



Doing it to Death

An investigation into a session musician`s migration

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Dissertation for the degree philosophiae doctor

University of Agder

Faculty of Fine Arts

2019

Doctoral dissertations at the University of Agder 263
ISSN: 1504-9272
ISBN: 978-82-7117-964-9

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Print: 07 Media

Kristiansand

Foreword

In memory of my late wife Lise, I would like to thank her for her love, perseverance, help, encouragement and friendship. During the earlier stages of my PhD fellowship, she was stricken with an incurable cancer with a tragic outcome. Most of the PhD work was done while she was ill and in need of nursing. Consequently, a lot fell into my hands. The rest of the doctorate was carried out as a grieving single father with two grieving children. In-between and after these major life events, I worked on my dissertation, counting on contributing to the field of popular music.

Abstract

This doctorate dissertation is about the guitar and technology in a creative perspective - about a change and transformation in musical direction. Dreyer's quest is to clarify how technology can help break new ground for a former session musician with ambitions to deepen and create a more distinctive personal expression. Through different angles and with an exploratory approach, Dreyer is searching for his own personal sound, using improvisation, composition and sound manipulating tools. Dreyer is an experienced session guitarist now exploring creating his own music using technology. He has participated in more than 160 released albums, and toured with numerous Norwegian and international artists. He also has released four albums with three different self-initiated music projects, two of which combine music and sound art. This text is an autoethnographic depiction of the quest for a personal change in musical direction and a need for a strengthened profile as a performer and composer. The reader can acquire an insight into Dreyer's search for, and aim at a clearer idiom and sound, using technology.

Acknowledgments

Without the following supportive persons, this project could not have been carried out. First of all, I would like to thank my main supervisor Tor Dybo, and my co-supervisors Geir Holmsen and Jan Bang. I would also like to thank my longtime friend and colleague Bruce Rasmussen for encouraging me to apply for the PhD research fellowship. During the period of the doctoral fellowship, I built a studio with the invaluable assistance of master builder Trygve Dreyer.

Other invaluable contributors:

Per Kvist, Inge Engelsvold, Odd Harald Jensen, Hallvard Wennersberg Hagen, Erland Dahlen, Jonas Barsten, Erik Kimestad Pedersen, Lars Erik Humborstad, Arne Skage, Audun Ramo, Signe Salvesen, Anne Grete Preus, Niko Valkeapää, Anders Tveit, Jon Marius Aareskjold, Kristin Berg Nordstrand, Trond Lossius, Ricardo Del Pozo, Ole Mofjell, Ronnie Jacobsen, Trond Augland, Inga Marie Soteland, Erik Honoré , Greta Aagre, André Kassen, Per Elias Drabløs, Mariam Kharatyan, Lars Kristian Lia, Roald Råsberg, Cornelius Dreyer, Lykke Filippa Dreyer, Maria Sandnes, Sindre Hotvedt, Jon Halvor Nysveen, Kirsten Tungland, Pål Svendsberget, Geir Rebbestad, Kjell Hjelmerud, Henning Seldal and everyone in KSO, as well as Rolf Gupta, Pär Edwardsson, Jango Nilsen, Beady Belle, Tore Bråthen, Ingrid Andsnes, Thomas Bårdsen, Anne Birthe Andersen, Einar Lunde, Ole Martin Hillesund, Stan Hawkins, Per Kristian Skalstad, Eirik Mordal, Simen Heftet Endresen, Kjetil Lynnæs, Richard Andreas Salvesen, David Anders Holme, Ingrid Anthonsen, Anne Haugland Balsnes, Kari Anne Røysland, Marit Wergeland-Yates, Torgeir Albert, Susanne Kathlen Mader, Kjell Varvin, Agnete Eilertsen, Ragnhild Torvanger Solberg, Cornelia Spring, Anthony Weinert, Jens Petter Nilsen, Henrik Johannes Brodtkorb, Zachary James Bresler, John Derek Bishop, Margretha Sørli Myren, David Kollar, Jan Sudzina, Eivind Aarset, Gjertrud Wendt, Erik Gundvaldsen, Ariel de Wolf, Terje Paulsen, Knut Tønsberg, Michael Rauhut, Tor Jarle Wergeland, Sigurd Tenningen and Maury Saslaff.

I also wish to thank the library at UiA represented by Are Skisland, Reidar Bjorvatn, Anne Åse Kalhovd, Dina Møll Schoder, Hilde Terese Drivenes

Johannessen, Ingrid Galtung, Ellen Sejersted, Erik Adalberon and the rest of the staff, all of who do a great and important job.

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1 – Introduction

Doing it to death contains a possibility for unpleasant associations, but that is not the intention. As the title of this dissertation indicates, you can do something until you die. If you choose it, music can be a lifelong companion and a project that never ends. Another beautiful thing about music is that you can learn something new all the time, the more you dig into it, as no matter which field within the music domain you choose, numerous vast areas emerge. Curiosity and a striving for constant evolution have led me from being a mere session musician to having a desire for a more performance and artistic approach to my musical activities. It is an eternal expedition, something to strive for the rest of your life. The title of this dissertation is taken from the Kills' song *Doing It to Death*.¹ Although without giving any specific reason, another possible interpretation for this title is that the lyrics are hinting toward sexual actions. I am not going to delve too deeply into that particular aspect, though one should not be surprised by such references in a rock song. However, my point is that the title also underpins the dissertation's belonging in the popular music domain. To me, the title also covers the heavy circumstances I experienced during the period of the doctoral fellowship, which are described in the foreword. In the end, the song has a remarkable and outstanding dark and sexy video,² which I saw before I entered the challenging and fatal years. In retrospect, it was almost like a bizarre warning of what was about to take place in my life. Besides the more private content and interpretation, the song is produced with a sense for a dark and minimal aesthetics, a kind of aesthetics preferably distinctive to my project and my music as well. In the above-mentioned song, The Kills are utilizing technology in a way that both coincides with and indicates the direction for my project and investigations. Therefore, due to the many possibilities associated with my research, the choice of title for this dissertation landed on Doing It to Death.

¹ The Kills, 2016. *Ash & Ice*. Doing It to Death, Domino.

² The Kills, Doing It To Death on YouTube.com

1.1 Clarification of terms and concepts

In this dissertation an alternation between terms is used to explain, express and state the same topic, which can be described as striving for the more personal in a musical performance. Terms like personal sound, artistic expression, distinctive voice, idiom and variations over the same previously mentioned terms are used to describe the core of the quest, which can be described as a search for a change in a musical performance practice with a desire and need for a more personal approach and style. An alternating between the notions will appear in the proceedings. The laptop computer may sometimes simply be referred to as the Mac, with no explanation of each and every type of software installed and utilized at all times. A more detailed overview of the laptop computer will be provided further on in the dissertation. Guitar amplifiers are often referred to as an amp or amps (plural). Microphones are sometimes referred to as a mic or mics (plural). Miking³ may occur as a verb in the meaning of setting up a microphone and enabling it for recording. Tracking may also be used as a verb for recording. Software such as Logic Pro X is often referred to only as Logic. Ableton Live with Max for Live is referred to as Live, or just Ableton, or Ableton Live. It may vary. The pedal steel guitar is sometimes referred to as just pedal steel on some occasions. Overdrive is a common effect in the guitar domain, and is also referred to as drive. Gig is another word that occurs, and is frequently used among musicians to mean a job, concert, studio session, etc., and sometimes also for a tour. An alternation between the nouns piece and work are used as variations for composition. Furthermore, the term migration has strong political overtones within the Arts and Humanities. So, to eliminate any doubt, my adaptation of the word migration is to use it in the sense of a transfer, a slow evolvement and change, a development, innovation and a transformation in my personal musical interests and direction. Migration is usually connected to people moving or fleeing from war or poverty in a geographic sense. My meaning of the word is to signal and define a transfer and lifelong journey as a musician, insofar as constantly seeking new sounds and idioms to evolve as an artist. My use of the

³ verb (used with object), miked, mik·ing.

Informal: to supply or amplify with one or more microphones; attach a microphone to: to mike a singer, taken from [www.dictionary.com\\browse\\miking](http://www.dictionary.com/browse/miking) (accessed 9/12/2019).

word artist also needs clarification. In certain languages and different environments there may occur a distinction between an artist, as is in a composer, painter, etc., and an artist, as in a celebrity singing other's songs or acting as a singer/songwriter; hence, there is a need for a clarification of the meaning I choose. I regard a performing musician as an artist with a distinctive identity, and a session musician as a mere craftsman, without any further validation between the two.

1.2 Purpose and objectives

Based on my own experiences, there is a conflicting field between being a session musician and executing one's own artistic works. The conflicts often give rise to craftsmanlike dilemmas versus artistic decisions. In addition, the conflict elicits a need for aesthetic clarity and a clearer artistic direction.

I want to release recordings of my own material, but not necessarily full albums, because today's market, which is streaming-implicit, has changed so much, cf. (Knut Løyland, November 2011, p. 8). However, the album is interesting as a format to create for, even if it originally stems from the industry as a commercially standard format suitable for sale.⁴ The idea is not to commercialize, inasmuch as this project has a research purpose. However, it must be a coherent collection of works that represent my musical expression and sound, to make it as distinctive as possible. To achieve this, it takes a lot of trial and error, exploration and musical experiments. I already mastered the musical technology I use, but I had to learn the sound manipulating tools I work with even more thoroughly. That meant spending a lot of time playing the guitar in combination with the pedals I am using, and the software Logic X and Ableton Live with Max for Live. All my experience has taught me that as much live performance as possible is the best way to both learn and develop as a musician. Nevertheless, my project is based upon recordings focusing on studio work. I considered the possibility to implement studio recording and concerts together by inviting an audience to attend the studio sessions that were carried out, although the recordings were not incorporated into the doctoral project. Another considerable possibility was to facilitate for

⁴ Enlightenment put forward by Uwe Schmidt (Atom TM) on his seminar on September 5th, 2015 at the Punkt Festival.

broadcasting the studio sessions online using streaming technology, which was not executed for this project, but is still of current interest and may be accomplished later.

In the final stages of the artistic processes, some of the works did not make it onto the album. They exist as recordings, but were down-prioritized in the very last phase. The reason was that the music, the composition and the expression did not fit into the entirety, which is paramount for such selection processes. However, the descriptions of the ideas behind the compositions, developments and work incorporated are included in the dissertation because of its influence and contribution to the final outcome of the whole process.

1.3 Background

This section includes topics and a few anecdotes that came to mind during this process along with artist references about how and why I migrated from being a freelance session musician to a performing musician. Moreover, it is about following my own needs and interests by composing and performing my own music and the incorporation and utilization of technology. It is also about involving emotions and thrusting the intuition and reliance on inspiration, whose attributes are not regarded as a common custom for a session musician, and may appear as a lack of professionalism. On the other hand, it reflects my music's origins and foundation in nature and human feelings. From my standpoint, music is too emotive, and the emotional consequence cannot be ignored, not even for a professional⁵.

My background as a musician is included to mount a presentation and reason for my choice of topics. The process from being a professional session musician, to becoming more independent as a performer, to performing and producing your own music, also entails entrepreneurship. I have also followed my intuition and interests before, and initiated projects that have resulted in four CD releases and several concerts. Some of the former projects involved and included a cross-cultural cooperation, including world music and related

⁵ Music and emotions is a vast topic in philosophy and science, as for example in Susanne Langer's book, "Philosophy in A New Key" (Langer, 1942), in which she debates the emotional and the intellectual in music performance. However, I am aware of the field, but I do not intend to open up a discussion on this topic, although I state the increasing importance of the emotions for me in my music performance, rather than the intellectual aspect.

genres. The doctoral project is partly a continuation and expansion of former self-initiated projects.

As a professional session musician, you aim to be the best, to master all types of genres and all types of techniques on your instrument. When the artist or producer you work for asks you to play something you do not necessarily feel is right for the music, you still do it and without questioning it. That is the attitude of a professional, which is expected as such. Doing this for more than 20 years, and retaining that attitude, became increasingly uncomfortable and I started to think back and wonder why I started as a musician. What did I really want? Inspired by Terje Rypdal, I remember having dreamy thoughts about composing and playing my own music. I will never forget the moment I saw a Norwegian film or documentary which I cannot remember the title of,⁶ although the music of Terje Rypdal was used as the score. In retrospect, as I remember it must have been the track *Innseiling* (Terje Rypdal, 1980), which is found on the album *Decendre*.⁷ I remember being both fascinated and frustrated upon hearing this music for the first time, possibly because I did not understand the expression and how to create a sound like that. Later on, I found another Rypdal album⁸ in a local record store. I bought it, and was captivated the very next moment after listening to the entire whole album. It was the track *Den Forste Sne* (Terje Rypdal, 1979) that got me hooked. I realized that jazz was not only II-V-I progressions with a swinging rhythm, and could very well sound different from that. From then on, I was determined to become a professional musician. Rypdal was my idol, both as a guitarist and composer. And his groundbreaking style and sound appeared mysterious and thrilling to me and inspired me very much, and still does. Pat Metheny's *Travels*⁹ (Pat Metheny, 1983) was another piece that inspired me much at that time, a lot because it embodied jazz as something more than intricate melodies

⁶ I searched nasjonabiblioteket.no (which took over for jazzarkivet.no) for the film without luck. Thomas Baardsen at The National Library of Norway also did some serious research to help me find it, but also unfortunately without luck.

⁷ Terje Rypdal, 1979. *Decendre*. ECM 1144.

⁸ Terje Rypdal, Miroslav Vitous, Jack DeJohnette. *Terje Rypdal, Miroslav Vitous, Jack DeJohnette*. 1979. ECM 1125.

⁹ Pat Metheny Group, 1983. *Travels*. ECM 1252/53.

and fat chords with numbers. To me, *Travels* marked a folk/country influence that I think resonated with my American origins:¹⁰

What cannot be taught is inspiration, or the qualities of character that enable a person to engage with and understand the needs of the moment, of an artist attempting to express his or her vision. (Howlett, 2009, p. 90)

This statement represents a lot more than simply music production, which is Howlett's main subject area. It refers to many divisions of music and the understanding of music. For me, inspiration has a significant power that has driven me in all my musical activities. I do not intend to open a discussion about inspiration, but to me it is definitely a facet. Inspiration manifests itself in music, style, attitude, idiom, women, love, art, song lyrics, life events, colleagues, an instrument, nature, etc. The list is long, but my point here is that inspiration is experienced as a power and a drive that cannot be undermined. Nonetheless, at some point inspiration can be conflicting when you experience uninspired moments as a musician. Experiencing uninspired moments is quite common, and there may be a multiplicity of reasons. I am not going to embark upon an explanation but instead reflect upon my own experience. As indicated, inspiration is a power that independently leads me onward from how it is manifested, in addition to the importance of its significance. Ingrid Olava¹¹ had a statement that I found inspiring:

[...] to find the place where the music arose for me, where the music exists for my sake, not to be judged, wrapped up and sold [...] Ingrid Olava.¹¹ (Stoltenberg, 2015)

As a session musician I started to lose inspiration when playing gigs I did not like. Consequently, a need for examining the evolvement had to be put into action. One may discuss the level of professionalism in disliking a gig or mixed emotions with a job you are trained to execute. Still, that was my starting point for figuring out whether I wanted to continue as a session musician, quit or affect the situation in another direction. There are many reasons to dislike a gig, but to mention a few, there are the music, type of venue, the audience, the salary, the travel, etc. I realized I had to follow my

¹⁰ I am an American citizen, and have lived in Norway since 1973.

¹¹ Ingrid Olava is a Norwegian artist, singer, pianist and songwriter.

own needs and to do so I had to ask myself: Why did I want to become a musician in the first place? And that has a lot to do with inspiration.

I remember going to a Jan Garbarek concert in 1983 when the album *Wayfarer*¹² was released. Bill Frisell was in Garbarek's band at the time, and that was the first time I ever heard about him or heard him play. Bill Frisell is probably the guitarist I have admired the most. The concert opened my ears to the aesthetics and beauty of ECM's music, and put me in a state of mind I did not know existed. I will allege that it was quite unusual for a 15-year-old boy to aspire to become a musician based on modern jazz influences derived from the ECM label. It would have been more suitable if Kiss, Prince or Bruce Springsteen were my idols at that time, in terms of my age.¹³ My strong attraction and fascination for the music released on the ECM label is taken into an account as a backdrop for the reason I changed from being a freelance musician to following my own interests. Moreover, as a teenager, I also had an interest for almost all other kinds of music that were around. I was aching to get input, and took in everything that could inspire me. Since I had decided to become a professional musician, I chose to learn as many styles as possible, with the idea behind this being to become stronger in the competition for gigs.

Furthermore, I first studied classical guitar and later on electric, because I realized it could become too much of a risk to go for a career as a classical guitarist. Ever since, I have had deep feelings for the classical guitar and its music. Classical guitar has become like a hobby to me, learning and playing new pieces and also maintaining already studied pieces. Practicing classical guitar techniques has helped me to understand the principles for how to develop a good guitar tone. As a guitarist who for the most part plays the electric, the classical guitar training has become an invaluable tool in strengthening my evolution as a guitarist. I also believe that my enthusiasm for classical guitar music has had an effect on my perception of music. It has influenced the way I shape my guitar tone, and how I utilize and switch between classical guitar technique and electric guitar technique in my way of playing. Unfortunately, it has been difficult to maintain my classical guitar

¹² Jan Garbarek Group, 1983. *Wayfarer*. ECM 1259.

¹³ Later, during the 80s, I began to enjoy chart music of contemporary artists and popstars.

practice on a regular basis. However, it still has an importance to me, and on my evolution as a musician. I will allege that it is essential in the understanding of creating a sound, especially from a technical and craftsman-like standpoint. Otherwise, there is a huge difference between the classical and the electric guitar in practice.

1.4 From session musician to performing musician and composer - a migration

What is the difference between a session musician and a performing musician? There may be a possibility to argue that there is no difference. Despite there possibly not being such a disparity, I would like to argue there is a variation. The way I reason for a distinction between a session musician and a performing musician is that the session musician is hired to do a job, generally playing sheet music with arranged guitar parts, with little or no potential to leave behind a personal imprint. Most session musicians understand, and agree to that and the artistic limitations implicit. The way I define a performing musician is a musician who is hired because of his or her distinct expression, who leaves a personal imprint, independent of whatever music is an item for execution. In other words, you are hired because of your personal sound, contrary to being hired just because someone needs a guitar player. Then there is a challenge as a session musician to play other's music with a high degree of personal expression and a distinctive sound. Or put another way: How to play other's music your own way and in your style? One may argue that my description of a performing musician is more likely to be described as an artist. My reason for being careful in utilizing such a description is that the term artist feels too pretentious. There is a certain awkwardness associated with that term; consequently I reason for the term performing musician instead. Yet, it is unavoidable not to employ artist as a notion; hence, it will occur.

My background as a session musician has driven a greater need to become a performing musician and composer, which incidentally is a recurring subject throughout the dissertation. Even so, one may claim I have already developed as an artist by releasing four albums on my own initiative, although it was in close cooperation with other colleagues. Additionally, I constantly keep thinking about projects and ideas for music I want to carry out. Furthermore, most of my knowledge is dedicated from being a session musician for many

years. Not to forget the years as a student with many great teachers, yet it is the “real life” experience that leaves the weightiest knowledge. It is important to state that I have learned a lot from all the musicians and artists I have worked with over the years as a session guitarist. And being a part of the music scene, mostly in Norway, but also internationally, means I have learned a lot from booking agents, managers, sound engineers, back-line technicians, producers, television hosts and any other imaginable worker related to the music industry. Moreover, it is the migration from being a session musician to become a performing musician and composer that are implicated in that mentioned above.¹⁴

1.5 Music and entertainment - the agenda, emotions, ambitions and virtuosity

Some players make commercial calculations and compromise their taste in an effort to appeal to a wider audience, yet they still run the risk of rejection. If it winds up that player and listener alike don’t like the music, what is the point of playing? (Philp Toshio Sudo, 1997, p. 66)

Being a part of the entertainment business, rather than the music scene, made me rethink my role as a musician and my personal ambitions. Working in the entertainment business, where the music’s role is to entertain, was not for me. By that, I mean the music is constructed with a certain audience in mind and to please people. These are factors that must be dedicated in order to make

¹⁴ In this regard, stories about session musicians who have gone solo are common knowledge among musicians, e.g., Duke Ellington who was known for his ability to highlight musicians and allow them a possibility to develop their own careers. Several of Ellington’s band members left the band and built solo careers; some lucked out, while others did not. Those who did not generally returned to the band. Bass player and composer Charles Mingus, baritone saxophonist Harry Carney, alto saxophonist Johnny Hodges and bass player Jimmy Blanton are examples of musicians who built their own careers due to joining Ellington’s band. Other examples are bandleaders like Miles Davis and George Russell, both who functioned as incubators for several well-known musicians who achieved their own careers by participating in Davis’ and Russell’s bands. Here are some examples: guitarist John Scofield, guitarist Mike Stern, bass player Marcus Miller, and keyboard players Herbie Hancock and Joe Zawinul, to name a few from Davis’ band. Bass player Arild Andersen, saxophonist Jan Garbarek and guitarist Terje Rypdal are examples of members who stood out from Russell’s band, not merely as musicians, but also as composers (Oxford Music Online, Encyclopædia Britannica, Grove Music Online).

money, which is the intention, the primary agenda. To me, music is emotionally more important than just entertainment, or an artifact adjusted and made functional in order to only make money. The intention therefore is not to debate entertainment music versus art music, but to underpin my choices, emotional connection and love affair with music. My interest is in music and soundscapes, not to gladden an audience or to gratify an impresario. Kevin Dawe sums it up when he writes:

In terms of the audience, soundscapes seem to be about listening, and not about watching a musician cavorting around the stage. (Dawe, 2010, p. 2)

Another aspect about entertainment in music is the expectation of an excelling musician, or frankly speaking, a need to show off. In some circumstances, it is the audience who requires amusement by the performers showing off their talent. Some musicians favor the entertainment bit, and emphasize virtuosity as the most important quality about their musicianship. In the past, I was swept away by virtuosity and let myself aspire to idiomatically become as technically skilled as possible. The primary reason was to obtain the freedom needed to master the guitar and all kinds of musical styles. Back in the days when I aspired to become a musician, I admit having an idea about also showing off. But early on, during my period of music studies, I met resistance in terms of both physical and anatomical restrictions. And, I had classmates who were a lot more virtuosic than I could ever be, even with an inconceivable amount of practice. This experience contributed to my direction as a performing musician, and now my mantra¹⁵ is “express rather than impress.” Nonetheless, I ended up doing a lot of gigs within the field of the entertainment business, not as a virtuoso, but instead as a trivial guy saying yes to all types of gigs that came about, without any consciousness-raising on contouring and image building:

For a musician at that time, LA was boomtown. Once you broke on to the circuit, there was a natural cycle to how things would happen. Guys would every few years jump off the train and move on to become an artist, arranger, songwriter or producer. (Steve Lukather, 2018, p. 47) [sic]

Yet without a comparison to Lukather as such, there are recognizable parallels to how it worked out for me as a session player, and how I later wanted to

¹⁵ I do not use the word in its meditational meaning, but rather to denote a personal slogan.

break out and go for a certain artistic direction instead. Somewhere midway in my career I had to stop and find out what I was doing, and why I was doing it. In other words, I had entered an identity¹⁶ crisis. I realized I had left the original reason and motivation for my musicianship. I was playing gigs that made me feel uncomfortable, and most of all playing music I did not like. And, I only did it to collect enough money to pay the bills. Fair enough and responsible one may say. But for me, music is too emotional, regardless of the kind of music, just to play for the money or just for the fun of it. I realized being a session musician was not for me anymore. When I started playing the guitar, it was all driven by emotions. The motivation was joy and a constant renewal of knowledge, the dedication of technical skills in combination with learning and understanding music, constantly improving, the rejoicing of playing with others and dreaming about a future as a musician. The learning curve was precipitous, and with a lot of fun attached. Many years later, I realized I had slid too far from my dreams. The reasons for illuminating these topics are the critical influence it had on my career, from being a session musician to become a performing artist and composer, in the sense of choices, changes and ambitions. Topics that appeared in this process are described in this statement:

Experimental guitarist, looper, songwriter, improviser, session guitarist, film composer, record producer, mixer...David Torn is all of those things.
(Mark Sullivan, 2017)

The excerpt is taken from an interview with guitarist David Torn, and may point the question in another direction and avoid the problem by focusing on what one in fact is doing. In my case, I am a guitarist, improviser, composer, producer, studio recording engineer, studio owner, entrepreneur and project manager, who is additionally engaged in playing the classical guitar and a little bit of drums as a hobby. However, the meaning of the listing is to illuminate qualities and attributes both needed, and that are quite usual, in one's capacity as a performing musician in modern times.

¹⁶ I am aware that identity is an important and large field, especially within the jazz- and improvisation studies. However, I do not intend to delve into the topic, but referencing authors like Berliner (1994) and Hawkins (2002).

1.6 Reasons to migrate

The following recap is an unstructured listing of actual keywords and themes based on my experience as session musician, brought up as topics and reasons for a change in musical and artistic direction: increased fear of failure, nervousness, the importance of playing music you like, demanding artists, nice artists, too many different styles and genres, why I usually do not listen to the music I currently tour with, different guitars, coloring the music, trying to create your own sound (maybe the most difficult there is?), tightness, in the pocket grooves, rattling and not tight bands, intuition and how important and decisive intuition can be, self-proclaimed dogmas as guiding principles for aesthetic choices, colleagues and musicianship, following your heart and following the factors that reinforce musicality,¹⁷ always play musical, no matter what kind of music you are playing, and try to identify and then eliminate factors preventing musicality or musical playing.

The intention is not to escape or believe that the above-mentioned problem areas will disappear by migrating and becoming a performing artist. Most of the above-listed keywords belong in the field of psychology, but some relate to the aesthetics and musicology. The themes form a backdrop of pointers into each of the above-mentioned areas, which in turn affect the migration to become more oriented around personal artistic operations. The following quotation by Pat Metheny inspires me, and is perhaps the most important thing any aspiring musician should keep in mind; moreover, it is probably the most difficult task to pursue:

... I have to say that the quality of being different has much more value to me than it seems to have for others. When I hear someone who sounds like someone else, I kind of tune out. To me the whole area of individuality, and at least attempting to come up with something that is original and not referenced to this or that, is very important to me. ... Oddly, as time has

¹⁷ The way I use the term musicality and musical playing claims a definition; for me, the term means a description of the feeling or the state you are in when everything, the dynamics, the touch, the tone, the expression, the energy, the flow, the timing, the swing, the groove and all what you hear, feels right when you play or perform. Possibly live or in a recording situation, you are into the music, and it is verifiable either by listening to what you are doing (e.g. a recording) or getting someone you trust to have an indisputable agreement that one's playing is outstanding in the sense that it is musical.

progressed, this seems to become less and less an issue with players. In fact, there are players that I hear where it seems that the thought of the pursuit of an original sound has never even crossed their mind. It appears to me and my aesthetic, my way of thinking about it, this is not cool; in fact, it is kind of an error. It is like playing bad notes, but bad notes on the aesthetic level. (Joe Barth, 2006, cited in Dreyer, 2011)

Metheny's statement has become a driver for me, and it is pointing at the core of my reasoning for migrating. Originality has become more validated and important as my musical career has evolved, yet the most difficult job to endeavor. Maybe it is a never-ending process, though it requires responsibility, willpower and a conscious, reflected attitude, and it must be genuine, natural and a matter of course.

1.7 More relevant topics: Business, economy and entrepreneurship

I went from being a freelancer to following my urge. Being a freelancer has its challenges, financially in particular, with instability in the rush of gigs and income. Over the last 15 years there has been no development in musicians' fees (Knut Løyland, November 2011), and the last survey shows the same results (Vigdis Moe Skarstein, 2015). The reasons for this have been discussed, with one reason possibly being the influx of younger and highly skilled musicians taking over for the older ones. The business has been driven by youthful arrogance ever since the beginning of rock 'n' roll in the 50s. It is part of the nature of popular music, its business and its industry.¹⁸ My situation forced me to think differently, and made it necessary to create my own projects, which implied a great deal of entrepreneurship. By entrepreneurship, I mean the entire process from the conception of an idea to the accomplishment, the type of project management, raising funds, writing applications, employing other participants, booking, e.g., venues, studios, flight tickets, accommodation and rental cars, as well as maintaining contact with central actors, emails and telephones, marketing, social media, etc.

¹⁸ It is not intentional to open up a discussion about the music business and the industry, but rather a supplementary way to explain that the role as a session musician is not untouched by the business and the state of the market.

1.8 The importance of networking and networks

Becoming an independent performer leading and directing my own projects has its challenges. Early in my career I was fortunate to meet all the “right” and “important” people in the business. I had the opportunity to establish a network containing managers, record companies, booking agents and all other occupational groups within the music industry. Indeed, I did connect with several, but could have connected with even more if I had a more aggressive and ambitious attitude. One of the reasons I was not eager to do too much was to serve and stay focused on the artists I was working with at the time.

Moreover, I did not want to ingratiate myself on to their business connections. That could have been mistaken as if I was taking advantage of the artist’s relations for my own good. Furthermore, I have always enjoyed the company of other musicians and to make connections on friendly terms. Good musicianship is something I have always valued more than business relations.

Over time, even after I had established contact with a decent amount of business relations and possessed a large network, there were no automatics in getting my own projects realized and released when I started doing my own music. It felt like I had to start all over again. And it still feels like that, even after four released albums, and still possessing many business contacts. There may be different reasons for this. The music business has been in a tremendous upheaval since the Internet, and even more since streaming services took over in the last two decades. Another reason is the music itself, of course. I would like to describe my music as simple with complex sounds, and experimental. There are parallels to Derek B. Scott, who points out that if one breaks too many conventions, a style becomes lost or unrecognizable. To communicate meaning, you need to relate to style codes in some way (Scott, 2009, p. 16). Still, experimental music rarely hits the charts. My ideas of experimental music have derived from a need to break from all the conventions I have been devoted to, almost to let off steam. It has also never been my goal to hit the charts, as I have already been there many times participating on other’s hit songs.¹⁹ I wanted to play something different from what I had been doing as a

¹⁹ In the absence of a list of hit songs that went on the charts, see my resume on bjorncharlesdreyer.com

session musician, such as when I used to participate on relatively mainstream pop productions. For that matter, it is very satisfying and sometimes necessary to make that change to accomplish your own voice and personal artistic expression. It takes a lot to achieve an understanding for the choice and change in artistic direction. It is also equally difficult to operate on your own and to achieve interest among people in the business and attention among colleagues and an audience. Again, it has been, and still is, a road of daring and new experiences. Maybe it is the risk factors that drive many artists in their work? The reason I want to implement this for the reader is because it is a part of my background. It substantiates the choices I have made, and it draws an image of the business from my experience and perception. One depends on a large network with influential people, provable activity, and preferably an audience that likes your music.

1.9 Popular music and genres

As a great deal of scholarship in cultural history has shown, cultural genres are always polemical rather than natural. Moreover, both “classical” and “popular” repertoires contain too much heterogeneity to be stable. What internal features unite Gregorian chant, a Beethoven symphony and the music of John Cage, or, on the other side, Stephen Foster, Little Richard and Trent Reznor? The work of Lawrence W. Levine and others demonstrates that cultural hierarchy cannot be explained in terms of the internal features of texts or practices; “the popular” is not defined by simplicity, shallowness, immorality or ephemerality, but by social processes of prescription and negotiation in the service of competing interests. Such findings have been confirmed by numerous studies focusing on how particular texts or practices (jazz, opera, film, the novel) move up or down the ladder of cultural prestige.²⁰ (Robert Walser cited in Moore, 2003, pp. 25-26) [sic]

Popular music is discussed and persuaded in numerous books, articles, journals, etc., and to me, as a performing musician, the notion covers everything that has to do with modern and contemporary music. The notion of popular music has nothing to do with popularity, and is not about genres as I see it. Rather, popular music as a notion defines the entire research field within musicology, and holds all current genres that exist. Simon Frith alleges genre distinctions are central to how record companies’ A&R departments work. The

²⁰ The author quotes other sources. See the original text for footnotes.

first thing asked about any demo tape or potential signing is what sort of music is it, and the importance of this question is that it integrates an inquiry about the music (what does it sound like) with an inquiry about the market (who will buy it). (Frith, 1996, pp. 75-76) Furthermore, Frith writes:

Genre is a way of defining music in its market or, alternatively, the market in its music.

Although Frith relates the questions about genre to the music industry's business models, the question for a genre definition on my music can become handy in leaving out any confusion or parallels to popular music, which is a research field, and not a genre in the way I treat it. Additionally, in Per Elias Drabløs' work, *From Jamerson to Spenner* (2012), a discussion on value and judgement according to genres is brought up. What I find interesting and worth mentioning is the uncovering of disparagement towards the quality of certain musical genres among different bass players with session experience. In interviews, they reveal "the values of an ideological discourse, concerning one form of music as superior to another" (Drabløs, 2012, p. 17). Drabløs also endorses Frith's observation that "musicians mostly use value judgements, and use them to effect" (Frith cited in Drabløs, p. 16). Drabløs continues (pp. 16-17):

(...) musicians draw conclusions about the genre as a whole, based on the time they have spent with their instruments and their experiences with the music they have rehearsed, played and listened to.

Nonetheless, as a former session player, there is a recognition in judging and valuing music and genres for a clarification in genre comprehension, and how to carry out different types of session work. Even so, in my quest for an idiom it has become less important referring to genres in general; rather, it is the opposite. Developing an idiom requires a release in genre valuation and instead focuses on judging the validity of one's own evolvement in the search for a personal sound, which could profitably be regarded as developing a new genre. So, for clarification, genre value-problematiques aside, popular music is both a genre and a research field which contains amounts of different genres associated with popular music. The latter is how I consider popular music, consequently as a research field.

However, my work requires an openness in-between genres. The music I deal with is crossing borders between jazz, ambient, electronic, contemporary and

even country music. I define contemporary music as modern music derived from classical contemporary art music. I could also define today's top 10 hit songs as contemporary music, which it certainly is, but that is not what I mean by the term in the way I deal with it. I am aware that my project sometimes tends towards contemporary art music as in the genre. My investigations are treated within a frame of popular music research, rather within contemporary art music research. For example, country music is more of an influence than a genre, and is probably a subconscious underscoring of my American origins, represented by the pedal steel guitar and a tendency towards simplicity²¹ and triads in music. The melancholy and sentimentality of the lyrics that most country songs contain are attributes I can also correlate with. My compositions are mostly instrumental, and for that reason there is no need for any further discussion about lyrics other than to ascertain its inspirational impact.

Furthermore, to broaden and illuminate the domain, it is appropriate to list current guitarists in the field, selected here from personal preferences: David Torn, Eivind Aarset, Christian Fennesz, Bill Frisell, Terje Rypdal, David Kollar, Stian Westerhus, Robert Fripp, Pat Metheny, John Scofield, Jimi Hendrix, David Gilmour, Bjørn Fongaard, Adrian Belew and Tom Morello to name just a few. And, to broaden the field a little more, topics tending to be dealt with in my quest for a more distinctive sound are:

- session musician towards performing artist and composer
- composition and improvisation
- electronics and acoustics

These topics are central in the evolvement of a new musical idiom and may be regarded as contrasting, which is interesting from my point of view and for the following research. All the topics will be treated in the dissertation with a variable emphasis. To develop as a performing musician, I will produce and collect material in that regard. The referenced compositions and recordings

²¹ Simplicity is a value-laden notion. However, I do not intend to validate any genre or music by its intricacies. Every music tradition is characterized by its own forms of complexity regardless of simple chord structures or lyrics, etc. The complexity may appear on the human-, the communicative-, the aesthetical level and the historical background, etc.

described in Chapter 4 are examples of material that deal with the above-mentioned topics, and additionally attributes for analysis.

1.10 Artistic intentions

A possibility to explore guitar and electronics against the sound of an orchestra came closer to realization by choosing Geir Holmsen as an artistic supervisor. Geir has written numerous arrangements and compositions for orchestras. Part of my idea was to combine and hone guitarscapes with acoustic sounds, whether mixed, separated, blended, contrasting, etc. In addition, comparisons between composition and improvisation will shine through the trials and analysis further on in this dissertation. Usually, classically trained members of an orchestra or an ensemble are mostly dependent on sheet music. My interest was to see if there were possibilities to collaborate with classically trained musicians and make music without the dependence on notated music, and find ways to combine acoustic parts with electronic guitar through improvisation. I have always also wanted to write an experimental piece for an orchestra, in which the musicians are encouraged to improvise. The main challenge, besides acquiring an orchestra, is to create textures for the different groups of the orchestra without using scores. Furthermore, before and during the doctorate period, there has been an attraction towards exploring 3D sound, also called immersive sound. The text will occasionally reflect upon experiences from this quest and form part of the analysis, albeit only a small part. Nevertheless, despite 3D sound possibly being regarded as a delimitation, the few encounters with the topic are included because it indicates a new direction for exploring guitar and new technology. The core motivation is to become freer as a performer and to develop a personal idiom, both as a guitarist and composer, mixer and producer and preferably make myself more independent, no matter what musical circumstances I will be exposed to. This does not necessarily mean I want to “go solo,” but I want to represent a more personal musical expression in all contexts I perform in. In some ways I am already a profiled musician, but mostly associated with my background as a session musician and the artists I have worked with. What I aim for is to achieve, or at least come closer, to a more genuine idiom. So, how to do that, and how to obtain the objective? This can be achieved through plenty of musical experiments, improvisations and recordings. Moreover, topics for discussion are how I

attempt different ways of playing, how I use sound-manipulative tools and the way the computer is integrated in my guitar setup and how I write music. Other aspects of the topic are background, inspirational sources and what music theoretical foundation I ground my playing and composing on. I also plan to investigate my abilities as a composer, yet another reason to learn how to use notation software.

The utilization of new technology and electronics is essential in my performance practice, and forms a basis for the research project. However, I already know from years of experience it is not the sound-manipulative equipment in itself that is going to make my sound special. Instead, it is how I use the equipment that is going to affect my sound in an individual way. Investigating my own playing and style based on an idea about composing as a method to obtain a distinctive idiom implies a need for mastery of a notation tool. I also want to improve my knowledge and skills in software such as Ableton Live and Logic X. Even with many years of experience, there is always a need to keep pace with the constantly evolving software and its updates. Moreover, the software holds vast options and opportunities for creativity and progression. By effectuating recording sessions with solo guitar and electronics, sometimes in combination with acoustic instruments, I will strive to find my sound. The tensions between composed and improvised music, as well as the contrasts between acoustic and electronic sounds, are subjects for exploration. There is also a tradition to predetermine where the audio stream and sound objects are to be located in the space within electro-acoustic multichannel works. In concert situations, I often seek a more improvisational exploration of the performance space. The physical room, the speakers, the acoustic instruments and the electronic timbres merge into one “instrument.” The performers are placed in the center surrounded by the audience, with the PA speakers furthest out facing toward the performers and the public. In that way, both the public and the musicians are framed in sound. Additionally, the PA speakers work as a monitoring system for the musicians, too. The electronic journal, Recommendations for Surround Sound Production, a representative for the environment and the field, argues that this surround sound is still current:

...surround sound... is arguably the most exciting of all fields in audio today. (Ainlay et al., 2004)

The statement underpins my curiosity and inclination to involve surround sound. For my recordings, there are exciting opportunities in mediating in 3D sound or other binaural solutions. In some contexts, my music is also directed towards sound art, so an idea about making a quadraphonic recording, or similar, is therefore quite relevant. Mostly because I am curious about the concept, and despite that quadraphonic and surround sound have been around for some time, it is the film industry that has utilized it the most. It is more common within the classical music field to produce and release albums in surround. However, Pink Floyd was groundbreaking with their utilization of surround sound in their live shows, as today's technology makes it cheaper and easier to use. Although I have experimented with a reproducing method by routing the guitar signal and effects signals to a quadraphonic set-up, becoming a "quadraphonic guitarist" is not what I mean by getting a more distinctive sound, and it is not what I aim for. Quadraphonic sound is more of a challenge I seek to present in the works I plan on making in the doctoral research period. Thus far, my experiences with surround sound have been varying and difficult. The engagement stems from my interest in sound art, in which multi-channel sound systems are the standard for presentation. It is most likely ascribable as a convictional feeling, but music presented in multi-channel sound systems can be more interesting than stereo representation. Despite the fact that surround sound technology has been around for many years, stereo is still the most common way to present music, whether on records or at concerts.

1.11 Research questions

How to become an idiosyncratic musician? How to become a more autonomous performer? And at the risk of sounding pompous, how to become an artist? These are all questions and topics that have been of current interest for me, both before and during the project period, and they apply for the examined works further out in this dissertation. I want to figure out how to become a distinctive artist on a high international level as a musician and a composer, and consequently, what does it take to do so? I want to develop a personal musical idiom and figure out what the process requires. My background as a session musician has led me to a point where these questions have arisen. The purpose here is to comply with a desire about becoming more

independent as a performer and to cultivate the creative aspects of the music performance practice, in addition to adjusting to a more demanding reality as a musician. An underlying interest in sound sculpting and soundscapes is also a driver for this project and its related questions. Focusing on strategies for developing new sounds, and implementing different sound-manipulating tools in the signal chain, can lead to discoveries that otherwise would not have been made. Further questions are: How can I change as a performing musician? How can technology help in migrating from being a session musician to becoming an artist? In what follows, I will attempt to illuminate the questions through a process of exploring and investigating my musical performance practice, thereby implying my desires through different strategies, including improvisation and composition, alongside utilization of technology such as sound-manipulating tools, studio recordings and trial and error, with the aim of elucidating these questions, and by that to achieve my artistic level in line with this.

2 - Methods

2.1 Autoethnography

A multi-method approach seems to be applicable to my project. Nevertheless, because of a proportionally amount of self-study implicated in my project, I chose to write an autoethnography. My project is based upon my personal experiences as a performing musician, with a focus on guitar and electronics in a performance practice that draws from being a session musician moving towards a more personal distinctive artistic approach. Through a variety of artistic experiments and trying different composition techniques, utilizing and investigating software and hardware, the idea is to discover new ways to go for my artistic development, and how to get there. Writing an autoethnography is possibly the most convenient methodological tool to achieve the results I am searching for. Supplied with analysis, theoretical tools and literature, it should form the basis for the artistic research. Autoethnography is more personal, and a way to write the self into research. It is a retrospective form of writing and reflexive in exploring personal experiences. Some autoethnographers apply interviews to illuminate other's experiences, which I do not. The reasoning for not applying interviews is to emphasize the focus on my quest, research and artistic choices among others:

When researchers write autoethnographies, they seek to produce aesthetic and evocative thick descriptions of personal and interpersonal experiences. They accomplish this by first discerning patterns of cultural experience evidenced by field notes, interviews, and/or artifacts, and then describing these patterns using facets of storytelling (e.g. character and plot development), showing and telling, and alterations of authorial voice. Thus, the autoethnographer not only tries to make personal experience meaningful and cultural experience engaging, but also, by producing accessible texts, she or he may be able to reach wider and more diverse mass audiences that traditional research usually disregards, a move that can make personal and social change possible for more people. (Bochner, 1997; Ellis, 1995; Goodall, 2006; Hooks, 1994, cited in Ellis, Adams, & Bochner, 2011)

An actual example of an autoethnographic work is Michael Howlett's thesis, "The Record Producer as Nexus: Creative Inspiration, Technology and The Recording Industry":

Autoethnography is a form of writing that makes the researcher's own experience a topic of investigation in its own right. (Ellis and Bochner, cited in Howlett, 2009, p. 3)

Furthermore, as Howlett phrases it, "after the action is done – that reflection and analysis can take place. In the heat of the action, philosophy is far from the participants consciousness" (Howlett, 2009, p. 3) [sic]. Like Howlett, this informs my methodology as well. It is just not suitable to bring out a notebook and write reflections in the middle of a creative process. Likewise, this also goes for asking participants about permission to cite them, or to take footage et cetera in the middle of a fluid work progression. Nonetheless, it is important to take notes and write logs and reflections not too long after the action is over. My experience is that if you wait more than 24 hours to write down notes, reflections, etc., you will probably find it difficult to give a detailed report or information about the action done.

