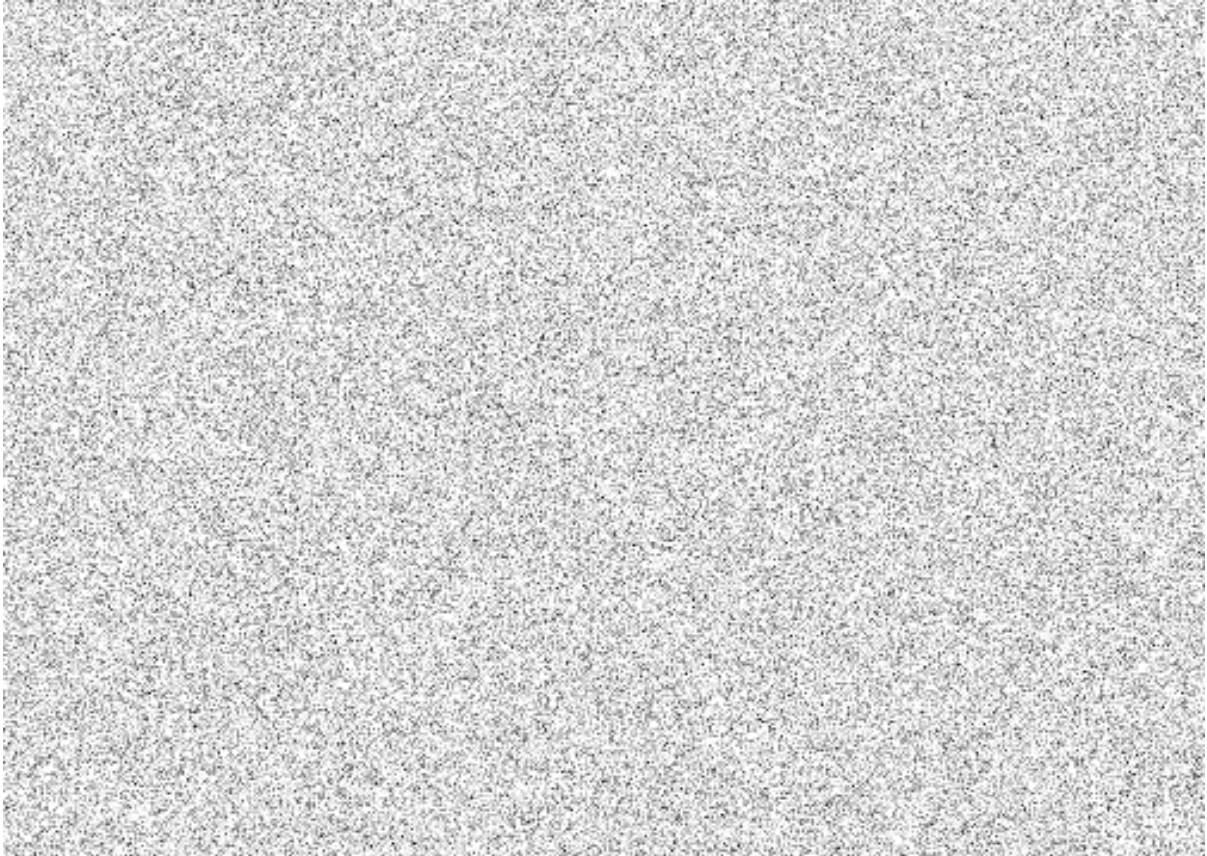




GÖTEBORGS UNIVERSITET
HÖGSKOLAN FÖR SCEN OCH MUSIK



Using Noise as a Compositional Tool with Different Perspectives

Merve Erez

Independent Project (Degree Project), 30 HEC, Master of Fine Arts in Composition



Academy of Music and Drama, University of Gothenburg

Independent Project (Degree Project), 30 higher education credits

Master of Fine Arts in (Composition)

Spring 2020, Semester 4

Author: *Merve Erez*

Title: *Using Noise as a Compositional Tool with Different Perspectives*

Supervisor: *Joel Eriksson*

Examiner: *Per Anders Nilsson*

ABSTRACT

This thesis shows my approach to musical composition in relation to the usage of noise as a tool with a narrowed-down perspective. In contemporary art music, our ears got accommodated to noise. Noise also is everywhere in daily life. It is daily life itself. But if we discuss the term either philosophically or scientifically, we can see that it is extremely complex. Because then, the definition we attribute to noise in daily life is beyond its dictionary definition. How can we use noise, that we are so familiar with, despite all the complexity it brings along, both in daily life, and from the audio world, as a compositional tool?

Keywords: noise, everyday life, composition, extended techniques, japanoise, sound mimesis, daily life, futurism

*Special thanks to Sinan Erez and Akamaru for their support and patience.
Huge thanks to Malin Bång and Ole Lützow-Holm for generously sharing their knowledge with me, and, Joel Eriksson for the tremendously valuable feedback.*

Table of Contents

ABSTRACT	2
Preface	5
Introduction	6
I. Noise and Different Perspectives	6
1. Audio/Electroacoustic (Electronic) Side	7
A. Ethos.....	9
B. A Fine Line (tape part).....	9
2. Acoustical Side (imitation of nature)	13
A. Come out Into the Open.....	13
3. As a musical element	14
A. Constant Motion.....	15
B. Bellum Omnium Contra Omnes a.k.a FFA!.....	15
4. Symbolic Side	17
A. Playground of Yesterday.....	17
B. Bellum Omnium Contra Omnes a.k.a FFA!.....	19
INTERLUDE	20
II. The Influence of Literature and History on My Usage of Noise	20
1. Influences on Electronic Side	20
A. Pierre Schaeffer, Cinq études de bruits.....	20
B. Merzbow/Masami Akita, Pulse Demon.....	21
C. Oscar Sala/ The Birds.....	22
D. Relation with me:.....	23
2. Influences on Acoustic Side	24
A. Edgar Varèse, Liberation of Sound and Ionisation.....	24
B. Sound Mimesis, Tuvan Singing.....	26
C. Relation with me:.....	26
3. Influences on usage as a musical element	27
A. Helmut Lachenmann-Gran Torso.....	27
B. Relation with me:.....	27
4. Influences on Symbolic Side	29
A. Noise, The Political Economy of Music by Jacques Attali.....	29
B. Ivan’s Childhood, Andrey Tarkovsky.....	29
C. Relation with me:.....	30
III. Discussion	31
IV. Summary	31
V. Results	32
References	34

Preface

I am always curious about sounds, and that's why I applied to the university for a bachelor degree in sound engineering, yet I graduated as a composer. During the days I intended to be an engineer, I noticed that composing music is very similar to mastering and mixing. A whole symphonic orchestra with a full sonic spectrum! And the fact that composing music for orchestras is analogous to mixing was such an exciting idea for me, and it changed my life. As much as I try to conserve both my composer and engineer sides, my engineer side affects my composition style, and also my relation with electronics. It expands my acoustical knowledge for example. All in all, this thesis is written by a curious, inquiring listener affected by these two disciplines.

The purpose of this thesis has two points:

The first one is to understand my relation and obsession with noise from every aspect, and the other is to understand how to use sound, a notion that I think about very often in my daily life, and a necessary element in my music. Nevertheless, I preferred to take these two notions as a whole, instead of treating them one by one.

While trying to gather my ideas for this thesis, I had difficulties in understanding why I make use of noise in my work, whether in an abstract or concrete manner. I tried to understand whether I use noise because it is popular, complex, or simple. Even if I was able to roughly answer these questions, I still asked myself how I can use, or did already use noise, and which methods do I prefer. Art is susceptible of being extremely subjective, but as artists, it is very important that we understand ourselves, in order to be consistent in what we do. During this thesis, I also underwent some changes, as two years is a long time. And since the last quarter of this thesis was under the COVID-19 quarantine, I had difficulties to keep my stability, which I tried to keep during the whole thesis.

In this thesis, I discuss 5 pieces I composed during my master degree and 1 fixed media piece I composed in 2016.

