

SITE AWARENESS IN MUSIC

**- recontextualizing a sensation of an-
other place**

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INTRODUCTION

“It sucks, don’t it... the moment you realize you don’t know shit.”

(Antagonist Negan in TV series The Walking Dead by Frank Darabont, season 6, episode 16: Last Day on Earth.)

URTEXT

I had a hunger for art music that could engage me as a listener, but I experienced a loss of relevance, a loss of touch and reason. The music seemed to have fallen into traps of strict patterns. I was just about to give up on music completely, wondering if I was witnessing the end of art music.

An unformatting of society is needed.

Formatting. Regulating. Facilitating.

These words are about control. The terms are about defining what is included and what is excluded. They express the minimization of

diversity, risk and danger.

To enable safe survival, we construct a society that more and more deprives us of our abilities to survive *outside* the container of a safe society.

The brain interprets and make choices by association, on the basis of what the body perceives and of previous knowledge and experience. How humans listen, hear, see, perceive, interpret and react to their surroundings is based on cognitive structures. The cognitive structures are in essence inadequate, defective and lacking in knowledge. Since it is impossible to know “everything”, to have experienced all situations prior to experiencing them, the brain has evolved a unique ability to assume, to jump to conclusions, to create patterns and categories based on already-observed and perceived behaviour or occurrences.

Risk makes the body and brain aware and alert. Adrenalin is released to the blood, enabling the organism to make a sudden, intense effort. Risk implies something unestablished, uncertain, a danger, something unknown. Risk implies the possibility of failure and ultimately death. Risk increases anxiety and excitement, enabling the alertness needed to manoeuvre away from or solve problems. When something is at stake, interest comes into play.

The unknown is by its very nature beyond the body’s experience. Without risk, necessary attributes such as adaptivity, sensibility, joy and creativity are at stake. A crucial level of life, a necessary attitude and certain kinds of behaviour may be lost.

BACKGROUND

The artistic PhD project *Site Awareness in Music – recontextualizing a sensation of another place* was completed in the period 2014 to 2019, at the Norwegian Academy of Music – Department of Composition, Music Theory and Music Technology, as part of the Norwegian Artistic Research Fellowship Programme. The programme was transformed to a PhD programme hosted at each institution, taking effect in 2018. My principal supervisor has been composer and professor Ole Lützow-Holm and my assistant supervisor has been visual artist Marianne Heier.

My personal background is as a freelance composer. I have previously explored site-oriented thinking in music. I combine and continue my work from different fields. One is the loosely defined and expanded field that stems from ideas of the *Gesamtkunstwerk* going back to Scriabin, Wagner and early opera. This broad field involves staging's, reality, integrated immersive experiences, even parties. Another is the wide field of environmental music and sound art that relates actively to the surroundings. A third is minimalistic and/or electronic music. A fourth is the huge field of Land art, escaping from galleries and relating directly to concrete surroundings. But my training stems from what I may call a European post-war modernistic composed music tradition, where I emphasise structured, organic, (new) complexity aspects, represented by composers like for instance Luigi Nono, Brian Ferneyhough, Olga Neuwirth, Karlheinz Stockhausen, Konrad Boehmer, Asbjørn Schaathun, Ole Lützow-Holm or Kaija Saariaho to name just a few.

Is the combined infrastructure of art music of today rigged to function primarily supportive for or facilitating independent art music practices? The institutionalized infrastructure of custom – systems, regulations, expectations, habits, structure and requirements – restrict artistic experimentation and research in its broadest sense. The allocated spaces for art music to unfold limits the mental and practical space for ideas. In visual arts this problem complex is extensively challenged through Land art, site specific art practices and more. Furthermore, spaces and our relation to sound are challenged and explored widely within the broad field of sound art. What if this liberation from the predefined 'objective' spaces is not merely about getting rid of formative restraints, but also grounded in neurological features, i.e. derived from how our brain works, comprehends and remembers?

Perhaps linking a sited or contextual musical thinking with neurological perception knowledge could open a refreshing path? The scope for this project was exploring different knowledge fields, and figure out if and how they overlap and combine to a better understanding of the importance of context and cognition to perception. Artistically, this was tested and reflected upon in three conceptually related site oriented musical works. However, the emphasis was on creating the actual art music projects. This has been carried out in a continuous negotiation with a research mode of inquiring the process and motivation for decisions. To me, this has been a rewarding process. This text can only direct the attention towards certain issues. The essence is embodied in the three musical works and what happens when experiencing them.

NAVIGATION

This text is the reflection, a compulsory part of the artistic PhD. The programme has slightly different requirements from an academic PhD. For example, it is not a requirement that the reflection should be in the form of a text, even less an academic text. However, the material must convey reflection, account for the process and review the project's context, particularly its relation to other relevant art practices. I have chosen a sometimes essayistic, sometimes more theoretical text that draws on knowledge I believe to be important in elucidating the points.

Although the language in parts of the text may seem categoric, I would like to emphasize that the text is an expression of my subjective judgments and that, of course, I do not speak on behalf of everyone. They are reflections developed through my work that have consequences for my further work. I hope the outcome of this project can be of benefit to others as well, though. Others will probably see options and paths I have not been able to see.

The project started out with the main title *Land Music and Comfort Music* – later changed to *Site Awareness in Music* – but it has kept its subtitle, *recontextualizing a sensation of another place*. The two original parts were intended to reflect each other. How could experiences and material from concert installations be transferred to Land music, and how could experiences and material from Land music be transferred to concert installations? Instead, the focus of the project turned in a conceptual direction. In the following texts, I intentionally avoid dwelling on music-technical choices and components during the working process. Instead the emphasis will be on various approaches to the importance of the connections between working with sound, place and context.

In **part I: Siting** I have collected the general reasoning of the project. I explain what I mean by 'site awareness' in a musical context. In order to explain why a sitedness is connected to musical conceptualization and perception I draw up some basics on sound and psychology as well as a few basics from neuroscience regarding stimuli, perception, place and remembrance. This leads to a short elaboration on landscape, as a fundament for reasoning on the term 'Land music' and on time in space. Here I explain what I think the concept 'Land music' must involve, and how it relates to landscape and material. The term is in use. From what I have come across, it has been used slightly incoherently in quite different contexts, also in conjunction with an ambiguous use of the term 'site-specific'. I would like to give the term 'Land music' a slightly different and more consistent meaning, clearly referring to the term 'Land art'. Here I also mention a few other related practices. Finally, I will give an account of my method, discussing reasoning of formats, audio material, site selection and more.

Part II: Chasing an idea consists of two texts. The first is a travel log on *The holy mountain*, explaining the origins of an idea and how the context of creation is important, in this instance for what actually becomes or does not become a musical work. The second is an essay on *Delphi in fumes* with thoughts on an extreme situating which has inscribed itself in the history of the place.

In **part III: Three works** I review and describe the three works that make up the artistic result of the project. Here I explain the choices I made, what I wanted to do, what I did, and what I did not do. This part contains specific descriptions and reasoning connected to each musical work.

Finally, I round off in the **outlook** with findings and conclusions with some thoughts on what paths the project may open up.

FOUR PHASES WITH ARTISTIC RESULT

The three works that came out of the four phases described below are my attempts at unformatting. They are conceptually related and share sources of inspiration and materiality. One source is *situating* with an attitude of connectedness to sites, and the way the music is *made for* or *informed by* certain sites, with an exploration of what I mean by the term 'Land music', although differing in how they relate to the particular sites. Another is the physics of sound. This is closely related to the consequences of context for human sensory interpretation – *perception*. This is linked to the potential of music for creating mental spaces, where time and *information density speed* are important parameters.

The works are in turn responses to the research process that I started in 2014. *Comfort Music* was first and is closest to the outset, however there I introduced a split audience. Its siting was a prerequisite for further research and the trip to Athos and Siberia. With *Mirnyj* an inscription of not only a site, but a foreignness, a mindset, was tested as inscribed in the materiality of the work, and to be recontextualized. A durational angle was a consequence of both this test and informed by cognitive inquiries. *Mirnyj* was a prerequisite for the making and conceptualizing of *Himdalen*, where the Land music ideas of the project was tested to such an extent that it exceeded how far the host institution was willing to go.

FIRST PHASE: COMFORT MUSIC – EXCLUSION

The first work I decided to do within the framework of the project had to deal with a concert venue, a pre-conceived generic space. But the primary (given) location lacked the benefit of providing a sufficient *reason*. It was as if I could find no sufficient connection and cause for bothering to conceive the upcoming work. I had read the Italian philosopher Giorgio Agamben's writings on inclusion and exclusion – in short, on exclusion as an embodied and inherent part of inclusion. I decided to work with exclusion, to see if I could split the audience in two and deliver the work at two separate locations simultaneously. Before I could compose the actual music, I understood I had to know the two locations and how to articulate them. I examined several options that did not sufficiently resonate conceptually until the Emergency Communications Exchange (Åsen Nødsentral)¹ came up. The exchange was built in a hurry immediately after the Cuban Missile Crisis in 1962 to maintain basic communication during a catastrophic event. It was to become abandoned, a ruin and a witness. The work examines separation and exclusion, and how a different context affects the perception of music and meaning. It was clear to me that this direction – challenging the audience, inducing risk and a lack of clarity, as well as partly testing an expanded musical format, was fruitful. I thought these ideas had more potential.

The artistic result is

Comfort Music

2015, 1 hour 30 min, for a divided audience at two separate locations – Åsen Emergency Communications Exchange a bus ride away at Torshov and the music hall at Vulkan, Oslo. The two groups experienced different levels of information. Eight musicians and multichannel loudspeakers.

SECOND PHASE: CHASING AN IDEA – ATHOS AND DELPHI

The preliminary idea for a Land music work was to do a project around a mountain lake with high rock walls surrounding it. After research at a few locations in Jotunheimen, Norway, I realized that the emphasis I had put on natural acoustics was not central to the project after all. The nature romanticism would dominate the symbolic field. Instead an extensive search for abandoned places began – places that might connect up with the Emergency Communications Exchange (Åsen Nødsentral) that I used for *Comfort Music*. I studied some 50 locations all over the world with varying degrees of thoroughness, and discarded most of them. To give an idea of the process, some of them are listed in the chapter on method.

Amidst the exploration of locations, I researched field recording techniques and equipment. I did a quick test of the natural humming of high-voltage wires in snowy weather near Vestmarksetra outside Oslo. Since I was a child, frequently cross-country skiing in Vestmarka (woods), I have been fascinated by this weather-contextual soundscape. The crisp, static noise texture is significantly louder in rainy and snowy weather than in conditions of no precipitation. Rain and snow increase the conductivity of the air surrounding the conductor and thus increase the intensity of the discharge of energy.² The audible noise is quite loud, with a texture that can be described as a cleansed and sharpened version of white noise, as if the particles of the noise are larger, more ‘zoomed in’. I have since continuously changed my requirements for an ideal, compact, high-quality, robust, lightweight, versatile, easy-to-use microphone array. I have not yet concluded.

While absorbed in such technical details and all sorts of considerations and mutually exclusive advice from different sources, I had pretty much ruled out what was planned to be the core of my project – a Land music project around a mountain lake with high rock walls surrounding it.

Then in January 2016 I was asked an innocent, curious and precise question of the kind that only children ask, by my then six-year-old son: “Dad, what is speech song?” (*Sprechgesang*). It made me think of recitative and Gregorian Chant, and I wondered how much we really know about how music may have actually sounded more than a thousand years or even longer ago. It sparked off the question of *what we really know*. This widened my inquiries on sense manipulation into the broader question of how our cognition works, as touched upon in part I: Siting.

I had decided that context, and the concept of *site awareness*, were more important than technicalities. But what was at the core of this awareness? How should I go about investigating it? I chose to follow the little question that my son had asked, to write about it and see if it took me somewhere. I suspected it wouldn’t result directly in a concrete work, but it would nevertheless be fruitful to follow the process all the way from the seed of an idea.

I researched music from the first millennium, and found the *Great Canon of Repentance*, 250 verses that take hours to chant, and are still in use in the Orthodox Church. Probably one of the more authentic traditions for its use is in Athos, an autonomous, theocratic, monastic polity in northern Greece. I went to Athos at Easter 2016 to attend an authentic performance of the rite. The very organization of the landscape at Athos raises questions of historical lines, reasons and relations with the landscape, exclusion, excommunication, bodily presence, thought patterns and myths. Why, exactly, did Athos become considered a holy mountain within the Eastern Orthodox Church? The trip was a way to explore the concept of *site awareness*: We must be aware of the frameworks that form the basis for our ideas.

During the same trip I also went to the ancient Greek theatre in Epidaurus and to Delphi. There, according to the myth, the priestess Pythia sat in a closed chamber and uttered strange oracles from the god Apollo, most likely intoxicated by narcotic gases emerging from the ground. This is blended into Greek mythology as a foundation of modern European culture. Early on, someone understood the potential of the gases emitted at the site and developed the idea of the oracle. They knew the place and they shaped a context.

As a result of the research trip to Athos and Delphi it was clear that perception, mental cognition and the problem of communication were important issues, especially over vast time spans. The connections among place, context and how we comprehend, listen and perceive are at the core of the project.

THIRD PHASE: MIRNYJ – SENSATION OF ANOTHER PLACE

One of the places I had investigated was the mine in Mirny, Siberia. The subsistence basis for the town is its huge diamond deposits. The town has the world's second-largest man-made hole in the ground, with a rare, almost conical form, pointing downward, inward and backward in geological history, smelling of sulphur and excavated in the atheistic Soviet Union. It lies there, a dangerous industrial hole abandoned as a modern ruin. It has become a distorted mirror image, an inversion of Athos so to speak, a symbol of what Athos is not. I had tried to rule it out, but it kept coming back to my mind, and when I mentioned this to the composer Trond Lossius at a workshop in ambisonics he held, he just said, "go there and see what you find".

Both Athos and Mirny are places that activate the east-west schism in history, of culture and in politics. They activate myth and archaeology as access to past knowledge, a kind of ruin, a remnant of something not present, something lost or emptied. They activate thought patterns of different kinds, and provide justifications for territorial control.

Whereas Athos has its justification as a recontextualized ancient Greek idea of holy mountains striving upward to the ideal heavenly world, the pit is the opposite: an inverted mountain, a man-made hole in the ground, a grand scar in the terrain, looking backwards in geology and reality to economic life and political territory. The world is banal. I wanted to embrace and expose this banality. Athos was a premise for the Mirny project as its distorted image.

I chose to travel there, to Mirny, not knowing precisely what to look for or what to do with the material I would gather, but to find out what intrigued me, whether there was anything worth working with. The work I ended up doing is made *from* this place. The choices are informed by all the impressions and information coming my way in the process. Briefly, the work consists sound wise of a recorded violin section of long, sustained harmonies, synthesized drones, field recordings from Mirny and a sampled Soviet song, as a 'found object'.

The artistic result is

Mirnyj

2018, 4 hours, 4 audio channels, 1 video channel. Flat-floor music hall or cinema. Pre-recorded violin and synthesized sounds. Soundscape and footage from a trip to Siberia. Generated monochromes and satellite images.

FOURTH PHASE: HIMDALEN – LAND MUSIC

Modern musical notation evolved some 800-1400 years ago; even scripture is no more than some 5-8000 years old as a concept. Symbols and art are considerably older, and symbolic thinking probably evolved in homo sapiens around 200,000 years ago. What an invention! A mythology is regenerative, genuinely flexible.

Imagine how impossible it would have seemed, if someone had decided 200,000 years ago that there was something so important to convey that they had to be sure the message would be understood – beyond the collapse of multiple societies, wandering cultures and customs, beyond travel, resettlement, completely new surroundings and languages – by us, today.

How would they go about it?

And what about us, today? What are the most vital insights that we strongly desire to convey to the future? How do we solve similar issues? What symbols do we use? How are we to convey a message? What kind of language should we use? How should we encode the information? What would the instruction manual on how to decode the message be like? How are we to communicate? One attempt is the Golden Records aboard the two Voyager spacecrafts launched 1977, possibly lasting for billions of years.³ But how are we to understand what we know and know what we do not know? An understanding of cognition and the long evolution of symbolic thinking would probably be necessary. As would knowing that our comprehension is based on assumptions and connections, gathered and remembered associatively with a spatial locational mapping system in the brain.

Now, how on earth could I work with these issues? I decided to try to work with the Combined Repository and Storage Facility for Radioactive Waste in Himdalen. This is the only facility of its kind in Norway, planned, designed and owned by the Government, operated by the Institute for Energy Technology, an independent research foundation.

The artistic result is

Himdalen

2018, 12 hours 30 min, Land music the entire evening and night outdoors in mid-November at the Combined Repository and Storage Facility for Radioactive Waste in Himdalen, Norway. 4 musicians, 12 audio channels distributed over the terrain, a listening post and a decentralized forest lake scene.

This is where the idea of *Land music* is tested. Here, the site – the landscape – plays an important role. The purpose of the facility and our knowledge of it informs our perception. The acoustics of the narrow valley are activated by the sound emerging from the powerful loudspeakers. The work unfolds in different local positions. The time of year and the terrain have consequences for how the music is composed. The effort involved and the use of time – the duration – are absolutely central. What the audience has to invest affects the total experience. The project concludes with Himdalen, clearly being the most important artistic result.

¹ Telenor Kulturarv, 2015.

² Dent, 1999.

³ NASA, 2018.

PART I: SITING

“We have yet to articulate the importance of music and the immense cognitive and social terrain that it addresses.”

(David D. Dunn in *Nature, Sound Art and the Sacred*, 1997)

Entrückung / Transcendence

I feel air from another planet.
The faces that once turned to me in friendship
Pale in the darkness before me.

And trees and paths I loved grow wan
So that I hardly know them, and your light,
Beloved shadow – summoner of my torment –

Is now extinguished quite in deeper burning flames,
In order, after the frenzy of warring confusion,
To appear in holy awe and yearning.

I dissolve into tones, circling, weaving,
In groundless thanks and nameless praise,
Surrendering without a wish to the mighty breathing.

A tempestuous wind overwhelms me
In sacred rapture where the fervent cries
Of praying women in the dust implore:

Then I behold how misty clouds disperse
In the sun-suffused clear skies
That only embrace on the farthest mountain retreats.

The ground shudders white and soft as whey.
I climb across vast chasms,
I feel myself floating above the furthest cloud

In a sea of crystal radiance –
I am but a spark of holy fire,
I am but a thundering echo of the holy voice.

Stefan George, 1907

Consider **Arnold Schönberg's** (1874-1951) **Second String Quartet** with soprano, op. 10, fourth and last movement. The soprano enters with the famous phrase *Ich fühle Luft von anderen Planeten*. (*I feel air from another planet*.) The music was written in 1907/08 – the poem *Entrückung*⁴ was written by Stefan George in 1907. Europe was tense. Industrialization and technological development had improved capabilities and wealth, yet all countries were struggling with working-class poverty. Several countries still had dynastic, dysfunctional governments. The strong states were France, The United Kingdom, unified Germany after 1871, Italy, the Ottoman Empire as the successor of Byzantium, Austria-Hungary and Russia.

The poem is understood in the context of the string quartet as the messenger of a new kind of music, a serial (well and evenly structured) music. The quartet contains elements of what was to become Schönberg's twelve-tone music, his solution to the problem of a perceived dead end in music, at least the end of tonality as he heard it. This musical and poetic moment has become the symbol of the dissolution of tonality.

The recording I am listening to is the Jewish Kolisch Quartet with the soprano Clemence Gifford, from 1936-37.⁵ Rudolf Kolisch studied with Arnold Schönberg, and he started the ensemble to perform Schönberg's music. Two months after the Nazi takeover in Germany the Act for the Restoration of the Professional Civil Service (Gesetzes zur Wiederherstellung des Berufsbeamtentums) was passed on 7 April 1933.⁶ This act was used to exclude Jews, communists and other groups the Nazi regime wanted to expel, from their professional practice. Similar laws regulating access to official life followed soon. In September 1933 the Reichskulturkammer was established. Only Aryans,

“true Germans”, “the racially pure” and “politically reliable” could be members. Joseph Goebbels stated: “In future only those who are members of a chamber are allowed to be productive in our cultural life. [...] In this way unwanted and damaging elements have been excluded.”⁷ The Nazi regime used and constructed an entire spectacle dealing with origins, custom, cult and common perception. A forced communion and a selected truth versus belief system – a culture – was set in play. They constructed a custom in order to regulate a new society, with an emphasis on art and culture as markers. Basic emphasized values were traditional, manual and figurative. A connection between blood (heredity) and soil (food, farming, landscape, power) were constructed and stressed to the absurd, with family, the peasant, the rural countryside landscape, the worker and the soldier as the symbols. Expressions not supporting the image of this new German culture and society were expelled. Avantgarde art, music, literature and

architecture were banned, excluded and prohibited, burned or removed in this process under the designation 'Entartete Kunst'.

Arnold Schönberg, himself a Jew, emigrated to the USA in 1933. When I listen to this recording, from 1936-37, my personal knowledge of music history at the beginning of the 20th century, with its nervous, aspiring hopes for a new era, the devastating calamities of World War I, political tensions and the dark times of the 1930s, as well as the coming apocalyptic World War II and the Holocaust, and assuredly its later and present repercussions in our political landscapes, today, inevitably resonate with it. Such knowledge is crucial to the understanding of that work and that particular recording. This music can never be listened to as abstract pitches, rhythms and sonorities alone. No music is music alone.

⁴ English translation by Richard Stokes from 2005, <https://www.oxfordlieder.co.uk/song/2222>

⁵ Kolisch Quartet, 1936-37.