It is likely that a search for a distinctive artistic expression can be of common interest whether you are a student, a performing musician, an academic, any kind of artist, an already successful artist, and possibly for people who are searching for knowledge about changes and transformation. "The narrative genre or the autobiographical side of writing can display multiple layers of consciousness and connect the personal to the cultural. It may invite the reader to become co-participants, engaging with the storyline and its phenomena morally, emotionally, and intellectually" (Howlett, 2009, p. 3). Further on, it should also be opportune to include that autoethnography is criticized for being atheoretical (Atkinson, 1997) and poorly written (Gingrich-Philbrook, 2005; Moro, 2006), yet praised for being applicable to lived realities (Goodall, 2004; Tillmann, 2009). Various approaches to reflexivity have also been criticized for placing too much or too little emphasis on making theoretical claims as well as an (in)ability to *change* lived experience (Denzin 2003). However, the goals of making theory and motivating change work best when held in productive, recursive tension (Foley, 2002). Autoethnography is also criticized for being narcissistic, self- indulgent, simplistic, and just too personal substantiated and discussed in Tony E. Adams and Stacy Holman Jones' article "Telling Stories: Reflexivity, Queer Theory, and Autoethnography" (Adams & Holman Jones, 2011). By paying attention to the criticism of autoethnography as a method, I hope to be able to impart rigorous and precise research produced

as autoethnography. And yet despite the criticism above, I maintain the use of ethnographic methods in my research project due to the insider's focus on the processes in the musical investigations conducted in this work.

Furthermore, by utilizing different research methods, an application of exploratory research can provide useful information to my project:

Exploratory research, according to its name, merely aims to explore specific aspects of the research area. Exploratory research does not aim to provide final and conclusive answers to research questions. (John Dudovskiy, 2011)

Exploratory research, a ramification of action research, is good for initial research, and provides a basis for a more conclusive research (Dudovskiy, 2011). Hence, action research is related to exploratory research, whose purpose is improvement, or in my case, performance practice. Although I use parts of action research, it is not for the purpose of improving anything, but rather for using the questionnaire method. Action research also has a multi-stage model for research execution, which can suit my project in certain phases of the research process. The multi-stage model consists of four main points: planning, acting, observing and reflecting, also referred to as the action-reflection cycle. (Jean McNiff, 2002, p. 40) An implementation of this model is not necessarily for improvement of my musical practice, which is the essence of action research, but rather to address oneself by asking questions that belong to the exploratory part of action research:

There are no fixed answers, because answers would immediately become obsolete in a constantly changing future. The very idea of answer becomes meaningless, answers transform into new questions. Life is a process of asking questions to reveal new potentialities. Action researchers ask questions of the kind, "I wonder what would happen if...?" They aim to disturb fixed systems of knowing rather than maintain them. (Jean McNiff, 2002, p. 18) [sic]

The exploratory method is applicable to my musical experiments and artistic research. The idea is to implement a diversity of artistic experiments, which implies:

- to try different composition techniques
- to utilize and investigate different software, such as:
 - Ableton Live;

- Max for Live;
- Logic Pro X, and
- Sibelius
- above-mentioned software in combination with hardware, so-called stomp boxes and other guitar effects.

Furthermore, I have been through periods of personal and musical insecurities, which were very disturbing. It affected my emotions and playing in a bad way. It was difficult to locate the real problem, but in retrospect it was related to my starting point and motivation for becoming a musician. Some of the primary questions were: “Why am I doing this?”, “There is a need for a change in artistic direction, how do I make such a change?” and “What does it take?”, and more questions followed. While looking for literature on autoethnography, I found that others had experienced the same thing, and that autoethnography had helped them to understand the problem and reframe their lives. I had no intention to write an autoethnography to help achieve a therapeutic effect, though it is possible. Yet, it is possible to acquire better insights into one’s work and ways of working, choices, and the thoughts behind, exploring and exchanging experiences. To carry out research on yourself and your work becomes personal at some point. An autoethnographic production of the artistic processes and results suits this purpose, which is to develop a more distinctive artistic idiom. The aforementioned exploratory method is also applicable to my musical experiments, improvisations and artistic research. Implementing improvisation as the main stage in developing an idiom, like I do, is compatible with the statements below:

[...] autoethnography can allow musicians to explore their own creative practice in culturally insightful ways. [...] In practice-led research, composers and performers are uncovering the ways in which their personal lives and cultural experiences intertwine in the creation and interpretation of musical works. (Brydie-Leigh Bartleet, 2010, pp. 6-7)

Both the above-mentioned statements aptly fit my project and my research. Self-reflexivity, a desire to examine and understand the personal story behind the creative experiences is a driver for this, as I am hoping to uncover ways my personal life and cultural experience intertwine with my creativity and artistic development.

An autoethnographic work can have a variety of creative formats. Besides being written in the first person, it can include short stories, music compositions, photographic essays, etc. It also presents further questions: In what ways can my research be valuable to others? and: How can this autoethnography communicate with others?

Personal narratives propose to understand a self or some aspect of a life as it intersects with a cultural context, connects to other participants as co-researchers, and invites readers to enter the author's world and to use what they learn there to reflect on, understand and cope with their own lives. (Ellis et al., 2011) [sic]

With the exception that other participants are not connected as co-researchers in my project, the information and tacit knowledge brought up can be valuable to others. It is likely that a quest for a distinctive artistic idiom can be of common interest whether you are a student, a performing musician, an academic, any type of artist, an already successful artist and maybe for people who are searching for knowledge about changes and transformation.

Additionally, I have an arsenal of effects that I use to manipulate the sound of the guitar. Although these tools are not regarded as creative forms associated with an autoethnographic work, the effects are nonetheless significant for my musical practice. Consequently, it requires a separate part to provide an insight into the effects I am using.

Autoethnography has also been debated as a method, and has been criticized for being unacademic and inaccurate.

2.3 Sound-manipulative tools

The pedalboard is essential, and this is where all my sounds and music derive from, with only a few exceptions. Furthermore, there is a need for going through the signal chain and the pedals, similar to a rig rundown. There are basically two boards, one upper and one lower pedalboard. The lower one is for pedals that can be controlled with the feet, while the upper board is to be controlled by the hands. The lower is lying on the floor, and the upper is usually put on a table. The computer is placed next to the upper pedalboard for the same reasons, to better control the different functions in the Ableton Live software. In addition to the upper pedalboard and the computer, there are two USB-connected devices. One is a KORG MIDI controller assigned to control

certain parameters and then there is a Logidy pedal, which is assigned to enable record-overdub-play-stop looping, all in Ableton Live.



Figure 1: Korg nanoKONTROL2



Figure 2: Logidy pedal



Figure 3: The pedalboards, the computer and the USB controllers. The iPad is the controller for the Eventide H9 connected via Bluetooth. The audio interface, MOTU 4-pre is lying underneath the computer.



Figure 4: The lower pedalboard, situated on the floor

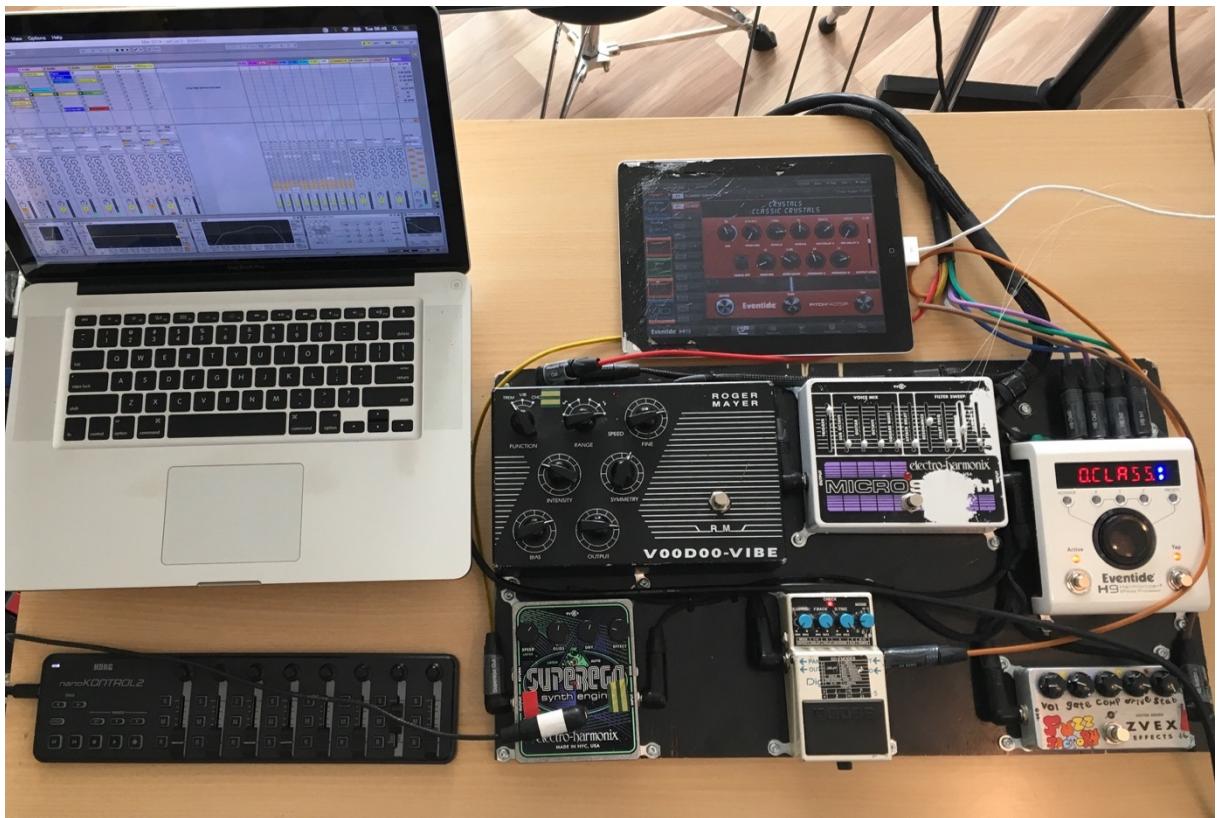


Figure 5: The upper board, situated on a table

2.4 How am I going to use the different sound manipulating tools?

I use the different sound manipulating tools to not only enhance the guitar sound itself, but also to create new soundscapes. The sound enhancement argument is more applicable to session work and stems from years experienced as a session musician, always striving for the perfect guitar sound.

Nevertheless, I am always interested in playing with the highest possible quality guitar sound, even when it is supposedly being defiled and manipulated into something unrecognizable. The other side of it, and another use of the pedals, is the creative part searching for different sonic possibilities, discovering new atmospheric sounds, which for that matter has become the drive and the motivation. It includes a whole deal of playfulness and improvisation that results in different atmospherics and feelings that can be used as building blocks in new compositions, or just as passing and fleeting improvisations. This motivation separates from the session musician's aim towards the highest possible quality in the guitar tone. Now, the motivation and ambitions are combined, both with a permanent need for a great guitar tone, but above all, a search for- and finding new textures and sounds to play and compose with.

Furthermore, how am I going to develop the compositions? Recording improvisations while playing with the different sound manipulative tools is a method for composition. I usually set up the gear in a studio and then record onto a computer. Other options and locations have also been utilized, such as offices, concert stages and a lighthouse. During the doctorate period, I built a studio attached to the house I live in. Building the studio was based on an idea about quitting travelling to play concerts, etc., thus instead taking my musical world home. The studio primarily works as a method and laboratory for exploring new sounds and soundscapes created with the guitar. Additionally, for me to obtain what I aim for takes a lot of trial and error, exploration and musical experiments. All self-acquired experience says as much live performance as possible is the best way to both learn and develop as a musician. Nevertheless, my project is based upon recordings, and I will focus on studio work. Moreover, I have considered implementing and combining studio recording with concerts by inviting an audience to attend the studio sessions. Another possibility is to broadcast studio sessions online using

streaming technology. The project contains tacit knowledge²², and in combination with artistic research it can uncover more information that will be useful for me, students, other music researchers and maybe even for the general public, and in so doing create a basis for new projects, further research and more.

2.5 Strategies, phases and material

The material to be analyzed is the recorded music produced together with my collaborators. The processes around the exploration and the research are also objects for analyses presented in subsequent chapters. Different cases such as recording sessions from different studios, as well as the processes including preparations and the completion, will be subject to investigation and, in turn, be decisive in terms of discoveries, the development of any theories, further research and more.

2.6 Other strategies

I have divided the recording processes into three different phases with different strategies for composing and recording²³:

1. The recording session

At my studio? At another studio?

The choice of instruments to play:

Electric guitars, which ones?

The pedal steel guitar

Electronics, which pedals? Combined with the computer software?

How many effects can be operated consistently and simultaneously?

Is it appropriate?

Which amplifier(s) will I choose, and why?

“Dogmas” (see separate section below) can be very useful and become handy to initiate creative processes, and helpful in defining the aesthetics.

²² I am aware that tacit knowledge is a term of wide comprehension within the jazz and popular music studies, and at this point there is a risk of opening up a larger discussion on the topic. However, I choose to use tacit knowledge as something undefined, in a more general sense as this is often among musicians their communication and interactions, cf. Berliner (1994), Dybo (1999).

²³ Deduced after a conversation with longtime collaborator, composer, producer, programmer, new technology wizard and guitarist Hallvard W. Hagen.

Improvisation versus ideas, notated musical ideas. In other words, composed music?

Harmony, melody and rhythm?

2. The edit session

“Dogmas” (see separate section below)

Methods:

Chop, cut and paste and make new music from a two-track stereo recording?

Make music out of a sample kit consisting of guitar sounds only?

Edit a multitrack recording containing several tracks with different guitar takes.

3. The mixing session

Surround or stereo?

Who is mixing, and where?

2.7 Dogma

By dogma, I mean a self-inflicted doctrine that works as a framework for the creative processes, which in turn also regulates the aesthetical outcome.

Dogma has become quite common as a term to better control the creative process and to achieve a cleaner aesthetics. It is possible that the use of the term stems from the 1990s when film directors were making so-called dogma films. There is a difference in meaning from the official definition²⁴ of the word, in which in creative environments the meaning is reduced to be valid for the system of principles, leaving the religious aspect out.

Dogma is possibly more easily explained with principles. As an example, the record label 12k²⁵ reels off a list of principles for their foundation. I choose to present the complete list since my choices are often inspired by, and can sometimes be related to, the same principles.

2.7.1 Twelve principles upon which 12k was founded

1. Do not tell listeners what they want to hear, let them discover that for themselves.
2. Treat your audience as they are: Intelligent, passionate lovers of art and sound.
3. Evolve constantly, but slowly.

²⁴ dogma: An official system of principles or tenets concerning faith, morals, behavior, etc., as of a church. Taken from dictionary.reference.com/browse/dogma, accessed 3/19/2019.

²⁵ For more information, see www.12k.com/about/

4. Stay quiet, stay small.
5. Strive for timelessness.
6. Never try to be perfect. Beauty is imperfection.
7. Simplicity. Anti-Design.
8. Never try to innovate, be true to yourself, and innovation may happen.
9. Explore sound as art, as a physical phenomenon — with emotion.
10. Develop community.
11. Be spontaneous.
12. Everything will change.

Another example for a dogma coined at creativity or as a principle is Igor Stravinsky's quote:

The more constraints one imposes, the more one frees one's self. And the arbitrariness of the constraint serves only to obtain precision of execution.
Igor Stravinsky²⁶ ("Brainy Quotes," 2018)

In the absence of better sources, I chose to use a website with Stravinsky quotes as a source. The point is there are different ideas on how creativity is triggered by self-imposed rules or principles, which also can be called dogmas. In comparison, I have not specified any general dogma for my own creative processes. Nevertheless, both consciously and subconsciously I use similar ideas before I play, improvise or try to explore new soundscapes or musical ideas. Still, problems may sometimes arise in the middle of a creative process. A set of rules may then be helpful to move on, or function as guidance towards a final solution. On most occasions, when working with pedals or other sound manipulative tools, I hardly ever combine more than two or three effects at a time. This is also an example of a principle about a self-imposed constraint. Whether the constraint is pre-determined or implemented on the fly may vary according to the conscious or subconscious choices. The choices are on different levels such as practical, aesthetical, technical and artistic. For an overall aesthetical shaping of my music, a pre-determined set-up of rules is more desirable and favorable. Yet, at other times when one sets off without a plan, especially before improvising or in situations driven by intuition, it can become necessary to have a strategy in the form of the above-mentioned

²⁶ Cited from brainyquote.com, accessed 10/29/2018.

principles or dogmas. Brian Eno²⁷ and Peter Schmidt²⁸ came up with the idea they named Oblique Strategies, which is a box of cards, with each card having a suggestion or an action to assist in creative situations. Many artists and creative people have used these cards. There have been times when I have been stuck in a creative process, and the cards have become useful to move on, and sometimes just as inspiring quotations to boost one's spirit and work morale.

I am aware that creativity is a vast field within all the arts disciplines, including in psychology, business and more. However, according to the models for creativity I use, it is with recognition I see parallels to Mihaly Csikszentmihalyi (2015), and how Justin Morey's research, referred to in "The Creative System in Action" (2016), reveals a dedicated practice regime for sampling composers (a notion put forward by the author, meaning dance music composers) of collecting, listening to, playing and making recordings, often from an early age, resulting in significant immersion in the domain of music production before producing work that may be validated by the field (McIntyre, Fulton and Paton, 2016). Furthermore, Morey concludes that sampling composers have an extensive interaction with both the domain and the field and also acknowledges that the opportunities and constraints of technology, the music industry and copyright law are crucial in shaping these composers' creative practice (*ibid*). This is a representation of the practical sides of creativity, the handcraft, planned and structured work. One may also point at the immediacy, the unexpected, the experimental, the randomness and the improvisational sides of creativity. Often one operates in the interchange between these two extremes.

For further investigations in this dissertation, I will deal with creativity on a practical level. Although creativity is dealt with in almost all the processes described in this dissertation, I see no need for an exceeding definition or deepening of the topic. Put shortly, I deal with different strategies for musical and artistic creativity.

²⁷ Musician and composer, for more information: music.hyperreal.org/artists/brian_eno

²⁸ Berlin-born British artist, painter, theoretician of color and composition, for more information: peterschmidtweb.com/bio

2.8 Secondary data

Another phase is gathering secondary data and identifying what has been previously written and researched. In addition to literature, video material documenting knowledge and previous research, or that tend to the problem areas, is implicated in my work. Inasmuch as there is a relatively small amount of literature to be found on the electronic guitar, I may use excerpts from interviews, video, internet, YouTube, Spotify or other streaming services, Internet editions of magazines and the like.

2.9 Sources

The main source material is the music presented and analyzed in the coming chapters and attached to this dissertation. I have also been familiarized with music recordings, videos and released music that both represent and document the subject fields of the task. This has acted as a supporting supplement to the collected literature, which in turn has inspired and strengthened my inquisitiveness. By writing a log for preparations, reflections, studio work and concerts, as well as converting my own studio into a kind of laboratory for sound research, I have been able to gather some results in terms of sound, knowledge of sound, inspiration to create new sounds, thereby creating associations and ramifications to other concepts such as synesthesia and sonology²⁹ (Dreyer, 2011). Synesthesia and sonology are delimitations, and will not be further elaborated on in this dissertation.³⁰

The practical part and research are conducted on the basis of already acquired equipment from my age-long period as a performing session guitarist, supplemented with a few purchases related to the research period. Ideally, it

²⁹ Sonology is a neologism used to describe the study of sound in a variety of disciplines. Definition taken from www.babylon.com, accessed 11/1/2018.

³⁰ Based on the ideas of Pierre Schaffer, sonology is a part of the musicology developed at the Institutt for Sonologie in Utrecht and carried on by the Norwegian composers Olav Anton Tommesen and Lasse Thoresen. The term is also used to describe interdisciplinary research in the field of electronic music and computer music. I studied sonology with Peter Tornquist at the Norwegian Academy of Music, class of 1993, and found it very interesting at the time. Later on, my interest faded because it had no applicability or practical use for me as a freelance session musician. For my doctoral project, it is most likely interesting as a curiosity, but unfortunately still not applicable in a suitable way. Yet, I will reserve the possibility to change my opinion and incorporate sonology at another stage.

would have been more sufficient with a solid budget for this type of research, since the problem field is linked to modern technology. Given the situation, and with the rapid technological advances, it would be budgetarily impossible to undertake the studies with the most current products, and the at all times latest updated software. There is a challenge in exploiting the equipment you already have available, and simultaneously be up to date on the technological progress. The budgetary challenge is one factor, whereas creativity may be another. One question is how to maximize the creative processes and the artistic results with the currently available equipment, tools, effects and other technologies? One will increasingly be confronted with such challenges, so it may therefore be wise to put some thought in what it is you are aiming to aim at. Do you want to participate in a technological race, or do you seek to create something with the technology you possess at the time? It may take a disproportionate amount of time to master the technology, so do I have the time required? One will probably get different answers to these questions depending on who you ask. Moreover, it could certainly be fun to possess the very latest models and innovations at all times. However, it can easily become difficult to familiarize yourself with all the new gizmos, where the focus is taken away from what I consider the most important, which in fact is to create music. My primary idea is to keep searching for “the special sound” and develop “my own voice” with the equipment at my disposal, with no fear of technological developments and the diverse opportunities that exist.

2.10 Logic Pro X - studio recording software

Logic Pro X³¹ is a music software, or a so-called DAW,³² primarily a studio recording software with a powerful MIDI section. It also has a music notation section, which is easier for me to use since I have been working with Logic for many years. It has been my main studio-recording tool.

³¹ For more information, go to apple.com

³² DAW stands for Digital Audio Workstation, a type of software program (or, less commonly, a hardware unit) for recording, mixing, editing and processing digital audio. Taken from reverb.com, accessed 4/9/2019.

2.11 Why I prefer Logic Pro X

My studios have been based upon a need for a recording software, a DAW, basically to record and edit my own music projects and to execute session work. Session work may involve recording guitars for film composers, for radio, and for artists where the call usually comes from the producer. This type of work has become more common with the new technology. For example, a producer can send me an email with a stereo mix recording of a song as an attachment, in formats such as Mp3, Wav, etc. If the file is large in terms of megabytes, it is more common to receive an email with a link to the file in Dropbox³³ or Hightail, or similar cloud storage services. Next, I upload the file in Logic Pro X, which enables me to add guitars to the recording. In this way, I do not have to pack my guitars and equipment to drive or fly to a recording studio. Record producers save travel and accommodation costs, and I get to work more freely in my own studio. This type of work requires a reliance between the producer and the performer:

Why are you using Logic? You should rather be using Pro Tools the way I see you work. (Odd Harald Jensen³⁴)

Odd Harald is a friend and colleague, an experienced studio engineer and a producer who pointed to the focus I had, and still have, when working with audio. Logic has an extensive MIDI section, which I hardly ever use, and thus the utterance from Odd. The knowledge I possess now is mostly acquired by looking over the shoulders of the producers I have worked with over time, and most of them have only used Logic. Since I got private lessons from another friend and producer, Chris Gøran Pålman, Logic became the natural choice for me. It is a matter of which DAW you get used to from the very beginning, with the three most commonly used studio recording software at the time being Pro Tools, Logic and Cubase. By doing session work in different studios, I often picked up hints and tricks, particularly in how to use Logic. Pro Tools used to have, and still has, the reputation of being the industry standard recording tool. Yet, by the time you read this, that may be different because of

³³ Dropbox is a personal cloud storage service (sometimes referred to as an online backup service) that is frequently used for file sharing and collaboration.

³⁴ For more information, Google Odd Harald Jensen.

rapid developments in the technological field. Nevertheless, I think the differences between the different recording types of software have leveled off. A quick Google search leads to different discussion forums like Gearslutz³⁵ and the website The Music Entrepreneur,³⁶ where you find different articles on the topic. In the article: *Is Pro Tools the Unspoken Industry Standard?*, David Andrew Wiebe points to reasons why Pro Tools is established as a standard in professional music production:

...if you're serious about audio engineering, you should at least have Pro Tools as an option. I don't believe it needs to be the only option you provide, but if you want to appeal to a wide variety of clients, it's wise to be prepared. (David Andrew Wiebe, 2016)

I have not focused on obtaining large mixing assignments, so for me there was no need for a comprehensive program like Pro Tools. Still, no matter which DAW you choose, they are all characterized by infinite possibilities and by employing a countless number of tracks to your production. This leads to another interesting perspective in which Daniel Lanois³⁷ points to the one-point source, the summing amplifier, referring to old car radios in mono and Beatles recordings with only four tracks available. Besides combining groups of instruments to a single track, the Beatles had to make some crucial choices before they mixed the group down to one track. Lanois puts it this way:

Adding equalization, compression, or filtering to that group of instruments now living on a single track will fast bring about personality results, based on the decision that you can't change your mind about. (Daniel Lanois, 2010, p. 143)

This statement affects several levels, one about technology, another about personal expression, and from my opinion, an aesthetic perspective as well. To form a personal artistic expression concerns a great deal of making choices, and predominantly, difficult choices. And in mixing situations, Lanois puts it this way: "The more tracks we use in recording (Pro Tools, for example), the further away we get from the help of the summing amp" (Lanois, 2010, p.

³⁵ Forum for professional and amateur recording, where mixing and mastering engineers share techniques and advice. For more info: gearslutz.com

³⁶ For more information, go to musicentrepreneurhq.com

³⁷ One of the most distinctive and celebrated producers of his time, ..., helming records for the likes of U2, Bob Dylan, and Peter Gabriel, ... Excerpts from allmusic.com, accessed 6/19/2019.

142). Moreover, from an aesthetic perspective it may be timely to mention the cliché “less is more,” which I also assume is a possible meaning of Lanois’ statements.

However, Logic has worked well for me over the years and I have also learned how to use and utilize the MIDI section. For example, to be able to compose scores, one method is to play and record MIDI parts, and then let Logic automatically convert the MIDI parts into scores. This is a quicker way for me to write scores, since you can listen to what you are about to compose and be in better control of how it is going to sound. MIDI is not always accurate and may misinterpret the composer’s touch with the MIDI keyboard, or make the written notes different than intended. Therefore, the final scores usually need a review to clean up and correct any possible errors, but for me Logic is a powerful tool to work with. One may also ask if it is required to master a DAW to be able to work as a performing musician. For me, it has been a necessity to handle Logic, both for being able to execute regular session work and developing as a musician, producer and composer.

2.12 Ableton Live

Ableton Live has the same features as Logic, although the interface is different. I regard Ableton as better for live performance, and compared to Logic it has an effects part that is easier to use and incorporate as a part of the guitar signal chain. That being said, several colleagues have ended up using Ableton as their main tool, including as a studio recording device, effects machine, tracks player, sampler and synthesizer. I do not take fully advantage of Ableton Live, since I only use it as an effects machine and looper.

2.13 Sibelius – music notation software

Sibelius³⁸ is a software for music notation, and a tool for digitally processing scores. My colleague, Per Elias Drabløs,³⁹ uttered that “*Anything you can imagine, you can do it in Sibelius.*”

³⁸ For more information, go to sibelius.com

³⁹ A colleague and Sibelius expert. For more info, go to uia.no/en/kk/profile/pered

2.14 Why Sibelius?

I have had a desire to compose music for an acoustic ensemble. To be able to hone the electronic soundscapes from my guitar against an acoustic and traditional soundscape like an orchestra requires an ability to write scores. Hence, a recording session with the Kristiansand Symphony Orchestra (KSO) was set up to record this musical idea. The only musical language an orchestra knows is musical notation, whereupon I had to transform my musical ideas into musical notation. Furthermore, Sibelius has been pointed out among colleagues as an industry standard for musical notation, therefore my choice. The idea about learning how to use Sibelius was originally ruled by my predilection for Terje Rypdal's music and career. He has written large orchestral works integrating the electric guitar, which to me has been one of the most significant influences and inspirations. Among the available supervisors for the doctoral course, Geir Holmsen was the most relevant and interesting to me. Because of his background in orchestration and composition, the choice fell accordingly on him. In the process of attempting to learn how to write music in Sibelius, I gradually went over to use the score editor in Logic Pro X. This was because the learning curve for Sibelius was just too steep. Moreover, the doctorate's time limit made it difficult to justify using the time it would take for me to master Sibelius.

In addition, I had some reflections regarding composing music for others to play. Different from playing, it is a separate thing to write music for the purpose of getting others to perform it. For me as a (former) session musician, score writing is different from what I usually do. First, it has been more common to transfer one's own musical ideas either verbally or by playing a demo for your fellow musicians. In some situations, one can also use musical references, which is a topic in itself to problematize because it raises questions about authenticity⁴⁰ and originality. However, my experience is that it is common to be reluctant to use other musical references to transfer one's own musical ideas. Presenting a score is rather rare for me, and is only used in

⁴⁰ I am aware that authenticity is a vast field within popular music research, cf. Simon Frith, and do not intend to open up a discussion on the topic.

situations if there are certain structural, harmonic or melodic details that need to be emphasized. Lars Lilliestam writes in the article, On playing by ear:

Today it may be more relevant to discuss information in terms of oral or literate strategies⁴¹ which we use for different aims, and that work more or less well for different purposes. In music, this means that there are both rock musicians that are not familiar with Western musical theory and cannot read music, and those with a solid, traditional music schooling. When it comes to making music both chose to play by ear, without the use of notation. Rock music is in its whole character a music that is played by ear, and it is rare, and only in very specific contexts, that notes are used. (Lilliestam, 1996, pp. 197-198) [sic]

My study of classical guitar during my teen years made me capable of reading and understanding musical notation. My background as a freelance musician is also more comparable to rock music and to Lilliestam's assertion, which explains why my solo works are not notated. Nonetheless, the main purpose to utilize music notation in my case is that it was the only way to communicate with orchestral musicians. Most musicians in the orchestras are classically trained professionals; thus, they often lack improvisational skills. Unlike jazz musicians, most classically trained musicians have to be instructed in every detail about what to play. Orchestral musicians only play exactly what the notes tell them to.

Even so, score writing for ensembles and orchestra was a relatively new task for me, and the ambition resulted in a quite comprehensive challenge regarding learning a notation software to accomplish scores for an orchestra.

2.15 Technology

Some people's impression of new music technology is that it makes it unnecessary to have talent and know how to play an instrument. Technology can fix everything, and make you sound amazing with no effort. Or, you do not need to be a singer to sound like one, you can always use Auto-Tune. I would rather claim the opposite: A modern musician needs to know more than just how to play an instrument, you also need to know how to use the technology.

⁴¹ Strictly speaking, this division is not satisfying. Information can be transmitted through medias and codes that are neither oral nor literate, such as gestures and body language. Perhaps it is better to speak of information technologies.

This attitude is commonly encountered among people outside the music business, which may originate from the rapid development of artificial intelligence. Artificial intelligence, AI, is otherwise an exciting and enormous domain in itself that deserves broader attention. It is not applicable to open up a discussion on AI here, although it could perhaps be something to take up in the aftermath of this thesis.

Furthermore, to make the new technology work, you need to know how to play an instrument. And it is always the musician, or the person behind the instrument or the music, who decides the quality and the validity of the end result where technology is involved. Now, I have not accounted for some technical devices that may also be regarded as instruments in themselves. For instance, a laptop can be viewed as a musical instrument, and requires technical mastery at an equivalent level to any other “traditional” instrument like the piano, guitar, trumpet, violin and such. A common use of technology is also as a playback device for backing tracks in live shows, while others use looping as an accompanist. I want to advocate for an additional usage of the technology, which is to avoid the use of backing tracks or the backing musician function, but instead as a tool to create new sounds. And I find support in Simon Zagorski-Thomas’ description of Peter Gabriel’s work method:

It has also become common practice for writers to use sounds as the basis of an idea. Peter Gabriel’s creative process involves recording any experimentation that occurs in the studio and utilising it as a springboard for the development of ideas, or storing it away for future use. These techniques evolved from changes in the technology rather than the technology being developed because there was a desire to make changes to the compositional process. (Zagorski-Thomas, 2014, p. 133) [sic]

This model is also compatible to how I like to work. The computer and the recording software allow me to save everything I record and then go back days or weeks later, listen and maybe come up with another idea, which may be a sound, a song part, a groove, a texture, etc. This allows you to be able to record and add sounds to the saved material, and in that way you can build a composition or an arrangement:

Recordists now have a graphic representation of every recorded sound wave available to them on screen, as well as a visual representation of the arrangement in the form of a block diagram showing which instruments

have been recorded (or copied) at which points in the song. This would seem to encourage the user to think of sound as an object rather than a stream (which is arguably the way tape machines encourage users to conceptualise sound). (Zagorski-Thomas, 2014, p. 134) [sic]

The way I work, the graphic representation is helpful and inspirational to the extent I allow myself to “see” the music I am working on, as you sometimes have to turn your head away from the screen and just listen. It is easy to get hung up in how the waveforms and arrangements appear on the screen, instead of considering how it actually sounds. In addition to the sound represented as an object, it is possible to manipulate the sound in numerous ways. In that way, the tape recorder separates itself from the digital way to reproduce and manipulate sound.

Lähdeoja, Navarret, Quintans and Sèdes discuss the so-called “emerging” or “experimental” creation, meaning music produced outside the standard industry models, often in interaction with theoretical, technical and technological research. A close study of the musical praxes related to the electric guitar shows that part of its potential remains unexplored in contemporary composition:

The untapped aspects of the electric guitar include: (i) its use as an acoustic sound source, (ii) rock (and related styles) playing and studio techniques, (iii) signal processing units as sources for compositional and morphologic processes, and (iv) the use of the electric guitar’s signal network as a source of temporal, organizational and timbral complexity. (Lähdeoja et al., 2010)

The way I work with the guitar tends to all the aforementioned aspects, both from my background as a session musician and the approach I use now. The sound manipulative tools are set up in a way that enables me to perform within each of the aspects. The juxtaposition of the electric guitar used as an acoustic source is taken literally, so to speak. There is an extra feature built in the guitar, a contact microphone,⁴² squeezed in-between the neck and the body, with a separate output. The purpose of the contact microphone is to recreate and amplify the sound you hear when you lay your ear onto the body of the guitar. It is different from the sound the pickups reflect. To be more explicit, it

⁴² The contact microphone is a cheap and flat type of microphone, which enables it to be operated in the guitar, between the neck and the body. See photo illustration.

is guitar in its purest form, with no effects and totally dry. Since the contact microphone is not an original or regular feature on the guitar, it may be regarded as belonging in the prepared guitar domain.



Figure 6: Contact microphone



Figure 7: Between neck and body



Figure 8: Two outputs

Furthermore, to me, the rock aspect (and other styles) is more or less covered by the experience as a session player, represented with stomp boxes and amplifiers that suit the mission, combined with ways of playing and studio techniques acquired from session work. I still keep these pedal and amp solutions in case I need a guitar sound that is as optimized as possible, which is helpful in feeling more comfortable and ready in any situation. Signal processing units as sources for compositional and morphologic processes are represented with the tools in the set-up, including the computer and multiple strategies I use. This is also the case for the use of the electric guitar's signal network as a source of progressive, structural and complex sounds, mostly embodied with the computer.



Figure 9: My set-up in 2015; small adjustments and replacements have been made since

The set-up consists of hardware pedals as shown, as well as a split of the signal that leads to the computer and Ableton Live through an audio interface. The picture also displays the cello bow and some mallets, with the latter belonging to the prepared guitar⁴³ domain. Compared to some keyboard players, the set-up may not seem especially impressive. However, my set-up contains a lot of different elements, details, knobs, selectors, switches, buttons, pedals and a computer with a screen filled with a lot of the same aforementioned gizmos. In

⁴³ Prepared guitar is a common term for several experimental techniques, often including different objects.

addition, I also use a cello bow, wooden mallets, a mini fan and an EBow⁴⁴ (see Figure 10). These objects are often associated with the previously mentioned prepared guitar. Nonetheless, it demands control playing with sound-manipulative effects. I prefer to call that kind of control “autopilot.” To achieve a so-called autopilot, which implies tweaking knobs and faders simultaneously while playing the guitar, demands a lot of practice. I have also tried different ways to find an optimal solution for my guitar playing and the pedalboard set-up. This search for an optimal set-up, together with ways to play, is part of the process which shall lead me to my distinctive guitar sound.



Figure 10: EBow, wooden mallet and a mini fan

Moreover, by emphasizing the importance of the pedalboard and the computer as sound-manipulative tools, it is necessary to give a thorough going through of the signal chain. The following listing and review will be quite general due

⁴⁴ The EBow is a hand-held electronic bow for guitar (ebow.com, 16.10.2018).

to continual and subtle changes to the boards and the sporadic acquisitions of pedals.



Figure 11: Pedalboards March 2018

There are two boards, one main board laying on the floor, and another one I like to call the satellite board, which is usually laying on a table or a stand for more hands on-performance/implementation. The signal chain starts at the very right on the floor pedalboard, with a Color Sound Ring Modulator, Prescription Experience fuzz, Lehle A/B switch, Fairfield compressor, BC 808⁴⁵ overdrive and RAT distortion; the signal then goes to the upper board into a ZWEX Fuzz Factory fuzz, Electro Harmonics Micro Synth and Roger

⁴⁵ The BC-808 is an overdrive pedal custom built by Jon Aron Petterson. It is a variant of the Ibanez Tube Screamer.

Mayer Voodoo Vibe, then back to the lower board to a Roland volume pedal, then back up to a Boss DD5 delay and Electro Harmonics Superego, then down to a Hexe Revolver, then up again to an Eventide H9 multi effects, then down to a Strymon Timeline delay, and then into two Humdinger buffers where the signal is spilt and sent to two amplifiers plus a stereo signal sent to an audio interface, and then to the laptop computer and the Ableton Live software.



Figure 12: The floor board displaying the two Cioks power supplies. The power supplies are usually hidden.

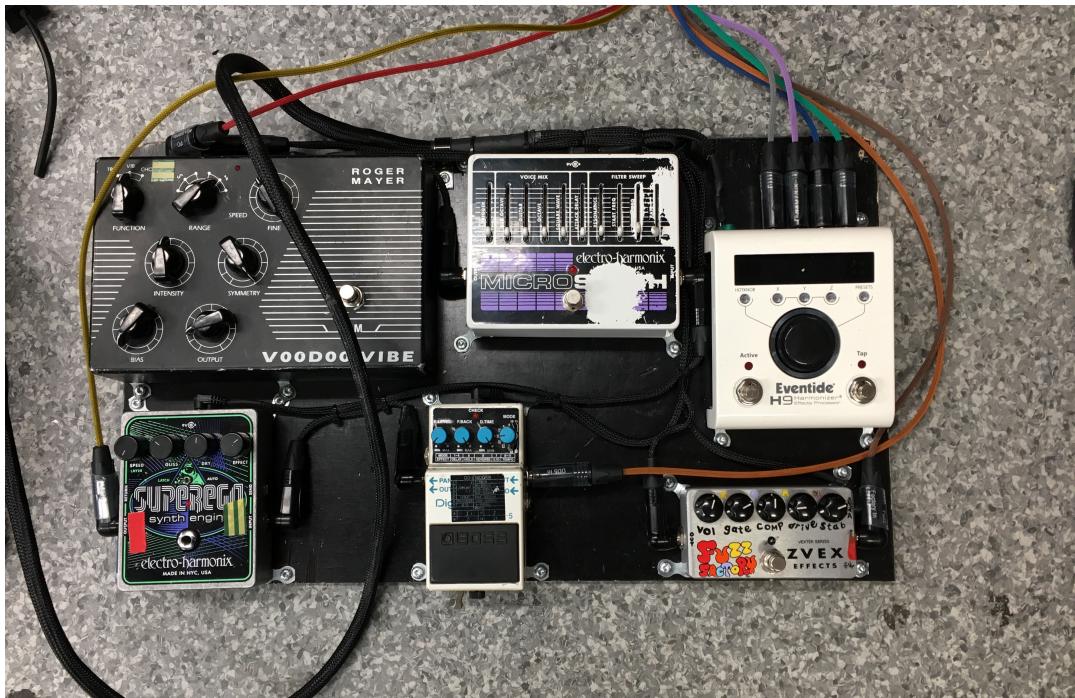


Figure 13: The satellite board

2.15.1 Main guitars

Basically, two different guitars were used for this project:

- A Guitar Workshop, flat body, hand built in Norway in 1987
- A Gibson ES-175, full hollow body, from the middle of the 2000s



Figure 14: Guitar Workshop and Gibson ES-175

2.15.2 Main amplifiers

The amplifiers used on the recordings for this doctorate project were primarily a Vox AC15 HW1X, a Fender DeVille 4x10 and a Fender Blues Junior III Limited Edition.



Figure 15: Vox AC15 HW1X



Figure 36: Fender DeVille 4x10



Figure 47: Fender Blues Junior III Limited Edition

2.16 Studios

2.16.1 My studios

For the most part, the solo works were created and recorded in two different studios, one I used to rent, and another I later built. Both studios took the form of a workstation rather than a typical studio. After being in many before as a session musician, my idea of a studio was to have an enjoyable room to work in. The room I rented was an old classroom in a school building from 1839, with large windows that shed a lot of light into a 40 square meter room, with four meters to the ceiling; all the flats were wooden, which in turn is great for the acoustics. Basically, it was one room with all the gear set up, ready to play, and with an “island” in the middle of the room, although a little off center, set up as the “control area” with a desk, a computer (iMac), the monitor speakers (Dynaudio BM5 MKII), the audio interfaces (MOTU 828 MKII and Presonus DigiMax D8), external effects (Roland RE-501 and Roland RE-301) and more. The reason for not setting up the control area in the exact middle of the room was to avoid symmetry due to acoustic conditions. Moreover, there was a

staircase right next to the room, which had a preferable acoustic ambience⁴⁶ that was not only perfect for amplified guitars, but also made it possible to play louder. Recording amplified guitars in the same room as you play is a challenge in relation to monitoring. You have to compromise by turning down the volume on the amplifier, which makes it not work at its best, particularly for tube amplifiers. Besides, recording amps in the same room as the control area requires an isolated and noise cancelling headphone as monitoring. If the amplifiers were put into the staircase with long cords, for both the microphones and amplifier connection, I could sit in the control area playing and turning up the volume at levels where the amplifiers worked and sounded better, and the monitoring could be held at a more pleasant and healthy level.

When I decided to build my own studio, I wanted a room similar to the one I had rented. Inspired by that specific room, the new studio had a high ceiling, large windows, pleasantness and great acoustics. The architect came and did an on-site inspection in the rented studio in order to acquire a better understanding for what I envisioned for the new space. The architect understood the intention and helped me realize the new studio, together with the master builder who did the construction work. I also participated in the construction work, and in that way you get a greater deal of ownership to the studio. The studio is based on certain compromises, but still with the opportunity to make records at a professional level. The fact that the studio has certain technical limitations makes an imprint on the sound, with the limitations actually becoming advantageous for creativity.