- Come out to show them, 2018 Fall, for improvisation ensemble.
(2 guitars, 2 saxophones, 1 drum, 2 double basses, 2 vocals)
- Ethos, 2016 fall, for stereo pair
- Constant Motion, 2019 spring, for trio
(flute, percussion, cello)
- Playground of Yesterday, 2019 spring, for string ensemble
- A Fine Line, 2019 fall, for solo percussion and fixed media
- Bellum Omnium Contra Omnes a.k.a FFA for symphony orchestra
Premiere will be held in June 2020.

Introduction

I believe that, when we are in our mother's womb, the sounds we hear (sounds internal organs make) are close to white noise. We start defining the world in our minds with an ensemble of spooky sounds as a guide, which we can roughly call "noise". As we grow up, and keep defining more things about the world we live in, we may associate noise with different contexts. Nevertheless, it is not a trivial task to give a clear answer if one was to ask the question "what is noise?". To put it simply, for my grand mother, noise could be associated with death metal that I listen to, whereas for my neighbor, it could be associated with the sounds created by some reparation I do at home.

This thesis is documenting my personal journey of exploration, where I discover things about myself, while creating music with noise as a tool. In the title of this thesis, "Using Noise as a Compositional Tool with Different Perspectives", the term "perspective" is actually my personal, very subjective way of approaching noise, driven by my personal understanding of aesthetics, rather than a bunch of universal perspectives. This is why, instead of treating noise as a term from every aspect, I, as a composer, preferred to explain why and how I used it as a tool for music composition. I wanted to treat the subject in four parts, since it is easy to derive from the subject as the count of parts increase. To narrow down my focus, I decided that my acoustic works and electronic works each should have their own chapters.

I would like to bring some clarification to the term "tool". This term that will come up again and again during this thesis, can be literally a tool, an object, such as a saw that is recorded, or it can be a helpful mindset. What I really mean is that, a "tool" is just a means to achieve a compositional goal, and not the compositional goal itself. Thus, anything can achieve my purpose can be a tool, like the example above: capturing a saw sound and using it in an electronic medium. We can create timbres, or use ones that already exist, and process them in the direction of our purpose.

This thesis has two parts: In the first part I discuss noise from four different perspectives that are generalizations of my aesthetic understanding and I give examples from my own works, that I composed during the thesis. In the second part I relate my choices to history and literature and I discuss how history and literature influence my choices.

I. Noise and Different Perspectives

The Futurism movement, which was born in Italy at the beginning of the twentieth century, still has influence today. It is an important milestone about noise, as it focuses on the impact of the mechanization that appeared after the industrial revolution in our lives, and stands up against the past. This movement that embraces a modern lifestyle and all the sounds that come with it, and which tries to sever its ties with the past, contributed a lot to the world of sound, such as the futuristic manifesto of Luigi Russolo. This manifesto claims that the sounds we use are old, and we fail to represent technological sounds, and that we need new instruments that can reproduce new and technological sounds. It also emphasizes that we have to make our peace with noise. Afterwards, this movement was an influence for many genres, and added other perspectives to the term "noise". I will talk about a few of these perspectives in my thesis.

For years, Beethoven and Wagner have deliciously shaken our hearts. Now we are fed up with them. This is why we get infinitely more pleasure imagining combinations of the sounds of

trolleys, autos and other vehicles, and loud crowds, than listening once more, for instance, to the heroic or pastoral symphonies. [1]

Today, we can discuss from different perspectives, modern life noises, that used to be “provocative”, and about which manifestos were written at the beginning of Futurism. This term that used to be seen as futuristic is now a mundane thing in our life, it is part of our life. Noise itself became a complex term, a term that is very difficult and tricky to give a definition to, because it may be seen as an ensemble of unwanted sounds for authorities, sound pollution for environmental science, or even as an enveloping wall of monolithic sounds for a harsh noise admirer. As I mentioned before, “noise”, as a notion, as a term, has become the definition we attribute to random sounds in daily life, and went beyond its dictionary definition by time. Depending on our approach and perspective, we can come up with lots of different definitions for noise. The reason I split this thesis into four perspectives is that, even if these perspectives cover some common ground, they also have properties proper to them, and I could explain them within their own contexts, and illustrate them with examples. The reason I chose specifically these four perspectives is that, the pieces I composed in the last years are closely tied to these four perspectives, and I always made use of these points of view. These perspectives are: Audio/Electroacoustic side, Acoustic Side (Imitation of Nature), As musical Element and Symbolic Side. My purpose is to discuss noise from four different angles, and to try to reduce the complexity of the word “noise”, even if a little bit, by giving examples within contexts.

1. Audio/Electroacoustic (Electronic) Side

As I mentioned before, we can easily get lost in the topic of noise if we don’t encapsulate it in a specific context, although it still retains an important degree of complexity even limited by a context. For example, a question such as what is sound, or what is noise can make things much more complex. That said, I think it is necessary to explain some terms. In this part, placed noise into a frame of audio, and tried to explain it from that perspective. First I would like to quote myself, from an essay I wrote in 2014, intitled “art for what”, in which I talk about the terms I want to clarify.

The universe we live in is in constant vibration, and each vibration has a proper frequency. This fact alone is enough to make one associate the universe with sound. Some of these frequencies have such low values that they are not audible by human ear, whereas others vividly pierce our ear. Sounds have their own sub-classes. Mehmet Ergüven gave place to a very interesting quote in his writings(Our World of Art: 79 Sound, Tone, Noise) from Dane Rudhyar: "Sound (in the non-metaphysical sense) simply refers to the transmission of vibratory motion and its perception by the auditory center in the brain after the various parts of the ears have resonated to it. A tone is a sound that has conveyed (or can convey) significant information to the consciousness of the hearer because it is charged with and transmits (or can transmit) the special nature and character of the source of the sound. Thus a tone is a meaning-carrying sound" (Dane Rudhyar, The Magic of Tone and the Art of Music).

According to Rudhyar, sound is composed of tone and timbre. Timbre is more open and inert, in contrast to tone which has a purpose. If we roughly integrate sound classes into sound, we encounter Mehmet Ergüven’s definition as following: “Sound is a part of timbre, and at the same time it contains timbre. As soon as something resonating becomes a timbre with a meaning (tone), it is divided into sounds" (Our World of Art: 79 Sound, Tone, Noise). The first thing we encounter past the classes of sound is silence, which is complementary to sound, and

gives it most of its meaning. Since everything is constantly vibrating and these vibrations are modulated by other vibrations, eternal silence does not exist, but sounds that do not reach our perception threshold “suspends” the ones that do, and it will create space for sound by creating “silence” until more sounds cross that threshold.

These two states (sound and silence), elements of a spontaneous duality, will always follow each other in order to give each other meaning. Sound comes with silence and silence comes with sound. If we thought of an invisible line between silence and sound, it would probably be a rhythmic movement, in order to concretize the sound. In brief, when we talk about sound we got tone, timbre and silence. We could define noise as a side of timbre that resists the acquisition of meaning (tone), or far from the worry of it.

Nevertheless, whether a sound is noise or not is a very open ended subject. If we say that noise is a hybrid of timeless and meaningless timbres, we would be clarifying roughly the line between sounds. Basing ourselves on previous definitions, we would see that noise has an intersection with a class of sound (timbre) but stands against another class of sound which is tone.

General understanding of music is more harmonious and mathematical, as it is in tonal harmony. Even if at a first look music and noise could seem like opposite things, they are condemned to be interlaced, since both have sound as their foundation. At this point, it could be the sounds' rhythmic organization and the worry of harmony that determines the difference between noise and music. Sound, while being completely one with music and noise, also defines the line between music and noise with its class properties. In the same way that sound creates a complementary duality with silence, in our day, music and noise add up to "noise music". This border between music and noise which was once very strict, now kind of melted and the concepts music and noise began to fuse. For example, now some pop songs contain intentional noise. Humans' time perception, which affects their rhythm perception could detach them from the disturbances that are attributed to the idle state of noise. In other words, what makes noise itself for humans is essentially its rhythmic disorganization. Patterns and intervals that their ear are used to help them to accommodate.