⁶ Engenhausen, 2014.

⁷ Adam, 1992, p. 53.

SITE AWARENESS

Any site has some identity. The codes and values connected to a site inform our perception of what has happened and what will happen at or regarding a particular site. Perception of a piece of information is dependent on its – and our – context. Sound is dependent on space. Sound reverberates in a medium, such as air. The character of the reverberations is entirely conditional to the shape, size and quality of the space. The same sound sound different in different rooms, in different spaces.

Two aspects seem clear. One is a sensitivity to context and its *connotations*, such as social, historical, political, acoustical, physical aspects, and how this informs a sound work, whether existing or about to be made:

How to better understand the connotations of (a) site and its artistic consequences?

The other comprise the consequences of context for human perception:

How to work with the cognitive consequences for perception in relation to a site?

'Site awareness' implies a reorientation to a thorough considering of situational context, in time and in space. Site awareness is an extended search for a *reason* for a musical expression or sound event to happen, somewhere, and at all, and establish a connection between site and sound.

CONTEXT AND CONNOTATIONS

Miwon Kwon's book *'One place after another'* (2004) is a story of how the development of entire public art practices over decades happen in a symbiosis with the guidelines and regulations instigated by art administrators and curators, in response to public protest or involvement. The streamlined spaces of galleries, museums and concert halls seem to imply the idea that there, music and art can propagate on their own terms. That notion is widely understood, criticized and challenged, but still has its power partly due to those spaces and structures already existing and partly due to an idea that these spaces are particularly tailored, true, objective or neutral. However, all spaces and all places imply limitations and that some choices have been made. Whether these particular limitations are fruitful depend entirely on what each particular artistic practice tries to accomplish. Kwon puts it this way: "The seemingly benign architectural features of a gallery/museum, in other words, were deemed to be coded mechanisms that *actively* disassociate the space of art from the outer world, furthering the institution's idealist imperative of rendering itself and its values 'objective', 'disinterested', and 'true'."⁸

Western art music renders a *performance* situation. Since roughly a thousand plus years ago church music was an immersive experience, happening in architecture constructed for the illusions of sacral singing and spectacle of sculpture and painting. Then a few hundred years ago the Enlightenment allowed for other than sacral notions and concert halls were built for a secular art music in development through the epochs. Parallel with the political landscape changing in Europe, with more sophisticated regulations in the previously loosely organized empires, accentuating a need for addressing common interests that lead to an orientation towards origin, language and culture, the romanticism in music with an emphasis on emotion, narrative and a connection to nature and landscape was formed. This is also a reaction to the measured, squared, elegantly portioned ideals of classicism. Romanticism's grounding to nature and place carries over to site-oriented art and music practices.

The musical custom for a tonal and harmonic narrative was challenged in different ways. Schönberg, Webern and Berg developed the 12-tone music during the 1910s and 1920s (Second Viennese School). Varèse incorporated industrial sounds with acoustic music. Futurists experimented with mechanical sounds and early electric technologies. Up until WW1 western classical music was basically distinguished by narrative structures, supported by tonality and harmonic progression, that helped maintaining a broader public's indulgence. From now on a gap was opening between the music being made and what the general and more traditional audience expected from music. The borders and political realities had changed drastically with the war and the Treaty of Versailles. The liberal 1920s with *Neue Sachlichkeit* had its counter in the hard an illiberal 1930s. Nazi Germany used an idea of traditional cultural unity to exclude avantgarde art.⁹ The twelve horrible years lead to an extreme need after WW2 for reasoning, factuality, structures and systems, leaving any kind of emotional or otherwise tendentious plethora out of the equation. The Darmstadt School of serialism from 1946 with Karlheinz Stockhausen, Pierre Boulez, Bruno

Maderna, Luigi Nono, Henri Pousseur and more was a natural reaction to those years and policies. The development diversified. There is electronic and concrete music expanding the timbral and technical vocabulary of the traditional acoustic instruments, with composers such as Konrad Boehmer, Henri Pousseur, Éliane Radigue and Pierre Schaeffer. A sound ecology and soundscape field was developed (see for example Murray Schafer's book 'The Tuning of the World'). Furthermore, the American vast landscapes fostered composers who developed minimalism, with La Monte Young¹⁰ and Charlemagne Palestine as central figures.

The broad field of Sound Art partly broke off from the constraints of a performance situation, aligning with non-time-based arts, treating sound as a medium by itself, with artists such as Janet Cardiff, Max Neuhaus, Walter de Maria.¹¹ I see the field of Sound Art as closely related to the field of Land art, relational art and similar practices, emerging in the 1960s with artists such as Nancy Holt, Robert Smithson, James Turrell, Richard Serra and more.¹² Related, but separate, are composers like David D. Dunn who, I argue, work with a practise that I have chosen to label *Land music*.

Institutions of music have rendered themselves and their values as 'objective' and 'true'. They are widely perceived as neutral spaces. The "innocence" of institutions with their normative performance conventions are cultural frameworks serving an ideological function, to rephrase Kwon. This "*innocence of space and the accompanying presumption of a universal viewing subject*"¹³ has been challenged over the past fifty years by numerous composers and sound artists, whether it be through withdrawing from institutionalised spaces, expanding spatiality, extending or dissolving the performance situation or exploring themes where siting is dealt with in one way or the other. Still, the seemingly neutral institutions continue an implicit and apparently unquestioned view of promoting 'true' and presumptively autonomous music. The effect of this rendering is a detached application of ideas into predefined 'objective' formats. The rendering operates as a given infrastructure. An analogy would be a road network of possible routes, leaving out the space in-between, which, after all, would be the majority of options. As I see it, this incorporated institutional view of musical works as autonomous, as solemnly musical stanzas, seemingly regardless of context, or as an artistic presumed *constant* that endlessly can be 'recontextualized' in that it is performed, again, in its different yet alike, designated spaces, is in persistent need of various kinds of critical reviewing and thorough questioning. To increase *site awareness* or, for that matter *context awareness*, would be one possible strategy. The artist Robert Barry said that being specific to a museum (also valid for a concert hall, a performance situation) "is to decode and/or recode the institutional conventions so as to expose their hidden operations"¹⁴ or else it would "fall into the illusion of self-sufficiency".

To institutions, the weight of history and the weight of adaptations to previous custom is limiting. Experimentation needs regulations to be relieved or removed instead of being added, more specified or more complex. Specification reduce room for manoeuvring. Specification squares available formats. With *Himdalen* I intended to challenge conventions and audience investment. As a consequence, institutional rigidity was exposed. This is discussed in the chapter 'Himdalen', section 'Insights' on page 126.

While taking context into consideration, deflecting the meaning of music to the space of its presentation, one must take care not to transfer a dogmatic and 'closed' view of music as autonomous onto the space of presentation itself. The critique of the dogmatism regarding the transfer of autonomy has to be calibrated to the concrete situation. For example, upon assessing a work that actually enters an integral dialogue with a site, one must consider with which particular qualities of that site it does so. What are the signifying components of the site? If the signifying components are general, also to be found elsewhere, at other similar sites, then the interaction is not with the uniqueness of the site per se, but with the *type of site*. If the situation translates to another site, the site is not hermetic. It is necessary to analyse what the signifying components of a site are, with which a work is integrated, in order to determine its transferability. There is no need to be dogmatic about a uniqueness of site if it's not actually there. It should be clear that site-oriented works, especially ephemeral works such as music, if transferred, must carry with it the relationship to the signifying components of the site.

Robert Smithson wrote that "*Oblivion to me is a state when you're not conscious of the time or space you are in. You're oblivious to its limitations. Places without meaning, a kind of absent or pointless vanishing point.*"¹⁵ For Smithson it would not make sense to fall into such insensitiveness, to be unaware of time and space, which inevitably *are there*, and must be considered. Presumably objective structures must be profaned by questioning their fundamental functions.

How does the work and the site interact? Can they be separated? Will the work be informed by the site? Is the site informed by the work? Or is the place meaningless? To what extent does a given generic format have consequences for the design of the work? Smithson writes about the advent of photography that squared nature and earth, catching to a rectangular format, so that things became measured. To paraphrase him, the combined infrastructure for art music squares the available space. Downstream, everything but a generic context dissolve. Place and time become indifferent and do not make sense, do not inform the work. Worst case, music becomes pointless.

On the contrary, site awareness means connecting the work to time and space: to survey the actual physicality and connotations of a situation. One must consider if the site motivates a music, and what kind of music, if the site has the potentiality to inform and become informed by the sound which may unfold there. To me, it has been important to stress that the work must connect in some way with the site, that the musical materiality must be *artistically informed* by the particularities of the site. Opposite to musical material *transcribed or derived from measurements* at particular sites. Opposite to musical material *imitating* particularities of the site. The site is not a scenery. The site means something. The role of the music is to inscribe itself to the site, and to inscribe the site in the music, not to present or show off the site.

Site awareness is to turn away from the actively disassociated spaces. Away from spaces that are disassociated from a physical reality, emptied for a topographical reality, removed from the landscape we live in and are a part of. And instead looking for a site with some kind of history, some kind of reason. I have felt a need to get out, to get some space, some air. I searched for abandonment, for structures of voids. This reminds me of Tony Smith and his epiphany of sublime driving on an unfinished highway.

“When I was teaching at Cooper Union in the first year or two of the fifties, someone told me how I could get on to the unfinished New Jersey Turnpike. I took three students and drove from somewhere in the Meadows to New Brunswick. It was a dark night and there were no lights or shoulder markers, lines, railings, or anything at all except the dark pavement moving through the landscape of the flats, rimmed by hills in the distance, but punctuated by stacks, towers, fumes, and colored lights. This drive was a revealing experience. The road and much of the landscape was artificial, and yet it couldn’t be called a work of art. On the other hand, it did something for me that art had never done. At first, I didn’t know what it was, but its effect was to liberate me from many of the views I had had about art. It seemed that there had been a reality there which had not had any expression in art.

The experience on the road was something mapped out but not socially recognized. I thought to myself, it ought to be clear that’s the end of art. Most painting looks pretty pictorial after that. There is no way you can frame it, you just have to experience it.”⁶

‘A reality which had not had any expression in art’. There it is! The experience was there, but nothing that resembled the previously commonly accepted conception of art, not yet recognised as such. Aesthetic experiences are thus not confined to intentionally artistic situations. Driving in such a manner on an unopened, vast road is a rare experience. And the area with its logics and his physical movement through the landscape strengthened his ability to take in the situation. To me, a consequence of this insight is seeking reality, rarity, scarcity and dealing with scale, staging and reason.

Rose Dodd wrote a review of ‘Himdalen’. I would like to include several quotes from her as an entry to the relation between material, situation, time, site, cultural symbols and political landscape. She noted that it was “[r]enegotiating the terms of what a performance is; new ways in which the audience engage with their time involved in a piece of performance.” and “[c]hallenging an audience’s traditional expectations of what takes place in the concert hall is Sunde’s most unique marker. [...] There was an accompanying sonic environment to our every moment in the valley, in a wide variety of forms, from pulsating to drone to rhythmically percussive materials. Notable early in the night was a mathematically quantised electronic pulse expanding over time with acute precision, instantly provoking in me a kinaesthetic anticipatory, predictive response – and I hadn’t realized I was paying attention. I giggled at the perfection in its quantised pattern, still sitting casually round the fire. The two situations seemed perfectly matched and fun, if slightly off beam with the dark Norwegian night. [...]”

The electronic presence served as a low-fi backdrop to normal camp activities, burger cooking, eating, Tuborg drinking, warming and just chatting round the fire. A quiet yet elegiac party was beginning. The valley, host to sonic experimentation of sound echoing out of site-specifically placed speakers pulsing across the tranquil acoustic of the valley. As we wandered to each new event conversations sparked up about whale song, recording whales (in Hawaii), other such natural sonic curiosa. There was a gentle ritual to the whole event over time. [...] Being out in the landscape, in serious weather conditions, also sharpened more than our aesthetic senses, our bodies were involved keenly. [...] [D]evelopment of his materials created subtle, yet total immersion in auditory, kinaesthetic, environmental, spiritual and social landscapes. [...] What had technically been effected in this most unusual concert arena? It wasn’t wholly about the music. We had reached a different place. A place profoundly elemental. [...] Perhaps this was the point. To construct a perception of time that was as elongated as time (and the lifespan of radiation) itself. Yes, sleep deprivation, cold, Tuborg and kinship constructed sitting around a fire, an activity as ancient as mankind, all had a part in this. The creation of an ‘otherness’ of time. Simple, yet profound. Discarding the magic realism of contemporary music, of notes not attached to any sense of emotion or of any aesthetic meaning – notes used just to display – it is salutary, in the dead of the November night, to quietly encounter a form of music in which we reach for the highest in ourselves. A moment in music offering purity, a return to a simplicity in sound.”⁷

Dodd explains how the material established, accentuated and changed the perception of the site. The choice of audio material is not random. Site awareness requires another approach to selecting material than, say, writing for an orchestra. The material is radically contextualized. This, I think, implies ethical consequences of compositional choices.

THE ZONE OF UNCERTAINTY

Information – messages – are composed of symbols. The more symbols are available, the more precise is the information each symbol can transmit. This potential for differentiation, or increase of amount of information, is also called negative entropy. Entropy is the *ability to change* (second law of thermodynamics). Thus, the more information, the more is established, the less is the ability to change.

In our present world, most societies tend towards better organization, more predictability and better safety. This requires more specificity, documentation and regulation. A higher level of specific information means drifting away from uncertainty – away from what is inconclusive.

But the zone of uncertainty is where creativity, intuition, adaptivity and manoeuvrability function or operate. In this zone our capabilities of decoding are crucial, and are tested and improved. If society succeeds in organizing itself away from this zone, it effectively removes our ability to relate to difficult, critical, deceptive, uncertain, unknown, unfamiliar, incompatible, possibly dangerous and impossibly foreseeable situations.

Specificity comes at a cost.

This is why an inquiry into unstable artistic situations is intriguing.

ETYMOLOGY

According to the excellent online etymologic encyclopaedia 'Etymonline.com', the word '**site**' is a "place or position occupied by something". Here, place refers to environment. 'Site' is derived from Latin *situs*, meaning "place, position, situation, location; idleness, sloth, inactivity; forgetfulness; effects of neglect"¹⁸. Thus, 'site' is a concrete locality, a concrete position. I think there is an indication of 'site' having a designation of some kind; being a 'site' means it's not entirely generic. There are some specific qualities involved, maybe rendered by the *something* occupying it. Also, there is a sense of some kind of situation, of some elements, something that defines and characterizes a particular site. And yet, the site is not alive, the site is not filled by a particular action, there is this inactivity. The word 'site' seems to me to be somewhat bigger, contain more potentiality, than the word 'place', which perhaps renders a smaller volume, and is included in what 'site' is. 'Place' is a.o. defined to a "space, dimensional extent, room, area", a courtyard, open space. Place is derived from Proto Indo-European **plat-* "to spread", having also replaced Old English *stow* and *stede* "position or place occupied by custom".¹⁹

The word '**aware**' stems from Old English *gewær* "watchful", and German *gewahr*, back to the Proto Indo-European root **wer-* which is "perceive, watch out for".²⁰ Awareness is being alert, observant. Tuning in to the situation, the site, possible dangers or safe zones. 'Oblivion', referring to Robert Smithson, would be the opposite, the condition of not remembering, a lack of awareness or consciousness.

'**Context**', on the other hand, is "a joining together". The word is made up of Latin *con-* "with, together" and Proto Indo-European **teks-* which is "to weave, to fabricate".²¹ It is normally used as the circumstances or facts surrounding a particular situation, influencing its meaning, influencing perception.

OCCUPIED BY SOMETHING

A site is never neutral. Any site will have a different meaning to different people. It is necessary to discover the symbols of the site. A site is occupied by *something*. A site has some kind of function, symbolic code or value, inherited or impeded by someone. A site is not only its physical properties, but just as much what has happened there. We feel that it means something to us: a site express culture, history, language, our individual and collective feelings. Such symbolic values cannot be ignored neither in real life politics of conflict nor in arts. Art is negotiating real life. Art is central. Please also see chapter 'Landscape', section 'Political landscape' on page 34.

I decided to work with Himdalen as a site, see the chapter 'Himdalen', section 'Site selection' on page 115. Himdalen is located in a fairly desolate East Norwegian forest terrain with a vital wild life and therefore a vital hunting ground, nevertheless a cultural landscape. The terrain is used and affected by humans, as cultivated forest for its timber resources. It is accessed by occasional dirt roads, tractor tracks and trails. From time to time, traffic noise from the main road 'riksveg 22' is heard across the hills from the lake Bråtatjenn. A lake is a sign in the landscape. Historically a cultural symbol for a place to live, with necessary resources: water for drinking, cleaning and

access to fishing, also as a means of rapid movement and easy transport. Today a lake has also a recreational, aesthetic value, as a break of the forest typology. As a site, Himdalen is no random choice. Symbolic codes of the storage facility for radioactive waste is a profound and inevitable part of this cultural landscape. The pine forest surrounding the facility has a fairly open forest floor. The forest is there, silent, heavy, sitting still, as a mute witness. The landscape surrounding the facility has this function, as a tacet forest, being occupied by it. The forest does not carry the romanticizing codes of an impressive or awesome natural scenery, in contrast to monumental mountains or fjords. The very old pine species has a symbolic function as a carrier of the DNA coded communication message, see chapter 'Himdalen', section 'Encoding DNA' on page 122.

CONSEQUENCES OF HUMAN PERCEPTION

A connection to the physical world seems key to site awareness within music. I think a conceptual anchorage to the site is vital. The anchorage establishes a connection between *where* you are, *when* you are there and *why* the music should be *there*. These notions are worth more research.

Psychological surveys have shown how plastic and adaptive our brain is.²² Memories are recontextualized and adjusted each time they are recalled. They are influenced by new memories. Bits and pieces are recombined and reinterpreted, recontextualized in accordance with new (or forgotten) information. Memories are flexible, and open up our thoughts, adapting them to the solving of unprecedented problems – the concept of recombability is probably absolutely central here. We become more observant, with sharpened senses, when faced with a lack of clarity, difficulties and effort, and when something is at stake. We remember difficulties and obstacles better than what is square and simple. This is evolutionary. We have to find workarounds, to try to understand the core of the problem ahead of us. This involves what Daniel Kahneman in his book *Thinking, Fast and Slow* refers to as system 2, which forces us to reason. It implies repetition and potentiation. We stop and repeat actions when we meet obstacles. These obstacles become hooks that help us remember. They become navigation points in memory. It is reasonable that challenges have to be remembered in an evolutionary perspective, while what is straightforward can be dealt with more automatically, with little effort and little need to waste brain capacity.

I have emphasized the need for a sacrifice from the audience in various ways. I involve the body, participation and if possible an element of uncertainty. This really means inviting the audience to become involved, to be present with the body, with all the senses, and to take greater personal responsibility. The fact that the audience must go *out* and seek the music would create a closer bond, a greater obligation. R. Murray Schafer writes that taking music to different concert venues is a relatively new phenomenon. This represented squaring the musical landscape.

Neuroscience has revealed evidence for a locational mapping system in the entorhinal cortex in our brain, and that we remember by use of situational orientation. The brain remembers and maps place and spatiality with a system of neural positioning cells. Perceived stimuli are connected to place and grid-cell information. The stimuli are interpreted according to whatever the brain associates with the incoming information in order as quickly as possible to categorize and possibly identify the stimuli. Anything involved in this process affects the interpretation obtained. Experience, memory, understanding, the quality of receptors, placement, trending factors, context etc. all affect this quick neurological process. In other words, we understand and remember better when our bodies take part, experiencing things with several senses. Personal participation is vital to memory. The phenomenon is often referred to as *embodied* knowledge or experience.

This implies that our cognitive structure is linked to the places we have been, the terrain and landscape we have experienced. However, still everyone has our individual and subjective experience of the world. We are isolated from everyone else in our own bodies. All new experiences are filtered through our own bodily presence. Hence, of course everyone will have their individual experience of a sited work. This is certainly beyond my control as a composer. On the other hand, an artist has cultural authority and power to some extent, and what I make is no doubt my statements, formed by my combined personal experiences and perspectives. As soon as an audience show up, I have the audience in my power, they have to trust I will not exceed commonly accepted limits for what can be exceeded within the particular artistic context. The audience must trust they are safe, that nothing hazardous will happen to them, or that I will step over the unspoken ethical contract. With releasing an artistic work to the public comes an enormous responsibility. With any public address comes an enormous responsibility because of its possible short- and long-term repercussions.

STATEMENTS ON SITING

We interpret stimuli on the basis of what the brain associates with the incoming information. Interpretation is immersive. Everything – historical events, political events, social events, cultural events, any situation – always happens somewhere in particular. A virtual event is no exception: ignited by a will, a code, somewhere, based on or as a result of certain premises or configurations of timing.

Remembering and cognition are closely connected to places, to our physical surroundings. Manoeuvring in the unknown, in uncharted land, with unstable or deficient information is central to learning, central to skill, central to experience and central to the recognition of unfamiliar perspectives. And thus, also to the storage of information not previously known – either by the individual or by the collective. Without a sense of place, we lose our ability to navigate. Without the ability to navigate our bodily existence in the world has no chance.

We perceive in context. We interpret in context. We understand in context.

Inducing unfamiliarity is trying to understand. Navigating and repositioning is trying to understand. Risk and danger increase future manoeuvrability and improve interpretation. Uncertainty creates a space where navigation is necessary. A level of dislocation, displacement, foreignness, creating a sensation of another place, enables new mapping. New mapping of meaning. As recontextualization of one's own internalized 'knowledge', experience and worldview.