⁴⁶ The staircase was consequently used to record guitars on Ronnie Jacobsen's album, *These Blues in Me*. The ambience is a very audible addition to the guitar sound on that record, and contributes to creating an overall sound, a kind of imprint of my studio.



Figure 58: Roland RE-501 and Roland RE-301



Figure 69: The main audio interface used in my studio



Figure 20: Preferred pre-amps



Figure 21: From my new studio; photography by Kenneth Bringsdal

2.16.2 Punkt Studio

The compositions received additional editing in Jan Bang's studio, also referred to as Punkt Studio, in Kristiansand. In Punkt Studio, Jan and I worked together in basically structuring the material recorded at my studio. The music was produced collaboratively by Jan and me. Jan contributed with lots of appreciated creative input and ideas. I had all my gear set up for these sessions to be ready to quickly react to his creative initiatives. As a creative strategy, he sometimes suggested I should play along with some ideas he could throw out, e.g., a prepared rhythm track or a sampled sound from a record⁴⁷ that I had never heard before. He just "threw" out a "signal" or a sound for me to react to. It may not be considered as improvisation, but my reaction to his impulse was improvised. Moreover, some of the musical pieces needed extra recording, something that was done in a fairly common practice with overdubs, whereby the guitar rig was always ready. The overdubs were recorded and added to the main tracks that were previously recorded at my studio.

Punkt Studio's essential equipment:

Mackie mixer
Motu 2408
PC, Windows 2000
Cubase SX1
Dynaudio Acoustics

The reader may notice that the equipment is old compared to today's standards. Yet again, it is not the modernity of the equipment that counts, but how you use it. Punkt Studio has produced numerous credible records for internationally known artists and labels such as Sidsel Endresen, Arve Henriksen, Eivind Aarset, Jazzland Recordings and ECM.⁴⁸

⁴⁷ Jan has an extensive LP collection in the studio.

⁴⁸ For more information, go to: discogs.com/label/369027-Punkt-Studio.



Figure 22: Punkt Studio; screen displays compressor, equalizer and routing; photographer: John Derek Bishop

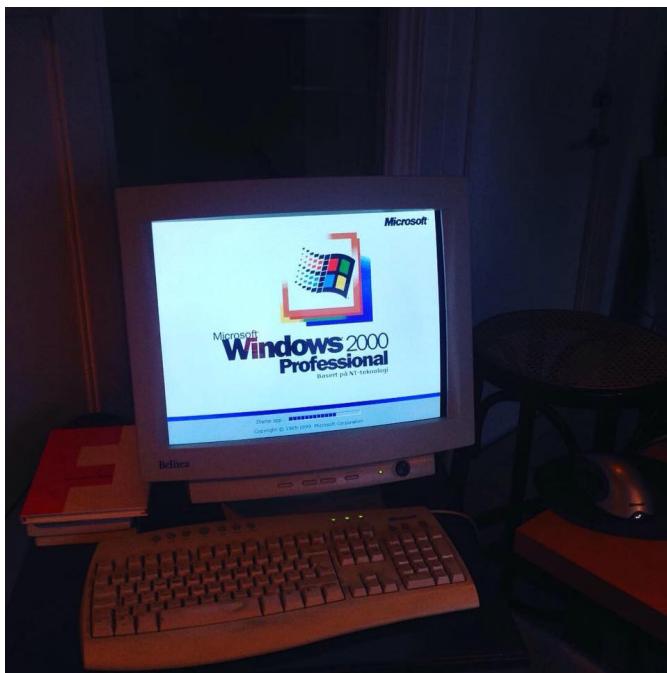


Figure 23: Screen displays the operative system; photography: John Derek Bishop

2.16.3 Kilden Studio

Kilden is the main concert hall in Kristiansand and the locale for the Kristiansand Symphony Orchestra. The building also contains a smaller concert stage and a theater stage. The stage in the concert hall is the main studio space where the orchestra was placed for the recordings. The control

room was placed in the back of the stage and the building, quite far from the concert hall. A talkback system was set up in the form of a PA system, with four speakers placed around the stage for communication with the conductor, the orchestra and the producer.

The session was recorded on to 35 tracks with Pro Tools.

An overview of the mics used and other technical specifics:

Mac: Apple Imac Pro
DAW: Pro Tools⁴⁹ 2018 HD
Preamp: Dad ax32
Converters: Dad ax32

Microphones used:
Decca: Neumann m150
Main ab couple: DPA 4006
Wide ab couple: Schoeps omni
String spots: Schoeps CCM 4
Bass spots: Royer 121
Woodwind spots: DPA 4011/DPA 4015
Brass spots: AKG 414
Timpani spots: AKG 414
Percussion spots: AKG 480/DPA 4011

The Decca⁵⁰ and main ab are topics concerning the mixing process. The Decca is used in case surround mixing should become relevant. Due to phase issues, it is not possible to use in combination with the main ab, which is a linear stereo track.

2.16.4 Studio A at the University of Agder

Technical specifications and set up for the session with piano and electronics:

The recording room was Hall 1 (Sal 1 in Norwegian), which is situated one floor above the control room without any form of connecting other than XLR lines. In order to move between the two rooms, one has to go through several

⁴⁹ Pro Tools is a rare example of a technology that absolutely dominates an industry (Dave Roos, 2008).

⁵⁰ The Decca Tree is a stereo microphone set-up with three omnidirectional microphones arranged in a triangle. This set-up is often used to record an ensemble or orchestra. For more information, go to: dpamicrophones.com

corridors and a staircase. One microphone was set up as being designated for communicating with the control room. The grand piano, a Steinway, and the electric guitar were recorded in the same room, admittedly without amplifiers, through DI boxes⁵¹ only.

Essential equipment:

Mixer: Avid Icon Pro Tools controller
Studio monitoring: ATC speakers
Personal mixing system: Aviom
Microphones: 2 x U87 Neumann in an AB arrangement approximately 30 cm over the hammers in the middle of the grand piano.
Royer R 121 ribbon microphone approximately 10 cm from the speaker cabinet (which was not in use)
2 x DI from the guitar laptop rig
2 x DI for live remix laptop

The grand piano microphone signal was sent in return to the live remix set-up during recording, and all sources were multitracked and mixed in Pro Tools. The recording has a certain natural ambience from the hall, and a Bricasti⁵² digital reverb was added in addition to the natural reverb.

2.17 Email, Dropbox and the like as a tool for making music

Using email as a tool to make music is not remarkable, and is a common practice for correspondence among musicians and Everyman. Yet, another part of my strategy was to present demos for a few friends and colleagues. We corresponded via emails where they got links to Dropbox, in which I had uploaded different takes on the different pieces. For me it was, and still is, helpful to have someone to spar with in the development phase. I find it useful to get a friend or colleague's opinion on a work in progress. Even though the insecurity of making my own decisions is a recurrent feeling, a realization that two heads are often thinking better than one contributes to reinforcing decision-making. It is a given that your sparring partner is someone you trust,

⁵¹ Direct boxes are often referred to as "DI" boxes. This stands for "Direct Injection," as their main purpose is to convert unbalanced and/or high impedance instrument signals into a format suitable for direct connection to a mixing console's mic input - without the use of a microphone. Taken from whirlwindusa.com, accessed 1/28/2019.

⁵² For more information, go to bricasti.com

so such feedback can be highly evaluated and inspiring. Since its inception, email has made it possible for musicians to work together and exchange ideas, and even complete productions by using email. It has also contributed to globalization in the sense that musicians become less geographically dependent, thus opening up for cross-border and continent collaboration. The rapidity in email communication makes it different from how such collaborations were executed in the past by sending tapes back and forth by mail, or flying musicians and gear around the world with expensive flight tickets. Additionally, in order to process the tapes, you had to rent a studio if you did not own one. All you need to do now is to download an audio file, add it to the arrange window of your DAW and you are ready to go, press record. Depending on the preferred format, the higher quality and resolution on the audio files and the more demanding the quality of the internet speed, email may not be the optimal service to use. For this, the apps and web solutions such as Dropbox and WeTransfer⁵³ and the like make file sharing easier. Regardless, email is an invaluable tool for communicating ideas, exchanging audio files, receiving and giving feedback, for additional recording, extended collaborations across geographic separation, composing, sending mixes off for mastering and more. Hence, the meaning of the heading for this section is how I consider using email in my music exercise; it is more than a tool for communicating text messages, it can also be a composition strategy. By sending recorded improvisations and sketches of music for feedback from colleagues, and based on the information you receive, one can make adjustments to develop a composition. In some situations, the adjustments can also be made by the colleague in the form of an extra recorded track, an additional part, etc. Put shortly, I use email primarily as a communication tool but also as an object for composing music, although the line for what is composition becomes somewhat indistinct.

⁵³ Another tool for file sharing; for more information, go to wetransfer.com

2.18 Mediation, stereo or surround: Why do we listen to most music in stereo?

I have experimented with surround sound, sometimes referred to as immersive sound,⁵⁴ in live performance settings, both to make discoveries and to elevate the audience's experiences in concerts, as well as the curiousness started before the doctorate project. The results and therefore the experiences are varied yet exciting, and has triggered a desire to explore surround sound even more. However, this project was eventually discharged in studio recordings. So now when CDs have almost been wiped out of the market and streaming seems to have been taken over, it has been of current interest to ask oneself what is the most expedient mediation for this project. Still, there are some classical recordings that are being released in surround, and some concerts may be performed in quadraphonic or other multi-speaker systems. Beyond this, filmmakers and sound artists are employing surround and multichannel sound for their works. Surround sound is not something new; nevertheless, it is interesting and not a widespread format for a traditional music album. Here are some reasons for me to make a surround sound recording:

- I find it exciting to explore.
- Surround sound is still partially unexplored territory as a music media.
- Surround sound suits my music, which in some cases borders on sound art, while at other times on a straighter music genre.
- Humans have a unique ability to determine the direction of sound, an ability that I find very interesting, and that could be explored more in music performance and listening experiences.
- Surround sound opens new opportunities:
 - in live performance, and
 - for the public's perception and experience.

My interest in sound art has led me to experiments with surround sound, first in live performances and then in the studio. For me, the idea was inspired by a human being's ability to determine the direction of sounds. We most

⁵⁴ Real immersive sound provides the listener with a natural ("life-like") three-dimensional sound experience unlike anything heard before in traditional 2D surround solutions. Immersive audio creates the sensation of height all around the audience, transporting them into a more thrilling and deeper audio experience. Taken from stormaudio.com, accessed 2/25/2019.

commonly hear music in stereo, in concerts, on the media player in our living room, in our headsets, etc. For me, it has become opportune to ask if it is time to change the way we listen to music. I do not mean an overall radical change, or a change of paradigm, but for my project it is tempting to challenge both the listeners and myself by releasing my music in a surround sound recording. It has been done before, and is not particularly revolutionary. Nevertheless, since surround sound is still generally limited to classical recordings and concert DVDs, films, etc., I would like to explore surround sound, and find my project suitable for such experimentation.

2.19 Nonviable ideas

During the doctorate period, I spent a lot of time searching for a more genuine and personalized fuzztone expression. In this search, a lot of pieces were created, either as improvisations or thought-out ideas, recorded in a trial and error fashion. Furthermore, I did the same, tried and failed many times with a piece composed about 30 years ago, and spent several months of daily practice with the intention to improve both the composition and the performance, though with no luck. The conclusion was “a blast from the past,” a pointless idea to pursue, precisely because it belongs to my past. The experience from the desire to make older compositions work became essential in the continuance of developing an idiom, as these nonviable recordings never made it to the last review. Additionally, there is lots of material that were never considered interesting enough for further examination. These recordings may be regarded as a waste, but are nevertheless important material to help further research to carry on. From a creative aspect, it is always helpful to me to record an idea, even if you already know beforehand it is not going to work. After all, letting yourself carry out an idea you already know is not going to succeed becomes a necessity to continue the creative process. It is like eliminating an obstacle before you can move on. The failed and unaccomplished pieces could have had an interesting listening potential for some recipients, but instead I have decided to further the pieces that I consider overall to have been successfully completed. Even so, among these works, some did not make it to the final album, yet were included in the analyses in Chapter 4 to underpin failures as an essential part of the process in developing an idiom.

3 - Mapping the research field

As I perceive it, the bulk of published works within popular musicology thus far are mostly text-based works; Doğantan-Dack calls for a more performer-based research, with the following quote from William Bruford's PhD dissertation, *Making it Work: Creative Music Performance and the Western Kit Drummer*: "Not only is music performance under-researched, but such research as there is tends to focus on musicians within the classical tradition" (Doğantan-Dack, 2012, cited in Bruford, 2015, p. 13).

My intention is not to discuss the abovementioned difference in focus, but instead to contribute to the relatively expanding field of artistic research, with a performer-based study adjacent to genres that border on jazz within the field of popular musicology. In relation to a focus on performance research, Simon Frith has contributed to the discourse with a comprehensive work, *Performing Rites* (1998) that addresses the issue from an outside perspective, while my intention is to conduct research from a performer's perspective, cf. Howlett (2009). I also find comparisons and parallels to my quest, here from Paul Berliner's *Thinking in Jazz* (1994):

..., Max Roach recalls, it was only after aspiring players had devoted years to developing their "own musical personality" that experts began "to look at you, to single you out and select you for their bands". Lester Young and others in Roach's early circle advised artists with cleverly rhymed aphorisms like "You can't join the throng 'til you write your own song." (Berliner, 1994, p.121)

Although I cannot consider myself a jazz player aspiring to be selected for a band, the affinity is pertinent, whereas the importance of not sounding like someone else and striving to create your own sound is characteristic. Berliner also underpins the performer's and the insider's perspective as is with my approach.

Further on, from the introduction to *The Ashgate Research Companion to Popular Musicology*, Derek B. Scott states: "Critical musicology, however, is driven by a desire to understand the meanings embedded in musical texts, whatever kinds of texts those might be" (Scott, 2009, p. 3).

Unlike Scott's information and as a response, my project is situated within popular musicology, a research field connected to popular music studies. My

approach is based on a performer's musical practice, and all issues are dealt with from such a perspective, thereby implicating technological and production aspects. This therefore creates the basis for placing my project, with ramifications in both the field of popular musicology and artistic research. Scott (2015, pp. 5-6) also emphasizes the recognition of the technological and production side of the musicology field by bringing up other important authors in the field:

Music technology has been a neglected area in the past – one of the first major studies, published in 1997, was by Paul Théberge⁵⁵ – but its importance is now recognized, and a strong case for analysing the techniques of sound recording is made in essays in this Companion. Both Tim Warner (...) and Peter Wicke (...) consider the sound recording to be the primary medium of popular music. Electronic manipulation of sound has been employed increasingly since the mid-1950s. Wicke pays specific attention to the way sound is conceptualized and organized in the recording studio.

As previously mentioned, I produce, own a studio and deal with technology in processes such as recording, composing, playing and improvising. I also allege that to be a modern guitarist you have to know more than just how to play the guitar. You must also know how to use technology, meaning recording and production tools, computers, at minimum at least one DAW, microphone techniques, mixing, etc. And it should be feasible for use by the current and future generation of guitarists, as stated here by Richard James Burgess in *The Art of Music Production*:

Access is no longer a significant factor; preteens can have recording technology on a number of devices that are more powerful than professional equipment of 50 years ago. (...) Musical parts can be constructed by dropping colored blocks onto a grid with a finger or a mouse. Musical training and experience still help, but neither is required. Music software can appear complex, and input cables, output cables, and connectors intimidate some, but these apps and programs present much like electronic games, and the millennial generation is at ease in this world. (Burgess, 2013, pp. 34-35)

Although I see a pedagogical potential here, I do not intend to deal with the educational element, but rather the technological accessibility that is formative

⁵⁵ Paul Théberge, *Any Sound You Can Imagine: Making Music/Consuming Technology* (London 1997).

for the modern musician, which implies a recording engineer, producer, arranger, etc. There are different types of producers as well, and many have a background as a musician. For example, Dan Huff was a sought-after session guitarist in Los Angeles in the 1980s who Burgess worked with, and he continues (Burgess, 2013, p. 37):

He (Dan Huff) played sessions for me and would show up with another studio's worth of equipment in rolling racks, but what made him so valuable was his musicality, sense of the appropriate, and remarkable versatility. He flips from one style to another, always sounding authentic. While playing on Shania Twain's album, her producer Mutt Lang told him, "You're a producer in guitarist's clothes."

The statement does not utter sufficient information about the actual technological attributes needed. The equipment referred to here is most likely guitar effects, etc. stuffed up in rolling racks. Nonetheless, what Burgess' story tells me is an underscoring of the need for versatility in being a musician, particularly for a session musician. I problematized the versatility in styles in the previous chapter, and it is not necessarily a skill I would continue to pursue in order to find my idiom, though that is not the point either. Whether inhabiting producer skills or not, my point is: to succeed as a musician in modern times, you also need technological skills. For example, a regular studio gig nowadays, which implies adding guitars to a song track, is more likely to be situated in your own workspace at home, rather than in a professional studio location with lots of personnel, producers, recording engineers and even a designated guy to make you coffee, which was quite common in studios of the past. However, to get the job done, you need to be a studio technician, producer, arranger, and even make your own coffee if needed, to lay down some guitar tracks. These skills call for a belonging in the field of music production, which my project concerns as well. Inasmuch as I deal with a migration from being a freelance guitarist to working mostly with self-initiated projects, it may also be legitimate to reason for a belonging in the aesthetical part of the musicology. What comes to one's mind as an experienced musician could be basic questions such as: What is music, what is its meaning, value and impact? Or, I could continue with Allan F. Moore:

Who are you? How do you define yourself, your identity? The chances are that who you believe yourself to be is partly founded on the music you use, what you listen to, what values it has for you, what meanings you find

in it. You may not at present be conscious of this (few are), you may not wish to be. (Moore, 2012, p. 1)

Although these questions encounter topics such as identity and meaning, it is transferable to problematics I deal with in my quest. Nevertheless, I do not intend to open up a discussion about the vast fields of identity, the aesthetics or music philosophy, but I find it noteworthy to mention philosopher Vladimir Jankélévitch's⁵⁶ philosophy on music, summarized here by Henrik Holm, translated by the writer of this document:

...It (the music) determines how we react to it. Therefore, it objectifies our weakness. A key element in the aesthetic experience of music is therefore human weakness. The sense of the music is so strong that we are delighted, and do not have the strength to resist the music. In this way, the music creates a kind of inner space within the listening human: It awakes a longing for more and more music. ... (Henrik Holm, 2019)

The statement resonates well with my experience with music and perception, as it is something undefinable and metaphysic. Moreover, the relevant areas are exactly the perception and further interpretation, the music's relationship to other art forms, musical work analysis, music and language, and music and technology. The term aesthetical experience is central, and includes popular music, sound art and sound environments. Aesthetic experience has been, and still is, a part of an ongoing discourse going back to prominent philosophers like Immanuel Kant and Plato:

The system of esthetics is its history: a history in which ideas and experiences of heterogeneous origin interpenetrate. (Carl Dahlhaus, 1982, p. 3)

As Dahlhaus suggests and emphasizes, there are many courses in aesthetic experience, both historically and in the present, which involve art, perception, metaphysics, beauty, material, technology, psychology, craftsmanship, antithesis and more:

⁵⁶ Jankélévitch, Vladimir (1903–85), philosopher. Born in Bourges, Jankélévitch headed the philosophy agrégation list in 1926. He brought a wide range of classical cultural references to his highly personal style of writing, and wrote extensively on music. [sic] Taken from oxfordreference.com, accessed 1/15/2019.

Esthetic pleasure is essentially one and the same, no matter whether it is evoked by a work of art or immediately produced by the contemplation of nature and life. (Arthur Schopenhauer cited in Dahlhaus, 1982, p. 4)

In Shopenhauer's assertion, aesthetic experience, or pleasure, is connected to metaphysics. Predominant in my way of working, aesthetic experience is connected to validating, as well as choosing, the aesthetics for my music, which is happening on both a conscious and sub-conscious level. I am aware that the aesthetic experience is a vast field within the arts and research, a subject field I do not intend to open up and start a larger discussion on. Still, I claim the aesthetics is the foundation for the way I make choices in composition, improvisation and music making in general. Additionally, it is possible that this approach points towards a personal aesthetics, i.e., my aesthetics, an aesthetic that concerns the design of the music I create and perform, not how much I perceive it myself, which is therefore a distinction that can be taken in to account. Furthermore, all aspects of my music practice are based on aesthetics, which was neither interesting or something I had the ability to understand and implement before. In that, as a student and in the early stages of my career, I was mostly occupied with acquiring guitar techniques and assembling and master as many genres as possible, thereby resulting in an exclusion and lesser understanding of the aesthetics. Hence, my experience, an understanding of the aesthetical is connected to the emotions and a maturation process, and is now probably the most important foundation of my musical practice. I am aware that other artists come to such conclusions at an earlier stage of their careers, but which is very important for me now, although I probably should have taken this stand long time ago. Phillip Toshio Sudo summarizes the problematics with the aesthetics quite well in this quote:

A guitar player must have aesthetic principles. (Phillip Toshio Sudo, 1997, p. 66)

My research project also needs a musical, practical and technical foundation to lean on within popular musicology. That does not exclude other themes, but helps to narrow the project down to its main topics. In the aforementioned introduction, Derek B. Scott emphasizes that different themes are not to be regarded as separate areas, but instead are parts of the same field (Scott, 2009, p. 1). From a performer's perspective, one touches all the fields in working with music on a professional level, most of the time instinctively. It hardly

ever occurs to give political reasons for the choice of a guitar chord voicing, or reflect upon how changing guitar strings will affect record sales, or support the lyrics of a song. It is all connected, though it is beneficial to know the terminology and how to utilize it. My point is that in a performer's perspective there is a leap between the practice-based approach and the academic approach.

My previously mentioned research goal is to contribute to analyses, and provide a broader picture of instrument and music studies, sound- and production studies and performance practice. Kevin Dawe indicates a change of the guitar in parallel with the way the world changes. There is a growing field of studies pointing at the relationship between music, technology and culture. The same way I think about my set-up and performance has changed, referring to what Dawe calls "new performance modes," compared to DJ set-ups and how they have affected music performance over time (Dawe, 2010, p. 47).

Similar themes find expression in Timothy Taylor's book *Strange Sounds: Music, Technology and Culture* (Taylor, 2001), noting how technology in all its forms generally becomes absorbed into the normality of human daily and social life. According to Paul Théberge (1997), recording technologies not only provide a means of capturing and manipulating sounds, but also have given them a new materiality, a new reality based on electronics and digital logic. Engaging with Théberge's ideas, Steve Waksman states that the electric guitar, in contrast to recording technologies, "...retains too many of the features of traditional instruments..." to be drawn entirely into such a world (*ibid*). Dawe continues listing new features guitars may be equipped with nowadays such as in-built robotic tuning systems, infinite sustain controls, computer interface software, mp3 players and built-in recording systems etc. (Dawe, 2010, p. 48). However, to me the technological is mostly focused around recording and the additional attributes one may connect to the guitar's signal chain, and leave the guitar as it is, relatively traditional⁵⁷. Furthermore,

⁵⁷ The closest I get to a modernized guitar in my collection is a Roland G-303, a controller for the Roland GR-300 guitar synthesizer. The guitar is equipped with a hexaphonic pickup with an output for each of the six strings on the guitar. Such pickups are often employed in synth guitars, with the

despite the evolution and modernization of the electric guitar, my impression is that most guitarists are conservative in the meaning they stick to the classic electric guitars, and as Waksman continues, its (the electric guitar, Ed.) sound activated by a player whose body and techniques of playing are physically contingent upon the instrument itself (Waksman 1998, p. 8, cited in Dawe, 2010). Additionally, the general guitarists conservatism is manifested in a limitation to the use of guitar pedals for sound manipulation. It seems like the general guitarist so far has been hesitant to implement computer as an effects machine in the same way as traditional stomp boxes.

Inasmuch as my project is performance based, the political and sociological reflection models are most likely not relevant for my project. I seek a more flexible and mixed theory as grounds for my artistic research. At this stage, a theory involving music and technology would be more appropriate. My approach is from a performer's perspective, but previously mentioned theory models are either old fashioned or inappropriate. Moreover, artistic research is a relatively new domain within the arts and research, with a constant inflow of results from investigations executed by the practitioners themselves:

The core orientation of this approach has always been, and continues to be practical; it aims for a skill that can be demonstrated through its practice.
(Darla Crispin, 2015, p. 53)

In many ways, my research project borders on artistic research with its inherent practical approach and practitioner's perspective on almost all topics. There is literature in the field of artistic research, e.g., with Per Zanussi, Ivar Grydeland, Andreas Aase and Morten Quenild, all of whom have contributed with dissertations for the former Artistic Research Programme,⁵⁸ which can form a part of the theoretical basis for my dissertation, or simply act as a model for writing. Their projects differ in weighting and focus, but all have an artistic

arrangement permitting separate effects processing for each string. A hexaphonic pickup attached to a converter can sense the pitch coming from individual strings for conversion into MIDI note messages. Retrieved from sweetwater.com/insync/hexaphonic-pickup/, accessed 9/26/2019. For more information, visit joness.com.

⁵⁸ Discontinued, now Diku. For more information, see diku.no/en

practice in common. My project constitutes a hybrid PhD variant theoretically situated within popular musicology as a basis for my artistic research.

3.1 Previous research

Theory is implemented as a requisite to debate and discuss empiricism. It is also a basis for empiric examinations. Theory will help you look at, gaze at, reflect and think through discoveries and experiences in your research. Theory can correct for old theories and research results and can be used for comparison of data, whereupon new theories can evolve. The ideal is a virtuous circle or spiral, where theory and data, whichever, inspire, develop or break each other through mutual inspection and testing. (Kjetil Sander, 2014)

Sander's statement depicts an implication of theory in a way that is applicable for my research project. A lot of my work is about using the guitar in combination with sound-manipulative tools to create soundscapes.

Nevertheless, placing my project in relation to current research and discourse, I find Kevin Dawe's chapter on Robert Fripp the closest to my guitar style. Yet, the focus is different, Dawe's perspective is from the outside, more of a listener and a fan's perspective, and I call for a more performer-based starting point. But as a guitarist in the field, Robert Fripp has pushed boundaries for musical performance and musical experimentation. Dawe suggests that past and present members of Fripp's group King Crimson are musicians pushing forward in such a way as to provide a window onto what can and might be created musically with guitar (Dawe, 2010, p. 2). King Crimson has not established the guidelines for me, but still, it is an interesting band, and Fripp has definitely been ground breaking in the field of electronic guitar and looping techniques. Furthermore, one of my colleague's biggest influences is King Crimson. He went to an eight-day seminar with Robert Fripp, and left the seminar before it was over. At that point, my colleague had then had enough of meditation and hardly any guitar playing. He was disappointed because he expected more practical and performance-based instruction, not meditation and deep thoughts. He had also expected a pragmatic insight into Fripp's looping techniques and technological approach. The reasoning for this anecdote is to illuminate different levels of guitar playing, which touch a maturity and awareness that prevails through years of experience. There is a difference from being a young and eager guitarist and an older experienced one, especially if you seek evolvement and growth as a musician, although there are limits for how much you can deepen your thoughts to become a better player. And as long as you deal with an instrument that demands dexterity, it requires a lot of

fine muscular exercise and then maintenance due to stiffer fingers as a result of increasing age. As is apropos, I add an excerpt from the aforementioned Philip Toshio Sudo and his book *Zen Guitar*:

The Way of Zen Guitar is known through the ears and the heart, not the rational mind. A self-taught blues player from the Mississippi Delta can know the way of Zen Guitar, where a graduate from Julliard may be lost. The way is found in the spirit of the expression and its depth, not its complexity. Do not allow knowledge to interfere with the naturalness that music demands. One can easily overthink a part. Just play. If it feels right, it is right. (Philip Toshio Sudo, 1997, p. 51)

As an experienced and middle-aged guitarist, I can connect to Sudo's statement except for if it feels right, it is not necessarily so. Evaluating one's own playing by using recording can reveal that feelings are not always trustworthy for that reason. Moreover, the notion of Zen evokes associations to meditation and associations to the previously mentioned Fripp seminar. I do not intend to open up a discussion on meditation and psychology nor aesthetics, yet there are interesting and considerable approaches in those discourses.

With reference to looping, David Torn, another innovative guitarist in the field, sees it differently and connects the looping technique to Terry Riley:

Hearing Allan Holdsworth and Terje Rypdal for the first time also resulted in a huge leap forward for me. I discovered you could make all these noises that could last indefinitely with interesting delay units and other technologies. Then I discovered that this was in fact a tradition that linked back to Terry Riley. Next, I found out Robert Fripp was already established doing this stuff. From there, it's been a wide open space until now. (Torn, 2010)

Another thing I find interesting in this statement is Torn's mention of Terje Rypdal. Torn's reaction is not very unlike the way I reacted the first time I heard Rypdal, and what influence and impact it had later on. It is about associating oneself to guitarists who belong in a soundscape tradition rather, than a straightforward guitar-chord-amplifier approach, which has its values and shall in no way be underestimated. The point is to clarify a difference between guitarists and their styles, in which soundscaping is an identifier.

For further contextualization, it is timely to bring in the aforementioned notion of guitarscape, introduced by Kevin Dawe, relating the term to multitracked

guitar sounds, guitar orchestrations and what we now might call guitarscaping (Dawe, 2010, p. 67). Dawe also presents various examples on guitarscapes relating to soundscapes, and also Robert Fripp's churchscapes, something he calls the results of recording in churches. Album reviews make use of the term "guitarscape," usually referring to bands using the guitar as one of their sonic devices (if not their primary one) for the realization of their compositions (Dawe, 2020, p. 67). The bands tend to concentrate on creating sound collages (of varying complexity) with the guitar within the framework of a song, experimenting with and exploiting the sonic colors of the guitar and its effects processors, its textures and timbres, and its ability to create an appropriate ambience (Dawe, 2010, p. 67). The textural approach described here by Dawe is underpinning my own textural approach. One of my main inspirational influences, Daniel Lanois, is also referenced with his "infinite guitar," known for his sound, rather than extravagant or complex guitar solos (Dawe, p. 67).

Dawe continues:

(...), these musicians make creative use of effects processors and appropriate chord voicings, which provide for depth and interest in the harmonic setting of a song, (...), giving a rich palette of musical, textures and a sense of depth (...)

My approach is similar to the above-mentioned, based on layering textures and sometimes chord voicings, rather than trying to play impressive solos, and might as well be called guitarscaping. Furthermore, there are parallels to David Torn's concept of "painting with a guitar"⁵⁹ and his notion of "sonic alternatives," a guitarscape that emulates a visual landscape (Dawe, 2010, p. 68). I endorse the guitarscape notion in the meaning of soundscape and layered guitars to create textures of sound. It parallels my way of thinking and working with the guitar as an instrument with infinite sonic possibilities.

My project also relates to the field of sound research, where Allan F. Moore has a significant contribution, the sound box, a virtual textural space often referred to as "...envisioned as an empty cube of finite dimensions..." (Moore, 2001, p. 121). Moore's sound box was coined at the listening experience rather than the production, but, nevertheless, to a certain extent is applicable to illustrate the way I apply textural layering in my own productions. Moore

⁵⁹ Two VHS videos released in 1993, now available on YouTube. Search for painting with guitar.

describes a sense of textural foreground, middle ground and background (Moore, 2001), not far from my own perception of layering various textures, although I think of textures as colors more than vertical locations representing registers. Additionally, Moore points at a sense of horizontal location, provided by the construction of the stereo image (Moore, 2001), which is more relevant and transferable to my approach, although the sound box is probably not a term I will be dealing with in producing and mixing the outcome of my music.

Paul Théberge also refers to Adorno and his view on Stravinsky's music, and discusses the way sounds assume an independent physical and material character that can be equally associated with digital synthesis and sampling in popular music in the 1980s. Among critics of new technology is Billy Joel:

A lot of the technology has made it so easy for facile writers and inconsequential writers to play with the sound, rather than write a great piece of music, that its tended to water down a good deal of substance in composition. (Billy Joel in Keyboard 16 (1), January 1990: 54 cited in Théberge, 1997, p. 190)

On one side Joel's utterance is interesting, whereas on the other it is discussable. Playing with new technology and experimenting with sound-manipulative tools is fun, and can therefore be regarded as an easy way to musical composition. Joel's statement is also quite way off the mark. Previously, an attitude circulated about whether a song that cannot be performed on a piano or guitar is not a good song. A lot of today's music is based on the sounds the technology of creative minds and musicians provide us. The songs are often impossible to perform on a guitar and a piano, and far less possible to transcribe within the standard terms of music theory. It does not provide any meaning, not even if you try. This music has derived because of the available technology. The music occurs precisely because of the possibilities the current technology provides us, and is not possible to create without it. Either way, the compositions are just as valuable even if they are not composed in the old way, as Joel utters. In my case, I do both; I use new technology to search for and create new sounds and new music, and I also compose music in a more conventional way by writing scores.

Contemporary musicians often speak of having a unique and personal sound, as they may have previously spoken about having developed a particular style

of playing or composing. (Théberge, 1997, p. 191). I consider a personal sound as an inclusion of the way one plays and composes, or totally, the aesthetic foundation that underpins which choices are taken at any time, either as a performer or composer. I attempt to even out the distinction between composing and playing, to achieve a more comprehensive expression based on aesthetic choices, without a distinction between activities. Thebergé argues that the idea of a “sound” appears to be a particularly contemporary concept that could hardly have been maintained in an era that did not possess mechanical or electronic means of reproduction. When sheet music dominated the production and consumption of popular songs (roughly from 1890 to 1930), Thebergé argues that such a concept about sound could not have been viable. Even when songs were “plugged” on the radio, they were seldom associated with specific artists to the same degree they are today. Once purchased in the form of sheet music, the ultimate act of consumption/reproduction laid, quite literally, in the hands of the consumer (Thebergé, 1997). Even in the consumption and reproduction perspective, a performer’s personal sound is to a large extent based upon perception, interpretation and aesthetic choices. In addition, mechanical and electronic means can both affect the sound and deliberately be utilized to create a personal sound.

As Tor Dybo presents in his book, *Representation of Jazz and Popular Music Analysis* (Dybo, 2013),⁶⁰ electro-acoustical applications like Signalizer and SoundEdit are timely for my project, but also unfit. In some situations, it can be necessary to use traditional transcription as a tool for analyzing musical lapses and to show musical examples. Dybo is also referring to Robert Cogan’s spectral sound analysis (Cogan, 1984), which is based on equipment for spectral analysis, borrowed from IBM. In this context, Dybo also discusses older mechanical devices such as the Melograph and Sonograph used for sound analysis, both well-known from ethnomusicological research in the 1950s, 1960s and 1970s. These devices are considered outdated because of today’s rapid development and chip engineering, which constantly provides the market with software for sound analysis (Dybo, 2013, p. 69). Common music

⁶⁰ Translated from the Norwegian title: Representasjonsformer i jazz- og populærmusikkanalyse.

software like Logic X, Pro Tools, Ableton Live and others can analyze sound and its fragments in an extensive way. The software contains plug-ins for analyzing frequencies, phase errors, time, pitch, tempo and metering levels, and it is also possible to extend the features by buying additional plug-ins, e.g., like spectral analysis. Some of the software and plug-ins differ in quality. It seems like there is a constant competition between the software developers, which continually results in better quality among the products. Moreover, I will elaborate and describe how Logic Pro X, Ableton Live and Sibelius are utilized in further examinations and music production.

Another interesting perspective is presented in the journal article, *The Electric Guitar: An Augmented Instrument and a Tool for Musical Composition*, written by a team at CICM, Université Paris,⁶¹ where they argue that the electric guitar presents a long history of instrument augmentation, starting with analog technology and expanding to the digital domain with hardware effects units and, more recently, software modules and programming environments. The electric guitar as an augmented instrument displays a wide range of sonic possibilities (Lähdeoja, Navarret, Quintans, & Sedes, 2010, p. 42). It is within the same field that I operate and want to explore the possibilities with the electric guitar, and a set-up that is a contexture of guitar pedals (hardware) and computer (software). For real-time sound manipulation and looping, I use Ableton Live and Max for Live. Because of delimitation, a detailed presentation of this domain will therefore be left out of this dissertation.

3.2 Perspectives on rhythm, tight grooves and not so tight grooves

Ethno-musicologist Charles Keil presented a theory he called Participatory Discrepancy (PD theory) (Charles Keil, 1987, pp. 275-283). It is about the articulation of the pulse that makes the groove, which is not possible to write down as traditional notes. It is relatively easy to discover this discrepancy in time by using the aforementioned software for sound analysis in a laboratory situation. The music I was involved in as a freelancer was more groove oriented than the music I compose and prefer to play now. Tightness, “in the pocket,” and timekeeping were notions and main keywords at times. And I

⁶¹ For more information, go to cicm.mshparisnord.org

used to practice very hard to become as tight a guitarist as possible. To additionally describe some of my background, and also where I stand today, I will illuminate methods, perceptions and opinions on tightness in a short anecdote from the period when I was hired as a session guitarist in the band D'Sound.⁶² The band was preparing for a tour in 1996 or 1997, and during the rehearsals I struggled to find the right pattern and rhythm to play, and to make it feel comfortable to play. I reached out to the drummer, Kim Ofstad, to ask for advice, while at the same time I was excusing myself for not being able to come up with a groovy guitar part for this particular song we were rehearsing. I remember him looking at me in a surprised way, and told me not to worry because he and the bass player were tight. So, to emphasize their tight interaction, it would be just perfect if I did not play as tight as them and laid a little off the beat. It was a relief for me, but I still felt uncomfortable not locking in on the same groove as the rhythm section. Moreover, the experience informs several levels of topics such as groove, tightness, musicality, interaction, musicianship and more. The guitar parts can also complete the rhythm section by playing discrepant from the core beat, and collectively form the groove.

In this doctoral project, I want to explore the possibilities outside the traditional conception of time and groove. I find it interesting to experiment with parallel tempos, dissimilar rhythms playing in parallel and with different tempos. I also find it interesting to experiment with rhythms that are perceived as wrong or as bad craftsmanship, without necessarily being the result of bad work. It is basically a rhythm that is very odd, without the traditional perception of time. It is also not an orderly polyrhythm⁶³ by definition. But, one element, for example the kick drum, can be stable in a certain pattern, follow its own time and within a certain timeframe throughout as the backbone of the groove. This creates a stumbling feeling or a pumping effect. One can then add elements that are even more aslant, which creates a more complex

⁶² The band formed in 1993. I would consider D'Sound as a pop band with flavors of jazz, R&B and the acid-jazz and smooth jazz of the 1990s. I toured with them between 1995 and 2000.

⁶³ Polyrhythm: The simultaneous occurrence of sharply contrasting rhythms within a composition; taken from www.dictionary.com/browse/polyrhythmic, accessed 10/30/2018.

rhythm. The artist and composer Flying Lotus⁶⁴ uses this technique a lot. Another interesting artist who implies a similar technique is the drummer Chris Dave⁶⁵. This technique is implacable with traditional groove analysis or any transcription models. Besides, my music is based more on soundscape composition with texture elements and noise, rather than on traditional harmonies, scales and rhythm. As mentioned before, this raises the question of a method to find structure in a musical progression that implicates the commonalities of all musical analysis (Dybo, 2013, p. 73), which was originally intended for analyzing free jazz and totally improvised music. Richard Middleton thinks it is possible to develop forms of notations that will cope with parameters like gradations of pitch and rhythm among others. But they are usually very complex and difficult to read and work with, so traditional musicology has shown little interest (Middleton, 1990, p. 105).

I also find support in the history of the guitar and its development explained by Odd Fredrik Ellingsen in his book, “From Kithara to Les Paul.”⁶⁶ He connects the development and history of the guitar with an anti-authority period from the 1960’s through the 1990s until today, where the guitar has been used as an expression for anti-war messages and political critic. Self-realization and a manifestation of the materialistic society have revitalized a desire to explore new sides of the guitar. The guitar has been a tool for exploration. It has been the center for some of the most revolutionary cultural movements since WWII, especially for rock music, and it is still a symbol of restlessness and unorthodox methods (Ellingsen, 2014, p. 251). I relate to this statement in light of my need for change and search for a new sound and meaning in my own expression. Moreover, my project derives advantages from several different models and theories for music analysis compared to Derek B. Scott’s emphasis in the introduction to *The Ashgate Companion to Popular Music*.

⁶⁴ Los Angeles resident Steven Ellison, better known as Flying Lotus, is a producer of electronic music and hip-hop beats, known for his abstract and sometimes jazz-tinted style. For more information: www.last.fm/music/Flying+Lotus

⁶⁵ Chris Dave is one of the most revered and in-demand musicians of his generation. His eccentric approach to the drum kit and his ability to adapt to any musical setting, whether jazz, hip-hop or R&B, has put him in a category of his own.

⁶⁶ My translation; the original title is *Fra Kithara to Les Paul*.

3.3 Ethics

Thus far, I have emphasized the practical challenges, but ethical problems may occur. One cannot avoid questioning ethics when writing auto-ethnographically:

...As soon as you put that “I” on the page, you can’t avoid asking if your revelations might be harmful to you or anyone else (Jago, as cited in Webber 2010, p. 269).

Collective music creation can, in some situations, contribute to ethical problems. As Jago points at, whenever I write in the first person, and on the whole involve other people in the doctoral project, there is an ethical responsibility to make sure not to reveal or expose anyone involved in an unwanted manner. To reassure the participants, there is a necessity to collect permission when referring to, or citing them, before printing and publishing the dissertation. Participants will also be offered the opportunity to read the relevant sections in which they are quoted or used as a reference.

By first encounter, the following ethical problem for discussion may not seem important for the primary research question. But the reason for bringing it up is to illuminate an experience, and yet another ethical problem, which led to my choice in reducing session work. It also reveals a culture within session work and sets a reminder for me as an entrepreneur now, at the other side of the table, so to speak. A problem also frequently experienced as a session musician, e.g., in a studio setting or at a rehearsal, is when you come up with musical ideas or solutions for a song that the artist, composer or producer did not. It is a given that the relationship between you and the artist, composer or producer is open to suggestions for rectifying and improving the compositions. At other times the situation is different, and the producer, composer or artist dictates every note they want you to play. Even so, a situation which is quite common for session musicians is to contribute with musical ideas that are so substantial that they change the original composition. Does the musician’s contribution entitle them to compositional rights? Or, are they only entitled to arrangement rights? My experience is that the question is hardly ever raised, and that if someone claims their rights it might cause them trouble. You also quite frequently get a sketch of a song to work on, and the relevant piece of music needs an intro or an interlude. Fairly often, session musicians come up

with melodies, hooklines,⁶⁷ riffs, chord progressions, etc. These musical parts are being added and become important for the song's impact. Just as often, session musicians do not get credit for their compositional contributions, which I would claim is an ethical dilemma. To me, it is known that some musicians avoid discussing compositional credits in such situations, to avoid conflict or the risk of losing the gig. Another example of an ethical problem can be in a recording situation with other musicians, and we are all improvising. If I choose to use the recording, without any edits or additional recording, and release it as my composition, there are ethical problems connected. Who are entitled to call themselves composers of a piece like that? Even if editing and additional recording occurred, there are still ethical problems. From my own experience, there are different opinions, and the ethical problems need to be illuminated and discussed. From my point of view, I believe in a democratic distribution of the rights to a musical composition, even if it is difficult to keep track of who did what, and to determine the value of the artistic contribution. For improvised music it should be easy, I think. It becomes quite ridiculous to state that someone improvised more than others, and is therefore proportionally more or less entitled compositional rights to an improvised piece of music. On the album with the aforementioned Piston Ltd., we all contributed to the compositions, either improvisationally or with specific musical ideas. It was a compositional collective, where every contributor was an owner and the rights were split equal.