When shaped by rhythm and time, sound, music and noise become spontaneously part of each other and intersect. To give it a very simple example, in a concert hall, when musicians execute music, someone could cough. If we perceive the cough as noise, as a factor that disturbs the music, we would be ostracizing a lot of things about sound. Even if the transition from sound to noise and the transition from noise to music seem to be strict, there is still a very fragile equilibrium. Technical distortions of sounds could give possibility to a transition to noise or some rhythmic repetitions in noise or harmony could give birth to a transition from noise to music. [2]

If we try to define it in a more lexical way, noise in fact is a technical audio term. “In audio systems, noise is the electrical interference or other unwanted sound introduced into the system. (i.e. hiss, hum, rumble, crosstalk, etc.)” [3] “White noise, a signal whose spectrum has equal power within any equal interval of frequencies “ [4]. But I will define it like this: “noise is a timbre between regular and irregular sounds”. Unlike concepts that evolved through time, I just wanted to narrow this term down to “irregular signal”. As I mentioned in the excerpt above, noise is a hybrid of timeless and meaningless timbres. In this part, I label as noise sounds that do not have a set period (number of oscillations), since the signal does not have a stable fundamental frequency (i.e. 440hz). This part emphasizes the production or process of noise in electronic media, in order to be a tool.

A. Ethos

This piece that I composed in 2015 in an electronic environment, and which was played during the Sirene festival in 2018 in the EAM concert, explores the idea of “tension – release”, and is both a synthesis and sampling work. Here, the idea of tension is also present, commonly put, as “which is undesirable”. The use of noise in this piece, and the idea of tension – release, takes its roots from the organization of “regular – irregular” sounds. Acoustic samples are processed with basic synthesis techniques, and then enriched with filters and careful arrangement, which led to the creation of an electronic media composition. In the waveform below, we can also see the release-tension parts visually. This is a pure electronic piece.



Graphic 1. “Ethos” waveform, 0.03-4.17’, Audio 1.

B. A Fine Line (tape part)

This work is the tape accompaniment for the solo percussion project I made in autumn 2019, for the Sirene festival. It is a 48 channel multi-layered noise work. 9 channels of it are made from the MIDI output of the original xylophone part, that is revised in the electronic medium, reinterpreted as white noise, pink noise, and harsh noise (in order to preserve the dialect). Other sounds are: recorded bell, rain, fly, kitchen sounds filtered and processed in electronic medium, with 8 bit VST’s and granular synthesis. In the full score of the piece, the real waveform of the electronic part is used, in order to give cues to the performer. (A sub-tool of the electronic part could be to use sound as a visual).

The piece refers to the painting “Tembellik (Lazyness)” from the series “Yedi Günah (Seven Sins)” of the painter Cemal Erez. [5] As it is clearly seen in the painting, the main theme of this piece is laziness, which I interpreted with my own language as daily life sounds and relationships that never develop.



Picture 1. Erez, “*Tembellik*”, 2018, *Yapı Kredi Kültür Sanat Merkezi*, İstanbul

The piece is composed of a bunch of motifs that never get to be developed. A life form too lazy to develop any theme, lost in the noises of the daily life.

17

Tape

Xyl.

p *ff* *p*

22

Tape

Xyl.

mf

4

27 buzzing insects

Tape

Xyl.

p *fp* *f*

31

Tape

Xyl.

p

Example 1. "A fine line" m.17-33, Audio 2

Example 2. “A Fine Line”, m..41-49.

Graphic 2. “A Fine Line”, Cubase channel list, ch.14 - 44, 0’-5.51”

These two examples include noise layers I created with virtual instruments or synthesizers in digital platforms. The first one is a pure electronic piece (Ethos), and the second one (A Fine Line) is a collaboration of a digital piece with an acoustic instrument.

2. Acoustical Side (imitation of nature)

One different perspective I want to talk about is the acoustical one. It is possible to find almost all kind of noises in daily life. Our environment has been transformed after the industrial revolution. Machines, engines, and the increasing population amplified the white noise layer of cities. Aside from being a direct word or term, noise is a notion that can be explained with an ontological purpose. Noise is usually accepted as a phenomenon that is annoying, disturbing, and distracting. This is where the notion of “soundscape” greets us. For example, each city has its own sound profile. I believe that it is possible to gather information in our minds about a city or a place, by just listening to its daily sounds, and I do not think we need sophisticated sociopolitical analysis, or technical knowledge for this. For example, a person foreign to Istanbul can easily conclude that in Istanbul, life is not affected by the night, and most places are open until the morning, just by sitting in a bench and listening to the sound of the city.

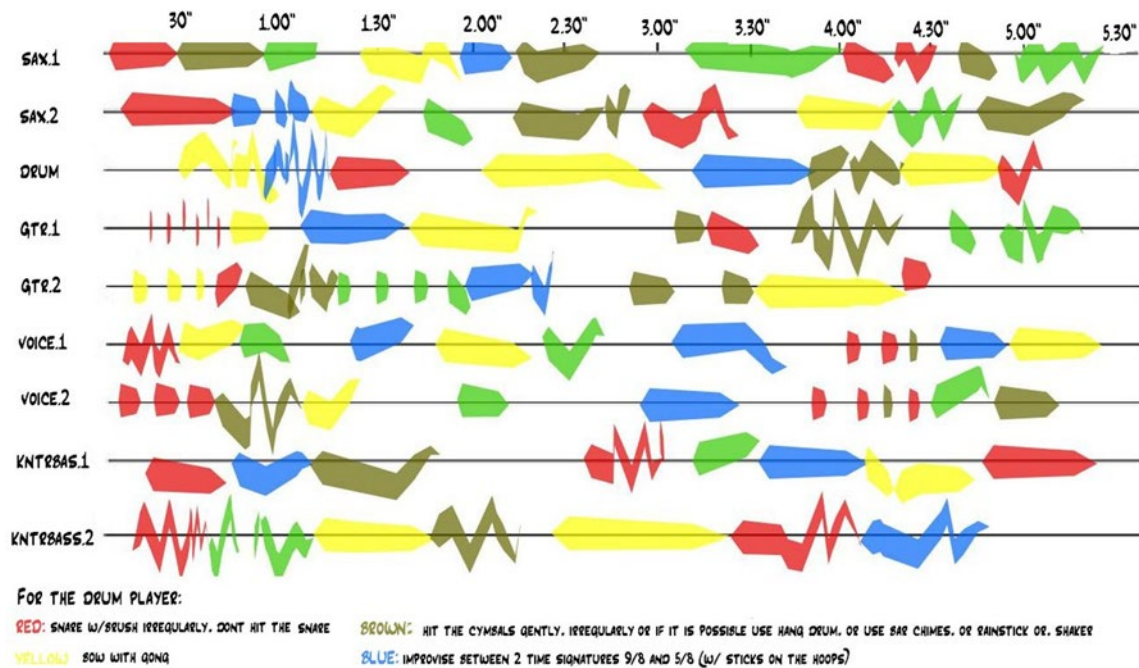
One perspective that adds complexity to the definition of noise that I mentioned in the introduction is the one of acoustic and imitation. The topic of imitation of nature always updates and redefines itself with new eras and artists, but I preferred to take Aristotle and his “sound mimesis” as a reference. Aristotle claims that the purpose of art is imitation.

Plato uses it in this way, saying that the artist or poet "imitates" phenomena of the real world in his work, and that the poet "imitates" in a special sense when he impersonates a character, as in drama. For Plato, such mimesis cannot capture reality, because that resides only in his Forms, so that it remains mere counterfeit, but Aristotle, who also uses mimesis of the process and product of art and poetry, disagreed with Plato about the question of reality. He claimed that poetry represented a universal truth, and distinguished it from history in this respect. [6]

As a composer, even though art doesn't have one precise way to do things, I believe that I imitate nature a lot. Hence, this part shows my choice of acoustic conditions for noise or noisy sounds, either performed with acoustic instruments, or vocals. Of course, this might vary depending on where the person who will use a tool with this perspective grew up or lives at, because each of us grow up in different environments that have their own dominant sounds. For someone who grew up in the middle of a city, industrial sounds might have become natural, or, on the contrary, someone who grew up in a coastal area far from the city might think of natural sounds as birds, or sea sounds.

