvised interplay work in a musically meaningful way. These preferences are part of what defines a field or genre (see also Chapter 6). *In my genre and within the musical contexts in which I perform, I experience a basic preference for instrumental control and intuitive flexibility rather than technical complexity and unpredictability.*

Having a personal vocabulary – or repeating yourself?

Given all the possibilities and choices that music technology can offer, my choices in my artistic process might perhaps appear to constitute a very "narrow" approach, especially in relation to other genres, where there is a constant search for new technology and techniques in music. In Chapters 3 and 4 I will, among other things, show how I use the same techniques and setup in different musical projects. As I see it, I work with a vocabulary that has become an extension of how I perform as a vocalist. With this vocabulary as part of my total instrument, I face a challenge which is very familiar for improvising musicians: the balancing between "having a personal expression" and "repeating yourself", between using your deeply rooted musical language in creative ways, or applying "the same" solutions, phrases and forms. It is interesting to note that sometimes the use of technology

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to admit that this was difficult for me to imagine. This made me realise how much the mixer is part of my instrument, and that starting to use another type of device would be like learning a new instrument. It was of course possible, but I would have to be convinced about the advantages.

can create expectations that are not present (to the same extent) when listening to other instruments. For instance, you recognise the sound of Miles Davis or Arve Henriksen – and many of us appreciate what we think of as their "personal tone" and musical vocabulary. In my artistic project I experience my use of technology as being *guided* (rather than limited) *by choice*, rooted in my personal preferences, often fundamentally dependent on inner ear experience and the need for control in the act of improvisation, as mentioned earlier. These *choices* should of course be questioned continuously, and the vocabulary should be developed, adjusted and sometimes also changed.

2.4 Closing comments

There are, as mentioned above, important discourses relating to the development of new instruments and the commercial aspects of music technology. How does a new tool (con) form the music? How can we be critical and when should we be? The research on and invention of new musical instruments and interfaces in academia and art can be seen as contributors of new technology and ideas for the commercial industry, but also as a reaction towards standardisation in the field, exploring new ways of controlling and producing electronic sound. Moreover, there are ways of being critical by exploring and challenging the use of standardised equipment within the different genres (see Engum, 2012). In my artistic project I have chosen to use rather conventional equipment and also partly conventional techniques – but my outboard devices and the DAW I use were probably not produced with my kind of music in mind. My basic goal, regardless of tools and techniques, is to start from my musical motivation, not the technical possibilities involved. But as soon as a technique becomes a part of my vocabulary and musical thought, these things are not separated.

3. Voice and live electronics; new musical parameters

In this chapter, I will try to exemplify in a concrete way what I experience as being new musical parameters in my work with live electronics. These parameters are not "new" as such, but new in relation to how the voice is used in music *without* electronic processing. It is important when reading this to bear in mind that my work with the voice as a sound source is not purely electronic. What I am exploring, as a vocalist, is what I have called the *meeting* with electronic sound-processing devices and electronic sound as such, understood as the *implementation* of it in my music. In this *implementation*, the acoustic sound of the voice is an important part of the musical scenery, and it is also something that the processed sounds are always in some kind of relation to.

It has been necessary for me to try to understand and specify some of the special challenges and opportunities presented by the bare voice as a musical instrument. In light of the work by the musicologist Andreas Bergsland and others, I will reflect on how electronic processing of the voice can be interpreted as a musical play with grades of *meaning* and *real-world*-presence, and as a movement in and between so-called *zones*. In relation to the *play with grades of meaning*, I will also look at how language, words and sound are often components of my musical expression, and how I experience my own work as moving between different *zones* in this perspective. Further, I will look at what I consider to be important possibilities regarding sound processing and sampling techniques, and exemplify how I experience these as new musical parameters in my music.

3.1 The voice as an instrument

The voice has, in its capacity as a human bearer of emotional expression and semantic meaning, extraordinary qualities as an instrument. My project has been to seek out how electronic processing can change the premises for vocal performance, and the new musical and artistic possibilities that are presented by

electronic manipulation. First and foremost I have been doing this by experimenting and finding sounds and sound-processing techniques that I appreciate intuitively, due to a sound quality that I like and/or the way the new sounds function as part of the musical whole. After discovering specific sounds and techniques, I have continued to work with them, gradually internalising them as operational techniques and as a basis for intuitive choices in real time. Further, when moving away from the experimentation and practical modus, I have tried to "understand" what gives a sound character; is it interesting, appealing, useful – what makes me intuitively want to *use* a specific sound? By this I mean: what makes me want to work with it, develop it, use it in new constellations, make it a part of my vocabulary? What does the sound bring to the musical interplay and overall expression, and is it the sound as such that interests me, or rather how it relates to the experienced whole? Asking these questions has been a natural part and a consequence of my musical activity, but also necessary in my position as a research fellow.

3.1.1 Electronics and freedom with *distance*

My motivation for this project, and for working with electronics at all, is my experience of how live electronics open up new and interesting possibilities for me as a vocalist. In the improvising a cappella ensemble *Kvitretten*[30], I found it inspiring to work with acoustic extended vocal techniques in our collective improvisation, being able to both blend into and peak out of the other singers' sounds. When trying to improvise like this together with other instruments than acoustic voice(s), I found it somehow difficult to use extended vocal techniques. I felt that the voice-sound did not blend in; sounds that were intended to "make a colour" or to accompany something else, most often stood out as being "human comments" with a different focus than those that I wanted to have. During this period I had already started to experiment with electronics, and through the use of a guitar-effect machine I started to discover how transformation of the voice could

[30] Described in Section 1.5

offer a new freedom when playing drums and synthesizers in my trio BOL[31]. In my experience, the use of electronic processing brings in a new, important element in comparison with acoustic extended vocal techniques: a perceived *distance* from the natural voice sound. This distance opens up, in a *different way* than extended vocal techniques, the possibilities of interacting with other instruments. Why? The natural voice tends to draw special attention in an instrumental setting. This probably has to do with (at least) two things:

- The historical role, and therefore the audience's expectations of the singer.

- That fact that the sound of the voice is very easily recognisable with reference to the listener's own (or any human being's) voice.

I will return to discussing the role of the singer in Chapter 4, and focus here on the special qualities of the voice as a musical instrument. In his PhD thesis *Experiencing Voices in Electroacoustic Music*[32] (Bergsland, 2010), Andreas Bergsland examines the use of the voice in electroacoustic music from a listener's perspective. In his research he has focused on how humans experience the sound of the voice.

> There is little doubt that the voice has a special status for all human beings across cultures, being the primal carrier of communication, a very important one for non-verbal communication, and of course one of the primary "instruments" of musical expression. This special status is also mirrored in a perceptual sensitivity to vocal sounds, and to any meaning that these sounds may convey, be it linguistic, identity related or affective. That this sensitivity is apparent at a very early stage of our development shows its importance. (Bergsland 2010, p. 71)

Bergsland also refers to neurological research that point towards voice-sensitive areas and mechanisms in the brain. It is not surprising that the voice gets our attention before other sounds. But for me, this attention is not always wanted. If I want to blend musically into something else, or want to be a part of the music

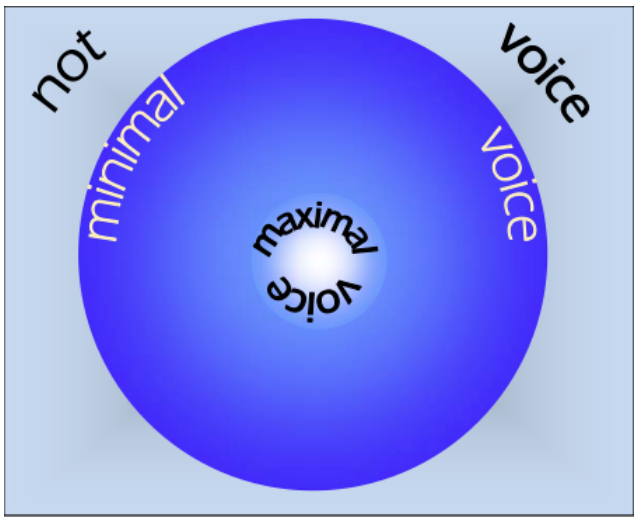
[31] Described in Section 1.5.
[32] Bergsland, Andreas: *Experiencing Voices in Electroacoustic Music,* NTNU, Trondheim 2010.

without adopting a main focus, this is a hard task for the acoustic voice. The distance from acoustic voice sound, provided by electronic processing, therefore provides new musical opportunities, through my experience.

3.1.2 Bergsland's maximum - minimum model

How can electronics change the voice as an instrument? Of course electronics cannot change the voice as such, but they can change the *sound* of it when amplified through loudspeakers. The use of electronics can also change the organisation of sounds, and as a consequence, their instrumental appearance and musical possibilities. Bergsland constructs what he calls a maximal - minimal model for analysing voice sounds in electroacoustic music.

> The second central idea in my framework is the model of maximal and minimal voice. This model sets up two poles or extremes as reference points against which the experience of different types of transformed or manipulated voices might be judged and compared, namely the *maximal* and *minimal* voice. The *maximal* voice can briefly be described as a typical informative and neutral speaking voice, resembling in many ways public broadcast voices. At the other end, the *minimal* voice is usually highly manipulated and often quite abstract, and thus defines the zone between what is voice and what is not voice. The imagined space between these two extremes is thought of as a continuum extending from a central zone, defined by the maximal voice, towards a peripheral zone, defined by the minimal voice (ibid 3).



Bergsland's Centre-periphery model of maximal and minimal voice (ibid 149)

In his model, Bergsland also breaks this continuum down into what he refers to as a set of seven *premises,* which he sees as being partly interrelated dimensions with which different vocal expressions in vocal music can be evaluated:

1. Focus of attention
2. Information density
3. Naturalness
4. Presence
5. Clarity of meaning
6. Feature salience
7. Stream integration (Ibid 142)

Bergsland sees this model as being connected to other theories that are relevant here:

- We experience a manipulated sound in relation to one that is not manipulated (Smalley and Schaeffer)
- We can describe a continuum between the concrete and reference-oriented on one side, and the abstract and sound quality-oriented on the other side. (Hoopen, Young, Chion, Emmerson) (Ibid 3,4)

For me, as a vocal improvising performer, Bergsland's model is useful when I am trying to understand my intuitive actions. I experience a play with "distance - nearness" in my work relating to this continuum, where the maximum, natural voice is the *central zone*, and the highly processed voice is the *peripheral zone*. Further, his premises are not only concerned with a sound's quality, but also, in the last two premises: how it appears in the whole musical picture. *Feature salience* is about how vocal sounds "stand out" perceptually, both for themselves and in relation to other sound features. *Stream integration* indicates how the voice is integrated into one coherent and continuous sound stream. (Ibid: 142)

Looking at my music in the light of this model, I see that the model describes important aspects of what I am playing with. It is also clear to me that this model shows how the voice is very different from other musical instruments through the premises of *Naturalness* and *Clarity of meaning*. I see that this model could be used as a tool for analysing my music in a more theoretical way. Rather than providing a detailed analysis (which would be a big theoretical task since the play with these premises exists in an interweaved whole), I will be using the model more freely as a reference and tool for understanding some important aspects of my work.

I will try to show how Bergsland's seven premises are able to describe musical parameters in my work:

Example III, 1: "Raised, rave" from the CD *Voxpheria* (2012) with Thomas Strønen:

http://soundcloud.com/tone-se/08-raised-rave-m-1/s-ppu7k

For the first 3 minutes I work within a continuum between natural voice sounds on one side and different processed and sampled sounds (and reverbs) on the other. I am play, among other things, with degrees of *Naturalness* and *Presence*. The most processed sound comes from the plug-in synth *Hadron* (see Chapter 2), while some of the "sliced up" sounds, are produced by using effects in the *Roland SP555* (see Chapter 2). Due to the character of the interplay, in this part very transparent through the use of silence/"stops" between the impulses, it is still easy to recognise much of the voice sound as *voice*, except for the Hadron pulse (*Information density*, *Focus of attention* and *Feature Salience,* as described above).

Towards the end of the session, (8.38) there is a sequence where the only voice present is a sampled loop processed with granular synthesis, pitched down and filtered through a MaxMSP patch (the *G/F patch*, see Chapter 2). I use the same combination of techniques a bit earlier (6.41). Here I am in the *peripheral zone*; the voice is less recognisable and also more mixed with Thomas's sounds (*Stream integration*, as described above).

At 3.05, a "text" is introduced, a kind of Dadaistic improvisation with word-like sounds. The only clear word in this section is the word "raised", and maybe the word "rave". This was not intended as *meaning*, but popped up as a part of the improvisation. (The title of the piece is created afterwards.) This is a play with Bergsland's premise of *Clarity of meaning* as I see it. The use of something "language-like" has a special energy because it is associated with *meaning* – at least for me, being a performer capable of delivering a text in a more traditional setting. I experience a distinct difference between textually related vocalising and more abstract sound-sculpting or "instrumental" singing.

3.2 The voice as a communicator of meaning and emotion

As stated earlier, the voice's status as bearer of meaning in our daily lives, both in verbal and non-verbal communication, gives it a very special position compared to other musical instruments. I see this both as a great possibility and a challenge: the possibilities of expression connected to different types and grades of *meaning* in a musical context are immense. The challenge, on the other hand, is that this *meaning* may be hard to escape.

3.2.1 Challenges

I have already mentioned the – from my experience – unwanted attention the voice can get (when wanting to blend rather than taking focus). Even if the vocal performer's focus is *sound*, not *meaning*, this can easily happen due to the human orientation towards the voice as a communication source, as stated earlier. I will return to the challenge of *blending in* elsewhere, and focus on a slightly different, but still very connected challenge: the easy access to meaning and emotion that lies in the performer's natural or *real world* vocabulary. By this I mean the arsenal of non-textual communication-sounds. This has also become very obvious to me through my teaching practice. I regularly use free improvisation with the voice as part of my method, for all students, not only singers. It is difficult to avoid

"theatrical" developments in the first sessions of vocal improvisation if there is no outspoken rule against it presented before the exercise. (And even *with* an outspoken rule it can be difficult…) The students often delve into sighing, crying, shouting, laughing, imitating motors and a dog barking, etc… Much of our natural non-verbal vocabulary is connected to the expression of emotions, or imitating *real world* sounds, sounds that *mean* or *represent* something in this world. This part of our vocabulary is of course also important in art forms like sound poetry, vocal performance art and contemporary vocal music. One example is Cathy Berberian's "Stripsody"[33], with its emotional outbursts and "cartoon-onomatopoetic" sounds. I experience that the connection to meaning or emotion in voice uttering is sometimes difficult to control. As an example, there is a thin line separating the possible understandings of a "neutral" breathing sound; is it an expression of fear, of surprise or of sexual pleasure? Being a vocal performer I experience a challenge here, a need for awareness, in relation to what I want to express with my music. For me, the use of electronics is one way to overcome these challenges, by "disguising" the traces of emotional input, or making the expression ambiguous by blurring, mechanising, "rhythmising", minimising or adding something to, the natural voice sound.

Example III, 2:"Thhh", studio improvisation with Michael Duch 2011

http://soundcloud.com/tone-se/se-duch-thhh/s-4CVPj

From the start of the sequence I am working with breath sounds in different ways. The first sound is a pre-sampled sound from my Roland SP555. At 0.17, I use natural/acoustic breaths, which I also sample as Hadron-loops. At 0.46 I use the Roland-sample and the processed Hadron-loops at the same time. Breath sounds is my main material for the first 46 sec. of this improvisation, and the use of

[33] "*magnifiCathy – the many voices of Cathy Berberian*" ,Wergo Scallplatten 1971/1988, West Germany

electronics makes it possible to vary the material and blur, or even erase, the emotional expression in parts of it.

3.2.2 Possibilities

The *challenges* of the voice instrument are, as earlier stated, closely connected to the *possibilities* of the voice instrument. The easy access to *meaning* even includes the possibility to use words and language with semantic meaning. Composers and artists have, over the years, explored the interesting range in vocal interpretation from intelligible meaning to sonic abstraction.

The voice as a real world experience

In her book entitled *Playing with words: the spoken word in artistic practice* (Lane, 2008), Cathy Lane has collected articles by several performers, composers and academics, who focus on use of 'spoken word' as artistic material in different ways. Many of the contributors think of voice sound and the use of words as a link to the *real world* in contrast to *abstract music*.

> Another thing that interested me […] was the sound of informal, unrehearsed speech, conversational speech. This is in reaction to artificial sung speech, and also was an attempt to infuse sounds of ordinary, everyday life with the magic of music.[34] (Paul Lansky, 2008, 108)

> As a composer, working mainly with recorded sound, I was initially attracted to "playing with words" because they provided a link between the abstract languages of music and "real world" experience [35]. (Cathy Lane 2008, 8)

What constitutes *real world*, or the *real world experience,* in voice sound? For me, it would seem that the experience of *meaning* in voice sound has something to do with the experience of *real world*. Meaning can be experienced in several ways and

[34] Lansky, Paul: *Interview by Cathy Lane*, in Lane, Cathy, ed.: *Playing with words - the spoken word in artistic practice*, CRiSAP/RGAP, London/Manchester 2008.
[35] Lane, Cathy: Introduction: act of translations, in Lane, Cathy, ed.: *Playing with words - the spoken word in artistic practice*, CRiSAP/RGAP, London/Manchester 2008.

as many nuances. It seems reasonable to think that the highest clarity of meaning comes with verbal/textual utterances, with intelligibly spoken words, presented in a clear, natural way, as with a good radio voice. Still, one could argue that non-verbal, but easy recognisable, sounds or expressions referring to concrete emotions (screaming) or phenomena (engines, dogs barking,) could provide the listener with equally meaningful information as words do. So *clarity in meaning* is not easy to define. This is also reflected in Bergsland's writings on the premises of his maximum – minimum model (Bergsland 2010, 270). Bergsland points, among other things, to the importance of the *context* in this regard.

I will not elaborate further on definitions or discussion of these terms here, but I will share my own experiences of listening to and producing music. I tend to experience *meaning* and the *real world* as overlapping qualities within the same vocal expression. Further, when I talk about creating "distance" through the use of electronics, I think that these two terms are useful when describing what I experience a distance *from.*

3.2.3 Playing with zones

Bergsland's *natural* premise and *central zone*, and Lane's *real-world experience*, seem to overlap, to some extent. It seems that Bergsland's natural premise is somewhat stronger; you can probably move away from the intelligibly speaking radio voice and still perceive a voice sound as a *real world* sound. Still, the movement from the *central zone* towards the *peripheral zone* is also, for me, experienced as moving from the *real world* towards a more *abstract world*. The range between these two zones or 'worlds', and the potential for play within it, is something that I recognise as being a musical parameter in my own work. I will exemplify this by looking at the improvisation "Spring is like a perhaps hand" and focusing on these zones.

Example III, 3: "Spring is like a perhaps hand", from the CD *Numb, number* BOL + Snah & Westerhus 2012

http://soundcloud.com/tone-se/spring-is-like-a-perhaps-hand/s-80mdG

This improvisation has a text, a poem by E.E. Cummins, as a starting point. I work with the words of the text in four different ways:

- 0.20: The text (*meaning*) spoken in a natural *real world* mode, a *central zone.*
- 1.18 A more sound-oriented use of the text, repeating it, reciting it more rapidly and floating, and also using a pitch-shift effect that makes it less natural, less meaningful, and more *peripheral*.
- 2.07 A more traditional, musical element: a melodic "refrain" using a repeated line from the text (*meaning*). Using unnatural pitch-shifting, and singing the words instead of talking, I experience this as a step away from the natural/*real world*. I am somewhere between; moving towards the *peripheral*, but still with a very recognisable voice sound.
- 4.02 A whispered *natural* text (*meaning*) brought "close" by using a compressor, resembles the *real world*, moving towards the *central zone*.

This improvisation, in my experience, moves between different zones/worlds, and with a varied perception of text/meaning throughout the piece. It is obvious that this improvisation would be very different without my use of effects and a compressor. It is also clear that the use of effects cannot be understood as an isolated parameter, but is strongly interrelated with how I use my voice. Finally, the interplay with the band is of great importance as regards both the choice of sounds and the way I use my voice. Still, it is clear to me that the experience of unnaturalness, or abstraction, and also the experience of *nearness*, relates to the perceived *meaning* and *real world*.

3.3 Words as meaning and words as sound

Many of the artists in Cathy Lane's book describe their experiences of *language as musical sound* - especially when they do not understand the meaning of the words (Jaap Blonk, Oliver Brown, Michael Vincent, Leigh Landy)(see Lane 2008). Language as musical sound is something I recognise as being another musical parameter in my work (though it is strongly related to the play with zones). I observe the use of five main techniques when working with text or language as sound:

1. Natural speaking or reciting text.

2. Singing text.

3. Repeating text.

4. Using "text"; sounds without semantic meaning, but "sounding like text".

5. Processing the sound of the spoken or sung text or "text".

1. Speaking or reciting naturally can correspond to Bergsland's *central zone*, although there are many degrees of intelligibility, depending on the text itself, how it is performed and what place it has in the musical whole (*feature salience*).

2. From my experience, *singing* the text involves an *abstraction* from *meaning*. It could also involve a *change* of meaning when compared to speech. The degree of abstraction varies with the way the text is sung. There is, for instance, a big gap between the recitative-like and text-near, and the more complex melodies.

3. Repeating text, both in real time and with sampling, can gradually reduce/transform it from *meaning* to sound. (I will return to this in Chapter 4.)

4. When describing my music I often use terms such as ”text” and ”word-like”. I speak or sing, it sounds like language, but it has no semantic meaning. I experience this type of expression as “having a hint of meaning”; it sounds *as if* I mean something concrete. This definitely adds something else when compared to working with pure *sound-sculpting*, *vocalising* or using text with semantic meaning.

5. Processing the sound of spoken or sung text can change it slightly (reverb, flanger) from the natural, or change it dramatically (granular synthesis, big changes in pitch) – and in the grades between. In my experience, the sounds' quality as being meaningful can often be present even if the processing is strong.

I will give an example of how I use these techniques in an excerpt from a live performance with my trio, BOL:

Example III, 4: Excerpt from “Skylab Audiovision”, live at Verkstedhallen, Trondheim, September 2009. The text is from the poem Skylab (Rolf Jacobsen, translation by Roger Greenwald).

http://soundcloud.com/tone-se/bol-excerpt-1-skylab/s-478iL

Here I register the main techniques listed above, except for no. 1, the natural speech:

- 0.03: Whispering/‟talking”/singing with *Ring Modulator-effect* (Roland SP555) with low amplitude, blending with the other instruments – “word like”, a hint of *meaning/real world*, but towards the *peripheral zone*.
- 0.48: Sampling something “word-like”, creating a loop and processing in with *G/F patch* in MaxMSP (granular synthesis with variations made by frequency filter control, see Chapter 2); *peripheral zone*, but still with a hint of *meaning/real world*, even when heavily processed.
- 1.44: Singing with a full, and almost natural voice, with words. I think of this as being *close to* the *central zone* (*natural* sound and *meaning*, but also *abstract* because I am singing, not speaking).