Unfamiliarity is a necessary premise for learning, for new experiences, for new connections. Learning and experiencing take place when connections are made. The brain maps, categorizes, sorts, arranges, connects and stores information according to the situation and associations. The more immersive or inconclusive a situation, the better the chances for navigation, and thus for learning and mapping out an internal individual-specific topology. Acknowledging ignorance is fundamental to progress.

The siting of a work must be considered carefully. Siting must relate to the logics of a site. Siting must render consequential connections to the site. Context must inform personal choices. If original circumstances are removed or withheld, our interpretation will be defective, or at best deficient. The particularities of a situation or work may have qualities with potential for transcending its original siting. Recontextualization must be considered with the utmost care.

Consider the context of creation. It informs the creation itself and our perception of the result.

Consider the context of realization. It informs our perception of the result.

Music is never played in a vacuum. Music is dependent on a medium. The sound waves must have a material to be propagated in. Sound does not exist without space. Music is not performed or experienced in a neutral zone, in a place uninfluenced and timeless. Everyone exists in time, affected by our society and tendencies. The idea of timelessness necessitates a neglect of context.

Nothing is neutral. Ever.

As I see it, attention to the understanding of context and to the link between our cognitive structures and places has been remarkably low in the music scene. To my mind, contextual understanding is important in the composition and understanding of music, to what music is, why it is made, the situation in which the composer is or was: in which culture, in which country, in which era, political situation and so on. Trying to interpret a message from all this requires a lot of general knowledge. Musical knowledge alone is not sufficient to understand music. General knowledge is important for perceiving the world around us, navigating through it, through life. It is essential to have an overview of the context of which we ourselves, our society, our work, our lives and our thoughts are a part of.

⁸ Kwon, 2004, p.13.

⁹ Adam, 1992.

¹⁰ Licht, 2018.

¹¹ Licht, 2007.

¹² Bishop, 2012, and Tsai, 2004.

¹³ Kwon, 2004, p. 13.

¹⁴ Kwon, 2004, p. 14.

¹⁵ Smithson, 1996, p. 190 – Fragments of a conversation (1969).

¹⁶ Wagstaff Jr., Samuel. (1966). Talking with Tony Smith. *Artforum*, Dec 1966 Vol. 5(No. 4). Retrieved from <https://www.artforum.com/print/196610>

¹⁷ Dodd, 2018.

¹⁸ <https://www.etymonline.com/word/site>

¹⁹ <https://www.etymonline.com/word/place>

²⁰ <https://www.etymonline.com/word/aware>

²¹ https://www.etymonline.com/word/context#etymonline_v_18277

²² Kahneman, 2012. Schellenberg, 2013.

SOUND: PHYSICS AND PSYCHOLOGY

In conversations with people who do not work with music I often get fundamental questions about what sound actually is, how the system of notes is actually built up, what makes a C a C and so on. It has struck me that it helps bringing this up when I also try to explain why I think that increased awareness around the *situating of music* (and sound in general) is so important: that is, how music and sound depend on a medium, a space, a place, a site, to work – to be propagated, perceived and interpreted. And then this ‘site’ is by its very nature not a neutral zone.

I will therefore offer a basic account of what I think is useful to understand about sound and its behaviour in space, and a short introduction to the world of soundscapes and aural illusions. For the reader who is knowledgeable about music, this will hardly be new, but for others it may be interesting.

I relate this introduction on sound to ‘aural illusion’, the way our cognition hears proportions and assumes contexts, and how sound can affect the organism physically. This is a wide field encompassing psychoacoustics beyond the scope of this project. Anyone who is interested can read Arthur H. Benade’s excellent *Fundamentals of Musical Acoustics* or Rossing, Moore & Wheeler’s *The Science of Sound*, which is rather more technical. And R. Murray Schafer’s *The Soundscape: Our sonic environment and the tuning of the world* is a superb place to start. The book is a review of the history of sound that is highly readable even for those who are not so preoccupied with the technicalities of sound or music. Also, the anthology *The Psychology of Music* edited by Diana Deutsch has a comprehensive collection of articles on perception of sound. For an overview of the artistic angle on sound art, Alan Licht’s *Sound Art* is a central book.

A FEW BASICS OF SOUND

Vibration

Sound is a transfer of energy caused by any vibrating material. It is transmitted by longitudinal compression waves – in air, metal, stone, wood or water – or any other material. The waves radiate outward from the source. In air, vibrating air molecules bump back and forth. There must be molecules to vibrate and transmit the energy. Sound always needs a medium to travel. When these sound waves come into contact with boundaries, they are distorted, deflected or reflected. Sound waves can deflect around edges and barriers. This is why we can hear around corners; it is called diffraction.

Sound waves can be regular and simple (sinus tone). They can be regular and complex (musical tone). They can be irregular and complex (impulses and a broad palette of noise). Normally we perceive sound through air. In order to be audible, it must be an oscillation (frequency) of at least sixteen beats per second in the pressure of the air around us.

Hearing

The physical wave of air pressure is dampened by the outer ear, with its individual shape, so that we each hear at least some sounds slightly differently. The pressure wave continues into the ear channel to the eardrum and makes it vibrate according to the shape of the modulated carrier frequency. The three bones of the inner ear are attached to the eardrum and to one another and are set in motion accordingly. They in turn affect a fluid in the cochlea, so that the air pressure waves are translated into pressure waves in this fluid. Many very thin hairs or rods (stereocilia) wave together like reeds in water, but far quicker. These are attached to long neurons leading all the way via the auditory cortex to the cerebral cortex, the hearing centre of the brain. The nerve cells of each hair transmit impulses from the hair movements. The hearing centre combines the impulses and checks for earlier references and recognitions to create a perception of the incoming sound. If the sound is previously unheard it takes a longer time to set up a perception and interpret what it is. Similarities to earlier experiences therefore make the interpretation process quicker.

Pitch and tuning

Pitch – or high and low tones – is the frequency of the pressure waves: a low pitch has low frequencies and thus relatively long wavelengths. A healthy young human ear can hear pitches as low as 20 waves per second and higher than 20,000 waves per second. This is expressed as Hertz (Hz). The lowest note on a typical piano is 27.5 Hz and

the highest is 4186 Hz. Below humanly audible frequencies we call the frequencies infrasound (0.1 to 20 Hz). Above 20,000 Hz we call them ultrasound.

Pitch is a continuum. The notes played by the keys of a piano are mere samples from this continuum – a set of pitches ordained by custom and the well-tempered tuning system. This system divides each octave into 12 equal so-called semitones in order to make all the scales on a piano sound equally well tempered, enabling transposition and modulation, i.e. the use of different keys in one piece of music with the same instruments. This was not possible with fixed pitched instruments before this tuning system was adopted in the 1700s. If such instruments were tuned purely in one key, the interval ratios would change increasingly in more distant keys, sounding more and more “out of tune”.

The scales are derived from a) ancient tones or modes, i.e. sets of pitches used for a melody; and b) the concept of the repeating octave, which is an ancient Greek concept stemming from Pythagoras. He discovered that the halving of a string results in a doubling of the frequency. Doubling of frequency results in a pitch an octave above, a completely different tone, yet with some characteristics similar to that of the whole string, due to the similarities of soundwaves of the partials adding up.

Middle A (a¹ in German nomenclature) is nowadays most often tuned to 440 or 442 Hz. The middle A was tuned as low as 384 Hz in Rome around 1600. And cornets have been tuned to a middle A of as high as 480 Hz in the 18th century according to individual custom.²³

Each semi tone is also given a MIDI specification number ranging from 0 to 127, in a system launched in 1981 by Dave Smith, where the 88 notes of the piano are given MIDI numbers 21-108.²⁴ These can be divided into equal cents (hundredths) – midicents – for more precision. Midicents are thus the intervals of equal-tempered semitones divided into 100 intervals. The decision to make a¹ = 440 Hz is just a choice.

Amplitude

The amplitude of the pressure may be so low that it is not audible to us, or so high that it hurts or damages our ears. This is the energy level of the sound – its volume. Our ears are more responsive to low amplitude than to high amplitude. It is therefore practical to work with a logarithmic amplitude scale. This is expressed by the decibel scale, where the hearing threshold of a sound of 1000 Hz is set at 0 dB. This corresponds to an energy level of approximately 10^{-12} watts per square metre. A tenfold increase in the absolute energy level from 10^{-12} to 10^{-11} watts, as well as from 1 to 10 watts, corresponds to an increase of 10 dB. 10 watts per square metre is the threshold of pain at 130 dB, while 40 dB is the level of a quiet room in a home, average talking volume is 60 dB and loud orchestral music is 110 dB²⁵.

Timbre

What makes us distinguish the sound of a clarinet from the sound of a piano? Why do we immediately identify a voice as belonging to an individual person, even though we clearly hear same vowels, and thus words, regardless of who is speaking? The phenomenon is called *timbre* – the colour and character of a sound.

We practically never encounter a single frequency (sinus tone) in a naturally occurring environment. All sounds consist of composite wave forms, in combinations of two or more, most often of very many frequencies. This is a spectrum of pitches, developed over time and defining the timbre. To make it simple we divide sounds into two groups: harmonious and inharmonious. Harmonious sounds have a tone as a fundamental pitch (the tone we hear) and *overtones* (also called partials or harmonics). These are pitches relative to the main pitch in a predictable ratio pattern, higher than the fundamental. The overtones also always have quite different individual relative amplitudes, and different behaviour over time with attack, decay, sustain and reverberation (ADSR). This combination constitutes the main component of timbre. In addition, there are *formants*²⁶, a concentration of energy around certain frequencies, or preferred resonating frequencies. Formants are often studied in the context of speech studies, with an emphasis on the shape of the human vocal tract. However, the relative amplitudes of partials are formed by resonance determined by the shape of the mouth, chest, neck, sinuses, the body and material of the instrument, as well as the acoustics of the space from which the sound emanates and the air quality (temperature, pressure, humidity, etc.) of that place at that time. In addition, frequencies from secondary sources may sound at the same time, altering the spectrum for various reasons. The result is a modulated carrier frequency (main pitch).

Inharmonious sounds do not have a clear fundamental pitch. Examples are percussive sounds, wind and wave sounds, and in general what many people refer to as noise. However, what distinguishes the timbre of the noise from, for example, a flat fronted car from the noise of an aerodynamically designed car, is the various energy levels and profile of various sections of the frequency spectrum.

Speed

The speed of sound is dependent on the medium it travels through. The denser the medium, the faster the sound. Molecules in air are diffuse, in water they are denser, in solids they are densely packed. In a dense medium the molecules have a short distance to travel before they bump into one another. On the other hand, the speed depends not only on distance between molecules, but also on how fast the molecules are able to move. Gas molecules, for example, move more slowly at colder temperatures.

In air at 20°C at standard atmospheric pressure (1013.25 millibars on a “normal day” at sea level) the speed is 343 m per second. The speed is slower in cold air – 331 m/s at 0°C. Sound travels approximately five times faster in water and fifteen times faster in iron.

The wavelength²⁷ varies with pitch and thus also with the medium and its temperature and pressure. Here are some examples of sound frequency wavelengths in air at standard atmospheric pressure:

20 Hz at 0°C has a wavelength of 16.56 metres
 20 Hz at 20°C has a wavelength of 17.16 metres
 130 Hz at 20°C has a wavelength of 2.64 metres
 440 Hz at 20°C has a wavelength of 78 cm
 4186 Hz at 20°C has a wavelength of 8.1988 cm

The shortest wavelength a human can normally perceive is about 1.716 cm, equalling 20,000 Hz at 20°C.

SOUNDSCAPE

A soundscape is what a place sounds like. The word is derived from landscape. The combined aural characteristics of a place (or site, area or habitat) make up the soundscape. Any place has its soundscape, whether it is a freezing, cracking forest lake, a busy playground early in the afternoon, the arrival hall at an airport or a desolate street by night.

Soundscapes can be divided into three sound source origins that often, one way or another, interact, in a habitat:

1. Geophony – naturally occurring, non-biological sounds from various habitats. Weather, avalanches, volcanoes, waves, wind, temperature affecting aural characteristics of natural materials etc.
2. Biophony – sounds emanating from all natural biological origin.
3. Anthropophony – sounds emanating from human life, including industrial noises, city life, transport and music.

Robert Murray Schafer's book *The Soundscape: Our sonic environment and the tuning of the world* is an important and highly interesting analysis and historic mapping of the soundscapes of the world. He reviews myths and historical texts looking for information and descriptions of the sonic environment. For many years he has run 'The World Soundscape Project'²⁸ at Simon Fraser University in Vancouver, Canada. This is a huge research project mapping and documenting sonic environments that he thought would disappear in an automated and noise polluted world. He for example noted that:

“The power chainsaw produces a sound of between 100 and 120 dBA, giving it a sweepout in a quiet forest of 8 to 10 square kilometers. It is possible to theorize that by 1974 the combined ripping of the 316,781 power chainsaws produced that year alone, if operated simultaneously, could cover about one-third of Canada's 9,222,977 square kilometers with their sound.” (Schafer 1977, p. 84)

Our ears are always open. They cannot be closed like the eyes. This means that the sonic environment must be dealt with responsibly and with knowledge of the physics of sound.

Schafer assumed that just as our natural environment can be polluted, our sonic environment can just as well be polluted. Modern sonic environments have for a long time already been a consequence of more or less desired human activities. In the general problematization of our sonic environments, as dealt with by authorities and manufacturers, there has been an almost unilateral emphasis on noise, or actually *volume of noise* – sound pressure, or energy level. The consideration seems to have been ensuring that the overall total sound volume is not too high. (Subjective noise measurement has been implemented, though.) Schafer showed that this is an oversimplification. Not only the volume, but the actual sounds that are present or not present are crucial for how we perceive our sonic surroundings.

What is it about the sonic environment we actually appreciate? Which qualities in a sonic environment can help us lower our shoulders, work well and be happy in our lives? When we leave the cities for holidays, one of the things many people appreciate is what we often call ‘silence’. In an anechoic chamber, total silence can be achieved. This total silence is artificial, and not what we humans desire. People report hearing their pulse and losing orientation. Therefore, what we in a daily language denote as silence, is not in the sense *absence of sound*. It is about a relatively low level of sound pressure and the *quality* of the soundscape, the origins of the sounds and in what context they emerge. The actual sound spectrum in river noise, for example, does not differ much from the sound spectrum of steady car traffic noise, but we perceive the two very differently, based precisely on contextual knowledge. Which sounds are included in the soundscape, which are not, and why? In what way are the individual sounds of a soundscape or sonic environment associated with the characteristics of the place? In an increasingly large part of our modern lives, the sonic environment is a sum of designed sounds and sounds that emanate from mechanical processes, from manufactured sound signals of electronic products and from manufactured places.

Here a better understanding of soundscape can be useful on a societal level. I believe an increased awareness not only of noise in the sense of unwanted sound volume, but also of the qualities of our sonic environments, of an anchoring of sound and place is important for our mental health. This means asking other questions related to city planning, transport planning, architecture, product design, sound design, laws and regulations.

AURAL ILLUSIONS

Diana Deutsch is a professor of psychology and has done extensive work on musical illusions and paradoxes. Many people are more familiar with visual illusions than aural illusions. But the brain has to interpret any incoming stimuli and always looks for patterns. Aural illusions take a variety of forms. Deutsch studied typical situations where the brain is likely to misinterpret the actual stimuli. Examples are octave illusion, verbal transformation, scale illusion, chromatic illusion, glissando illusion, tritone paradox, cambiata illusion, the psychophysics of timbre and more.²⁹ The subject is studied in the wider field of psychoacoustics.

AURAL GANZFELD

This is a type of perceptual deprivation that takes place when one is exposed to a uniform stimulation field or uniform stimulation over time. In such cases, the brain amplifies neural noise in order to search for possible missing value signals. The brain cuts off the constant, unchanged signal. One may experience a temporal sense of deafness to these frequencies. The sound field actually changes neurologically in the brain. If appearing, sudden changes in the sound field will change the stimulus situation, but the sensory apparatus experiences a lag, so that any new sounds are now filtered through the foregoing sensory deprivation, perhaps for a minute or two, depending on frequencies, volume and the actual sound situation. With very slow changes the brain may keep up with the process and gradually alter and adapt its degree of deprivation. Pseudo-hallucinatory percepts or an altered state of consciousness may occur.³⁰

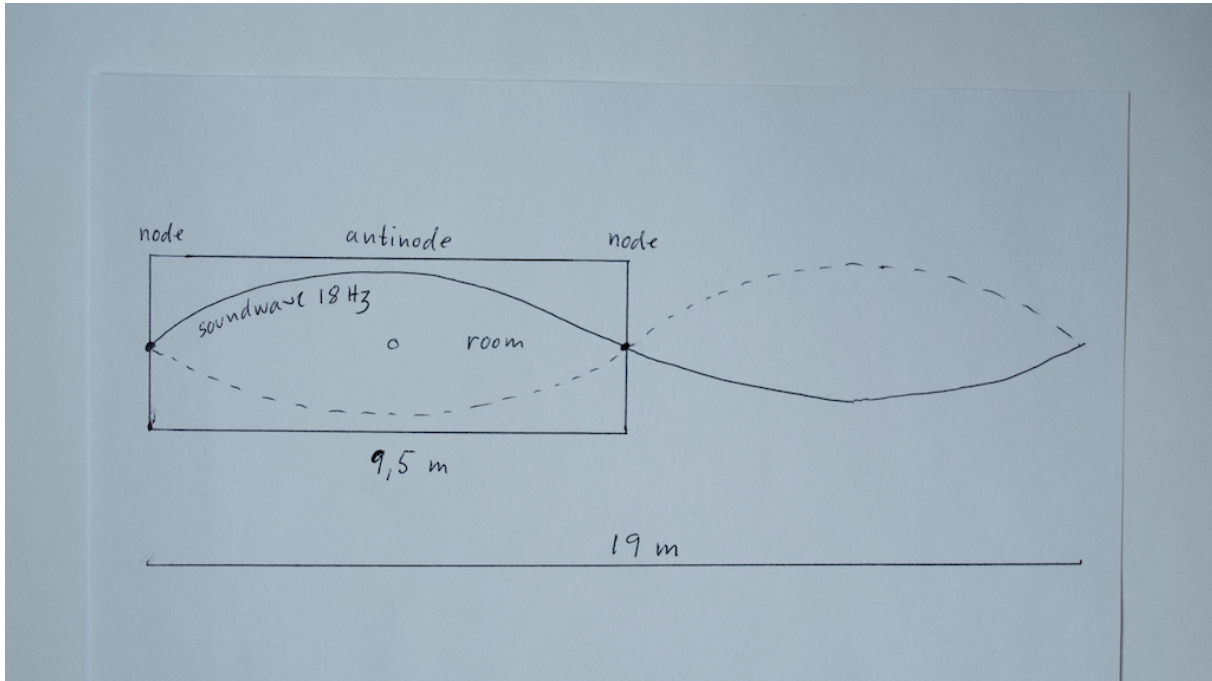
AN EXAMPLE OF LOW FREQUENCY VIBRATION

All objects, bodies, rooms or systems have certain resonant frequencies. The human eye for example has a resonating frequency of c. 18 Hz.³¹

This means that the shape of the eye, or whatever object or room, will vibrate if subjected to a strong enough sound wave at 18 Hz, rather as when you feel that certain notes resonate much better than others when you sing in the bathroom. This is due to the resonating frequency of the confined space of the bathroom. At 20°C the wavelength of 18 Hz is about 19 metres. A room 19 metres long would permit a full standing wave. A room 9.5 metres long would permit a half wave, letting it fold back on itself. The two nodes (zero-crossings of the wave) of the 18 Hz wavelength in such a room would be at each end, and the one antinode (maximum amplitude) at half the length of the room. In such a system, the other antinode would appear at the same spot in the room.

If the sound source is steady, say a ventilation fan, there would be a standing infrasound wave (inaudible), with a maximum amplitude at a fixed location in the room. This was the case when engineering designer Vic Tandy worked in a medical equipment lab. Late one night he was working at his desk in the middle of the room and felt increasingly uncomfortable, sweating but cold, with a feeling of depression, and as if there was a presence in the room. He checked the equipment for leaks. Then “[h]e became aware that he was being watched, and a figure slowly emerged to his left. As V.T. recalls, ‘It would not be unreasonable to suggest I was terrified’. V.T. was unable to see any detail and finally built up the courage to turn and face the thing. As he turned the apparition faded and disappeared.”³²

The following day he was working with a foil blade, went off and came back five minutes later to find the free end of the blade frantically vibrating up and down. This was more familiar than apparitions, so he tried using a foil all along the room. The vibration increased until the middle of the room, and decreased in amplitude until it stood still by the wall.



Sketch of 18 Hz soundwave in a 9,5 m room.

The 1 kW electric motor fan one metre in diameter that was installed at the short end of the room created this low-frequency, inaudible standing sound wave. Such vibration affects the body, regardless of us not hearing them, and if the wave matches the resonant frequency of the eye, the eyeball will vibrate and cause blurred vision. Wearing spectacles may add more obstructions or shadows to this effect. Other symptoms caused by low-frequency sound waves, depending on frequency, amplitude and the shape of the room, may be oppressive feelings, dizziness, middle-ear pain, watering eyes, respiratory difficulties, sensations of fear, excessive perspiration and shivering as well as hyperventilation.³³

It would not be surprising for people in earlier times (at least since industrialization with low-frequency noise emanating from heavy machinery) to be terrified and assume there was some paranormal activity, given that the phenomena experienced had no smell, could not be measured (with available means) or heard, and simply had no apparent explanation in the historical context. The imagination scans the cognitive apparatus to search for any similarities in order to categorize the experience.