Today's extensive use of sampling in compositions and live performance also provides grounds for conflicting perspectives. Are the sampled sounds and its sources clear? Is there permission to use the recorded material? In my performance practice, I avoid the problem by not using pre-recorded material. Some may think this is a conflict with the term acousmatic music. The difference is that acousmatic composition contains pre-recorded material, and acousmatic performance is passed on through speakers without performers, and where the sound's visual connection and meaning is cut off. Moreover, my performances with guitar and computer are without pre-recorded material. It is not related to acousmatic music directly, although I prefer to disconnect the

⁶⁷ Hookline is a common term for a catchy melodic phrase or a riff, etc. used by composers and musicians.

sound's visual link from its origin. My philosophy is to keep performances perishable. I only use sound material that is recorded on the fly, during a performance. I use samples recorded by myself of my playing. In that way there are no conflicting perspectives. And if I do use pre-recorded samples for some reason, I make them myself which is an artistic principle. However, I only use self-made sounds, and almost always created by using the guitar. Another ethical issue that may occur during research in connection with the recording process is the disclosure of special techniques, trade secrets, business ideas, etc. I have dealt with such challenges before with band colleagues during the recording of our own albums. The conclusion therefore is that the concern for those involved and the project's integrity is paramount.

Furthermore, in the middle of a creative process, studio recording or similar, I have also experienced problems with informing and asking participants about permission to use their names in the dissertation. It just does not feel right in the middle of a process; it is like an unwritten rule that it is not an acceptable behavior in such situations. Ethical problems can add a dank mood to the process. Accordingly, I have also hesitated to ask for permission or inform music colleagues and participants about my doctoral project before embarking on a creative process. And when in the process, it is too late as previously mentioned. However, the conclusion was to wait until I see whether the colleagues involved in the current projects are really relevant, and then inform and ask for their permission. So, even with the experience and awareness of ethical issues, my doctoral project is no exception. Accordingly, the dissertation will encounter situations that raise ethical questions.

3.4 Other challenges

3.4.1 Trouble with the plan of cooperation

In the project's first year, I attempted to establish a partnership with a symphony orchestra, though without significant success. There have been challenges associated with this part of the project. It involved a great deal of entrepreneurship implementing in completing the idea from an emotional impulse to its manifestation in a recording. The problems have also triggered some thoughts and reflections, especially concerning entrepreneurship. However, the process went on, and it took away time and energy that could

have been spent more efficiently. A couple of other options also came up, i.e., a flute ensemble and a professional chamber orchestra. But as long as no agreements were signed, it made further progress unclear, which also affected my motivation. The situation claimed a rethink of what I should spend my time on. To avoid energy being spent in an inappropriate way, I had to go on and consider other ways to solve my problem. Eventually, after a lot of emails, meetings, phone calls and preparations, I established a dialogue with the Kristiansand Symphony Orchestra (KSO), and started writing compositions and arrangements. The recording session with the orchestra took place in June 2018. The results in the form of recordings are topics for further examination and analysis in Chapter 4. The practical issues and the situation concerning entering into an agreement with the KSO describe the different sides of the entrepreneurship of being a performing musician and composer. This part of the work draws attention away from the actual musical and creative work. But it still needs to be pointed at in order to illuminate and illustrate how much it takes to realize any project of both a personal and professional significance.

3.4.2 Transferring the recorded files with the orchestra

The orchestra recordings were carried out using Pro Tools, which is a different DAW from what I normally use. To be able to open the recorded files in Logic Pro X, I got an OMF file,⁶⁸, which turned out not to work. Apple and Logic seemed to have changed the format to an equivalent called AAF,⁶⁹ which also did not work. Eventually, all the tracks and the audio files were exported from Pro Tools to an external hard drive, in order to be imported manually into Logic X as audio files, a process that took many hours and was quite inconvenient with a view to the doctorate's time limit and the entire process in general.

⁶⁸ An OMF file is an audio file saved in a standard audio/video format based on the Open Media Framework Interchange (OMFI). Taken from fileinfo.com, accessed 2/19/2019.

⁶⁹ The Advanced Authoring Format, or AAF, is an industry-driven, cross-platform, multimedia file format that will allow interchange of data between AAF-compliant applications. Taken from amwa.tv, accessed 2/19/2019.

3.4.3 Should I sit, or should I stand?

It has become convenient to sit when I play the electric guitar with all the effects that I use. The set-up is inspired by Eivind Aarset's, which is not good if you are aiming for your own style. Moreover, a sitting guitarist is not particularly entertaining either, although it is not intentional to entertain. Another way to put it, the body's reaction to playing music is being detained. The feeling when sitting and playing just does not respond well to the body's instincts and intuitional response, and should not be found in music making in my opinion. Before, as a session musician I used to stand while playing the electric guitar. In many ways, to stand upright while playing is good for the music, albeit depending on what kind of music you are playing. On the other hand, I do not think I could have done the Westaman concert in Kosice⁷⁰ standing (see separate section about this particular concert in Chapter 4). The music was tranquil, and the slow motion makes the staging a bit better, leaving it up to a visual artist to tussle with. Furthermore, the Westaman performances, and other performances for that matter, can technically be demanding at times. I do not mean on a production level like Pink Floyd, but from my angle as a guitarist, bandleader and composer. And again, compared to a Pink Floyd production and David Gilmour's guitar rig, my set up is reasonably modest, in other words a lot simpler. Yet again, from my angle as guitarist, bandleader and composer, my guitar rig is nonetheless quite a bit to handle during a concert. Consequently, it is most convenient to sit while practicing most instruments and sound manipulating tools. Despite my fascination for Eivind Aarset, to avoid copying his set-up, I have tried different ways to find optimal solutions for my guitar playing and pedalboard set-up. This search for an optimal set-up is part of the process, which shall lead me to my distinctive guitar sound.

Moreover, I am used to handling the boxes and computer while seated. As previously shown in Chapter 2, the set-up is a multipart pedalboard consisting of two boards, one on the floor, and the other on a table above to be controlled by the hands, the same hands I need to play the guitar with. This is also a

⁷⁰ A Westaman concert in Kosice, Slovakia in May 2015, which triggered a turning point in achieving some of the personal musical changes I had strived for.

reason to discuss whether I should sit or stand. The computer is also placed on the table next to what the guitar technician, Tor Arve Barøy, referred to as the satellite board. Accordingly, the boards are placed on a table for easier accessibility, like a desk switchboard.

Furthermore, evolved from the arrangement of the pedals on different levels, Eivind Aarset has developed a new guitar technique. Most guitarists usually have their pedals on the floor with preset settings. Eivind started to tweak the knobs while he was playing, and probably saw a need for easier access and control, and therefore lifted the pedals on to a table in a position closer to the body so the hands can operate the pedals more easily. To play and tweak a knob on a pedal is not so easy when you need both hands to play your instrument at the same time. As far what I learned by being a member of Eivind's band for a couple of years, and from what I understood just from watching him play, he has developed his technique in order to make pedal tweaking achievable. By being seated and using hammer-on and pull-off techniques with the left hand in combination with the right hand, which tweaks the pedals placed on a table in front of him, he has made pedals easier to grasp simultaneously with playing.

From the pool of empiricism I will bring up, to me a recurrent question is: Is it easier to be more creative in others' studio projects? The reason for bringing this up is based on a challenge experienced on many studio sessions, often in my own studio, where the task has been to record guitars on others' music projects. It has happened several times before, where I have experienced a joy and ease in "creating on demand." The compositions set a frame and the composer, or the producer, may have some ideas or guidelines they want to fulfill. Sometimes the task is totally open, without any particular desires, restrictions or limits for musical ideas, neither from the composer or the producer. Depending on how extensive the guidelines are, there is a certain freedom to this type of working situation. Maybe it is the limited freedom and opportunities you have in this type of work, often arranged without anyone else in the studio but you and the music, which is so appealing. You also get to decide how much time to spend on the session. And again, this process is part of my "multi-component" work, activity and function. In addition, being a guitarist on sessions like those described here, I am filling the roles of a sound

technician, recording engineer, programmer and editor, and sometimes arranger, and even producer and mixing engineer.

So, the research I plan to carry out is supported by mixed theories and empiricism gathered from both my time as an experienced session musician and from the doctoral period. Furthermore, in the continuance one may recognize topics and dilemmas mentioned before, but brought up again, although sometimes only part of it, and sometimes difficult to recognize. I will try my best to guide you through the rest of the processes.

4 - Works

The following section consists of presentations and examinations of the PhD portfolio, with each analysis beginning with an excerpt of the log.

The desire for a change in musical direction began before I embarked on my doctorate, of which two compositions are included from an earlier stage. To create an appropriate overview, the compositions are divided into a pre- and post-period, i.e., before and after the fatal years described in the foreword. My intention is to see whether the incident had any audible, or otherwise noticeable effect, on the music I made. According to the development of a personal musical expression, all findings are explicable in numerous ways. Nevertheless, the intention is not to draw too much attention to life events, although music is inevitably a personal affair. To this end, I have included personal events as an opportunity for assessment, albeit also of private interest.

Some topics regarding work methods, strategies, tonal concepts, set-ups, etc. may stand out as distinguishable and unique for some compositions presented in this chapter, although the reader may also experience several topics as recurrent. The repetition is unavoidable, but just as valid for all the various descriptions and analyses. To omit any descriptions of methods, set-ups, ideas, etc. just because they occur in another composition as well would be wrong, as everything is related. For pragmatic reasons, there is no division of the various problem areas each work represents. The reader will be able to gain a broader understanding of how the process behind the various compositions took place. Attempting to make an idiom requires repeated trials, hence creating continuous repetition of the same topics and strategies reflected in the following chapter.

The division of works below is listed intentionally to create an overview. Some of the compositions did not fit into the whole, and would therefore not be published on an officially released album. Even so, the processes behind all the compositions contain valuable information useful in describing the quest for an idiom, and are hence included in the dissertation.

Works under way before the doctoral project was initiated:

Entirety – the original (did not make it onto the album)

Pipp Popp

Works commenced after the doctoral project was initiated:

Entirety for Strings

Entirety for Piano and Electronics

Germinal

Choir Mallets

Clarinet

Works commenced during and after the fatal year:

Linjesjekk 29. Nov. (did not make it onto the album)

Linjesjekk 27. Nov.

The Always Juvenilia

Timbre Trouble (did not make it onto the album)

The Only Characteristic is Duration 2

4.1 Entirety – the original

Although this piece did not make it onto the album, it was originally regarded as the centerpiece. The processes, methods and details in this piece were important for the whole project, thereby representing progress. *Entirety* was treated, prepared and rewritten in three different versions, one for piano, another one for piano and electronics and a last version for strings, brass and celesta. All versions and processes are described further on in this chapter.

4.1.1 Origin, composing strategy, process and inspiration

The original version has no log; thus, the information about this piece is based on recollection. *Entirety* was conceived as a musical idea to support private footage,⁷¹ created solely with the Guitar Workshop guitar, see page 51. The footage shows my son dancing alone on the water's edge of a beach. (In my son's imagination, he was not dancing but fighting monsters.) The piece was initially from 2013, and composed by sitting next to the computer with the footage on the screen, mounted in Logic Pro 9 (the current version at the time), and with all guitar pedals and Ableton Live electronics set up and enabled. The strategy behind this piece was to improvise along with the footage with the guitar and the set-up (as previously presented). The video was uploaded to

⁷¹ Go to YouTube.com, look up Dreyer and *Entirety* to see the original footage.

Logic and the tracks were record-enabled, so that the recording could take place simultaneously with playing along with the film. I improvised to the displayed film and everything that came across my mind as musical ideas were recorded. Before I started, the idea was to create something in musical contrast to my son's movements, and to the rolling sea whipped up by the wind that you can sense from the movie. I also decided to use the cello bow on the guitar strings to create an easeful atmosphere. I then experimented with simultaneously pitching the recorded material an octave below as the original recording was playing. For this technique, I used a looper in Ableton Live, so now there were two layers of bowed string sounds. Next, I created a horn-like sound to both contrast and support the string sound. For that particular sound I used an Electro Harmonix Micro Synth, whereby I actively sculptured the sound by turning the filter knobs in real time. The latter is a rather difficult technique, since I use the right hand to tweak the filter knobs at the same time as the same hand is needed to set off the tone on the guitar strings. Moreover, it is rather impossible to perform standing.

Nonetheless, the entire process was more or less based on intuition and spontaneous reactions to the child's movements, and by all means executed with sound-manipulative tools. In advance, there was an idea about creating something contrasting to the child's movements. The boy's motion is quite rapid, something I wanted to contrast by implementing sounds with a slower feel and motion. From the prepared guitar domain, I implemented the cello bow on the deepest guitar string to create a viola or cello-like sound. The original signal was picked up by the aforementioned contact microphone being installed inside the guitar, unlike being picked up by a standard electric guitar pickup. The contact microphone gives an image of an acoustic sound, and accordingly fits the purpose of making a string-like sound. The signal was routed into Ableton Live, where the Looper was utilized to record one improvised layer. The second layer, which was an improvised part over the first one, all in a mix of G-major and C-Lydian, was thereafter pitched down an octave in the Looper. The pitch function on the Looper reduces the tempo proportionately. The recording process in Logic first took place with the pitched down loop from Ableton; a second take was then added with the same improvised loop, but in its original pitch and tempo. So, the foundation of the sound and composition consists of one loop in two different takes, overdubbed

live. It was recorded to Logic Pro as a pitched down loop played back from Ableton Live, repeating the process but in the original pitch and tempo. It was the same loop, with two different tempos in two different octaves.

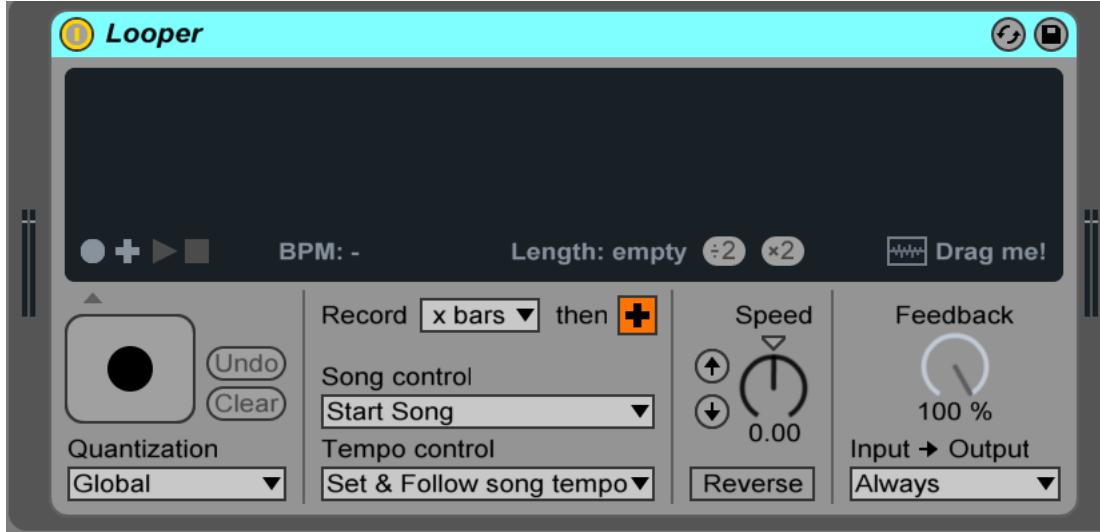


Figure 24: Ableton Live looper, idle

The rhythm tracks were created very much in the same way as the string parts, but with percussive sounds produced by knocking and softly hammering onto the guitar body using the contact microphone built into the guitar. The sound was then treated in Ableton on the input channel, with a distortion effect plug-in called Erosion coloring the sound directly while playing, as opposed to putting on the effect afterwards onto the recording. The recording took place in front of the computer screen while simultaneously watching the video and playing. The idea was to synchronize and lock the rhythm to the boy's movements. Later on, I figured that the rhythm track felt too busy, so I pitched the track down an octave, which also divides the tempo in half. I attempted to mix and toggle between the two tracks, one in the original tempo, or rather pulse, the other in half time. But the final solution remained the pitched down variant, both because the pulse and the boy's moves matched better, and the quality of the percussion sounded deeper and richer.

The percussive sound formed a rhythm that was intentionally created to support the boy's movements in the footage. The rhythm track in the original version was removed in all later versions. This was a decision based on an emotional argument that the piece feels more musical without the rhythm track. Listening to the track without the video, the rhythm feels superfluous. It may have a function supporting the boy's moves in the video, but the rhythm

track is not essential for the musical experience, listening to the track without the film.

4.2 *Entirety - the album version*

For the reader's orientation, this version of *Entirety* did not make it to an officially released album despite the title indicating this. Still, the piece became important in describing the entire process behind the end results and the evolvement of the piece as such, and therefore included in the portfolio.

As mentioned above, the absence of the rhythm is the most characteristic feature in this so-called album version of *Entirety*. Jan Bang, with whom I collaborated on the editing, said the piece needed a narrative, a melody in other words. I was not sure whether I liked the idea, because my idea has been to avoid the traditional melody-, harmony- and rhythm-built in compositions. However, I agreed to give it a try. I decided the steel guitar could emerge as a distinctive element that could function as a narrative. Technically, the set-up for the pedal steel is very simple. In most cases, I prefer to keep the pedal steel signal clean. Further justification will follow in the section. So, for this take, the set-up consisted of the Carter Standard E9 pedal steel guitar, a Goodrich active volume pedal, two cords and the VOX AC15 amplifier. Jan also encouraged me to record additional electric guitar with a more natural sound, dry, without effects, which I did. Jan then made some edits that I was not involved in, because I trust the choices he makes and his musical taste. From what I can hear by listening in retrospect, he added a cutoff filter on the bowed parts, and sculptured the sounds in a way he liked. All in all, the piece turned out in a way that coincides with the aesthetic principles I have tried to achieve. Yet, the reason this piece was eventually left out of the album was based on a lack of suitability in relation to the other compositions. Selecting the right works for an album is a process which is interesting in itself. It involves several of the same aspects of how you want your expression to appear, such as aesthetics, authenticity, identity, timing, dynamics, mood, etc., but more on an overall level. The topic is relevant for further discussion, but not made current in this dissertation, in which the focus is narrowed more towards the individual compositions.

4.3. *Entirety* for Strings

Due to the lack of a log, the following description is compiled on the basis of a recollection of the process in composing and finalizing this version of the piece. A log from the last stages when additional guitar was recorded is added further out in this section. Besides, the title is misleading, as the piece also consists of brass, which comprises an equal part to the strings. Celesta is also included as a small, but important part of the total sound texture.

4.3.1 A reversed process

The original version of *Entirety* was built on a string- and horn-like sound created with the guitar, as described in the above-mentioned section, Origin, composing strategy, process and inspiration. In order to make a version for a “real” orchestra, there was a necessity to crystallize the different voices, a compositional process in reverse. In order to be able to figure out what was really going on in the string-like parts, I used Convert Harmony to New MIDI Track, a feature in Ableton Live. This audio to MIDI function creates a transcription which enables analyzing the MIDI file, and reveals the harmonic structures built. To transcribe the horn parts, I used Convert Melody to New MIDI Track, the same feature In Ableton Live, but specific for melodies. Next, the orchestration took place. The Score Editor in Logic Pro X was used to write the various parts.⁷² In addition to the string and horn sounds that are significant for the original version, I also had to find a solution for the sounds that did not have a clear reference. In the middle of the original piece (see YouTube or attached video) at around 1:55, a white noise⁷³ appears, and around 2:03 a bell-like sound appears and reappears around 4:03 (Dreyer, 2013). These sounds, or textures, had to be orchestrated, and I had to figure out

⁷² As a digressive fact, most of the score writing was carried out on a laptop at the many hospital visits while my late wife was being treated for her disease. I find it worth mentioning because it informs something about how technology makes you independent according to physical workspaces. Additionally, the hospital atmosphere may have affected the mood of the work on a subconscious level.

⁷³ White noise is a type of noise that is produced by combining sounds of all different frequencies together. If you took all of the imaginable tones that a human can hear and combined them together, you would have white noise. Taken from science.howstuffworks.com, accessed 3/11/2019.

the instrumentation. The white noise was transcribed and written as blowing into the horns, emulating noise, without creating any tones, see score in bar 27 (Dreyer, 2018a). I then envisioned that the bell-like sound could be represented with a celesta, see score from bar 29. The celesta part had a certain rhythmic feel to it that could be interpreted as a $\frac{3}{4}$ time signature, in which it was written (the piece starts out in 4/4). Moreover, the part had a feeling of a tempo change, which was implemented in the score. The original tempo was set to 51 BPM and the change was set to 80 BPM in bar 30, then back to 51 BPM in bar 39 (see score). The same feel occurs towards the end of the piece and the time signature and the tempo was accordingly changed again, but to 75 BPM only because it intuitively felt better.

By far, the whole score was carried out and completed in Logic, with all the dynamics and tempo changes. The score was then exported from Logic as a MusicXML-file⁷⁴ and imported in Sibelius on Geir Holmsen's computer, where Geir almost had to start all over again to finish the orchestration and finalize the score. The reason was that MusicXML is not an optimal solution, even though it is the only one at the moment for transferring score data, and it requires a great amount of clean-up and rearranging of the score after the transfer.

Additionally, to make a slight difference from the traditional horn sound, the brass section consisted of two horns, three trombones and a tuba. On the basis of former experience working with orchestras, and anxiety about boring the musicians with my music, I wrote the horn voice in a higher register than usual. And the trombones, and the tuba in particular, got an even greater challenge since I placed their voices in a higher and unrecommended register. The parts were also to be played soft, such as pianissimo with three p's, which can be challenging for brass players. My supervisor recommended to write all the brass voices for horns only and in a safer register, and thus skip the trombones and the tuba. I defied the recommendation due to an idea about creating an unusual texture, relatable to the aim for a personal sound.

⁷⁴ MusicXML was designed from the ground up for sharing sheet music files between applications, ..., taken from www.musicxml.com, accessed 1/11/2018.

Nevertheless, according to the recording with the orchestra, the brass sound with the horns, the trombones and the tuba combined emerged as different, at least to me. And to seek a different sound is exactly the pursuit, although I maybe would have changed my mind before the recording session if I knew exactly how challenging the brass parts would turn out to be. After the session was over, one of the horn players⁷⁵ had a humorous remark: “You know how to make the horn players nervous.” My response was: “How come?”, and the answer was: “Because you wrote all the brass parts in a very high register with the three p’s, which makes it very difficult to play.”

I also had an understanding that orchestral musicians needed challenges, an assumption that was possibly correct. However, in order to engage the musicians to the music, the learning from this experience is to challenge them in other ways than playing high notes in a soft manner. Another discussion is to what extent should you as a composer please the orchestra with adequate challenges, rather than scaping the sound and music you are seeking?

The following process consisted of editing and putting together the best takes from the session with the orchestra. All the tracks were then sent to my colleagues Hallvard Hagen and Jens Petter Nilsen for further editing in Melodyne,⁷⁶ a software that specifically smooths out pitch and other discrepancies in sound and musical recordings. I do not possess the software or know how to use it, and hence had to outsource the task.

The following log is from the last period of the completion of the piece, which was primarily guitar overdubs in my studio and editing at Punkt Studio.

⁷⁵ Hilde Lunde Garby.

⁷⁶ Melodyne lets you work with audio in an entirely new way, one that is musical, nifty, crystal-clear and almost magical. Working with Melodyne is like being able to say to a singer “hold this note a bit longer” or to a pianist “give slightly less weight to the third in this chord” – hours, weeks, even years after the recording session. Taken from the producer’s website, celemony.com, accessed 3/11/2019.

Log March 3, 2019

Guitar overdubs, second session (or take) on Entirety for Strings

Due to the challenge from Jan:

A cleaner sound

Vox AC 15 and Fender Blues Jr. with Fairfield Circuitry compressor

Envisioned to ground the lead on certain intervals as an idea to pursue.

Decided to emphasize 7ths, 2nds and 6ths.

In order to free myself as much as possible, I came up with two different strategies.

Strategy 1:

For a freer phrasing, improvised and recorded without hearing the original track, three takes, about 5 minutes each

A couple of takes with the click, the reason was to get the same sensation of the pulse as the original take with the orchestra.

Then one without a click

Strategy 2:

This time with both the click and the playback monitoring

funny though, the playback is not relating to the click

but the piece has the same pulse, though, 60 BPM (51, to be correct)

Then, recorded some takes without the click, solely with the playback track

Never listened to the takes in the further process, which was a risk because I had not had any soundcheck.

Day three:

Recording it all over again along with the track (the orchestra)

softer

darker

7ths only this time

Rest of the day editing and preparing the tracks for the next session at Jan's place.

March 7

Session with Jan

Working with Entirety for Strings, editing, making a selection out of basically 7 different guitar tracks w/efx-track

Jan made an interesting remark regarding my playing. He suggested that I should imagine I took a puff from a cigarette before and in-between each phrase. I am ahead. I agree and understand what he means, according to previous improv takes and frustration, particularly searching for a fuzz tone, the problematics with busy phrasing and "breathing" has occurred.

Continued working on Duration 1 with the guitar loop from both the Pilgrim clips,

Jan put on some eq and modulated delay, cut a couple of parts, rearranged and restructured. Deleted large parts from the orchestra.

Melody reflections:

Wanted to avoid it

Then challenged by Jan

I got troubles by continually bumping into references

Had troubles dropping the references

I came up with strategies like:

Trial and failure with references (the Rypdal take)

Then the interval strategy 7ths, 2nds, and 6ths

First free, without listening to the symphony track, with the click to get the pulse and the vibe

Then with the track (with the orchestra)

The first guitar takes were too "hard," especially on the higher notes

Softened the last takes

Got better

Some predictability and repetition in the phrasing

Guess a language is evolving as something I can call mine

Furthermore, as the log informs, an attempt to come up with a guitar lead, or a melody, took place at my studio. Despite the idea about a melodyless piece, I was challenged by Jan to come up with one, a narrative, as he prefers to call it, or a melody the way I see it. Technically, the recording procedure went on as usual in my studio, using two amps, the Mac-lines plus an AKG 214 microphone to capture the ambience of the room. Part of Jan's challenge was

to keep the guitar sound dry, hence the choice of one box only, the Fairfield compressor, which enabled me to play softer and retain a rich tone at the same time. The log also informs about two different strategies marked out to come up with a melody. The strategies need no further explanation, it is relatively precisely depicted in the log. What surprised me was the misinterpretation of the pulse. The main pulse is 51 BPM, but I remembered it as 60 BPM. This may partly explain the rushed feel in the melodic phrasing, cf. Jan's remark about cigarettes. Nonetheless, phrasing is a recurrent topic for further improvement, and implies more factors than the interpretation of the pulse. By singing simultaneously as you play and trying to play what you sing, the phrasing usually gets a more melodic and natural feel to it. It respires better, an experience I picked up many years ago as I was practicing scatting. For this recording I dropped the singing because of the room microphone, which I wanted to keep strictly guitar-based without any vocal interference. From my point of view, it is possible to exercise the ability to sing the phrases you want to play, without singing them out loud. It is just a matter of effort, time and practice.

Moreover, Rypdal is mentioned as part of the reference problematics, which is also a recurrent topic. Although it is not brought up very often, the log nevertheless informs that it is incessant, and often inevitable in not referencing other guitarists I admire or have admired. It is usually based on an intuition and a sense that a particular sound by a referenced guitarist could be suitable for the actual piece that I am working on. This way of thinking stems from the session player "in me," and causes less inventive playing. This mindset prevents developing a personal idiom. Consequently, the two strategies mentioned in the log were meant to avoid referencing other guitarists and to force myself into a creative mode, free from older experiences and sounds heard before. Of course, someone may always have an interest in hearing and finding traces of references in the sound you come up with and make comparisons. But to me it felt like I was on to something here, despite the fact that the sound was pretty much a straightforward clean guitar tone, a sound many have heard a lot of times before, so therefore nothing extraordinary. The use of intervals, particularly the 7ths in parallel, is an interesting clue and somewhat different to pursue for me. In my opinion, the 7ths create a significant tension, a feeling of never being let off the hook, never settling

down. The feeling of restlessness described here is not necessarily a feeling to obtain. Yet, it is particularly interesting as a means to create a certain tension to this piece. Without the dissonant intervals in which the melody is built, the piece could be perceived as soothing only, with no resistance, albeit the composition contains continuously occurring dissonant intervals, especially present in the lower frequencies. These dissonances create a certain tension, sometimes annoying, which was intentional to avoid a polished and insignificant expression. In this regard, the use of parallel 7ths in the guitar melody underpins the aesthetics of the piece, and addresses an overall aesthetic principle. This may be the commencement of a characteristic aesthetics distinctive to me, and is therefore appropriate for further tryout and development.

4.4 Entirety for Piano

From the log:

*Per Elias finished the *Entirety for Piano* score on November the 9th. Contacted Miriam for rehearsals and help to make the piece playable.*

*Ideas to *Entirety for Piano*: first make it work with Miriam, then imagine an electronic guitar part that may work. Try with bow. Another idea could be Jan or someone else who sampled the piano in real-time, and then edit and make it play along with the piece.*

4.4.1 A process of reducing

The idea about adapting *Entirety for Piano* came into existence by accident, as does a lot of my music. My supervisor, Geir Holmsen, was adapting the original version of *Entirety for Strings*, and opened Sibelius to work on the document when the default setting in Sibelius was set up with a piano sound, and accordingly started to play the *Entirety* piece with a piano sound. Both my supervisor and I agreed that this was an interesting sound for the piece. So, I decided to complete the idea and get *Entirety* worked out for piano. In order to do that, I needed expertise to get the score right and contacted Per Elias Drabløs, my aforementioned colleague. It surprised me, even with expertise, how much work it was to adapt a score for strings into a piano score. The final version was to be tested for playability, and I felt a great deal of uncertainty whether it was music or not. Mariam Kharatyan, a classically trained professional pianist, was kind to take part in finding out whether the piece was

technically playable, and if it was musical enough and worth realizing. She had access to a studio with a grand piano and played throughout the piece. The score was well written, and there were no technical issues for a pianist. She just had a few recommendations regarding the character, and suggested Ad libitum instead of Larghetto, and that the symbol for pedal down was released too fast and should be kept down more or less throughout the whole piece. Mariam did a second run through the piece, which I recorded. A Zoom H4 recorder was set up on a stand at the edge of the grand piano, pointing at the middle of the strings, i.e., not an optimal set-up for a grand piano recording. Still, the purpose of the recording was to find out whether the composition was viable or not. From a musical standpoint, Mariam said the performance felt better the second time, meaning the second take, and the recording turned out great as well. After listening to the recording, some minor details regarding dynamics and an ornamentation in the middle of the piece, came across as something I would like to discuss with the pianist. Maybe the changes would bring out a better performance and version of the piece? In fact, it did when we recorded *Entirety for Piano and Electronics* a few months later.

Why did I want to pursue making a piano version of *Entirety*? To me, the driving force was the sounds it could possibly bring forth. Would the piece be perceived as totally different from the original? Was it possible to connect the sound as a distinction of my music and sound? Furthermore, the first recorded edition sounded relatively dark and complex. It became relevant to add breaks to make it easier for the listener to take in the complex textures. However, the breaks were never realized, but the pianist was aware of the problem and made an adaption in that regard. In addition, it was considered whether to add a high-end reverb to the recording, to simulate a huge church or similar, but the idea was cancelled. Instead, the idea about making a version for piano and electronics arose, see next section. Nevertheless, this description forms the basis for *Entirety for Piano and Electronics*, the piece which ultimately became applicable.

4.5 *Entirety for Piano and Electronics*

The source for this piece has already been explained in the previous section. The continuation was based on an uneasy feeling, the recording was not complete and the piece deserved another try. Additionally, the idea about

bringing in electronics had to be tested. The question then was: Should it be me or someone else who should bring in the electronics? The log reveals the final decision:

The recording session:

People involved:

Roald Rosberg: sound engineer

Mariam Kharatyan: piano

Lars Kristian Lia: live sampling/electronics

Per Elias Drabløs (not present during the session) score correction

The session was good.

Everybody showed up on time, except me. A little bit embarrassing, but not critical.

Roald had made the studio ready by setting up mics and monitoring an hour before anybody else showed up.

Mariam had little experience with headphones as monitors. But she adapted fast after getting some help adjusting the volume and balance.

Lars received lines from both the grand piano (Steinway & Sons) and the guitar.

He went for live sampling on the fly. Had little or nothing prepared. He rather did not want to hear anything before the session, an approach I like. We did four or five takes of Entirety for Piano plus a sound check recording (which was incomplete and therefore useless as a whole take).

Mariam wanted to know whether I wanted her to play exactly what the score indicated. Or, could she play the piece with a personal approach, more open, ad lib, with dynamics, repetitions, focusing on certain intervals, etc. We discussed it for a minute. For me it is easy to let the musicians try giving the music their personal twist, since I prefer to be met the same way. In that way, one may bring in interesting elements, surprises, etc. As a composer you may be surprised. I must admit I met a challenge in my willingness to be open since I realized that one sound in particular, some kind of note pitching effect Lars played, was not on my preferences list. I tried to like it, but I could not, no matter how hard I tried. Instead of telling him to stop using that sound, I asked him if he liked it. His answer was positive, so it made it even harder for me to signalize it was an undesirable sound to me. Somehow, I managed to communicate my displeasure, and he stopped using the pitched sound. But I was never really sure if I had hurt his feelings or what. I had to keep in mind how I would have reacted if it was me. And I kept my own experiences as a former session musician in mind when I talked to Lars about my preferences and my reluctance for that particular sound.

After we had recorded the takes needed for me to choose from, there was some time left and we agreed to play and improvise for a certain period, about 15 minutes. We ended up improvising for 25 minutes. Mariam's first approach was to play variations on Entirety for Piano. Successively she moved further away from the piece and improvised more and more.

I bounced only two versions (the most dynamic one, and the softest) for Jan and Geir for listening and judgements. I could need their feedback on these two versions. While waiting for their response, I organized the photos from the session. And, I will wait until I have heard from Geir and Jan before I give the tracks to Mariam and Lars for their feedback. I think it is good for all to let the recording session sink in, and then go back and listen some days later, with fresh ears, so to speak.

In this case, the analysis is principally represented by the log. The autoethnographic style lets the implicit knowledge come across in another way than in traditional popular music studies, in which one could have dealt with the topics as social organizing and local organizing. To me, it seemed more natural to impart the analysis as knowledge direct from an experience.



Figure 75: Mariam to the left, Lars Kristian to the right



Figure 86: From left, Mariam, Roald, Lars Kristian

4.6 Pipp Popp

The log for this piece was not started before the first session with Jan. The piece had already been recorded in my studio and was handed over to Jan as a palette of sound, or as a sample kit, one may say. Parts of the log were originally in Norwegian and translated by the writer of this document.

4/4/2016, Jan Bang-session

Make a reinforcement until about 40 sec. Some kind of power boost. You'll understand when you hear it.

Clean up, Jan had some suggestions that were helpful. See video.

Be scant with the "Pink Floyd-loop."

Jan is actually treating and editing the guitar tracks like samples. I don't mind, he is a virtuoso/maestro with samples. Basically, muting and sometimes moving things around. Shortening and looping. Added a modulated delay he favors, and the effect was sublime. Nothing I could not have done myself, but his musicality combined with the way he does it, makes a big difference.

Digital clips are a problem towards the ending. Is it the recording or the sound itself, or is it the playback?

Pipp Popp is an older composition, and the reference is additionally based on a recollection of how the piece was created and the process behind it, rather than depending solely on the log. Yet the log informs the contours of the work style Jan and I developed on the way in the creation of the album, which otherwise is reflected in the depiction of almost all the pieces in this chapter.

The piece came about as an experiment recording different layers of guitar in Logic X. The idea was to create “non-musical” sounds and just record several time-lapse improvising, about three minutes each, all of which indicate a certain limitation. Such a limitation is hence added to set a frame for creative activity. The idea was then to create a new, but different sound, and improvise without hearing the previous recorded track, which was played back, but muted. The procedure was repeated over and over approximately 10 times on 10 separate tracks. Each track was recorded as stereo tracks, principally from the Mac and Ableton Live, although the Logic X documents, which can also function as a log, inform a possibility for multitrack recordings of the guitar as well, meaning ambient miking, plus the computer lines in addition to the main guitar signal. All these signals were summarized and used in one guitar take.

As a result, one guitar, which is normally a single mono signal, may take up to six tracks in one take.

The digital clips in the ending were caused by “bad craftsmanship” in the earliest recording process, thus indicating a focus on the creative instead of the technical. In situations where you bubble with ideas and are in a creative flow and things can go well, you are not concerned with the craft. When you yourself are to be a technician, performer and composer, it can of course go beyond the craftsmanship, particularly regarding the recording technique.

4.6.1 Strategies and creative method

For this composition I applied a layering technique which is quite common, also referred to as overdubs. Basically, you record a track, then record another one on top of the other. However, what is special in this case is that I muted the previous recorded tracks and tried to forget what I just played, and hence play something totally different for each new take. Fortunate incidents can occur as an outcome of this layering technique, depending on one’s focus and tuning toward the findings that appear when unmuting the various recorded tracks. Some parts may immediately reveal that they belong together, and in such a way that is impossible to compose or prepare for. Furthermore, during the editing process, different parts or musical components from different spots of the recorded lapse may be chopped out, moved around and rearranged to make it work. Moreover, there are so many ways to challenge and attack the recorded tracks. Listening to all the tracks simultaneously may sound cacophonic, and one can easily lose the overview perspective. Accordingly, I unmuted just a few tracks at a time, and in a random order tried to combine the different tracks until I instinctively reacted upon a sound that arose from the experimentation with the tracks. In this process, one can miss out on some potency, because it is almost impossible to attempt every conceivable combination of the available tracks. On the other hand, it enforces the presence of quorum, which is an ability I have found more and more adequate in music making. At some point though, you have to stop and make a decision, with interesting pitch and harmonic and rhythmic combinations possibly emerging from this composing strategy. The clearest example is to envisage a guitar overdub session on a typical pop or rock tune with a fixed key and rhythm to it. Subsequently, all the tracks of the original song are muted before the guitar

overdub. The only information given is the key of the song, which basically means you can come up with anything as long as it is in the given key. One may play fast or slow, with the most preferred sound utilized for the moment and experiment with effects, and as long as it is in the right key you are fine. Then after recording, when unmuting the original song tracks, one may hear the weirdest, craziest, most original parts. Some parts, however, may make little musical sense. One can then try to cut parts, copy parts and move them around in the arrangement of the song, and will most likely be able to create parts that work. It might not have been possible to come up with such musical ideas without the recording technology available now. In other words, it would be impossible to form and compose such music. This technique or strategy is made possible, or easier, with audio recording software such as Logic X and similar programs. This method appeals to me and I use it a lot, and it was this procedure that formed the basis for *Pipp Popp*.

Furthermore, the method has parallels to the aleatoric procedures that, for instance. Pekka Pohjola employed when recording his composition *Ordinary Music*.⁷⁷ In an interview with Bjørn David Dolmen, reported in his PhD-dissertation, Pohjola explains how he instructed the musicians to play whatever they wanted for a half an hour without hearing their fellow musicians. Later on, Pohjola had framed the composition by editing and adding a pedal note and some synthesizer structures to the piece. Aleatoric is connected to the accidental, occasional and casual. The term has ramifications to open processes and radical performative approaches associated with Karlheinz Stockhausen, John Cage and Iannis Xenakis and also among avant-gardists who wanted to decompose the traditional music notation and derive benefit from instructions and the musicians' spontaneous associations during performances (Dolmen, 2018, pp. 180-181).

⁷⁷ Pekka Pohjola (1997). *Ordinary Music*. Pewit. Pohjola Records – PELPCD 8.

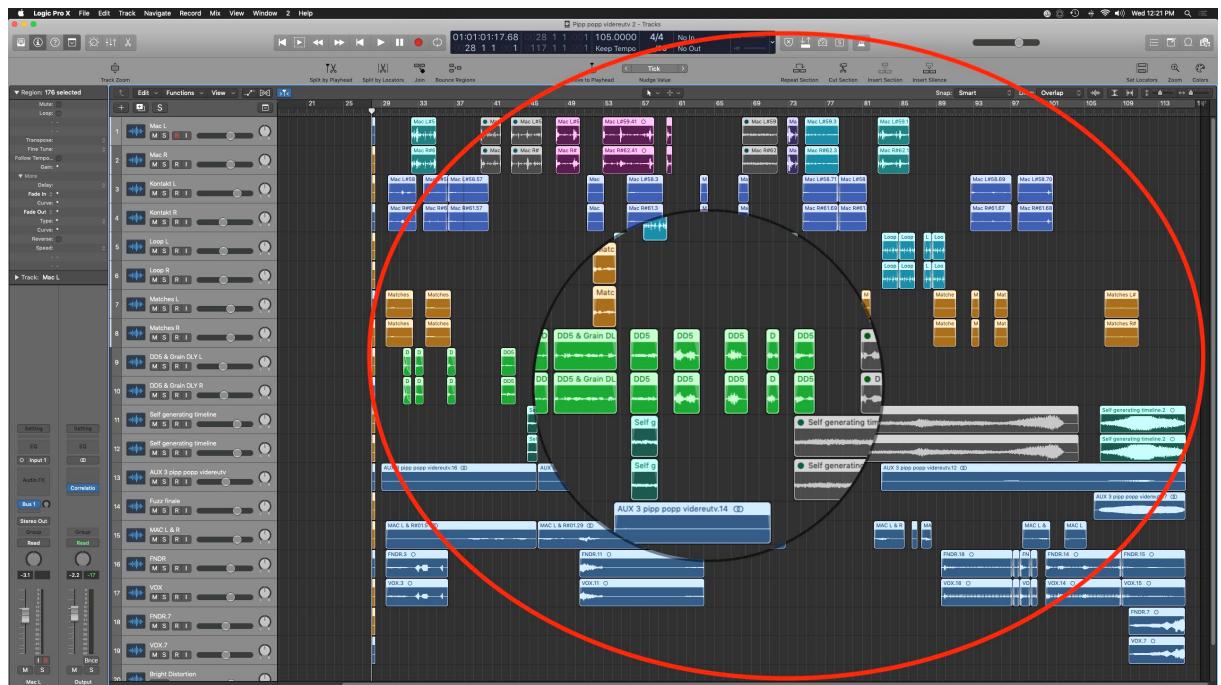


Figure 27: *Pipp Popp* sketch, Logic X document

Another relevant and comparable strategy is explained in the chapter, “Write drunk, edit sober,” from the book *Making Music* by Dennis DeSantis. Basically, it is about forcing oneself to work in two phases. DeSantis suggests a creation phase and an editing phase. In the creation phase, your goal is to capture as much material as possible (DeSantis, 2015, p. 46). This is comparable to my strategy, recording track after track with no other critical sense than attempting to vary and find a new sound or idea for each new track. DeSantis suggests that once you have recorded something, consider it finished. Better yet, forget about it entirely and move on to the next thing. “Aim for speed and quantity, judge nothing, and be prepared to make lots of mistakes” (DeSantis, 2015, p. 47). In many ways, this is a method I find applicable for my work. I often start out in this manner, press record and start playing without any idea where I am going. Apparently often, after about five or 10 minutes I repeat the procedure, but with a different approach or take on the musical idea or sound. DeSantis also suggests that once you have captured a lot of material (maybe after a set amount of time, or simply when you get bored) switch to the editing phase. Your goal now is to carefully refine the material that you generated during the creation phase. Furthermore, DeSantis encourages you to resist the urge to generate anything new during this process, and instead ruthlessly delete, trim, reorder or otherwise curate the material made earlier.