- 2.04 Repeating a text phrase, sung with a natural voice, sampling parts and playing back the samples repeatedly, in layers. I experience this first as being close to the *central zone*, singing words with a "natural" voice. The repetition of words (samples in loops) gradually changes them from *meaning* into *sound,* moving further away from the *central zone.*

3.4 Sound quality as a musical parameter

As discussed, changing the voice's sound and function by using electronic processing can be experienced as a musical play with distance and nearness. This *distance - nearness* play can, as demonstrated above, be seen as taking place in the range between a *central zone* (*meaning* and *real world)*, and a *peripheral zone*, represented by a more abstract sound- world.

For me, the "play with the experience of reality" is, most often, not planned or reflected on, but comes as a result of improvising with musical material, from experimenting with sounds and making intuitive choices. These choices are based on the total experience of the music, either in a solo performance or in the interplay with others. The quality of the sounds I produce is often a musical trigger, causing the next event, similar to how a rhythm, a melody, a text or someone else's sound can create a musical idea or response in me. This is also how Thomas Strønen describes our interplay: " I often feel that the sounds you choose trigger an impulse and sound from me, and these sounds together becomes a common idea that we develop further in the interplay".

By observing my own work, I find that through my practice I have developed a vocabulary, a set of techniques that I favour. Even though *sound quality* is not an isolated parameter in music, it is useful to examine in a more concrete way how I experience and use different types of processed voice sound, with a focus on the *sound* as such. Compared to 'playing with zones', this approach is a more instrumental, and some of this thinking might therefore also be more adaptable to

musicians working with electronic processing using other instruments. Still, it is clear, by examining these sounds and techniques, that the usage very often involves a 'play with zones'. However, it is also possible that some of the techniques, especially those relating to the use of reverb and "placing" the sound, as well as the use of sampling, will have relevance for an instrumentalist.

3.4.1 Experiential categories of processed voice sound

As discussed in Chapter 2, the choices made in the improvised interplay are (mainly) based on an "inner ear" experience of the sound prior to the musical action. For me, a grouping of sounds and techniques in categories is one way of structuring the possible choices. Being a musician and not a music technologist, I am more interested in the sounding *result* of different types of sound processing than the technology involved. I find myself working with four main categories for manipulating voice-sound. These are *experiential* categories – based on how I *experience* the sound quality:

- (a) Broadening: adding something to the voice
- (b) Narrowing: filtering the frequencies of the voice
- (c) Placing: putting the voice in different rooms/spaces and distances
- (d) Reconstructing: changing the voice sound more substantially

(a) Broadening: adding something to the voice

Example III, 5: "Numb Street Cabaret" with Thomas Strønen - from the CD *Voxpheria* (2012).

http://soundcloud.com/tone-se/se-str-nen-numb-street-cabaret/s-IIxTm

From the start to 2.52: I am using a "cluster"; a pitch shifter effect that I have programmed on the Lexicon (see Chapter 2), by adding two close notes to the original sung note. (This is also the effect I use in the example "*Spring is like a perhaps hand" in* Section 3.2.3) This makes the voice broader, and more unnatural. It also triggers, here, a way of singing that is theatrical, and it sounds a bit absurd. This inflects the musical idea for the whole expression, I think.

One variant of broadening includes a tonal/harmonic focus. This happens when the interval between the voice and the added pitch is increased above the second, especially with consonant intervals – and if there is a melodic or tonal focus.

Example III, 6: Excerpt from a version of "Mercy Street" (Peter Gabriel), studio recording with Krister Jonsson and Per Oddvar Johansen, 2009.

http://soundcloud.com/tone-se/excerpt-mercy-street-peter/s-nQSi1

Here I am using another pitch shifter effect programmed on the Lexicon, adding a 5th under, for tonal reasons as well as for the broadening effect.

I would like to compare this with a non- tonal focus:

Example III, 7: Excerpt from "Western Wind" from the CD *Numb, number* (2012), BOL + Hans Magnus Ryan and Stian Westerhus.

http://soundcloud.com/tone-se/example-use-of-broadening/s-ILPkU

Here I use the same effect as above, but with a speaking voice.

Example III, 8 : Solo part from "Singing again" from the CD *Numb, number* (2012), BOL + Hans Magnus Ryan and Stian Westerhus.

http://soundcloud.com/tone-se/solo-its-singig/s-9ZB4V

I use a "slicer" effect, "cutting up" the sung note (from the Roland SP 555). I balance the clean signal and the processed signal so that the effect is in focus. This is an overdub done in studio, after first doing a take with a more acoustic solo that did not work too well with the music. The use of a slicer effect created a kind of mechanical vibrato that allowed a more instrumental, sound- focused approach. This connected better with the guitars.

In all these examples, I experience the voice-sound as becoming richer and broader, and at the same time less direct due to the unnaturalness. This is something that I experience with different pitch-shifter modes, and also with effects like flanger, chorus and reverse delay, etc.

(b) Narrowing: filtering the frequencies of the voice

The term 'narrowing', points towards my experience of *reduction* of the voice sound working with frequency filters.

Example III, 9: "Numb Street Cabaret" with Thomas Strønen - from the CD "Voxpheria" (2012):

http://soundcloud.com/tone-se/se-str-nen-numb-street-cabaret/s-IIxTm

At 2.52 I use an EQ/filter-effect (Roland SP 555) and a compressor to create a radio-like voice. The filter removes lower frequencies and adds more of the upper middle frequencies. I find it interesting to see how removing low frequencies can make the voice seem "closer", more insisting and more important. Could one of the reasons for this be that we are used to receiving important information (airports, trains, fire alarms, rehearsals, etc.) on very bad sound systems which lack low frequencies? Or is it because of the reference to radio or telephone sound; someone far away, but still close to you ear? The compressor makes the consonants very clear, small sounds are amplified and the voice seems to be very close - it resembles whispering, which is often meant to be important and is just for you to hear (personal).

Example III, 10: Excerpt from "Waiting time", from the CD *Numb, number* (2012), BOL + Hans Magnus Ryan and Stian Westerhus.

http://soundcloud.com/tone-se/excerpt-waiting-time/s-B93bh

From 0.39 I use the same type of filtering and compressing as above, on my singing. I experience, again, that this technique makes the voice sound "closer",even though it is unnatural and not *real world*. This 'sound' is also inspired by what I think of as the "Stina Nordenstam-sound" (see 1.5.5). I also register that when I use filtering on my voice in real time, I am often enhancing the upper middle-tone area, while I tend to bring out the low frequencies when I filter

sampled sounds. I probably use the upper middle tone filtering to make my real-time voice more *present*, while I often use the filter to *vary* sampled sounds and therefore use a wider frequency range, also including lower frequencies.

(c) Placing: putting the voice in different rooms/spaces and distances

By using different kinds of reverbs, delays and compressors, the voice sound can be *put in different rooms*, and be experienced as though it is coming *from different distances* in the musical scenery. This inflects the experience of room and space in the musical expression as a whole.

Example III, 11: "When what" improvised studio session with percussionist Marilyn Mazur, Copenhagen 2011:

http://soundcloud.com/tone-se/when-what/s-yZeXi

Throughout the session the percussion is "placed" in a medium "distant" room, while the voice has various "spatial placements". The pre-samples I use at the start are experienced as being a little bit closer than the percussion, and the natural voice as being much closer, by using – among other things – less reverb. At 3.37 I change from relatively "close" natural voice sound, to – by using a longer reverb – making it more distant, and sampling phrases that stay in this more distant place due to the use of the reverb. The whistling sound towards the end is also placed in this more distant area. I experience the placing of the voice as being a musical parameter here.

Example III, 12: Excerpt from "Udu", studio improvisation with Marilyn Mazur 2011.

http://soundcloud.com/tone-se/udu-impro/s-Fot90

Here, I work with a talking voice with a short reverb ("dry"), a whispering voice with a long reverb ("wet") and thereafter a "wet" singing voice. Since the percussion also has a long reverb, the "dry" talking establishes a spatial reference giving perspective to the experience of the total space.

(d) Reconstructing: changing the voice sound more substantially

This is the widest category in the sense that the various techniques can sound very different from each other. Examples of these techniques are:

- Granular synthesis in Max MSP
- The use of different states in the Hadron
- The more extreme effects on the Roland SP555
  (like the DJFX-looper and the Ring Modulator-effect)

(All of these techniques and machines are described in Chapter 2.)

Granular synthesis and filtering in MaxMSP

I use a custom-made Granular/Filter-patch (*G/F patch*) programmed in MaxMSP (see Chapter 2). Vocals with granular synthesis sounds very different to what I can create with my other effect-machines. One major difference is that I can create random variations, both regarding the granulating process and the filtering. This makes it possible to work with loops that are constantly changing "on their own". I experience the processed loops as being *organic* rather than *static* (this can solve some of the challenges with looping, which I will mention later). Sometimes the use of the *G/F patch* gives a sensation of playing with someone else; choices are being made outside my realm. The patch has a lot of possibilities, and in the following I will provide examples of some of them.

I use the G/F patch to create accompanying layers or an underlying "fundament" in my music. Very often the voice is not, or hardly, recognisable as the source of the sound (at least to people not familiar with this type of processing). I experience that granular synthesis can give some very organic-sounding variations. I will return to example no. III, 12, the "Udu" session with Marilyn Mazur:

http://soundcloud.com/tone-se/udu-impro/s-Fot90

An important musical fundament for this session is a sample of short sounds made with the lips, processed through the G/F patch, with short *grains* and varying *density*. I am attracted to the way it *sounds*, and how it – in a minimalistic way – changes all the time, by the stream of short grains with varying *density* and *deviation*. The sound immediately led Marilyn to choose the *udu* as a matching instrument.

I also use the G/F patch to create tonal fundaments:

Example III, 13: "Grains" with Thomas Strønen, from the CD *Voxpheria* (2012):

http://soundcloud.com/tone-se/grains/s-zCNX4

The processed loops define the tonal fundament, and they are also an important timbral element, giving the piece a certain colour. At 1.49 I sample a sung note for a loop in the G/F patch, where the pitch is set to an octave +4th below the original note. Between here and 2.54, I sample this down-pitched loop on the Repeater loop-machine, and then at 2.54 I transpose the processed loop up a 4th in order to have a broader tonal fundament that I can vary. Without the granular synthesis, this would sound like "a singer accompanying herself with pitched voice-loops", but in this way the loop acquires an instrumental character. Again, it is also the *sound* in itself that attracts me. The way the sound is transformed by the synthesis and varied through the filters in the G/F patch makes it very different to the sound of the pure voice. The connection between the first sung note and the repeated sample is not very obvious, and this takes away the focus from the looping technique as an "effect". The tonal layers "grow out of nothing". I also use the G/F patch for loops without a specific tonal focus:

Example III, 14: Excerpt from solo performance " Eugenie – short stories of sound", live at the Ultima Oslo Contemporary Music Festival 2011:

http://soundcloud.com/tone-se/excerpt-solo-performance/s-hxdBv

At 0.07 I use a sampled loop with no tonal focus, in a low pitch, with longer grains and a lower density. This creates a deep and "disturbing" sound-layer. The irregular random fluctuation and density of sound impulses make it "alive".

Example III, 15: "Numb", from the CD *Numb, number* (2012), BOL + Snah & Westerhus :

http://soundcloud.com/tone-se/numb-unmastered/s-kTatV

Here, at 2.19 and 3.07, I use granular synthesis of spoken words (not heard as *words*, but sometimes as word-like), as a textural "sound-shower", which I experience as being connected to the spoken samples that are used from the start.

Hadron plug-in synth in Ableton Live

The Hadron is my newest device and is still something that I am exploring. (see Chapter 2). What has attracted me so far, but which also is a challenge, is how it creates a very *different* output compared to what I produce with other devices. To me it sounds very "digital". What I have used in the Hadron is the possibility of making a pulsating, highly processed sound-layer from vocal samples. It sounds different to what I can do with the DJFX-looper on the Roland SP555 (which has some similarities; it can create a pulsating, processed sound from a sample and change it by pitch modulation and tempo). The Hadron-pulse, which I often combine with various plug-in filters in Ableton Live, can be varied in many more ways than the Roland effect, but it is also more unpredictable and complex, as discussed in Chapter 2. Still, trying to implement the very different sound quality in the Hadron is interesting; I want to examine further what it can bring into my vocabulary. Up until now, I have been using the pulsating effect in some improvisations:

Example III, 16: "Thhh" (again), with Michael Duch:

http://soundcloud.com/tone-se/se-duch-thhh/s-4CVPj

I use the Hadron pulse as a returning element during the first part (until 4.55), starting with sampling breath sounds in 0.17 and at 0.45 entering the pulse for the first time. For me it has two main functions: contrast and energy. It sounds very "machine-like", in contrast to the other sounds, especially the acoustic bass. The pulse gives the music a movement, not necessarily "forward", but adding something more rapid and continuous into a kind of "punctuated" interplay.

Example III, 17: "Raised, Rave " (again), with Thomas Strønen:

http://soundcloud.com/tone-se/08-raised-rave-m-1/s-ppu7k

I use the Hadron pulse (1.34) here very much in the same way as in the last example, as a returning element, contrasting the rest of the sound picture (although not contrasting as much as in the example with the acoustic bass,) and bringing in a continuum moving in and out of the, in general, abrupt expression of the piece.

Roland SP555 – "extreme effects"

The Roland SP555 sampler (link) has a lot of built-in effects, and some of them have become part of my musical vocabulary. When I think of effects as *reconstructing* the voice, I mean that they make the voice sound like "not voice" or "something else than voice" to a certain degree. The sound relies of course very much on how you balance the effect with the clean input signal: distortion/fuzz can be subtle, adding spice to the voice, or it can sound very alien if you turn down the original vocal input in the live mix. I will exemplify two of the effects I often use, effects that give me an impression of a "reconstructed voice": the DJFX-looper and the Ring Modulator.

The DJFX-looper

Example III, 18: Excerpt from the solo performance "Eugenie – short stories of sound", live at the Ultima Oslo Contemporary Music Festival 2011:

http://soundcloud.com/tone-se/excerpt-solo-performance/s-hxdBv

From 1.07, I use the Roland DJFX-looper, like I often do when working with noisy parts. It has several functions and controllers: looping a fraction of the input and repeating it, changing the pitch of the voice or the repeated fraction, and changing the tempo of the repetition. It functions, for me, as a means of creating a powerful and sometimes aggressive expression. It is voice and "not voice" at the same time, often giving a feeling of the voice trying to "break through" or being "broken down" by something powerful.

Here is another example, where I use it in a much more moderate way:

Example III, 19: "Raised, Rave" with Thomas Strønen, again:

http://soundcloud.com/tone-se/08-raised-rave-m-1/s-ppu7k

Here, I use the effect in a less "dramatic" way, picking up some phrase endings and samples at the beginning (from 0.07) and then repeating fractions of some of the phrases (from 2.02). The "machine-like" effect are important, providing a surprising, contrasting and abstract element, especially when compared to the natural voice.

The Ring Modulator-effect

Example III, 20: BOL: Excerpt from "Nature is not Beautiful", live performance at Teaterhuset Avant Garden, Trondheim, 2011:

http://soundcloud.com/tone-se/excerpt-bol-nature-is-not/s-u87WS

I use the Ring Modulator-effect on the Roland SP555 with "word-like" speech .The acoustic voice sound is heard, but rather distant, sometimes only through the reverb. I experience that the sound of the Ring Modulator "reconstructs" my voice into sounding like something else. The effect creates a kind of fragile, transparent and distant expression using this type of vocals as an input signal.

The mix of categories

The different experiential categories can, and will, of course, be mixed in different ways. The processed sound, *broadened*, *narrowed* or *reconstructed*, always has a defined position in the musical space, by the use of reverb (or lack of it), perhaps a delay and/or compression. The *broadened* or *reconstructed* voice sound can be *narrowed* with a filter and the *broadened* sound can be *reconstructed*, and so on. Working with a mixer, I have the choice of balancing and blending the amount of processed and natural sound in different ways. The balance between unprocessed and processed voice sound, the shifts and the cross-fading, are also musical parameters, related to the *play with zones*, to the whole sound-scenery and the structural elements of the music.

3.5 Sampled sound/sampling as a musical parameter

When I obtained my first loop-machine in 1992, a new world of possibilities opened up for me – with their respective challenges. I will return to these challenges after first having exemplified what I experience as being important musical possibilities in sampling techniques when compared to working with the voice alone. The possibilities are very often connected and intertwined with the overall musical activity, and in my work they are also often combined with different categories of processed sound and the *play with zones*. I register three important possibilities concerning sampling:

-Sustained sound and repetition

-Multiple layers

-A library of sounds

Sustained sound and repetition

The options for making the sound last, without producing it repeatedly in real time, represent a dramatic change for any instrumentalist. For the vocalist, in particular, due to "unwanted attention" (see Section 3.1.1), they also create a welcome opportunity for physically keeping away from the microphone and thereby directing the audience's focus on the sound rather than the person producing it. At the same time, listening to a recording of the voice automatically creates a distance to the performer because the recording is not in *real time* (it has been performed already) and the sound is coming from a machine rather than from the performer. This play with live and recorded voice is also an element used in the works of Maja Ratkje:

> It is interesting that a recording containing both sampled and "live" voice sounds is perceived differently compared to a concert situation where the audience actually sees what is done live with the voice and not. In some ways, the sounds in a piece coexist more on "equal terms" in a recording. I like to play with the possibilities the recording gives, with the ambiguity of not knowing what is what, and leaving out the explanation so the listeners have to use their own imagination. People are often surprised hearing music like this live after getting accustomed to the sound of the recording. This is especially noticeable when performing in groups with other instrumentalists, when no-one expects "that sound", being electronically processed or not, coming from the singer.
> (Maja Ratkje in correspondence, 2012)

Due to this experience of *past and present*, sampling and playing back in real time also becomes an important part of the play with *distance* and *central/peripheral zones*.

Example III, 21: Excerpt from "Heilaloo", Tone Åse/Thomas Strønen from the CD *Voxpheria* 2011:

http://soundcloud.com/tone-se/example-looping-heilaloo/s-VN33S

At 0.41: I fade in (for a short while) two sampled loops from earlier on in the same session, one from singing (played in reverse) and one from recording a flanger effect. From 1.21 these loops are present for a longer period, first functioning as an accompaniment, and then becoming the main musical material, together with Thomas's noise-sounds.

There are several elements here identifying the loops as being recorded sound rather than real-time singing. First and foremost because of the obvious repetition, but also because of the way they are faded in and out, and not at least because I am singing something else at the same time the second time they appear.

Example III, 22: "Raised, rave" (again) from the CD *Voxpheria* (2011) with Thomas Strønen:

http://soundcloud.com/tone-se/08-raised-rave-m-1/s-ppu7k

At 3.39: I sample a loop with "text", and at 4.20 I sample tonal material, which is played together with the "text" loop while I sing on top of it. The samples are used in different lengths and with varying volume several times during the full sequence, and at 7.24 they appear for the last time.

Repeating something that has taken place earlier on in the music can also be done with the acoustic voice. For example: the refrain of a song is a recognised way of making repetition in real time. In my experience, the repetition of live-recorded sound may cause a different effect, because, as mentioned earlier, it is (in most cases) obvious that this material has already been recorded; it is recalling a former event, but in a new context; it is history given a new function. This, to me, gives the use of recorded samples a genuine and independent musical potential, an element with possible references to timeline and memory.

Multiple layers

Sampling and performing multiple layers of sound is radically different from the traditional way of performing on acoustic or half-acoustic instruments with the

original capacity of producing one note at a time. This allows more complex constellations of sounds, but also other harmonic and homogenous sound-constellations. I use sampled loops and layers in various ways, depending on the quality of the music. The "text - melody" loop in the example provided above is a typical thing for me to do, and continuing to "play with the loop" and act on the sounds I just recorded (like at 3.58) is typical as well. The option for balancing the amplitude of the individual layers with the loop-machine provides an opportunity for varying the "result-loop" as a whole.

A library of sounds

Another radical change compared to the traditional acoustic vocalist scenario, is the opportunity for creating and storing sound-samples prior to a concert. I register that I use pre-recorded sounds in two different ways: as designed parts of planned, partly composed sessions, and as possible sound-sources in improvised sessions.

Sound samples designed for planned, partly composed music – examples

Example III, 23: Excerpt from "Eugenie – short stories of sound", live at Ultima, 2011:

http://soundcloud.com/tone-se/excerpt-ultima-2-presamples/s-3jEG9

For this solo project, I have sampled several sounds that are used both as planned compositional elements and as material for improvising. Most of the samples here are created for specific parts of the whole performance, but I use them in an improvised way. Some of the samples can be put into various parts of the performance, in addition to the parts they are designed for. In this project I work with a story about my late grandmother, and some of the samples are filtered, spoken phrases, my voice with her typical expressions, in her dialect. Other pre-recorded samples are short musical phrases, some non-tonal sounds of a different character, and also some samples with "laughter-inspired" sounds.

Example III, 24: Excerpt from "Nature is not Beautiful", Avant Garden, Trondheim, 2011:

http://vimeo.com/35372650

In my latest project with BOL, "Nature is not Beautiful", I have used recordings of two other persons' voices. The text recorded has been created especially for the performance and constitutes the main structure as well as an inspirational starting point for musical ideas. The use of these samples is not improvised, but more like a playback device, where my timing is the parameter of variation. I am not really *playing* with the samples, except in the last session of the performance, where I recall some of the text samples and use them, sometimes simultaneously, as part of the music. The use of text samples in this piece is not only an attempt to create a, for us, new structural framework. To repeatedly hear someone's voice without seeing the person on stage, also creates an experience of a "coexisting reality", a "parallel world", or perhaps a "real world", present, but still not visually present.

Example III, 25 "Numb" (again), Bol with Snah & Stian Westerhus 2011:

http://soundcloud.com/tone-se/numb10102011/s-4hP0s

Here, I have sampled spoken text phrases from a dictionary (explanations of the term 'numb'). I wanted the text to sound relatively "flat", reflecting the somewhat stiff formality of the source material, but also, in a way, the word's *meaning*. I also wanted the opportunity to create *distance*, by using a machine, not my voice in real time. I wanted the opportunity to *play* with the samples, creating a layer that took on a kind of "lead" function, commented by a kind of *real- world* vocalist singing on top.

Sound-samples as a source in improvised sessions

Example III, 26: Excerpt from a live performance with Thomas Strønen, Dokkhuset, Trondheim, 2009:

http://vimeo.com/18423184

In this sequence I use (among other things) pre-sampled sounds as part of the improvisation, where we both play with different impulses, lengths of delays and stops. The samples are processed through various effects and reverbs, and it is not obvious what is pre-recorded and what is not, or what is coming from me and what is coming from Thomas. This also inflects the experience of roles in the interplay, as I will explain further in Chapter 4.

Example III, 27: "Moah", studio improvisation with Michael Duch, Trondheim, 2009:

http://soundcloud.com/tone-se/tone-og-michael-1-moah-mix/s-jGdYt

From 0.26 I use a pre- sampled "text" or *speech* in reverse, and I vary it with frequency filtering with the intention of making a contrasting sound, breaking the surface of the longer lines and smoother sounds in the piece.