What if music can work with surgical precision and predict and produce quite specific reactions? While 'music' clearly has predominantly positive associations as an artistic expression and listened to voluntarily, 'music' also has a dark side as a torture weapon³⁴, among others by sensory deprivation, noise and volume.³⁵ Although I partly explore such aspects, I do this in an artistic and musical, benevolent, liberal and entirely voluntarily context. But music has a powerful potential. As a composer, I answer to the audience, which in turn has trusted parts of their time to the situation I create.

SOUND IN COGNITION

Numerous studies on a possible connection between cognitive performance and listening to music have been conducted. In the article *Music and Cognitive Abilities* (Schellenberg & Weiss, 2013) the so-called Mozart effect is reviewed through numerous studies, as part of the inquiries. The original study of the Mozart effect was published in 1993 by Rauscher, Shaw and Ky. What is evident is that details in study designs are decisive for the outcome, such as the actual state of the control situation (for example staring at a computer screen for 10 minutes as a supposedly neutral situation opposing listening to Mozart). The studies showed varying results, but by looking at their study

design, the article concludes that there is no support for a special link between listening to Mozart and visuospatial abilities. There is an effect, though, of many aspects of cognitive processing. This however, is connected to an improved arousal level, rather than to Mozart. But why exactly was *Mozart* tested, and why is the presumed Mozart effect still a popular belief? Is it due to a western culture priming effect³⁶, assuming its widely accepted kind of neutral zone of a highest possibly achievable art form of implicit superiority?

Actually, *any* music favoured by the listener has the effect of temporarily increasing arousal levels, an alertness, according to the evidence. It would be logical to assume that *any arousing stimuli of favour* will have the same effect. Major key and high tempo had this effect, while the same music performed in minor key and slow tempo did not show this effect. Calming music changes cortisol levels (Flaten, Asli, & Simonsen, 2006) and reduce blood pressure (Triller, Erzen, Dub, Petrinic-Primožic & Koznik, 2006). People also tend to choose music because of the way it makes them feel. (Juslin & Västfjäll, 2008; Lonsdale & North, 2011; Sloboda, 1992). Feelings influence cognitive performance. An increase in dopamine levels is associated with positive affect, and this in turn may improve cognitive flexibility (Ashby, Isen, & Turken, 1999). This last notion will probably be familiar to many music listeners. Listening to background music when performing other tasks also affect our behaviour, choices and performance, due to the associations it evokes. This is because the brain always chooses the easiest way for making choices on necessary or favourable actions.

The point in this connection is that context is decisive for how we perceive the questions in a study, for how we react, for what is actually being investigated in a study. And thus, also decisive for how we perceive art and music. All the details that affect us indicate that the artist, the composer – the creator – should have a clear idea of the *context of their own role*, and what consequences it has to the manifestation of the actual art or music being made. Likewise, one ought to take greater ownership of the *realization context*, in the sense of locality, display location, concert venue, type, time and agogic of presentation and the like.

How could this inform a process of making audio or musical works in the performative domain?

In the next chapter ‘Plastic Cognition’ I will touch upon context dependency in relation to place and remembrance and to symbolic thinking, in order to theorize the perceived connection between site, affect and remembrance.

²³ Haynes & Cooke, 2001.

²⁴ Anderston, Craig. (n.d.). Craig Anderton’s Brief History Of MIDI. *MIDI Association*. Retrieved 15 December 2018 from: <https://www.midi.org/articles-old/a-brief-history-of-midi>

²⁵ The decibel scale. (2018, September 21). *Encyclopedia Britannica*. Retrieved 28 January 2019 from: <https://www.britannica.com/science/sound-physics>

²⁶ Russell, Kevin. (n.d.). Formants. *University of Manitoba*. Retrieved 25 January 2019 from: <https://home.cc.umanitoba.ca/~krussll/phonetics/acoustic/formants.html>; Wood, Sidney. (2005, January 15). What are formants?. Retrieved 25 January 2019 from: <http://per-son2.sol.lu.se/SidneyWood/praate/whatform.html>; Wolfe, Joe. (n.d.). Formant: what is a formant? *University of New South Wales*. Retrieved 27 January 2019 from: <https://newt.phys.unsw.edu.au/jw/formant.html>

²⁷ 1728 Software Systems. (n.d.). Sound Frequency & Wavelength Calculator. Retrieved 15 January 2019 from: <http://www.1728.org/freqwavf.htm>

²⁸ World Soundscape Project – <https://www.sfu.ca/sonic-studio/worldsoundscapeproject.html>

²⁹ Deutsch, 2012.

³⁰ Wackermann, Pütz & Allefeld, 2008.

³¹ Tandy & Lawrence, 1998, p. 4, referring to NASA Technical Report 19770013810.

³² Tandy & Lawrence, 1998.

³³ Tandy & Lawrence, 1998, referring to Temple.

³⁴ Service, 2015.

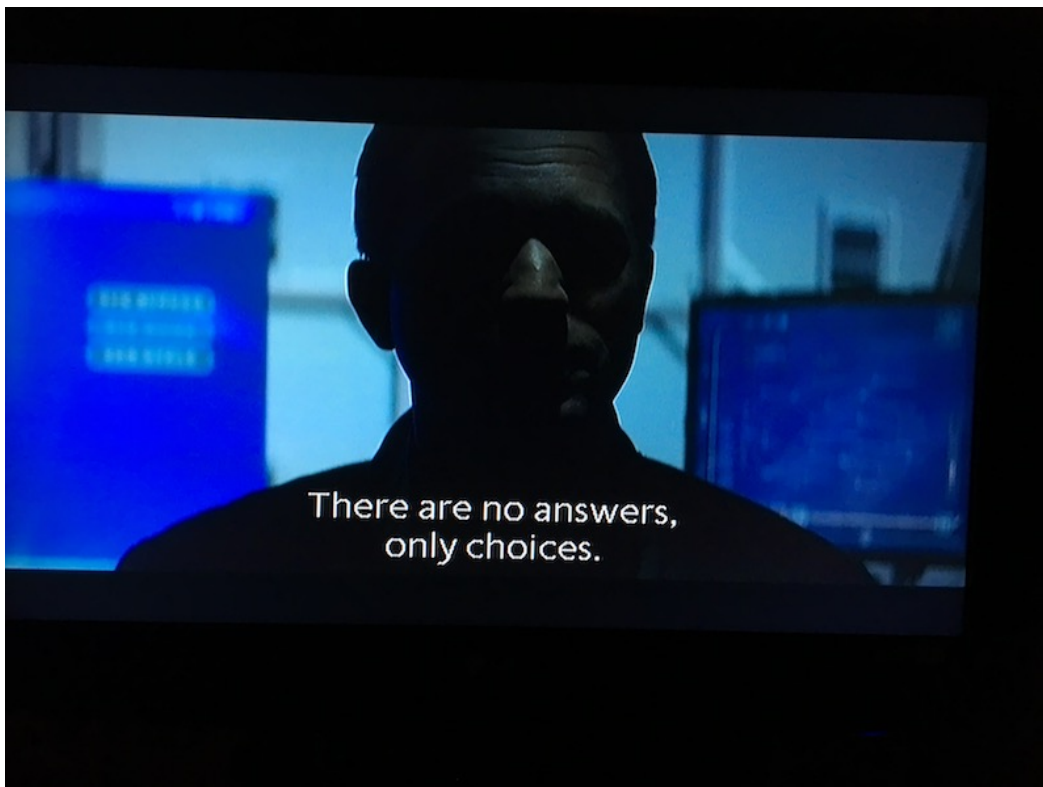
³⁵ Grant, 2015.

³⁶ Kahneman, 2012.

PLASTIC COGNITION

“The dynamics, the plasticity and the ability to learn and gather experience from past events are at the core of some of the brain’s most important, but still most unexplainable, characteristics: the ability of independent thought and initiative and creativity. For what really happens when we get an idea and create something new? No one knows for sure.”

Espen Dietrichs, 2015, p. 135



Screenshot from paused TV-screen: Solaris by Stephen Soderberg, 2002, based on the novel by Stanislaw Lem.

How can we tell which perception is real?
Which are misconceptions?
Which are mere knowledge gaps?
Which are simply perceived knowledge, shaped by custom?
Which are actually meaningful new connections?
We trust a source. Consider true versus trust. We believe it. Trusting what we interpret as true is a choice.
Knowledge is plastic.
Knowledge is fragile.

I am preoccupied with cognition and the linkages between memory and place as a composer because they tell me that site-orientation is important to the functioning of memory, and thus also to the way we understand music. The context of and siting of music is not only fascinating, it is crucial to the experience, and to the interpretation. For me this is a physiological key to an attention to site and context, both in the preparatory phase of a work and in its curating phase, its realization.

Our brain is a fascinating organ that maintains order in the physical functions of the body and our sensory apparatus and how we are to understand and react to internal and external stimuli. External stimuli are sensed or registered through neural impulses. Then these are processed by the cognitive apparatus by comparison with what we already know or think we know, what we believe and what we do not know – our ignorance. On this basis we get an interpretation that is more or less adequate. From this we build new memories, or experience, as new impulses are filtered through the system and actions are determined.

According to Oxford Dictionary, cognition is *the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses*. A good understanding of our cognition goes far beyond the scope of this project. I have nevertheless included some thoughts on this topic in order to contextualize the magnitude of the context of music and shed some light on aural illusions from this perspective. For the reader who is knowledgeable about neurologic brain research, I apologize for this rudimentary treatment and hope I have not mixed it up too much.

PERCEPTION, INTERPRETATION AND INTUITION

We interpret according to what we ‘know’, not what we sense.

Events of the world around us can be summed up as *information*, some of which reach us as sensory stimuli.

Perception is what the brain *detects*, based on the stimulation of our senses.

Interpretation is the brain's *assessment* of stimuli, based on experience and context.

Intuition is quick decisions without a conscious justification – unsystematised conclusions based on all our acquired knowledge, whether correct or incorrect.

Daniel Kahneman speaks of our thinking as split into system 1 and system 2 in his book *Thinking, fast and slow*³⁷. System 1 is automatic and fast, with little or no effort, and is unconscious. System 2 directs attention to strenuous mental activities, associated with actions, choice and concentration. System 1 constantly detects the impressions from the outside world, and suggests further processing to system 2. If system 2 accepts, impressions and impulses become conscious convictions and actions. System 1 is comparable to perception, system 2 to interpretation.

As individuals, we know rather little. We have to make decisions based on deceptive information, although constantly being bombarded with new impulses. All the information gathered is of little use if we cannot manoeuvre in it, in the cascades and flow of information. Our perception of the world is based on our already-acquired knowledge, or our impressions, attitudes and beliefs. Navigation in the unknown is based on familiar patterns. The ability to decode, to re-combine information into new connections that might be of use in an unforeseen situation is the key to our orientation, to our survival. The brain always wants to combine our senses to build up a total impression of the world around us. This is a transfer of meaning.

Interpretation is thus dependent on huge amounts of information, of memorized, internalized knowledge and on association, to be as useful and informed to us as possible. *Speculation* is trying to interpret what one perceives. It follows that context is always decisive for the outcome of our interpretation.

Intuition is unsystematized conclusions based on all our acquired knowledge, whether correct or incorrect. Intuition will not help unless we have collected lots of knowledge and wisdom. We need our intuition, because we operate more efficiently with the quick and often good decisions made out of intuition. Our intuition will be defective if we rely on externally stored knowledge – knowledge not stored and processed in our brains. Knowledge feeds intuition. Experience and knowledge are the raw materials for intuition. Daniel Kahneman calls this “expert intuition”. If our intuition is to function well (as “good intuition”) and help us make quick decisions, it is precisely the ability to manoeuvre in alien territory and situations, in new, previously unexperienced situations, on the basis of *internalized knowledge*, that increases the value and accuracy of our decisions. The better and more comprehensive the internalized knowledge, the easier, more useful and more accurate is the intuition.

Interpretation happens – and is necessary precisely – in absence of something fixed.

Interpretation happens – and is necessary precisely – in absence of something complete.

Nothing will ever appear complete.

All decisions must be made with deceptive information.

If we were to discard internalized knowledge, we would discard all transfer value and manoeuvrability in unforeseen situations. If society in the future were to consist of less internal knowledge, to a great extent with a reduced emphasis on memory (simply not remembering things) and if we were to trust the ability to look up information whenever needed, this would imply discarding experience and efficient reasoning. Adaptivity and the ability to cope with the unforeseen is fuelled by previous experience and internalized knowledge – as much knowledge as possible – with the scope to encompass foreign perspectives.

Looking up information is mechanical. Deciding what to do with it is interpretation. Are we, today, tending to become mechanical non-reasoning beings, while we construct algorithms and artificial intelligence tending to become more reasoning devices?

Culture

A loose, constantly changing and renewing set of thought patterns, communication patterns and behavioural patterns.

A set of shared values, customs, rites, cults.

A way of doing things, dealing with phenomena, explaining phenomena.

A common perception of the world.

A common landscape and territorial experience.

Culture is custom – accustomed – flexible.

Culture is a constructed perception of the world.

Culture is an organization of society.

Culture is a shaped mindset.

ABIOTIC – SYMBOLIC THINKING

We have to start somewhere, assume something. We operate in a culture, in a shaped mindset, where much contextual information is presupposed. Whatever is to be explained or what the story or work of art is about, we must begin somewhere. We assume a starting point. I begin with the origin of life from non-living matter.

The earth is approximately 4600 Ma³⁸ (million anno/years before present) old. It has existed for around a third of the universe's existence, as far as we know. Abiogenesis is life that arises from non-living matter. This is a question at the centre of philosophy and religion throughout times. Aristotle thought animals could come to life from dead tissue. This idea was dismissed by Louis Pasteur in 1862.³⁹ Until Charles Darwin formulated his Theory of evolution in 1859, how life appeared was largely religiously explained. There are several scientific hypotheses on how life arose, regarding precisely which substances combined more or less spontaneously with which surrounding concurrences.⁴⁰ It is staggering to think of how many eventualities that could not have occurred without an extremely long preceding series of other coincidences, in the right place, at the right time, for life to arise. And this earliest life arose between 4280 and 3770 Ma⁴¹ ago.

Huge changes in geology and biology have occurred throughout the existence of earth. Photosynthesis evolved 3200 Ma⁴² ago, and when sexual reproduction occurred it led to an accelerated evolution from 1200 Ma. Advanced multi-cell life emerged 580 Ma with flatworms. From these, the first vertebrates evolved 505 Ma. Those were first fish, later gradually evolved into amphibians, eventually with limbs and the first real terrestrial animals from 375 Ma as reptiles. These split from 265 Ma into two branches.

The first branch evolved into modern reptiles and birds via the dinosaurs that from 231 Ma dominated the world for 135 million years. At this time – the beginning of the Mesozoic era – the continents were united in one large continent, Pangea, Greek for “all earth”. Africa and Eurasia, on the one side, began around 160 Ma⁴³ to separate from America on the other. The mid-Atlantic ridge began to form and the ocean began to form. Volcanic masses thawed from the huge rift in a process still in progress, squeezing dead hydrocarbons together. Our present geological era Cenozoic, meaning “new life” then began in 66 Ma, when the non-flying dinosaurs died out. The flying dinosaurs evolved into today's birds. Much of the present bedrock – not mountain peaks – are formed in this present era. Imagine how recent this really is. Much of the material in our terrain itself is formed during the last 1.45% of the Earth's existence.

Then we turn back to the second branch of reptiles. The first mammals evolved 220 Ma from this branch and primates developed 85-25 Ma. In 63 Ma, the primates split into two, one group losing the ability to produce their own vitamin C, so that all descendants depended on obtaining and eating fruit. From these fruit-eaters are the hominids developed 15 Ma. Those ancestors of chimpanzees and humans separated 7 Ma, when our ancestors had fostered the fundament for later to develop the physical ability to speak. From 3.6 Ma we have indications that these early Hominini rose on two legs. This fabulous leap released two limbs and resulted in an extreme increase in capacity, both presupposing and requiring larger brains. Hands were used from 3.3 Ma⁴⁴, among other things, to develop simple stone tools. This initiates the historical epoch of lower Palaeolithic, from Greek *palaios* – “old” and

lithos – “stone”. The genus homo (our genus, the first human, we can call it) evolved from 2.8 Ma – eventually developing sophisticated stone tools. At this time, the plate tectonic cycle caused the Red Sea to open and begin to fill with seawater. This started just 4-5 Ma ago. The Red Sea is part of the Rift Valley in Tanzania all the way up along the Jordan River in Israel, Palestine and Jordan.

The geological eras are divided into periods. We are still in the Quaternary period – also called both the Great Ice Age and Quaternary Glaciation – which started 2,588 Ma⁴⁵ with the forming of the Arctic Ice cap. Increased cooling began at that time, and must have radically changed living conditions. Such major changes in living conditions lead to allopatric speciation. The term stems from Greek *allos*, which means “other”, and *patris* which means “fatherland” – another place, in other words. A species is spread and isolated in different areas that are no longer in contact with each other. This leads to genetic divergence and thus development. So far, there have been over 30 glacial and interglacial periods of varying scope during the Great Ice Age.

A large exodus from Africa started 2 Ma, perhaps as a result of what is formulated as the Saharan Pump Theory. This is a climate change where a previously humid period of West African monsoon led a green and fertile Sahara of meandering rivers and vegetation to turn into a dry desert period. The desert forced all wildlife to migrate to the Atlas Mountains in Morocco, towards the vegetation around the equator in the south and the Nile valley to the east to survive. From here on further migration eastward via the Levantine corridor (in today’s Middle East) took place. It was possibly Homo Ergaster or Homo Erectus who first emigrated from Africa. This human species appeared about 2 Ma ago and learned to control the fire 1.5 Ma ago. Erectus spread throughout Asia and Europe, but despite the settlements, all these groups appear to have since died out.

The Stone Age is moving into a new phase called the Middle Palaeolithic 300 ka (kiloyears before present) with more egalitarian social organization. The previous ice age was at its maximum 250 ka. From 250 ka it became common to heat the food, so the diet improved dramatically. Here we are at the beginning. This is when our species is evolving⁴⁶ – Homo Sapiens (meaning the wise, to have good taste, be capable to discern). The epoch of our species thus consists of the last 0.0056% of the earth's existence, while historical time – the time from which there exist written sources, that is the last 1-5 ka – is only the last 0.00002 - 0.00011% of the earth's existence.

The last interglacial period is 130-115 ka with a new exodus from Africa. Then the last ice age began with increasing ice caps during the deca millennia from 115 ka. Drier and colder climates with the so-called megadroughts followed. There was little rainfall and heavy aridification in areas that are now full of vegetation. Sea levels were slowly dropping as water was increasingly bound in the expanding ice sheets. Sea temperature dropped. It must have been hard times. During this period, the cognitive revolution is accelerating.

“The modernity of human behaviour is not determined by skeletal evidence, not even by stone tool technologies. It is indicated by the ‘storage’ of symbolism outside the brain, especially in the form of paleoart (the collective term defining all art-like manifestations of the remote human past).” (Bednarik, 2006, referring to Merlin Donald.)

Symbolic thinking is representation. Something stands for something else. It represents something else. Creating generalized stories rich in imagery and figures replaces the original message and makes it easier to pass on to others for them to understand, as they gather the bits and pieces, recombine them and try to make sense of them. Symbolic thinking is basically a storage of information outside each individual’s brain, a way of preserving knowledge or important events beyond what each individual can remember or has experienced. This concept is absolutely fundamental to the later creation and use of myths.

Symbolic thinking is a fantastic invention, enabling the ability to abstract thinking. It must have spurred reasoning and made it possible to keep vital information in its bare necessities alive, through imagination and re-contextualization in every human and historical era down the line.

The first use of symbols that has been found is geometrical carvings on shells (paleo art) dated 450 ka⁴⁷. They were found with the skeleton of Homo Erectus on Java in Indonesia. They show the use of abstract patterns carved consistently and with one and the same tool. The cognitive revolution started around 200-250 ka ago according to some, according to others around 115 ka when living conditions were changed with the increasing last ice age, and at any rate from 75 ka ago. This fantastic revolution enabled simplifying stories and phenomena, a development of culture, storing information outside each individual’s brain and transferring experience from one field to another.

What kind of reasoning and events during the Stone Age were so decisive that symbolic myths were spun to keep the, perhaps, fatal stories alive and remembered?