A. Come out Into the Open

This piece is composed for a 10 people improvisation band, in collaboration with Barbara Jansen, inspired by her postdoc project, “Inspired by Nature, Temporal and Structural Patterns in Textiles”. [7] It was composed in 2018, and its premiere was made at the venue Katakomberna, Mölndal. While working on this project, Barbara shared with us some pictures of microscopic slices of trees. Every person working with her got a different inspiration. The way I approached this project is, to first observe the pictures, and distinguish common patterns or properties. Then I used these similarities to create a piece intended for improvisation. The piece tries to reconstitute microscopic and macroscopic elements of the forest as sounds, with zoom ins and zoom outs to the forest, as a timbral composition. To each instrument group is attributed a color. The horizontal axis represents time, and the vertical axis represents velocity.



Example 3. “Come out into the Open”, Drum part.

3. As a musical element

Noise, which has an undeniable place in our ear, our life, and the contemporary music scene, can be used as a musical element, and might be a very helpful tool while composing music. Noise doesn't have to be a background, or a sound sculpture. It can exist as a musical element in the world of sound, as seen in recurring examples in the history of music. For example, the thunder machine or sheet is requested in many orchestral scores, notably in Strauss's *Eine Alpensinfonie* (1911–15) and in Havergal Brian's *Gothic Symphony* (1919–27).

A working definition of music for our purposes might be as follows: music is an intentionally organized art form whose medium is sound and silence, with core elements of pitch (melody and harmony), rhythm (meter, tempo, and articulation), dynamics, and the qualities of timbre and texture. [8]

In order to use noise as a tool in musical context, we can shape it by building it on top of the definition above. Among these elements, it is even possible to phrase noise, to use it in a rhythmic pattern, create soundscapes, or to formally relate it with classical period music. Depending on the aesthetics view of the composer, the ways of using tools and musical elements may vary a lot. For example, in my case, noise is something I can combine, gradually or not, with most instruments, and also is very important element that helps me to create phrasings. For example, airy to ordinario for woodwinds, or simply, bow pressure for strings. Elements such as phrasing and variations that we obtain in this way may help us to create structures, and musical forms.

A. Constant Motion

I composed this piece for the Mimitabu trio in 2019. It consists of a prepared percussion, flute and cello. The prepared marimba has sheets of aluminum foil placed between keys in the range of C3 and A5. This helped me create a noisy, percussive effect, which was complementary to airy and pressures techniques that I frequently use with the cello and the flute. As a result, I prevailed in creating a timbral cadence. With the help of extended techniques, I managed to obtain pitch and loudness by creating airy timbres with these instruments.

10

The musical score is for a 3/4 time signature piece. It features five staves: Flute (Fl.), Gong, Marimba (Mar.), Cello (Vc.), and Flute (Fl.).

- Fl. (m. 61):** Starts with a triplet of eighth notes (F#4, G#4, A4) marked *f*.
- Gong:** Remains silent throughout the excerpt.
- Mar.:** Features a complex rhythmic pattern of eighth notes. Dynamics range from *ff* to *ppp* to *ff*. A section starting at m. 65 is marked *sp* and *ff*.
- Vc.:** Plays a sustained note with a dynamic curve from *mp* to *ff*. Includes the instruction "(irr. vib.) m.s.p" at the end of the phrase.
- Fl. (m. 63):** Features a melodic line with a slur and the instruction "airy".

Example 4. "Constant Motion", m. 61-68.

B. Bellum Omnium Contra Omnes a.k.a FFA!

This piece was composed during the spring of 2020, for the Norrköping Symphony Orchestra. A statement is created at the beginning of the piece with the brass section, and a counter-statement follows with the thunder sheet. It is a more vivid, percussive suggestion to something static, and without energy.

4. Symbolic Side

Often in societies, there are authorities that decide what should be classified as music or not music. We can see this "this is music - this is not music" segregation in all micro and macro structures of the society. In this regard, noise is also the sound of the opposite, rebellious, anti system, or misfit. Noise also has a one-to-one relationship with the act of listening, it is the same as hearing the other. Thus, noise can be seen as a representation of hierarchical power. For example, when I was in high school, I heard from the school authorities that the sounds I made were not music. We are in a hierarchy, not only politically, but also as composers or performers. To symbolize something, and use it as a tool is a very person specific thing, and a very large subject. In this part, there are two subjects I wanted to symbolize: one of them is child brides, which is illegal in most parts of the world, and in my opinion is a huge political problem, and the second one is interjections, linguistic symbols that I heard while living here in Sweden, that are similar between the local language, Swedish, the common language we speak, English, and my mother tongue, Turkish. I want to discuss the allegoric and symbolic sides of noise that appear in my works from time to time.

A. Playground of Yesterday

I created an 8 minute composition for the symbolic side mentioned above, for a string ensemble. The composition stems from child brides. In many countries where this phenomenon happens, authorities always try to "keep it silent". Especially when it is children, authorities think of them as "a bunch of noise". I tried to treat this problem in my own way. In the overall, all noisy parts and noise are representing children. I gave more space to parts "we don't really want to hear about" in real life. In the second part, I used as theme the "Kasap Havası" with some deformation, which is a very well known wedding tune in Turkey. The piece has three parts: Childhood, Marriage and After the Marriage.

Example 6. "Playground of Yesterday, Childhood", m. 1-10

Example 7. “Playground of Yesterday, Wedding,” m. 38-49

In the part where the piece transitions to the wedding section, I used cups filled with coins, in order to be thrown to the ground. This is a symbol representing a cultural act: In many places in Turkey, money is thrown around in weddings, and again, in many places in Turkey, women are given to grooms for some bride price.

Example 8. “Playground of Yesterday” m. 29-37

B. Bellum Omnium Contra Omnes a.k.a FFA!

As this piece is my final project, I tried to recapitulate in it all the parts I mentioned in this thesis, although, because of technical problems, I couldn't include electronics in it. This piece is inspired by interjections. I used these as pop-ups on top of existing sound masses. The example below represents interjections without belonging to a specific language (toneless percussive attack with syllables).

Example 9. "Bellum Omnium Contra Omnes a.k.a FFA!" m.25-34

Example 10. "Bellum Omnium Contra Omnes a.k.a FFA" m. 35-45

INTERLUDE

In the rest of the thesis, I will discuss the relationship of my understanding of aesthetics with literature and history. I want to probe the past of the noise music that I use, learned and work upon.

During this process, I asked myself a lot of questions. The most important one for me was the point where I started to compose pieces with noise. Then I added more questions, such as “why did I start to create noise”, “what led me to place such a way of perception in a musical context”. As a result, I tried to find answers to my questions in the literature.

II. The Influence of Literature and History on My Usage of Noise

As I mentioned in the introduction, it is very difficult, and in my opinion even impossible to explain noise in one definition, independent of any context, because it doesn't have a specific geographic location, well defined roots, or a precise date of appearance and plus it has many facets. Compared to other music genres, noise music is a difficult one to define, as I mentioned above, but I think it would be correct to claim that the futuristic influence is very prominent, as many would agree.