Intuitive use of pre-sampled sounds

In order to work in a musical way with pre-sampled sounds in improvisations, I have to know what sounds I have in store, and where they are placed on the sampler. By *knowing* the sounds I mean that I need to *hear them with my inner ear* in order to imagine them as musical components in the moment. (This is also discussed in Chapter 2.) I have thought of different ways of organising the sounds in order to make this process easy and natural and to be able to act instantly and intuitively. What seems to work best for me is a grouping of sounds that I feel works together. I think of these as different "palettes" that I know well. To store

two or three sounds that are slightly different close to each other, also provides an opportunity for variation within the same "sound-landscape". I also operate with different sample setups on different memory cards, depending on what kind of musical constellation or project I am going to perform in. I also have to rehearse, and I need to go through the sounds in order to locate them in my mind and in my fingers before each performance.

3.6 Concluding comments

The play with zones

Working with live electronics makes it possible to manipulate *nearness* and *naturalness* in respect of how the sound of the voice is perceived. I experience this as a play with the *zones* that Bergsland suggests, constituting a continuum between *maximal* and *minimal* voice (Bergsland, 2010). I can also relate to this as a play with the concept of *real world* (Lane, 2008, Lansky, 2008). For me, the *real world experience* is connected to the experience of *meaning and naturalness* in voice sound. It is therefore perceived as being part of the continuum that Bergsland suggests, with *clarity of meaning* and naturalness as defining premises. The variable experience *of meaning* shows us how words and linguistics can play an important part, not only by introducing semantics, but also by *the act of speaking*, using "text" as sound, not as meaning.

The play with zones is, as I see it, a creative field that is not only natural, but also almost unavoidable when working with voice and live electronics. For me, this play widens the range of expressional possibilities available in music. It is important to emphasise that many aspects of this play can also be a part of performing with the acoustic voice alone, but as I see it, live electronics widen the possible range of this continuum. It is also important to see this play not as an isolated activity defined by the vocalist in a musical setting, but as a result of how

the musical interplay is working as a whole (the solo performance being an exception of course).

Experiential categories of processed sound

By undertaking an experiential categorisation of the processed sounds that I use, I find the terms *broadening*, *narrowing*, *placing* and *reconstructing* (see Section3.4.1) to be *useful*. These terms seem to reflect, in a broad way, my four main "working areas" – areas that are most often intertwined with each other. Although "instrumental" terms, the *quality* of sound is always in some ways related to, and very often an important part of, the *play with zones*.

Loop-machine and sampler –some strategies

Looping: limitations, challenges and means for overcoming them

Most loop machines are constructed for, and often used as, musical tools for building metrical, repetitive patterns. One brilliant example of this is the solo work of Jarle Bernhoft (http://www.bernhoft.org/) who builds complete concerts with pop/rock tunes, performing and looping himself as he goes along. The repetitive aspect can also be experienced as a limitation, especially if the lengths of the loops are – as is the case with one of my loop machines - determined by the first one recorded. In my work, I am often interested in "working against" the periodical aspect of the loop. Even if I sometimes think that repetition can work well in combination with other musical developments, repeated rhythmical patterns can soon appear to be static and boring. This is of course the danger with any music being repeated too often, regardless of whether or not is is rhythmical. My approach when trying to avoid this is often to work against the periodical feeling – trying to make the sounds *flow* rather than correspond to the cycles. I try to avoid "sharp ends" and to make loops without an obvious start or end. Often, I also want

to vary the loop along the way. I have become aware of some methods I use in my work regarding these things:

- I overlap endings by dubbing the first sample with similar material
- I make loops with irregular attacks and pauses
- I vary the impression of length and start/end points by fading the loop in and out
- I stop and start the loop (!)
- I use amplitude balancing between multiple layers to vary the loop as a whole
- I vary the amplitude and reverb
- I process the sound of the loop

This is an area for continuous exploration.

The sampled sound library

To be able to play back pre-recorded sound from a sampler is another great opportunity that widens the vocabulary of sounds. It also brings in the *distance* of the recorded voice by not having to produce the sound in real time. As noted: in order to improvise freely, I need to "hear" the sounds with my inner ear – and there is a limit as to how many I can remember. "Sound palettes" have, as mentioned, been one of my working strategies here.

3.7 What does "new musical parameters" mean?

The *play with zones*, the possibility to "hide" the voice, the use of different methods of sound processing, the different uses of sampling, both in real time and with pre-recorded sound – are all areas that were opened up through the use of music technology a long time ago. The technology and techniques that I use are not *new* – especially not when compared to what is being explored and used in other fields and genres, as discussed in Chapter 2. Nor are these *musical parameters* new as such – but rather newly *made available* for the improvising vocalist through access

to new live electronic devices. The “newness” lies in the exploration of how these musical parameters can be used in improvised music. There are relatively few vocalists using live electronics in improvised *interplay* in my field (although there are an increasing number of artists using live electronics in their *solo* performances). The potential inherent in (very available) live electronics devices, especially for vocalists in my genre, is relatively unexplored in this respect. Access to new musical parameters creates new opportunities for musical interaction and thus for taking on *new roles* in the interplay. This will be demonstrated further in Chapter 4.

4. New roles for the electronic vocalist

In this chapter I will look at how the use of live electronics can open up new roles for me as a vocalist, in the improvised interplay. Before I do this, I find it necessary to discuss some of the challenges that I experience in connection with singers' traditional roles. Further, I will as a tool, suggest a very rough categorising model for the various musical roles that I observe myself taking on in my work. I will exemplify these roles through excerpts of my music in different constellations.

4.1 The singer's traditional role

"Such a beautiful girl – with such a beautiful voice – and then she does THAT!" (Upset elderly lady at a BOL concert who wanted her money back")

"Do you also sing some <u>real</u> songs?" (Danish sound technician after concert with Marilyn Mazur and her ensemble)

"I feel, in one way, that you are hiding behind the electronic" (Musicologist)

Our musical experience is partly formed by conventions and expectations, as are our experiences of life as a whole. Vocalists are certainly not the only musicians who can experience this situation as being a challenge. (Consider the harpist or the piccolo flute, and register what visual and auditory references you have.) Still, there are some extra musical conventions connected to the singer as the historical front figure, the 'diva', the one who draws the attention of the listener and who is the link between the band and the audience. When considering the special position of the voice as a bearer of meaning and representing the "real world" in an instrumental setting (as discussed in Chapter 3), we are not only dealing with conventions developed through historical practices, but

also with the intuitive human response to the voice as such. I will not go into a deep analysis of this matter, but in the search for new roles and possibilities as a vocalist, we must remember that this is part of the picture. This very picture is also a question of genre. In one of my conversations with Maja Ratkje, I talked about how some members of the audience could be provoked by the more abstract, aggressive and noisy expressions of my voice and electronics. She replied instantly that the opposite would actually be the case for her; operating in the noise-scene, a beautiful melody could be experienced as provoking. This reminds me that even if I would like to imagine my music as being genre-crossing and fairly free from conventions, it never is. The context, the conventions and the expectations are always part of the way music is perceived. How does this situation affect me?

For many years I have "neglected" some of the conventions and expectations associated with the singer's traditional role. I have noted that some listeners, and even some colleges, sometimes wants me to adopt a different role than what I actually do, especially when I play with other instrumentalists, i.e. to be more of a traditional front figure, visually and musically. I have been especially provoked by comments regarding my use of electronics as being visually disturbing, taking the focus away from *me*. I have often responded to such comments by asking the commentator if they also feel disturbed by the fact that the keyboard player is turning knobs and hitting the keys on *his* instrument. I have been wondering whether their responses were grounded in a musical or a visual experience – as if it were possible to separate those aspects when witnessing a performance. (Would they have had the same experience if they closed their eyes? Probably not (as the findings in "Voice Meetings" shows (see Chapter 7)), but the performance is also a visual experience). Seeking freedom to choose my roles in the interplay, I decided that I would not care about such expectations, but rather act as though they did not exist. Then, about half way into this research programme, I held a presentation at one of the programme's seminars, showing a clip from a concert video. Not surprisingly, the comments received from some of the other fellows were, among others, that they would like me to be more "in visual focus". As usual, I defended my "right" to stay out of the expected vocalist focus, both visually and musically. And after

hearing my arguments the participants in the discussion absolutely agreed. This situation made me realise one obvious fact: even if my audience can understand in retrospect my point of view intellectually, this has nothing to do with how they actually *experience* the performance. I had overlooked the *performative* dimension of any experience; it is not up to me to decide, or control, how the audience perceives the performance as a whole. I do not have to like, agree or follow the conventions and premises - on the other hand I cannot pretend that they do not exist. The audience and the conventions of the audience are part of the performance, as is the room, the setting, the sound system… whether I like it or not.

Accepting this fact has not altered my decision to feel free from the traditional vocalist role, but it has broadened my mind. What I have been thinking from the very start of this project, is that I should, at any time in the music I create, be *intuitively aware of* what role I am taking on. A developed awareness regarding the different roles could possibly bring more clarity to the performance as a whole, also for the audience. For me, this awareness cannot be established as a concrete idea or plan; it has to become a musical impulse and intuitive knowledge. This knowledge comes first and foremost from experience, through rehearsing and holding concerts - but also from listening to recordings of my work and reflecting on the different roles and functions that I use.

4.2 Musical roles - a simple categorising model

Observing my own practice, I can categorise, roughly, four roles that I take on in the improvised interplay. As with the categories in Chapter 3, these are *experiential* categories, defined by how I *experience* them, rather than technical, absolute categories. Further, this categorising must not be seen as a solid, theoretical framework, as that would call for a much more thorough academic investigation and discussion. My goal with such categorisation has been to find a useful tool for reflecting on my work in a practical and concrete way. Furthermore, this categorisation is a way of articulating some verbal answers to my research question about new possibilities and roles for the

vocalist through the use of live electronics. These categories are to some degree related to the experience of *meaning* and "real world", and to Andreas Bergsland's suggested *minimal- maximal model*, operating in a range between *central* and *peripheral zones*, as described in Chapter 3.They also relate to the musical *functions* in the interplay.

Musical roles:

- The *singer*: the traditional vocalist's role, singing a melody with or without words. Taking a musical focus in the interplay; a relatively high degree of naturalness, often experienced as *meaning* and/or representing "real world"; more *central* than *peripheral zone*[36].

- The *speaker*: reciting or speaking text: poems, lyrics, improvised text, etc. with a musical focus. Like the *singer*, this is a rather traditional role for the vocalist: a high degree of naturalness often experienced as *meaning* and /or representing "real world". More *central* than *peripheral zone*.

- The *soundmaker*: using different types of sounds to add colour to or accompany, comment or interact with the whole musical scenery – this can be done by using traditional elements like pitch and rhythm, or more abstract sounds. What separates this role from other roles is the main focus on sound and/or its function, going away from the voice as a bearer of *meaning* through melody or speech. This role has a more instrumental approach than the others. The voice-sound is often highly processed, or/and pre-recorded, in the *peripheral zone*, away from the experience of *meaning* and "real world".

[36] The central and peripheral zones (Bergsland, 2010) and conception of "real world" is discussed in Sections 3.1.2 and 3.2.2.

- The *soundsinger*: a mix of the three aforementioned categories. This role includes the function of melody as commenting on or accompanying the musical scenery, rather than being a traditional *lead* voice; lyrics as sound more than *meaning* - "language" without bearing semantics. The voice is often medium processed .This is a mix between a vocal and an instrumental approach, with a "hint" of *meaning* and the "real world". It is somewhere in between the *central* and *peripheral zone*. (This category could more appropriately be named *sound-singer/speaker*, but for practical reasons I have shortened it.)

It should be noted that I think of the two latter categories as *new roles for the vocalist* through the use of live electronics.

Another important "role" adopted by the use of live electronics, is the' real-time producer' role. Using reverb, compressors and effects like I do is similar to what is being done in studio post-production. This has for me, of course, a musical function, but often it is not as distinctive on its own terms in the musical interplay as the other roles, so I have left it out in this model and will discuss it further in Section 4.2

In all my various musical projects, I can observe myself taking on all of these roles. There are differences in the balance between the roles relating to who I play with and what music I play. For example, in my duo constellations I take on the accompanying role more often than when I play in a trio or a quintet (something which I will return to later).

Naturally, there are other factors that have an impact on the vocalist's role in addition to the technical opportunities and techniques offered by live electronics. Musical frameworks and aesthetics, the degree of listening and interaction between the musicians in the improvisation, and also to some degree the other instrumentalists by virtue of the way they take on *their* roles in the given interplay, open up for various

new roles. If the drummer sticks to a solid groove and the synth player to a bass line and even chords, this is a very different scenario compared to a musical approach where the roles are less defined. I will exemplify below how I experience my different roles in the interplay with different instrumental settings. I will also demonstrate how the above categorising has its limits, by providing examples of where functions/roles and activities are hard to "define" within this model. Further, I will demonstrate the very subjective premises for this "analysis", being based on how *I* experience the music in question.

4.3 Experiencing and observing roles in various settings and music

I have chosen examples from the following constellations/projects, which I also will present briefly as I go along:

BOL

BOL with Hans Magnus Ryan & Stian Westerhus

Åse/Strønen Duo

Åse/Duch Duo

There are some live recordings in the following that do not have an optimal quality, but I would still like to use them because they are important examples.

4.3.1: BOL

BOL (www.bol.no) is my trio featuring keyboard player Ståle Storløkken and drummer Tor Haugerud (Both of who also use live electronics from time to time). We started

playing together in 1995[37]. We all come from a jazz background; Haugerud and Storløkken were both educated as performers in the Jazz Section at the Department of Music, NTNU. They are both part of the modern Norwegian jazz scene, where they have been developing their style of playing in numerous musical projects over the last 20 years. The music of BOL is genre-crossing, influenced by a lot of the music "of our time" (which for us means from about the last 40 years). We have always worked with a mix of our own compositions and different types of improvisation. The complexity of these compositions has varied, from through-composed works or melodies with chord progressions and defined form, to open sketches with more or less defined melodic, rhythmic and textual material as components for improvisation. The structures for improvising have also varied, with the improvisations sometimes being part of performing a composition in various ways, and sometimes being totally open, but still part of a larger form between other compositions. In some pieces, the lyrics are the only structuring component and point of departure.

Example IV, 1: BOL: Excerpt from a live concert, Tromsø, 2010

http://soundcloud.com/tone-se/bol-excerpt-from-concert-troms/s-IbvIY

This is a "planned" improvisation from a club concert, and the lyrics used were written by the Norwegian poet Olav H. Hauge and translated by Robin Fulton. The lyrics and the fact that I start solo, was in principal the only structure/plan, although previous versions and rehearsals have also created a kind of "formula" for this sequence. My roles in this sequence are as follows:

> 0.00 *Speaker*: reciting the poem (meaning, naturalness, focus)
>
> 0.11 *Speaker* and *Soundmaker;* looping some of the words in the G/F patch (MaxMSP, described in Chapter 2) and varying with density and EQ-filtering. (Processed sound, although recognisable words; "un-natural", moving towards *peripheral zone*; accompanying.)

[37] (BOL started as a quartet, with saxophone player Tor Yttredal, and became a trio in 2003)

0.53 *Singer*: singing with a Lexicon pitch shifter-effect (rather natural, melody in focus).

1.50 Looping some of the melodic phrases, first with lyrics, later without.

A short reflection on the "loop phenomenon":

An interesting thing about melodic loops like these, is, from my experience, that they can change function and roles gradually. The obvious repetition of something that has recently happened can take away the importance of *meaning* and the loop becomes an echo, a *sound carpet*. After repeating a loop for some time, it can therefore be experienced more as *sound* than *meaning*, exemplified by my definition of roles as changing from *singer* material (the original input) to *soundsinger* (the first repetitions) to *soundmaker* (after a while). This is not necessarily "the rule" with loops. First of all, they will probably be experienced differently depending on who is listening – further it depends on what kind of loops are used, and not at least on how they are played (how many layers, how much repetition, for how long, how much variety in the layers, sound and amplitude, etc.).

Going back to the example at 1.50: The looped phrases are used as an accompaniment, and I experience them as an "echo" from earlier on (the initial phrase). I gradually bring them down in amplitude and thereby form them into a background. This makes me think of them as an example of the "loop phenomenon" discussed above, moving from *soundsinger* to *soundmaker*, gradually transferring from *meaning* to *sound*, from the *singer* role to "sound and function". 4.40 to 6.28: *Soundmaker*: the G/F loop is functioning as an "accompaniment" for the synth.

7.16 *Soundmaker*: after a keyboard solo part, I introduce a pitched down loop with long grains and low density in the G/F patch, moving into a new section of the improvisation. The opportunity for introducing new elements and colours

into an improvisation like this, without actually taking a main focus, is something that I find much easier when using electronics rather than the acoustic voice alone.

This is a good example of the way we work in BOL: sometimes improvising a "tune" by using melodic and rhythmic material, but in a very free way.

Example IV, 2: BOL: Excerpt from "Nature is not Beautiful", live at Avant Garden, November 2011.

http://vimeo.com/35372650

(This example is also discussed in Chapter 3.) This excerpt comes from a performance where recordings of a text cycle, read by the author Siri Gjære, are played back in parts, in combination with the use of speech, improvisations and compositions. Here I take the role of the *speaker* in a very concrete way, making a somewhat political comment on the recorded speech (which is a more metaphoric text in Norwegian). I then take part in the improvisation by using the DJFX- looper, sometimes obviously connected to my vocal impulses (*soundsinger*) and sometimes disconnected, as at the end of the improvised section (*soundmaker*). The improvisation transforms into a composition and I take the *singer*-role.

Example IV, 3: BOL: Excerpt from "Nature is not Beautiful", live at Avant Garden, November 2011.

http://soundcloud.com/tone-se/excerpt-bol-nature-is-not/s-u87WS

This is another sequence from the same performance. It is an open improvised sequence, but with "electro-transparency" as an articulated musical idea. Here Tor is using his tone-generator and Ståle is playing some noisy sounds. My roles in this sequence:

0.00 to 0.22: *Soundsinger*: "text" and Ring modulator-effect (which is an effect I use throughout this sequence) – a hint of *meaning*, but distanced, towards the *peripheral zone*.

0.22 *Soundsinger/soundmaker*; using the Ring modulator effect with almost no direct signal in the output (some voice sound through the reverb).

1.06 *Soundmaker*: I use a sampled loop from this sequence in the G/F patch, down-pitched, which I fade in and out throughout the rest of the sequence.
1.41 *Soundmaker*: more percussive sounds, still with the ring modulator-effect, more of this at 2.11.
2.22 *Soundsinge/soundmaker*: I go back to some of the softer Ring modulatar sounds used earlier. (The sequence then transforms into the introduction of a subsequent composition.)

This sequence exemplifies a very typical situation for the 'soundmaker'. There are no other pre-defined structures or functions within the trio-format here, and the whole improvisation is sound-oriented.

Ex. IV, 4: BOL: Excerpt 2 from "Skylab Audiovision", live at Verkstedhallen, 2009.

http://vimeo.com/33214963

This is from a performance where we worked with video and installation, improvised music where musical and visual structures and ideas were connected to a collection of selected poems written by the Norwegian poet Rolf Jacobsen and translated by Roger Greenwald. (A demo video can be seen here: http://vimeo.com/8802365). We cooperated with video artist Pekka Stokke and technological scenography designer Sivert Lunsdtrøm.

This sequence occurs towards the end of the performance, and I am using sampled loops from earlier *speaker* and *singer* roles, as *soundsinger/soundmaker* material, fading in and out and mixing levels and also putting on an additional *glissando* layer (from 1.42). Especially towards the end of this sequence, I experience that I have an instrumental approach *even if* the vocal sound is close to natural. I believe that there are several reasons for this:

- The repetition changes the function of the music in loops, as discussed earlier.

- The rest of the music is loud and energetic, and the voice sound is also therefore mostly experienced as an integrated part (Bergsland's *stream integration*, see Chapter 3).

4.3.2. BOL + Hans Magnus "Snah" Ryan and Stian Westerhus

The idea of inviting these two very different guitarists into the band was to bring in elements of rock aesthetics (Ryan) and noise-oriented sound making (Westerhus) to our music.

Example IV, 5: Bol with Snah & Westerhus: Excerpt concert at Unterfahrt, Munich, 2011.

http://vimeo.com/33282730

Here, I use some processed speech samples and a noisy processed sound in the Roland SP555. Working with only pre-recorded sound samples is experienced as taking the *soundmaker* role – even if some of the sounds are recognised as spoken text or as being "text-like". Working solely with the machines and recorded sound, like I do in this sequence, produces quite a different approach, and also expression, compared to producing voice sound in real time. By not being in the singer/speaker/ soundsinger roles, I can take part in this collective and loud improvisation by playing with pure "sound" more than simply making "a personal statement" (almost unavoidable when performing real-time vocal sound in loud surroundings) – and sometimes this is a relief.

I would like to compare this with another loud improvisation:

Example IV, 6: BOL with Snah & Westerhus: Excerpt from "Western Wind", from the CD Numb, number 2012.

http://soundcloud.com/tone-se/example-use-of-broadening/s-ILPkU

0.00 *Soundsinger*; from the beginning: "text" as sound, a processed, but still recognisable voice, a hint of *meaning*. Not in main focus/lead.

1.51 *Speaker*.

2.28 Moving from *singer* (clear melodic lead) to *soundsinge*r (loops taking over, repeating, becoming more instrumental); back to *speaker*, with a short ending. Please note that these roles are not definite, but overlapping.

There are several differences between playing with BOL as a trio and playing with BOL as a quintet with these two exceptional guitar players. I think that this is mainly because of the size of the ensemble. It has often been necessary to find, or to define, the roles that we all have in the interplay, and the project has, in the more composed sequences, been leading the original three of us into slightly more defined roles compared to what we are used to as a trio. I have generally noticed that with the two guitars in addition to the synth and drums, there is often so much musical information and so many ideas in play that it does not feel necessary or natural to add more sound or elements. Therefore, as far as I can see, I adopt the soundmaker role less often here than I do in the trio format. There may be several reasons for this: even if the music has much room for improvisation, we have used more compositions in the quintet setting than in the trio. Singing a lead melody takes a lot of focus, so therefore it seems natural to sometimes exit the interplay in order to make room for other sounds for a while. Also, when recording for the CD format, it is important to make room so that everyone can be heard because the time-span is shorter than during a concert. Further, it feels natural in a studio improvisation to focus on developing one main idea instead of continuing further and more freely with a long time-span in mind, as we often tend to do in a concert situation (like the example from the concert in Munich).

The "live producer role":

In a studio situation, I become especially aware of another role adopted through my use of live electronics, as described in Section 4.2; the *real-time producer* role. A studio recording with a vocalist is very often done with a "clean" vocal, and effects and reverbs are chosen in the postproduction. I record my total mix, with the reverbs and effects that are my musical choices in the interplay. I also record a "clean" vocal track at the same time so that I can change my mind and do something else during the mixing process. Very often, I use the mix as it is, as in the recording of the CD *Voxpheria* with Thomas Strønen, and on most of the tracks on *Numb,number* with BOL/Snah/Westerhus. What happens sometimes is that my choices in real time, becomes a sketch for things that can be adjusted or enhanced in this mixing process. I also register that my use of electronics makes me more aware of the opportunities available in postproduction, both as regards my own sounds and the sound of the other instruments. In the live situation this also leads to a different situation for the sound engineer – the reverbs come from me, not from him (although I make allowances for some improvisations and adjustments by people I trust.)