PLACE AND REMEMBERING

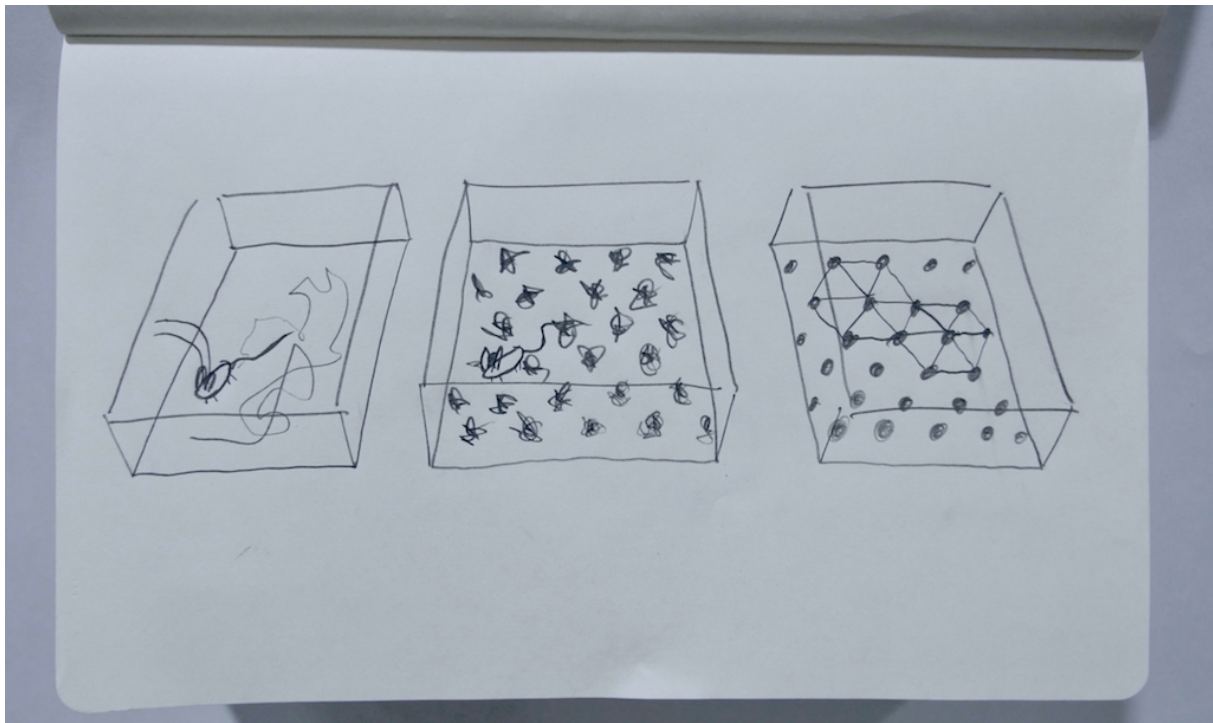
When memories enter our minds, they attach themselves to other, related memories – perhaps sharing surroundings, a feeling, music, sounds or a story. Memories very seldom stand alone, unrelated to other memories. They are collected in groups of associations. Espen Dietrichs in his book *Hjernen* [The Brain] (2015) explains that our memory does not store complete images or events. Only key elements are stored, as bits and pieces. When recollecting, the brain has to assemble these separate parts to recreate the memory impressions. The memories are connected in networks of similar memories, or associated memories – for example with the same person, the same colour, the same place, the same topic etc.

Emotions help us recollect memories. Therefore, our memory is limited without emotions.

Memory seems to spin a separate, extra strong net from personal experiences, or events where the *self* has in some way been involved. Experiences connected to emotions are easier remembered, especially when there have been strong impressions and deviations from a norm.

But even if the incoming nerve impulses arrive in the right places, this is not enough for interpretation to take place. The information must be assembled, coded, in order for us to interpret what we sense.

In 1971 John O'Keefe found cells in the hippocampus that recall certain places.⁴⁸ These cells have the task of remembering exactly where we have been at any time. May-Britt and Edvard I. Moser later examined the area that connects the hippocampus to the rest of the brain – the entorhinal cortex. They found that when rats explored new places, cells in this area fired. Tiny metal electrodes were surgically operated into the rat brains to measure the firing. Single cells are activated only when you are at certain spots, both in light and in complete darkness. The cells fire nerve impulses in a repetitive, perfect hexagonal grid pattern in the brain.⁴⁹ This is a coordinate positioning system, also mapping the environment, as far as I have understood including distance measurements. These are grid cells. They encode our surroundings. The cells fire when we are in specific places.



1. Rat moving

Electrodes inserted in the rat's entorhinal cortex

2. Firing pattern

Single grid cells fire when the rat passes certain points in the box.

3. Hexagonal position pattern

Each cell generates its own grid, overlapping others.

Photo of drawing after illustration in Abbott, 2014.

“The hippocampus combines this location information with many other impressions from what we experience to store this in our memory. Location and space are important elements for our memory.”⁵⁰

Without these grid cells we cannot understand or remember the places where we are and in relation to where we have been. We construct these patterns everywhere we move, stand, walk, fly or drive. John O'Keefe, May-Britt Moser and Edvard I. Moser were awarded the Nobel Prize in Medicine for this discovery in 2014. This system is what gives us a sense of place, our own navigation system. These grid cells, central to our episodic memory, probably developed very early in the evolution of the mammals. Further functions were found. Grid cells combined with place cells, speed cells, head direction cells and border cells, all constituting a constantly expanding mental map of our local environment, of our outside world. It thus depicts position, movement direction, speed and walls or limits. On top of this comes our contextual memory of places, landmarks etc.

It is impossible for us to form memories without connecting them to a certain place.

This is our sense of place, and its task is to map our individual experiences and connect them in memory networks which in turn combine in a context-dependent memory.

Groups of specialized cells work together to deal with complex cognitive functions. Place-cell firings sometimes correlate with future locations.⁵¹ When the rats in the experiment reached a point of choice, representations swept ahead of the animal.⁵² The place-cell groups preplay the possible future locations before deciding where to go. This is probably achieved by recalling the stored representations. "This interpretation implies a direct involvement of hippocampal networks in active problem solving and evaluation of possible futures[...]"⁵³ This is vital to the further understanding of memory – the storage of knowledge – and to thinking and planning.

Our memory, sense of place and ability to navigate are essential to our bodily existence in the world.

Perceived stimuli are connected to place and grid-cell information. The stimuli are interpreted on the basis of whatever the brain associates with the incoming information in order to categorize and possibly identify the stimuli as quickly as possible. Anything involved in this process affects the interpreted result. Experience, memory, understanding, the quality of receptors, placement, trending factors, context etc. affect this speedy process.

CONTEXT DEPENDENCY

What we know about a totality determines what we comprehend from the new things we learn. Everything we experience is interpreted, comprehended in a context, a totality we previously contain or consist of.

The hippocampus constitutes a kind of theatre of memories, constantly playing, always in slightly new reinterpretations, slightly altered combinations, with add-ons from new information, recontextualizing the previous memories. Small cells are put together, combined – reconstructed – to create a scene that is played out somewhere. Everyone has experienced that even people who have experienced exactly the same reality will develop different memories of that particular experience.

Recollected memories are thus interpreted on the basis of new information, or are established anew because information has been forgotten. Memories are regeneration of information, which is a malleable entity. "The human memory is a marvellous instrument of elimination and transformation – especially what we call collective memory."⁵⁴

"Memories are plastic, formable, unreliable for a reason: they are to be used, they are not museum objects. Memories are the precondition of future visions, plans, dreams and the imagination. This is where memory and the future meet. One would not be possible without the other." (Østby & Østby, 2017, p. 223, my translation)

The brain is a wonderfully malleable organ, formed by what we experience and what we do. Memories are not exact copies of the past. They do not form an archive, as the past is not that important to the organism. The *future* is important. Therein lie potential dangers and potential partners. Our ability to create scenarios for the future and recall vivid memories has probably been a huge evolutionary advantage. The memory system is an open, flexible system that yields the possibility of creating an almost unlimited set of scenarios in our consciousness, which can all be evaluated consecutively.

As brain research has shown, the way our cognition works corresponds to the spatial positioning of our thoughts. This, however, has probably been bodily experienced and understood for ages, without scientific support. An example is the ancient Greek mnemonic technique *Ars Memoriae*⁵⁵, also called Memory Palace or the method of loci (journey method), was used to remember speeches that could last for hours. The technique is to let key points be represented by certain objects and visualize them in connection with particular locations. To remember a lot, one creates an imagined route to follow, for example through a city. The strategy is to envisage walking along

the route and attach small portions of information to certain objects in each location. Recalling involves imagining walking through and remembering the places, the objects and then the information one has associated with it.

KNOWLEDGE GAP

Impressions, memories and false memories behave quite similarly. Our memory is reconstructive and flexible. Exchanges take place. Memories are stored as fragments, separate content common to several memory networks. This is efficient and saves space. However, all memories must be reconstructed and recombined when recalled. And so, we fill in the gaps with what appears likely. As a repository of props bound in a network maintained by the hippocampus. This is efficient: it frees up our thoughts – to interpret, to adapt, to use the information, to recombine it. We can see if the information fits or can help us understand the unforeseen, previously unexperienced situation we are facing. But efficiency comes at a cost: Things may easily be confused, erroneously recombined. False memories can emerge. False knowledge.

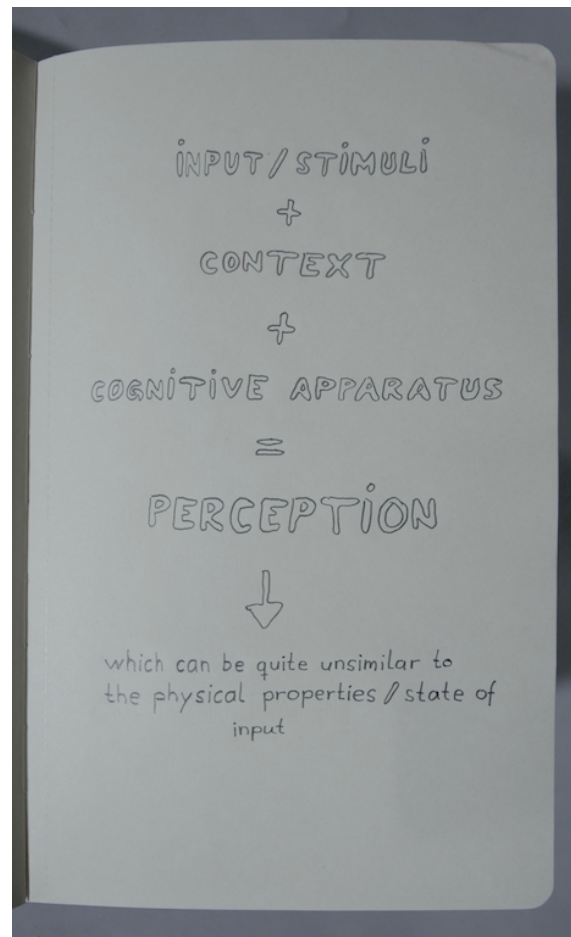
Amnesia is an important facet of memory. It happens *during coding*, since one's attention cannot be everywhere at the same time. It happens in *short-term memory* – the working memory can only manage about 20 seconds or 7 digits +/- 2. Many memories are not even held there for further processing. Worries and stress clutter the working memory. Short-term memory is precious; it occupies space, but is important to us. However, different layers of information that do not distract one another can be processed simultaneously. Amnesia also happens *during decoding* (remembering and recalling). Cues can be mixed up, become attached to another, but similar, memory network.

When trying to understand those missing parts, the brain has to do so within current, available and present frameworks of understanding. This is why standpoint and context are crucial to what and how we interpret. We do not comprehend something in a neutral, logical or abstract way, as something real or actual, as an objective reality, as detached from context. Such a reality may exist, but no human being can claim an objectively valid perception of external reality.

The French sociologist Émile Durkheim says that “*society is memory*”⁶. Memories change every time they are retrieved. They are overwritten. They are influenced by new context when they are retrieved and interpreted. The effect is that memory is recontextualized. The collective memories of society, in books, courses of education, ideologies, politics and attitudes, are precisely in a process of constant change. Everything, including fake news, affects our collective ‘knowledge’. In purely physical terms there is no difference between right and wrong in our memory and perception. Misconceptions, misunderstandings and active changes in events remain in the collective memory of society.

Everybody has an individual, specific and personal history of experiences, cognitive capabilities and bodily capabilities, resulting in a supremely distinctive apparatus on the basis of which the outer world, external stimuli, what we sense and experience are interpreted. That is why it will always be very difficult to appear ‘objective’ or neutral. Nobody perceives the same information in the same manner.

The brain jumps across the knowledge gap because we cannot stop all processes to perform thorough evaluations every time we lack information. Therefore, everything is processed in context and based on what the brain thinks it knows. We jump to conclusions, all the time. Previous knowledge of similar situations is good enough, because there may be a need for immediate action. Therefore, the brain constantly filters and interprets the perceived information bombarding us from the surrounding world, creating an understanding aimed at survival rather than correctness. Our cognition opens up the possibility of conspiratorial thinking through the ability and the will to try to fill in the gaps, the shortcomings, the emptiness. At the same time the brain learns what it repeats in a process similar to feedback. Thus, not only useful mappings, but just as well errors and misconceptions become



self-reinforcing. Our interpretation is what we store. This therefore makes enormous ethical demands on utterances, on media, on the educational system, and on the individual.

The German-Canadian psychologist and criminologist Julia Shaw researches the planting of memories and the use of manipulative questions suggesting connections between events without connections and the use of memorization techniques³⁷. She thinks there are hardly any limits to what people can be manipulated into remembering about what has happened (invented experiences). Her research is based on amongst other the work on memory of the American researcher Elizabeth Loftus, who wrote the book *The Myth of Repressed Memory* (1994).

Our knowledge of the world around us is extremely vulnerable. It is challenging that the same brain we use to identify manipulation, for example, is or may be manipulated to a greater or lesser extent.

ARTISTIC PRESENCE

To me, the strong connections between bodily presence, emotional engagement and memory suggest an artistic approach that involves siting. I have tried to pursue a way to activate emotional reasoning, but without the inherited thinking down the line from the Baroque era ‘Doctrine of Affects’ – traditional agogic and emotional methods often used in music that is traditionally oriented.

Summed up, the plasticity of our minds could reveal an artistic landscape where exploration of manoeuvring, deceptive information and working with expectations and unclear or inconclusive situations would seem worth inquiring. This line of cognitive insight is further inquired in view of landscape and time in the following chapters, in order to develop possible paths for how this could be applied artistically to better create a connectedness.

³⁷ Kahneman, 2013.

³⁸ Voje, 2019.

³⁹ Abiogenesis, 2019.

⁴⁰ Kjørstad, 2019.

⁴¹ Voje, 2019.

⁴² Setså, 2015.

⁴³ Sivertsen, 2012.

⁴⁴ Morelle, 2015.

⁴⁵ Cohen et al., 2013.

⁴⁶ Karmin et al., 2015.

⁴⁷ Andreassen, 2014; Joordens et al, 2014.

⁴⁸ Moser, Kropff & Moser, 2008.

⁴⁹ A short introduction film: *Edvard and May-Britt Moser: A journey into entorhinal cortex*. (2011). [Information film, 5 min] Youtube: NTNU University. Retrieved 7 September 2017 from <https://www.youtube.com/watch?v=CguL5pEpUY>

⁵⁰ Dietrichs, 2015, p. 127 my translation.

⁵¹ Moser, Kropff & Moser, 2008.

⁵² Johnson & Redish, referred to in Moser, Kropff & Moser, 2008.

⁵³ Moser, Kropff & Moser, 2008.

⁵⁴ Olwig, 2002, p. 52 – quoting Marc Bloch.

⁵⁵ Malamud, n.d.

⁵⁶ Émile Durkehim referred to in Støstad, Mads Nyborg, & Gilberg, Liv Berit. (2017, June 10). *Jeg har et falskt minne. Det har antagelig du også*. nrk.no: <https://www.nrk.no/dokumentar/xl/den-forraederske-hukommelsen-1.13512390>

⁵⁷ Støstad & Gilberg, 2017.

LANDSCAPE

“Our environment, conceived as landscape scenery, is fundamentally linked to our political landscape.”

(Kenneth R. Olwig, 2002, p. xxxii)

<i>Land</i>	A definite portion of the earth’s surface owned by an individual or home to a nation. ⁵⁸
<i>Site</i>	The place, scene, or locality of an occurrence or event, position occupied by something. ⁵⁹
<i>Location</i>	A tract of land marked by some distinguishing feature. ⁵⁹
<i>Space</i>	1. A limited extent in three dimensions, a volume. 2. A period of time. ⁵⁹
<i>Place</i>	A particular local position of indefinite size of dimensional extent, room, area. ⁵⁹

POWER RELATIONS OF LANDSCAPE

I zoom out and back in time to find a foothold. For what is the relationship between landscape and interpretation?

The book *Landscape, Nature and the Body Politic* by Kenneth Robert Olwig is an original study of the power relations of landscapes. Olwig strikingly demonstrates how landscape and nature have been used to define the legitimacy of the ‘body politic’. He uncovers the connections among facades, impressions, concepts and power, as shown for example by the Scottish Renaissance monarchy’s use of theatre – masques – and the idea of a “true” natural law laid down by the landscape and those in power, as well as the King’s narrative about close connections to the landscape as the legitimization of power, law and custom.

In the European Renaissance the German word *Landschaft* referred to a political entity (a judicially defined polity) more than a certain size of territory (a spatially defined area), in English comparable to the concept of country. The root *land* in landscape probably stems from Proto Indo-European **lendh*, “open land, heath”, Middle Welsh *llan* “an open space”, Old Church Slavic *ledina* “waste land, heath”. Anyway, it seems it has meant “a definite portion of the earth’s surface owned by an individual or home to a nation.” Landscape is where we are, where we live, what we are used to, accustomed to, how we have to act in relation to the actual geography surrounding our lives. But it also provides an embodiment of the image of what the country is. It is the place of community, where community resides, exists, for reasons rooted in landscape conditions. The German suffix *-schaft* is related to the English *-ship*, from *schaffen*, to create, make or *shape*, Old Norse *skapa*. The shaping of land, in other words – both physical shaping in villages and towns, agreement on limits and land use, and the organization of rules: to which people and where those rules should apply. Olwig says “The land is bound by custom, but the land also binds the memory.”⁶⁰ The landscape we live in, make rules for, are dependent on and defend also affect our memory, our understanding, standpoint and our world view.

The backdrop is as follows: Anne of Denmark, sister of King Christian IV of Denmark and Norway, married King James VI of Scotland and became Queen of Scotland in 1589. James then succeeded to the thrones of England and Ireland in 1603 when the last Tudor, Queen Elizabeth 1 of England and Ireland, died without children.

Anne took it upon herself to organize fantastic, expensive masques at the Royal Court, to induce audiences to envisage the new, now united ‘nation’ of Britain as one landscape scenery. To propagate an idea of a larger Britain and legitimize the King through staging of masques – showing the idea. A masque is a play involving dance, song, poetry and elaborate stagings. This ‘idea of Britain’ was to replace the earlier concept of the three kingdoms of Britain as landscapes in their own right, as separate nations. One of the plays she instigated was *The Masque of Blackness*. Inigo Jones was the stage designer for this masque, which was written in 1605 by Ben Jonson. They worked closely together, and the focal point for the lines of perspective was the throne, the state, elevated above the public on a palisade. This was an early form of *Gesamtkunstwerk*, a form of total theatre that lasted hours. “The

spectators were overwhelmed by music, dance, song and spectacle,” Olwig says. “At certain set times [...] all participated in a ritualized unifying dance”⁶¹, and at certain moments would “enter the *staged illusion of an imagined world*.”⁶² This staging is a political legitimization, meant to establish the idea of specific actions or ideas as “true”, with a certain person having “legitimate power”. This happened at the same time as the emergence of opera on the European continent – the Renaissance artists wanted to recreate the ancient Greek dramas, in which they imagined music to play a vital role. The first was *Daphne*, 1598, by Jacopo Peri, and the most famous was *Orpheus* by Claudio Monteverdi, 1607.

At this time, kings had to travel around their realm constantly to show the ‘body natural’ (Olwig’s term) to the public. “If people were to believe in the power of the state, they needed to see the body of the king who gave it authority.”⁶³ This was a bit tricky for King James, since he was shy and fearful. “The masque, however, provided a means for envisioning the body politic in abstract spatial terms. It provided a symbolic way to separate the king’s role as the surveilling head of state from his physical corpus as the symbol of the body politic.”⁶⁴ For Anne had learned from her mother “**that much of the power at court lay in the manipulation of the symbolic face which it presented to the body politic.**”⁶⁵ The king could be represented by the spectacle of the theatre. The masque was an engine for the larger political theatre of the state. It was effective in creating a new myth, a new custom, to accustom the people to a new polity. It was effective to stage a new reality, to mindscape a people, to anchor the ideas of the new nation of Britain so that they were saved in and protected by the minds of the people. The masque was a symbolic representation, that is, staged in order to give an impression of the locus of power, its legitimization.

Ceremonies, performances, speeches, coronations, weddings and even outright wars are theatre, stagings – a spectacle – to promote an image and impression of legitimate representatives of power. The stagings are formed to shape a subjective ideal perception of the world.

Landscape is the topography of our lives,
the topography of our minds, of our existence,
the place and reference for our conceptions.
Landscape is a requirement for physical manoeuvring.

Landscape is the scenography of the state, with its territory, its terrain with food and water and mineral resources – its defensible areas.
Landscape is the scenography of culture, of custom, of our ideas of power.

People need to choose to believe in the power of the state,
in order for the idea of authority to work properly.
All power starts out as an idea.

POLITICAL LANDSCAPE

Landscape is the topography of our lives. The physical properties of a particular landscape and its actual form and scale affect the mentality of the population living and organising their lives there. Landscape is the scenography of the state, of our polities in our present world. Landscape is the foundation for all political. The landscapes and sites of our societies also contain cultural symbols that organise our mentality and conceptions about polity and reality. The cultural symbols of the landscapes are important as to what we feel about the territory, the political landscape, a community, a site. Our feelings are easily manipulated. Our feelings are easily used in the global political game, where we choose to believe or not to believe in the power of the state we live in. Our feelings are closely connected to our place in the world, our position, world view, standpoint – to identity. Identity sits in culture. Cultural symbols and cultural identity are highly flammable and ought to be handled with care and sensitivity because of its potential power of uniting emotional actions and reactions. All people everywhere and at any time are vulnerable to the emotions of cultural identity in motion.