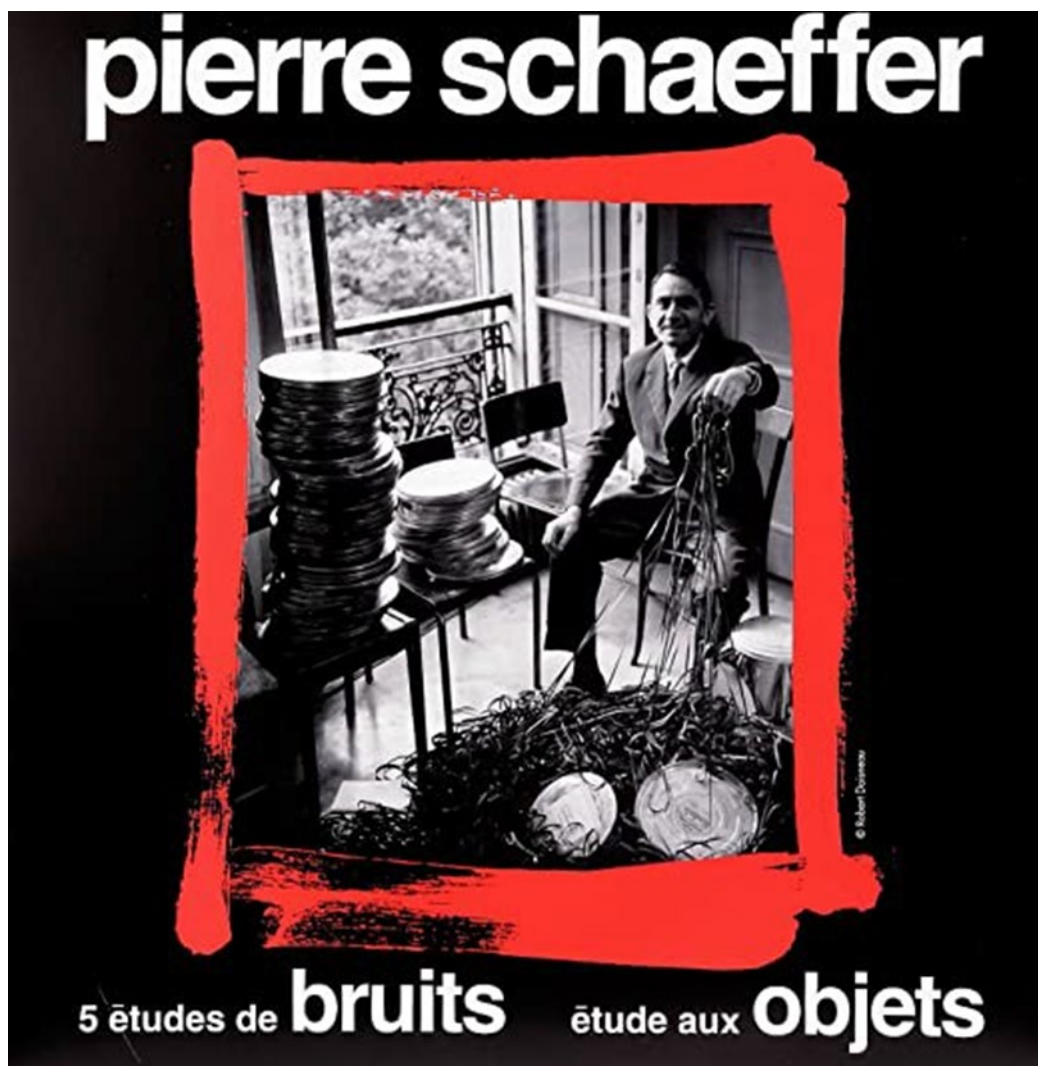
1. Influences on Electronic Side

There is a huge amount of things I learned, and inspiration I drew from composers for the electronic side of my compositions. Electronic music has, even if nowhere as much as acoustic music, a big history behind it, and countless pioneers that contributed to this history, and to us.

A. Pierre Schaeffer, *Cinq études de bruits*

My initiation to this genre was, like many, via Pierre Schaeffer. A piece that I still listen with great admiration, which has a huge influence on my general aesthetic understanding and my point of view on sound, is “Étude aux chemins de fer – trains”, which is the first piece of “Cinq études de bruits” [9], a collection made of five études originally targeted for phonograms, recorded by Schaeffer in 1948. This is an amazing noise experiment on pre-recorded sounds. It is unfair to label this piece as “a noise experiment with samples”, as we can also hear noise as a musical element, completely transformed into an aesthetic element. “When working on these as a composer, Schaeffer was aiming among other things to use alienation techniques to expunge the semantic components of the noises and emphasize their musical values like rhythm, tone color and pitch.” [10]

What Schaeffer did here is to create a composition in an electronic medium. He cut and edited train engine sounds that can easily be labeled as bare noise, obtained fragments that have musical meaning, and created variations from them. This is a whole compositional process, beyond experimentation. This transformation is almost capable of making the listener forget that they are listening to train sounds, and at the same time, a reminder of the fact that even raw sounds that are around us can have musical value. Of course, today, it is drastically easier to record a sound and transform it to something completely different, due to the use of advanced digital possibilities, instead of analog devices. Moreover, these musical values are completely in sync with the “as a musical element” part of my thesis, a multi-purpose album besides his electroacoustic example.



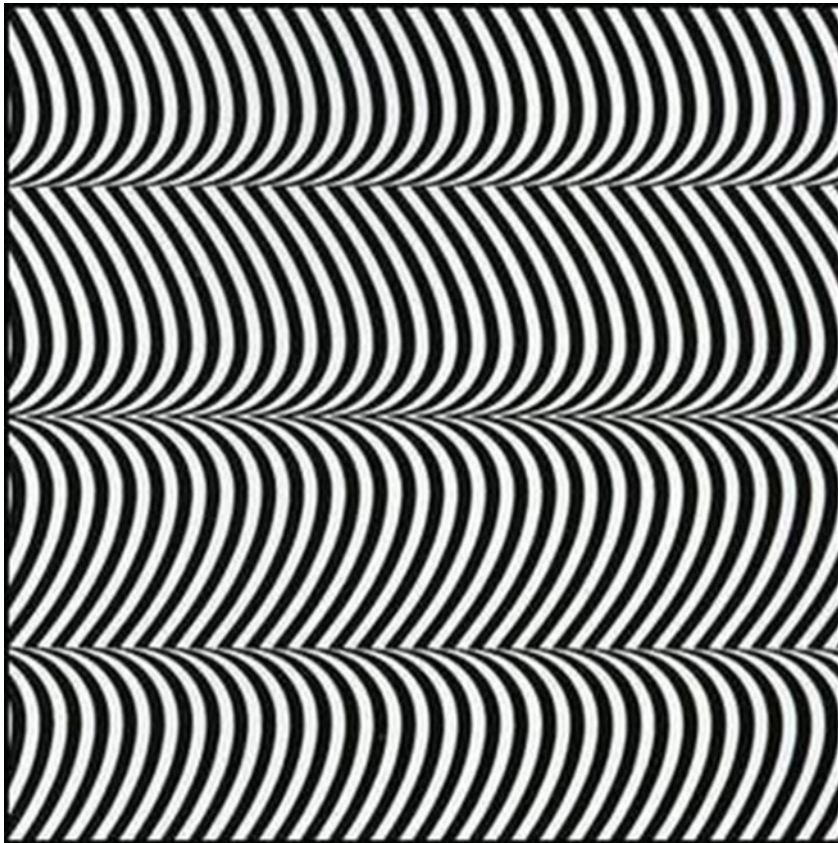
Picture 2. *Cinq études de bruits*, [11], Photography By [Front Cover] – Robert Doisneau

B. Merzbow/Masami Akita, Pulse Demon

Noise can exist in many different states. When one thinks of noise music, the first thing that comes into the mind is harsh noise. Merzbow is japoise, which is even a sub-genre of harsh noise. When we think of noise music as a genre, because of the feedback technique used in live music shows, we can see its ties to the past, or even with progressive rock or metal. This tie is of course based on borrowing frequently used tools as sonic tools, instead of taking musical material and transforming it. This music creates aggressive, monolithic sonic walls by pushing sounds towards their natural limits. Yes, I am talking about a real wall smashing our faces. While listen to Japoise, especially Masami Akita, one has to be very personal towards what they hear in order to grasp a meaning. In this aspect, it is very surreal and visceral.