(DeSantis, 2015, p. 47). For me this coincides with the way I work, and yet it leads to a point where you discover there is a lot of material that has to go. Because when you record and add loads of ideas in a free-minded fashion, there will most likely be a lot of material that needs to be thrown away.

Interesting combinations of pitch and harmony or odd rhythms may be uncovered in such a working progression, with combinations one may not have come up with in a traditional environment for composition. The technology adapts for new methods for composition, in which I take advantage of in my composition practice. It is precisely the unexpected that may occur when unmuting tracks, with strange harmonies and harmonics, interesting combinations of sounds and strange or advanced rhythms being exactly what I am aiming for. And I could not have come up with any of these component parts if I purposely tried to do so, not even in my wildest imagination, which is actually quite vivid. I therefore find this method to be very suitable for me, and for the music and the sounds I attempt to create. A further deeper musical analysis of *Pipp Popp* is superfluous, as the composition mostly consists of texture-based sounds, with a few exceptions where you can hear chords and a couple of drones.⁷⁸ For instance, the determination of the key of the drones was determined by a sample that Jan Bang put into the arrangement, which should serve as a clue for an idea for a fuzz guitar. The fuzz guitar was overdubbed in my studio the old-fashioned way, meaning copying what you already have played to reinforce the original take, a method often used when layering guitars on a pop song. But instead of reinforcing the track, the overdub was intentionally substituting the sampled sound. There were also ethical considerations, in order to avoid legal justifications for using a sample taken from another record. In addition, the chords or harmonic backdrops that appear in *Pipp Popp* are relatively complex and a result of different recorded layers, and without the intent to match any particular key. Nonetheless, it would be pointless to transcribe these harmonies to find any given musical meaning,

⁷⁸ Drone, ..., in music, a sustained tone, usually rather low in pitch, providing a sonorous foundation for a melody or melodies sounding at a higher pitch level. ... A drone may be continuous or intermittent, and an interval, usually the fifth, may replace the single-pitch drone. Taken from britannica.com, accessed 4/24/2019.

since the piece is not meant to be performed by others, nor in a concert or the like. It was the sound I was seeking.

4.7 Germinal

As the following log attests to, this piece was originally a commissioned work for the opening of a fine arts exhibition by the artist Susanne Kathlen Mader,⁷⁹ which was curated by the Oslo Kunstforening.⁸⁰ Some excerpts from the log:

May 11 and 12 composing for Mader's exhibition in Oslo

Idea: No melody, chords or rhythm

A place to start: Short sounds and recorded loop, preferably with empty space in-between the sounds. Challenge in having too much empty space, tacit in-between. At the same time, I need the space to fill in for additional overdubs. Add elements that work with the loop. Evolves into a rhythm pattern.

Next element: Rubber mallet, a sound that can be associated with a female voice, whale song, or someone who is on the john.

New element: Bow in a kind of ¾ variant, or, 1&2& pause until 4.

Then, pitch down the rhythm pattern (loop). Place whale song in the background, add reverb, fade out direct signal.

Enable guitar through Evolution without direct signal.

Filter the bow.

Eliminate rhythm.

Use the track for Evolution.

Fade whale song.

Fade bow's direct signal. Play along with what's left with the Granulator (prerecorded guitar in fifths)

Fade Evolution.

Last part becomes Granulator.

⁷⁹ For more information, go to mader.no

⁸⁰ For more information, go to oslokunstforening.no

Method:

Composition developed from an idea about choosing elements a little accidentally, accessed from impulse and what I thought would work. Then I played and improvised throughout the piece repeatedly while recording. Sent a variant to a friend and colleague for comments. See the following email further out in this chapter.

Made some adjustments according to the feedback I got. Last part is still best on the 3rd version.

Surround:

Found an article on how to set up surround in the studio. Interesting. Did also bring home one extra pair of Dynaudio BM5s. Consider acquiring a sub.

I had not seen much of the paintings and decided to take a chance and come up with some musical ideas independent of the art. In that regard, my thought was to create something different and possibly contrasting Mader's artistic expression. Even so, attributes such as minimalism and abstraction came across as a lead for me, which later turned out to draw parallels to Mader's art, though all by accident. I had not seen her material, so the choices were coincidentally based only on my intuition. I intuitively made a short list of attributes that I wanted for this piece. There should be no melody, no chords and no rhythm. The final recorded track is based on a combination of two different stereo track demos of the piece.

As a starting point, I had an idea about looping abrupt sounds with space in-between. The empty spaces were supposedly meant as space for both making the music breathe and for recording additional sounds or phrases to the original loop. Moreover, these pauses became challenging in the way that they could become boring if they were not filled with information. Such considerations are often grounded in the idea that the piece is supposed to be performed live, as I would probably not think about it if the piece were supposed to end up as a studio recording. The reason here was a concern about boring the audience in a live performance situation. The list of attributes was also constructed as guidelines for an improvisation that I later on, in an editing phase, which could extract elements to build a composition. During the process, a new element also came up, the rubber mallets (see figure in the next section for the piece *Choir Mallets*). Scrubbing the smallest rubber mallet against the neck of the guitar creates a very associative sound similar to a whale song or a female's

voice. The characteristics of the sound are durability and have a kind of human feel to it, which constituted a contrast to the previously recorded abrupt sounds. Technically, it is the contact microphone inside the neck that makes the rubber mallet against the neck sound the way it does.

It was challenging with the huge leaps in-between the phrases at the very beginning of the live version of the piece. The challenge is actually caused by the self-imposed principle of having all live performances ephemeral. If I had allowed myself to use clips,⁸¹ an advantageous feature in Ableton Live for pre-recorded sound, phrases or whole songs, the empty spaces in the loop could be shortened and experienced more as a composed part than a long introduction or infinite build-up. At the opening of the arts exhibition, the live performance of the piece went ok. It was mediated in mono because the only PA-system available was a Yamaha Stagepas 300 facility, which would have been the case even if I had sent a technical rider in advance requiring an adequate PA in stereo. In situations like that, you utilize the experience from being a session musician, make the best of it and play along with the ambience of the room as best as you can. Furthermore, I got some good feedback from the audience, as some especially liked how my music worked so well along with Mader's pictures. Yet my intention was to go in a minimalistic direction that was not too far-fetched according to Mader's works, which may be regarded as geometric abstractions. And, it is exactly the latter that coincides with my music, an attempt to abstract the music from the conventionally built. In addition, one comment was that my music was melancholic, but also with humoristic elements, a description Mader's husband, Kjell Varvin⁸² came up with. A lot of what I was doing artistically was melancholic, or somewhat I rather like to perceive as romantic. Perhaps that is something to be aware of in future compositions. From my point of view, there is fine line between melancholy and sentimentality, with the latter something I strive to avoid. Other's perceptions may differ from my own, but should not in any circumstances affect the creative processes. Moreover, Varvin also named the piece *Germinal*, before he had even heard it. He named the piece from a set of

⁸¹ A notion used in Ableton Live for sound samples, a sound clip.

⁸² For more information: varvinart.blogspot.com

expectations, and stood for it after he had heard the piece. The reason I let him come up with a title for the composition was because I did not have a clear opinion about it. I usually name the compositions myself, with a few exceptions. The meaning of *Germinal*⁸³ was unfamiliar to me, though as long as it made sense to Kjell, I could live with it. A deeper discussion of the relationship between the music and the title of this particular piece is not necessary. Naming a piece can be a serious matter, but I sometimes find it amusing and exciting letting someone else in on the process, and the outcome can be astonishing.

The composition was developed both from an idea about choosing musical elements based on an impulse, and from the idea about what I thought could work. The elements I decided to choose from were the previously mentioned short and abrupt sounds, pauses, the rubber mallet sound and sounds created with a cello bow on the guitar strings. The latter was played using a mix of a 3/4 rhythm feel and a 4/4 rhythm feel, although because of the effort behind a non-rhythmic approach to the piece, a time signature accrued during the improvisations. However, it is not audible or perceptible. The time signature was more of a self-imposed framework for me as an improviser. The looper in Ableton has the possibility for a pitch change, whose function was employed on rhythmic and abrupt sounds. The loop was also pitched down an octave, which resulted in a half tempo. According to the log for this piece, the following steps involved adding reverb to the whale song-like sound that was recorded to a second looper in Ableton, then fading out the direct signal so the signal was all wet. I also added the Evolution plug-in effect on the input channel, but without the direct signal from the guitar. There is an option to route the signal pre and post effects on the input channel. This option makes it possible to eliminate the direct signal while playing, thus wetting the signal with effects only. This manipulation technique outdistances the guitar beyond recognition, with the log informing about a filter on the bowed parts. It is not clear what kind of filter, but my guess is some type of an equalizer effect,

⁸³ In the earliest stage of development, “a germinal idea.” Definition taken from en.oxforddictionaries.com, accessed 09/20/2018.

probably high cut. The rhythmic element that appears and disappears is working as a structural indicator, and binds the two main parts of the piece. Originally, the percussive sounds were leftovers from the original stereo track demo recording, and yet difficult to control or edit. At first, it was annoying and I tried to eliminate it, but it did not work. I then made a decision to leave the unwanted percussive part like it was, and then attempted to make the transition between the two parts as natural as possible. The way I did it was crossfading between the two selected stereo files, which may seem to be an easy operation, but crossfading can bring about some challenges. The length of the actual files, then the length of the crossfade and the shape of it, also referred to as curve in Logic X, have an impact on how it is going to sound.

4.7.1 Tonality

As mentioned, the intention was to eliminate the traditional melodic and harmonic progressions. Still, there is apparently an audible harmonic progression and a shifting harmonic center in this piece. This is not all accidental, because where the cello bow is involved there are notes being played, and I always tend to lean towards modal scales just to avoid an atonal expression. This is relevant to my background as a session musician and in jazz theory. Atonal music and concepts are interesting, although I strive for a non-cacophonic sound, and by eliminating atonality the chances are higher for success. Cacophony seems more like a standard and a rule in improvised music. To me, a lot of free improvised music sounds the same, regardless of who is performing it. It is a paradox then that music evolved from a free approach, and maybe a free spirit, seems to sound the same, and ascribable with words like frenetic, hectic, chaotic, exhausting, arduous and demanding. This is not meant as a critique, as I find experimental music interesting in general. Nevertheless, I find it contradictory that so-called free improvised music has a tendency to sound the same. An implementation of the modal concepts is more applicable to me and creates a less challenging sound, no matter how randomly the notes are being played. By less challenging, I mean less strenuous than the aforementioned insistent sounds which are also commonly associated with contemporary classical music. Preferably, such expression and aesthetic are subjects to avoid, for no other reason than I respond negatively to sounds that are all dissonant only. Favorite intervals,

such as seconds, major sevenths and sixths occur randomly, and create what I regard as interesting harmonies and dissonances. The application of intervals may be regarded as an approach in itself. Moreover, it may also be explained with ramifications to a horizontal approach, based on what I can recall from studying George Russell's, *The Lydian Chromatic Concept of Tonal Organization for Improvisation*. However, as Russell points out:

The Lydian Chromatic Concept of Tonal Organization is a chromatic concept providing the musician with an awareness of the full spectrum of tonal colors available in the equal temperament tuning. There are no rules, no "do's" or "don'ts." It is, therefore, not a system, but rather a view or philosophy of tonality in which the student, ..., will find his own identity. (Russell, 1959, p. 1)

Although it has been a long time since I dealt with this concept, it emerges from the unconscious, I think. Russell (1959, p.1) further explains:

The student is made aware of the whole chromatic situation surrounding the chord (vertical) or a tonal center (horizontal). It is believed that this knowledge will liberate the student's melodic inhibitions and help him to intelligently penetrate and understand the entire chromatic universe.

Without any particular awareness of the whole chromatic universe or the use of vertical or horizontal angles, my general approach is horizontal. Choosing the notes of a major scale or a Lydian scale, improvising and recording a sequence and an overdub into Looper in Ableton Live creates a variety of harmonies and chords, all by accident, which I find to be interesting. It cannot go wrong, yet strange harmonies may occur. This is the approach I used for *Germinal*. The moment I started playing with the bow I chose a modal scale, Ionian or Lydian, in a random key, then immediately started recording in Looper, and after approximately a minute, overdubbed with different notes from the same scale. *Germinal* basically consists of two different stereo tracks, recorded in two different periods and two different keys. The difference in keys is due to an idea about trying new approaches for each take in a piece. In that regard, I also may have forgotten what key I started out with. So, because of the difference in key signature, the piece starts with a bowed sound in the key of B and changes to C, and then back to B in the ending. In fact, part of the ending was copied and pasted at the beginning of the piece. This grip creates a clearer structure that benefits the composition.

4.7.2 The email and the impossibility in recreating the atmosphere

As previously mentioned, throughout the doctoral project email was a tool and method for making music, and communicating ideas to obtain feedback and more. Here is an email (see below) dated 5/11/2015 from Hallvard Hagen, with his opinion on the third demo of *Germinal*. The email was translated by the writer of this document. The translation is not perfect, nor is the original email text. It was originally written in a verbal fashion, and the purpose was to keep it that way. It emphasizes the authenticity, and gives the reader a more accurate picture of the process.

Thoughts on this:

Nice nice.

Too much stuff in mono in my head. Gives meaning throughout the piece when it opens up, though, so you've got a point right there.

The bows in particular should be panned.

3:45, beautiful lift.

Strange that the bass-boom/the kick is panned. It is very nice at the beginning, but then it becomes dirty with some noisy stuffs [sic] over it before it becomes clean again. Could have been clean all the way, doesn't need to be panned.

This is def (remark: meaning definitely) one of your better ones. Maybe the best. Should be on the album.

Generally, I think the glitching is too random, a bit too static, a little too little crossfading, no dynamic loop-points, transients that are cut into digital clicks, a little too obvious repetitions of short loops to become super interesting. They stand nice from 3:45 and out, but when it is them alone only, it becomes a little challenging listening to. More movement is just the thing, in the form of LFOs, random-generators which control the loops, delays etc. ...Check out BEAP i Ableton live, max 7...Grm stereo delay...

my 2 cents

H

Hallvard's feedback is constructive, encouraging, goes into detail, suggests concrete changes, expresses his opinion, etc. Unfortunately, the changes Hallvard suggested were technically difficult to accomplish since the recording was originally a two-track stereo file, which implies a rather large limitation on the possibilities of editing. Moreover, one option could be to rerecord the piece implementing the changes Hallvard suggested. On the other hand, it would be impossible to recreate the atmosphere, or the vibe of the original recording, since it was all improvised. This is an experience I have learned many times.

That is why improvisation can be so powerful. It can provide results you could never predict or achieve through composition. The downside with a stereo-track recording of improvisations, particularly with the pedalboard and the computer involved, are the limitations and impossibility in rearranging or making changes in an already recorded part containing, e.g., panning, effects, parallel loops, balance and volume between the elements, etc. And of course there is also the risk of error. That risk is the price to pay for “pure magic,” or in other words a great sounding piece that happens accidentally. It is a form of “magic” which is impossible to construct. The other risk is to achieve nothing, which is otherwise the most common result.

Although the email did not have an upheaval type of impact on the actual piece or recording, it is a great tool and method for communicating ideas, critiques, inspiration and such with an edifying effect.

As the original log also informs, there were plans for surround sound while working with this piece. It eventually had no impact, but is worth mentioning since it is a constantly recurring topic. I have also included a second log from a session where I try to develop *Germinal*, see below:

Re-recording Germinal.

Felt locked with the two-track live stereo recording.

Hoping for more control by recording each element separately.

Planning to keep a larger part of the stereo recording and use it, incorporate it and compose around it.

Recorded each element in Logic X, totally separate, without reacting to any of the previously recorded material. Recorded in two takes with two alternatives each in the following order:

- Short sounds, rhythm, created by knocking my palm to the guitar body.
- Whale song, with rubber mallets, looped in Looper, Evolution added
- Bow, looped with Evolution
- Granulator, prerecorded, played on the laptop keyboard using the letters A,S,G and K.

After recording all the elements, time was spent doing rough editing. It is easier to come back and compose with verified components, and discovered a mismatch in key between the old stereo recording and the new tracks. But the whole idea about the piece was to have no key nor harmonies, rhythm or melody. So, I will try to put the elements together as musically as possible without harmony as a reference.

Went back and forth a little, and eventually the pieces develop by cutting parts (no pasting) from each track and make them play together. Think I will keep the last part from the live stereo recording.

The piece is moving in and out of certain tonalities, which was not planned, it just happened accidentally. The unforeseen is one of the better parts of leaving something to chance. It is a good way to capture distinctive sounds. It is similar to improvisation where you leave some things to chance, and spontaneity which makes music better in a way that is impossible to plan for.

It seems like it helps to let the piece "rest" for a couple of hours. When I go back and listen later, I usually feel a need to make adjustments. It is like when mixing, one should take breaks. And it is also important to know when to stop. Otherwise you may end up with a song that is polished, which I do not prefer.

The information found here underpins and describes several of the aforementioned aspects connected to the process, including playing, composing, the technological implementation, the trial to improve the composition, reflections concerning aesthetical principles and more. Therefore, I found the log to be appropriate to conclude this section on this composition.

4.8 Choir Mallets

From the log, all I could find was one conclusive sentence from a session with Jan Bang on April 4, 2016:

Choir/Mallets

Listened throughout the piece, gets nice with some editing.

I could not find any other log on this piece, so I had to dig deep into my memory to find out what went on in the creation of this composition.

What I do remember is that the composition came about in the studio I used to rent. The main idea for the piece is based on rubber mallets, also called Superball,⁸⁴ an accessory primarily coined with percussion.



Figure 98: Rubber mallets

The technique with the mallets was also described in the previous section about the piece *Germinal*. Furthermore, in this piece, the mallets are pressured

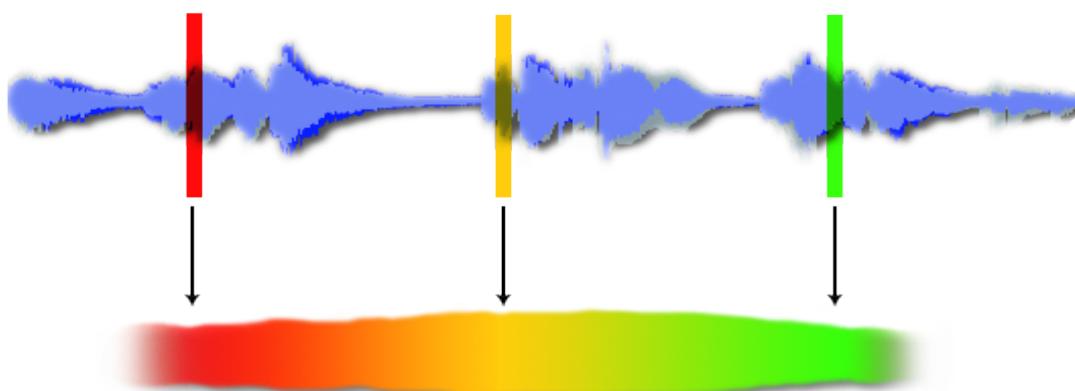
⁸⁴ Superball: With its uniquely designed tapered and flexible carbon fibre handle, our Superball creates a “roar”-like sound/effect on most resonant surfaces. Simply grip the handle (near the base) between your thumb and index finger, apply a little pressure (this will make the handle bend a little) and then drag it across a resonant surface. Try not to bounce the ball, as this reduces the contact friction and lessens the roaring sound. (...) Works particularly well on gongs, tam-tams and thunder-sheets. Taken from hornpercussion.com/product/acoustic-percussion-super-ball, accessed 3/13/2019.

and swept on a drum head to produce a sweeping and swelling kind of sound – which is hard to describe. To rehearse the technique with the mallets, I started off by recording a trial (and failure) on a bass drum. The successful parts were kept, and are audible in this recording. Then I discovered by accident how I could produce a choir-like sound by sliding the rubber mallets onto the neck and body of the guitar using the contact microphone only. Then, the signal was sent through Ableton, with the dry signal eliminated, direct to the Evolution plug-in, in real time. The result was a texture and sound that can be associated with a choir. The pitch and harmony are totally uncontrollable, which makes it both exciting and challenging for further processing and improvisation. The Evolution plug-in treats the sound in a way that the pitch fits somehow or the other. I do not know what is going on technically in the plug-in, but it has seemed to me the Evolution takes snapshots of certain parts of the sound, and somehow extends those bits. So, instead of creating a cacophony, it snaps certain notes and extends them in layers, which in turn gives an impression of a structured sound. The manufacturer of Evolution explains how it works differently and more precisely than I do (see diagram below):

The timbre of the input signal is sampled at more or less regular intervals. The output signal is obtained by interpolation between the sampled timbres.

In the following example, the three sampling instants are represented by the colours red, yellow and green. The resulting signal is a frame obtained by interpolation between the red timbre and the yellow timbre, and then between the yellow timbre and the green timbre. (Institut National de l'Audiovisuel, 2017)

This signal is represented by the red → yellow → green shading:



Nevertheless, it is likely my explanation may be more of a perception than a convincing technical summary, which brings me to the point: I use technology from a creative rather technical perspective. It does not necessarily free me from not knowing anything about the technical aspect; however, my focus is what the effect or plug-in is able to provide in terms of sound.

Harmonically, the composition is simple yet sounds relatively complex. The harmonic layer consists of two-, three- and four-voiced chords, without any key signature, and with an intermixture of intervals and clusters. The first draft of the piece was originally built on the choir-like sound only. Later on, when working with Jan Bang in his studio, he liked the piece and started to edit like he usually does, carelessly,⁸⁵ and with his own aesthetical principles. While processing the files, he challenged me to play the guitar along with the track. It was a challenge because I was surprised and not prepared, and I knew from before that Jan did not like to wait too long for me to get going. So, basically, I grabbed the Guitar Workshop guitar that was barely set up, with no sound ready other than the contact microphone, with a totally dry signal. The piece's total lack of a key signature and no harmonic center became another challenge. In one way, there is a lot of freedom in being spared from harmonies and melodic structures. On the other hand, when everything is open, it is even more challenging to choose the right notes that make the right sound, all according to the right aesthetics. I deliberately use the word right repeatedly, because it is only the aesthetic principles one has that function as a guideline, and is all there is to lean on in a situation like this. Therefore, it is a matter of right or wrong. Furthermore, simultaneously as the recording was in progress, Jan and I had a discussion going on about what melodic language could best fit the piece. Open verbal discussions in the middle of a recording is usually not a common practice. In this case it was no problem, since there were not any open microphones involved. Rather, it was just an indication that the atmosphere was relaxed, so relaxed that composing a melody on the fly can be done simultaneously while improvising and conducting a dialogue with the producer. The point here is to illustrate that creative processes can suddenly occur when you least expect it, at a very high intensity level, in which the

⁸⁵ It may seem brutal, but in this case careless is a positive quality.

importance of a relaxed and friendly atmosphere is preferable, even for an experienced session musician. Yet, as I remember, the first take was not satisfactory enough, and we had to stop the recording in order to figure out how to solve the melody. Usually, if the tonal center is known, choosing a modal scale and starting to improvise and sculpt a melody is easy. The pre-recorded choir-like texture had an atonal feel to it, and laid out strong guidelines as to how the melody could progress. I dived into my vocabulary of scales, and figured out that the whole-tone scale could work. It is a scale I hardly ever use, and therefore had not practiced it in many years. Accordingly, to approach a melodic language, rehearsing scales was required, rather than just improvising. Rehearsing scales at a recording session is unheard of for a session player, as it is expected that you “know your scales.” To me it was a new and exciting experience to realize that the music demanded a certain language, a language I did not know, but nonetheless had to come up with on the fly. Moreover, the situation made me feel uncomfortable and like a beginner. I took another shot at the shaping of a melody, this time by improvising over the whole-tone scale. It was very difficult to come up with any melodic lines that made sense to me, due to a lack of practice on that particular scale. There were at least two problems to take into consideration: 1) I generally wanted to avoid playing melodies, and 2) I played a scale I hardly knew. The reason is simple, as a session player within the pop music domain, you hardly ever need to use a whole-tone scale. In addition, there is also a psychological aspect to this situation. Although I do not intend to open up a discussion on psychology, yet as previously described it is worth mentioning the relationship between the conscious and the unconscious as factors in creative processes, and is also interesting in the process of building an idiom. Whereas the conscious was active when discussing different approaches with Jan, the unconscious was activated playing scales I already knew. When the conscious made me realize that none of these scales were working, and the whole-tone scale is not a part of the subconscious, it accordingly forced me to start learning a scale from scratch or refresh my memory of the whole-tone scale. It is possible to draw parallels from this situation to Timothy D. Wilson’s book *Strangers to Ourselves*, where he writes:

In short, the mental processes that operate our perceptual, language, and motor systems operate largely outside of awareness, ... (Timothy D. Wilson, 2002, p. 21)

Further on, he continues:

But what about the higher-order functions that make us uniquely human – our ability to think, reason, ponder, create, feel, and decide? A reasonable portrait of the human mind is that lower-order functions (e.g. perception, language comprehension) operate out of view, whereas higher-order functions (e.g. reasoning, thinking) are conscious.

In order to search for and create a personal idiom, there are interesting paths to explore in the field of psychology, especially in the areas concerning the conscious, the unconscious and self-realization. These topics are parts of a vast field, a field that is too comprehensive to include in this dissertation, though nevertheless subjects to be considered for further research.

I could also envisage that the whole-tone scale had a language that fit the harmonic landscape of the composition. Jan's impatience⁸⁶ forced me to come up with something rather quickly. Fortunately, I managed to create melodic phrases on the fly by using the whole-tone scale. Jan liked the sound of the scale right away, and was very encouraging throughout the take. I do not think I ever did a second take on that melody. Further on, we created some chords by applying a method with parallels to the one used for *Pipp Popp*. Jan spotted some positions in the arrangement of the piece where it would be suitable with chords. He put the track back on record and started tracking overdubs, and conducted me on where to play, one note only, but any note, freely chosen. We repeated this procedure, without any monitoring, three or four times, until we had built several vertical rows of multi-voiced chords. Instead of audio monitoring, Jan used the screen display as orientation and pointed at me like a conductor each time he wanted to play a randomly picked note. There was no system for the random selection of notes, but I recall an attempt to pick notes in both a high and low pitch register, and that I constantly tried to forget what I had played in the previous takes. Eventually, when we unmuted the tracks, there were chords that appeared which I could never come up with in the usual way. Moreover, the chords that appeared would be impossible to play on the

⁸⁶ Not meant to discredit, but rather to explain the circumstances.

guitar. Yet again, the methods used for this composition were based on possibilities that only technology could provide.

4.9 Clarinet

The information about this piece is based on different log documentation from several stages of the process. I have also supplied a recollection of certain bits that are missing. The attached score and the audible information available also provide valid information.

What follows below is the log from the Logic document, once again in a verbal fashion and the language is not perfect. The questions and the text itself are addressed to myself:

What about taking the clips "Ny ebow" and "Ny Evolution" (in quadraphonic) and develop a composition for clarinet or soprano saxophone and perhaps live guitar electronics/EBow?

How about starting easy, just play back the two clips with no editing, let the clarinet/soprano sax improvise over the texture?

Then let the clips evolve through manipulation internally in Live by routing the signal to Evolution and Space Grain on output 3 and 4.

Suggestion for clarinet improv is to start with F mixolydian, then mix in G melodic minor?

Add piano textures?

So far, mounted the parts in a new Logic document called Ny ebow/ny Evolution.

Bounced the "BC body trumpet" and imported it to Live, then made a MIDI file from the melody.

Imported the MIDI file back to Logic, and had it set to a clarinet sound in the EXS sampler.

Then there was some work adjusting the phrases to the original.

Next is to adjust more, clean up the MIDI file and see how it turns out in the score editor.

Gotta finish this by next week to be able to present it to Geir.

Suggestions for an instructional text: Relatively free, but expressive.

There's room for a lot of personal interpretation in the phrases.

And further on, a log from the recording session, more descriptively formulated:

To me, the clarinet sounded good and within the professional standards I have experienced. The sound quality was rich. There was no particular reason to use an equalizer, and the track was noiseless.

We ran through the draft a couple of times, and recorded at the same time. From the first moment I had a good feeling. The clarinetist, Inga Marie Soteland, played very expressive, as I desired. Then she played a couple of tracks with a variety of different multiphonics. She picked the ones that worked best played softly, because the piece is soft. I believe I can use the phrases to put in together with the guitar electronics tracks. Then, I look forward to composing with the multiphonics parts Inga Marie left for me to play with, meaning cut, move and paste.

I am in doubt now after the recording. Is it necessary to re-record because it is out of tune, or should it be fixed with pitch correction? Is it played well enough, with the energy that is needed, even if it is meant to be soft? I felt it sounded great in the beginning, but later on I changed my mind. Why?

Prepared by searching for "how to record clarinet" on gearslutz.com and on YouTube.com to find explanations and tips on where to place the microphone when recording clarinet. Ribbon microphones seem to be a recurrence. I could not find anything about my mic, AKG 414, but I found tests done on many other condenser microphones, both cheaper and more expensive than mine. Anyway, I will go with the AKG 414 since it counts among the better microphones around.

The recording took place in my office (not the studio), which is a room acoustically matched for rehearsal and recording. I put up the microphone like this:

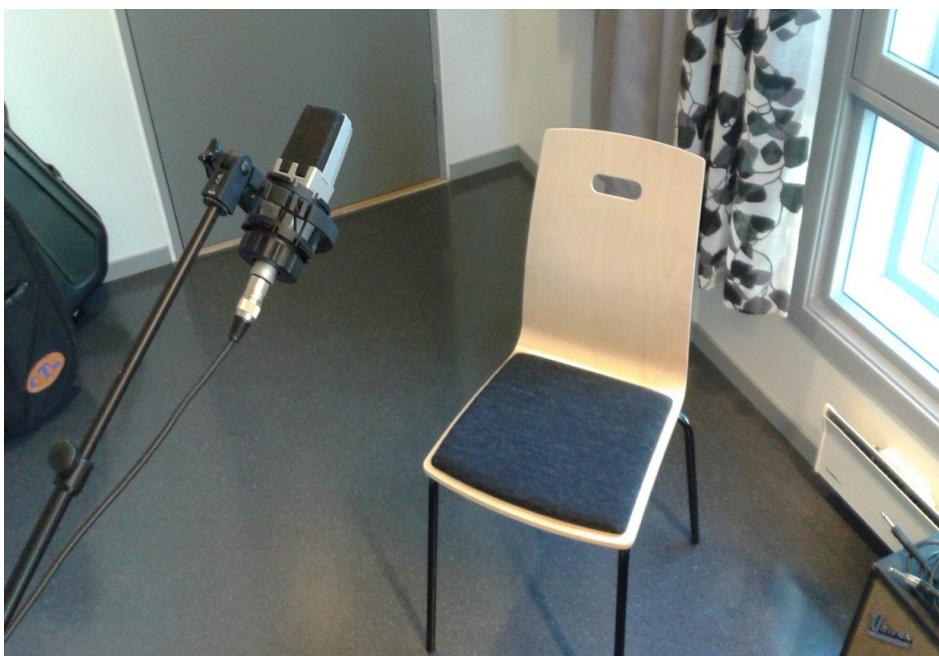


Figure 109: AKG 414 placement for clarinet recording

Although the log does not inform about the origins of this piece, based on remembrance, it stems from the early stages of writing a commissioned piece for the opening concert at the Mandal Jazz Festival.⁸⁷ The composition is based on a sound texture created with the guitar, and may be perceived as a background sound at a low volume in the mix. It is unclear as to whether this texture was created in the period of preparing the commission, or if it came about before at an earlier stage. Whatever the case, it is most likely one of the numerous improvisations I have recorded over the years. I often improvise instead of rehearsing specific techniques, tunes, scales or other guitar related topics when I practice the guitar. Moreover, to have a chance to learn something about my own playing, or to get a foundation for a composition, I record as often as possible during practice. Accidentally, in situations like this, one may get some musical ideas for later that could be used for a composition. There is a pedagogical potential as well. The clue is listening to one's own playing, which is also transmittable to a teaching situation. The image of one's own playing can differ totally, sometimes in a positive manner, sometimes negatively. In my experience, a recording hardly ever lies, but one's imagination does, or may at least play tricks on you. One can use recording as a reality check, on the status and level with oneself. However, based on this assumption, the texture which is the basis for this piece is the result of an improvisation, either from before or as a method for bringing up ideas at the moment for composing this particular commission.

By listening back, it is difficult to figure out exactly what I did to create that particular texture, even though the score's title, which was a working title, reveals that the EBow and the Evolution plug-in were involved. Furthermore, the texture consists of two different loops, and it is quite clear to me that they are both pitched down an octave. Exactly what I played and whether the original loops were recorded with effects is hard to figure from just listening. But it is obvious that the loops have been treated with effects, which is indicated in the log: "...let the clips evolve through manipulation internally in Live by routing the signal to Evolution and Space Grain...". Although the documentation here is hardly solid proof, it holds information that I recognize

⁸⁷ A jazz festival arranged in the small town of Mandal since 2014.

as contours of a work pattern, with parallels to the other works dealt with in this dissertation, which are hereby allowed to stand.

The log also indicates several ideas that were not pursued, such as a quadrophonic set-up, soprano saxophone and piano textures. The strike-through text indicates accomplished tasks. For the same reasons as previously mentioned, the log informs about a recurrent work pattern and part of the process towards a personal idiom.

When I improvise solo passages, I rarely choose flat key signatures. Therefore, it is likely that the original loop has been transposed in order to match a key that would fit the trumpet. My guess is that if the original loop was in C, then transposed to Bb. Further, the musical theoretical framework is very simple, diatonic with a blend of Bb major and Eb Lydian, which is a recurring foundation in my compositions. Although the log informs an idea about F mixolydian and a gradual shift to G melodic minor, it was an idea that was never pursued as far as I remember. Still, it was an interesting idea that may be picked up again at a later stage for a live performance.

The melody came about later while I was preparing for the above-mentioned opening concert. The idea was to form a melody for trumpet, which was part of the band I had put together for the occasion. On the demo recording, I sang and improvised melodic phrases in falsetto in the middle of the night, in an atmospheric light setting in the studio subconsciously inspired by Arve Henriksen's "Opening Image" from the album *Chiaroscuro* (Arve Henriksen, 2004). By subconscious, I mean I prevented myself from listening to Henriksen's piece. But I attempted to bring about a memory of my impression of the piece the last time I heard it, which was several years before I was composing this actual piece. A vague memory of someone else's piece of music relates one way of using inspiration as a tool and method for improvisation and composing. The falsetto melody was recorded as an overdub onto the previously recorded texture track, and then bounced as a mono audio file, exported from Logic and opened in Ableton Live, and then transformed into a MIDI file by using the Convert to New MIDI Track option (see photo below). This is the same method applied on the variations of *Entirety* (see paragraphs about *Entirety*). The menu provides three different options, Convert Melody-, Convert Harmony- and Convert Drums to New MIDI track (see

Figure 30), depending on what you are converting. On some occasions, one has a track that includes both melody and harmonies. My experience is that the conversion works either way, but it usually creates a mess consisting of MIDI messages (see Figure 31) that need to be tidied up anyway.

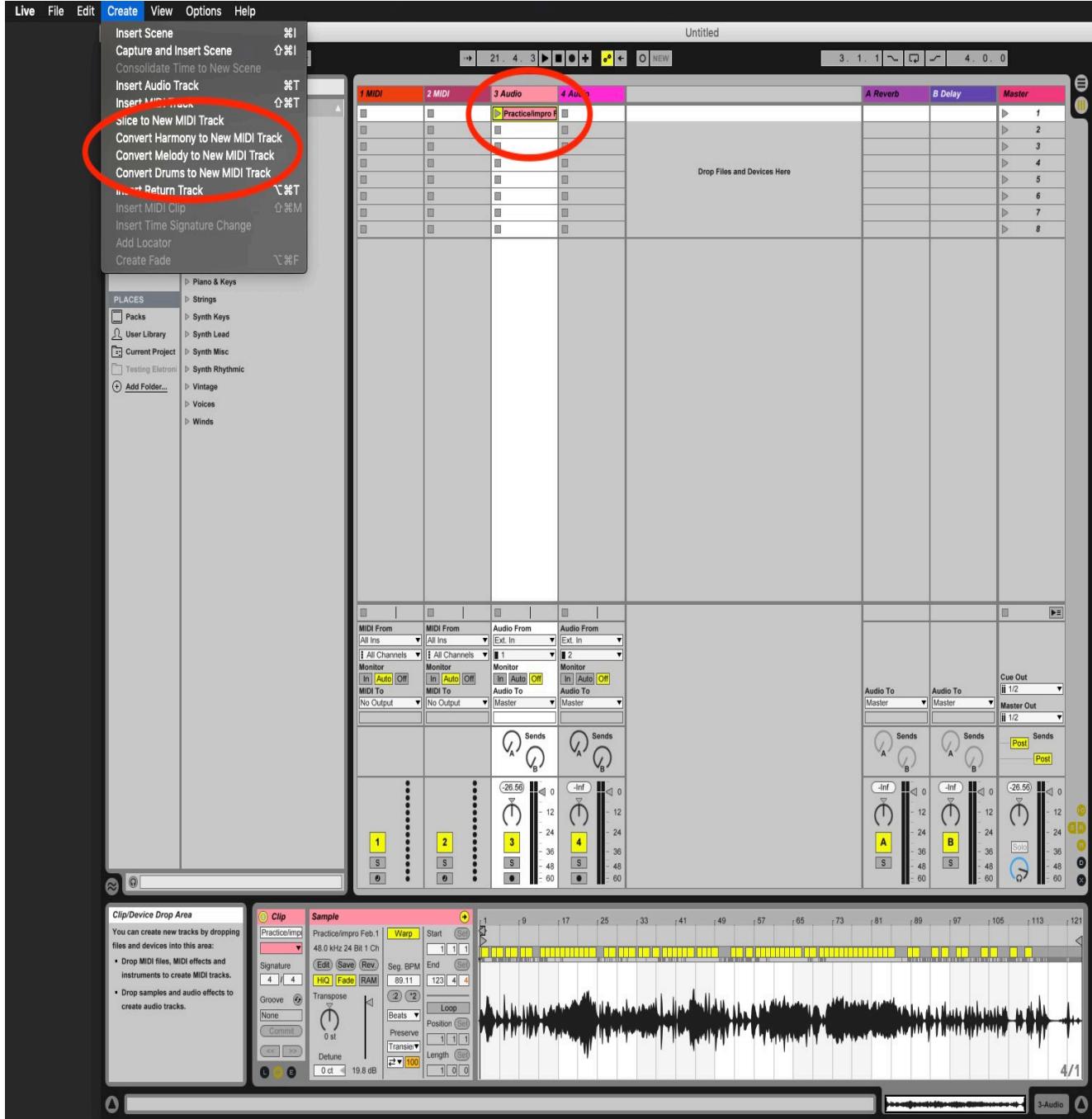


Figure 30: The example here does not display the actual trumpet melody, but the point is made

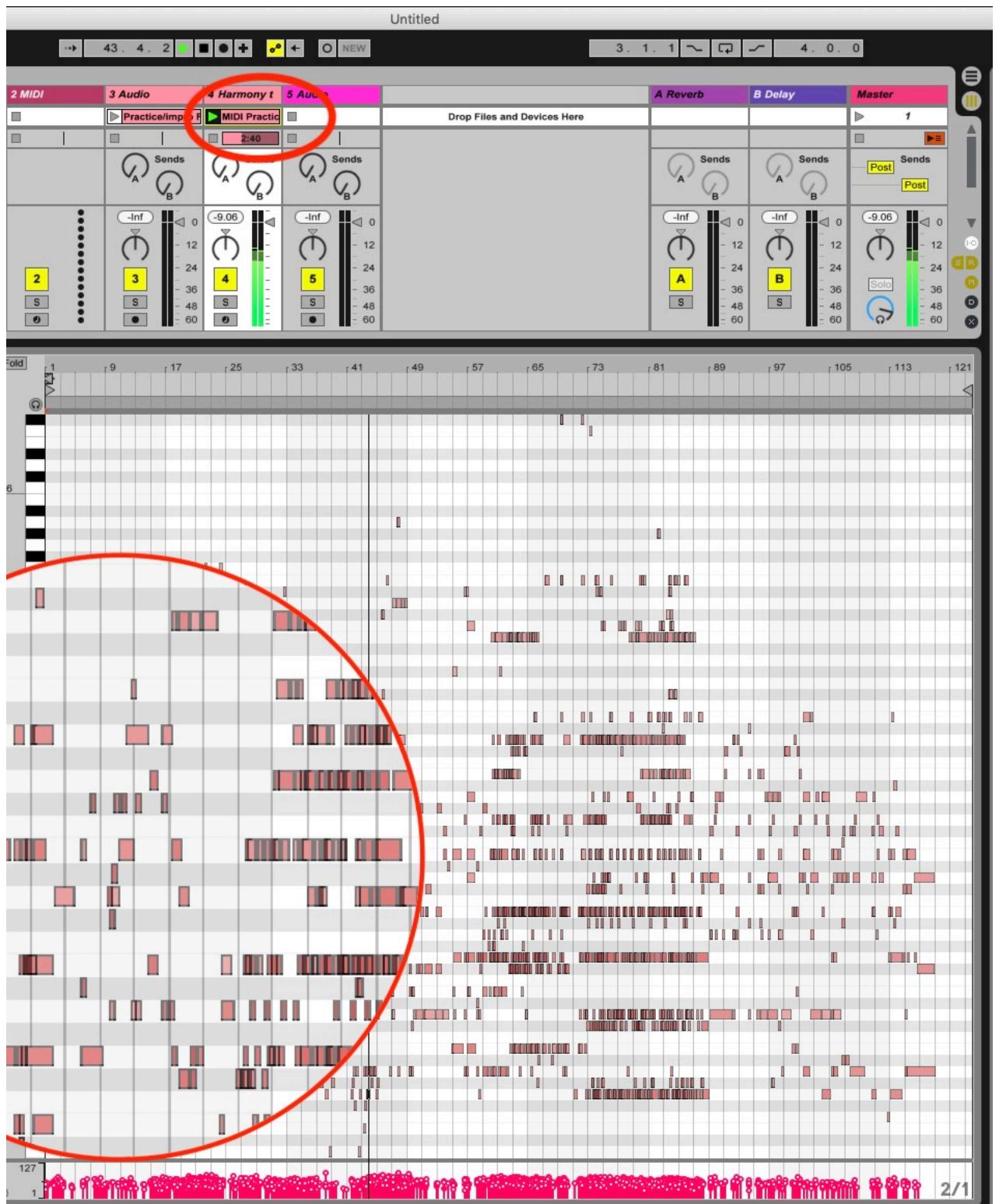


Figure 31: The MIDI representation in Ableton Live, which is usually quite messy with a need for cleaning it up. This example is not the actual trumpet recording.

Rubato, molto espressivo. Open for the player to interpret and personalize the phrases.

Clarinet in Bb

1 $\text{♩} = 117$ Listed tempo and dynamics are just an indication. Open and free for the instrumentalist to interpret the phrasing at his or her own desire.