Our physical landscape is fundamentally attached to political landscape. The physical landscape is the container for our lives, and what keeps it together is a common perception of its concepts, utilized by cultural symbols. Today we see an increased use of cultural identity and cultural symbols connected to a common understanding of land and landscape in the everlasting spectacle of political power. Political and cultural rhetoric on who are to be included and who are to be excluded spur symbolic emotions rather than rational reasoning when propagating new policies in the spectre from protectionism to fascism. Our world today is reaching dangerous levels of antagonism. With entire populations around the world seeing harder times ahead, struggling to navigate their lives, and the immediately available social media apparatus in everyone’s hands for manipulating their opinions and igniting their emotional response to pretty much anything, we may stand at the brink of a significantly more unstable, not very pleasant world of conflict. The world faces huge issues of refugee crises, climate crises, severe environmental issues and arms races. Not only because it is the right thing to do and in accordance with ethical norms, but also

because it will reduce tension, the fundamental global inequality of wealth must be addressed. Needed is interaction instead of protectionism. Needed is communication in all forms. Needed is as many connections as possible. Needed is context sensitivity, rather than outward directional superfluous rage. Needed is trying, in all possible ways, to communicate and understand foreign perspectives. Needed is a diverse palette of contact and ways to understand other perspectives, both from those who “own” a story and those who do not own a story, illuminating a case from different angles. Seeing oneself through the filtering of the views of others contribute to more perspectives, as a way of increasing the number of neural paths in the world, comparable to how the brain works. In the work *Mirnyj*, I enter the position as a foreigner trying to understand. It might fail, but the attempt to enter a zone in-between to search for a possible way to negotiate and recontextualize perspectives on political landscapes is worth it. Please also refer to the chapter ‘Mirnyj’, section ‘Observer’ on page 95.

Manipulation of the symbolic face

Speculative connections between cultural symbols of landscape, art and political landscape have been made, is being made and will unfortunately most likely continue to be made. As for the Stuarts in Britain mentioned above, much of the power of Nazi Germany lay in the manipulation of the symbolic face which it presented to the body politic. They used common notions to build an abnormally absurd emphasis on cultural identity, to envision the idea of a common cause through culture and art. Peter Adam’s book *Art in The Third Reich* presents a thorough review of the cultural policy, what kind of symbols and what kind of style that were allowed and promoted in the Third Reich. *Culture* was used as the engine for Nazism. Not in the sense of German culture, or a folk culture, but in the sense of creating a unifying idea.

Imagine how the political landscape change with just a few tendencies (here briefly exemplified by three separate circumstances): One is the Entente Powers’ decision to split Austro-Hungary in the wake of WW1 (into Czechoslovakia, Austria, Hungary, and its western Balkan regions united with a dominating Serbia that was previously under Ottoman influence, to Yugoslavia). The diminished Austria was next-door to a defeated, but still powerful Germany. Another the pogroms during the 1800s in Russia driving Jews to western parts of Russia, to a limited zone (admittedly large, but a separate area of Russia) where Jews were allowed, excluded from the rest of the Russian empire. Which, in turn, accentuated a Jewish exodus and spurring further Jewish immigration to many western European countries during the 19th century. A third moment is the organization of territories and emotional power balance between Austria and Germany. A democratic revolution happened in Germany after WWI, establishing the Weimar Republic, struggling to settle down as a major European country among the traditional colonial empires. This happened after its fairly recent formal unification in 1871 (again after an ongoing integration process since the Napoleonic Wars period of early 19th century, with among others the German Confederation and the German Zollverein). And here: Hitler’s birthplace in Braunau am Inn in Austria, where the river Inn is a border river to Germany, a 5 min walk from his house with the bridge to its German sister town across the river, the language and culture is the same. This is a very brief backdrop.

Culture was mercilessly used for all it was worth to try to conform and unite the people (*Volk*) under a common idea and a unison understanding of why they should comply with the commandments of the Führer. By *culture* I imply a common perception of the world, a set of shared values, customs, rites and cult, a shaped mindset, an organization of society. Everything not conforming or contributing to the policy was condemned by a set of new laws already from 7. April 1933 in the *Gesetz zur Wiederherstellung des Berufsbeamtentums*⁶⁶. Modern art, experimental art and atonal music were condemned as *Entartete Kunst* – degenerate art. Many artists, lecturers, composers and architects were banned, excluded from work. Many left the country. Surprisingly many stayed. Separate exhibitions for the presuming “Great German Art” to arise from the ashes were arranged, new neoclassical museums were built. What was allowed on exhibition was strongly curated, streamlining all cultural expression to adhere to political views, to contribute to the political theatre of uniting the people (except for large minorities excluded from the notion of *Volk*). There is a grand, excluding ‘we’.

Modern art was totally banned by 1936. By mid 1937 “Hitler and Goebbels decided to clear museums of all remaining modern art”⁶⁷ and establish a last exhibition of the hated art, entitled *Entartete Kunst* was set up in Munich 1937. Joseph Goebbels (Cultural Minister) announced in November:

*“How deeply the perverse Jewish spirit has penetrated German cultural life is shown in the frightening and glorifying forms of the ‘Exhibition of Degenerate Art’ in Munich. ... This has nothing at all to do with the suppression of artistic freedom and modern progress. On the contrary, the botched art works which were exhibited there and their creators are of yesterday and before yesterday. They are the senile representatives, no longer to be taken seriously, of a period that we have intellectually and politically overcome and whose monstrous, degenerate creations still haunt the field of the plastic arts in our time.”*⁶⁸

In the opening speech of the *Entartete Kunst* exhibition, Adolf Ziegler announced:

“Our patience with all those who have not been able to fall in line with National Socialist reconstruction during the last four years is at an end. The German people will judge them. We are not scared. The people trust, as in all things, the judgment of one man, our Führer. He knows which way German art must go in order to fulfil its task as the expression of German character. ... What you are seeing here are the crippled products of madness, impertinence, and lack of talent. ... I would need several freight trains to clear our galleries of this rubbish. [...] This will happen soon.”⁶⁹

Many paintings, drawings and graphic work were burned in March 1939. The rest was sold, stolen by Nazis with a sense of business or hidden away. *Art criticism* was banned to help the goal-directed coordination of cultural life. This was done to remove discussion and reasoning, and to abolish a professional, informed discussion on meaning. Criticism was replaced by *art reporting* which should confine itself to mere description. The public itself should instead function as critic. Only publicists falling in line were allowed.

Artistically, allowed was an expression of traditional values, figurative, tonal, classical forms, values and German Mythology, but blown out of proportions. Adam remarks that “A total loss of any sense of scale characterizes most of the architecture of the Third Reich” where “The human being was dwarfed by the scale [...] and reduced to an insignificant prop.”⁷⁰ This loss of sense of scale is expressed in many entirely disproportionate actions, exemplified with the treatment of the art scene and music scene. The majority of the leading Nazis had never been abroad, and just a few had any higher education. Their view was provincial; limited; closed; uninformed.⁷¹ The cultural policy, the idea of what the country was, was pulled out from a romantic longing for the nature, for harmonious rurality; for landscape as a container for a uniform culture keeping the *Volk* alive. A manual and retrospective view on traditional values was completely dominating. The romantic fusion of man and nature was one of the central themes. As Adam says, “Again and again the idea of the Volk was linked with the landscape. The country was a place of belonging.” For the new painters, “[t]heir landscape represented the German’s *Lebensraum*, their living space.”⁷²

At the same time Germany was an advanced industrial country. This manifestation of modernity was not promoted in the arts. Symbols of the envisioned unity were used: the traditional inherited family *farmer* connected to the German landscape and manual labour (the blood and soil notion), the *worker* (or traditional craftsman) manufacturing goods ‘building the country’ and the *soldier* empowering the country and its legacy. These figures did resemble notions in the people, notions that already were in play due to the political history. Just one of these notions stem from family farms seeing high rates of foreclosure after the financial crash in 1929. It is not difficult to find reasons for a popular desire to promote a continuation of family owned farms, also in view of the Russian revolution and Bolshevik Russia’s farming policies.

Exclusion as the foundation of power

The Italian philosopher Giorgio Agamben writes about exclusion as the foundation of power.⁷³ Power – the power to regulate, or making of laws – is the power to exclude, or to set the law aside, to declare states of emergency. To include (some people) is to exclude (some others). This is a basic structure, also of modern western democracies.

Consider ‘Excommunication’, Latin *Ex communio* – “outside the common”. It means literally not being allowed to take part in the (Christian, religious) communion. Those excommunicated in a religious context are excluded from ecclesiastical activities. On the other hand, ‘communication’, Latin *communio* is “to participate in something”, “that which is common to all”, *communicare* – “to do together”, “share”, “divide out”, “inform”, “unite”, “participate in”. Communication is based on relatively common perception. True common perception is, however, in essence impossible.⁷⁴

It is crucial to take this into account when one develops societies and new policies, and in order to understand foreign perspectives. As I see it, this is related to our cognitive tendency towards perception based on expectations. This is based on the fact that our cognitive apparatus will always try to make external stimuli fit with already known information – no matter what the external stimuli actually consist of. Bertolt Brecht calls this ‘thinking before we have observed’. But to interpret and understand better we must be aware of this, and must try to maintain a listening attitude, be prepared to shift the framework of what we are attuned to. The ability to observe and navigate in unknown territory, to deal with inadequate information, is fundamental not only to the individual but also to society.

Will the extreme formulation, the critical situation, mean that the listener is more alert? Will it have a clarifying effect, demand a more responsive attitude? As an audience, will we prick up our ears, try to put the pieces in place, manoeuvre our way forward to recognize and grasp the perspectives of others?

Just as the modern demand for regulation cannot be met without the existence of something wild, Agamben thus claims that inclusion requires prior exclusion. ‘Inclusion’ is Latin *includere*, from *in-* + *cludere* (“to shut”), “to shut in”, “enclose”, “insert”.⁷⁵ Inclusion involves absence of the excluded. Inclusion is impossible without

exclusion. Inclusion includes exclusion. Who defines the truth of the situation – the included or the excluded? In whose perception of reality should we put our trust? How important is the context to the perspective of different interests?

Consider China and the ongoing invasion of surveillance, of facial recognition. Think of how we all seem to accept cameras and microphones that we buy voluntarily and carry with us, constantly being capable of monitoring what we say and do in private, in the name of benign services. These issues are indeed problematized: in books, critical articles, newspapers, films, TV-series, artworks, conferences, by scientists, consultants, workers, programmers, boards, authorities, politicians and in ordinary everyday discussions all over the world we ask, wonder and criticize. Still, it is as if we are not yet able to tame this kind of technology to operate on our terms, as human beings, to the benefit of *our* societies.

Anyone who rejects a common identity and collectivity in principle becomes an enemy of power, of the community, of culture so to speak, and thus of the state, because most countries are nation-states constructed around shared cultural reference points. This means that power structures will try to influence the outsider. But power structures try to counteract this precisely by creating (new) outsiders. They will create unities, or totalities, where those who are included are integrated in the unity. The power structures thus integrate by excluding. State borders, cultural borders, religious borders, all regulations of policy, benign or otherwise, in an in-group, presuppose and inherently involve policies towards an out-group. Regulations are thus about deciding on the degree of excommunication and exclusion to use. Doing this involves a potential for violence, and in the longer term they undermine themselves. They undermine qualities that any civilization will need. It is therefore important to distinguish between parallel realities that have arisen through the neglect of information, and foreign perspectives that have arisen through other available internal cognitive structures.

Restriction of what is common

Referring to the idea of *Lebensraum*, it is worth noting that the historical standard has been free movement of people. It must be admitted that until transport beyond walking distance became economically and practically available, the free movement limited itself at least on land. However, although various regulations for relocation have been required in Europe since the Middle Ages, it was not until the 18th century a necessity for the principalities to know who were actually inhabitants of each country emerged, and consequently the issuance of passports and clearer organization of territorial boundaries. Before that, in the everyday life of ordinary people, it was not really critical what side of a border they lived on. As communities began to customize their organizing, awareness increased not only about which village or valley you belonged to, but which country you belonged to, and the countries developed their own common traits. This is seen, for example, by the fact that the Scandinavian languages are more different now than in the 600s when social organization was more fluid and less interfering in the everyday life of ordinary people – regarding territorial affiliation – despite improved infrastructure for movement and communication. A development of particular national customs follows the organization of the political landscape. The forces of a particular unity weaken interaction and reduce the perceived commonness with neighbouring units. In the romantic ideas of the 19th century, a longing for nature was portrayed and cultivated. This was filtered through the concrete landscapes that each nation encompassed. Thus, each region, or nation, tended an idea of their own existence connected to the particular excerpt of nature of their reign, as the cultural symbols defining the nation and the people.

It implies restricting *what is common* to a limited entity, namely to the *country* or *nation*. This delineation largely characterizes us today. It affects available mental areas of movement and frames of understanding. Such a demarcation may be benign to creating a community. But defining notions of political landscapes may also grow out of proportion and when they are about to do that, we must be able to recognize them, and act on it. We must always remind ourselves what the key principles really are for. That discussion however lies outside this project. The interesting thing in this context is to point out that all politics are somehow linked to power over landscape, to the power to define it, to fill the territory with symbolic content. This deflects to art and music, also being linked to a political landscape and its cultural symbols, in an anesthetized negotiation of power to define cultural values. These values, in turn, legitimize territorial political power. An artistic question emerges from this:

Should we today accept external purposes, political aims, considerations and requirements no matter how benign they are? And to what extent can such a willingness to comply with external policies today lead art and music astray?

There is no guarantee that political ideals will not be sought, cultivated and promoted in the arts and music in today's liberal democratic countries. In fact, it already happens, in both democratic and totalitarian countries and systems in-between. Just think of the top-down antagonism promoted by the sovereigns of today' power entities, with Trump in the USA, Orban in Hungary, the Law and Justice Party in Poland, Erdogan in Turkey, Putin in Russia, Jong-Un in North Korea, to name just a few. Huge organisations such as the World Congress of Families advocate reactionary right-wing policies of traditional values along lines of identity and influence many politicians

and political parties. Steve Bannon's alt-right movement stir entire populations by use of feelings, nostalgia and identity. Up for fight is who most effectively speak to feelings. The idea of "the soul of a country" becomes more and more important and contributes to a more toxic public conversation. A reduced respect for democratic principles is spreading. Erdogan narrows liberty in Turkey, maybe even Johnson in the U.K. this autumn suspending the British Parliament for an unprecedented lengthy period to have them out of the way when working on the Brexit issue, and Britain is more divided than we have seen for a long time. This is a calculated obstruction of the instruments of democracy. Not to mention the Brexit idea and debate, seemingly based on a sentiment on re-establishing British imperial pride and power (the Brexit slogan was 'Take Back Control'). Another example is the weak civil system traditions of Russia which are narrowed by the Government to obtain a strong, unified country, to promote a common idea of its strength. It seems we are on full speed back to a top-down structure of sovereigns imposing their slogan reasoning to "their" societies, rigging the countries to policies *against* other countries, rather than seeing as their task to enable a free and thriving civil life, trading goods and exchanging ideas, to improve the conditions for humanity and the environment. Awareness of the formative forces of a landscape for a people, for a country's understanding of its place in the world and its world view is site awareness scaled up.

AFTERTHOUGHT

After the Second World War, in the middle of the 1900s, the big victorious nations helped reconstruct devastated societies in Europe, which gradually developed a European Union. Worldwide commerce thrived, borders became less physically divisive. In earlier times, borders had been a matter for rulers and their battles for power. At this time, they were increasingly seen as markers of identity and customs. A globalization took place, and human beings became more equal in relation to one another; but with more equality the small differences also became more divisive. Whereas earlier the need for organization was met by states and empires, it now gave way to a growing patchwork of international agreements, leaving the stage to global corporations not answerable to any political body subject to societal control. Countries and societies were bound by invisible networks, leading to absurdities and increasing frustration with the lack of global jurisdiction.

The insurgency happened after a period of uncertainty, with weakened institutions and some unrest. It led to a global reorientation with different solutions around the world, all involving close integration of conglomerates of neighbouring territories, which in turn took part in looser collaborations with other political and territorial entities.

This 'Insurgency Period' with its reorganization shares characteristics with the Migration Period around 400-600 CE, arguably including some events in 100-900 CE. This was a time of invasions and crisis, and there are considerably fewer written sources from this period than both before and after. In times of crisis institutions are weakened – by everything from less funding via fires to outright war. People need to give priority to what is absolutely necessary. The second priority is the collective memory of society.

We certainly know considerably more about the Insurgency Period than about the Migration Period, but the information we have is deceptive and difficult to interpret. In fact, we have enormous amounts of information, but of low or unclarified quality.

We can only speculate about what happened. It may seem that 'origin' and 'source' lost their weight as concepts, since much of the information is characterized by doubtful origins and unknown sources, but formally appears as indubitable information. Why this came to be we do not know, but the transition to this period seems to have taken half a century. Some historians claim that people no longer differentiated among speculation, entertainment, comprehension, reality and true information. They point to evidence of the dissolution of many systems of verification. This may have contributed to our continued difficulty with reality, true information and comprehension.

⁵⁸ Online Etymology Dictionary

⁵⁹ Merriam-Webster dictionary. Retrieved from: <https://www.merriam-webster.com>. This excellent dictionary is used extensively throughout the project.

⁶⁰ Olwig, 2002, p. 56.

⁶¹ Olwig, 2002, p. 82, referring to Strong.

⁶² *ibid.* p. 82, my italics.

⁶³ *ibid.* p. 89.

⁶⁴ *ibid.* p. 89.

⁶⁵ *ibid.* p. 5 – referring to Bech.

⁶⁶ Engenhansen, 2014.

⁶⁷ Adam, 1992, p. 121.

⁶⁸ Adam, 1992, p. 123. Adam's reference: Goebbels, November 26, 1937, in *Von der Grossmacht zur Weltmacht*. Translation in Mosse, pp. 152-53.

⁶⁹ Adam, 1992, p. 123.

⁷⁰ Adam. p. 227.

⁷¹ Adam, 1992.

⁷² Adam, 1992, p 130.

⁷³ Agamben, 2010.

⁷⁴ Online Etymology Dictionary

⁷⁵ *ibid*

LAND MUSIC

“The way to transcend history, to produce that space which suspends time, is through imaging and hallucination.”

Gaston Bachelard *The Poetics of Space* (1957)

“To remove the work is to destroy the work.”

Richard Serra

Sound and space are inextricably connected. Music – with its sound waves – depends on a medium, a space, a place, to be effective – to be propagated. And then precisely this configuration of ‘space’ is not a neutral zone.

When I work with space-, site- or place-oriented musical works it is vital to tune in to a sensitivity to the surroundings. It is a matter of searching for the articulation of the place. A listening attitude and considerate study of their characteristics can make both the place and the material *mean* something, vibrate and *have a consistency*. The place must inform the work.

When you are working with music, the time it takes to work out the details is so much longer than the time it takes to listen to the situations. Music is most often ephemeral, not connected to or dependent on permanent physical objects. Music unfolds in the domain of time. Time and timing are key to understanding staging and the creation of situations, making a place resound, and making space for reflection.

So, the question is how to work with this. What strategies are helpful in creating meaningful connections among place, time and material – in establishing what Andrei Tarkovsky *calls* “*a special intensity of attention*”? (see the chapter on *Time*).

FORMAT AND CONTEXT

Site specificity (*the work being integrated with the site*) was originally considered the crucial characteristic of *Land art*. Land art is conceived for a particular site, and transforms the surface, the structure and the materiality of the place, as Michael Lailach writes in the book *Land art*. The artist Richard Serra has a precise definition that I think has stood up very well:

Land Art:

“The specificity of site-oriented works means that they are conceived for, dependent upon, and inseparable from their locations. The scale, the size, and the placement of sculptural elements result from an analysis of the particular environmental components of a given context.”

He continues to say that an analysis of the site also includes social and political characteristics – and that “[s]ite-specific works invariably manifest a judgment about the larger social and political context of which they are a part.”⁷⁶

Sound art and sound installations may involve permanent objects, but even these are often more or less temporary. Instead of instituting a physical alteration of the site, *Land music therefore must inscribe itself in the memory of the site*. It must change the story of the place. Such a work deals actively with, builds upon and relates – with its reasoning and material – to the specificities of a place.

As described in the chapter on landscape, the origin of the word *land* has the meaning of an open space, open land, heath. *Land music* is thus a kind of intervention in otherwise natural or semi-natural surroundings – outdoors, in some terrain. An analysis of the physical, historical, social, cultural, and political particularities of a place results in musical material being informed by the context of the place when it was conceived.

Therefore, let me rephrase Sierra's definition.

Land Music:

“The specificity of Land music works means that they are conceived for, dependent upon, and inseparable from their locations. The materiality of sound, the scaling, the spatial organization and the integration with acoustical conditions result from an analysis of the particular physical, environmental components of a given context. Land music works manifest a judgment about the larger social and political context of which they are a part.”

For me it is an obvious approach to work with the place and context where and when the material is conceived. The music must be written for (or from) the place. Gaston Bachelard expresses this in his *Poetics of Space* (1958) as *transcending mere description and approaching the essential qualities of a space*. This encompasses a necessary attitude when engaging with a place. A detailed analysis of the place is necessary to enter into a dialogue with it, to create substantial connections. Without such an analysis the place will become something external, detached, a backdrop.

Land music is therefore conceived such that the sound material is meaningfully linked to specific place in which it sounds. The format of the sound material, its scaling, volume, spatial and temporal duration, how it engages with the acoustic conditions and the use of sculptural or theatrical elements, are results of an analysis of the particular environmental components of a given context.