Pulse Demon/Merzbow

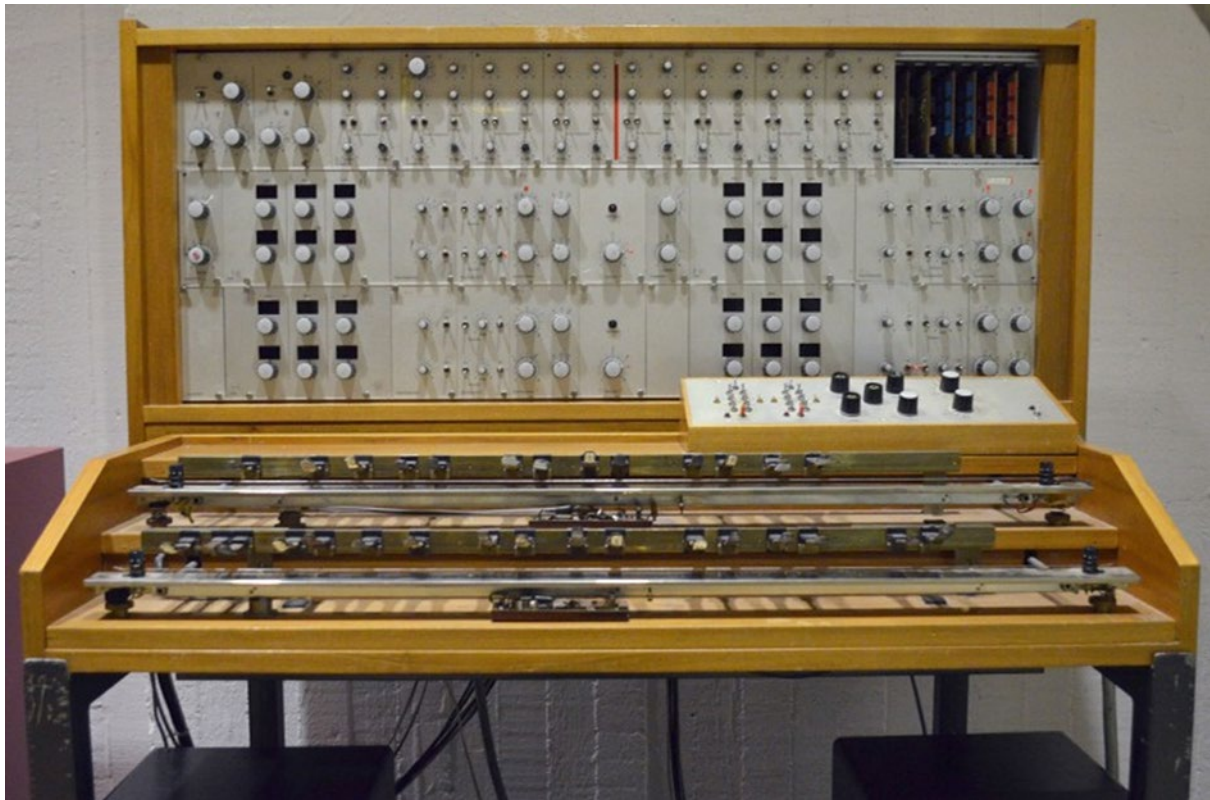
This album had also a big impact on my understanding of aesthetics and composership, because it is like a collage that encompass almost everything I like. If the listener manages to maximize their perception, they can hear old school metal, free jazz, and musique concrete influence from the perspective of Merzbow.



Picture 3. *Pulse Demon/Merzbow* [12], *Release Entertainment*

C. Oscar Sala/ The Birds

Oskar Sala composed the non musical sound track for one of the most famous movies of Alfred Hitchcock, “The Birds”. He also developed the instrument trautonium into an enhanced version, which he called mixtur-trautonium. This was a work that gave way to subharmonic works and symmetric counterpoint for its time. The audio effects of this movie are an astounding inspiration for me, and also the beginning of my interest in digital synthesizers.



Picture 4. *mixtur-tratonium*, *The Musikinstrumenten-Museum, Berlin* [13]

D. Relation with me:

The sample work in my piece *Ethos*, and the foley sounds I used in “A Fine Line”, definitely are heavily influenced by the *musique concrète* genre. The steady, static noise we can hear in the background of “A Fine Line” is, on the other hand, influenced by the *japanoise* style. I am very sensitive about the use of electronics and noise, because of the fact that, as I mentioned above, the genre of noise music is spontaneously associated with harsh noise. I don’t think it is fair that a genre which ranges from Lachenmann to Masami Akita, a genre which contains a huge sonic diversity, is associated with only one of its sub-genres. This is exactly why, when I use static noise, I try to reduce its harshness, as much as possible.

Lots of us use DAW’s at home to record and then edit ourselves, and this provides us different ways of production. The possibility of modifying and processing an environment sound recorded at home, or outside, is an astounding invention, and reveals a whole new world and a list of alternatives in front of us. I think of making noise music in the electronic medium as sculpture, and this is why I feel myself extra expressive when I work this way, because my possibilities are endless, and abstract became concrete. Music history is made of immense efforts, which I am very thankful to as a 21th century composer.

2. Influences on Acoustic Side

Using a noise tool acoustically, without any use of electronic processing is something we all do in our daily lives without even realizing it. The most basic example is friction. Daily life is very simple, yet is made of very complicated structures. And depending on where one lives, can have very different soundscapes. This might hint us about complex, big cities, or a more rural setting mostly covered by animal and nature sounds.

A. Edgar Varèse, Liberation of Sound and Ionisation

I want to start this list with the article “Liberation of Sound” of Edgard Varèse, because after reading this article, I started to think that music is in a constant state of consuming, and reconstructing itself, and each reconstruction is in fact noise.

No matter how original, how different a composer may seem, he has only grafted a little bit of himself on the old plant. But this he should be allowed to do without being accused of wanting to kill the plant. He only wants to produce a new flower. It does not matter if at first it seems to some people more like a cactus than a rose. [14]

Varèse claimed that what is new is like a flower, but what he meant is more like a cactus than a rose, and this was normal. What is new in music was always difficult, always exigent. What is new in music was pushing the sound, the possibilities of the sound, thus creating a discontinuity in the perception of the sound. What is new in music was, initially, noise.

I discovered Varèse relatively late, in my early university years. The influence he and his points of view have on me, especially in my electronical perspective, and the way I transcribe my relationship with daily sounds to the electronic medium, is very important. The reason I discuss him in the “Acoustic Side” part is because of his piece “Ionisation”. [15]

Ionisation is written under the influence of Futurism. Futurism was a movement that aimed to integrate new sounds that appeared in the city life with increased industrialization into music. This piece uses sirens and a percussion orchestra to represent the evolution of daily life noises through time. Its influence on me is the ability to transform daily situations, and sounds of life itself into music.

IONISATION

(for Percussion Ensemble of 13 Players)

Edgard Varèse

$\text{♩} = 69$

The score is for a percussion ensemble of 13 players and a piano. The tempo is marked as quarter note = 69. The time signature is 4/4. The parts are numbered 1 through 13. Part 1: Grande Cymbale Chinoise and Grosse Caisse (très grave). Part 2: Gong, Tam-tam clair, and Tam-tam grave. Part 3: 2 Bongos (clair and grave), Caisse Rouillante, and 2 Grosse Caisse (moyenne and grave). Part 4: Tambour militaire and Caisse roulante. Part 5: Sirène claire and Tambour à corde. Part 6: Sirène grave, Fouet, and Gûiro. Part 7: 3 Blocs Chinois (clair, moyen, grave), Claves, and Triangle. Part 8: Caisse claire (admirable) and 2 Maracas (Clair and Grave). Part 9: Tarole, Caisse claire, and Cymbale suspendue. Part 10: Grelots and Cymbales. Part 11: Gûiro and Castagnettes. Part 12: Tambour de Basque and Enclumes. Part 13: Piano. The score includes various musical notations such as notes, rests, and dynamic markings (ppp, p, mp, f).

N.Y. 1938

© Copyright 1934 by Edgard Varèse
© Copyright assigned 1958 to G. Ricordi & Co., New York

Example 11. *Edgard Varèse, Ionisation, first page.*

B. Sound Mimesis, Tuvan Singing

To me, the easiest sounds to imitate and to remember should be in the nature, because we are born into these sounds, and, with some exceptions (such as geography specific animal kinds), it is easy to find the same familiar sounds anywhere in the world (such as rain, wind, tree, etc.).

We can make an analogy of the example above with the thundersheet in an orchestra. What introduced this notion to me was “khoomei”, or Tuvan throat singing used for hunting, something I saw in a documentary. [16] Unlike most of us, who are used to city soundscapes, the ensemble of daily sounds familiar to Tuvans consist of sounds that affect their daily lives directly, sounds of imitation that they use to communicate between each other from long distance, or even to provide food for themselves. They analyzed the environment they live in by listening and interacting with it for years so thoroughly, that they can spot small changes in it, as illustrated below:

A related category to sound symbolism is SOUND MIMESIS, a term borrowed from the ethnomusicology literature and referring to ways speakers ‘imitate and interact with the natural acoustic environment’ (Levin 1999). The typology of Hinton, et al. (1994:3) dubs these ‘imitative sounds symbolism.’ Mimesis is found across the Altai-Sayan region, noticeably in aspects of performative art but even more commonly in everyday hunting and herding activities. Tuvan speakers have many techniques for imitating and stylizing ambient sounds, including water sounds, wind sounds, wild animal sounds, birdcalls, domestic animal sounds, the clatter of rocks sliding down a mountainside, and the crash of a tree falling in the forest. Mimesis is also used passively: Subtle sounds made by water, snow, birds, marmots, crickets, and yaks are named, classified and interpreted by Tuvan herders to predict changes in the weather [17].