Guitar electronics track, preferably presented in quadraphony whilst the clarinetist and the audience is placed in the center.

ca. 1 min. [A] Rubato
Espressivo, senza vibrato

$\text{♩} = 117$

All breaks between the parts are just intimations.

portamento

[B]

[D] $\square\!\square\!\square$ $\square\!\square\!\square$

[E]

[F]

Figure 32: Incomplete sketch of the Clarinet score. The working title here was Ny ebony Evolution for clarinet. Ny means new in English.

The primary reasoning behind the score was to pass on the melodic ideas for this piece. I did not want the melody to be totally improvised, but instead with a certain degree of freedom for the player to form the melodic sequence. Most horn players, including trumpet players or clarinetists, are skilled score readers. So, instead of asking them to learn the melodic phrases from the demo recording, they could read the notes. The score is simple and characterized by being a draft and incomplete in that respect. It was not appropriate to make it perfect, both for practical reasons and because the performer should have the freedom to design and personalize the melodic phrases in their own fashion. The score was divided into different melodic phrases by letters at the beginning of each phrase. The meaning of this was to have whoever the horn player was to play a freely chosen phrase, preferably in a disordered order. The breaks between each phrase are approximate, just providing the player with a certain idea about the distance between the phrases.

The recording session with Inga Marie, the clarinetist, was held at my office at the university, and consequently had a limitation because we were both in the same room. This became particularly apparent as we played together, she on the clarinet and me on the computer. Keystroke sounds from the computer posed a risk of destroying the clarinet recordings, which again made me reserved and not daring to fully participate. Even so, I wanted to maintain some form of interaction, rather than having the clarinetist just playing on top of a musical arrangement, which would just have appeared as a playback track. The keystroke sounds are not audible on the recording, and in that regard the interaction in the recording session succeeded. It was remarkable for me to play the computer instead of the guitar, something I do not usually do. On the computer, I played with the different prerecorded texture loops (mentioned at the beginning of the log for this section) and added effects, mainly the Evolution plug-in, varying the volume between the loops, adding reverb by fading in and out, etc. The result was subtle variations in the quality of the sound.

Moreover, multiphonics⁸⁸ caught my interest while working with this piece. It is not the sensation that it is possible to play two notes simultaneously that fascinated me, but rather the many and various sounds and textures this technique produced. The sound caught my attention when I accidentally came over the music of John Croft⁸⁹ on SoundCloud.⁹⁰ It was the piece, “Excerpt of Intermedio III” (2012) for bass clarinet and live electronics (Croft, 2012), which inspired me to explore the sonic possibilities with multiphonics and electronics. Henceforth, I started to search for information about multiphonics, and discovered a valuable website for clarinet multiphonics only. The website is intentionally for composers and performers, to enable a more informed use of clarinet multiphonics in contemporary composition and performance (Nicolas del Grazia, 2017). Here (next page) is an example from the website, displaying a chart with the different multiphonics for the note F#, including its difficulty and grip, with a sound clip and how to play it on the clarinet.

⁸⁸ The sounding of two or more pitches simultaneously, either with the voice, or on an instrument that normally sounds only single notes. Multiphonics (n.d.). Retrieved January 23rd from <https://www.yourdictionary.com/multiphonics>

⁸⁹ British composer. For more information: johncroft.eu

⁹⁰ SoundCloud is ... an open audio platform, powered by a connected community of creators, listeners and curators... ("What is SoundCloud?", 2019). For more information: help.soundcloud.com/hc/en-us/articles/115003570488-What-is-SoundCloud-, accessed 1/30/2019.

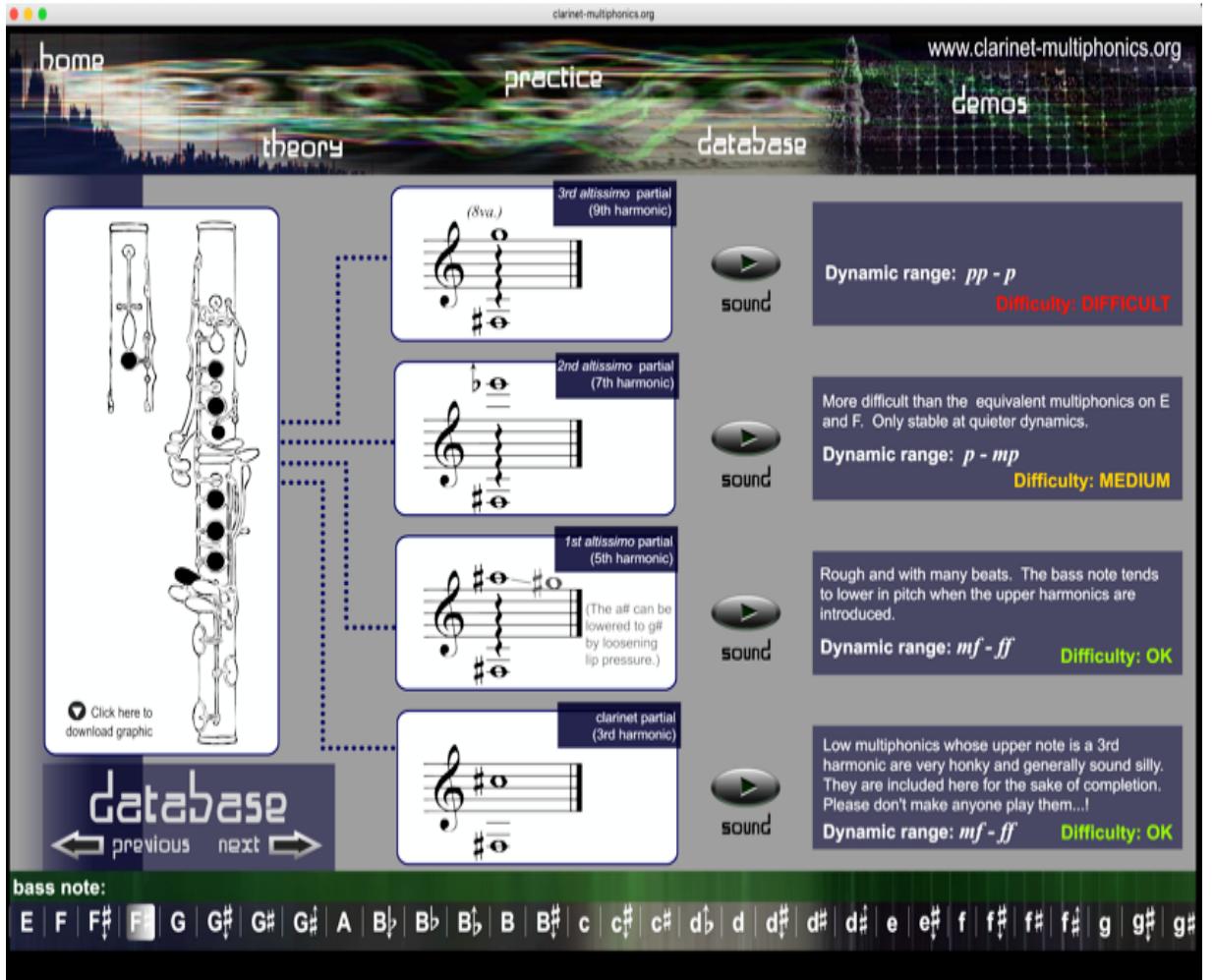


Figure 33: Chart with the different multiphonics for the note F# on a clarinet

I later experienced that the clarinetists I should come to work with (both Inga Marie and later the ones from the Kristiansand Symphony Orchestra) had little or no experience with multiphonics, and realized it is a domain connected more to contemporary art music. Yet, all the clarinetists took the challenge, but I also realized they had to choose the multiphonics to play from a level of difficulty, rather than the notes I had prescribed.

The unsureness expressed at the very end of the log for this piece was pushed back later on. The performance was good, and the Logic document informs

that the Pitch Correction plug-in was attempted, but the final edit was put together with tracks and takes that were clean, without any pitch correction.

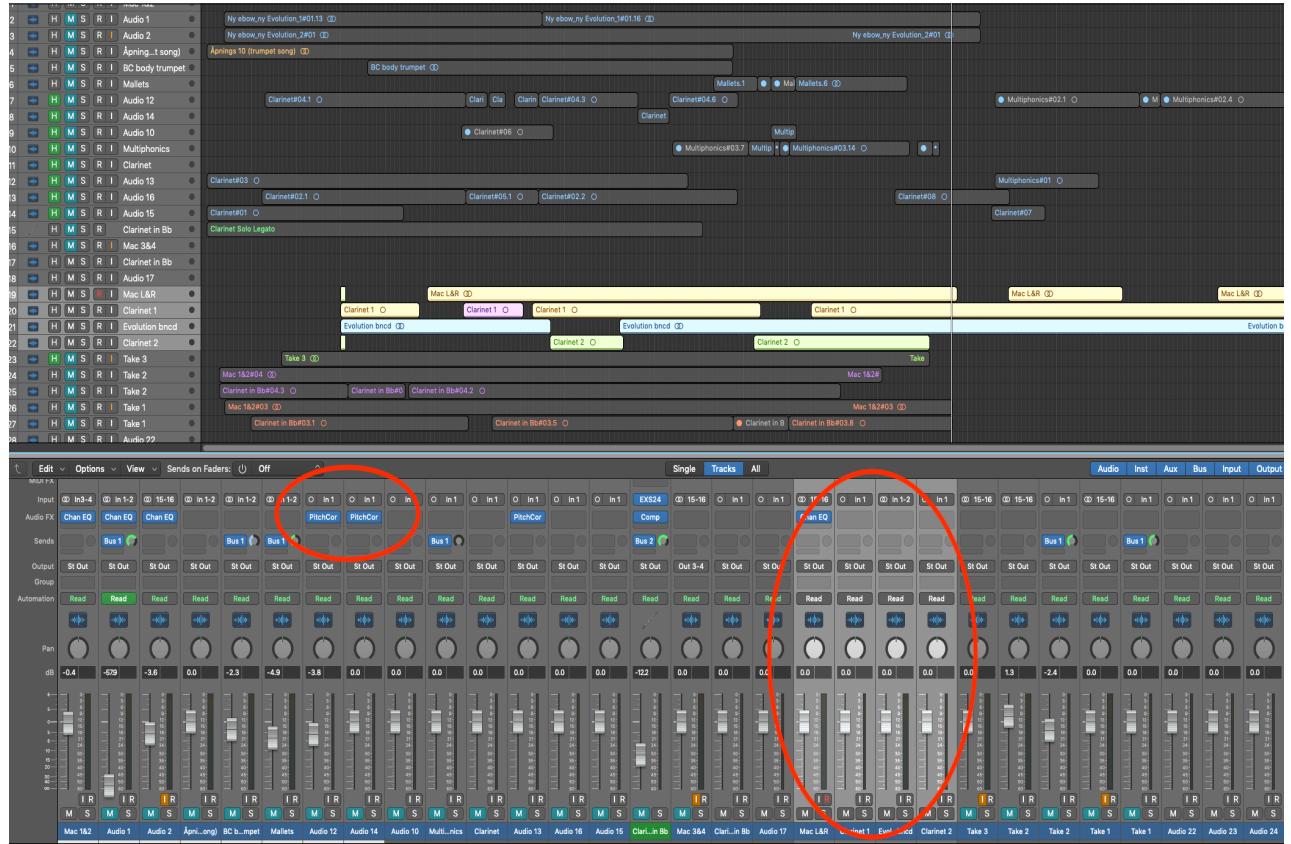


Figure 34: Logic document displaying the insertion of the Pitch Correction plug-in and the final selected tracks. The highlighted beams equal the selected tracks, too.

Eventually, the Logic log also informs:

Judgements:

Some nice stuff in Take 1.

Even better in Take 2, soothing, tension, almost at a breaking point.

Take 3 has a surprising element, but unsure whether it is interesting.

Take 4 has something beautiful, plus the synchronized phrase.

Conclusion:

Take 4 is the take.

Brought in a phrase from take 2 (purple/pink one).

Be aware of the one clarinet note that is out of pitch after the second half on take 4.

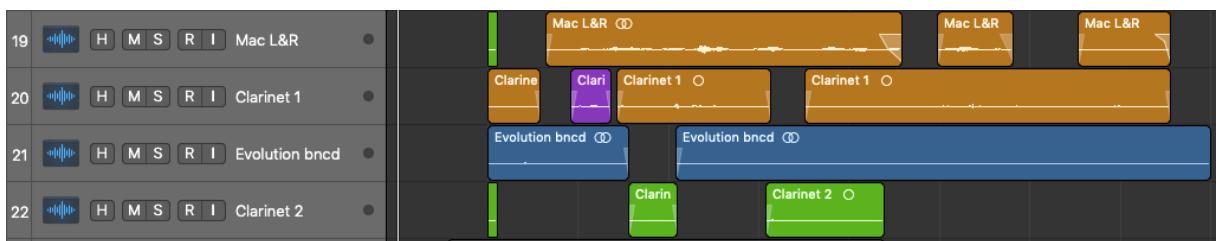


Figure 35: The pink beam described in the log above

The piece came to an eventual and conclusive version. Nevertheless, I feel the piece is not finished yet, as it is constantly evolving and has a potential for further efflorescence and refining, a possibility I would like to pursue later.

4.10 Linjesjekk 27

The documentation available for this piece was found in two different places, one in what I regard as the ordinary log, the other in the Logic document.

The ordinary log:

Log November 24, 2017 (trying to regain control and increasing the autopilot)

In the light of the seminar at Blå Kors (rehab institution with a teaching program in music), I spent an hour setting up and playing to regain control of the autopilot. I ended up exploring the Alter Echo, the combination of the iPad and the Eventide, both the Timeline looper and the Ableton Live loopers, adding and altering between the Evolution and the Alter Echo. (Check towards the ending of the Logic document Linjesjekk 11.24.2017)

Timeline A 63, Emerging

Eventide: Tape Echo, Lennon slap, freezing the echo with the repeat button on the iPad interface/display.

And the log in the Logic document does not inform much, and should be regarded as a note rather than a log. It is included to show that it is not necessarily the amount of words that counts.

The above-mentioned note from what I call the log also informs that the basis of the piece is an improvisation containing an idea for further development, a certain confidence and an envisioned concrete musical idea to be recorded at a later moment. Furthermore, a screenshot of the Logic arrange window is included as a part of the log:

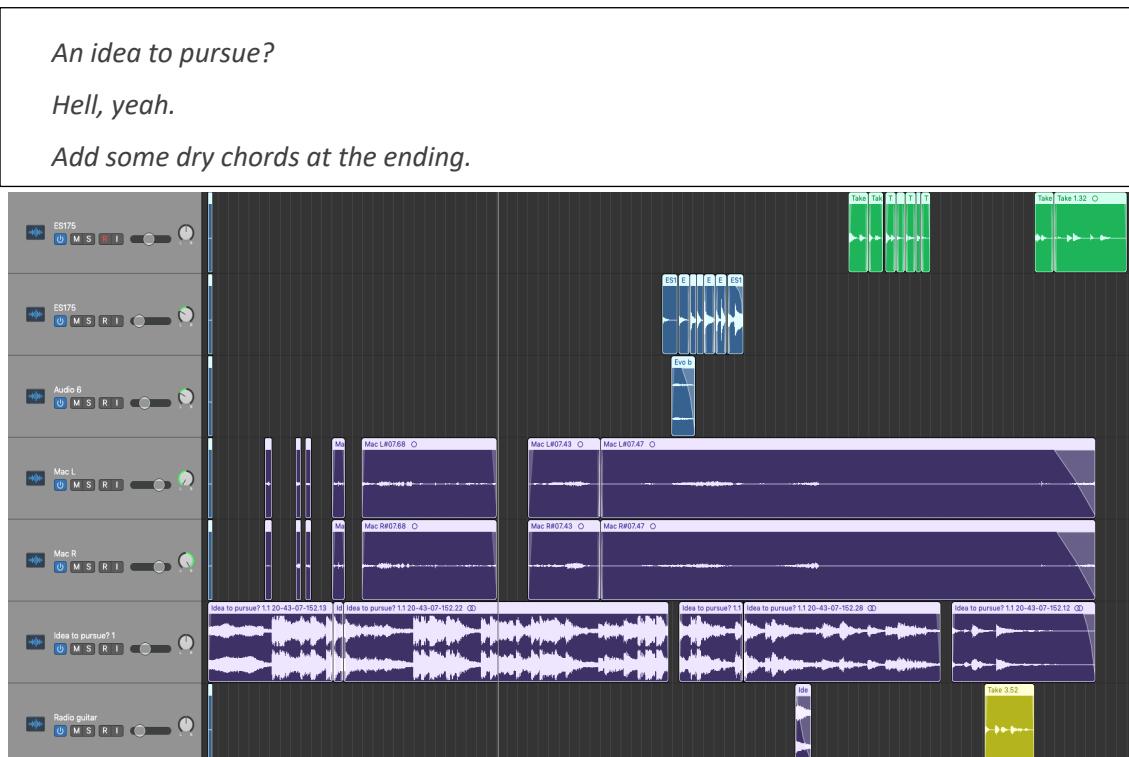


Figure 36: Display of the arrange window for *Linjesjekk 27*

The excerpt from the arrange window shows a relatively small number of tracks for this composition. The purple tracks are the main tracks, originally one improvisation, later edited, as shown by the empty spaces which were cut. The reason to cut was to eliminate the unwanted parts. The other colored beams show additional recordings due to the information in the log about adding dry chords at the ending. These recordings are also edited, with the beams split in several pieces, into smaller parts explained as squares and rectangles. Some of the smaller parts had fades⁹¹ added, either fade-ins,

⁹¹ Fade is used in the meaning of increased or decreased volume.

crossfades or fade-outs, or all combined. The split beams informs that the original placing is changed in order to make the phrasing fit better with the main tracks that are functioning as a guideline.

The ordinary log is informing a series of improvisations beginning on November 24, 2017, when this piece stems from an improvisation on November 27. It seems like the motivation for these improvisations was driven by a master class I held, and therefore discovered a precarious need for practice to regain control of the autopilot. The technical explanations are most likely informing the earlier explorations made on the actual starting point for the series of improvisations. Listening to the track, it is more likely that I got an idea about exploring the freeze function on the Superego pedal by Electro Harmonics. It borders on an excessive use of the pedal, and is dangerously close to an over-the-top aesthetic, meaning it is just too much of that particular effect.



Figure 37: The Electro-Harmonix Superego pedal

Nonetheless, the significative static sound was balanced out by a little bit of editing, and by adding contrastive sounding elements to the arrangement. These elements consist of an allusive melody that is basically driven by the top notes in a random chord progression, which in turn makes the piece relatively melodic. The outlines of an aesthetic principle also seem to arise. In keeping with avoiding melodies, which I have mentioned earlier, there still often seems to be an underlying melody in some of my compositions. These melodies

continually try to rise to the surface, though more allusively. Without opening a discussion on the art of allusion, it is a concept and domain which I find inspiring and interesting for further scrutiny and as an aesthetical groundwork for future works.

Besides the allusive melody, there is a fairly clear tonal center based around D-Lydian. The Lydian mode is also recurrent in my works. Moreover, the chord voicings are based on a concept that involves using only the 6th, 4th and 3rd strings, inspired by Rolf Kristensen's book Voicing (Kristensen, 2006, p. 14). The concept is also referred to as Open Triads, or Drop 2 triads⁹² (guitarLayers staff, 2018). Moreover, the chords are also combined with the same voicings for different string combinations like the 4th, 3rd and 1st strings. For example, these voicings contribute to creating a distinctive sound. However, the chords and melodic lines are represented by a dry guitar signal played on a Gibson ES-175 through a Vox AC15 amplifier. The recording was edited, and the phrases were laboriously placed to fit the main guiding file. The main track had a rubato feel to it. To play the chords along with the rubato track, and to place them in a natural and a respiratory manner was difficult, and usually is; hence, there is a need to move the chord and melody phrases around the arrangement afterward. The editing process was done by ear and with a personal aesthetical standard, not graphically or with any help from grids or other visual indicators, quantization and such. Yet, the latter are quite common editing tools for making pop songs. This brings me to a point for further discussion, namely whether you should watch the music or listen to the music, especially when working in a DAW. Everything is displayed, as sounds and waveforms are graphically outlined and visually represented by beams, colors which can then be regulated with a graphically represented grid. Additionally, you can use quantization to correct biases and other discrepancies. These features and the fact everything is displayed, makes it easy to forget to listen. One has to remind oneself to listen only, either by turning off the screen or turn your head around, away from the screen. It is way too easy to get caught up in the graphically displayed music instead of the audible variant. It is a common

⁹² For more information, go to guitarlayers.com

issue with working in a DAW, and something to be aware of at all times for those who work with technology and music.

The work progress with *Linjesjekk 27* was based on an improvisation with guitar and electronics and the search for a new sound. The process led furthermore to a clarification of various aspects of working with improvisation and technology as a strategy for making music.

4.11 Composing for the Kristiansand Symphony Orchestra (KSO)

4.11.1 Strategies, processes, dilemmas and changes

As previously mentioned, writing for a symphony orchestra originates from a desire to hone the electronic sounds against a more traditional acoustic sounding environment. One reason I undertook this was partly to challenge myself as both a composer and a performer. While writing for an orchestra, I also discovered that the art of orchestration is mostly about craftsmanship. Furthermore, it became impossible for me to learn how to orchestrate and master any notation software on a high professional level within the time frames of the doctorate, so I had to seek some help. My supervisor Geir Holmsen's schedule was too tight to help me, so I had to hire someone. Sindre Hotvedt is a colleague I used to play with a lot, and who specializes in arranging and orchestration. He has worked with several professional symphonic orchestras in Europe. It was also important to specifically use him, since he knows me and we work well together.

The idea was primarily meant to be a studio recording session, in which the orchestra and I were supposedly set up to play and interact together. It was also an idea to solely record the orchestra without the guitar electronics, insofar as recording the guitar electronics later on, in order to control it better. Based on the supervisor's and my own experience, the main reason to interact with the orchestra was primarily to keep the orchestra engaged and interested.

Otherwise, the orchestra could find it awkward to only record tracks as a layer for someone who may not even attend the session. For that matter, typical studio work for a session musician is to record several tracks as layers for making overdubs later. Another reason for the interplay was to capture possible musical results by interacting with the orchestra, achieving subtle results not possible to obtain by recording the guitar electronics as overdubs

later on. I eventually decided to complete the recording session without playing myself. Furthermore, by effectuating a studio session with an orchestra, I wanted to examine and explore the sonic possibilities, as well as my ambitions as a composer. In this process, my role and tasks were multifaceted:

- Composer
- Entrepreneur
- Project manager
- Musician

Initiating the whole apparatus with the orchestra, making the agreements, setting an appointment, booking the studio, making preparations for the studio technicians and assuring the quality of the scores by obtaining Sibelius expertise are all tasks that need to be executed in order to make the recording happen, and fall under project management and entrepreneurship. During the recording session, I was the producer and situated in the control room with the sound engineer. The job as a producer was more or less to keep track of the different takes, taking notes from the conductor and the sound engineer. The notes became important for editing and putting all the different recorded sections together at a later stage.

4.12 Different strategies to compose for the orchestra

4.12.1 Strategy one – solely guitar and imitation

The initial idea was to create a musical piece solely with the guitar, manipulated with electronics and orchestrated similarly to an orchestra. In addition to sound-manipulative tools, a prepared guitar can be used, with a cello bow used to create a string-like sound, etc. Summarized, the strategy is to reconstruct the sound of a composition based on manipulated guitar, purposely constructed to simulate the sound of an orchestra, thereby reversing the orchestration into a real acoustic orchestra. *Entirety for Strings* evolved with this strategy.

4.12.2 Strategy two - envisioning musical ideas

Make a list with contents you want to implement, a list of preferences, ideas, instruments and sounds you prefer. The intention was to leave space for

electronic soundscapes produced with the guitar, and to interact and play with the orchestra. This strategy was applied for *The Always Juvenilia*, described later on in this chapter.

4.12.3 Strategy three - transformation

Based on improvisations with guitar and sound-manipulative tools, another idea evolved about transferring those sounds and timbres to an orchestra. Such a process implicates a transcription of the improvisation, which is a difficult task since music is basically just texture. The techniques from spectral music occur as an opportunity for both transcription and composition. *Timbre Trouble* was composed with this strategy.

4.12.4 Strategy four - the improvising orchestra

This strategy contains elements from the previously mentioned strategies, but the primary difference is having an orchestra improvising. An improvising symphony orchestra as a component in composition, and the quest for a certain sound, is more personal and closely linked to my search method by improvising on the guitar. *The Only Characteristic is Duration* was composed this way.

4.13 The Always Juvenilia

With a point of departure similar to the previously described strategy two, part of the strategy for *The Always Juvenilia* was to make a list with all the contents I wanted to implement. I made a list of ideas, instruments and sounds I prefer, and formed a palette of sound colors⁹³ I could use to create the music I wanted to hear. According to the log, the list with preferences appears like this (translated from Norwegian by the writer of this document):

Compositoric ideas and elements for the orchestra:

- Huge sounds, like a slide of snow from a roof, with glissandos moving downwards to the next sound and cluster harmony.
- 5-tuplets, 6-tuplets, 7-tuplets
- Waves of sound
- Soft, silence, breaks
- Clarinet
- Cello
- Grand cassa
- Crass and romantic mixed together
- Transcendental
- Solo cello over A-major textures (“cello melody” without bar lines)
- Solo clarinet over “trumpet song”? Phrases being played in an elective order, some with repeats.
- Hiss-sounds played by the horns. Maybe the same played by the string section by brushing muted strings over the fingerboard with the bow.
- Otherwise (the piece should be):
 - airy
 - with space for the electronics
 - and breathe
- If necessary, bring bits and pieces to Geir and Per Elias
- Previous scores (“cello melody” and “trumpet song” plus new drafts from Score Editor in Logic Pro X and handwritten stuff).
- I do not care about trends and write melodies that are not trendy. Surprise myself since I am not so fond of melodies. But I like melodic and cantabile solos.
- Is it a composer I want to be? The doctoral project is turning into a huge composition task. The process took more than I had expected or had foreseen.

This list was meant to be general, and based upon personal preferences only. Nevertheless, it became the groundwork for this piece and functioned as a guideline for the composing process. As a starting point, I decided the music should solely consist of elements that I find appealing without any consideration about how it should be performed. The piece was intentionally

⁹³ A metaphor only, taken from the arts domain.

written with an idea about incorporating the guitar and electronics. Yet, during the early composing stages, it suddenly appeared that it would be better without the guitar and electronics, thus phased out even before it was tried.

The main concept was an idea about a lapse, in which the start should be painful with clusters and gradually move towards something less painful. Then, to ease the pain, something wonderful should evolve from the unbearable cluster sounds. After listening to a demo of the piece, my supervisor thought the piece worked fine as it was depicted on the demo. The composition was not exactly planned that way. Originally, as mentioned above, there was an idea about leaving space for a guitar electronics voice. I had focused on writing the orchestral part first, and then leave the guitar part for later with a great deal of improvisation. The supervisor's reaction surprised me, and I agreed that the piece worked independently without a guitar electronics voice. Nevertheless, the piece was written from scratch based on envisioned sounds only. I visualized the electronic sounds, and created empty bars for the guitar electronics to unfold. Meanwhile in the process, I figured the open spaces were better as empty breaks. The pauses created an airy space that made the music breathe. At the very beginning of the composition in-between the cluster chords, the breaks were relatively long, with four absolute empty bars where nothing happened, tacit in musical terms. Later, I realized the empty spaces had a John Cage's 4'33"⁹⁴ kind of vibe to it, mostly because of the duration of the pause. During the writing process I realized the long breaks can catch the listener's attention in a surprising way that presumably could draw their attention even further into the music. Moreover, based on an aesthetic evaluation on the entire sound of the piece in the way it was evolving, the guitar was consequently written out of the piece. Then, after listening to the recording, I realized the empty bars were good for a live performance and would probably create an interesting tension for the listener to follow. Without starting a discussion on Cage's purposes with 4'33", a remarkable notion is worth including:

⁹⁴ 4'33", the silent piece, is easily John Cage's most famous creation. Taken from macba.es, accessed 3/17/2019.

... Cage's understanding of silence could never be communicated directly through a piece of music of any kind, either with sounds or without them. He may have written 4'33" to put the silent time structure on display, to make the origin of his music clear, but the best it can be is a pointer to this place, easily mistaken as the silence itself. (James Pritchett, 2019, p. 176)

I find inspiration in Cage's possible reasoning for his piece, anticipated and explained in the above-mentioned quotation by James Pritchett. Cage further explains the idea about silence as durational:

... Of the four characteristics of the material of music, duration, that is time length, is the most fundamental. Silence cannot be heard in terms of pitch or harmony: it is heard in terms of time length. (ibid, Cage cited by Pritchett, taken from "Defense of Satie," in Richard Kostelanetz, (ed.), John Cage. New York: Praeger, 1970, p. 81.) [sic]

Nevertheless, in the recorded orchestra version of *The Always Juvenilia*, it felt like something was missing. The empty, quiet space was perceived as boring and became decisive for the choice I finally made in adding electronic soundscapes with the guitar. For any future performances of the piece, it is likely to eliminate the guitar and reintroduce the empty bars with silence. Thus, there will be an album version and a live version. Another discovery I made in the process with writing this relatively large piece was that it takes more time than I both had planned for and wanted it to take. Even if I had mastered Sibelius, and without any help from colleagues to finish the scores, the process from musical idea to finished score would still have taken a lot of time. Even with the invaluable help from great expertise, it took a lot of time to write and finish the scores. Considering how time-consuming the composing process was, and the transference of notes to Sibelius, there are a few underlying questions that stand out:

- Has this process anything to do with research?
- Is the time spent composing and transferring notes worth it?
- Is the time spent justifiable according to the deadline for the doctorate?
- What do I want to achieve by composing for an orchestra?

The process on composing for an orchestra was, and still is, like breaking unplowed ground for me. As mentioned before, the idea was rooted in an old ambition in mastering writing for an orchestra inspired by one of my favorite

guitarists, Terje Rypdal. As a session musician on the album *Øen*⁹⁵ by Ivar Bøksle,⁹⁶ I had the experience of working with a chamber orchestra. It was truly inspiring and became a driving force for me to initiate the idea to carry out a project with my music and an orchestra. As previously mentioned, the ambition was to hone the electronic soundscape from my guitar with the acoustic sounds of an orchestra. Without having to mention concrete examples, there are pieces written for orchestra and electronics, yet I believe the perspective I can provide with electronic guitar is a little bit different. The reason for such an assumption is that the guitar signal is the starting point, and even with manipulation, it will make the audible end-result different than if you had used clean electronic generators, synthesizers, etc.

I also remember my supervisor Geir Holmsen remarkably uttering that the music seemed heartfelt. Maybe there was an underlying story coming from the subconscious related to the fatal experiences that marked me during the doctorate period? Different from the strategy with *Entirety* (previously described in this chapter), this piece primarily evolved from an idea about a structure and about sounds based upon my favorite instruments and musical ideas arisen from only my imagination. The guitar was reduced to a tool only used to check a few chord voicings. The rest evolved from a trial and error method with MIDI programming in Logic Pro.

Moreover, the expectation was that to create scores from MIDI files would help the process to move faster. However, the MIDI was too inaccurate, and again, the score editor section in Logic X was not as logical or easy to learn as I had anticipated. I noticed I had forgot a lot since the last time I had worked with notation, which was approximately two years before on *Entirety for Strings*. I also bounced the original MIDI file into an audio file and then uploaded it in Ableton Live, then made it into a new MIDI file and then exported it back into Logic X with the assumption it would represent the notes in a more accurate way. Unfortunately, it did not work out as planned. It is remarkable, and relatively challenging to compose in this way.

⁹⁵ For more information: rockipedia.no/utgivelser/oen-18576/

⁹⁶ A Norwegian singer and composer I worked during different periods.

Moreover, transferring the notes and the scores from Logic Pro X to Sibelius via xml files was not working properly either. It sounded correct in Logic Pro X, but it was not represented correctly in Sibelius. The transmission brought along an enormous amount of extra work. And it was not possible to transfer just one instrument, only the entire score, which was inconvenient when changes were made in just a couple of instruments. On such occasions, one has to start all over again in the Sibelius software, almost writing the score from scratch.

Once again, it generates a desire to master score notation software, which would have made the whole process much more efficient. I ended up writing the notes by hand, or with the computer mouse in the piano roll editor, to be exact (see figure below).

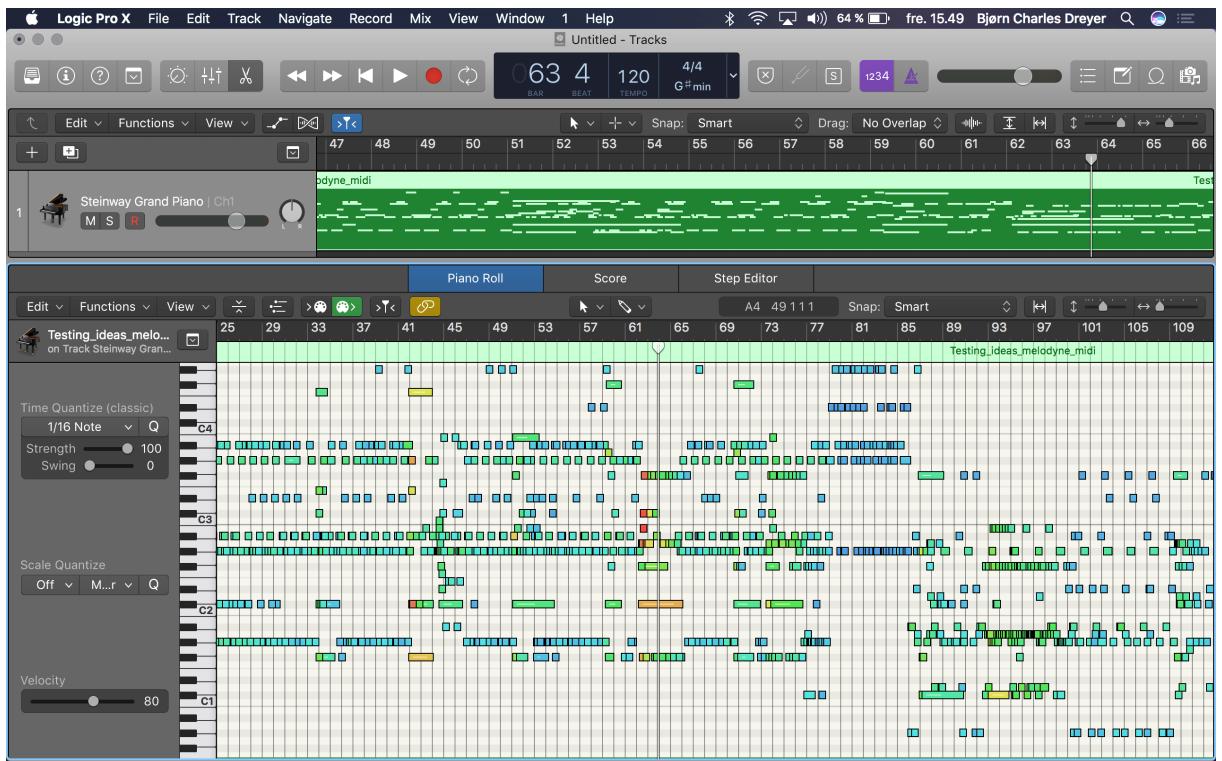


Figure 38: Example of piano roll editor

There were also problems writing 5-, 6- and 7-tuplets with the Logic score editor. In some cases, it worked to quantize the notes to 64th notes, but the notes were still not correctly represented in the score. Instead, I played the different tuplets on the guitar, and recorded onto three different audio tracks to obtain an impression on how it was going to sound. This exemplifies another aspect of how technology is utilized as a tool solely to examine and try out

musical ideas, and then compose. A multitrack recording facility lets me try out ideas quickly, and in an audible way. Although I had to imagine how the piece would sound with real instruments, yet it was possible to have the musical ideas tested and verified by using the guitar, which is the instrument I know best and from where my music usually evolves. But, in this case, the guitar was combined with a multitrack recording in Logic Pro X, which simplified the process of verifying the musical idea. Additionally, I wrote the different rhythmic ideas on paper. The arpeggios came up as ideas evolved and inspired by John Luther Adams' *Become Ocean*. Other inspiration came from Witold Lutoslawski's Preludes and Fugue for 13 solo strings and György Ligeti's *Atmospheres*. In order to find inspiration for a clarinet voice, I practiced EBow on the guitar with the intention to make it sound like a duduk.⁹⁷ Eventually, I cut the clarinet part out of the piece, mainly because it stood out as a separate part. Moreover, *Clarinet*, previously described in this chapter as a piece derived from a commission for the opening of Mandal Jazz, is that same independent piece cut off from *The Always Juvenilia*. In other words, I tried to fit *Clarinet* into *The Always Juvenilia*, though without luck. From a personal perspective, *Clarinet* is one of my favorites, which I would like to have developed further for an orchestra if there was time. Thus, it is relevant for further research.

Nonetheless, moving towards solely working with composition to a larger extent than before is an interesting path for me. On a personal level, it is a way of getting to know oneself better. Furthermore, it is an indication of development, growth and presumably progress. Most remarkable was the non-occurrent guitar, or the non-present guitar. Every attempt to write a piece for an orchestra had a superior idea about honing the electronic soundscapes created with the guitar against the orchestra, so that the guitar should be included. Instead, the pieces ended up representing different strategies on how I transfer electronic soundscapes created by the guitar to an orchestra. To me, this method and ways of realizing ideas and images of sound and musical

⁹⁷ The duduk, the Armenian oboe, is a double-reed wind instrument characterized by a warm, soft, slightly nasal timbre, <https://ich.unesco.org/en/RL/duduk-and-its-music-00092>, accessed 3/17/2019.

composition become personalized. The progression and comprising methods contribute to a more distinctive personalized artistic expression.

After composing, instrumentation, arranging, recording and editing were completed, and everything had fallen into place and the process had calmed down, Jan (Bang) then challenged me to come up with guitar parts for this piece, briefly described later in this section.

The log uncovers some personal doodles that may support the above-mentioned. During the course of action, I stopped and asked myself what I was doing. Here is an excerpt from the log, in the shape of keywords, translated by me:

Vision or hard reality?

Why do I want to hone electronic sounds against the orchestra?

Challenge myself to write for an orchestra. Something I have never done before. Feels awkward and difficult. Wish I could master notation software the same way I master Logic Pro X's audio part.

Something about moving in new directions, hoping to discover something, try something new and different, challenge myself.

I do not make it easy for myself.

The questions and notes are illuminating different perspectives of the process. What I meant about vision or hard reality is still not clear to me, but it probably insinuates and underpins a quest for a reason to involve a symphony orchestra. Moreover, in each attempt to write music to hone the guitar electronics against the orchestra, the guitar ended up being eliminated from the composition. Instead, four different strategies for composing evolved as a result of the explorations in the process of developing the compositions. The strategies were listed in the beginning of this section.

The analysis reveals and elucidates the migration, not only from being a session musician, but also from merely being a performer to becoming more of a composer. The migration triggered an unexpected situation only driven by a desire to find my direction, my expression.



Figure 39: Sindre Hotvedt in action correcting scores in Finale⁹⁸

4.13.1 Editing *The Always Juvenilia*

After the recording session with the orchestra, I decided not to listen to the tracks for a while, to let the recordings sink in and to get a certain distance from the music I had been working on so intensively the months before. Three months later, I started to edit and put the recorded parts together. It was a demanding task, since you need the ability to stay focused and remember which parts are ok, which parts are not ok and which parts to choose, and then move around chunks of beams, 35 altogether as in the number of tracks. This editing process took approximately three days, and that applies for every piece recorded with the orchestra.

4.13.2 Overdubs on *The Always Juvenilia*

On the session that took place in my new studio, I spent three rounds playing through the piece from the beginning to the end, recorded everything and played whatever came to my mind. I also avoided using loopers, and for the most I used a combination of the freeze function on the Eventide H9 in

⁹⁸ A music notation software. For more information, see finalemusic.com

combination with the Super Ego, the new homemade delay pedal⁹⁹, and then a mix of Granular Delay, Ancient Bowls in Ableton and the Fuzz Factory pedal for filtered noise parts. The main idea was to create an atmospheric texture-based track, not necessarily to conceal the guitar as the source.

4.14 Timbre Trouble

Although *Timbre Trouble* did not make it to the final mix, it is included for the dissertation in order to illuminate the importance and impact the process had for the overall outcome. This piece has a relatively comprehensive log that is quite declarative. Therefore, it is enclosed in full to give a broader picture of how I work. The log was written in the form of keywords, coined by myself. Since the piece was dismantled, I decided to keep the log like it was, without further explanations. Yet there is a rough mix enclosed of both the piece *Timbre Trouble*, and the demo *Testing Ideas 01.02.2018*. Even so, the approach, the procedures and the reflections described in the log are applicable to most of my work. The studio set-up, the microphone set-up and the guitar set-up are almost the same for every recording session carried out in my studio, and accordingly included due to the resemblance in all the discussed works.

The division into several text boxes is due to the log's extensiveness:

⁹⁹ A delay pedal without a name that I bought from a student. My guess is that it is an attempt at building a copy of the renowned Memory Man.

Searching for new ideas, with the orchestra particularly in mind

Feb. 1st

Testing Ideas 01.02.2018 AB (working title)

Takes a while to get there. Lots of trial and error to get there or anywhere.

All by accident. But before I started, I had the orchestra in mind.

What I remember is working or focusing on three different pedals, Boss DD5, EH SuperEgo, and the Revolver pedal. Sometimes, I hit the Strymon Timeline with the preset called Verby.

Before I started, I sat up the mics and had to set new levels because of changed inputs. I ran every mic through the Soundtracs mixing console for the pre-amps, then into the MOTU 828MKII, which the Mac was routed directly into, via input 1&2 with preamps.

The very first take, Testing Ideas 01.02.2018 A, was recorded with the Mac lines only, without any soundcheck or set-up.

Maybe the most interesting part.

Made with Mac, only. Recorded two different, but quite similar repetitive patterns, Then, hit my special G#-minor chord (displayed in Figure 41) with my right-hand index finger slapping once over the strings near the neck pickup. At some point, I use the same technique introducing the F#-chord, too. Then, pithed the loops down an octave, faded in the bus with the EchoBoy plug-in, faded out the direct signal, and let the Evolution take over.

The second take was originally done with the idea to do something very different than the first take, which implied the amplifiers and the ambient mics.

Gear used:

Part 1 (A):

EchoBoy (plug-in), SpacedSpaceEcho (preset)

Evolution (plug-in)

Grain delay (Max for Live plug-in) on bus D

Ableton Loopers (then pitched down)

DD5

Signal straight into the Mac, meaning skipped the pedals.

Mics used (Part 2, only):

Sennheiser 609 on the Vox AC15 amplifier

Shure SM57 on the Fender DeVille 4x10

AKG 414 ambient left

AKG 214 ambient right

Guitar:

Guitar Workshop

Pedals used (Part 2),

ZWEX Fuzz Factory, causes a lot of trouble and unwanted high frequency noise.

Cut the noise with my favorite weapon, Waves Z-noise (plug-in).

Then a playful inter-toggle with DD5, Superego and Revolver.

Another thing to notice is that Part 1 was played using the Mac only.

Part 2 was played using the pedals only, more or less, except towards the ending where I am not sure if there is any sound manipulation at all.