4.3.3 Åse /Strønen Duo

Thomas Strønen (http://www.thomasstronen.com) is an improvising drummer working with a range of percussive instruments, and he has for many years implemented live electronics in his instrumental setup. He was also educated by the Jazz Section at NTNU, and like my colleges in BOL, he has been active for many years in the Norwegian modern jazz scene. We work with free improvisation as a *method* – we have no plans for the music before we start. I bring in lyrics that could be used, and sometimes I choose to use them, depending on the musical ideas that are brought up at the moment.

As mentioned earlier, I adopt an accompanying role more often in my duo constellations. There are probably several reasons for this:

- The duos (with Thomas Strønen and with Michael Duch) have a musical approach that is more open at all times and there are no compositions where the more conventional roles are natural as with BOL.
- The duo setting is more open than a trio or quintet; with only two instruments in play there is room for more ideas and musical "layers" from each musician.
- With Thomas there is also more "tonal space" for me, less pitched material coming from him.

Example IV, 7: Åse/Strønen, "Grains" from the CD *Voxpheria*, 2011

http://soundcloud.com/tone-se/grains/s-zCNX4

0.00 *Soundmaker*:I play an underlying loop in the G/F patch from the start.

0.40 Variations through filtering the loop, still *Soundmaker*

0.59 *Soundsinger*, acoustic voice, but not in the foreground until the crescendo, mixing with *soundmaker* (loop).

01.18 *Singer*, acoustic voice in front, small melodic movement

1.29 I create a tonal accompaniment that continues, with variations, throughout the whole piece (*soundmaker* – processed sound with minimal *meaning*). The technique I use is described in more details in Chapter 3, ex. III,13 .

1.56: *Singer*, continues until 6.30,with accompanying loop (*soundmaker*) and convoluted samples (*soundsinger*).

From 6.30 : *Soundmaker*, working with small filter variations and internal feedback.

To be able to create a tonal, well-functioning accompaniment with a possibility for modulation in real time, has been one of my technical-musical goals when I started the project. One of the challenges involved has been the auditory connection between a sampled tone/phrase and the repetition of it. When I started to use the Granular/Filtering Max MSP patch, this opened up for solutions in this regard. To separate the sound of the input voice from the sound of the following loop, I can process it through the G/F patch, and granulating the sound can really change it into something else. The granulating effect also makes it possible to pitch down the loop without necessarily making it sound like a "pitched down voice". This creates a distance – I am not so obviously "singing with myself". The loop is also "in movement" through the element of randomness in granular synthesis, so it does not feel like a static repetition, more like a flow of sound. And most importantly – I like the organic sound of it.

Example IV, 8: Åse/Strønen: "Rave, Raised" from the CD *Voxpheria*, 2011.

http://soundcloud.com/tone-se/08-raised-rave-m-1/s-ppu7k

> In the first three minutes I work with different sounds in a very instrumental way. Even if some of the sounds are natural voice sounds and have hint of *meaning*, I experience this part of the track, in one way, as a *soundmaker* sequence; the quality of the sounds *as sound*, and their musical function in the interplay, are in focus- even if I am *playing with zones*. I am interacting very directly with Thomas and our roles are rather similar.
>
> 3.05 I start a sequence in the *singer* and *speaker* roles for the most part with the voice sounding almost natural. There is no semantic meaning, but there is still a very "meaning-like" appearance. I add real-time loop material along the way that fills a *soundsinger/soundmaker* role in order to create other layers in the music (until 6.33). I notice that Thomas's role in one way could be experienced as accompanying the *singer* and *speaker* when I take on those roles, but still, his playing is more like a parallel movement interacting with mine, and without my contribution it might sound like a drum solo.

6.41 *Soundmaker*: using a down-pitched loop in G/F, varying with density, amplitude and EQ, "answering" the sounds and movements of Thomas.

6.57 *Soundsinger*, using effects and "text".

9.01 I go from natural voice with relatively extreme effects "drawn back" in the soundscape (*soundsinger*/*singe*r) to, towards the end, the *singer*: the natural voice with a melodic focus. The effects are still there, but not as present.

For me, this is a good example of how live electronics open up for a new approach to improvising with other instrumentalists. It is important for me that Thomas says that this interplay makes *him* play in new ways as well.

4.3.4 Åse /Duch Duo:

Michael Duch is a bass player, educated as a jazz musician (NTNU) and specialising in free improvisation. He is also a graduate fellow of the Norwegian Artistic Research Fellowship Programme, and his project was entitled "Free improvisation – Method and Genre". In this constellation I want to interact musically with his way of improvising and to explore the meeting between my mix of acoustic and electronic sounds and his acoustic sounds and very physical approach towards playing. The working strategy started in the same way as my work with Thomas: no planning, and I brought "optional lyrics". This was also the strategy for our first studio session and concert. In the second studio session we decided to work further on some of the ideas that came up, and refine them. This was also developed further in a concert: we decided on a form where some of the elements and also roles we had been working with were suggested as possibilities, although they were not very defined and were more like an associative framework. It was essential that we both knew that this plan could be changed if another idea took over intuitively. For now, this seems like one productive way of working together, creating a kind of structural offspring.

Example IV, 9: Åse/Duch "Thhh", studio session, 2011:

http://soundcloud.com/tone-se/se-duch-thhh/s-4CVPj

The first half of this sequence is in some ways similar to the start of "Rave, Raised" with Thomas Strønen (ex. above). I am using some of the same strategies and techniques (natural voice, acoustic voice sounds, pre-recorded sound samples, Hadron loop, real-time "text", looped "text") in a mix. Still, I experience it somewhat different, perhaps because of a more frequent use of pitched *singer*-material. I am deliberately playing with roles and distances/zones:

2.37 to 3.01: even if it is punctuated, I experience this as a kind of *singer/speaker* role, partly because of the way Michael plays, which leaves plenty of space for me, while at

3.01, the *speaker* role is changed into the *soundsinger* role and the loops evolve into the role of the *soundmaker*, both because of the way I perform (like a flow, with pitch shift, low in amplitude, looped) and because of the way Michael plays (see below). Then, from

3.54 I am the *singer* throughout the piece, with some *soundmake*r effects, like the convolution patch at 7.19, some loops from the first section (6.11), and the looping of long notes (7.55).

As stated previously, the categories I am now using as a tool for understanding and describing how I work are not absolute. For example, I notice, especially when listening to the duo constellations, that it is sometimes not obvious what I perceive as being *soundsinging* and what I perceive as being the *singer* or *speaker*. Again, this is because a role is not just defined by the character of the sound, but also by the kind of musical focus it gets in the music that surrounds it, in the same way as a *soundmaker* sound could be part of a solo. In the duo constellations it seems to be more natural to sometimes work with *silence* as an important part of the musical scenery. The silence

brings every sound that breaks it into focus, so, for instance, a processed "non-word" acquires a far more important role here than in a larger group of sounds. Still, I often think there is a connection between the character of the sound and the role it is assumed to have in the interplay.

4.4 Conclusions

After undertaking this type of research, I have to ask myself if the reflections, and my focus on roles during this project period, have had any consequences for the way I perform. Is this a useful way of thinking, or is it more a theoretical explanation, constructed to support my position as an artistic researcher? I pointed out earlier that my awareness of roles has to be an *intuitive, practical knowledge* that is realised in the improvised interplay. Parts of what I do in my improvisation with others is not in principle very different from what I used to do before starting this research, even though it now seems much more developed, something that has been confirmed by my colleges, supervisors and audiences. I have to rely on my own experiences in order to know what has prompted this assumed development. I have registered a gradual change in my performances, in the way I practice and in the way I listen to music. My thinking and acting are related to *layers and functions* in music in a different way than previously, both regarding my own playing and that of others. I am more aware of the wholeness; what is in front, what is commenting or contrasting, what is under, over and around in the musical scenery. In particular the *combination* of roles and functions has been a field of development. With my electronic instruments I can work with several layers or musical elements continuously, and at the same time. (It is, of course also possible to work with parallel musical layers of music with the acoustic voice alone, even if the sounds do not happen simultaneously. However, as I pointed out previously, live electronics open up for this in a much broader sense.) The "thinking and playing in layers" has been an important field for me to develop, and this is also one of the great challenges when working with electronics. How do the sounds and the different forms I give them work together,

how are they related, and what makes interesting relationships between sounds? How can I control and develop different parts of the music at the same time? How long can a sound be repeated and still sound interesting? When does it need to be transformed and changed in order to bring the music forward? How many musical elements can I actually perceive, control and develop at the same time? How will my playing with different roles affect my fellow musicians? As far as I can register, an awareness of roles, both as intuitive knowledge, but also as a way of thinking and reflecting in the rehearsal and evaluation process, has been necessary and important in this work. And of course: the thinking and acting are linked together through these activities.

5. Electronics in a vocal interplay, a project report:

Live electronics in the a capella ensemble

The main focus of my artistic research project has been to explore new roles and possibilities in the improvised interplay with other *instruments*. I have implemented live electronics as musical tools in my situation as a vocalist in various interplays. It has, as discussed in Chapter 2, been important for me to work with the right tools in this situation. An important part of my musical work over the years, besides these projects, has involved improvising a cappella-ensembles (*Kvitretten* (see section1.5) and *Trondheim Voices*). In seeking to explore the use of live electronics in an a cappella ensemble, I have looked for tools that can be useful in such a situation. Implementing live electronics in this type of interplay and setting is a very different task, working with a group of 9 singers, as in Trondheim Voices. The tools should provide a kind of control that makes it possible for each singer to predict the outcome of the vocal input, and the choices of sound variables should be defined and limited in number in order to help us maintain an overview and create musical meaning in the collective improvisation.

This section is about how live electronics can serve as a musical tool and lead to new *strategies* for an a cappella ensemble. In this respect this project represents some possible artistic extensions of my research project.

I will now demonstrate how the use of live electronics can:

- expand the sound possibilities of the vocal ensemble
- place the ensemble and each singer in a new position in respect of the sound design
- enhance a listening focus
- connect movement and sound, thereby visualising musical choices
- create an improvised “choreography”

I will do this by producing a project report from a pilot project. This project was presented at the NIME (New Interfaces for Musical Expression) international conference in Oslo in 2011.

5.1 Trondheim Voices and Stagetracker FX

Trondheim Voices[38] is an improvising vocal ensemble for which I have been the artistic and musical leader between 2006 and 2011. Working with microphones and amplified sound, there has always been a close artistic relationship between the ensemble and the sound designer/engineer; the use of reverbs, effects and panning has always been an important part of the musical expression. I wanted to further explore how the use of processed voices and effects could expand the sound of an a cappella ensemble and how we could take control of the use of effects in real time. A couple of other solutions had been tested briefly before this project; a) Handheld MIDI-controllers, and b) "Sound-zones" defined on stage by the sound engineer, following the singers' movements and changing the effects when entering the zone. Both methods had some obvious limitations that made me look for other possibilities.

Tracking the singer on stage

The system we were trying out in this pilot project was *Stagetracker FX*, a performer tracking and audio localisation system developed for the theatre by the company TTA in Stjørdal, Norway[39].

The system utilises hardware and software to track the positions of performers on stage and applies these positions to their microphone signals, automatically and in real time. The result is that the voices of the actors actually "follow" them as they move around the stage. This has been done in different ways in theatres for some time, but this system can make the calculations faster and more precisely than earlier systems could,

[38] A professional ensemble of 9 improvising vocalists, administrated by the regional Jazz Centre MNJ; see www.trondheimvoices.com
[39] www.tta-sound.com

which makes it possible to bring it into the concert hall without several days of preparation and adjustments[40].

Another, even more interesting possibility with this system is that the trigging of effects and reverbs can be assigned to specific areas on stage. In this way each singer gains control over the use of effects simply by moving physically.

New possibilities:

When I heard about this system and what it could do, I was interested in the following aspects – which I thought that it might be able to introduce into the performances of Trondheim Voices:

- The flexible use of effects and processed voice sound within a vocal ensemble.

- The control each singer obtains over effects by moving on stage, and the interaction between the sound and the singer's movements.

- The visualisation of choices regarding sound, both for the performer and the audience through the movements of each singer on stage.

These elements are especially interesting when it comes to improvisation, but also as interesting possibilities for composers writing for the ensemble. It also makes the role of the sound designer somewhat different since setting up sound-scenarios for improvising will be an important part of producing the artistic outcome. In this project we were working with our highly skilled Norwegian sound designer Asle Karstad, who has also designed other productions for Trondheim Voices[41]. We were also working in cooperation with John Torger Kjelstad, one of the developers of the Stagetracker FX.

The pilot project, which ended with a 20-minute presentation at NIME 2011 was supported financially both by NTNU and the Arts Council, Norway.

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[40] Some of the formulations here are from the tta-sound website.
[41] (BINGO!! (2008) and IMPROVOICING (2009))

5.2 The working process:

I will not go into the technical aspects of the project, but I will focus mainly on the usability, musical process, experiences and observations. A further description of the Stagetracker FX can be found at www.tta-sound.com. To put it simply: by wearing sensors and moving with wireless microphones, the system was able to detect each singer and send the signal from each singer to different effects, depending on where the singer was moving. The system was also able to give an audible illusion of the singer's placement in the room (left/right, front/back). This last function was somewhat limited when working in a small room with only 5 loudspeakers, but it was more precise in the concert hall where we had 12 of them.

Setup at Lindemanssalen, the Norwegian Acadamy of Music, NIME 2011

The project was developed during two sessions:

Part 1: 2 days in Trondheim: setting up the system for four singers in a theatre studio room, testing functionality, effects and strategies. Discovering some technical problems, and solving them.

Part 2: 3 days of rehearsals and performance at the National Academy of Music (NMH), Oslo. The performance was a part of the NIME (New Interfaces for Musical Expression) 2011 conference [42]. We worked for 2 days in the rehearsal room, and on the last day we were rehearsing and performing in the Lindemanssalen Concert Hall at the NMH.

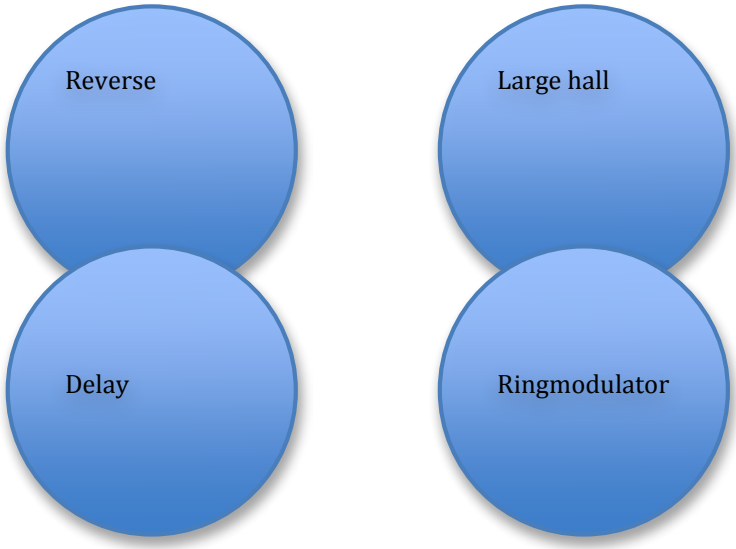
Asle Karstad and John Torger Skjelstad, Day 1 in Trondheim

[42] http://www.nime2011.org

First session in Trondheim:

The room was "divided" into 4 different "sound zones", each with a specific effect assigned to it. Each zone had the form of a circle, where the effect was strongest in the centre, but gradually becoming weaker as we moved outwards. Some of the zones were set up to be "cross-fading"; as we stepped gradually out of one zone, we entered another, so that in a specific area we had a small amount of two effects at the same time. To start with we worked with the effects of delay, large hall, short reverse and ring modulator.

Sound zones and overlapping, simple illustration 1:



Experiences and observations, first session:

It is actually working! There was a great deal of enthusiasm in the ensemble; the sensation of sound transformation happening by simply moving in the room was inspiring. We worked with improvisations: 3 singers moving individually, and one listener/observer. We also tried moving the group of singers collectively from zone to zone. This was done in two ways: both when working with a collective musical idea that was transformed simply by the change of effects, and also by gradually changing the musical idea as a response to how the effects changed (improvising "with" or "on" the effect).

The most dramatically difference with this setting compared to our normal concert setup, was the new sounds that we could freely choose to work with by simply moving on stage. Watching and listening, we also observed that the movements in the groups, motivated by the will to enter a sound zone, created an improvised choreography that had a special quality. We also realised that it was even more important to focus on being disciplined and listening "outwards" in the free improvisation when we had all these new possibilities of sound.

These experiences were important for the further planning of the project. I wanted to have a "neutral" zone with a more natural/neutral reverb in the centre of the stage, and I wanted to have both the possibility of cross-fading zones and going in and out of a zone without cross-fading. A neutral zone surrounded by overlapping zones in a half-circle would allow this, so this was an ideal plan for a setting. (This exact wish subsequently turned out to be difficult, and I will return to this later.)

It was also possible to plan a way for arranging/choreographing a previously rehearsed composition based on this setup.

Second session,, Oslo ,working methods

The rehearsals in Oslo were held in a rather small room for the two first days, but we managed to create an "almost neutral zone" for working with the change from neutral to effect. The working methods we used were similar to those we had employed during

the first session, but we started with a demo from the singers that had been working in Trondheim. We worked with both improvised and more structured group movements. First and foremost there was a need to focus on and rehearse the connection between input and output in the different zones. The different characters of the effects were tried out and discussed. We also changed from the ring modulator to a slicer effect when there was no direct voice signal coming out, only the processed sound. "Fading" in and out of, and "cross fading" between the zones were tried out. We also used techniques that we had been using earlier, introduced to us in a commissioned piece by Mats Gustafson[43] in 2009. In this piece the composer is also the director of the ensemble, with gestures for different musical cues within partly improvised, partly defined material. These techniques can easily be used within groups of the ensemble as part of a free improvisation; each singer can take the initiative to become the director of the rest of the group. Our work with the zones created different groups at different times, gathered in the same zone, so this was a very natural possibility. We also created a setup and "choreography" for a composition [44]. The spatial placement of the effects was changed accordingly and we rehearsed a shift from a setting for improvisation into a setting for this composition.

5.3 Concert/presentation

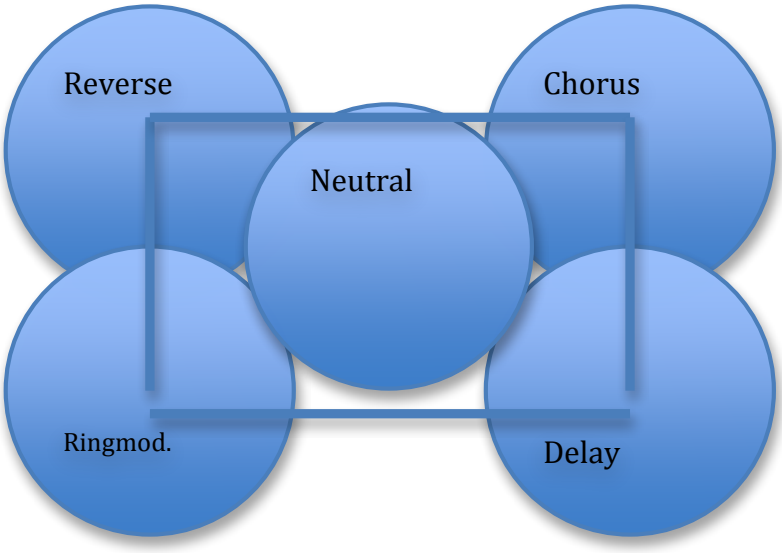
Example V, 1: Excerpt 1 : http://vimeo.com/35962098

5.3.1 Final setup

It was a great pleasure, but also hard work, to install the system (almost) as we wanted, in the concert hall (Lindemanssalen, NMH). We managed to create a neutral zone in the middle, but for practical reasons the linked effect zones did not form a half circle, but a square.

[43] Mats Gustafson: Swedish free jazz saxophone player and composer, see http://matsgus.com/
[44] "Slipp" by Ståle Storløkken, commissioned for BINGO!! 2008

Sound zones and overlapping, simple illustration 2:



The lines indicate the stage area that we used. The cross-fadings were less controllable than the figure suggests. Note that the middle of the circle is the max effect point.

The stage was much bigger than the room we had been rehearsing in, and we spent some time simply exploring the areas of the zones, how the room "worked". We improvised a sequence, rehearsed some choreography for the composition and had a short briefing about strategies. Then we held the concert later on in the evening.

Videos: it is not possible to represent the spatial aspects of the sound here, and it is also difficult to capture this performance visually, but the video clips will still give an impression of the performance.

Example V, 2 : Excerpt 2: http://vimeo.com/35962438

Example V, 3 : Excerpt 3: http://vimeo.com/35962657

5.3.2 Experiences and observations, second session

It was very important for me that this new tool seemed to be meaningful and inspiring for the whole ensemble. I will look at some important observations in this process:

Listening focus

Being 8 singers improvising together, the risks of descending into chaos rather than achieving form and clarity are always substantial. The rehearsal of, and focus on, the effects could actually help us to get into a listening mode that, to me, seemed somewhat different what we experience when we work without effects. It seemed like a natural adjustment of focus; a bit further away from our own sound *impulses*, towards hearing the actual *outcome* of it – as part of the music produced as a whole. The use of effects produced a lot of new information in the music, so we should – and could – at least for some parts, think and act minimalistically. This is a process that is useful to "bring back" to the work we do when we are improvising without the effects.

Movement, zones and structure

The zone division created a structure for the improvisation in several ways. Being in a sound zone, it felt natural to relate one's musical ideas to other singers in the same zone. This seemed to help coherent group ideas to develop in a clearer way than usual. The flexibility of moving between zones also made it natural to step aside (out of zones) and be quiet, and this created more "space" than usual in our improvised sessions. The decision-making that motivated movements in and out of zones or stepping aside, required determination about what the singer wanted to do, to a larger extent than when standing still on the stage. This seemed to be reflected both in the musical outcome and in the appearance on stage.

Visibility and improvised choreography

Based on the responses received after the performance, the visualisation of choices seemed to play an important part both for the audience and for us. The video of our rehearsals and performance shows an improvised choreography that follows musical choices in a rather relaxed and natural way. One of the singers expressed very early that this was a great way to move on stage; not motivated by a directed choreography, which she sometimes found difficult, but as a result of her own musical choices.