C. Relation with me:

For me, this relationship was always inevitable. As far as I can remember, I always lived with some background noise. Its source frequently changed, but its presence never vanished. Noise, that is indispensable in my daily life, that is engrained in my creation process, was inevitably in my works. Listening is the result of our effort of hearing, but our attention is drawn to bigger, more prominent sounds, maybe as a part of our survival instincts. Including daily life objects to composition processes, and creating a composition with them is a skill I acquired with time. During this journey, I believe the clearest answer to the question “why do I use noise?” is above, since it is inevitable for me, I see noise as life itself.

Varèse was a pioneer thanks to his place in history, but I can not say that noise is a cactus for the 21th century. But still, a very important thing to remember, is that what was novelty in music as a genre can be considered as noise! For example the Paris premiere of Stravinsky’s Rite of Spring, or the black metal genre that was pioneered by the band Venom. This thought always gives me confidence, and opens the doors to a world where I am not afraid of trying, exploring and questioning. Of course, I also enjoy creating noise electronically, but then it is relatively easier to create or obtain, and manipulate these sounds. This is why I hold the acoustic way in a special place.

3. Influences on usage as a musical element

The process of formation of a composition is about how one brings together musical elements. The way these elements are used may differ from one composer to another. In this part, Helmut Lachenmann, who used noise in many different ways, is one of the clearest examples.

A. Helmut Lachenmann-Gran Torso

When I think of formal usage of music in classical music, I immediately think of the German composer, Helmut Lachenmann who composes pieces with conventional instruments, often described as *musique concrète instrumentale*. Especially Gran Torso is a great resource for composers that succeed him. I want to give an example of a piece of him that gives clear answer to questions such as “how to use noise as a musical element”, “is it possible to be expressive this way”, “is thematic structure and unfolding possible”.

It is impossible to briefly analyze Gran Torso in this thesis, because I believe all the works I mention in this part are a thesis subject on their own. I want to give a few examples from this piece, because it is a very unordinary and provocative string quartet, that shocked me when I first heard it.

To give an example from a more detailed analysis of Gran Torso, I would like to quote the composer Ming Tsao who is influenced by Lachenmann, and uses noise in his compositions in a structural way, and is a composer I personally follow. (example: “Pathology of Syntax” by Ming Tsao) Before quoting Ming Tsao, I would like to precise that Tsao’s analysis also refers to Lachenmann’s 1966 essay, *Klangtypen der neuen Musik* (Sound types of the new music).

As an example of Lachenmann’s methodology for deconstructing sound, consider another passage from Gran Torso (mm. 103–116). A “negative climax” is reached at the beginning (m. 104) that manifests itself as an opposition between an extremely reduced set of materials and an expanded expressivity. This expanded expressivity is suggested by the “tempo rubato” indication. This extremely reduced material, as “white noise” produced by the viola and cello bowing the tailpiece of the instrument, emerges from a process of thematic unfolding, whereby gestures in the form of physical actions on the instruments slowly dissolve to achieve a sense of growing stasis. The sound of bowing on the tailpiece has strong associations to wind and nature. Lachenmann gradually deconstructs this “natural” sound in order for a listener to hear it as a “denatured Nature” and thus to rediscover something familiar as something new. (See Example 10.) [18]

B. Relation with me:

I can say that most of my technical knowledge about strings comes from my Lachenmann analysis sessions. Apart from the technical aspects, I internalized things like almost inert noise phrases, or the transformation of the energy in sound, with his compositions.

Measured → Unmeasured (rubato) →

$\frac{16}{p}$ tempo rubato (\downarrow 40-96 $\frac{ad libitum$)

$\frac{10}{4}$

I. II. B. C.

immer näher zum Saitenhalter
 v pppp
 (pppp flaut.)

Foreground (discrete iterations/tremolo)

Background (continuous bowing)

tonlos
 pppp
 auf Saitenhalter, intensiv strichen, (siehe „Balkenlinie“ vermeiden.)

Oppositions in play:

- (a) continuous/discrete
- (b) short/long
- (c) tremolo/non-tremolo
- (d) same time point/different time point
- (e) one impulse/many impulses
- (f) crescendo/non-crescendo
- (g) consecutive impulses/non-consecutive impulses
- (h) solo instrument/ensemble

EXAMPLE 10

Helmut Lachenmann, Gran Torso, © 1972 by Musikverlage Hans Gerig, Köln (1980 assigned to Breitkopf & Härtel, Wiesbaden): mm. 103–104.” (16 pp. 228)

4. Influences on Symbolic Side

As I mentioned in a previous part, sound mimesis is in fact a sound symbol. The reason I created a sub header is that, noise sometimes gives up its imitation property, and acquire philosophical and political properties. Noise can symbolically represent anything, but in my mind and aesthetic perception, it remained associated to the Attali critic that I got really influenced by after I read.

Environmental sounds can give us more information than we think about places, structures and cultures.

A. Noise, The Political Economy of Music by Jacques Attali

Noise is also a political art which is used by governments. Irregular, sonically uncontrolled frequencies interestingly represents power. From this aspect, noise is a tool, an disorder that has to be controlled, kept under pressure, as in Attali's words.

More than colors and forms, it is sounds and their arrangements that fashion societies. With noise is born disorder and its opposite: the world. With music is born power and its opposite: subversion. In noise can be read tht: codes of life, the relations among men. Clamor, Melody, Dissonance, Harmony; when it is fashioned by man with specific tools, when it invades man's time, when it becomes sound, noise is the source of purpose and power, of the dream- Music. It is at the heart of the progressive rationalization of aesthetics, and it is a refuge for residual irrationality; it is a means of power and a form of entertainment. Everywhere codes analyze, mark, restrain, train, repress, and channel the primitive sounds of language, of the body, of tools, of objects, of the relations to self and others. [19]

There are situations where I can not avoid to perceive noise as symbols. For example, in my home country, which didn't yet complete its industrialization phase, construction sounds never end. These symbols can sometimes also support a genderless theory, since noise is a non possessive ensemble including everything. It creates a diversity among sounds. The symbolicity, allegoricity of this part is virtually infinite, since I change continuously through time, and my view of the world and my aesthetic perception change as a composer. So if I was to write this part forever, it would keep transforming, destroying and reconstructing itself.

B. Ivan's Childhood, Andrey Tarkovsky

The movie "Ivan's Childhood" is the first feature-length movie of the Russian director and author Andrei Tarkovsky. The movie is about the second world war, and the viewer does not see any war scene. With Ivan, we see the unconscious-symbolical and psychological impacts of the war. The child main character Ivan is a symbol that shows us the meaninglessness and hideousness of war. I encountered this movie, which is an important work in its genre, in a time when I was beginning to understand and question things about symbolic narration and fiction. Tarkovsky showed me how much symbols can affect narration, and how important the audience's interpretation is. I think that the most important quality about this movie

(which is only one of its countless qualities) is that it describes war without any war scene. This is a huge success! This also creates the risk that the audience will try to attach a meaning to every symbol.



Picture 5, poster for *Ivan's Childhood* *Иваново детство*, Mosfilm [20]

C. Relation with me:

Throughout history, mostly, noise is a term that is used to describe or create negative situations. When I look at history, as a female composer, I can see other negative terms, such as "genius", which usually is attributed to white male composers. Music is a structure with a hierarchy, and anything that doesn't have noise in it reminds me of another hierarchy, symbolically. Noise doesn't belong to a class, a person or a geography. It is a very old, and very universal term. Before using it as a tool, or creating allegories with it, just as a mere timbral entity, it means a lot to me. It is the ensemble of sounds no color, no gender can claim property on, that belongs to everybody, that is in everyone's life, and which can be created by anybody.

III. Discussion

Noise as a term is paired with silence, which we can almost call its opposite. For some reason, I don't spend time to think about silence when I compose. The influence of my birth city, where I also grow up is great on this. Istanbul is a city which almost never breathes, where you can find any kind of places open 24/7, a city where it is almost impossible to find an actual "rest note".