Touching the quest for a fuzz tone. Closer, I guess.

Still, it takes a lot to be distinctively personal in my sound. But, somehow, I got a feeling I had not heard this before, all with the exception of some timbres that points to contemporary classical music.

Steve Reich-ish in the very beginning of Part 1.

Discuss with Geir:

- *about recreating what I played (which presents challenges. Usually played only once, such things) and then create orchestral parts around 0:00?*
- *Or, transcribe/convert the guitar sounds for the orchestra based on the structure that is there and try to recreate the sounds made with the guitar?*
- *The idea was to break with the romantic-like pieces I have made so far. Also had an idea about minimalism and lots of repetition, but with development.*
- *There is always a challenge in recording everything in one take. It can seem light and simple, at the same time hopeless to redo. There is also a challenge in editing such recordings. Seems like I am on to something here.*

Feb. 2nd

Discussing new power supply for my pedalboard with Jon-Halvor Nysveen. Strymon or Cioux? Ordered Cioux Schizophrenic. I do not know the exact technical specifications and reasoning other than I have 17 pedals that need power. And to avoid ground loops that may cause noise trouble, I was advised to expand the power supply to provide power most properly on the pedalboard.

Keywords from the reflection on the work on this piece:

- *Why do I want to do this (write for an orchestra)?*
- *Very exciting (of course)*
- *Challenge myself*
- *Now, I understand why there are specific studies to become a composer.*
- *I lack writing skills and techniques, which is the focus in such studies*
- *I want to reproduce the sounds and timbres I create with the guitar.*
- *The audio to MIDI technique used before is not applicable on this piece, other than isolating small fractions and developing short musical ideas "by hand", meaning handwritten scores. Next now is to put those fragments together into a complete composition. I also meet challenges on how to transfer the guitar parts and timbres into an orchestra.*

I have not made it easy for myself. The starting point was to hone the electric guitar sounds against the orchestra. So far, the compositions have taken a different direction where the electronic sounds are a topic for transposition from the guitar to the orchestra.

From the log 02.05.2018, in the continuance of working with this particular piece:

- Seems like I am picking up complex chords/harmonies, like I had an interest in before. I like it, but I also like simple traditional triads, like in country music, too. However, simple triads may not have a place in this piece.

So far (summary notes):

- Gave up on a transcription based on audio to MIDI conversion. Did not represent the original idea, neither "sound-vice" nor "score-vice". Had to change method, a more traditional listen-and-transcribe-by-ear method had to be implicated.

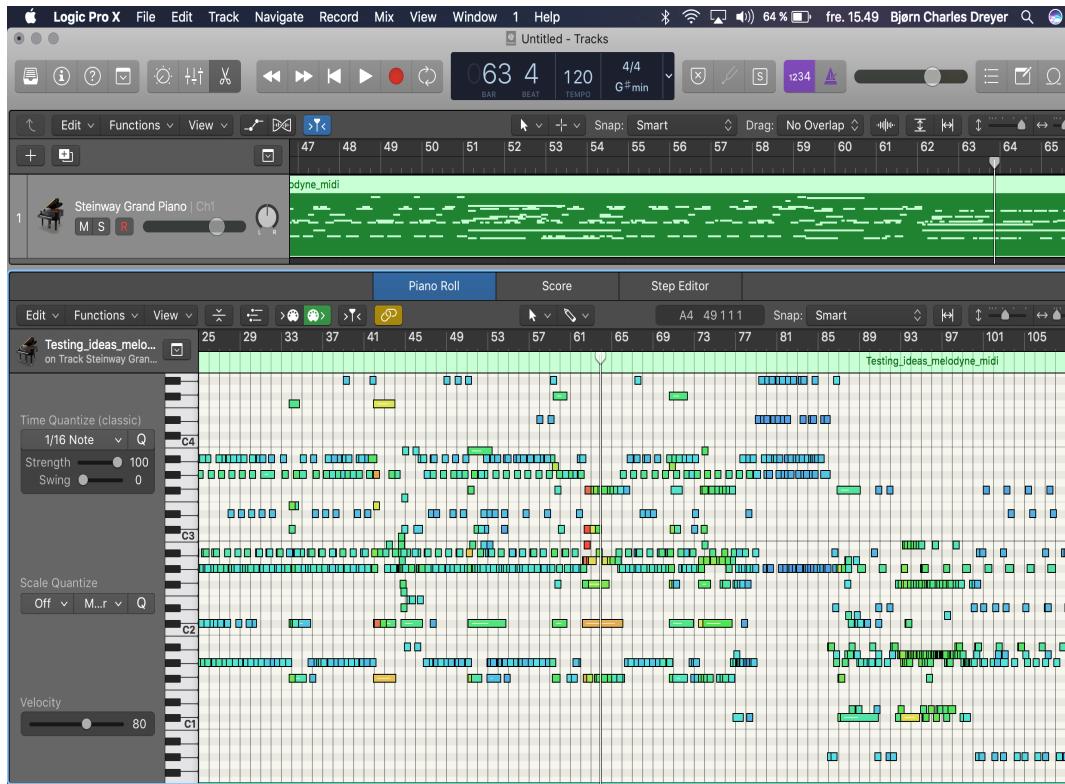


Figure 40: MIDI conversion of the audio file on Testing Ideas

- Listened to the original loops in Ableton Live and tried to transcribe them to MIDI, both by playing the melodic and rhythmic figures on a MIDI keyboard, then quantizing the recording, sometimes to 64th notes, mostly 16th notes. Does not sound anywhere near the original loops. Maybe the MIDI and sampled string sounds are part of the explanation. Maybe with the right notation for dynamics and techniques for the "real" player, it may sound better and closer to the original guitar loops?
- Been trying different voicings for piano, based on the guitar voicings. Going back and forth between midi piano and the guitar. As experienced many times before, guitar voicings sound strange on a piano. Has nothing to do with a sampled and MIDI-based piano representation. In fact, the MIDI version gives a relatively good indication on how it sounds on a real piano.
- Did also try to recreate some of the guitar chords sounds and timbres in Ableton with rather shifting luck.

For inspiration and to seek more knowledge, I bought the score for Fratres for solo violin, strings and percussion.

This statement was connected to the website the score was purchased from:

“The highest virtue of music, for me, lies outside of its mere sound. The particular timbre of an instrument is part of the music, but it is not the most important element. If it were, I would be surrendering to the essence of the music. Music must exist of itself ... two, three notes ... the essence must be there, independent of the instruments.” (Arvo Pärt)

Keywords that have come across my mind:

- *I am doing things I don't know (how to do)*
- *I am seeking something else*
- *Am I challenging myself?*
- *I haven't made it easy for myself*
- *Why am I doing this? (writing for an orchestra)*

From showman to artist New headline? Not very academic, but it summarizes the thesis in one simplified sentence. It is very much what it feels like sometimes.

Session w/Geir, supervisor, February 6th.

He suggests I create a system.

A system can be anything.

Helpful to create a framework for composing and the composition.

Examples as motives that occur when I improvise, a chord progression (might as well be rubato), 7-, 9- or 11-bar cycles, find my scale?

Other suggestions that came up were Fratres (that clearly has a system), 12-bar blues, etc.

February 7th:

The day was shortened by a funeral. (Interestingly enough, it felt like experiencing Lise's funeral all over again). At the risk of being pretentious, I have opened up for thoughts like circumstances in my life are influencing my music. My supervisor Geir also brought up the topic. The atmosphere became emotional and made me realize that my music is probably affected by this, more or less unconsciously. I do not say the emotions make the music better. It just made me start wondering. I know I got some indefinable powers after the fatality. Whether this has any particular positive impact on my music now, or influence my music at any level, I can't tell at this moment. But my supervisor thought he could hear it in some of my later works, guitar improvisations in particular.

Feb. 8th:

The ideas and advice from yesterday's session have been marinating in my head. I think the idea about a system for composition is transferable to improvisation, too. And creating such a system, one will have to eliminate certain things, either notes, scales, chords, sounds, tone, techniques, both from the way one is playing, improvising, composing, etc. Furthermore, elimination in this way is quite the opposite of what you do as a session musician, where the goal is to master as many different styles, techniques, etc. as possible. And, some take effort in copying others distinctive sound, too. (Note to self, maybe refer to Pat Metheny again?) That makes the idea about creating a system even more prevailing for developing a distinctive and personal expression, a personal aesthetics.

Timbre Trouble started out as an improvisation with guitar and electronics, and had Testing Ideas 01.02.2018AB as a working title. A and B were categorizations to separate two different parts that were all improvised, but recorded in two different takes. Everything was created on the fly and by accident, although I had the symphony orchestra in mind before I started. Like I often do, the strategy is to focus on a small selection of pedals, plug-ins and effects. In this case, I narrowed the sound manipulating devices down to four (basically three) different pedals:

- Boss DD5
- Electro Harmonix SuperEgo
- Revolver pedal
- Strymon Timeline (only hit a few times with the preset called Verby)

The location for this session was my own studio. After all, the Logic document (see figure next page) indicates the microphones were put up in the usual way, two dynamic microphones, Shure SM 57s, one for each amplifier, slightly angled towards the middle of the speaker cone, less than an inch from the front panel. Then two condenser microphones, one AKG 414 and one AKG 214 were set up as room mics, then additionally the left and right output signal from the Mac. In addition, new gain levels were set due to a decision about trying a different input configuration than usual, only to try something else. All microphone signals were sent through the microphone pre-amps of the Soundtracs mixer, then into the audio interface, MOTU 828MKII. The Ableton Live treated signals which can also be called the Mac lines, went directly through the integrated preamps of the audio interface.

The very first take was recorded with the Mac lines only, though without a soundcheck. Next, I recorded two different, but yet quite similar repetitive patterns as two different loops. I then hit an Ab7#9b5 chord (see Figure 41), with my right-hand index finger slapped over the strings. Later on, in the same part I also used the same slap technique in introducing the Gb add 11 chord as well. The loops were then pitched down an octave. In succession, the bus channel with the EchoBoy¹⁰⁰ plug-in was faded in, the direct signal was faded out and eventually the Evolution plug-in was faded in and took over.

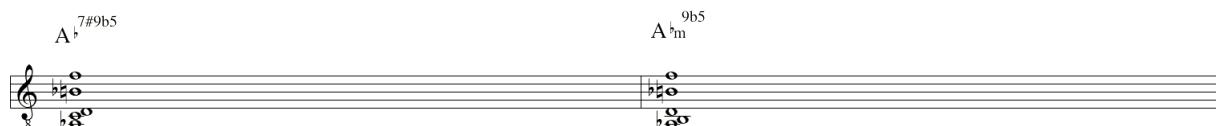


Figure 41: The Ab7#9b5 chord and the Ab m9b5 chord

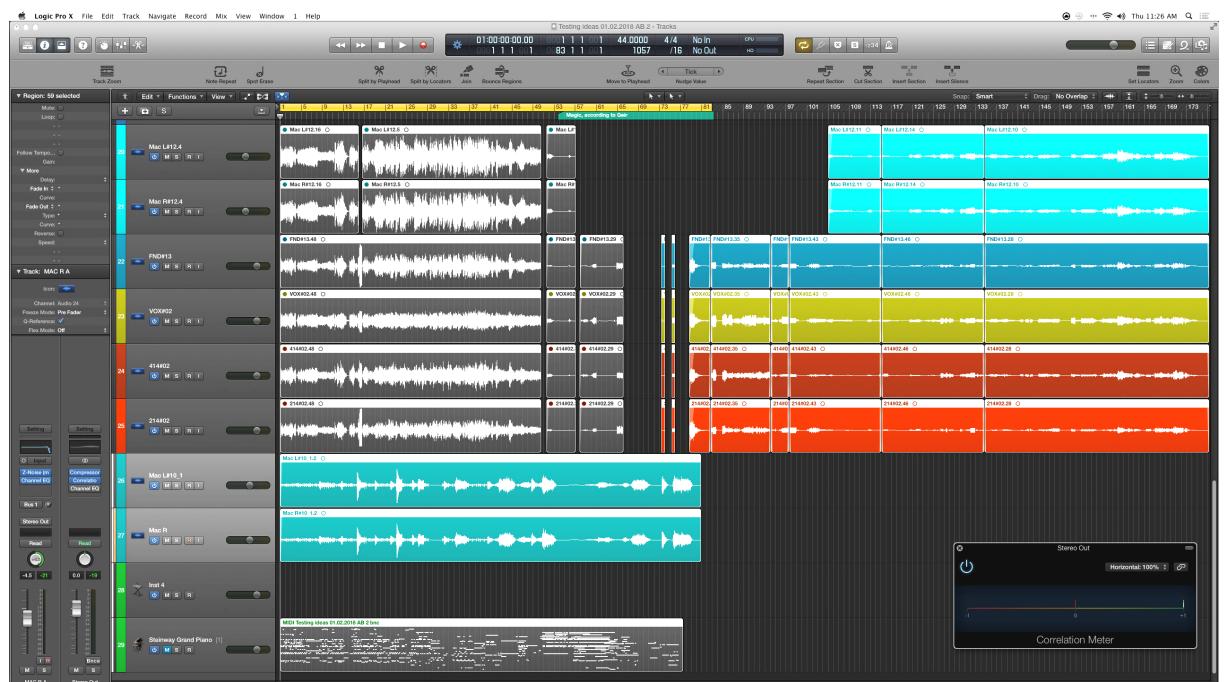


Figure 42: The Logic X document for Testing Ideas for 01.02.2018 AB, Part one or A as the green beams down to the left. And Part two, or B on the right in different colors to separate between the computer lines with the Mac/Ableton Live signals, amplifier microphones and the room microphones (capturing the ambience). The correlation meter is displayed to control for possible phase differences.

The second take, Part 2 (also called B) was originally done with the idea to do something very different from the first take, which implied the amplifiers and the ambient microphones. The strategy in the second part was to focus on the

¹⁰⁰ Plug-in based on vintage echo boxes, for more information see <http://www.soundtoys.com/product/echoboy/>

Revolver pedal and to see whether it was possible to create some rhythmical ideas.

According to my recollection, I also had an idea to continue the search for a more optimal fuzz tone in this particular take. However, the only part that eventually passed was a chopped-up section between bars 73 and 83 (see Figure 42) that functioned as a nice supplement to the first take. The search for a fuzz tone did not succeed.

However, another log (see below) from the same period suggests and gives an indication of an interesting direction that could have been sustained to a greater extent.

Another interesting option could be transcription by using spectral analysis.

Transcribing the guitar in a traditional way into the piece ended up being written out of the piece once again. Originally, Timbre Trouble was a directionless improvisation with guitar and electronics.

Furthermore, the log also uncovers a methodological, technical and artistic doodle that illuminates a few topics connected to the process.

Next, the guitar signal was treated and manipulated with the Evolution plug-in, which incidentally has also become my main tool and probably defines a lot of my sound. The harmonics characteristic for the Evolution plug-in were a challenge to transfer and transcribe by ear. Further transcription and exploration emerged a vast spectrum of harmonics, which are difficult to capture by ear only. That is how I came up with the idea to implement spectral analyses of the audio file which lead to another idea that the whole piece should be developed as a spectral composition. For a more accurate harmonic analysis, I reasoned for utilizing a spectrogram (see Figure 43).

During the orchestration process and for this particular piece, I gained a special interest in gongs, also called tam-tam, bowed cymbals, bowed vibraphone and tubular bells, all in the melodic percussion domain. This interest stems from an underlying urge to explore sound. Although it is difficult to describe, some of these sounds associates death to me, most likely on a subconscious level. Without embellishing death as a rule for the sound aesthetics I am searching for, I nevertheless find it worth mentioning.

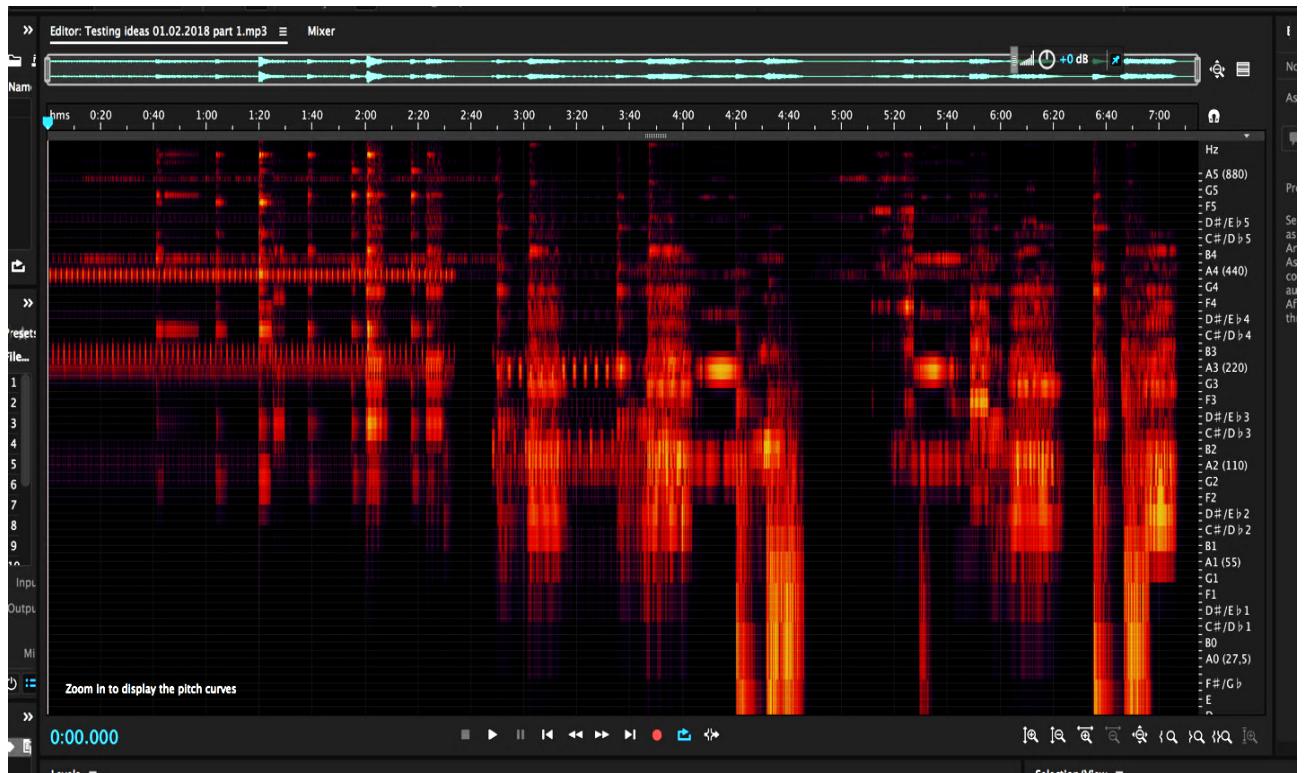


Figure 43: A spectral analysis of Testing Ideas 01.02.2018 part 1

However, I changed my mind and decided to orchestrate the harmonics by ear and imagine the sounds. Due to time pressure and the fact that I did not have the software to execute a spectrogram analysis, and in order to find out whether it was as a method or direction to pursue for this composition, it had to be outsourced. My colleague, Hallvard Hagen had the application needed, and ran the audio file, a stereo mix of the guitar improvisation, *Testing Ideas Part 1*, through the application Adobe Audition.¹⁰¹ The picture above illustrates a spectral frequency display of the current audio file. From a pragmatic standpoint, the analysis was not useful for compositional purposes, inasmuch as the software is a tool capable of noise reduction and noise removal. Instead, by envisioning the textures and representing complex sounds from the recording, I decided to orchestrate the harmonics by ear and implemented multiphonics in the brass and woodwinds, plus extensive use of melodic

¹⁰¹ Adobe Audition is a digital audio editing program developed by Adobe Systems Inc. (technopedia.com. Accessed 2/16/2019. For more information, go to: adobe.com/products/audition/features

percussion in untraditional ways. Moreover, I stated the reasons for an artistic rather than technological approach, partly because of time managing issues.

Although I attempted to use transcription as a method for analyzing the chordal structure, the sonic complexity made it nearly impossible to transcribe. Instead, it brought about a method consisting of pure guesswork, interpretations and images of the harmonies and the overtones. The outcome became an artistic interpretation, rather than an accurate harmonic structure. The spectral analysis was leaning towards spectral music¹⁰² and spectral composition, which could probably have been an interesting way to approach this piece. Alternately, as a result of a rather explorative approach, the spectral music domain unveiled an opportunity I had not foreseen. Spectral music is a vast topic, and requires a competence that was out of reach to be obtained within the timeframe for this doctorate. Yet, the finding was very inspiring and awakened an interest in spectral music, which was almost unknown to me before. In hindsight, another observation was that I probably focused too much on the textures and forgot about the structure and framework while working with this composition. I do not exclude the possibilities contained therein and have considered a resumption of this piece and I would like to try new methods to come to a completion.

4.14.1 Transferring guitar loops to a score for an orchestra

Part of the challenge was how to transfer the guitar loops to the orchestra. The string part in the beginning of *Timbre Trouble* consists of five guitar loops transcribed from the original improvised recording. There were several options on how to transfer the loops to the orchestra. The reasoning for choosing strings to represent the guitar loops was because the texture of the loops sounded like strings to me. Consequently, a quest for an adequate method to

¹⁰² A term referring to music composed mainly in Europe since the 1970s, which uses the acoustic properties of sound itself (or sound spectra) as the basis of its compositional material. (...) The term “spectral music”, (...), emphasizes the importance of the sound spectra themselves to the music and its techniques. However, the tendency has also had important ramifications in the fields of form and musical time (Julian Anderson, 2001).

transfer the loops then arose. Next, I contacted Jango Nilsen, a drummer colleague for his input, and his feedback became clarifying in what method would be most appropriate, although he suggested several different approaches. The options were either to translate the rhythms as polyrhythms, dividing the loops into subdivisions of 5-tuplets, 7-tuplets, or change the time signature to 5/4 with a tempo of 117 BPM. Finally, the decision fell on keeping 4/4 as the time signature and the tempo set at 58 BPM to make the loops less complicated, but still polyrhythmic. A new discussion then arose in the process with Sindre Hotvedt transferring the MIDI notes to a score. To make it more understandable for the string section, and to get the sense that it was loops they were supposed to be playing, the loops needed to appear as loops in the score. Some of the loops are long and sometimes cut off (by the horn section) even before completion, and could therefore seem like endless and illogical melodic lines to play. To avoid any possible confusion, we decided to write a text note in the score on each voice to indicate a loop, see the score starting with the cello voice from bar 5 (Dreyer, 2018b). Writing a note in the score make the loops supposedly easier to recognize and more understandable. If musicians do not get the idea about what they are playing, they may get frustrated and work against me as the composer, which is unbearable in a studio recording session. Therefore, psychological considerations were also a part of the score writing process and important in the planning for the studio situation. Although *Timbre Trouble* did not make it to any official release, the entire process had a lot of intrinsic knowledge and an importance for the doctorate project as such.

4.15 The Only Characteristic is Duration

The log for this piece was quite comprehensive, and to make it as expedient as possible, I chose to cut less important information. This piece's process can be illuminated in four different stages: the derivation and writing, the recording session including the orchestra, the edit and additional recording session and

the last structuring and final editing at Punkt Studio. The log principally informs about the two first stages, the piece's origin and preparations.

May 28, 2018

Created another orchestra piece where the orchestra has to improvise.

The plan was as before, that I should participate by playing. We'll see about that.

If I do (participate), the first idea that comes across is to dub/copy the events in the orchestra. Almost every part is derived from the guitar anyway. On the other hand, I should play something else, maybe something contrastive.

Since it is less than a month before the recording session with the KSO, I have to make a piece that'll be realistic to complete. Therefore, I chose relatively easy parts to play.

A stopwatch and a timeline are probably the best tool to conduct the piece.

Decided that C-Lydian will lay the harmonic foundation for this piece. Found that out by a trial and failure method using the guitar and the loopers in Ableton Live. Tried creating "realistic situations" by playing random intervals, tempos, patterns, all in C-Lydian.

Still think there may be an issue with the structure to make it a bit more interesting.

Discussed the piece with a friend (who had heard the demo only once). He was not sure; but his opinion was that the piece was not going anywhere, it was episodic, non-provocative, no excitement. We agreed to discuss it again when he had heard the demo one more time.

I also made an appointment with Hallvard to discuss the piece.

I believe in the core idea: to challenge the orchestra on improvising, and to try making some good music at the same time.

Typically, I am still not sure whether I shall participate.

May 30, 2018

The evolving of a new piece

Decided to put in a more exciting part for the horn sections (trumpets and horns).

Chords and to challenge their listening abilities.

C-Lydian

Horns: the basics, c, e, g, c

Trumpets: the "topping", f#, a, h, d

Thanks to Erik Kimestad Pedersen for suggesting dividing the basic tones and the "toppings" (he gave me in a phone call conversation).

Movement not faster than half notes, preferably whole notes:

Also discovered the meaning and importance about getting the right title for this piece.

Virtue and Rigor can be too "rigorous." The Only Characteristic Is Duration can also create negative associations among the members of the orchestra, I'm afraid.

Emailing Sindre, Hallvard and Einar on opinions on the piece.

June 1, 2018

The new piece was turned down by the orchestra. Made me very disappointed.

I was too late according to the deadline. The other pieces were prepared in time for the deadline, but my last piece was not. I got so inspired at the very end, therefor not aware of the deadline. Due to weather conditions (meaning beautiful, warm and sunny), I had trouble getting any sensible work done, and I believe the fact that the other pieces eventually turned out ok gave me the spirit to go at another piece. My hope is to make it work and have it performed at some point.

The log above informs about email and telephone communication and self-reflection in a way which correlates with autoethnography as a method, precisely to invite the reader into the experience and derive knowledge from it.

June 7 and 8, 2018

Went a few rounds with myself, as to whether I was going to push to get the last piece accepted. Called the program director for permission. He could not promise anything, but asked me to hand it in by the following week (week 25), two weeks before the session.

Sindre was busy as usual. But he wanted to take the challenge writing the piece in Finale for me.

June 17 and 18, 2018

Finishing stage of The Only Characteristic is Duration

Phone calls with the conductor, who has an idea about a system for cues, which is making it easier for everybody to orientate.

Creating timetable for knocking off the instruments in the right order.

This is the only piece where the idea about an improvising orchestra was fulfilled. And as the log informs, the process with this piece was characterized by time pressure and uncertainty. Accordingly, I composed easy parts to play in order to be pragmatic due to the time pressure and the deadline. The uncertainty as to whether I should participate is recurrent, and has been mentioned before in the process of composing for the orchestra. The fact that I omitted participating had an advantage in avoiding leakage onto the tracks from amplifiers and the risk of badly played guitar. Thus, I decided to record guitars and electronics afterwards in a controlled atmosphere in my studio.

After some unsatisfactory attempts adding guitar and electronics at my studio, neither the contrastive ideas nor the idea about imitating the orchestral parts worked. Instead, a decision about trying a pre-recorded sound clip became the solution. Using pre-recorded clips is something I hardly ever do according to my principle about keeping all my performances perishable. Still, the choice fell on a favorite clip, evolved from an improvisation recorded sometime the year before that I had been saving for later, precisely in order to create new ideas and to build new compositions. The clip was called Pilgrim, after the band Sweet Billy Pilgrim¹⁰³ because the sound sample gave me associations to

¹⁰³ For more information: sweetbillypilgrim.com

one of their songs I once heard, but do not remember. The clip was duplicated in order to transpose the song, and then alter between two different key signatures. Although the sound is heavily manipulated, the original clip chord progression is simple and easy to spot, Em-D/F#-G-D-Bm-C. The clip had a C-Lydian vibe to it that formed the basis for a mode, which fit perfectly with the orchestra recording. Additionally, the duplicated clip was transposed to F, and to my ears also fit well with the orchestra. Although with the transposed progression, Am-G/H-C-G-Em-F, which is in the wrong order according to C-Lydian, but nonetheless good with the orchestra as I perceived it. The log does not inform anything about the chord voicings, but from recollection and what I can hear, it seems like the chords were played as 10ths.

Later, at a session with Jan Bang, the clips were added to the original recording of the orchestra. We did it as an overdub, as I played the original clip from the beginning of the piece and switched to the transposed clip about halfway through the piece. The clips were set to be repeated, i.e., as loops. In rough terms, what happened was the orchestra played parts that were shifting, and the guitar clips were static loops. It is relatively easy to reveal the start and stop points, which is necessary to problematize because part of my looping strategy is to avoid hearing the loop points. The reason is quite simple, as when you hear the loop points, the music loses progress and also creates associations with the one-man band characteristic, which I try to avoid at all costs. However, in this piece, noticing the loop points is bearable because the loop creates a static movement that can contribute to a transcendental feeling, rather than a dull repetitive sound sausage.¹⁰⁴

Furthermore, the log informs about another challenge which was the composition's structure. Besides, compositoric structure is also a recurrent topic in the processes with the other pieces in this project, and crystallizes itself into an ongoing problem and theme for further exploration and improvement.

¹⁰⁴ The term sound sausage may be perceived as humoristic, and refers to a personal association with an audio file displayed as a massive wave form with hardly any transients or dynamics. It is also an attempt to depict how it sounds.

As anticipated in the log, the plan about a timeline, a stopwatch and two conductors was realized for the recording. The solution was that the conductor cued the starting points of the different instrument groups and I, as a second conductor, cued them off. Practically speaking, the piece needs two conductors to have it carried out, something that otherwise seemed unorthodox for the orchestra during the session, and consequently triggered a slightly convivial atmosphere in the studio.

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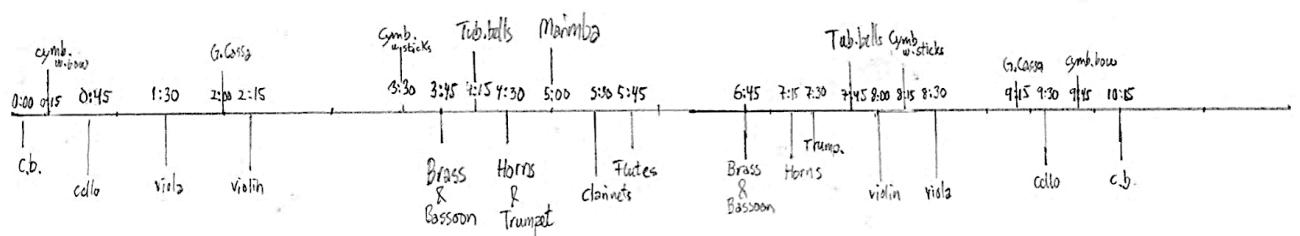


Figure 44: The timeline for *The Only Characteristic is Duration*. The working title was Orchestral Impro Trial.

1:45 D-bass
2:30 Cello
2:45 Cymbals
3:15 Bratsj
3:30 Grand Cassa
4:15 Violin
4:30 Cymbals w. sticks
5:15 Tubular bells
5:30 Horns & trumpets
5:45 Brass & bassoon
7:00 Clarinets
7:15 Flutes
7:30 Marimba
8:30 Brass & bassoon
8:45 Trumpets
9:00 Horns
9:15 Cymbal w. sticks
9:45 Violin
10:15 Bratsj
10:45 Grand Cassa
11:00 Cello
11:15 Cymbal w. bow
11:30 D bass

Figure 45: Second conductor's timetable. The strikethrough was necessary to keep pace, and displays the accomplished parts.

Flute
 5:45 - 7:15 make a small set of your favorite multiphonics
 o #o
 o o
 p preferably within C-Lydian
 soft & relaxed

Trumpet
 4:30 - 5:30 repeat procedure at
 [tr] ad lib, create chords w. horns,
 o o o listen to horns, follow leader
 p soft

Horns
 4:30 - 5:30 ad lib, create chords w. trumpet, listen to trumpets
 o o o follow leader, soft

Trombones
 3:45 - 5:45 blow without tone, create white noise, shape/vary

Bassoon
 4:15 - 5:15 repeat at 7:45 - 8:30 without the tremolo-part
 w. soft mallets play intervals, two voice chords, seconds, thirds, fourths, fifths, sixts, sevenths

Tubular Bells
 3:45 - 8:30 tremolo on freely chosen note within C-Lydian:
 ca 30 sec stop trem. when horns start
 change to regular mallet
 ad lib in C-Lydian
 place phrases between cymbals

Marimba
 5:00 - 7:15 notes available: c-Lydian play intervals, two voice chords ; seconds, thirds, fourths, fifths, sixts, sevenths
 pattern idea: |: 1 o. 3x 1x |: 1 o o |: |
 lift an oct. last 30sec.

Gym.
 0:00 - 2:30 repeat at 9:45 - 12:00 w. bow, slow movement, sometimes let ring

Bass Dr.
 2:00 - 3:30 w. rubber mallets, slow movements

Violin
 2:15 - 4:15 repeat at 8:00 - 9:45 slow glissando, dwell upon your favorite harmonic

Viola
 1:30 - 3:15 repeat at 8:30 - 10:15 slow glissando, dwell upon your favorite harmonic

Cello
 0:45 - 2:30 repeat at 9:30 - 11:30 scraping sound, glissando, slow movements, glissando, dwell upon your favorite harmonic

Double Bass
 0:00 - 1:45 repeat at 10:15 - 12:00 scraping sound, glissando, slow movements, glissando, dwell upon your favorite harmonics

3:30 - 8:30 1/2 valve slow glissando, dwell on destined notes, follow leader

7:15 - 9:00 slow glissando, dwell on destined note, follow leader

6:45 - 8:30 slow glissando, dwell on destined note, follow leader

repeat from 9:15 to 10:45

Figure 46: The draft for *The Only Characteristic is Duration*

Lydian is also the recurrent tonal utility applied in several other pieces in this doctoral project. In this case, there were two reasons for the Lydian choice, 1) because I like it and can never stop exploring this mode, and 2) it was pragmatic due to the time pressure. From a technical perspective, the Looper plug-ins in Ableton Live were used as a compositional tool, three loopers all together in parallel. The guitar was actively involved in creating this piece and to produce the demo by both simulating the different instruments in the orchestra, and how they could interact and sound like when they were improvising.

The horn part of the piece evolved after some trial and error, and resolved itself by making a phone call to a trumpet colleague. He came up with an idea about dividing the Lydian scale in two, one row with the basic notes and another row consisting of the other notes on top. The recommendation became prevalent to that part of the composition.

Naming compositions is a topic brought up again (the last time was with *Germinial*), and exposes a consciousness and importance of choosing an adequate name for a piece. I usually choose names myself, but in this case a friend handed me a list with several suggestions ready to use. Naming a piece may not be the most critical, but the procedure holds possibilities to emphasize meaning, a message, identity and signification. Yet again, to get friends' and colleagues' opinions on the work, I sent an email with a demo recording midway in the process of composing. As the log informs, my friend called for excitement, provocation and direction, three elements that I had not thought of, but found interesting. On reflection, this piece was not suitable for incorporating any deeper meaning other than the experiment having the orchestral musicians improvise and experience the sonic textures that emerged.

From an entrepreneur's outlook, the process could have been planned better. Doubting whether I would pass the deadline for delivering this last piece or not led to a hesitation to endeavor at all, even though both the compositional idea and the recording agreement were all set. Fortunately, I did not take no for an answer and tried another channel to bring along the piece, and this time with better luck.

One thing the log does not note, but that I recollect is that I experimented a lot with bows on cymbals in light of my fascination for percussive sounds that are

more texture based than its rhythmic aptitude. The enthusiasm for the extensive use of percussion arose while composing *Timbre Trouble* a few months before. Moreover, the intention was to carry on exploring these textures in this actual piece. I previously had a cello bow that I used for the guitar, but for this project I purchased a Cymbow,¹⁰⁵ a bow specially constructed for use with cymbals.

As a simple summary for the creation of *The Only Characteristic is Duration*: Through experimentation and artistic accidents, I unintentionally ended up with a core idea which can be translated and simplified into *static guitar with an orchestra in motion*.

The very last version is heavily cut and holds just a few elements of the orchestra, and functions more as an intermediary between other compositions. But, the principle of a moving orchestra and a static guitar still applies.

4.16 Discoveries on intuition, composition, score writing, software, know-how

In the continuance, there will be different reflections on topics and problematics concerning several processes in this project.

At this point, the only discovery is a way for me to transfer the sounds I create with the guitar and electronics to an orchestra. It also feels like I have discovered sounds that already exist. The only new thing about it may be the method I use, namely improvised guitar recorded into Logic, then a few edits, then transferred to Ableton Live to convert an audio file into a MIDI file, then transferred back to Logic (as MIDI) to be cleaned up, orchestrated, arranged and finished as a composition and a sketch score to be exported as an MusicXML file, and lastly transferred into Sibelius or a similar notation software for further editing. If I had a wider experience with either one of the applications for score writing, or a formal expertise in composition, the process would have been different. And that is probably somewhat part of the discovery process, as my sounds turn out this way because my work is driven more intuitively, and therefore of the methods used as well. The way I compose for orchestra is very time consuming, and one may point out the

¹⁰⁵ Trademark; for more information, go to: expandinghandsmusic.com

inefficiency in this method, but it is also noticeably a way of composing music for an orchestra. And it is appropriate to inquire about the method as a personalized way to get a more distinctive expression, rather than if a mastery in traditional and modern composition techniques were owned, or score applications skills were fitting. In the absence of skills in a score editing software and formalized compositional skills, I allege and suggest that the intuitively driven method I use to compose for an orchestra contributes to a personalized artistic result. My method is not necessarily better, but different.

4.16.1 Sibelius versus Logic Pro X Score Editor

It was part of the plan to learn how to use Sibelius for my experiments with guitar electronics honed against acoustic instruments and ensembles. After months of struggle with the licensed version available at the university, I gave up and figured that it would be much more efficient and appropriate to use Logic Pro X Score Editor. Logic is an application I already mastered pretty well, except for the score editor. Even with a great deal of previous knowledge from using Logic, the learning curve in the score editor was very steep and questionable if at some point it was worth the time spent. I searched for and found there were not many tutorials available for Logic Pro X score editor, though I found one, Logic Pro X 109 Core Training – The Score Editor, a video course by Peter Schwartz. It helped me to get started, but at a certain level I saw a need for a more thorough and in-depth going over. Maybe Logic Pro X has a limitation, or maybe it was me who could not excel and get to the advanced level. Nonetheless, the scores I was working on were embodied in a classical tradition, but there was also a need for a more declarative score, a way to explain to the instrumentalists how to play the notes. The idea was, and still is, to make an effort to learn a feature in an application I already know. It must be better to spend time improving the efficiency, instead of wasting time on an application that does not work properly. And the particular problem with Sibelius was instability when used in a license mode. Moreover, the sound library belonging to the program was not available in license mode either. The sound library attached to the software was important for the motivation, with the alternative being to work with General MIDI sounds, which was stifling for the inspiration. The Sibelius project would probably have worked if I had bypassed the license and purchased my own copy of the program, though for

me it was not an option as long as I did not know for sure if the application would work at all. So, my supervisor Geir Holmsen and I agreed that the solution was to work with the score editor in Logic Pro X, and then transfer the scores as MusicXML files to any notation software. It did work, yet there was some clean-up to do in Sibelius. I realized that it takes a disproportionate amount of time to learn how to use a notation program due to professional standards. Nevertheless, I decided to get help from colleagues who knew how to use Sibelius, and in that way save time and focus on composing. For pragmatic considerations, I finished the scores as far as possible in Logic Pro X, and then sent them to the previously mentioned colleague for further processing. On some occasions and because of necessity, I used pen and paper and notated the music in the old-fashioned way. The solution was timesaving, and laid the groundwork for making music instead of being frustrated over lacking the mastery of a notation program.

4.16.2 Derivations behind the problems with Sibelius

The derivations behind the problems that actuated the debate about Sibelius versus Logic Pro X started with the idea about reversing the composition process using technology for the piece *Entirety*, wherein the guitar sounds like bowed strings and also similar to a horn section. As previously mentioned, the idea was to create something musical contrasting to the movements of the infant in the film, and to the rolling sea whipped up by the wind that you can sense from the movie (see the *Entirety for Strings* paragraph). Then, to create a more easeful atmosphere, I decided to use a cello bow on the guitar strings. Next, at a later time, the idea of processing and reversing the bowed string sound into real bowed strings played by an orchestra came about. Furthermore, the recorded tracks had to be converted from audio to scores for an orchestra to be able to play. In the first steps of the recording process, I used a combination of tools, techniques and software. Ableton Live, installed on a designated computer, was used for looping, while the hardware pedals were used for the instrumental parts. I then used Logic Pro X (installed on another designated computer) for simultaneous video playback and audio recording. As mentioned before, Sibelius is a widely used tool for such processing, similar to Finale and

Dorico.¹⁰⁶ But as mentioned, my experience was a bit more complicated. To summarize, Logic Pro X has primarily been used as the main audio recording device, and then after all the ruckus with Sibelius, the usage of Logic Pro X was also extended to include the score editor.

4.17 Miscellaneous challenges, issues and reasonings

4.17.1 One guitar, six tracks

I commonly record one guitar onto six different tracks. First, the signals that come from the amplifiers are set up in stereo, then there is the split signal from the Mac, and in addition a pair of room microphones for ambience. The total number of recorded tracks with a basis in one signal from one guitar provides a larger number of options to blend different sounds or colors, and as I also like to see it, in a mixing situation. There are also usually different sounds simultaneously coming from the amps and the Mac, depending on what effects I am using or if any loopers are engaged, whether in Timeline or Ableton.

4.17.2 Phase issues

Other issues implicit in multitrack recording are phase problems. If you use more than one microphone in one recording, or the same sound source is duplicated, either as a stereo signal or a split signal, phasing issues will most likely occur. In *Pipp Popp* there are issues with the phase, which may stem from a two-track stereo recording of the amplifiers that were out of phase. The reason for this is most likely an unawareness of the problem, or me not being cautious enough in the recording situation. To avoid these problems, one usually allows time to sound check in advance of recording. but when I am in a passing mood of creativity, phase issues are not what I have in mind or bother to check. The most important thing to me in such recording situations is to uphold the creative moment, and to keep the flow as long as possible to produce a musical or sonic lapse of significance. And in the case of the creation of *Pipp Popp*, this is seemingly the case. Phase issues are possible to fix in the post-production and in the mixing, yet there is a risk to it. The sound quality may be degenerated, and the recorded audio may even disappear from

¹⁰⁶ A music notation software. For more information, see new.steinberg.net/dorico/

the overall sound picture.¹⁰⁷ Therefore, it is clever, time saving and useful to check the phase before you start recording. However, when I am in a creative flow, common sense sometimes falls by the wayside.

Technically, to control phase issues, I commonly use a correlation meter,¹⁰⁸ facilitated as a plug-in in Logic X. You can either put it on the current track enabled for recording, or more likely on the master output. In that way, one may better control that the phase is correct, or at least that the signal is fairly in phase. You may also check phase issues by setting the track to mono and playing your sound. If the sound changes radically or disappears in mono, you have a phase issue. You can either move the microphones a little and hear if it gets better, or you may invert the phase with a plug-in. I also use two boxes, including Humdinger,¹⁰⁹ to split the signal from the guitar and the effects to the amplifiers, as well as to the audio interface and the computer. The Humdinger pedals are equipped with a phase inverter switch. The phase of the signal chain may change each time I set up, depending on whether something has bumped into the switches during transportation, which easily can happen and often does. If I am not observant, I sometimes forget to check the phase and consequently get phasing problems. This is probably what may have happened on the track *Pipp Popp*.