The sound material has to engage with the acoustic conditions of the site. The work is integrated with the place on the basis of the characteristic aspects, and the context it engages in. The work may also itself shape a context with a basis in the characteristics of the place. But it must activate the place, engage immersively with it, put something to the test. The work cannot be separated from the place without losing meaning. *“The land is not the setting for the work but a part of the work”*⁷⁷ as Walter de Maria says.

Presence is therefore an important precondition. Place is central to our memories. Diffusion in the terrain at a site requires physical presence. Being in a situation means involvement, means experience. This may be because the navigation of the body in something spatial – its localization – is important to the functioning of the brain and the placing of the self in relation to the surroundings that are to be understood. Presence is about the body *being there*. The body's experience of the tactile – smell, temperature, air humidity – the materiality of the vegetation and underlay and so on – arouses a different quality of alertness, just as the resistance in the *journey*, to the will to get there, builds up expectations and primes the thoughts. Meteorological considerations will be a consequence of these claims.

A Land music work is a play with the elements, and must embrace discomfort and difficulties. To me, Land music is not about something spectacular or about the beauty of a landscape or countryside or outdoor romanticism. Instead it is about activating a place, a situation, and also about *being* activated by a place or context. On the other hand, the idea is clearly influenced by Romanticism, in so far as there is a longing to go *out* and to experience *reality*.

The tactile experience is reduced to a representation when it is transferred to other places, other types of listening and other formats. What will be the consequences if it is not possible to realize a work in the specific place from which it originates? What can I do if it is not possible to get someone to *be there* with their body – if the work has to be completed as a representation? How can I recontextualize, if not the music, then the tactility, or create a sense of it – a sense of this other place?

Perhaps a new kind of presence can be created. Perhaps the representation must take on a format and make use of the realization context which in some way or other – brutal or subtle – arouses the look of expectation. Immersivity of scale is perhaps a key. By use of size and large scale one can resemble some of the qualities of an immersive site.

Space for focus, concentration and reflection is a counterweight to quick conclusions and non-committal ephemerality. Friction is a central element. I think *Land music* is a way of confronting this. The audience must sacrifice something, travel (perhaps far) to get to a work. The audience must make time for it, must walk for themselves, use their bodies. They must experience the tactility, be present, *be in it*. Land music is in a way the opposite of the social development typified by the creation of accessibility, organization, effectivization and simplification: it is *inaccessible and unique*. Land music offers resistance.

I think we need a term for this type of practice, and that this term should be *Land music*. I defend this position on the basis that the attitude inhibiting the term is related to ideas which in their time were a prerequisite for what we describe as *Land art*.

Land music becomes a parallel to *Land art*.

The term is already dubiously in use – to some extent also in the form *landscape music* (Landschaftsmusik in German). From what I have come across, it has been used slightly incoherently in quite different contexts, also in conjunction with an ambiguous use of the term *site-specific*. I want to give the term *Land music* a more consistent meaning, clearly referring to the term *Land art*.

TRANSFER

I also emphasize the transfer inherent in the concept of *Land music*. Bachelard refers to the home, the house where we live in, the actual place, how it serves as a point of departure for our orientation in the world. The home is the baseline against which everything else is understood and interpreted. This point of origin has no greater a priori value than any other point of origin – it is just what it is. But it is what each one of us has, the place from which we consider the world. My work has been concerned with an attempt to dislocate or transfer the point of origin. An important element in this is to induce a bodily dislocation. Dislocation is an instrument for our reorientation, recognition of our relation to and positioning in the world. Dislocation is an instrument for context awareness.

I quote Kwon here, in her review of Don De Lillo's play *Valparaiso*: "An encounter with a 'wrong' place is likely to expose the instability of the 'right' place, and by extension the instability of the self." Hence, this is not a site-specificity per se, but a *going-out*. This going-out takes place concurrently with and integrated both literally and conceptually with seeking an *otherness, another place*. Something must be at stake. It is possible that the instability of an 'original' concert situation can be exposed by a recontextualization where pre-existing music is transferred from the concert hall to the marketplace, a park or the forest, but to establish a new situation it must be thorough grounded, thoroughly justified.

Dislocation represents learning and new experiences. It is when one steps out of something already familiar that new connections are established. The dislocation produces a level of risk. Without risk, necessary attributes such as adaptivity, sensibility, joy and creativity are at stake. A crucial level of life, a necessary attitude and certain kinds of behaviour may be lost.

Dislocation and risk are here also an expression of the defiance of expectations. Not of the confirmation of expectations. Of the creation of a challenging context where *manoeuvring in the unknown, in uncharted territory, with unstable or deficient information*, forces reflection and flexibility in the interpretations.

Risk makes the body and brain aware and alert. Adrenalin is released to the blood, enabling the organism to make a sudden, intense effort. Risk implies something unestablished, uncertain, a danger, something unknown. Risk implies the possibility of failure and ultimately death. Risk increase anxiety and excitement, enabling the alertness needed to manoeuvre away from or solve problems. When something is at stake, interest is brought into play. The unknown is by its very nature beyond the experience of the body. The unknown, the foreign perspective, exists in the realm of otherness, *another place*.

ESCAPISM

Large parts of an increasing number of modern people's lives are played out indoors, or at least in urban environments. Many of us live in an *anthropophone* acoustic context. In earlier times everyday work was carried out in simpler surroundings, closer to nature. One could say that in society today there is a tendency to seek out the natural, although many features of social development point in other directions. It would appear that human beings have always been driven forward by dreams – dreams of another place.

Natural locations in landscape have in many cases been about creating other experiences of art than could be offered by 'the cube'. Exploring natural locations also have seriously used the relationship that art, no matter what, will enter with its surroundings. In other cases, it has been about escapism, about getting away – maybe away from a stifling feeling of constraints, or evading specific surveillance. The latter was the case in the Eastern Bloc in the Communist period. Claire Bishop gives a thorough review of many artistic practices which in one way or another question sites or relations in her book *Artificial Hells*. After Czechoslovakia came under Soviet control in 1948 the system turned out to be a repressive force eroding any space for private thought, with enforced organization of time, compulsory membership of organizations, collectively organized leisure. In Bishop's discussion of the Slovakian artist Alex Mlynářík she writes of this situation that: "[R]ural relocation was a necessary consequence of 'normalization': action art had to take place illegally, and expelled itself to the margins of the city or more frequently to the countryside [...] to avoid surveillance: the landscape stands as a symbolic escape from contemporary social reality organised by bureaucratic directives."⁷⁸

There is no shortage of examples of nature in music. Just think of the Pastoral Symphony of Beethoven or Olivier Messiaen's birdsong transcriptions for orchestra. It is many years since I first heard Alexander Scriabin's (1872-1915) *Preparations for the Final Mystery*. The Russian composer was influenced by mysticism and synaesthesia. He stood at the intersection between Late Romanticism and Early Modernism when he died, and since 1903 he had been working with plans for a grand project at the foot of the Himalayas in India. It was to be a seven-day, seven-night ceremonial performance with music, a light show, scents and dance, called *Mysterium*. Scriabin saw his utopian ideas as part of a higher, apocalyptic religious unity. He probably truly wanted to create something that would touch people's lives. But he did not have the time to work these ideas out, or to mobilize the production apparatus and funding. He envisaged a brand new culture where everyone was a participant in this total work, an early orientation towards the Buddhist thinking to which Karlheinz Stockhausen was also later to turn. This was an early idea of using the landscape with a mutable atmosphere and probably also a quite different orientation towards the concept of time. This work only exists in Scriabin's unfinished introduction⁷⁹, his notes and in a potential collective memory, as a proposal. What have we missed out on? How might this have affected later music history? These ideas are an extension of Richard Wagner's *Der Ring des Nibelungen*, which in its time (written in 1848-74) exploded the temporal and scenographic framework of opera, which was the most comprehensive musical format of the age.

SOUND ART, SITED MUSIC AND ENVIRONMENTAL MUSIC

Sound art and environmental music make up a large and loosely defined field. The field is continuously diversifying, having been moulded by many widely disparate practices, such as sound walks, discussions, performances, actions, happenings, constructed situations, environmental music, site-oriented music, outdoor performances, processions, durational music, kinetic installations, context-sensitive projects; these practices may be issue-specific, audience-specific, community-specific, landscape-oriented and more. The degree of contact with the components of the surroundings varies greatly. The field is predated by Fluxus, Futurism and Late Romanticism, which burst to become all these ways of rethinking musical organization.

Let us have a look at it through the work of **Arseny Avraamov** (1886-1944) a Russian avant-garde composer. To celebrate the fifth anniversary of the October Revolution he composed a total work for the entire city of Baku in Azerbaijan on 7 November 1922, called *Symphony of the Factory Sirens*, just seven weeks prior to the formal foundation of the Soviet Union. It includes many different factory sirens and whistles throughout the city, of navy ships on the harbour, of trains; it staged a formation take-off by several seaplanes, a brass band, a choir, soldiers, machine guns, cannons, with Avraamov and assistants conducting with flaming torches from rooftops. This was a spectacular noise event, a metaphorical re-enactment, to evoke the struggle and victory in 1917 as a theatricalization of life.⁸⁰ Avraamov had advocated a confiscation and destruction of all pianos two years before, in the spirit of destroying everything bourgeois, including the (well-tempered) twelve-tone scale, with abnormal expectations as to what the new dispensation – new ideals, new people, new *everything* – could accomplish. The year before Lenin had instigated the New Economic Policy, getting the wheels spinning again; the devastating civil war was finally over, having been a prolongation of the disastrous World War I. And this world war was the exploitation of a tense situation that had been constantly expanding through many revolutions in Europe, as people saw extreme changes in society with industrialization, material improvements, the organization of work and family life, changes in the soundscape, in the social, the political,

Symphony of the Factory Sirens

The first cannon shot from the roadstead (in about 12 o'clock) cues the alarm horns of Zych, White City, Bibi-Heybat and Bailov plants.
The fifth cannon shot cues the industrial horns of Product Management Azneft and docks.
The tenth cues the second and the third groups of Chernogorodsky district.
The 15th cues the first group of Black town and the sirens of the fleet. At the same time the fourth company of the Armavir courses of red commanders and the brass orchestra playing Warshavyanka go to the pier.
The 18th cannon shot cues the plants of Gorrayon and the seaplanes take off.
The 20th cues the horns of the railway depot and the locomotives, that remain at the stations. Machine guns, infantry and steam orchestra, entering at the same time, get cues directly from the conducting tower.
During the last 5 cannon shots alarm gets to the maximum and terminates with the 25th shot. Pause. Recall (signal from the Magistral).
Triple chord of the sirens. Seaplanes descend. "Hurrah" from the pier. Cue from the Magistral. "L' Internationale" (4 times). With the second half strophe the brass orchestra starts playing "La Marseillaise". With the first repeat of "L' Internationale" melody the whole square starts to sing all three strophes of "L' Internationale" to the end. At the end of the last strophe the Armavir companies with orchestras return, met by "hurrah" calls from the square. During the performance of "L' Internationale" all the industrial horns and the railway station (depot and locomotives) remain silent.
Right after a joint triumphant chord, accompanied by cannon shots and bell-ringing, is played for 3 minutes.
Ceremonial March. "L' Internationale" is repeated two more times at cues during the final procession. After the third (final) performance the sirens cue one more joint chord of all the horns of Baku and its districts.

Arseny Avraamov
"Horn" magazine, 1923
(Avraamov, 1922)

communications, the technical, medicine. Things happened so fast (and yet still too slow). So much had to be re-considered, reinterpreted, altered, improved.

New opportunities, new troubles, old problems not solved, impatience and tension. This of course was reflected in music and art by the ever-expanding techniques within the Romantic realm, stretched to the limits in Late Romanticism, and to bursting point at the beginning of the 20th century.

Context greatly influenced and changed the thinking of many artists. There was developed a wide range of new musical attitudes, a freedom to rethink, to detach oneself from the yoke of the performance conventions of music. Erik Satie had ideas of music as a continuous addition to the soundscape of daily life. Scriabin had had his plans for *Mysterium* since 1902. The Futurist Manifesto of 1909 was written by Filippo Marinetti, and the pivotal article *The Art of Noises* in 1913 by Luigi Russolo. Avraamov took part in demolishing and reorganizing Russian musical culture, also developing a microtonal system. Stravinsky had gone beyond Late Romanticism in 1913 with polytonality and polyrhythms in *The Rite of Spring* (actually *Sacred Spring* in Russian), in Vienna Schönberg developed his twelve-tone system, using it from 1921; Edgar Varèse incorporated noise (“music is organized sound”) in his *Ionization* from 1931. And then there were the wars (Russo-Japanese, the Pogroms of the 40 years up until the 1920s, World War I), with violence, killings, raw life and death.

In the post-war era and the 1960s-70s there were close links between sound art practices and large-scale art, Land art, a variety of conceptual art types and Fluxus – engaging in different integrated relationships with an environment. Several artists/composers worked across disciplines, such as John Cage and Walter de Maria⁸¹. The sound art field of today can be said to have been developed partly in the wake of John Cage (think of his iconic ‘silence is music’ 4:33), as he in turn operated in the wake of Pierre Schaeffer and Edgar Varèse in particular. This strand of exploration looked at sounds “as themselves”, as decontextualized objects, although pulling reality sounds into a musical realm, and it could be argued that this followed the broad musical tradition that saw music as a thing in itself. In my opinion, there can never be any true separation between context and music. Music cannot be truly abstracted from its contextual surroundings. That said, it is certainly possible to go in the direction of detachment. Many practises of sound installations have put the emphasis on exploring the physics of sound or on creating immersive experiences, without entering a dialogue with context.

Robert Henke, for example, works with audiovisual installations, music and performance art. His installations are often large-scale. I went to see and hear his *Deep Web*⁸² (2016) which was shown in the old Zentralkraftwerk Berlin. It is a kinetic installation created in collaboration with Christopher Bauder. The locality has been used as a techno club and art space after it was decommissioned as a power plant. The place is enormous, without windows. Everything is raw concrete. The sound is in eight channels with large speakers placed on the flanks. A smoke machine somewhere produces smoke, but does not fill the locality or the air in any way. Above this floating, suspended floor level hangs a rig with 175 small, white spherical balloons. They hang in a grid in seven rows with 25 balloons each. Each one can be hoisted up and down individually with winches. On each flank there are six laser cannons, twelve all together, which illuminate these balloons. The beams strike only the balloons, never any other object or surface. Each laser cannon can shine on and illuminate many balloons. Everything is precise, nothing goes wrong. The programming is impressive. This is all the light there is in the hall, with the exception of some blue indirect light in the flanks. The laser beams are sometimes monochrome, sometimes in many colours. Lying beneath them, looking up at all the geometrically moving forms is overwhelming. The soundscape is typified by bass drones, hard techno-like beats, sputtering clicks, a few polyrhythmic pulses, field recordings, sampled material and sometimes a harmony consisting of simple chords in simple relations with one another. The whole installation was set up in a limited, but central part of the hall. Both the auditory and the visual were directed towards this central space and established as space within the space. I think the power plant had the function of a venue, first and foremost. The installation took advantage of the place, and was not countered by the place.

Ulf Langheinrich in his installation *Hemisphere*⁸³ (2006) creates an immersive suspended half-dome with projection on the inner surface, above a reclining audience group. The sound material is pared down to pure structure, electronic, clicks and noise with a distinctive quality. The visual material is also stripped down to pure colours, fine-grained noise and flickering strobes. Sound and visuals are closely integrated, are expressed at the same level. The materiality is so succinct, pregnant, direct and distinct that it seems like one unit. The tight, abstract purity with which one is surrounded in this installation creates an atmospheric of audiovisual landscape space which with its abstraction opens up a space of the imagination for the viewer. However, the installation enters no dialogue with the actual siting, apart from contributing to the common theme of the exhibition ‘*Vom Funken zum Pixel : Kunst + Neue Medien*’⁸⁴. Langheinrich also works with field recordings of soundscapes from various places in the world, which he reinterprets with some processing.

Where Langheinrich worked with installations dealing with certain phenomena, the installation *Times Square*⁸⁵ from 1977 by Max Neuhaus integrates with the logics of its particular site. It is sited between 45th and 46th street on Broadway, on Times Square in New York, USA. He used pre-existing constructional elements at the site –

ventilation tunnels for the subway beneath the street – as resonators for the audio, basically a synthesizer generating a sonorous, muffled bourdon texture. This functions by way of the tunnels, and the sound quality resembles the sound of a constant fan or engine, but at the same time this is not so, as it is slightly more harmonious than one would expect. The installation runs continuously 24/7. This is a clear-cut sound installation that, thanks to its reticent appearance, is inconclusive and open up for many reflections.

The integration of sound art with terrain and places is also seen in performative practises. David D. Dunn has devoted himself to engage in site-specific interactions and research of environmental sound monitoring. His practice is both in the scientific field and the aesthetic field. Since the 1970s he has investigated environmental music that I would denote Land music. A good example is his *Skydrift* (1977) for a large dry lake bed in the Anza-Borrego Desert in California. Here instrumentalists slowly walk away while playing (for half an hour), from a central circle of voices and electronic sound material, until reaching inaudibility. Materiality is informed by and articulated at the site. The work resembles the idea of the obscure action *Ten appearances*⁸⁶ (1981) by the Collective Actions Group (CAG). Here, in a snowy field outside Moscow, ten people met up, took hold of ropes and walked outwards in each direction towards the woods for as long as the ropes were, establishing a conceptual and connected space.

Another example of a performative practise we see in the work of the Swedish interdisciplinary artist Malin Arnell. In her PhD project *Dissertation / Through_Action* over 72 hours in KTH R1, a decommissioned nuclear reactor hall 25 m underground in Stockholm, she interacted with the place and the immediate area. Arnell and a companion were lying apart on the floor. For an hour they approached each other with minimal muscular movements until their feet met. It was quite silent. Then, whether it was before or afterwards I do not remember, she was naked and went up the stairway to the city streets above; those who were present got up and followed, she reached out and climbed over a wall. Then she began to gather branches and twigs and set them up against a tree. Some of us helped. No instructions. She found a cable drum which she rolled through the streets. It was all an insistence on the communicative powers of performativity in which, as Arnell writes in the dissertation, “all bodies (not only human bodies) come to matter through the world’s performativity”⁸⁷ She made the physical objects and structures around come alive, often not by doing anything apparent, beyond having claimed that they would do so as a result of silent presence, actions and time. The mere mention, presence and time as an agent made the structures come alive as something more than their indented functions.

The theatrical embodying of Arnell’s performances resembles the shaping of context in the staging that Jones & Johnson did in *The Masque of Blackness*. This *shaping of a context* is also what Aernout Mik does in *Training Ground* (2006). This is a two-channel silent video installation, and portrays guards being trained in the treatment of detainees – from the flow of immigrants to Europe – making them sit still. A fiction that appears to be a documentary. This is what Mik calls ‘created situations’, related to, but unlike the theatricalization of real-life events by Arseny Avraamov in post-revolutionary Russia and to the attempt at actual re-enactment in Jeremy Deller’s *The Battle of Orgreave* (see below). Mik says that “time takes on a presence of its own”. Long shots, resolutely non-narrative, enable forgetting. The camera slowly moves along the staged action, sometimes more quickly than the actors, prompted by short instructional sentences by Mik. In the editing, they are cut so as not to create a narrative with spatial or temporal clarity, but an accumulation of moments one after another.⁸⁸ And the reaction to action is as if cleansed away. Long stretches of things that happen in this alienated situation play out without no guiding agogic rhetoric as to what emotions to express. The multiscreen projection is not in itself synchronic, with individual jump cuts and entirely black sections, keeping the viewer busy trying to determine connections.

Jeremy Deller, on the other hand, reshaped a political context with his performance *The Battle of Orgreave*⁸⁹ (2001). This is a staged re-enactment of the confrontation between British strikers and police in 1984, with a huge staff of volunteers and veterans, a restaging of actual events at the original site of conflict in Orgreave. This work has the profound function of discussing and remembering, commemorating the events that took place. The BBC reporting of the events at the time was deliberately changed in order to present a certain interpretation that matched the larger political picture that Prime Minister Thatcher was painting (and for which they later apologized). Tony Benn (MP 1984-2001) said: “It wasn’t a mistake. Whoever gave the order [...] actually destroyed the truth of what they reported.” The re-enactment helped to restore balance to the events, inscribing itself in a continuous political discourse and a collective memory of the Conservative Government’s consolidation in favour of liberalism and free trade, working concretely with the memory of the veterans involved at the site.⁹⁰

Where the re-enactment *The Battle of Orgreave* helped to restore balance to the events, Janet Cardiff and George Bures Miller’s *Alter Bahnhof Walk*⁹¹ is an introvert, poetic reflection to remind us of one of history’s worst crimes. It is a precise and poetically striking site-specific soundwalk. Cardiff and Miller made the work for Documenta (13) in 2012. The listener is given an iPod and headphones with pre-recorded speech, soundscape and video. We are invited to follow the video, which is from the old railway station and is partly staged. Among other things we are guided past a monument to Jews who were sent to concentration camps from this station. It is all fused together into an augmented reality with several parallel time dimensions, a transfer in time and space.

The musicality of the spoken word and incorporation of sound events in *Alter Bahnhof Walk* brings us to the musicality of the consistent detachment from the ‘musical’ language of music in general in *Mårådalen Walk*

(1993). Here Kjell Samkopf attached contact microphones to his boots and went on a hike in the mountains, with the soundscape perspective from foot level, through the transformations of the underlay along the path – a “sound-walk field recording”. In Samkopf’s *Burraborangian Stones* (2003) the nature of *listening* is also a theme. These are field recordings of the soundscape in an Australian desert. They are subtly reworked in the studio for a 79-minute CD release in a greyish-brown A4 cover with newspaper text, pictures and listening instructions. Samkopf is interested in the fact that listening takes time – calm and stillness to quiet and sober the mind is key here, and Samkopf tries to expand the CD format to help create a responsive space for listening.