Comments from vocalists in the ensemble

The overall response from the ensemble confirmed some of my hopes about how the singers would experience the system as a tool - illustrated by some quotations here (translated from Norwegian):

> *" It gives me a kick to feel like part of a large mixing board, to see the others and relate to both what I see and hear, move in relation to the others and the world of sound I want to go into – see who is standing there and hear what sound they make, and then to enter this with my impulses, go from there into something new- all in all the fact that the movement, sound and room are so closely connected is incredibly inspiring!" (Singer, T.V)*
>
> *"A technical extension of the voice's possibilities, which opens up for a new musical vocabulary, collectively and as soloists.[..] In this phase, when still new, you use your ears in a very structured way, where you have to make room, let the sounds be "clear" in the wholeness, to make the tool come to into its own." (Singer, T.V)*
>
> *"Good to have freedom from cables and controllers, the project is trigging ideas about different possibilities with effects, including more detailed adjustment of zones, to get more of the "morphe-zones"[…] Inspiring to get a direct link to movement, to become a "fader" out there[…]the system works in an intuitive and clear way."(Singer, T.V)*

The singers also had several ideas and comments about the limitations and how we could go further with this system:

- It is a challenge that the stage, and the distance between the zones, is so great. It takes time to move, so this sometimes slows down the time from impulse to sound.
- Going further with this, it will be necessary to work for a longer period with the system, really getting into the connection between impulse and response, and experimenting with different effects.
- An idea would be to have a combination of a bigger "neutral zone" (it was a challenge to make this large enough here) and the other zones, to be able to combine the more traditional concert setting with this possibility. Maybe three zones would be enough in this combination.
- It would be exiting to have effects that are triggered by special vocal inputs only – or that who reacted differently to different inputs.

5.4.Closing remarks and outlook

The system we tried out seemed to be a useful tool for the ensemble. Although it is possible to set it up in a rather short time when compared to similar systems, it is still a demanding tool when it comes to the technical setup and size of the stage, and this has to be considered when going further with this work. It is also important to rehearse using the system, to fully be able to use it – especially as a tool for improvisation. A commissioned work involving this system is planned for 2013, and this will give us the chance to develop the project further.

6. Combined aesthetics: challenges in modern and genre-crossing improvisation

> What I also like about jazz is that it can be influenced by other music than just pure "tribal music". - A very relevant issue is the difficult "mediation" between the interval-based and the sound-based music. They are virtually being mediated and tested against each other, and I think that's exciting, because, as a composer, I have decided to neither give up the interval, nor throw overboard my experiences with sound experimentation during the last 50 to 60 years.
>
> (Norwegian composer Lasse Thoresen, (link) interview in "Jazznytt" 02 2011, my translation)

The use of live electronics has opened my options for musical interaction and for various roles and has also stimulated and developed my interest in *sound* as musical material. It seems obvious that musical roles are often the results of the music's character and premises. My research project has made me more aware of some challenges connected to my field of practice: genre-crossing music with improvisation as an important part of the musical expression. Norwegian contemporary composer Lasse Thoresen describes a kind of mediation in jazz, between different paradigms for musical performance and experience. I see this both as mediation between the paradigms of *sound-based* and *interval-based* music, as he does, and as mediation between what George E. Lewis describes as being *Afrological* and *Eurological* paradigms in improvised music. (Lewis 2009). In this section I will look at some of the challenges and strategies involved in this mediation. These writings must be seen as being non-academic in the sense that they are just briefly informed by the academic theoretical discourses on improvisation and on the different aesthetics of genres. I have not studied Thoresen or Lewis, nor Cage or Nyman who I will be referring to in this section, to such a degree that I can fully comprehend their theories. Still, in order to articulate some of the musical challenges that I experience, I have chosen to use selected parts of their writings with quotations that I feel pinpoint some of the differences between these musical paradigms.

Telling a story – or not

> Perhaps the most trenchant conception of what improvisation can be is to be found in this testament by Charlie Parker: "Music is your own experience, your thoughts, your wisdom. If you don't live it, it won't come out of your horn". The clear implication is that what you do live, does come out of your horn. […]
> Another important and very different model of "improvised music" is practiced among the European "free" improvisers. […] The term was adopted, I believe, not to distinguish it from jazz in the sense of critique, but to better reflect the European improvisers' sense of having created a native model of improvisation, however influenced by Afrological forms. […] One important aspect of the Afrological improvisation is the notion of importance of personal narrative, of "telling your own story". […] Eurological improvisers have tended to look askance at the admission of personal narrative into improvisative activity. I believe that, for post-war Eurological improvisers, the ideas of Cage have, again, had the greatest impact in this regard: "What I would like to find is an improvisation that is not descriptive of the performer, but is descriptive of what happens, and which is characterised by an absence of intention" (my underlining). Lewis in Cox &Warner, 2009, pp. 282-283

The *Afrological* paradigm of personal storytelling in music is – for the most part – embedded in my *singer* and *speaker* roles (cf. the discussions of various roles in Chapter 4). Here it is very often experienced as "telling a story", although not necessarily my own story. Furthermore, I can also often recognise similar storytelling when I am taking on a more instrumental approach as a *soundsinger*. Still, through the use of electronics, I am playing with how *personal* the expression is. The *play with zones* (Section 3.2.3), with *meaning/no meaning* and *naturalness/unnaturalness,* can be experienced as a play with *personal/not personal*, or perhaps *story/no story*.

The sounds' *naturalness* is not the only aspect defining "personality". Maja Ratkje has sometimes criticised what she experience as being "too much fervour" for her taste, in my singing. To balance "the emotional" aspects of my expression is an experienced challenge. To create your own sound, to have a personal expression and "tell your own stories" have very often been - and still are - goals for musical development in the jazz field that I relate to. To sing (or play) "your heart out" has been a more or less an outspoken ideal in parts of the tradition. And as far as I can see, this approach is more encouraged than it is questioned, especially among singers. Sidsel Endresen is one of

the performers who reflects critically on this, both in her musical approach and with words:

> I feel that all this focus on "liberation" and "discovery of your own expression", and the search for what is "personal" and "unique", etc. is a trap. I think you can get lost here and forget the fact that the moment you open your mouth and make a sound, it's already highly personal and definitely bears your signature. So perhaps you may not need to work so hard to "create you own expression"? Especially when working with extended vocal techniques, that are often very expressive, you are constantly in danger of becoming too private.
>
> Norwegian singer Sidsel Endresen, interview in Ballade no, 27.08.2009, my translation.

It is interesting to think about the relationship between (what could be regarded as) a "private" expression in modern European jazz, and the notion of "real world" (see Section 3.2.2) in sound -based music. For example: I can experience Maja Ratkje's screaming in her "noise-collages" as a part of the "real world", being *authentic sound* rather than private, vocal uttering. To hear myself "scream" as a part of a performance within the aesthetics of rock music, is experienced as balancing on a thin line between following an intuitive musical impulse and energy, and becoming too private and emotional, and in the latter case overdoing it. For both Maja and myself the motivation for screaming lies in the musical expression, and it has to connect to the music in a musically meaningful way in order to work. One of the strategies used for adjusting the emotional "overload" has been conveyed to me by Sidsel Endresen and Elin Rosseland, who both say: "Focus on the *sound*, not the emotional expression". Sidsel also pointed out to me how words and lyrics could be worked with as sound rather than meaning by really going into the sound of the phonetics in the language instead of focusing on the meaning of the words. I think of this adjustment and orientation towards *sound* as being a strategy, a way to mediate between the paradigms of the Afrological and the Eurological approach.

Being in a state of – or making statements

> I would assume that relations would exist between sounds as they do between people, and that these relationships are more complex than any I would be able to prescribe. So by simply dropping that responsibility of making relationships I don't loose the relationship. I keep the situation in what you might call a natural complexity that can be observed one way or the other. Cage, as cited in Nyman, 2009, p. 219

> My past experience was not to "meddle" with the material, but use my concentration as a guide to what might transpire. I mentioned this to Stockhausen once when he asked me what my secret was. "I don't push the sounds around." Stockhausen mulled this over, and asked: "Not even a little bit?" Morton Feldman[45]

> " Sometimes I say: I want to find the music, not to compose it"
>
> Tom Johnson in Cox &Warner, 2009, p. 286

I sometimes experience improvising in my different constellations as being in a state – a flow – *observing* how the sound changes almost "by itself". We are not "dropping the responsibility of making relationships", as suggested by Cage, but it is experienced as a type of listening, an observing approach that can seem like a more "active way of listening and passive way of playing", often focused on relatively small changes and nuances. As a counterpart, we go into improvisations and musical passages that are more "statement"-oriented, definitely "pushing the sounds around". This can also involve more conventional musical parameters such as rhythm, melodies and harmonies, and of course compositions. Very often, the intervallic elements, as Thoresen calls them, take form more as defined *statements* than *sounds*. These two approaches are radically different, and there is a risk that one approach could create premises and expectations (both for the musicians involved and for the audience) that "undermine" each other. A melody, or rhythm, will in most cases take an immediate focus. If the implementation of these elements is not meant to be a shift – where the

[45] As cited in Cox, Christopher and Warner, Daniel (ed.): *Audio Culture-Readings in Modern Music*, Continuum, New York/London 2009, 205.

sound-based activities are turned into a "background"– the relationship between the musical "state" and the statement must be experienced and played out. One of the strategies in the improvised mediation between conventional musical elements and sound-based music is therefore the development of an intuitive awareness for such situations. This awareness should help you recognise the *strength* in the conventional musical elements and to develop a sense of how to play with them. Working with this should involve exploring how musical statements can be introduced and formed to connect with sound-based "states". In my experience the link can often be created through a *timbral* connection, as well as by the sensitive use of volume and manipulation of what is "distant" and "near". There can also be a possible link through the "degree of conventionality or reconcilability" in the elements introduced. A melody can be suggested rather than played out, and a rhythm can be developed from impulses to metrical patterns. The most critical turn, I think, is often the transformation from conventional musical elements into sound-based sequences. I have noted both in my own performances and those of others that this often happens the other way around: a sequence starts by "being in a state" and it ends with "statements".

Case- observation

The challenges discussed here became very clear to me when working with the project Undercover as part of this research. The idea of this project was that I wanted to use tunes from popular music as a starting point for a more open improvisation, together with two brilliant improvisators: Per Oddvar Johansen, drums and electronics, and Krister Jonsson, guitar and electronics. What I found was that these strong melodies, and also the conventions, implemented in the styles of the artists that had made them (Peter Gabriel, Bob Marley, Bob Dylan etc.) were difficult to transform into a more open setting. When entering the melodic material, these strong conventions were hard to escape, and we ended up arranging more than improvising, to find a successful way to work with this material. I also ended up more in the traditional singer-role than I wanted. I therefore decided not to go further with this project as part of my research, but get back to it later on.

Time and development

Sequences of improvisation, especially the ones that are more "in a state" than "conveying statements" can often include an element of repetition, and can also be experienced as somewhat similar to minimalistic music. Another concept of *time* and *development* seems to be present in this "minimalistic improvisation", compared to other types of improvisation.

> "In European culture, repetition must be seen to be not just circulation and flow but accommodation and growth. In black culture, the thing (the ritual, the dance, the beat) is "there for you to pick up when you come back to it". […] Moreover, the greater insistence on the pure beauty of repetition, the greater the awareness must also be that repetition takes place not on a level of musical development or progression, but on the purest tonal and timbral level. […]
>
> "In contrast to China, the region of India and Southeast Asia was absorbed in another concept of the world, another measure of time, not as linear, cause-and effect entity of logic and matter, but a metaphysical world with a profound respect for nature and the divine, for whom temples, stone monuments, and stupas were constructed, a life replete with rituals and ceremonies, in constant communication with spirits and deities with whom man corresponded to maintain an equilibrium with nature."
>
> José Maceda[46]

Other cultures' experience of time could be seen as being reflected in both Western minimalistic music and in some of the improvisation in my genre. One of the things that can differ in our playing, in our conversations and judgements about music (our own or others), is our experience of the need for *development* in the improvisation. When this need sometimes becomes urgent, in a negative way, it is often experienced and described as "becoming impatient". This impatience could make you bring in new musical material to make the music "develop further". Doing this could sometimes be a beneficial manoeuvre; sometimes it could interrupt or break up what was experienced (by others) as a well-functioning part of the music. Operating with different concepts and experiences of *time* is a challenge that could be seen as another field for *mediation* (using Thoresen's words). In improvised music the conception of time is also affected by the performance's *processual* character. There is a difference between having the impression of going somewhere familiar and somewhere unknown or unpredictable,

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[46] As cited in Zorne (ed.): *Arcana II, musicians on music*: Maceda, Joseph (ed. Chris Brown)"A concept of time", 150-159, Hips Road, New York 2007, p. 150.

both from a musician's and an audience's point of view. A strategy for this "playing with concepts of time", involves first and foremost rehearsing together and playing concerts, combined with the evaluation and reflection that usually follow these activities. Sometimes 'trust' is a word used to describe the need to focus on *what is at play*, instead of focusing on the need for *something new* to happen. And sometimes *initiative* and *development* are the right choices. You will never know for sure, and in a performance you will eventually have to rely on your intuition.

Conclusions

There are many challenges in modern and genre-crossing improvisation that have not been touched upon here – and this is a vast area to explore. These challenges and the different ways of experiencing music are both exiting and enriching. For me, *mediation* is an area for rehearsal and the development of intuition and skills as a musician. With this backdrop, there are some keywords I would like to highlight in relation to my work as an improvising musician:

- Awareness and balance of sound-focus and emotional impulses.
- The ability to operate with, and convey, different concepts of *time* in improvised music.
- Awareness regarding the mix of conventional musical parameters and the aesthetics of sound-based music – awareness of sound-relations and melodic, rhythmic and harmonic relations, connections and transformations, foreground and background.

7. Voice Meetings: short story of sound

As a part of this research project, I have also wanted to explore artistic possibilities using a continuum of voice sounds ranging from natural *narrative* speech to "abstract", processed sound, within the same performance. I wanted to see if it was possible, or rather, artistically meaningful to implement the role of the *storyteller* in a musical expression. In this chapter I will look briefly at the following:

- My motivations, artistic ideas and research questions.

- The methods used and some of the challenges involved in researching a performance.

- Some of the important findings and developments that emerged throughout the process.

Due to the nature of the project, a performance is not easily represented by anything else apart from the live situation. I will now therefore start by providing just two short excerpts from the performance that was held for students in 2010.The performance they are taken from was an important part of a collaborative research project, which I will return to in the following. You will hear short extracts from the Norwegian story and an English summary will be provided later on in this chapter, while the Norwegian text and a translation of it will be found in Appendix nr. 2.

Example VII, 1: Excerpt 1 : http://vimeo.com/17079477

Example VII, 2 : Excerpt 2: http://vimeo.com/17077575

7.1 Background, motivation, research question and artistic idea

Part of my motivation for this project was my experience of a greater *nearness* between myself and the audience when I was talking to them and telling them something (as I would in a teaching or lecturing situation), compared to the musical performance situation, when I was reciting lyrics or poems, singing, or working with sound in different ways. I already had musical references (Laurie Anderson, Amy X Neuburg,

David Moss) that were absolutely part of my inspiration, but first and foremost the project was motivated by these experiences of nearness and distance in a performing situation. The difference in the experience of nearness was not only related to the situation of "not fulfilling the expected singer's role", as discussed earlier (Section 4.1). First and foremost there was an experienced difference between being a musician and being a storyteller. I imagined this nearness through the act of speaking as being the result of an *identifying process*: if someone tells you something that you can identify with, through your own experience and/or knowledge, you start to *know* the person in a different way than before, identifying with the person through your shared experiences. I wanted to find out if the nearness created by taking the role of the storyteller could also bring the audience closer to a musical experience and the performance as a whole. This was also motivated by the wish to open up those parts of my musical expression that for some audiences might be experienced as being too abstract or alien. Working with improvised and sometimes experimental music, I sometimes feel responsible for making music for "expert audiences". The use of electronic processing, the improvised character and the focus on sound rather than the traditional musical elements, is something that excites me, but: could bringing in a more *communicative element* open up this musical world for new audiences?

When this project turned into a collaborative research project, together with musicologist Andreas Bergsland (see Sections 3.1.1 and 3.1.2), I needed a more specific research question, and it was formulated like this:

> *"Can taking the role of the storyteller in a vocal musical performance create an identifying process between the performer and the audience? Can this process open up for the musical expression as a whole?"*

I will discuss some of the problems associated with this research question later, but this was my starting point and my motivation.

Developing the artistic idea

It was important for me that the story/text should be rather concrete, and come from me, I wanted it to be *my* personal story. This was because I wanted to come as close as

possible to telling something that mattered to me, something beyond being a "performer of text". For the same reason I wanted the story to be in my own language, Norwegian. I collaborated with the writer Siri Gjære, telling her stories based on memories from my own life. From these stories she created several texts, and the one I chose to go further with was created from my memories of my late grandmother. (The text I used can be found in the appendix, in both Norwegian and in English). I see this choice of text – a very personal story with pictures from everyday life – as creating a starting point for this project that is rather different from works I have heard from artists such as Laurie Anderson (ex Walking and Falling (*Big Science 1982*)), Pamela Z (ex. Baggage Allowance 2010) and David Moss (ex. the sound poem "What About Performance, Herr Wittgenstein" 2002.)[47] With this text as my starting point, I developed a kind of "musical monologue".

The experience I acquired from working with this performance was in many ways very different to that acquired from my other projects due to the importance of understanding the text semantically and of telling the "story" in a natural way. The text is formed as "scenes", like memories that pop up in your mind with no particular logical or chronological connections. Still, it has a dramaturgy that leads us forward. It starts as being somewhat open: I am sitting in a car, just experiencing the feeling of driving at night –I am probably driving to my grandmother's house. Then there are different descriptions of meeting – or hearing from – my grandmother, about her house, the letters she wrote, how she fed the cats in the backyard, how she spoke on the phone. And all the time there are small details that provide us with an impression of her personality as being a warm, caring and generous person. The last section also contains a poetic reflection on love, life and death. In the end a car arrives at my grandparents' house. The "underlying drama", as some of the audience in my "expert group" called it, lies in the fact that she is no longer here, and in all the grief and sorrow that are connected to the loss of someone like that – and in the fact that this is the story of our lives – we lose the ones we love. And we die ourselves -from others that we love and are loved by.

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[47] Fümms Bö Wö Tää¨Zäa Uu: Stimmen Und Klänge Der Lautpoesie, Urs Engeler Editor, Switzerland, 2002.

The text material here is not something I wanted to "play around" with, except in the shorter sequences. The music has to connect to the story, so even though it has been improvised to some degree, the components, the character and the form of the whole piece have been planned - at least for now. I started out by creating musical scenarios in connection with each section of the story. They were produced through a process of improvising and trying out ideas, initially in smaller sections, without devoting too much consideration to the overall form. After this, the sections were put together and revised several times. The nature of the text was, as stated, very important, and it was challenging to find out what I felt might work with it from a musical point of view. I wanted the storyteller's role to mix with the other roles in a natural way, and in a few places I wanted to transform gradually between the roles. Further, an important part of this process was to find out how the music could be transformed or shifted from section to section, both musically and technically, in order to make it "flow". I had to rehearse the technical solutions, the timing had to be precise and my focus on the storytelling could not be disturbed by technical manoeuvres.

Musically, I worked with various parameters, roles and functions, as described in Chapter 4. Sometimes I also made use of the option of taking "my grandmother's role" and imitating her dialect and typical expressions, both in pre-recorded sound samples and in real time.

During the first period of developing and adjusting the performance, I received valuable feedback and guidance from the author/singer/actor Siri Gjære, who created the text, from the writer/dramaturge Tale Næss, and from my research collaborator Andreas Bergsland.

7.2 Research collaboration and methods

While working on this project, it has been important for me to envisage *the audience as being part of the performance*. The relationship with the audience has actually been part of my artistic idea, because this idea came from my experience of different *situations with people* rather than from a genuine musical experience. Therefore it was

important to examine the *audience's experience* in the developing process of the performance. I realised very early on that in order to gain access to a kind of "unbiased" knowledge in this respect I would need help in examining this experience in a more systematic and distanced way than I could on my own. (Being the performer, it is sometimes hard to obtain comments from the audience which are not filtered by politeness or personal relations). In this project I have therefore, as already mentioned, been cooperating with NTNU researcher Andreas Bergsland (see Sections 3.1.1 and 3.1.2). This took place in a specific research project called *Voice Meetings*, which started in 2010 and which will continue after the end of my artistic research project.[48] This project represents a rather unique model for cooperation: it is designed to feed artistic development and at the same time collect information about the audience's experience of a vocal performance using live electronics. For me, my cooperation with Bergsland represents an extension of my possibilities as an "artistic researcher". An article on this research can be found in Appendix no. 4

7.2 .1 Working methods

After I had developed the first version of the performance, the investigation started. What we did was to stage multiple performances in different contexts, all including some form of audience feedback. The first performance was held in a small meeting room, while the final two were held in two different black boxes. All the performances were audio and video recorded.

[48] Performativity is a new interdisciplinary focus area at the Faculty of Humanities, NTNU, and the first part of our project also became one of the various projects that was supported financially by, and brought in for discussion and reflection by, a working group dedicated to this focus area. This has been very valuable. Further, it has become a part of Bergsland's ongoing postdoctoral project entitled *Live electronics from a performativity perspective*. As described earlier, Andreas Bergsland has, in his PhD thesis entitled *Experiencing Voices in Electroacoustic Music* (Bergsland 2010), examined the use of voice in electroacoustic music from a listeners' perspective.

Performing for (blindfolded) students at the DMMH, Trondheim, 2010. Photo: Andreas Schille.

During the two first performances we gathered the audience's responses in three different ways[49]:

1) As open written feedback, no questions or guidelines.

2) As a structured, guided questionnaire[50].

3) As focus group interviews, audio and video recorded[51].

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[49] Using "mixed methods", like this, is a way of compensating for weaknesses in each of the methods in the process of collecting information, see Appendix no 4

[50] See Appendix no.3

[51] Focus group interviews: groups consisting of 9-10 audience members were interviewed after submitting their written responses by a moderator using an interview guide (see Appendix no.3&4)

For the first two performances the audience was divided into two groups, one "seeing" and one blindfolded, and this gave us the possibility of investigating the impact of my visual appearance. This was an important part of Andreas Bergsland's research where he wanted to compare the listeners' experiences of live versus recorded electroacoustic music (where you listen without seeing the source of the sound). It was also interesting for me to know more about how the visual impression influenced the concert experience.

The last performance took place in a more realistic concert setting, a public symposium that provided an opportunity for audience comments and questions after the performance.

The questions asked in the interviews were related to:

- The role of the text/story as part of the whole experience
- The process of identification between performer and audience
- The experiences of "naturalness" and of "alienation"

Bergsland has been organising and using this material for analytical studies, while I have been using both the material and Bergsland's findings to feed the artistic development of the performance.[52]

7.2.2 Researching a performance – some challenges

Before I go into some of the findings and observations, it seems necessary to point out some of the challenges involved in doing research on a performance, especially when investigating performative aspects such as the emotional and physical experiences of the audience. For example, the information we obtained from the audience during the two first rounds was probably influenced by:

[52] After this, there have been three more performances, one of which was arranged as a continuation of this collaborative research. The material from the last one had not yet been analysed when writing this, and is therefore not part of the basis for the findings that I will refer to in this text.

- The setting of the performance as a *research project*: the audience knew that they were a part of a research project and that they would be interviewed after the performance. This probably had an impact on how they perceived it.
- The choice of "test" audience: during the first round a very informed group of interested and educated participants; during the second round a group of students from the Queen Maud University College of Early Childhood Education (DMMH) – mostly women in their 20s.
- The individual interpretations of the questions asked[53]

The third round was part of an open symposium at Teaterhuset Avant Garden in Trondheim, which was also held in a rather special context: an interested and probably well-informed theatre audience, in a setting where oral responses after the performance were wanted and expected. This experience points to the fact that a "neutral" audience, and a "neutral" setting, are of course an illusion. And this also applies to the "real world", as I will show later.