Even if I internalized Cage's theories about indeterminacy and silence, this might be one of the reasons I did not mention him in the literature part (With or without Cage, Istanbul's background noise never ever stops). I wanted to discuss Cage but to discuss it requires another sub category and maybe to dig into the topic even more.

Instead of analyzing them as a whole, I described pieces in a very superficial way, by cherry picking their qualities that influenced me. This reminds me to which point everything I do is subjective, or even double subjective!

IV. Summary

The big blob of meaningless sounds that we encounter so many times in daily life, which we don't care about unless we have to, and sound groups that comes from details that give life its meaning... Where does noise stand among these?

Like every art form, noise is something that existed in different forms, and identities throughout history, which appeared before us behind its very subjective masks, when we are able to look from a broad perspective. I tried to describe it from my narrow and restricted, very subjective perspective, via my own methods that I borrowed from history. On the other hand, we can see that in the 21th century, these narrow perspectives are separated by very thin lines, and most of the time, they are intertwined. To summarize, this thesis is a journey a composer who does not differentiate daily life sounds from her professional life tries to understand herself.

V. Results

This thesis, which was more like a journey, was a process where I discussed the influences of the futuristic movement that was born in the 20th century, and which later influenced many genres from experimental to electronic music, which interacted with each other in a very interesting way, on my own 21st century music. I rediscovered the ties to history of my composition techniques, which I believe embodies a huge amount of indeterminacy and arbitrary thoughts.

My goal was, initially, to get to know better my understanding of aesthetics, and to be able to use the notion of noise, that I persistently use in my works, as a tool. Theoretically, even though it is really narrowed down, I have a tool in my hands. For example, I have the ability to choose whether a composition with sounds close to the nature will be created with acoustic, electronic, or a mixture of both of these media. Or, I can associate these sounds some symbolic meaning, and create a narrative, without worrying about how they were created. I had an example for every tool, and I can create more, and focus on nuances between them.

Most importantly, at the end of this journey, I came closer to the roots of my aesthetic understanding, and to the answers to other questions I had. As I mentioned in this thesis many times, I saw that I use slices from daily life, and probably this is because I grew up in a city which is alive 24/7. Never in my life, when I played an instrument, or composed a piece, I witnessed silence, even if relatively. This fact is one of the reasons that noise became the background of my aesthetic perception. As a result, I could make use of music history. Do I want to create textural and symbolic music, focused on sound like Varèse, or do I want to create a piece with formal integrity, with noise as a complete musical element, like Lachenmann? These kind of questions help me in the creation of ideas for my compositions.

Like I mentioned at the beginning of this thesis, my foundations come from technical audio, which ties me closer to electronic music. As I wrote this thesis, I realized that I have way more sub-headers for this genre. This is because, I really enjoy creating works for electronic media. For a composer, electronic music means to be the master of your own. It means that you can always find performers, with or without budget limitations. The hybrid education I had in the past, and my studio experience has a very comparable effect on me as my theoretical and orchestral musical education.

On the other hand, using noise as a musical element, a tool, is still something I struggle with, and it may be possible to think this even by looking at the outline of this thesis. It is not easy to work with an element without a stable frequency, in concordance with other elements that are very well defined in time (with a stable frequency). It is an interesting combination, and an interesting perception. With time I will analyze this tool, and think on it even more, and maybe decide that I do not want to use it anymore. I think that creating noise with acoustic elements, or amplifying existing noise with acoustic means is delightful. It is a unique pleasure, because its design process is unique.

Even while writing this thesis, there has been some changes in my daily life, which is something I always listen to. Most people self-quarantined because of COVID-19. I do not now how long this will last, and how long it will take for my ears to get used to this situation, but I think this

will have a serious effect on my perception, and on what I call “background” in long term (and hope that this will end soon).

As a last note, for further research, when I want to step up my artistic perception and my research, I can focus on these topics that I broke down into rough chapters, instead of treating them superficially. These are huge doors, maybe impossible to be traversed all at once but can be good topics to treat in depth in the future.

References

- [1] L. Russolo, *Art of Noises*, Pendragon Pr (February 28, 2005), 1913, p. 6.
- [2] M. Erez, "Art For What? Happy New Ears!," 16 February 2014. [Online]. Available: <https://mervezonkkmustain.blogspot.com/2014/02/art-for-what.html>. [Accessed 02, 06, 2020].
- [3] G. Foo, *ACTION ACTORS: The Tactical Performing Artist*, 1st ed., CreateSpace Independent Publishing Platform, August 29, 2015, p. 226.
- [4] P. K. Kythe, *Sinusoids: Theory and Technological Applications*, Apple Academic Press Inc., 2014.
- [5] C. Erez, *Yedi Günah/Tembellik*, Istanbul: Yapı Kredi Yayınları, 2018.
- [6] V. Gray, "Mimesis in Greek Historical Theory," *The American Journal of Philology*, vol. 108, no. 3, pp. 467-486, 1987, Autumn.
- [7] B. Jensen, "Observing Nature," 19 1 2019. [Online]. Available: <https://gup.ub.gu.se/file/207663>. [Accessed 02, 06, 2020].
- [8] N. Sarrazin, *Music and the Child*, Open SUNY Textbooks, 2016, June 14, p. Ch.3.
- [9] P. Schaeffer, Composer, *Cinq etudes de bruits*. [Sound Recording]. 5 October 1948.
- [10] G. Föllmer, "Pierre Schaeffer, Études aux chemins de fer," 1999. [Online]. Available: <http://www.medienkunstnetz.de/works/etude-aux-chemins-de-fer/>. [Accessed 02, 06, 2020].
- [11] P. Schaeffer, Composer, *Reissued for Pierre Schaeffer birthday. 5 études de bruits (1948) - étude aux objets (1959)*. [Sound Recording]. 2010.
- [12] Merzbow, Composer, *Pulse Demon*. [Sound Recording]. ZSF Produkt Studio. May, 28, 1996.
- [13] "Oskar Sala's Mixtur-Trautonium at the Musikinstrumenten-Museum," [Online]. Available: <https://www.nervoussquirrel.com/trautonium.html>. [Accessed 02, 06, 2020].
- [14] E. Varese, "The Liberation of Sound," *Perspectives of New Music*, vol. 5, no. 1, pp. 11-19, Autumn - Winter, 1966.
- [15] E. Varese, Composer, *Ionisation*. [Sound Recording]. G. Ricordi & Co., 1958., 1933. 1934.
- [16] R. Belic, Director, *Genghis Blues*. [Film]. New York: Wadi Rum Productions, 2000.
- [17] K. David Harrison, *Languages and Prehistory of Central Siberia*, E. J. Vajda., Ed., John Benjamins Publishing Company, 2004.
- [18] M. Tsao, "Helmut Lachenmann's "Sound Types"," *Perspectives of New Music*, vol. 52, no. 1, pp. 217-238, Winter, 2004.
- [19] J. Attali, "Noise: The Political Economy of Music," *Theory and History of Literature*, vol. 16, June 30, 1985.
- [20] A. Tarkovsky, Director, *Ivan's Childhood*. [Film]. Mosfilm, 6 April 1962.

Thesis cover designed by Merve Erez

Submitted Scores

- Come out to show them, 2018 Fall, for improvisation ensemble.
 - Ethos, 2016 fall, for stereo pair
 - Constant Motion, 2019 spring, for trio
 - Playground of Yesterday, 2019 spring, for string ensemble
 - A Fine Line, 2019 fall, for solo percussion and fixed media
 - Bellum Omnium Contra Omnes a.k.a FFA for symphony orchestra
- Premiere will be held in June 2020.

Submitted Audios

- Audio 1: Come out to show them, 2018 Fall, for improvisation ensemble.
 - Audio 2: Ethos, 2016 fall, for stereo pair
 - Audio 3: Constant Motion, 2019 spring, for trio
 - Audio 4: Playground of Yesterday, 2019 spring, for string ensemble
 - Audio 5: A Fine Line, 2019 fall, for solo percussion and fixed media
 - Bellum Omnium Contra Omnes a.k.a FFA for symphony orchestra
- Premiere will be held in June 2020