¹⁰⁷ By a sound picture, I mean a compound collection of sound, whether played back through speakers or live, or in a concert hall or similar. The meaning has nothing to do with motion picture or soundscape.

¹⁰⁸ Essentially, it displays the changing phase relationships between the left and right channels of a stereo signal, but in more simple terms, it can be thought of as indicating the state of a stereo signal's mono compatibility. Taken from soundonsound.com, accessed 4/12/2019.

¹⁰⁹ For more info: www.thegigrig.com/humdinger

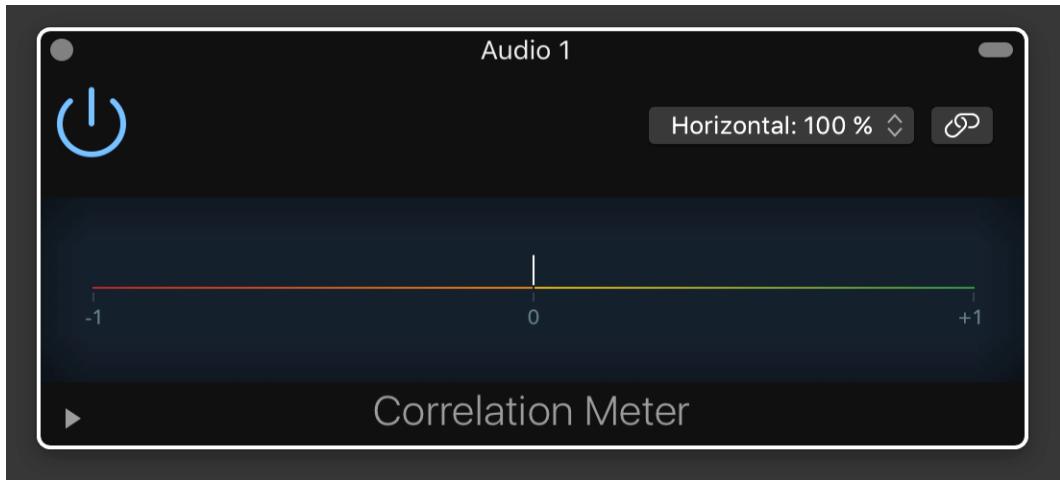


Figure 47: Correlation meter, plug-in in Logic X

4.17.3 Keeping the pedal steel clean

There are multiple reasons for keeping the pedal steel signal clean. One is simply that I find the sound quite distinctive when it is clean. From my personal aesthetical perspective, the quality of the sound the way I hear it is that it penetrates any sound picture and is beautiful in its pure form. In opposition to the way I like to treat the electric guitar signal, manipulated with loads of effects, I see the pedal steel's purity as something contrasting to the electric guitar sound I use. And the contrast is something worth aiming for. Yet, it does not mean I never experiment with effects on the pedal steel. Sometimes I find that very exciting, and may go quite far in pursuing a new sound by manipulating the pedal steel signal. Nevertheless, in most situations I prefer a very subtle use of effects on the pedal steel. And the preferred effects are more common for sound enhancing rather, than manipulating the sound, e.g., the subtle use of delay or reverb. I rarely use both, as I usually choose one or the other. Additionally, a cranked-up input or output channel on the amplifier may add a little sparkle that I like. To control the sparkle, which in fact is an overdrive effect, I set the amp to a certain maximum, and then I use the volume pedal to control the amount of drive. The volume pedal is normally an integrated part of the pedal steel, like an extension of the instrument. It is an incorporated and inevitable effect of the swelling sound that characterizes the pedal steel tone and sound.

4.17.4 Do not play back, keep on recording

By extension of the layering technique used for *Pipp Popp*, the idea about not listening to the previous recorded tracks is a method I have used before as a session musician and in previous self-initialized projects. The process can result in creating something contrasting, different and new. Since the previously recorded tracks are muted at all times, you avoid reacting to any sound, musical sequences and so on. In a typical recording layers situation, it is common to hear the previous track, whether to react appropriately if there are chords, melodies or rhythms to make allowances for, or to react impulsively to the audio that is being played back. In a typical recording session situation, it is more likely to reference this technique as doing overdubs. Overdubs are primarily traditionally done to reinforce previously recorded sounds, or melodies, chords and the like, in order to make the sound or instrument sound bigger and fatter. For example, in order to be able to do that, it is necessary to relate to the original recording by having it played back in a monitor system in the shape of studio speakers. Or, more commonly, headphones are used to avoid leakage. Sound spillage makes a recording difficult to mix and balance the sounds, which is a common problem when simultaneously recording several sources in an acoustic environment. Headphone monitoring is the best way to prevent the spillage, and makes the tracks cleaner and easier to control in a mixing situation.

Although there are certain differences for this particular layer technique, I got my inspiration from Adrian Belew and a David Bowie record he participated on. Here is what Belew says in an interview about the recording process:

Can you describe to us the very unusual recording sessions of David Bowie's "Lodger" (1979) album?

David Bowie, Brian Eno and Tony Visconti were working together as a team and they had an idea for the record to be called: "Planned Accidents." So, what they wanted me to do was accidentally play on the record. The idea was that I shouldn't know the music, or never hear the music beforehand. They would just play a song and I would have to figure out something to do as the song went along. They would give me maybe two tries, maybe three at going through the song, and then they would stop and not allow me to play any further. At that point, they would take everything I had done in the song and they would take the best parts and string them together and make them one composite guitar part. So, it's a

very curious way of making music, but the result was great. I love that record and I loved working with all those guys. (Belew, 2016)

This interview is relatively recent, yet I have been inspired by the method described here for many years, although the original statement was just not to be found.

Furthermore, from experience as a session musician, I find it appropriate to mention the method described above as very powerful when applied the opposite way. By successively stopping and listening to every recorded take, you get the right picture of exactly what you are doing at all times, and from that you may improve your performance. It also has a significant pedagogical impact if used with students, replacing the role of a session musician in a learning environment. As long as it is not manipulated, a recording never lies, and is therefore useful as a method and tool in educational contexts.

4.17.5 Niko Valkeapää, experience and dedicated knowledge

With a background in earlier experiences, playing music that belongs in the world music domain with artists like Mari Boine, Niko Valkeapää and others has been very inspirational and gave me the idea to bring in Niko to sing, and for no other reason than I like his voice. However, I imagined his characteristic voice could suit and provide something extra to the atmosphere of the piece, particularly at the ending. Niko gave it a shot in my studio on one occasion he was visiting at my house. I had asked him in advance, and he said he wanted to do it. He had barely heard the music, and asked me if I wanted something special, or if I wanted him to write lyrics. All I wanted was him to feel comfortable and do whatever he felt was right. He chose to sing a blend of joik¹¹⁰ and a melody line without lyrics. Niko's voice was an exciting contribution to the texture of the music. To me it had an immediate impact, but later on I figured it was the particular part that had a weakness in its composition. Moreover, combined with the fact that the voice was recorded separately from the orchestra, it made it difficult to match. The voice sounded a little outside the orchestra and felt forced. I made an attempt to manipulate the vocal recording with an approximate reverb similar to the room where the

¹¹⁰ Joik is the traditional Sami music form. Sami folk music is largely vocal and is called joik. Taken from Det Store Norske Leksikon, snl.no, accessed 4/7/2019. Translated by the writer of this document.

orchestra was recorded, though without luck. That is to say, the reverb was not the problem, nor the voice, but the whole part felt wrong. The experience and knowledge gained from this event was enriching in the sense that I have to work on becoming a better composer. It is also likely that I will return to the project at a later stage and work on the particular part with Niko in order to make the part work as a separate composition.

4.18 Other works, sessions, concerts, important logs, etc.

Some session work, and one concert in particular with my own project Westaman, became relevant to the dissertation and research. These are included as short anecdote-like stories. In some cases, these are backed by excerpts of the log. It includes writings about gigs and sessions, performed for others, both concerts and studio gigs, incorporated to highlight problems associated with my project, anything from dynamics regarding the actual playing with electronics, sitting or standing while playing, nervousness as a retardation in light of playing music that does not suit me, nor customized to my guitar with electronic arrangements, genres, interests and emotional considerations. Not all the anecdotes are supported with an option to hear the actual music. Even so, it is the information in the text that is the most interesting, and which underpins the quest in my project.

4.18.1 Notes from a week with concerts as a session musician, spring 2015

Last week's events are depictive for the transition from being a session musician to becoming a more independent artist. The events indicate a course in following my intuition regarding lust and heartfelt decisions on what kind of music to play and what kind of sound to pursue. This session gig was more than just a session gig. I got an invitation to play with Anne Grete Preus (AGP), from what she said based on what I am capable of doing with my guitars, making textures, and creating soundscapes with my arsenal of sound manipulating tools. Everything I used was incorporated in the set-up for the concerts. Based on the inquiry about playing a duo set, I decided to bring the electric guitar, the pedal steel, all the outboard effects (stomp boxes), the Mac with Ableton Live, Roland PK-5 bass pedals and some tools to play prepared guitar. During the rehearsal, I decided to try to keep it simple, meaning not to make difficult transitions between sound shifts or song shifts. One way to do

so is to only use a couple of effects simultaneously, and then use combinations of only a few effects at a time for each song, thereby raising the chances to remember all the sound settings and changes for the better. Thus, with a lot of gear and numerous possibilities available, it works better if the amount of simultaneous effects or tools is reduced to a minimum per song. On the other hand, I can vary more in creating different sounds and timbres on different songs since all the tools are available. This is most likely the case as long as the tools are used wisely or sparsely.

I also felt honored¹¹¹ to get the inquiry based precisely on what I can do with my sound tools and different guitars. I have played with AGP before, but never as a duo. That requires special preparation and rehearsals, more than usual because I have to rethink the concept (we usually play with a four-piece band), the songs and the sound picture. Some of the songs I had never played before. The songs were prepared in a way with a view towards taking a larger responsibility if something should go wrong. Ideally, it would have been optimal if I had taken total responsibility for the songs, but I did not. I focused on being a sideman with a specialty of laying different textures and timbres “around” the artist and her music. In that way, I was more capable of following the artist’s whims and able to see where she went musically. I also had to know the feel of the songs, the key and the structure, but not the whole song to be played note by note.

The performance went well, according to the audience’s response. AGP had invited me to perform a solo piece as an intermezzo, which is also an honorable gesture. The main idea was to create something contrasting to AGP’s material. I decided to use the contact mic in combination with the cello bow, a rubber mallet and a wooden mallet. As far as I remember, I did not use any of these features in AGP’s set. The challenge was to make the piece interesting to listen to. I wanted it to be dynamic, though without the traditional climax to avoid boredom, but it could sound big. Here is an excerpt

¹¹¹ On defining myself as an artist, terms like symbolic-, social- and cultural capital arise, put forward in *Distinction: A Social Critique of The Judgement of Taste*, a book by the French sociologist Pierre Bourdieu (1984), and should likely be discussed. However, I am aware of these perspectives, but they are not central to this project’s theoretical frame.

from the log for this particular composition and the emotional cognizance I had during the concerts:

The solo-intermezzo was received well by both the artist and the audience, and the crew favored the Os version. According to the applause, the Ålgård version was better. It was good for the self-confidence. Good recognition. Something to work on. Spent some energy on the title. Think it will be Ålgjerde Intermezzo and Bull's Intermezzo. Pleasant to have good friends present to play for (OM and his wife).

4.18.2 Sami Grand Prix 2015 and Aile Duo

The 2015 Easter holidays were spent working on the SAMI Grand Prix production as a member of the house band. Kautokeino was the site, and the band was working intensively every day for about 12 hours with rehearsals. After that, we went to a nightclub and played two funk sets without rehearsals, just like in the old days. For me, who had not played this kind of music in so many years, it was fun. I had to dig way back in my mind to figure out how to play this groove-based funk music. It has very much to do about playing in the pocket kind of rhythm guitar, which I did a lot of approximately 20 years ago as a session player. It felt like it was in my bones or in my spine somewhere, like picking up a bike and starting to ride it without too much effort.

Moreover, I had an idea to incorporate my “electronics department” in the songs we played with the house band, but I fancied it differently. Conventional guitar, particularly meaning playing without many sound-manipulative tools, became the natural choice. I ended up playing with regular stomp boxes such as overdrive, distortion, tremolo and delay, and just a few touches of the Boss DD5’s backwards loops. The reason was the music, I think. Mainstream pop music, as the repertoire was, required guitars played straight with a sound that worked for the job at hand. Anything else would either sound forced or take too much of a practical maneuver to get it right. That might be risky, especially when you need to focus on the song’s structure, the interaction with the band, guitar shifts between the songs, etc. Before the rehearsals, I had an idea about the ethnic component that could open up for a more experimental guitar sound involving electronics. Sami music is usually based on a rhythm and a minimum of harmonic changes, but in the Sami Grand Prix the songs were more traditional pop songs. There was even a country and western song where I got to show off my steel guitar skills. It was fun to do, and according to the

response from the audience and other colleagues, it was taken notice of. This was remarkable to me since I felt the playing was very heartfelt, a feeling I often get when I play the pedal steel.

Aile Duo, the winner of Sami Grand Prix 2014, played a show after the Grand Prix show that musically was on the other, lower side of the dynamic range of the Grand Prix show, a more silent expression with acoustic instruments and closer to its ethnic origin, like the music from Lapland tends to be. It opened up the possibility for me to play more experimentally. The songs were diatonic and had a simple structure. I used the contact mic to support and merge with the general acoustic sound. Furthermore, taken from the prepared guitar domain, I used a wooden mallet, the cello bow, “the fake” kalimba placed on the top of the head on my guitar, consisting of the ends of the strings coming out of the tuning peg. Effects were sparsely added to the sound signal, mostly filtered delay and a little bit of looper in Ableton Live, pitched up one octave.

Once again, I reflected on my role as an artist and a session musician. The gig’s character required me to be in the role of a session musician. On the other hand, the musical director wanted a guitarist who could color the songs with more than just the sound of a guitar. In that regard, it was the artistic side of me that was enquired about and utilized. It felt good to be trusted and have the freedom to come up with musical solutions that worked for me, and sounds I think worked for the total result. In situations like this, one is part session musician and part artist.

Unfortunately, I could not find a recording of this gig.

4.18.3 Session work, guitar overdubs on a Stefano Bollani track

This session came about when Jan Bang, who produced the track, Nu Quarto 'E Luna¹¹² (Bollani, 2016), asked me to lay down a guitar track for this piece. The task was difficult in the sense that it was rubato, and the chords were based on various orchestra samples using different pitches. The first guitar track was recorded in concert pitch 439, the second track in 440, though I could possibly also have tuned the guitar in 438. I had to make a decision based on the least common denominator. I chose the Gibson ES-175 with flat

¹¹² Released on Decca Records, 2016.

wounded strings, and the VOX AC15 with no effects. Because of a hum in the amplifier, I pulled off 24 db at 100Hz with a q-point set to 100. The preferred tool for this task would normally be the previously mentioned Waves Z-Noise plug-in.¹¹³ But for reasons I have forgot, it was not accessible for this session. Instead, the equalizer plug-in integrated in Logic X was used. There is a significant difference between the two plug-ins that I cannot describe in any other way than Z-Noise being preferential.

Furthermore, the choice of guitar made it harder to create one's own sound, especially for this piece, which was profoundly inspired by old Italian movies. The guitar sound I choose was typical for jazz players, especially from the 1950s and 60s. The challenge was to still make it sound good in a musical way. So, it boiled down to the choice of voicing, touch and feel with the strings, as well as timing, which in this case did not necessarily mean being tight. In such cases, it is just as much about how long each note is going to last, rather than when the note starts. Moreover, rubato has its own timing, and therefore requires its own kind of tightness not to be confused with metric tightness, and being locked to the beat. Rubato can hence be difficult to play, precisely because it requires such a gentle feeling with the timing. I would argue this is as demanding as playing linear and metric grooves tight. This problem also applies to most of the compositions in this doctoral project.

Jan also asked for soundscapes and textures, whose supplementary information is absent due to a missing log. However, it seems like it did not work, since the audible result proves there are no guitar soundscapes present in the final mix. In retrospect, it may seem strange to read this, especially if you have heard the track and noticed there are just a few strummed guitar chords present. The music itself explains how little is needed to add to make a song track complete.

4.18.4 Westaman in Kosice

As a justification for including this section, there are some interesting reflections at the core of the quest, purpose and research question. I have had many experiences similar to this one, without a log to back it up. Besides, I

¹¹³ For more information about the plug-in, go to www.waves.com

recollect this one as being special. To support the reading experience, go to YouTube, and look up Westaman in Kosice.

May 6, 2015

Arrived in Kosice. Line check and a little unorganized soundcheck, especially when checking our monitors. Noticed the "manager" responsibility already at the airport. Determination and clarity are qualities one must have, something I need more of. It is noticeable in situations like meeting the band contact at the airport (which is totally easy), meeting the contract manager, discussing the PR, when the accommodation facilities are not as agreed upon and discussing the set with the band. However, indeed I have the nicest guys with me, so no reason to problematize. It is more so that I register and observe myself.

Talking to David (Kollar), who tells me about his stay at the Robert Fripp event (see Chapter 3). Otherwise, discussed ideas for the concert with Jonas and Hallvard. Some musical ideas were launched. Seems like they are not interested in playing a pure ambient concert. I will accommodate this, and I look forward to what we will come up with at the rehearsal. I want to avoid the classic improvisational expression, the cacophonic, spastic. Jonas suggested to put in a 10-second "break" as an opportunity to avoid this. Otherwise, take the time, take it easy. I suggest that we take responsibility for each of our time frames, and decide on continuation and takeovers on cue, either in the form of sound, a sign or the like. My sounds are often weak and not always suitable to make adequate cues. I had an idea about playing the first three stretches, meaning contours of the three first tracks from the Westaman album as an opening, where I would be responsible for playing the field recordings. In addition, we also planned to open the concert with the recording of the swimming hall, recorded in a local sportshall where I live, i.e., play it while the audience take their seats. Otherwise, it was suggested that the different moments of liability may also be different "poles" (metaphor for agreed musical parts we can use as a last resort) we set up in cases where we dig ourselves away in meaningless improvisation.

May 7 and 8, 2015

Writing slightly intoxicated. The concert went above and beyond. Feeling good and it feels like I have made some correct decisions. It worked the way I had hoped. Someone in the audience had noticed and gave me feedback on what I like to look upon as going deeper into "things," which is different from superficial pop music. Calm, yet energetic. The audience liked it. (Too bad David Kollar was not there to give constructive feedback). It is exactly the superficial I have developed an aversion against over the years as a session musician. That is what I want to avoid and do something about. It feels like I am on to something. Hallvard and Jonas made a great effort. They got the picture. I felt moments of happiness, both on stage and afterwards when we were out and enjoying the company with the employees from Hevhetia (the record label). A lot to thank David for and Jan Sudzina and everyone in his staff, plus K13 and Kunsthalle. Good people. And, at last but really first, Eivind Aarset. But that is another story. I was excited as usual before the concert, but kept the focus. It was fun. Looking forward to the continuation. Had some moments with a strong sense of self-confidence I haven't felt before, both on stage and afterwards when we were out enjoying ourselves. A new feeling, simply. A sense of being satisfied (for once). There was a period within the concert set that I did not have control. Not so fun, yet I think it was still fine musically. And, I also felt a sense of pride and joy about having Jonas and Hallvard on board. You cannot avoid using clichés to describe that feeling. Moreover, it is a feeling I have not felt before. Got emotional about how fine the chemistry was, both musically and personally. It made me feel my intuition is right and that my ideas are worth something, that we have found something that is genuine together.

The feedback from the audience showed that they had understood what we wanted to pass on and express.

Entrepreneur lesson:

- *Should in principle not sign agreements with different languages, e.g., one in English and one in Slovak.*
- *Be early, inform the band about food and shelter, rapid flight shifts, changes, fees, etc. In relation to the organizer, be prepared and have as much clarified as possible, from hospitality rider, the introduction, soundcheck, CD sales, accommodation, day plan, food (when and where), recording, etc.*
- *Be more efficient with the Facebook updates, less keen on likes.*

Listening to the concert three years later, in hindsight I hear moments of the concert that could definitely have been better. The log informs about a reflection on a vision, a collaboration, playing together as a band, a group participation. Although this variant of Westaman did not become permanent, the discovery can nonetheless be underpinned by a statement from Philip Toshi Sudo:

With most groups in life, we don't bond. With a few groups we do. On those rare occasions, learn what it means to band and be a band. (Sudo, 1997, p. 69)

My experience described above indicates an obtained harmony from a social relationship reached from true musicians that get along. Make sure you surround yourself with good people, especially when working with your own projects.

Moreover, from the emotions that are described, it seems more like an affection, probably caused by factors such as the previous mentioned intoxication, the relief and the euphoric feeling that is usually triggered after accomplishing a concert. Additionally, which is not mentioned before, I also recall a relief from a surgery caused by a medical condition I had suffered from at the time. The information becomes relevant to explain the emotional utterance in the text. Nevertheless, the text illustrates a situation with an immanent power that triggers the drive to continue, improve and grow as a musician (and bandleader in my case), which I believe is recognizable to many musicians. Moreover, this incident became momentous to me and lead straight to the research question, what is the purpose?

4.18.5 Recording with or without effects

Without being able to pinpoint a particular track from the portfolio, there is a general experience gained over the years as a working musician that has been continually recurrent during this project, which is the difference between recording with effects or without, and hence to add the effects later. I did a bit of both in the last period of sessions for this project. One reason to play with the sound-manipulative tools while recording is to get a better feeling with the effects. And the effect itself may be the core sound and reason to record. Another point is to play “on” the sound, which means to shape the sound only by playing and let the effect itself direct the way it is supposed to sound. The reason for choosing to put on effects later is that the overall sound quality itself often gets better that way. Another benefit is the possibility to control the amount of effect you want the sound to have. If you record it with the effect on, you may regret the amount of effects and the balance between the direct signal and the effect for example. Furthermore, you adapt the way you play to the effect you are using. Thus, you play differently from when you play without effects, with a dry signal and additionally add effects to the recorded track later. Yet, it is a problem to take into consideration what one will probably encounter sooner or later as a guitarist in a recording context.

5 – Conclusions

Based on the experiences gained during this doctorate project and previous experiences in general, it could be timely to lift the discussion on craftsmanship and art to a more philosophical level. My assertion is that great art is not necessarily great craftsmanship. And great craftsmanship is not necessarily art. If handicraft is required to characterize something as art, I believe it will be reactionary and make it less likely for the art to evolve, to be free and to develop freely. This is not a new debate, and there is no need to deepen it at this point. But for further investigations that refer to session work and musicianship or any artistry, craftsmanship versus art should be brought up and illuminated.

There is still a conflict between being a session musician and a musician striving for a more personal and individual sound, yet I have shown a progression as a performer, which however is the least one should expect. During the entire doctoral project process, I have been thrown into this difficult field that consists of problems such as aesthetical dilemmas, economic and business-related questions, guitar technique, branding, different genres, personal musical desires and entrepreneurship. Nonetheless, these topics are not very different from the daily problems in a musician's life.

In an interview with Tor Dybo, Jan Garbarek describes how he compares the process of creating your own sound with that of learning an entire new language from scratch (Dybo, 1995, pp. 277-295), which is translated by the author of this document. Garbarek is reflecting on what could be called meditative phrasing, or meditation over a motive, an idea or a theme. He links the aforementioned soothing way of phrasing to his personality and an affection for calming things down. Garbarek compares phrasing to calm rather than nervous respiration (pp. 290-291). Although this refers to Garbarek's album *All Those Born With Wings*,¹¹⁴ it is applicable for what I have run into in my search for a new sound. Garbarek reflects back to the 1960s, and explains how he used to like that "nervous" respiration that he relates to John Coltrane and Cecil Taylor. He then weeded out what he references as Coltrane's "Sheets

¹¹⁴ Jan Garbarek, 1987, *All Those Born With Wings*, ECM 1324.

of Sounds" from his own playing. What was left were long notes or hardly any notes. As Garbarek explains, when you scrap a language, nothing much happens afterwards. One has to work up a new vocabulary, and it takes some time. You have to find words that are important to you, and do not use words that are important to others. These are words that belong to another reality (p. 291). This metaphorical comparison is applicable to the research I did in my quest for a personal guitar sound. Like Garbarek, I went through phases where long notes were the most interesting ones, and sometimes no notes at all. I have also reflected over how radical the change has to be in order to form your own language or musical vocabulary.

Moreover, in the furtherance of developing as a musician, I believe in high-volume exercise, an expression mostly associated with the sports field, albeit an expression applicable for music practice as well. What I mean by high-volume exercise is to be exposed to as many real-life situations as possible, such as concerts and studio situations, preferably in collaboration with other musicians, other performers, or music-related personnel, sound engineers, managers, etc. I have noticed that in busy periods with touring, preferably with the same repertoire, change and development evolves. Being exposed to an audience every day makes you more focused and more relaxed over time. However, I have chosen not to perform in concerts in my quest for a more personal and distinctive musical sound. Instead, I have tried a different and quiescent way for exploration and investigation. There are several reasons that stand out in relation to this, e.g., a radical change in the circumstances of one's life, and the need for a less demanding achievement in front of an audience, which in turn relates to the entertainment business in a way I found interfering and less suitable for the research process.

So, did I achieve what I aimed for? Did I find my own distinctive voice? What did I create? Did I create a new language from scratch? Or did I base my new language and expression on empiricism? Did I manage to create a distinct and personal sound? These are questions others should answer rather than me. But, of course, my opinion is yes. I am closer to a personal idiom now than before my doctorate began. A recurrent question for me during the process was whether I had to eliminate things from my playing, such as chops and clichés I have taken from others or just developed over the years. In all respects, the

answer is obvious; if the goal is to create something new, one has to get rid of clichés, referenced licks and such. I allege that building your own idiom is not only about what you do, but just as much about what you do not do. In other words, it is about elimination. This is comparable to Garbarek's experience on weeding out references and scrapping a language. For me, that experience was probably the toughest and most difficult, and the process is still not finished. In addition, the process raised a number of queries, such as: Is it really possible to succeed as an independent performer after so many years as a session musician? Is it possible to build a foundation on a distinct sound only to continue your career as an independent musician? Who will listen to your music? Is it possible to manage and make a living out of it? Or, is it too late? And, if so, why is it too late? Is entrepreneurship the decisive factor? Or, is it age? Has age something to do with it? What has changed? Did I quit as a session musician? Or, did I continue just as before? Or, do I live a kind of double life with different ways of expressing myself, both as a guitarist and composer? Is there a difference in sound between the compositions and the way I play? If so, what is the difference? And if there are similarities, what are they? Nevertheless, I believe it is possible to achieve a distinct and personal sound, but it requires an all-embracing turnaround. The process certainly implies the ending of a career as a session guitarist to the benefit of a more introverted, more deeply founded musical choice.

Furthermore, the extensive use of external and professional help, implementing other software such as Sibelius, Finale, Adobe Audition and Melodyne, raises a quest for a necessity to master a larger number of various types of software in order to be able to evolve as a performing artist. My research involved numerous situations in which I needed to call for help with mounting my music into software for score notation, repairing damaged audio tracks and more. And in transcribing- and composition mode, a more explorative approach towards the vast possibilities in spectral composition could possibly have been an even more interesting approach to pursue. The discoveries also lean towards a necessity and obligation, rather than a quest to create a totally new language. This means breaking up everything I have played before into pieces and starting all over again, quite like I perceived Garbarek's previously mentioned procedure and statements. Such a comprehensive process was not possible within the time frame given for this project. It is more likely a never-

ending process for anyone aspiring to make progress as an explorative and self-evolving musician.

Another interesting discovery that came into view in the process of writing for an orchestra was that the key to achieving a personal idiom may be through composition rather than improvisation, as I first had thought. The experience insinuated certain indicators in that direction: Composing slows down the entire process, gives you a better chance to make the “right choices,” enables reflection, makes it easier to “kill your darlings,”¹¹⁵ and paves the way for limitations that are useful for creativity. Recurrent themes in my compositions were discovered as gentle, quiet, unassuming, unobtrusive and subdued. Some may argue that some of these analogies are not necessarily positive, though for me they signal benchmarks for my music. Due to the necessity of outsourcing several tasks, some of the analogies describing my music may be derived and governed by technical limitations. Conclusively, the discoveries made here can be regarded as a result, albeit a surprising one.

I have also followed my musical needs and tastes, which there is rarely room for as a session musician. I have made an infinite amount of music that even I cannot bear. Therefore, I would rather make music that I like, without any thought of what others favor. Speculating on what type of music and sound other people prefer is exactly what you do as a session musician. The compositions you deal with are usually based on a speculation about what others will hear, attempting to adapt the music to someone else’s taste. If you want to create something unmistakably yours, a language, an artistic expression, speculating and adapting to someone else’s taste is distracting and must be avoided. In the long run, you will eventually be characterized by what you do the most. You will sound like what you play the most, and no matter what it is it will come to the surface. For this reason, it is important to take a stand on how and what you want to sound like. Put simply, you need to define your own aesthetic principles. Consequently, one can ask oneself: Is it

¹¹⁵ “Kill your darlings” means getting rid of the things you love the most. The phrase is used to suppress and prevent the overuse of a favorite sound, melody line, chord, technique and even whole compositions, etc., and has been attributed to many musicians I know. The phrase was originally spoken by William Faulkner, an American writer (...), who said “in writing you must kill all your darlings.” Taken from writerslife.org, accessed 3/15/2019.

necessarily always an advantage to be able to be versatile as a musician? Next, this may point towards a discussion of whether great musical craftsmanship is in conflict with artistry, a discussion I do not intend to open here.

The experience of the doctorate made me more aware of composing as a powerful method and a natural way to create your own idiom and sound. Hence, there may be a possibility to give grounds for composing as a way to change one's way of playing, and to develop a more distinctive musical language. Here, a statement that supports my assumptions is given by Pat Metheny:

(...) part of the reason that I started to write tunes was because there was a way I wanted to function as an improviser that I was not really able to do playing on a blues or playing on a jazz standard. (...) But there was a certain quality of something that I was not able to get to as an improviser until I started writing tunes that referenced everything that I loved. (Pat Metheny cited in Richard Niles, 2009, p. 19)

Although there was not the need for tunes adapted for improvisation, my quest was grounded in an aesthetic affiliation. In fact, I found it rather difficult to improvise and create melodic lines over the compositions I made during the doctorate. As a result, that will be the next effort, namely to create compositions that make it easier for me to improvise and create melodic lines whenever I should feel the need for melodies. The very last session, recording a lead guitar on *Entirety for Strings* illustrates the challenge on coming up with a valid guitar part. The process made me unsure as to whether I had the musicality or technical skills to create what I felt suited the piece. Or am I evolving as a composer rather than evolving as a guitarist, meaning the music I want to hear and compose has no interest in having the sound of a guitar attached to it? The immediate answer is that of course I want to develop as a guitarist, but in any circumstance, the compositions must direct the evolution of the guitar style I want to pursue, and not the other way around. Moreover, in this regard I found a quote from Bill Frisell relevant and endorsable:

In so many ways, it feels the same now when I play as the very first time I picked up the instrument. There's always this sound out there that's just a

little bit beyond my reach and I'm trying to get there, and that just sort of keeps me going. (Bill Frisell, 2019)¹¹⁶

The whole time while working with this project I recognize the feeling Frisell refers to, especially when it comes to the guitar parts. On the other hand, in regard to composition I have had the feeling that I have written the same piece over and over again, but in a different manner or with a little different strategy each time. However, this is most likely what artistic evolvement is all about: Do not try to innovate but trust yourself and innovation may happen, as conferred on the 12k principles displayed in Chapter 2.

Moreover, at the beginning I mentioned that there are exciting opportunities in mediating the recordings in 3D sound, also called immersive sound, or other binaural solutions. This technological and artistic direction is still very interesting, and I received an opportunity to compose and set up a piece for a multichannel speaker system at the end of the doctorate. The piece was accomplished by using the pedal steel guitar and the ES-175, together with a field recording of a car wash. The piece was named *The Flush*. Yet, at this point, this exciting lead had to be regarded as a delimitation due to the given time frame and a prioritization to be able to finish the doctoral project at all. As a result, there is a need for a deepening into the 3D sound domain, and I will continue to scrutinize the quest for such mixes in my prospective projects.

At the very end of the doctorate I met Zachary James Bresler, whose main field is immersive sound and 3D mixing. He was interested in mixing my music in 3D, and chose some of my pieces to mix. At the time of writing, the mixes were not ready.

The consideration of implementing studio recordings and concerts by inviting an audience to attend the studio sessions were down-prioritized due to the time frame of the doctorate. Hence, the possibility to broadcast the sessions online from the studio using streaming technology is definitely something to pursue for prospective studio concerts.

In broad terms, one may see this whole process as a self-realization project. There are continual hints and indications, with parallels to the psychological and philosophical domain. For further research, it is possibly of interest to

¹¹⁶ Taken from brainyquote.com, accessed 3/19/2019.

illuminate the psychological and philosophical aspects of the musician's musical lifecycles. It is not clear to me whether it is the musicians themselves or someone from the outside who should execute the investigations. But, from my point of view, a conscious approach to artistic evolvement should be a perspective that could be of interest for aspiring students and musicians, as well as for future scholars.

The entire research process has opened up questions about integrity. Can consistency in the choices of what music you want to work with form integrity and authenticity, and thus to a larger extent than the choices of a session musician whose work is solely based on handicraft and be able to fit in with anybody in any given situation? Authenticity is a vast topic and cannot be discussed further here, but for any aspiring musician the choice of style and idiom should be addressed. The more conscious an attitude you have towards integrity and authenticity, the better and genuine will the art be you are able to produce. It is merely about making choices, which one can be aware at as early a stage as possible.

I say that musicians should make a decision at an early stage in their careers whether they want to become a session musician or an artist. The first gigs you play may become decisive for the rest of your career. All musical situations and experiences will contribute to shape you as a musician and your personal idiom will most likely evolve from that, or at least be characterized by it. Consistency and determination are important keywords to keep in mind from an early stage onwards. One may allege this attitude is nurturing too much of an objective-based career path, rather than creating space to let the process in itself guide you by following your heart and intuition. Nonetheless, I think there is a need for a more conscious attitude and willingness to change, which will make your idiom even more distinctive. Frankly, my experience is that, in addition to great craftsmanship, originality, personality and social skills are the most important proficiencies for a session musician. These qualities are universal and human necessities, and should be continued whether you decide to become an artist or pursue a career as a session musician. Most likely, there will be a need for session musicians in the future, though whether they will all want to become artists is not known for sure. But my impression is that it depends on each musician's personal ambitions and interests. One can also

develop as a session musician without becoming an artist, and in that regard focus on constantly improving his/her craftsmanship and technical skills.

In order to develop as a composer, highly skilled knowledge in how to use music notation software is required. Today's students are offered courses in notation software such as Sibelius and the like. I therefore believe it is of great importance to teach the coming generation of musicians in how to use notation software, and I wish I had been exposed to related software at a much earlier stage in my career.

Moreover, there are also reasons to give grounds for mastering music recording software in order to proceed as a musician today. These are the same tools that have shaped modern music and made it possible for musicians to develop new forms and sounds, and consequently distinctive idioms. In the process of this doctorate, I have laid the groundwork for- and facilitated a technological multi-practice. The utilization of the different technologies encompassed include playing the guitar with sound-manipulative effects, looping as a tool for accompaniment, creating soundscapes, trying out ideas that lead to compositions, transforming recorded audio to MIDI in order to create scores and using DAW to sculpt sound and create compositions. This field of utilization is not new, but has become more clarified through this work. The musicians of our time will have to deal with the available technology. And, if they are profoundly acquainted with it, it will increase the likelihood of reaching even farther regardless of the type of career you have set for yourself.

When I play "straightforward" guitar, there is a difference in doing that and playing with electronics. I may strive for a "traditional" great sounding amplifier, a certain pick-up combination, etc. Some amps are more suited for a "straightforward" normal guitar sound, whereas other amps are more suited for electronics, meaning manipulated sounds. I have always been aware of this problem, but probably on a more subconscious level, as it became clearer in this process. Consequently, it could be appropriate for further investigations to test running all manipulated sound through a regular guitar amplifier without splitting the signals like I do now. Another problem that needs further scrutiny are the difficulties with dynamics when playing with electronics and sound-manipulating tools in a typical performance situation, such as a concert or

rehearsal. I am still struggling to play, control and create the dynamics I aim for. The doctorate process gave me some leads, especially the nonviable investigations searching for a fuzz tone, which was not widely discussed. However, compared to experiences with electric guitar and amplifier and classical guitar, there are possibilities and historical traditions and techniques to control and create dynamics in one's playing. I see the need for similar techniques and a theory to cope with the dynamic problem of guitar along with electronics. And, more importantly, it is important to train to acquire the ability to master and create the necessary skills to play the guitar with all the technology on autopilot. And the way to achieve this is pretty simple: practice and repeat, and practice more and repeat, over and over again. Or better yet, play in front of an audience as often as possible. In this way, one is forced to obtain what is otherwise not possible, which is in line with what I have previously pointed out as a high-volume exercise, an extensive playing practice.

Furthermore, at a deeper level and according to Maslow's hierarchy of needs,¹¹⁷ there is a great deal of self-realization in this project. Without any intention to open up a discussion on psychology, I nonetheless find this interesting and worth mentioning. When all primary needs are met, meta-requirements will apply. The drive in the musical part of this project derived from a selfish need, and I find support in different writings from the field of psychology for this alignment:

(...) Maslow attempts to transcend the dichotomy between self-actualization and self-transcendence: "The spiritual life ... is part of the Real Self ... To the extent that pure expressing of oneself, or pure spontaneity, is possible, to that extent will the meta-needs also be expressed" (Maslow, 1967b, p. 1[3]). Actualization of one's biological real self therefore involves actualizing absolute values and meanings that take the person beyond the self. Self-actualization and self-transcendence

¹¹⁷ Self-actualization is at the pinnacle of what Maslow defined as a hierarchy of human needs. In this hierarchy, lower needs (described as "pre-potent" needs) must typically be met before higher needs emerge. Physiological needs are the most primary in this hierarchy. Taken from Britannica Academic, academic.eb.com, accessed 3/22/2019.

therefore turn out to be simultaneous and equivalent, or synergic (collaborative). (Michael Daniels, 1982, p. 69) [sic]

This shows a great deal of an emotional aspect and a perspective that is also characteristic of my musical path, choices and evolvement. This also provides reasons for a belonging in the field of psychology as well. As previously mentioned, the motivation for my musical performance was extrinsic, stemming from a need to pay the bills, show craftsmanship, please an audience, etc. Working with my own music rather than another's music, the motivation has changed from extrinsic to intrinsic. The emotional drive also reflected the reactions dealing with the experiences with death during this doctorate. Excluding the latter, there are possibilities to ground studies of a musician's evolvement in the field of psychology.

There are additional questions that came to the surface while working with this project: Has age something to do with it? I have asked myself, is it not a little late for self-realization? Is it possible to migrate or to become an artist at age 50? Is it not something that should have been dealt with earlier? To what extent has age had any meaning in creating a personal musical idiom, and to become a more individual artist and performer? Perhaps these investigations have shown it is a little late to start searching for your personal idiom as a quadragenerian, although for me it started earlier. Yet, my opinion is that it is never too late, but the results of this research provide valuable information to pass further on to young players. It shows the importance of finding your own voice and starting the quest as early as possible. I find Michelle Obama's quotation below inspiring, and it summarizes and underscores the endless process of development, both as a human being and an artist:

For me, becoming isn't about arriving somewhere or achieving a certain aim. I see it instead as forward motion, a means of evolving, a way to reach continuously toward a better self. The journey doesn't end.
(Michelle Obama, *Becoming*, 2018)

Another important question to me is what kind of music came out of this project and the investigations? A suitable description is simple compositions for a complex sound. The description may have been stolen from Chas

Smith,¹¹⁸ though I have not been able to verify it, even after numerous Google searches. The compositions consist of relatively simple components, including harmonic, melodic and rhythmic. However, what contributes to making the music more complex is the outcome of the audio manipulation. It can produce unparalleled harmonic combinations and textures, which in turn can be impossible to plan or compose. Moreover, honing the electronic guitar textures against an acoustic sounding environment, which I planned for, did not necessarily come out as expected, just differently. The results did somewhat make the electronics not so alienated, as the blend seemed to balance in a way I like. For further investigation, it could be interesting to pursue the possibilities in crystalizing texture and timbre in the acoustic domain, particularly for the symphony orchestra. I do not intend to discontinue honing the guitar electronics against the acoustic sounding environments. It just appealed to me how vast and infinite the possibilities are to create textures with the orchestra. Perhaps this suggests for me to concentrate more on composing for orchestra in the future?

It is also unsure whether I have succeeded in creating an original idiom. It is difficult for me to evaluate and will leave it up to others to judge, although my evaluation is that I am on to something I like. Hence, it sets a course for my musical direction, something to pursue.

Moreover, it is timely to ask: Did I become freer as a musician? In my opinion, the answer is probably derived somewhere from personal experience and impressions over the years, and emphasized during the doctorate period. Believing in doing mainstream session work for commercial purposes in a combination of cultivating an idiom is very likely to fail. If you want to succeed in becoming an artist, you have to be fully focused on the task, which means an elimination of all session work. One of the more disturbing obstacles I have experienced in my quest for a personal musical expression is the continually recurrent thought: What would your colleagues think? From a

¹¹⁸ Composer, performer, and instrument designer Chas Smith (born 1948, Hardwick, MA) has appeared on dozens of feature film scores, rock, jazz, and blues albums playing pedal steel guitar and organ, but since the 1990s he concentrates on his impressive metallic sound sculptures. (...), he builds his own instruments, structures that can be struck or bowed in various places, and writes for them. [sic] Taken from [allmusic.com](http://www.allmusic.com), accessed 3/25/2019.

session musician's perspective, with all its appurtenant and immanent focus on technical skills, cleverness and musical handcraft, etc., it is unavoidable to think about your colleague's reactions rather than the music itself. It is rooted in good, old-fashioned musicianship. Put simply, you have to forget about your colleague's opinions. You can define your audience, and if that is going to be your colleagues, your music will resonate thereafter. If you want a radical change and create an idiom, you have to redefine your audience, and maybe that audience is only you, at least for a start? Your audience will then reveal themselves, which depends on many other factors such as marketing, trends, musical taste and so on. It is a never-ending quest for refinement that contains a vast area of topics for further investigation. Put simply, you can do it to death.

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Appendices

CD

Tracks:

- 1: *Entirety – the album version*
- 2: *Entirety for Strings*
- 3: *Entirety for Piano and Electronics*
- 4: *Pipp Popp*
- 5: *Germinal*
- 6: *Choir Mallets*
- 7: *Clarinet*
- 8: *Linjesjekk 27*
- 9: *The Always Juvenilia*
- 10: *Testing Ideas 01.02.2018*
- 11: *Timbre Trouble*
- 12: *The Only Characteristic is Duration*

All compositions by Bjorn Charles Dreyer

Clarinet, Entirety for Strings, The Only Characteristic is Duration, Choir Mallets, and Pipp Popp composed with contributions from Jan Bang

Kristiansand Symphony Orchestra conducted by Per Kristian Skalstad

Mixed by Erik Honoré at Punkt Studio

Mastered by Jens Petter Nilsen at Tinfoil Audio

Art Design by Tor Jarle Wergeland

Scores

- *Entirety for Strings*
- *The Always Juvenilia*
- *The Only Characteristic is Duration*
- *Timbre Trouble*
- *Entirety for Piano*
- *Clarinet*