7.3 Findings and observations

A performance will, in a sense, always exist in as many versions as there are people experiencing it. So there will be few exact "truths" to find. We will necessarily find observations that are related to the particular group of individuals responding to our questions, and to the particular situation. Still, with 24 persons, as in the second round, we had enough information to enable us to investigate some of the tendencies in the group. I will look here at the findings from the two first performances separately.

7.3.1 First session - findings and artistic developments

The first session, which was actually a test round designed to prepare for the second, supplied us with a lot of useful information. Because this was a test round, the information was only roughly analysed. Most important for me was the fact that the group (of nine) could identify with the story. They experienced that the story and the

[53] In research one often speaks about *validity* regarding these kinds of questions. Still, this method represents a higher degree of ecological validity" than most other research on performance, due to the live situation, not the video version of a performance. (Bergsland in conversation, see also Appendix no 4.).

music connected – and was perceived as a whole. Some of the feedback motivated, or at least confirmed, my own need for making changes or adjustments to the performance, which I did before the second round:

> - One important change concerned the balance between the text and the music. By starting with the text alone in this first version, I directed the focus to the story immediately. This made it hard for both me, and the audience, to experience the music as something more than a comment on the text. Only towards the end did the music take on a more important role. Starting the performance with music and sound in the second version, I experienced that this allowed greater focus to be placed on the sounds and music throughout the piece.
>
> - Further feedback indicated that the content of the performance was perceived as taking place within an expressional "comfort zone", and there was a call for more dynamics connected to the "underlying emotional drama" in the text, especially regarding the last section of the text where I speak about death. (As mentioned, this was a kind of "expert" audience with very competent comments!) I realised that I had been afraid of taking the musical expression "too far", afraid of breaking the connection between the music and the text. This feedback encouraged me to create a more dramatic, dark sequence and to make use of an emotional potential that is more *connected* to the initial narrative than *expressed through it*.

7.3.2 Second session - findings and artistic developments

The amount of research material derived from the second round was more extensive, and this material was analysed more systematically. In presentations of the project we have found it useful to illustrate some of the findings with quotations taken from the collected material.[54] The quotations are taken from interviews with members of the audience after they experienced the performance, translated from Norwegian. I will

[54] The project has been presented at three different conferences since the spring of 2011; see "List of activities".

now look at some of these findings and discuss, along the way, how they have had an impact on my artistic development, and how the research led to further reflections about the project as such.

Identification with the "story" and the importance of the text:

- About 45% of the audience, both "blind" and "seeing", identified with parts of the narrative in the performance:

> *"I was in a car – I was driving it [laughter], with three kids in the back seat. It was raining [waving her hand to imitate the windshield wiper], and then I, like, arrived at the grandmother's, who was my grandmother, and"*

> *"I almost had a film rolling on the inside of my eyes, it was, like, always something that reminded me of my own childhood."*
>
> *(Students, DMMH)*

- The importance of the narrative for the experience as a whole, varied from medium to very important, for 83% of the audience (see the figure below):

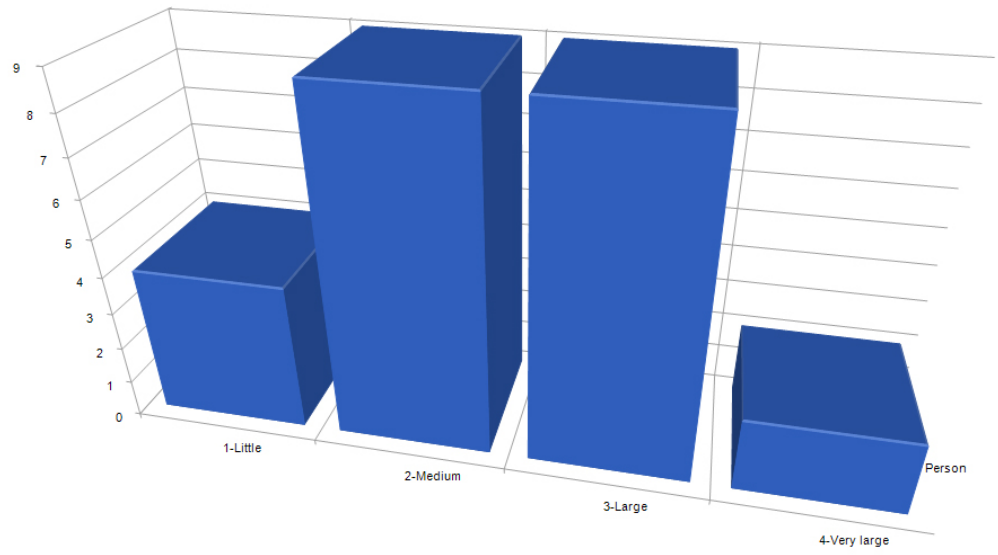

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Figure 7.1, from the presentation held at "Lydhørt", Music Technology Days in Trondheim, October 2011

"The narrative was very important for me, since it was the most tangible I could get a hold on. It was the narrative that caught me those times when I was falling out and was starting to think of something else."

"To me, language made it all appear a bit more coherent, because there was something that linked up, since she went on approximately where she left off after the sounds/sung memories."

(Students DMMH)

After analysing the material from the second round, I realised that my research question about identification was not a very precise one and that it was difficult to answer. What

did I actually intend to find out? About half of the audience could *identify* with the narrative, the "story", but the majority found it *important*, or at least an *integrated part* of the whole performance. So what does it mean to *identify* with a story? How do I separate this from the experience of identifying with *the person telling* the story? Maybe that is what I was thinking about, trying to understand my different experiences of nearness; when somebody is telling you something, you can easily identify with *the act of telling something or being told something*. In order to examine this closer, I realise that I should have had another performance to compare it with, where I did not adopt the role of the storyteller. And maybe even a third performance, deliberately choosing a story that would be very unfamiliar to the audience. In any case, this is a difficult and complex research area, which needs further investigation.

Another problem with my research question is, as I have mentioned earlier (Section 7.2): there is never a neutral audience. My question in some ways implies that there is, and that there could be a general experience, transferrable to "all kinds of audiences". The research material also confirmed the weakness inherent in this implied generalisation, by revealing great differences in how the performance was experienced. With this project I have been performing for very different groups; "the expert team" in the test round, the students in round two, the theatre-interested audience at the symposium – and subsequently at the Ultima Oslo Contemporary Music Festival and at the "Lydhørt" Music Technology Days in Trondheim. Thinking about how different these audiences are, I realise that my question about "opening up for the musical expression as a whole, through an identifying process between the performer and the audience", is rather vague and problematic. This is especially true *when not directed towards a specific audience*. If the question is modified to asking whether "the *use of storytelling* (not the identifying process as such) can open up for the musical expression as a whole", it seems to be partly answered through the findings *in the student group*. Most of the students were unfamiliar with this type of music, and most of them found the story important (Fig. 7,1) for the experience as a whole.

So, after discovering the weaknesses in my research question, should I consider this a failure in my project as research? Maybe I should, if this research did not lead to any new and relevant knowledge for me. However, it certainly did. Before I go further into

this, I would like to present some of the other findings, those which lead to adjustments to or to questions about parts of my work.

Audience anticipating disaster:

Several audience members anticipated that something terrible would happen after the introduction:

> *"I thought it was quite scary at the beginning, and I was just thinking that something terrible was going to happen [...] They're sitting in the car, they are going to crash – I was so certain about that."*
>
> *"Because the images I created, they...they [...] were very, like, nice or cosy, or precious, a bit like childhood memories. That's what I felt then. But still I felt that there was this dark undertone to everything."*
>
> *(Students, DMMH)*

An experience of "spookiness" right from the start, registered by several audience members in the second test round, was a bit surprising to me. There could be many reasons for this, but these comments made me reconsider the start one more time. With the adjustments made after the first round, I had wanted to bring *sound* into focus instead of starting with the text, but I now realised that I also wanted to introduce the audience to a sense of *movement,* more than the experience of *wondering*. So this led to a change before the third version; I used a more melodic approach and more repetitive patterns as an ongoing accompaniment. This gave the piece a better start: it felt like a monotone flow with small variations, corresponding with the first section of the text where I am driving a car at night. I wanted the audience to feel *secure*, and at the same time create a feeling of *going somewhere*.

Audience experiencing anxiety:

Many of the audience members, especially the "blind", were frightened by one particular section of the performance:

"Then it got very uncomfortable. I was scared and insecure when the lady said 'death' several times and spooky sounds emerged."

"I felt that [the voices] came closer and closer to me, and at one point; I think it was when the voices said 'NEVER, DEATH, NO MORE WAFFLES IN ALL MY LIFE', I noticed that I was breathing faster and I almost started crying."

(Students, DMMH)

I was first surprised by some of the very strong experiences of *fear* in some parts of the performance. In retrospect, listening to the recording of the performance again, it was easier to understand, especially regarding the blindfolded listeners. This section was also often mentioned by the students in this round as an example of *alienation*, as a contrast to the *naturalness* in the storytelling. This experience has first of all increased my respect and sensibility towards the power of the sounds and the expression I work with. I have become especially aware of how I *enter,* and as a consequence of this, how I sometimes need to *prepare* these dramatic sequences for the audience. Also, in this particular performance, the way I use the very loaded word *death* is important, but adds to the negative experiences, and I have worked further with how this works together with the music: I try to prepare the "dramatic turn" by introducing the more noisy sounds while I am still talking about *life*, and I try to speak the *death* word, which is repeated three times, in a "neutral" manner rather than dramatically loaded one. The audience's responses have also given me the impetus to search for distinctions in more powerful and noisy expressions, such as the choice of low pitches I use on the DJFX-looper effect, how much of the low frequency area I use while filtering, and how many sharp consonants and different pitches I feed into the loop in the G/F patch. A sound can be powerful even if the sound level is low, while equally another sound does not necessarily create the power I want it to simply by virtue of being loud. This is an interesting area to explore, both in this performance and in my further artistic development.

Spooky laughter episode

Several audience members found my laughter in one section of the performance creepy and/or fake:

> *"Just that thing with the laughter, I didn't think her facial expression fitted [...] with the sounds, in a way, and with her, because she looked happy, and the sounds...yeah [mimics uncomfortableness], I didn't think they fitted at all – I thought it was very unnatural."*
>
> *"And she laughed [...] it was strange, it was strange to listen to it. It sounded fake in a way. It was like when people laugh when they have evil intentions, just like the bad guys in movies when they laugh like that, that's the worst thing I know, and The Joker, when he laughs [laughter], it disgusts me."*
>
> *(Students, DMMH)*

The audience's experience of creepy laughter where this was really not intended was also a surprise. For me, this was one of the lighter and happier parts of the performance! This was also my intended expression and feeling, so the mix of my visual and auditive expression seemed ambiguous to some of the audience. In response to the question about *naturalness*, this incident was also commented on as being *unnatural*. These comments have made me work further on balancing the expression in this part, especially by adjusting the sound and character of the pre-recorded, processed sound samples.

Naturalness and alienation

Not surprisingly, the storytelling and the acoustic voice were experienced as being natural, while the most dramatic and electronic sequence was experienced as being alienating, by many members of the audience. However, we also received comments concerning the use of the voice as source material, as a "naturalising" aspect (*"no pianos or things like that, recorded, just the voice…")* and further, comments on the importance of "*not distorting or changing the pitch of her (*my*) voice"*. The first comment seemingly accepts the processed sound as voice sound, while the second

(more experienced with technology) might reflect things I could have done with my voice that would make it *less natural*. The interesting thing here is that in that case it would probably sound less natural because you *could* recognise the voice and hear the processing at the same time. In that way the processing technique *as such* would probably acquire a focus *in relation to* the natural voice. Several of the audience members also referred to the use of looping and delay as being *more distanced* than the voice alone – even when the voice sound as such is not highly processed. ("…*with the echo it wasn't her …[…] …I experienced a physical distance* (telephone call sequence)…"). Furthermore, the act of singing was also commented on by some as being more distanced than speaking (" ...*when she sung, she was the sound, not herself…*").What seems clear is that the narrative and the natural voice are a very important *perceptual reference* for the listener in relation to the processing and the abstraction of voice sound. I also experience (as mentioned in relation to the use of this particular story), that I am exploring the premises for how I can use the processed sounds and techniques and the music created by this, without *breaking the relationship* with the story. I see the *challenging* of this relationship as being an important way for making the expression richer, more nuanced and more open for emotional duality and individual interpretation. This is therefore where the most important tensions, artistic possibilities and challenges are found in this project.

There were other important findings in the research, especially those relating to the division between the "seeing" and "blind". These findings did not directly influence the artistic development, but I find them worth mentioning: the material showed clear tendencies towards differences in emotional and physical reactions between the two groups, the "blind" group expressing stronger emotional and physical reactions, and also more anxiety. As many as 58% of the members of the blindfolded group did not understand the nature of the performance *("Was it live, not recorded?" " The sound engineer must have had one hell of a job!"*).

7.4 The visual expression

In the work associated with this performance, the visual form has been discussed. The technical setup and my appearance in my different roles as storyteller, singer,

soundsinger and soundmaker, are regarded as being necessary parts of the performance; my instruments and what I do. Adjustments were made in the technical setup after the two first rounds: from being gathered on a table in front of me, to being divided into two "units" with an opening in the middle, in order to create an open space between myself and the audience. (This was a great improvement which I have also included my other musical settings). In addition, I could, for example, have used videos or slides, abstracts or concrete, in my performance. I find that my choice of *not* bringing in another visual element is supported by some of the findings in my joint research with Bergsland: the audience, especially the listeners that were blindfolded, have reported having very clear and strong "inner pictures" triggered as a response to the music and text. I wanted the listeners to identify through the awakening of their own references and experiences in relation to the text. Introducing another visual element *could* possibly disturb this process. I also had in mind the simplicity of traditional storytelling: one person, sitting on a chair, telling a story. I wanted to recreate this setting in my performance (as far as possible with my instrumental setup). This choice also seems to be supported by the findings, that my presence and the feeling of nearness are very often reported as being connected to the visual impression of my face, especially my eyes, when I am telling the story.

7. 5 Integrity and audience research in an artistic process

A natural question regarding this project is that of *artistic integrity* versus the investigation of, and even adjustments influenced by, the audience's experience and response. The performative aspects of this project have been important for me. Part of my artistic idea here is grounded in the reception of/feedback to my performance. If there is no experienced connection between the story (teller) and the music, or if the story is experienced as being alienated, artificial, strange, I have not fulfilled my artistic idea. There are several problems associated with investigating this aspect, as discussed above. There is also a risk of flattening out the expression in the search for more clarity, where the performance becomes a "compromise", adjusting to different feedbacks, and also a risk of "underestimating" the audience(s). This is something that I am trying to

be aware of in the process of making adjustments and reconsidering choices. As mentioned before, I have to conclude that I have been guided mainly by my *commitment to the text*, and in some ways this has served to restrict this project. This has been, and will continue to be, the starting point for my development of "short stories of sound": my own experience of how the text and music work together.

7. 6 Further development

7.6.1 Other stories and audiences

In the two performances from which we have collected data, and also on the basis of oral responses to the later performances at Avant Garden, Ultima and the Conference for Music Technology, there seems to be major agreement that the combination of text and music as applied in the "short story of sound" works together as a whole. This is also my own personal experience. One of the comments at the Avant Garden symposium was that the audience would like me to continue, to tell one more story. I have decided, on the basis of these experiences, that I would like to look at other peoples' stories – rather than my personal ones – and develop other "short-stories of sound" with new text material. The question of identification, which has not been answered, might be something for me to reformulate and investigate further in this work. By using other people's stories, I will also have a natural choice, and sometimes a responsibility, for directing the performance towards more specific audiences and venues. For example, I could use stories told by homeless people, and choose as a venue the open church that some of them are using as a shelter and a meeting point, This would elicit some interesting challenges about how I could make this work in respect of both the story's origins and the audience's musical references – and at the same time maintain *artistic integrity* (as discussed above). The project as such has made me more aware of such choices. If my wish is to open up for improvised, partly experimental music through the use of the narrative and identification, the contemporary festival scene is not where this goal is challenged, or needed, the most. A

conference for biologists, a seminar for teachers, a school concert – these are perhaps more important venues in which I could explore and direct this part of my work.

7.6.2 Nature is not Beautiful

This project also led to engage in new thoughts which resulted in a production with my trio BOL: “Nature is not Beautiful”. (this project has also been described in Chapters 3 and 4 (http://vimeo.com/35372650). The idea of using text as a structural framework for a performance, and of using the speaker/storyteller role intertwined with music and sound, also seemed like an exiting possibility for a trio concert format. I wanted to have a text created for us that would focus on something important and relevant, and that had a relatively clear message. We decided to focus on nature, the environment and responsibility. When the author Siri Gjære decided to write a rather metaphoric and poetic text cycle, I realised that I also wanted a more tangible text to comment on it, and that it would be hard to move between the “poetic” and the “direct” speaker in a natural way. This was resolved by recording her voice performing the poetic texts and playing back the texts as a returning component in the performance – while I took the role of “informing and commenting” with voice in real time. This solution contributed to, for us, an interesting new element in the performance as such. The overall text structure was connected to a clock/the hours passing/getting close to "deadline", and this made us want to use scenography that reflected this idea, which was made for us by artist Anne Helga Henning, Trondheim. I experienced that both the form and the character of the texts (12 separated, poetic, rather open texts with connected “comments” or ” information”) made it easier to move back and forth in the continuum between sound, music and “narrative”, than in the *short stories of sound*. I also experienced that the trio setting made everything *less vulnerable* to breaking the connection between the sound and the text; I did not have to produce everything that happened and I could go out of focus and “change roles” while the music was continuing. The performing of “comments” and “facts” gave a different feeling of nearness to the audience when compared with what I have been used to during my trio concerts. In the developing awareness of roles, this experience is an important reference to bring into the more traditional concert settings.

7.7 What new and useful knowledge has come out "Voice Meetings"?

I have already stated that the research process made me reconsider my research question, which was not, and could probably not be, answered through the research and findings. Still, I think that posing, or trying to pose the question, has led us in a specific direction and has consequently still been very useful. The material we collected was extensive, and both the reading of the questionnaires and looking at the filmed focus group interviews provided me with profound knowledge about the audience's experience. This kind of direct insight into how members of the audience expressed what had happened in their minds during the performance really widened my perspective. It felt like I had obtained a new sensitivity and respect for the personal experience of a performance, and I realised in a very tangible way how a performance can really *mean something* to, and *do something with,* the listener. I think that the kind of knowledge I obtained as a performer is somewhat similar to other practice-based knowledge. It is not necessarily "clarifying" information as such, but it produces an experiential, embodied knowledge. Still, I can sum up some important observations:

- Most of the members of the audience experienced the narrative as being an important part of the performance as such.
- The more highly processed sounds were experienced by many members as being *alienating*, to some degree, and there were also comments about the different degrees of nearness and naturalness, and about singing and looping creating more distance than natural speech.
- The narrative became an important point of *reference*, both for the audience and myself, for how the music and the use of live electronics was developed and perceived.
- The *type of narrative* I used (as compared to my use of lyrics in music, and also the "Nature is not Beautiful" project) made it especially important not to *break* the relationship between the text and the music – but to *challenge* it.

8. Summary and outlook

8.1 Research model and summary

Research model

I have used a model for this critical reflection that has been presented in Aslaug Nyrnes'
essay "Lighting from the Side, Rhetoric and Artistic Research" (Nyrnes, 2006). This model suggests that the artistic research should be seen, and developed, *in the light of* inherent "theories" in the artistic field. In this respect, there are some important "theories " that have served to guide and enlighten my work:

Important aesthetic principles and developments in my field:

- The collective approach to improvisation
- The freedom in melodic variation and rhythmic phrasing
- The focus on sound and timbre as musical parameters
- The development of a personal vocabulary
- The openness towards *and* borderlines with other expressions and genres
- The mediation between sound-based and intervallic improvisation
- The *Afrological* and *Eurological* in modern improvisation

The act and nature of improvisation in my genre:

- The need for intuitive control over instruments
- The need for predictability and "inner ear" experience of sound

The voice as an instrument:

- The special position of the acoustic voice as an instrument
- The perception of the natural and processed voice sound in music
- The connection between voice and meaning
- The use of voice and language in sound poetry and spoken word traditions

- The traditional *role* of the singer in the improvised interplay in my genre

The role of music technology in music:

- The question whether musical premises are defined by technology or genre
- The choices regarding complexity or simplicity related to the act of improvisation
- The choices of sound related to genre and personal vocabulary

The performance as an interaction with the audience:

- Investigating and developing a performance in the light of audience feedback

These "theories" are often intertwined in the process of developing and reflecting on the artistic work, but through this critical reflection I have tried to point them out where they bring in perspectives that I find relevant to my work.

Summary

In Chapter 1 I have described my artistic field by pointing towards my most important influences, both in the genre of modern European jazz and in related musical fields. This description points out important developments and principles that I recognise in my musical expression and contributes towards identifying my genre as such.

In Chapter 2 I have described my live electronic tools and technical setup. I have explained how my choice of tools reflects a need for usability and predictability in my situation as an improvising musician, and, moreover, that it reflects my personal choices of sound. Furthermore, I have stated, in relation to various ongoing discourses in the field of music technology, that control often takes precedence over complexity in my field, and that highly processed digital sound often seems to conflict with the acoustic-electronic interplay.

In Chapter 3 I have demonstrated how live electronics may present new musical parameters for the acoustic voice. I have discussed the challenges and possibilities related to the special position of the voice as a musical instrument, and reflected on the relations between voice, meaning, emotion and language. I have done this in the light of own experience, the theories and research of Andreas Bergsland, and the artistic fields of sound poetry and spoken word. I have also presented Andreas Bergsland's suggested Maximal-Minimal model for experiencing voice and processed voice sounds in music. Bergsland's model suggests a perceived continuum between a *central zone* and a *peripheral zone*, defined by seven experiential premises for experiencing voice sound. I have demonstrated how I experience, in relation to this model, a "play with zones" in my music through the use of live electronics and degrees *of meaning* or/and *real world* in voice sound. This play with zones is also – to some degree – a possible parameter for the acoustic voice, but the use of electronics widens the range of the zones dramatically. Furthermore, in focusing on sound as a musical parameter as such, I have stated that the need for grouping, or categorising different sound effects, is related to the need for "inner ear" experience in improvisation. I present a rough model, based on *experiential categories* (not technical), which are exemplified through music:

- (a) Broadening: adding something to the voice
- (b) Narrowing: filtering certain frequencies of the voice
- (c) Placing: putting the voice in different rooms/spaces and at different distances from the listener
- (d) Reconstructing: changing the voice sound more substantially

Furthermore, I discuss the use of loop machines and samplers, and point out some new possibilities created for the vocalist through sustained sound, multiple layers and the use of pre-recorded samples. I also discuss some challenges in sampling and looping. The *play with zones*, the different ways of processing and the techniques of sampling, are examples of what I think of as *new* possibilities for the singer through the implementation of live electronics within my genre.

In Chapter 4 I have discussed challenges related to the singers' traditional roles in music, rooted in conventions and expectations that are present in the experience of a

performance. I have also pointed out that this situation is fundamentally genre-related. I suggest an experiential categorising of the different possible roles for the vocalist, as I experience them in my work:

- *The singer*
- *The speaker*
- *The soundmaker*
- *The soundsinger*

The two latter roles are what I see as being *new* roles for vocalist in my genre, made available through the use of live electronics. I have demonstrated how I take on these different roles in the interplay with different musical projects: BOL, BOL with Snah & Westerhus, the Åse/Strønen duo and the Åse/Duch duo. I have also briefly pointed out a fifth role for the vocalist working with live electronics: The "live producer role", bringing in traditional postproduction techniques (such as reverb, compressing and effects) in the live situation, both at concerts and in the recording studio. I have demonstrated how these roles are inflected by the musical structures in the interplay, and also how different roles can be adopted at the same time. Moreover, I have reflected on how this situation in the interplay has changed my musical thinking and acting, towards a focus on layers and functions, foreground and background, and the wholeness in the music.

In Chapter 5 I described a project which I undertook with my vocal ensemble Trondheim Voices, presented at the NIME (New Interfaces for Musical Expression) conference in 2011, Oslo. During this project we experienced how live electronics can be a musical tool and lead to new *strategies* for an a cappella ensemble. We used the system *Stagetracker FX*, a performer-tracking and audio- localisation system developed for the theatre by the company TTA in Stjørdal, Norway[55]. By using this system, each singer could choose to manipulate the sound of the voice by moving between different effect-*zones* on stage.

[55] www.tta-sound.com

What we found, was that this use of live electronics could:

- Expand the sound possibilities of the vocal ensemble
- Place the ensemble and each singer in a new position regarding the sound design
- Enhance a listening focus
- Connect movement and sound, thereby visualising musical choices
- Create an improvised "choreography"

I pointed out that this tool can be very valuable for improvisation, but also for musical design and compositions.

In Chapter 6 I have discussed some challenges and experienced strategies in the mediation between different aesthetics and musical paradigms in modern improvised music. This is recognised as a *mediation* between sound-based and intervallic improvisation, and also as mediation between *Eurological* and *Afrological* paradigms in music.

In Chapter 7 I have described my work with the project "Eugenie – short story of sound". In this project I wanted to implement the experienced nearness of the storyteller role in a musical performance. I also wanted to investigate if the use of narrative could open up for the musical expression as a whole. The project was carried out as part of a research collaboration with Andreas Bergsland, named "Voice Meeting", where audience feedback was collected and, among other things, used to feed the artistic process. The questions asked in audience interviews were related to:

- The role of the text/story as part of the whole experience
- The process of identification between performer and audience
- The experiences of "naturalness" and of "alienation"

The material collected was multi-faceted, but some tendencies in the groups of audiences were identified:

- The story and the music were experienced as a whole, and the narrative as an important part of it.

- Often the storytelling was experienced as being *natural*, while the most processed sounds were experienced as being most *alienating*.

We also received comments on how the singing and the more moderately processed sounds were experienced as being more *distanced* than the narrative.

I have described how the response from the audience resulted in different adjustments and changes being made to my performance. I also discussed the risk of loosing artistic integrity when making audience feedback part of the development process. Furthermore, I demonstrated how the process revealed several problems regarding my original research questions. These problems clarified the following:

- The question about *identification* (between audience and performer) was more complex than I had realised, and called for further investigation.
- My thinking about "the audience" had been too general, and became more specific through the process.

This research led to valuable knowledge and sensibility towards the performance situation.

Moreover, I have stated that the work with the continuum between natural narrative and abstract, processed voice sound, made me aware of a very strong commitment to the text, and that an artistic potential in this performance form is to challenge the relationship between sound and story – without breaking it. This is something I would like to investigate further in my future artistic development.

8.2 Relevance

My project relates to several discourses that are relevant both inside and outside the field of vocal musicianship/voice as an instrument:

The discourses on voice as a musical instrument:

- The voice has, as a human bearer of emotional expression and semantic meaning, special qualities as an instrument. How can electronic processing change the situation of the voice as an instrument, and what new musical and artistic possibilities does electronic manipulation open up for in the continuum between natural voice and processed voice sound?

The discourses on modern improvisation:

-In what ways does/can modern improvisation open up for new roles in the improvised interplay?

- As a possibility for crossing genres: what can be the challenges of combining the aesthetics of the different genres?

- As based on intuitive, embodied knowledge and awareness, how does improvised music deliver premises for the musician's technical level, control and use of instruments – and vice versa?

The discourses on music technology

- Technical developments, like all instruments, naturally have an impact on the development of music where such are used, either complex or simple. How do we choose and question our tools?
- New technology is a source for a wide range of relatively new musical parameters, developed within several genres with different aesthetics and terminology. What language and terms are useful in my field of music?

8.3 Outlook: Major artistic achievements and ideas for further artistic development

8.3.1 Major achievements:

The major artistic achievements in my work as a fellow in the Norwegian Artistic Research Fellowship Programme are:

- The development of my intuitive use of live electronics, and of a personal vocabulary of sounds and techniques. An important part of this vocabulary is what I have called the *play with zones*.

- The ability, through this development, to take on new musical roles in the improvised interplays I take part in, and also the development of my musical thinking and acting related to these roles as part of the music as a whole.

- Through my work with the "short story of sound" I have developed a new *form* for my solo performances, where the relationship between the text and the music is explored and challenged. This process has also provided me with a valuable insight into and new reflections about the experience of the performance as such, and the relationship between myself, as a performer, and my audience.

Sounding realisations of these artistic achievements have partly been presented in several concerts and through various recordings, as listed in Appendix no.1 . Many of the sounding results have also been provided as examples in the previous chapters of this critical reflection.

8.3.2 Did I reach my goals?

My goals have been formulated as two main areas of research:

a) "To explore new possibilities and roles as a vocalist, working with the combination of electronic processing of voice sound and acoustic voice sound in real time improvisation." (From my revised project description, translated from Norwegian)

This exploration and development has led to a change in my music, in my musical thinking and acting, and in my situation in the interplay. All of this has taken place with reference to my musical background and within the genre to which my music is related, and in that regard I will say that I have certainly reached my goal. It is, however, important here to underline that I have not "finished" this process. There is still considerable potential, both in the further development of my personal skills and expression, and in how I can meet other improvising musicians in different ways with my instruments and music. Moreover, there is also a potential for challenging the borderlines of my genre by searching for new possibilities in sound and the manipulation of sound outside the borders of my musical field. This is something that I hope to be able to investigate further in my future artistic work.

My second goal was:

b) "To explore artistic possibilities for the vocalist in the continuum ranging from narrative storytelling to "abstract", processed sound, within the same performance/form." As part of this, I wanted "to examine what happens with the relationship between the audience and the performer when the voice moves back and forth in this continuum between referential meaning and "pure sound". (From the revised project description and appraisal for final assessment.)

The idea that led to the "short story of sound " was based on my experience of *nearness* in storytelling, especially personal stories. This was also partly what represented one of the challenges in the project, because this nearness was strongly connected to the naturalness and the personal character of the narrative. This, again, laid premises for how the music and sounds could work together with the narrative as a whole, and I experienced a tension between the language of music and sounds and the language of the story. As I see it, this tension also represents an exciting *artistic potential* in this performance form, so rather than "abstracting the story" to loosen the tension, I will continue to seek the necessary *tension and balance* between the personal story and the musical expression. The work with this project has thus been a valuable exploration of this "continuum", and has also established a model for new performances that I plan to develop in the future.

One goal that was pronounced during this project: "to examine *what happens* with the relationship between the audience and the performer ", as cited above, could be seen as both vague and ambitious. It turned out –in ways that I have described in Chapter 7 – to be more complicated than I thought. Still, by taking part in the performative research collaboration with Bergsland, this has provided me with profound knowledge about the audience's multi-faceted perceptions of my performance of the "short story of sound". This has been very valuable, both in the development of this performance, and also in general, in creating an increased sensitivity for the audience's experience as such.

8.3.3 Open questions and ideas for further artistic development:

To develop musical thinking and acting in improvisation is a continuing process that is never finished or complete. This research can – and will – be continued in my ongoing musical projects, as further investigation of instruments and techniques, and of the different roles in the interplay. I have also become aware of borderlines in my genre that can be challenged through further investigation within my musical projects, regarding choices of tools, techniques and sound. These borderlines are also fields to explore further in the development of *new* tools for live electronics. To design new tools is already an important field for research and important contributions have been made, although very often within the aesthetics and premises of contemporary electroacoustic or electronic music. In the development of new technology and instruments, it is also necessary for musicians and technologists to collaborate with a focus on the musical expression and the musicians' situation in the real-time interplay. There are limits regarding how much you are able to control at the same time and at the necessary tempo. One relevant question for me in this regard is whether I am willing to abandon some parts of my instrument in order to be able to control something else.

The use of narrative as part of my musical expression is an area that will be explored further through new stories, new venues and new audiences. Each new story will create new premises for the music and the performance – but the performance form and my musical preferences will also be important in my choice of stories. One important question here will be if, and how, the stories – not only as narratives, but also as

cultural expressions – should direct or adjust the artistic expression – in order to pay respect to the stories' origins.

The research on performance with voice and live electronics and the audience experience will be continued and developed further through the postdoctoral project of Andreas Bergsland. This research has so far revealed areas of complexity that need further investigation, as, for instance, the question about identification.

It has been important for me to make my artistic research available to practitioners in my genre. I hope the music and my reflections can lead to new discussions, reflections and ideas within my musical field, especially among vocalists. I also regard my research and these reflections as being an important tool in my contact with students. Thus, there are likely to be several interesting pedagogical applications for my work.

In my capacity as a vocal performer, an improvising musician, a pedagogue and a participant in the broad field of music technology, I therefore regard the results of my artistic project and the presentation of them to represent more of a starting point than an end.

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Books/articles:

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List of CD's Chapter 1, sound examples:

Ex. 1 : Jøkleba: Jøkleba! Live Curling Legs CLCD 22 , 1996

Ex 2: Veslefrekk: *Veslefrekk*, NorCD, NORCD 9411, 1994

Ex 3 Close Erase No 2: Who Grew Too (What) Nor CD, NORCD 9933, 1999

Ex 4 Sidsel Endresen/Bugge Wesseltoft: *Duplex Ride*, Curling Legs C.L.P: CD 41, 1998

Ex 5 Endresen/Wallumrød/Sten : *Merrywinkle*, Jazzland Recording/Universal , 2004, with Christian Wallumrød/Helge Steen

Ex 6 Humcrush with Sidsel Endresen: *Ha !* Rune Grammofon, RCD2114, 2011

Ex 7 Fairplay :*Fairplay*, Odin Records, ODIN NJ 4027 1989

Ex 8 Elin Rosseland Trio: *Trio*, NorCD, NORCD 0770, 2007

Ex 9 Elin Rosseland, Rob Waring and Johannes Eich, NorCD ,NORCD 0450, 2004

Ex 10 Eldbjør Raknes *Solo* MYrecordings, MY 01 2006)

Ex 11 Eldbjørg Raknes, Stian Westerhus and Eirik Heggdal: *From frozen feet heat came* MYrecordings, MY03, 2008)

Ex 12 Supersilent on *Le Jazz Non*, Smalltown Supersound STS 034, 2000

Ex 13 Vertex: *shapes & phases*, SOFA 529, 2010

Ex 14 En, en, en: *Rød &Blå*, Øra fonogram, OFO 010, 2010

Ex 15 Lemur:*Aigéan* , +3DB Records, +3DB 011, 2010

Ex 16 SPUNK: *Den øverste toppen på en blåmalt flaggstang*, Rune Grammofon , RCD 2026, 2002

Ex 17 Fe-mail: on *Money will ruin everything*, Rune Grammofon, RCD 2032, 2003

Ex18 Kvitretten: *Voices*, C.L.P: CD 26, 1996

Other CD's mentioned in Chapter1:

Anja Garbarek: *Balloon Mood*, RCA, 74321 37443 2, 1996
Bjørk: *Post*: Mother Records, 527733-2 , 1995
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Denseland: *Chunk* Mosz, MOSZ022, 2011
Josef Zawinul: *The Immigrants*, Columbia Records, CBS 4607801, 1988
Laurie Anderson: *Big Science,* Warner Bros. Records, 7599-23674-2, 1982
Manfred Mann's Earth Band: *Angel Station*, Bronze Records – 200 367, 1979
Radiohead: *KidA*: Capitol Records, CDP 7243 5 27753 2 3
Sidsel Endresen : *One* (Sofa Music, SOFA521, 2006)
Stina Nordenstam: *And she closed her eyes* Telegram records Stockholm – 4509-93898-2, 1994

Other relevant listening (a few out of far too many to be listed)

Amy X Neuburg: *Residue Other Minds, Other Minds Records*, OM_1007-2, 2004
Jaap Blonk: *Averschum, electric solo improvisations* Kontrans, Kontrans 947, 2001
Maja Ratkje: *Adventura Anatomica*, Semishigure, semi009, 2006
Maja Ratkje & Jaap Blonk: *Post-Human Identities* Kontrans, Kontrans 651, 2005
Maja Ratkje: *Voice*, Rune Grammofon– RCD 2028, 2002
Pamela Z: *A delay is better*, Starkland, Starkland St-213, 2005
Velotis/Kaasbøll/Duch: *The sea looks green when the sky is grey* SOFA, Sofa 519, 2006)

Appendix:

1.List of activities

Concerts and performances

2008:

29/12 BOL, Julejazz, Britannia Hotel, Trondheim

2009

06/01 With Tale Næss, support Gaza concert, Britannia Hotel, Trondheim

26/3 With Krister Jonsson and Per Oddvar Johansen, Credo, Trondheim

13/4 With Marilyn Mazur, Eivind Aarset and Ståle Storløkken, Nasjonal Jazzscene, Oslo

9/9 Åse/Strønen: Dokkhuset Scene, Trondheim

15 /9 BOL: Skylab Audiovision: Verkstedhallen, Trondheim

17/9 BOL: Skylab Audiovision Najonal Jazzscene, Victoria, Oslo

18/9 BOL: Skylab Audiovision Tou Scene, Stavanger, Norway

18/10 Solo Performativity Seminar, Dragvoll, NTNU Trondheim

1/12 Åse/Duch, PØKK, Blæst, Trondheim

17/12 Solo, christmas concert, Frimurerlogen, Trondheim

2010

3/2 BOL: Sortland Jazz & Viseklubb, Sortland, Norway

4/2 BOL: Tromsø Jazzklubb, Tromsø, Norway

20/2 Solo and with Michael Duch, public project presentation at Dokkhuset, Trondheim

4/3 BOL: "Smal I Hove"-festival, Studentersamfundet, Trondheim

13/5: BOL w/Snah og Stian Westerhus, Jazzfest 2010,BLÆST, Trondheim

5/6 with Marilyn Mazur Quartet, Klapeida, Litauen

1/9 Guest w/Jakob Buchanan Quartet, Århus Musikkfestuke, Århus, Denmark

9/9 With Per Oddvar Johansen and Krister Jonsson, Rødbrygga, Inderøy, Norway

10/9 with Per Oddvar Johansen and Krister Jonssonat HINT, Levanger , Norway

14/9 Solo, Book launch arrangement, Gløshaugen, NTNU, Trondheim

17/9 Solo, Music technology Days, Norwegian Academy of Music, Oslo

8/10 Solo, seminar at *Vokalarm* Festival, Nova Conference Centre, Trondheim

15/10: Eugenie- short story of sound, Queen Maud University College, Trondheim

29/12 With Michael Duch and Ståle Storløkken, Julejazz, Britannia Hotell, Trondheim

2011

1/2 ”Eugenie, short story of sound” , Teaterhuset Avant Garden, Trondheim

3/2 Solo, seminar Music Information Centre/University of Oslo

7/2 BOL with Snah and Westerhus MONO, Oslo

9/2 BOL with Snah and Westerhus Unterfahrt, Munich, Germany

17/3 Solo at Høgskolan for Scen och Music, Gothenburg, Sweden

31/5 Trondheim Voices with StagetrackerFX, presentation at NIME 2011

4/8 With Marilyn Mazur Animal Picknic, Naturama, Svendborg, Denmark

6/8 With Marilyn Mazur Animal Picknic, Urkult Festival, Nämsforsen, Sweden

9/9 “Eugenie, short story of sound” for students, Blackbox, Dragvoll, NTNU, Trondheim

14/9 “Eugenie, short story of sound”, Ultima Oslo Contemporary Festival of Music

7/10 With Arnfinn Killingren at Klubb Kanin, Rockheim, Trondheim

12/10 Åse/Duch ,Verkstedhallen, Trondheim

19/10 “Eugenie, short story of sound”, Music Technology Days, Rockheim, Trondheim

19/10 With T- EMP , Music Technology Days, Rockheim,Trondheim

13/11 BOL: Nature is Not Beautiful, Teaterhuset Avant Garden Trondheim

16/11BOL: Nature is Not Beautiful, Galleri Hans, Ørlandet, Norway

17/11 BOL: Nature is Not Beautiful, Nils Aas Kunstnersenter, Inderøy, Norway

18/11 BOL: Nature is Not Beautiful, Galleri Zink, Lillehammer, Norway

CD's:

Voxpheria with Thomas Strønen, GIGAFON January 2012

Numb, number with BOL/WESTERHUS/SNAH, GIGAFON February 2012

Compulsory parts:

Seminars, courses and others:
I have attended all mandatory courses offered by the programme during my period as a fellow. I have also attended 6 seminars at Voksenåsen. At NTNU I have for the last two years attended a research group discussing and exploring the field and concept of performativity, through various seminars and conferences. Further I have attended a seminar on action research at NTNU and being lectured in the use of Wordpress (website). Not at least, a very important part of my studies has been the weekly internal meetings at the section of music technology, Department of Music.

Lecturing:
NTNU: I have had several courses in creative music technology at the Department of Music. I have also had courses for and counselling the vocalists at the jazz section, and taken part in cooperation between the jazz section and the music technology section on a course exploring and guiding students improvisation in studio, with studio tools.
Others: I have had lectures and workshops at HINT (College for teachers in Nord-Trøndelag), and at Høgskolan for Scen och Musik in Gothenburg, Sweden.

Public presentations

I have attended, and presented my project or parts of it at, these conferences/seminars:

- "Musikalsk forskning og utforsking" NTNU, Dokkhuset, Trondheim, 20.febr. 2010
- "Musikkteknologidagene" (Music techn. conference), Norwegian Acadamy of Music, Oslo 16.sept.2010
- "Vokalarm", International festival of vocal ensembles, Trondheim, 8.oct. 2010
- "Musikk og maskiner" ("Music &Machines") seminar arranged by the University of Oslo, 3.febr. 2011
- The "Performance Turn" (Int. performativity conf.), arranged by NTNU 12-14 apr. 2011
- "The Art of Artistic Research", arranged by the Norwegian Academy of Music, Oslo, 6-8 may 2011
- NIME (New Interfaces for Musical Expression), Oslo, 30. May- 1.june 2011(With Trondheim Voices)
- "Lydhørt"- Music Technology Days in Trondheim 20/10 2011

Others: A 25 min interview about my project, music and talk, was produced and sent by NRK (Norwegian Broadcasting Corporation), *Jazzklubben*, P2 30/5 201

2.Voice Meeting: Narrative, Norwegian and English version

Eugenie- en lydnovelle

(Tekst Siri Gjære, basert på minnefortelling Tone Åse)

Eg kjører

Eg holder i rattet, sitter i setet

Kjenner gassen, clutchen

Eg ser veien i striper, svart, gult, hvitt

Billysene så langt de rekker

Ungene som sover i baksetet

Hvite Busker, strå og trær dukker opp i lyktelysene

Eg kjenner skyggen over pannen

Tryggheten i setet, bilbeltet, glasset, vindudviskerne

Farten, natta

Melodien, mormor……

Mormor står på trappen og e varm

Hon har akkurat satt tulipanløk og plukker vekk

Tørre blader fra planten som hon har hengende på verandaen

Ennå e vi bare i uke 39 (40, 41 ?)

Hun snur seg og bøyer seg ned, samler støvlene og

Treskoene og børster vekk rusket foran døren

Ska du ha vafla ? Det va møkje igjen i dag !

Mormor jobber på kafeen

Konvolutter med brev, med sedler - 10-krone-sedler, 20-kroner, 50, 100

Kosa deg for dessa ! Eg har fått brev !

Med sedler! Og utropstegn!

Jaja…. Så lenge du trives !

Huset til Mormor e gigantisk

Syriner og rosebed

Klesskap og kleskott i andre etasje

Bryllup i hagen, under syrinene, tyllgardiner

Egugenie-det va det hon het sjeni- Mormor-mommor-

Ska eg dikta deg inn i et evntyr ?

Bilen har en mørk flekk på panseret

Etter kattene, de ligger der når bilen kommer hjem

De har det godt på panseret- de får bara ligga der…

Panseret kjølner og de hopper ned,

Tusler over grusen , strekker bakbeina,

Lurver seg bort til bedet til mormors rause restefat, med grøtrester og tørre horn med skinke og ost

Mormor som tar telefonen

I gangen ,I lyset av ettermiddagssolen

Og morfar som prøver å gjette kem det e

Hon snakker med

Nei, e det deg du!

Ja, du måkje snakka, farr !

Ja kan skjønna det!

Ja, han e kjekke han! Jaada!

Men broren da? Ja, e 'kje det løye !

Ja, me e så forskjellige vettu !

Nei, det går bara bra me oss!

Ja, me blir gamle me og vettu ! Nei, det' ingen så leve evig, vettu !

Vaffelhjertene som mormor har med fra kafeen e digre

Med mye smør og to skiver ost på hvert hjerte

Det e som oftest mest igjen av de med hvitost

Vi blir stappmette, og vet ikkje om vi noen gang

Kommer til å orke en eneste vaffel til i livet

Aldri, aldri, aldri

Aldri i livet, som holder oss sammen

Som skiller oss ad

Og døden, døden , døden

Og hjertene, de bankende, blødende, glødende

Som

Holder oss i gang

Holder oss oppe

Holder oss fast

Smør og ost - Dingle med beina

Begge albuene på bordet - Mormor som driver på

Legger armene i kors og lener seg mot kjøkkenbenken

Og sier jaja-

Noen kjører inn på gårdsplassen

og morfar setter seg opp i stolen…

Eugenie- short story of sound, English translation

Text: Siri Gjære, based on Tone Åse's memories.

I am driving
Holding the steering wheel, sitting in the seat
I can feel the gas pedal, the clutch
I see the road in stripes; black, yellow, white
The headlights, as far as they light up the road
The kids, asleep in the back seat
White shrubs, grasses and trees appear in the lights
I feel the shadow on my forehead
The security in the seat, the seatbelt, the glass, the wipers
The speed, the night
The melody, grandma ...-the grandma-melody…

Grandma's on the doorstep, she looks warm
She has just been planting tulip bulbs, and she's removing some
dry leaves from the flower hanging on the porch
We're still only in week number 39 (40, 41?)
She turns around and bends down, collect the boots and
clogs and brushes away the debris in front of the door
"Want some waffles? Lots of leftovers today!
Grandma works at the cafe

Envelopes with letters, with notes – 10-crown-notes*, 20-crown, 50, 100 …
"Use these to have some fun! "
I have received a letter!
With notes!
And exclamation points!
"Jaja !" (Oh well !!) ...
"Så lenge du trives !" ("As long as you feel good!")

My grandmothers house is giantic
Lilacs and rosebeds
Wardrobe and closet on the second floor
Wedding in the garden under the lilacs, tulle curtains

Eugenie -that was her name… *Sjeni*, (nickname)
Mormor (Grandma) …*Mommor* (Granny)

"Would you like me to make you a part of a fairytale?" (or "write you into a fairytale"?)

The car has a dark spot on the hood
From the cats, they lie there when the car comes home
It's warm and comfortable on the hood,
-" It's ok, just let them stay there"...
The hood cools, and they jump down,
chugging across the gravel, stretching their back legs,
moving over to Grandma's generous food dish, with remaining pudding and dry croissants with ham and cheese, pancakes and meatballs…
And granny, who answers the phone
In the hallway, in the light of the afternoon sun
And my grandfather, trying to guess who she is talking with…

(Telephone call- typical dialect expressions:)

- "Well if it isn't you!"
- "No kidding!"
-"Yeah be sure!"
-"Yes, he's very nice he is! "

-“ Oh yeah!”
- “And how’s the brother doing?”
- “Yeah isn’t it just!”
- “Yeah, we people are different, you know…”
- “No, everything’s fine here with us!”
- “Oh well ... “
-“As long as you feel good!”
-“Yeah, we’re getting old too, you know!”
- “You know, nobody lives forever!”

The waffle hearts that Grandma brings home from the cafe are huge, with a lot of butter and two slices of cheese on each heart
Usually there is most left of the ones with white cheese
We are really, really full, and don’t know if we ever
will bear to eat one more single waffle in our lives

Never, never, never
Never in this life, this life that keeps us together
As do us part
And death, death, death
And the heart, the throbbing, bleeding, burning
Which
Keeps us going
Holds us
Keeps us connected

Butter and cheese - dingle with legs
Both elbows on the table -grandmother who keeps it going

Arms folded, leaning against the kitchen counter
saying “oh well” (Jaja)
Someone is driving into the courtyard
and grandfather sits up in his chair ...

Oh well.

**10-crown and 20 crown notes disappeared as I grew up….*

3.Voice Meeting: Questionnaires

Questions for volunteers, written response "Voice Meeting"

Theme 1: General focus
Which aspect of the concert experience did you focus mostly on during the concert? Were there times when you focused on other things than what happened at the concert, and if you did, what was the reason for this?

Theme 2: Sections
To what extent did you experience that you could divide the concert sequence in different sections?
If wanted, create a sketch of the concert progress from your memory where you indicate the division into sections (and any sub-sections)

Theme 3: Emotions, passion and bodily response
Did any parts of the concert experience evoke feelings, commitment or physical response in you? If so, can you describe this further?

Theme 4: Narrative aspects
What did the narrative aspects of the performance mean for your experience of the performance as a whole? To what extent did the text and the narrative make the performance more or less available to you as audience, and how did this happen?

Theme 5: Performance
To what extent did the actual presentation, the performers *way of performing* take a focus during the concert experience, and if so, what was it that you focused on?

Theme 6: Technological instruments
To what extent were you aware of the technological instruments during the concert? What did you think about these instruments and the way the performer played on them?

Theme 7: Musical / timbral aspects
How would you describe your experience of the timbral/ musical aspects of the concert? Was there any of these aspects that engaged you more or less than others?

Other
Are there other aspects of the concert experience you wish to comment or complement? Are there any questions you miss here?

“Voice Meeting “ : Focus group interviews, questions, translated from Norwegian:

For the moderator:
The interview lasts about 45 minutes, approx. 6 participants each. group.It is important that the moderator makes sure to keep time so that you get through all the questions. This means that there should be about. 5-7 min. per question, maybe something more for the first two, and perhaps somewhat less for the last questions. Question 7 is differentiated for the two groups. (It may be wise to scribble over the questions you should not use.)

Questions:
1. How did you experience performance / concert as a whole? [Check: how participants liked it, if they thought it was meaningful / meaningless, if they think it connected well, how was the experience of tension and form?]

2. What was it that caught their attention most during the concert? [Check also: Why was the attention drawn to this? How long and how strong was the attention focused on something? Was it something that happened that only a few were aware of? Were there any periods where the focus was "wandering" from one aspect to another? Were there periods where they experienced flow / heightened focus? Was there anything in the performance that was distracting?]

3. Did they experience that the performer was more present in some parts of the performance than in others? [Check: in what way? In which parts? Why?]

4. Did you feel that you could feel you recognice, or identify with some parts of the performance more than others? [Check: What was possibly recognizable? Was this positive or negative?]

5. What degree of naturalness do you think her voice had in the different parts of the performance? [Check also: Do the participants that "naturalness" is a good term to use when they talk about what is happening? Why / not? What part was this?]

6. Was it parts of the performance where you felt you alienated? [Check: In case: how much? Why? Does any of this has to do with the technological instrumentation?]

For the group of sighted public
7. What do you think about the relationship between what you see and what you hear? [Examine: Could you relate some of the actions carried forward to what happened aurally? What about the voice - what was the relationship between the voice you "coul see" and the voice you heard?]

For the group of "blind" the audience

7. How did you experience not being able to see the performance? [Check: In what ways was the experience different from a more "normal" concert, where you can see the performer? Did the concert create some inner images? Could you imagine the performer and the instrumentation during the performance?]

4. Article, NIME 2012: ***Using a seeing/blindfolded paradigm to study audience experiences of live-electronic performances with voice***

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ABSTRACT

As a part of the research project *Voice Meetings*, a solo live-electronic vocal performance was presented for 63 students. Through a mixed method approach applying both written and oral response, feedback from one blindfolded and one seeing audience group was collected and analyzed.

There were marked differences between the groups regarding *focus*, in that the participants in blindfolded group tended to focus on fewer aspects, have a heightened focus and be less distracted than the seeing group. The seeing group, on its part, focused more on the technological instruments applied in the performance, the performer herself and her actions. This study also shows that there were only minor differences between the groups regarding the experience of skill and control, and argues that this observation can be explained by earlier research on skill in NIMEs.

Keywords

Performance, audience reception, acousmatic listening, live-electronics, voice, qualitative research

1. INTRODUCTION

In recent years, there has been an increased interest in studying contemporary electronic and digital musical performance with a focus on interrelationships between performer, technology, audience and context/situation, often referring to a performance *ecology* or *ecosystem* [2, 5, 6].

In the light of such studies, the collaborative project *Voice Meetings* has aimed to explore audience experiences of a specific live-electronic performance with voice, both as a goal in itself and as input to the performer's artistic development process.

While the second author has described her artistic process in great detail elsewhere [10], the focus of this paper will be on the audience centered part of the project. Here, we have focused on systematically collecting data from subjects who have been present at *Eugenie*, a solo performance for voice and live-electronics described in section 2, and subsequently transcribing, structuring, analyzing and interpreting this data. The emphasis on context/situation implied in the notion of an ecological perspective on performance has made us opt for a design where we study audience responses to actual performances rather than recorded ones.

One important idea in the project has been to gain information about how different aspects of live-electronic performances are perceived with different modalities. More specifically, we have been interested in investigating how blindfolded audience members' experiences are distinguished from experiences by "normal" seeing and hearing audience members. The written response sheets, questionnaires and focus group interviews collected from one blindfolded and one seeing audience group, has proven to be a rich material addressing several interesting issues. In the context of NIME, however, we would like to focus particularly on issues related to the performer, her use of technological instruments and how this is experienced by the blindfolded and seeing parts of the audience with *focus*, *skill* and *control* as central issues.

2. PERFORMANCE AND SETUP

With a background as a jazz and free improvising vocalist, Tone Åse has developed a performance structured around sections of pre-composed text based on her own childhood. Superimposed upon and/or

interspersed with these narrative sections, Åse explores sonic landscapes from the more poetic and ambient, to the more brutal and violent, using live-sampling and manipulation of vocal material that range from pure sound/noise to more conventional singing.

Åse uses a setup that is relatively straightforward technologically, largely with commercially available hardware/software (Roland SP-555, Lexicon MX400, Electrix Pro Repeater, Ableton Live/M4L, and more), albeit having some tailor-made components/patches. The setupnevertheless offers highly interesting sonic possibilities that the performer has explored over a number of years in many constellations.[56] A picture showing Åse and her instrumental setup at one of the performances in the project can be seen in figure 1. It must also be noted that Åse intended to let her visual presence "interfere" with the audible content as little as possible, using bodily gestures beyond what was needed for instrumental control only sparingly, resembling to some degree the natural situation of the storyteller sitting on a chair telling a story.

Figure 1: Tone Åse performing *Eugenie*.

3. METHOD

3.1 Design and data collection

The performance took place in a black-box rigged with stage lighting and a PA-system, with a total of 63 audience members, 38 male and 25 female, all being students taking courses at an undergraduate level in drama/theatre (n=15), musicology (n=28), music technology (n=19) and dance studies (n=1). Attendance to the concert was an obligatory activity, while participation in the audience response session was voluntary. The audience was divided into one blindfolded group (n=13) and one seeing (n=50). These groups were originally planned to be of roughly equal and much smaller size, but due to a last-minute addition of students from two courses other than those planned for, for whom we had only a few extra blindfolds, the seeing group became significantly larger. By increasing the audience and filling up the black box in such a manner, we hoped to give the participants a more concert-like experience. As for comparing the two groups we would only get the "bonus" of achieving a higher reliability for the seeing than the blindfolded group.

Prior to the performance, all participants filled out a form with information about study programme, musical preferences, and experience with sound manipulation, as well as declaring participant consent. The instrument setup was hidden for all audience members until the selected group had put on sleeping masks as blindfolds, whereupon Åse entered the stage and began her performance, lasting approximately 22 minutes. After the applause, Åse left the room, and the setup was covered, before the blindfolded group was instructed to remove their blindfolds. In this manner, neither the performer nor her instrumental setup could affect the experience of the performance or its recollection for the blindfolded group.

The participants then immediately began the response session, taking place in three phases; 1) *Open written response*, where the participants were to write freely for 5 minutes on the keyword "my experience"; 2) *Guided written response*. Here, the participants were given seven response sheets, each with a question, and instructed to answer each question before turning to the next sheet. The questions were dealing with a) focus, b) sectioning, c) emotions and bodily response, d) narrative aspects, e) the performer's way of performing, f) technological instruments, and g) musical/timbral aspects. 3) *Focus group interviews*, which were conducted in two groups of 6 blindfolded participants and 6 seeing ones, respectively, who had all earlier given their consent to participate [9]. The participants were taken to separate rooms where interviews took place. According to the established methodology, they were conducted as a relatively open conversation, but with a moderator guiding the conversation so as to address seven topics: a) an evaluation of the performance as a whole, b) focus/attention, c) presence, d) identification, e) naturalness, f) alienation, and g) relationship between visual and auditory impressions (for the seeing group) and the experience of not seeing (for the blindfolded group).[57] The interviews were recorded on video and audio for subsequent transcription. After the interviews, the two groups were taken back to the rest of the participants and given a de-brief, explaining the intentions and context of the research project, as well

[56] For details about Åse's performance, video clips, equipment setup and an English translation of the text, see http://www.toneaase.no/musical-projects/

[57] The guided written response sheets and focus group questions are avaliable at http://folk.ntnu.no/andbe/voicemeetings

as giving the blindfolded participant a chance to see Åse as well as her instrument setup.

The combination of data collection methods has been motivated by the so-called *fundamental principle of mixed method* research, "that methods should be mixed in a way that has complementary strengths and nonoverlapping weaknesses". [7]. In short, we have tried to balance the open with the guided, and the individual with the more socially determined.

3.2 Data analysis

The data from the completed forms as well as the written and video/audio recorded material was transcribed and imported into NVivo, a tool for computer assisted qualitative data analysis.[58] All the material was subsequently classified and ordered into categories and sub-categories on several levels with a relatively high level of detail. Here, sub-themes of sub-themes will be labeled *aspects*. In this process, it has been an issue to let the content determine the ordering as much as possible, thus avoiding categories grounded in pre-conceived theory. By cross referencing participant group (blind/seeing) with the categories emerging from the analysis, it was possible to see trends in the material regarding several issues, some of which will be dealt with in the following section.

4. OBSERVATIONS

4.1 Overall themes

There were several themes that emerged quite clearly from the material. By looking at the open response data separately, we could get an idea of what themes emerged spontaneously, i.e. without terms or perspectives imposed from the researchers or the other audience members. The four most important of these themes were (ranked by the number of references): 1) *Aesthetic or taste evaluations*, 2) *technology and/or performer*, 3) *emotional response*, 4) *associations and inner imagery*. Thus, we could conclude that issues related to the performer and her technological instruments had been relatively important for the participants in this study, independently of any of the issues the researchers had wanted to address.

4.2 Focus – blindfolded vs. seeing

The differences between what the blindfolded and the seeing participants reported in the questionnaire question 2a about what aspects of the performance their focus was directed at were quite pronounced, especially for six themes: *Associations and inner imagery*, *bodily response*, *general level of focus*[59], *story/narrative/language*, *technological instruments* and *performer/performance*. Figure 2, displaying the number of persons making references to the different themes in the two groups, shows these differences quite clearly. For the blindfolded, a far higher proportion of participants reported of *associations and inner imagery* and *bodily response*. And, as we can see, for the seeing group, a much higher percentage made reference to both the *technological instruments* and the *performer* themes, with none of the blindfolded making references to the latter theme for this question. I will go into more detail about the latter of these themes in section 4.3 below.

A plausible explanation for these matters can be sought in the fact that mental resources like attention, memory and cognitive processing are limited, and that if we have more things to focus

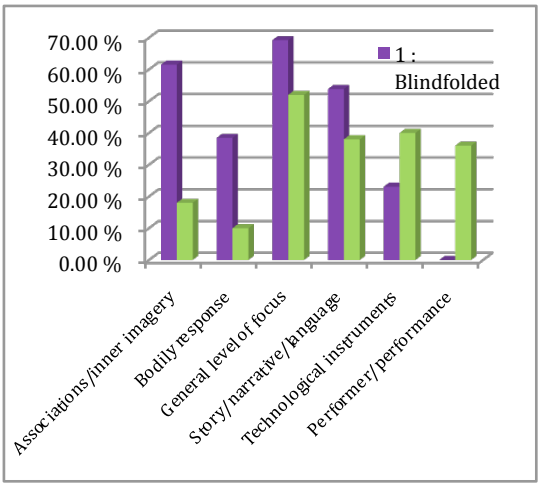

Figure 2: Percentage of participants making references to themes showing the greatest difference between blindfolded and seeing participants in question 2a about focus.

on, we have less resources for each of them [1]. Here, the seeing participants had to apply their mental resources towards both what they saw and what they heard, and thereby the chances of missing out on something might be increased. Furthermore, the risk of distractions might be larger with two modalities at work. Several of the seeing participants (n=7, 14%) reported that they were distracted by looking at other audience members, by seeing the cameraman, and by the performer and her instruments. One seeing participants stated in the focus group interview that "*I'm not so used to it [all the equipment], so it was like; 'Ah, how does it work?'. I think that distracted me a lot, really*". For the blindfolded group, however,

[58] NVivo qualitative data analysis software, 2010, QSR International Pty Ltd.

[59] This theme comprises reports of heightened or lowered focus distractions, gradually falling out of focus, etc.

there was only one single participant mentioning being distracted – this was from noises made by other participants.

Conversely, the blindfolded participants had no sensory "interference" from visual input, thereby increasing their attentiveness to what they could hear, something which parallels the pedagogical "trick" often applied by those who are teaching listening skills, namely closing the eyes while listening so as to listen more attentively. Actually, a majority (n=8, 62%) of the blindfolded participants reported some kind of enhanced focus. For instance, one writes: "*Felt that the senses were sharpened due to the fact that vision was absent, and jumped if anybody nearby coughed etc. […] general impression was very intense*". In addition, the blindfolded participants, while being occupied with a smaller number of "outer" sense impressions, would have a surplus of mental resources that might make them more susceptible to their own "inner" response, as e.g. *bodily response*.

Interestingly, several of the seeing participants (n=8, 16%) reported that they had closed their eyes during the performance to get a better or more enhanced listening experience, or to be able to create inner images. This interpretation also corresponds well with increased proportion of participants reporting of *associations and inner imagery* for the blindfolded group. Hence, it may again be due to the lack of "competing" visual input.

4.3 Performer/performance

As for the *performer/performance* theme, we saw above that none of the blindfolded participants mentioned it when being asked about focus (2a), in other words, when they freely reported what they remembered they were most focused on. Even when asked explicitly about the performer and the way she accomplished her performance (question 2e) less than a third of the blindfolded participants had something to report (n=4, 31%). If we look at all the written data in the study, the number is higher (n=6, 46%), but statements are often vague or indirect. There were only two indirect references to the performer in the focus group interview.

In contrast, and not very surprisingly, a large majority (n=42, 84%) of the seeing participants made reference to the performer or the way she performed in the written feedback, and in the focus group interview, it was subject to a longer discussion (19 references). Here, a much greater number of aspects were mentioned, such as the *performers face*, *visual communication*, *communication of emotions*, *movements*, the *relationship between movement and sound*, the *actions of the performer's hands*, in addition to those aspects mentioned by the blindfolded group. Each of these was mentioned by relatively few participants (n=4-11, 8-22%), however. In other words, the references to this theme appeared to be *spread out* over many different aspects.

There were few differences in how themes such as *skill* and *control* were referred to by the two groups. The degree of specificity in describing the performer's skills or control was not high, either referring to relatively general skills of controlling "instruments" or "effects", or stating even more generally that the performer was "skilled" or had "full control". Moreover, an overall tendency for these references was that they were mostly relatively short. Lastly, there was a general tendency that the participants evaluated the performer's skills or level of control positively and that for several participants, the performer's *calmness* was closely related to the perceived degree of control. For example, one of the seeing participants expressed: "*I was impressed that she was that calm and that she had everything under control*". In short, for neither the blindfolded nor the seeing group the perceived *skill* and *control* seemed to figure very prominently in the participants reports of the performance, and both groups' references were all relatively vague and unspecific.

A slight difference between the groups that can be noted, however, is that there were some participants (n=5, 10%) in the seeing group appeared emotionally affected by the level of skill they experienced, either by being impressed or inspired. This was not observed in the blindfolded group. Another minor difference was that there were a few references to vocal skills for the blindfolded group. This was absent from the seeing group.

5. DISCUSSION

It can be interesting to discuss these observations in the light of earlier studies of skills in the NIME literature. Other studies have identified factors affecting the perception of skills by spectators/listeners that rely on vision alone or couplings between vision and sound. For instance, Fyans and colleagues have observed that facial gestures, perceived performer confidence as well as projecting an embodied relationship with an instrument were important factors in spectator perception of skills [3, 4, 6]. If such visual factors were equally important in this study, the seeing participants should in principle have a better basis for making evaluations than the blindfolded ones, meaning that one would probably expect to see more pronounced differences between the groups. When the differences are only minor, as here, one needs to examine more closely how each of these factors could make a contribution.

The reasons that the blindfolded were able to make propositions about skill and control for this performance might be firstly, that even if the blindfolded listeners had neither access to facial expressions nor body language that could project confidence, they could hear a voice through larger parts of the performance. And, studies show that the recognition of emotions from the voice is somewhat better than from the face [8]. Thereby, it should be possible for the blindfolded listeners to experience the

performer's confidence, which for both groups here appears to be linked to an experience of *calmness*. Secondly, the control part of the instruments used here are what Gurevich et al. using Norman's term has labeled "weak general", i.e. unspecialized and generic – they can control anything, depending on the mapping in each case [6]. The engagement with such controllers will thereby be dominantly cognitive and difficult to relate to bodily skills at all. What was possible to relate to, however, was how the performer projected skills as a vocalist, something which a few of the blindfolded listeners did comment. Thirdly, according to Fyans and Gurevich, an evaluation of skills is dependent on familiarity with what they call a "community of practice" where a certain kind of skill is situated and bears meaning [3]. Accordingly, more people should be able to adequately evaluate skills for common activities like singing and reading, as a few of the blindfolded listeners did, than for playing rare and/or highly specialized instruments, like Åse's setup. In this case, the complexity of the instrument setup, with many hardware and some software components interacting in a multitude of ways configured and adjusted to the performer's individual needs, makes the instrument into something that only in a very general manner can be linked to a community of practice. Hence, even if the participants (n=10, 18%) who reported to have a large degree of experience in sound manipulation have probably experienced to manipulate a sound by pressing a button or turning a knob, it is unlikely that they could have developed a sense of what it takes and how it feels to control and perform skillfully with this particular setup.

6. CONCLUSIONS AND IMPLICATIONS

The observations reported in this paper have shown that a musical performance with voice, live-sampling and manipulation is experienced differently by blindfolded and seeing audience members. We saw that there were marked differences regarding *how focused* they were, in that blindfolded audience members were less often distracted and more often expressed a heightening of focus. Furthermore, we saw that there were also clear differences in *what* participants focused on. Here, the differences regarding *performer/ performance* – with blindfolded participants reporting less often and in more vague terms than the seeing – were quite pronounced. In the light of other studies, the lack of marked differences between the perception of *skill* and *control* between the groups were explained with the performer's unspecific and general musical interfaces along with the general lack of a "community of practice" for the performance in question here.

The observations also introduce some questions that performers might consider. Should aesthetical considerations regarding the visual appearance of the setup be balanced against the intended level and aspect of focus? Is audience attentiveness towards instrumental setup an implicit part of the performance or an unwanted element? Can reducing the visibility of instruments sometimes be a means to achieve a heightened level of focus? Does the combination of visual technological instrument create an interesting counterweight to more immediate and natural parts of the performance?

The minor differences observed regarding the perceived *skill and/or control*, on its part, might suggest that these issues are perhaps not as strongly projected through interaction with generic input controls like knobs, sliders and buttons. Thus, if the point is to appear skillful, virtuous and controlled, performers might consider choosing instruments that demand a more specific and embodied form interaction, preferably rooted in a 'community of practice'. Lastly, performers should also consider that *skills*, *control* and *calmness* were often positively correlated in this study, both visually and vocally, thus stressing the role of *confidence* in performance.

The rich material generated in this study opens for addressing several other issues that can have interest both for performers and scholars preoccupied with similar genres, and for anybody interested in the interaction between audience and performer in concert-like settings. The data referring to emotional and bodily response seems highly interesting, and so does the material on associations and inner imagery. In addition to proceeding with thorough analyses of these themes, we also want to do a comparative study of the participants' response in the three feedback methods, thus hopefully making it possible to address more precisely to what degree our mixed method approach have fulfilled our intentions. Lastly, we would like to do a video and audio analysis of the performance that can subsequently be compared with findings from the audience studies. Thus, we hope that we can provide findings that can be relevant for the research on the relationship between listening and watching musical performances in general, and those applying technological instruments and voice in particular.

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5 Technical setup