Jana Winderen has an ecological take on her listening and sound gathering practice. She collects sound material from natural habitats – woods, cultural landscapes, underwater soundscapes – in more or less inaccessible ecosystems, and works with them decontextualized and then recontextualized either in a gallery setting like *Ultra-field*⁹² (2013) or another outdoor setting, as in *Spring Bloom in the Marginal Ice Zone: From the Barents Sea to Lake Ontario*⁹³ (2018).

Christina Kubisch in her *Electrical Walks*⁹⁴ (2003 ongoing) activates the logics of particular places, in line with Max Neuhaus. She has made a special coil-sensitive headset that amplifies electromagnetic induction, which exists just about everywhere. She has organized public walks in numerous cities.

A further composer working with walks is Daniel Ott. He operates in a field of new music theatre and interdisciplinary spatial or landscape practice. In *Phantom Synchron*⁹⁵ (2015) a group of people walk through and out of the city through several hours in the course of an afternoon. This is a soundwalk with action. The sound material in the works is often coloured by harmonies with tones on the winds, motifs and naivistic rhythms. Where *Phantom Synchron* explores different parts of the sonic environment throughout and on the move out of Weimar, Ott’s one-hour long *Mittelland ist abgebrannt*⁹⁶, (2017) work with the moving sound source of live musicians, hinting via children’s school marching bands to military marching bands. Ten groups of walking wind and percussion players went from west to east along the north side of the Mittellandkanal, which is part of the extensive channel system in Germany, while the audience stayed still on the south side. Conceptually, the work is a reference to an important battle between Romans and Germans 2000 years ago. The performance site is near the historic battlefield. The soundscape comes closer, disappears and comes back again when new groups take over, in a flow like an eternal procession from west to east, and evokes associations of other human dislocations and wars.

THE 'OBJECTIVE' CONCERT HALL

We take our bearings from the places we know, where we have been, or which are important to us. Site has an effect on who we are, how we behave and the thoughts that arise. Site cannot be viewed as detached from the body. We are always somewhere. Everything is a place. Everything relates to a place. No sites are neutral. The essence of a work is only revealed in the encounter of the work with the site and with the listener. That is why choosing ‘the cube’ (or ‘the concert hall’) as a place means something, intentionally or not. The ‘concert hall’ is not just a more or less arranged acoustic space. It is also a vehicle for cultural formats and customs. The cultural formats have been shaped and adopted in societies quite different from ours, several centuries before our time, with other needs, other aesthetic preferences and more limited options. The ‘concert hall’ as concept by and large carries these traditions with it, even if it should be relatively newly built.

Traditions tend to be perpetuated not necessarily because they bring something qualitatively ‘good’ with them, but because they already exist. Every site means something. The choice of realization always has consequences. A specific place may have stronger connections than a generic place, which is what a concert hall paradoxically strives to be. The place will to varying extents activate or paralyse our listening and our perception and cognition.

“The seemingly benign architectural features of a gallery/museum, in other words, were deemed to be coded mechanisms that actively disassociate the space of art from the outer world, furthering the institution’s idealist imperative of rendering itself and its values ‘objective’, ‘disinterested’, and ‘true’.” (Kwon, 2004, p.13.)

Place is the scenography of events. Culturally important places take on symbolic, perhaps even mythical meaning. The seemingly neutral cube is a place with a set of particular characteristics, like any other place. Arranged spaces such as a cube or concert hall make the claim that art must stand on its own terms. But they are not neutral. On the contrary, they are charged with custom, tradition, and their own logic of traditions for breaking with custom. Compromises are just not so visible. They appear as a priori basic ingredients, as a foundation necessary if one is at all to show or create art and music. To be ‘specific’ to such a location, a certain decoding and/or recoding is necessary. In order to reveal their hidden operations, this would involve investigating the institutional conventions, be they social, historical, architectural, physical, economic or other.

EXPORT TO THE OUTDOORS

– As a disembodied concert-hall zone

Exporting music from “a (traditional) musical realm” to external positions to see what happens with the music itself is mere recontextualization of the music. This approaches both pre-existing music and newly-made music by applying a materiality, formatting and – in essence – concert (hall) thinking to an unconventional setting. In these instances, there is no real connection between the materiality and the place. The place is literally external, disconnected and fully separable from the work. The place is a backdrop.

The art critic Jeff Kelley observes that “site specificity was really more like the imposition of a kind of disembodied museum zone onto what already had been very meaningful and present before that, which was the place.”⁹⁷

Site-specificity implies that the interaction with the site would be qualitatively different if recontextualized somewhere else. An action or realization at a particular place – any place is a place in its own right – does not imply site-specificity. A localization outside the cube does not in itself constitute a site-specific practice. Such a practice is more in the *art-in-public-places mode*⁹⁸, an outside-the concert-hall-concert mode. The artist Henry Moore said of commissions that he tried to choose something suitable from what he had done or was about to do when asked to conceive a new public artwork. “*But I don’t sit down and try to create something especially for it [the specific location].*”⁹⁹ This is a common mode of working, resulting in outdoor concerts of music perhaps inspired by, but not actually in a relationship or dialogue with a place.

Within visual art Jeff Kelley distinguished between ‘site’ and ‘place’. ‘Site’ to him would be *an abstract location* and ‘place’ *an intimate and particularized culture that is bound to a geographical region*, according to Kwon. He meant to highlight the limited social consciousness of site specificity in the *art-in-public-space* mode.

Similarly, Susan Haggood has observed that “the once-popular term ‘site-specific’, has come to mean ‘movable under the right circumstances’¹⁰⁰. The term ‘site-specific’ has been watered down, turned around and used about *site un-specific* music in the sense of ‘*outside-the-concert-hall* concerts’¹⁰¹. Likewise, the term ‘Land music’ (in this case in German and in quotes as “*Landschaftsmusik*”¹⁰²) has been used in the sense ‘outside concert hall concert’ in outdoor settings as a disembodied concert hall zone.

The consequence of such a decontextualization is that the site, context and environment in which a sound work unfolds, become irrelevant. Such a practice does *not* have a truly integral relationship with a place. It also means that the place is rendered irrelevant for works which in fact have a truly integral relationship with a site, if the works are decontextualized (moved). The works are emptied of their rationale. Richard Serra’s famous statement in connection with the controversy about removing his public art installation *Tilted Arc* (a long steel construction at Federal Plaza in Manhattan, New York) – “To remove the work is to destroy the work”¹⁰³ – also applies to other site-based artistic practices. In architecture this would be like building a house completely adapted to local conditions on a difficult site (like *Summer House Storfjord*¹⁰⁴ by Jensen & Skodvin Architects. The house is built against and around a mountainside, which is included as a necessary wall, and it surrounds trees, left there and structuring the layout), and emphasizing that it is a site-adapted house, only to build the whole construction in exactly the same way in a quite different place, with a different orientation towards light, other terrain, other construction, climate and vegetation – and still claim that the house has the same qualities. The materiality of the object will be the same, but the rationale, that is the integration with the place, has been broken down.

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- ⁷⁶ Kwon, 2004, p. 74.
- ⁷⁷ De Maria, 1980.
- ⁷⁸ Bishop, 2012, p. 143.
- ⁷⁹ However, the composer Alexander Nemtin spent 28 years at studying Scriabin to reconstruct and supplement the sketches into a 3 h 10 min work. (Scriabin, 1903-1915).
- ⁸⁰ Bishop, 2012, p. 65.
- ⁸¹ Walter de Maria was an artist and composer. His pivotal *Lightning Field* (1977) consists of 400 stainless steel poles in a 1 mile x 1 km grid in Catron County, New Mexico.
- ⁸² Henke, Robert, & Bauder, Christopher. (2016). *Deep Web*. [Kinetic audiovisual installation]. Alte Zentralkraftwerk Berlin: CTM festival <http://www.roberthenke.com/installations/deepweb.html>
- ⁸³ Langheinrich, Ulf. (2006). Hemisphere. [Audiovisual installation.] Retrieved from: <https://www.ulfgangheinrich.com/hemisphere>
- ⁸⁴ Castelli & Berliner Festspiele, (2007).
- ⁸⁵ Neuhaus, Max. (1977). *Times Square*. [Installation] Dia: <https://www.diaart.org/visit/visit/max-neuhaus-times-square>
- ⁸⁶ Bishop, 2012, p. 158-159.
- ⁸⁷ Arnell, 2016.
- ⁸⁸ Kardish, 2009, p. 20.
- ⁸⁹ Figgs, 2001.
- ⁹⁰ Bishop, 2012, p. 30-37; Figgs, 2001.
- ⁹¹ Cardiff, Janet, & Miller, George Bures. (2012). *Alter Bahnhof Walk*. [Soundwalk]. <https://www.youtube.com/watch?v=sOkQE7m3iPw>; Scharrer, Eva (Ed.). (2012). *Documenta (13): The Guidebook, Catalog 3/3. Ostfildern: Hatje Cantz*.
- ⁹² Winderen, Jana. (2013). *Ultrafield*. Retrieved 25 January 2019 from http://www.janawinderen.com/exhibitions/ultrafield_moma_10_august_3_no.html#XEqSsy2DpTY
- ⁹³ Winderen, Jana. (sound artist). (2018). *Spring Bloom in the Marginal Ice Zone: From the Barents Sea to Lake Ontario*. [Installation]. C. Shaw. (Curator). Retrieved 25 January 2019 from http://www.janawinderen.com/exhibitions/the_work_of_wind_air_land_sea_2.html#.
- ⁹⁴ Kubisch, Christina. (2014-2017). *Electrical Walks*. [Soundwalk]. http://www.christinakubisch.de/en/works/electrical_walks
- ⁹⁵ Ott, Daniel. (2015). *Phantom Synchron*. [Music]. <https://vimeo.com/148232053>
- ⁹⁶ Ott, Daniel. (2017). *Mittelland ist abgebrannt*. [Music]. Retrieved 15 January 2019 from <http://www.kalkriese-varusschlacht.de/museum/veranstaltungen/detail/niedersaechsische-musiktage-30917/>
- ⁹⁷ Kwon, 2004, p. 108.
- ⁹⁸ Kwon, 2004, p. 63.
- ⁹⁹ Kwon, 2004, p. 63.
- ¹⁰⁰ Kwon, 2004, p. 38.
- ¹⁰¹ Orchestra Vivo use the term site specific with little precision when they perform J.S. Bach and other music in their staged spatial performances in museums and other similar locations. This practice is a spatial performance of music in a public building. Orchestra Vivo. (2015). *3 antiphonal promenades*. Retrieved 22 January 2019 from <https://www.youtube.com/watch?v=YtMEAlBoibY>
- ¹⁰² The festival 'Mannheimer Sommer' uses the term "Landschaftsmusik" (translates literally to landscape music) for an outdoor performance. They organized performances of existing historical music, presented as "Ein Spaziergang wird an diesem Tag zur Reise durch Epochen und Stile der Musikgeschichte: Ganz gleich, ob mit Werken aus der Zeit der Mannheimer Schule oder dem Sound der zeitgenössischen Bandmusik, alle Musikerinnen und Musiker feiern an diesem Tag die gelungene Balance zwischen Kultur und Natur." NTM. (2018). *Landschaftsmusik – Konzert-Parcours. NTM Nationaltheater Mannheim*. Retrieved 15 January 2019 from: https://www.nationaltheater-mannheim.de/de/stueck_details.php?SID=3152
- ¹⁰³ Kwon, 2004, p. 12.
- ¹⁰⁴ Ellefson & Thorkildsen, 2014.

TIME

“If the regular length of a shot is increased, one becomes bored, but if you keep making it longer, it piques your interest, and if you make it even longer, a new quality emerges, a special intensity of attention.”

(Andrei Tarkovsky in Dyer, 2012, p. 9)

“Yeah, well, time is my medium.”

(La Monte Young in an interview with Alan Licht)

DURATIONAL MUSIC

Artistic experiences that claim the attention of the senses over time create their own zone. Time and duration are instruments of perception. The aim must be to create a materiality with a dynamic stasis: situations in which one loses the sense of time, in which one is caught and likes to be. If you have control over the balance between *scarcity* – or musical asceticism – and *information density speed* – or changes in time – you’re on your way.

La Monte Young (b. 1935) is well known for his pure-intonation durational works. In an interview with Alan Licht, he said that he as a composition student had discussed this with his teacher at the time, who “said I should be writing like a young man with climaxes going here and there, and louder here and softer there.”¹⁰⁵ But Young wanted something else. He wanted to get *inside* the sound. And to have his audience get inside the sound too. The mechanism for this involves time and focus. You have to listen very closely and let time do its work. Young further says that “you get involved with the frequencies and it becomes a vehicle for meditation”.

Young is considered by many to be the first American minimalist, and he points to his relationship with sound as a child with wind and the steady hum from telephone poles.¹⁰⁶ I believe he is right when he says that “sustained tones were really necessary to allow music to evolve to a higher level.”¹⁰⁷ The *Well-Tuned piano* in *The Magenta Lights* (1964-73-81-present) is a solo piano work lasting almost seven hours, integrated with the light-based work of his wife, the artist Marian Zazeela. The title is a reference to Johann Sebastian Bach’s *Well-Tempered Clavier*, from the time when the tempered (equal) tuning system was being established in Western (European) music (as opposed to the tuning systems used in Eastern (European) music) and uses a fragment of the system. The work is improvisatory – La Monte Young has performed it on numerous occasions. The piano, however, is retuned in a work-specific system to just intonation, which basically means it is restricted to a certain harmonic field.¹⁰⁸ *Time* is his medium, being influenced by Indian raga and meditation.

I myself am not a meditative person. But sustained notes and long-lasting situations, if they are allowed to work over a period of time, have a profound effect. I think one of the reasons is our short-term memory. Time and forgetting belong together. When time extends beyond a normal sentence – that is, in short-term memory corresponding to the ability to remember 6-10 numbers for a few seconds, the concrete stimuli have already disappeared, and the short-term memory is fully occupied with the handling and sorting of new incoming information.

If the stimuli are relatively focused, the short-term memory does not need to work so hard. In sustained situations there are more monotonous stimuli, and the density of the information behaves differently. If the neural signal continues to be sent to the hippocampus and the neurons learn the pattern, the neurons respond more easily. The brain relaxes, there is no immediate panic, it can work out what is happening calmly. The brain may enter a standby mode, a mode of rest, when we think of nothing in particular. This mode, however, enables *wandering thoughts*, a free associative flow of memories and thoughts about the future. It works as a simulation of the future. We are capable of evaluating different scenarios, in a form of episodic foresight. This ability of imagining thoughts has evolved into a spectacular ability to develop visions.

Time is a material that must be allowed to work. Think of the difference between getting quickly into and out of a warm bath and staying there for a while, immersed in the warm water. You certainly get wet in both cases.

But when you stay there the heat is able to get deeper into the body over time. It is propagated from the outermost skin layer down into the muscles. Likewise, with the aid of time in music you let the frequencies have their effect. The audio frequencies become an engine for wandering thoughts.

If the sound situation stays monotonously still long enough (needing careful and subtle treatment in order not to be statically unbearable) we can experience the perceptual deprivation which happens when we are exposed to a uniform stimulation field over time. The brain amplifies neural noise in order to search for possible missing values. The brain looks for any deviation. Hallucinations may result. The brain cuts off the constant, unchanging signal. A sense of deafness to these frequencies may arise. The soundfield changes neurologically in the brain. In such a listening situation a quick change in the soundfield changes the stimulus situation, but the sensory apparatus experiences a lag, so that new sounds are now filtered through the previous sensory deprivation for perhaps a minute or two, depending on frequencies, volume and the actual sound situation. With very slow changes the brain keeps up and gradually alters its deprivation level. This is a 'Ganzfeld Effect'. The artists James Turrell and Olafur Eliasson have worked with variants of sensory disorder, manipulation and visual effects. Turrell's Ganzfeld works¹⁰⁹ can be found in variants all over the world. The one in the Ekeberg Park in Oslo has an egg-shaped white-painted back wall with gradually changing lighting that makes us lose the visual references for depth-vision, and even though the wall may be only 1 m away, we do not perceive it. Our eyes are filled with strong indirect light, and we feel as if we are staring into an endlessness. One is normally admitted in groups and sadly only for a short while, just to get a glimpse of the idea, not being able to experience the phenomenon in depth. Time is crucial here for an altered state of mind to occur. Time as a perceptual tool is readily at hand for composers working with music, being some kind of auditory progression in the time domain.

A related effect happened at a performance of Julius Eastman's *Femenine*¹¹⁰ (1974), basically, as I recall, repeating or insisting on a small cell of sound for almost an hour. At the end, when the audience started to applaud, the perceived sound of the applause was altered since the stereocilia and neural cells in the ear was tired of the previous stimuli, so the new soundfield appeared as if filtered. The physiological neural phenomenon is perhaps the essence of the hesychastic tradition being central to the belief and behavioural way of life at Athos, see the chapter 'The Holy Mountain', heading 'Hesychasm' on page 71.

Depending on the slowness of the changes we become alert, and a quite distinct sharpening of the senses arises because imperceptible changes in a stable situation can be dangerous if we are not aroused by an impulse. In the work *Himdalen*, from about 02:30 to about 06:00 there is an extended, monotonous sound field situation of tiny changes. The effect is close to static, but constantly with gradually new frequency relations and amplitude changes, making it not static at all. Our brain very quickly identifies a truly static auditive situation. The organic and monotonous situation is recognized as such, and one relaxes, only to realize later, that something has changed. The sound field seems just the same, but the brain has detected that it's not, but the analytic part of the brain probably cannot discern exactly what is different. This is potentially dangerous to us, and lying on the gravel, freezing in front of the portal to the final repository facility, one becomes both alert and reassured.

With time as the building material – that is, extended time – an empty space for reflection can be set up. This depends on the materiality of the time. I first and foremost have extended, sustained, monotonous sound situations in mind. Time creates space. *To space out*, we say, then we switch off, don't quite listen, enter a more fluid state, of effortless concentration, as described by Mihaly Csikszentmihalyi (see also below on 'Information density speed'). In this case it is an important quality. It is a kind of non-sensing, a kind of anaesthesia, that takes place in an aesthetic situation – that is, a combination of both aesthesia (the capacity for sensation or feeling) and anaesthesia (the opposite, an inability to sense), establishing a floating zone in between.

Music that can *open up* time for us – perhaps we could say open up the *time-space* where we are, listen, know, exist – is perhaps important to us as humans. For that reason, really working with time as a tool is effective for us who work with art in the domain of time. If the music is too brief, it is like a still image you look at before you pass on. Short events have a short time-window, they have no access to the effect of time. When the music extends over several hours it has the potential to open up this space, but this depends entirely on what the music consists of, where precisely it has been formed, and the context.

The experience over time of imperceptible changes establish an obligation. Extended time, especially in the context of Land music, creates social relations among the audience. The audience are *there* together, stand together in this, not as random audience members that are independent of and indifferent to each other's perception of the situation. Extended time, as in *Himdalen*, establishes the need for everyday needs too. Food and drink must be organized, and this further levels out any dividing lines in the audience and between audience and performers. Time creates a need to establish social situations because one cannot completely ignore everyone else over time, in a common situation, where audience members share a common experience, resembling maybe a feeling of common destiny.

In order to create immersive situations not only the articulation of a particular musical material, but the proximity of the material, that is its spatiality and volume, in combination with the treatment of time, are needed. I think extended time is often a missing ingredient in intentionally immersive situations.

Durational music is a result of these considerations.

Einschub: September 2018 – Espial

Music is strange stuff. For long periods it is full of resistance, on rare occasions with musical joy. I recently heard something by David D. Dunn that gave me a relatively specific idea, an acoustic one, for a possible future work, and that is so rare, and I was so happy about it, that I immediately had to call my supervisor Ole Lützow-Holm to tell him solemnly how happy I was about finally discovering that piece.

Ole had suggested, four years ago, in 2014, that I look into David D. Dunn's work. I had bought the album *Music, Language and Environment*¹¹¹ (1996), and listened to *Nexus 1* from 1973, an experiment for the site Hermit's Gorge in the Grand Canyon with trumpets. I listened to the work and came to think of my own works *Molladalen* (2007) and *Fagervann* (2009).

Then in September 2018, after completing *Mirnyj*, while absorbed in producing material for *Him-dalen*, I packed for a 4-hour drive to the mountain cabin to get some substantial work done. The Dunn album was still sitting there, on my desk. Since FM radio signals were no longer transmitted in Norway, and I haven't bothered to upgrade to DAB radio in my car, I either had to drive in silence, in company with my own thoughts, or listen to some podcasts or music. This would normally be an easy choice. However, having to compose a lot myself, every day, I had to be careful about my mental capacity. In such periods, I find listening to other people's music obtrusive; at the very least I have to be careful not to poison or influence my vague and fragile state. I grabbed the Dunn album, perhaps with no fear that it would intimidate my state of mind.

I particularly listened to *Skydrift* and *Espial* in the car. *Espial* (1979) is a combined material work. Dunn recorded it himself, playing a violin outdoors in the desert. He had made a body of 21-tone just-intonation material lasting 3 1/2 hours, playing very long, sustained, harsh tones with long glissandi, responding to environmental events. Then this was chopped into 7 parts and they were layered one on top of the other in playback by seven cheap cassette recorders. The combined recording of all this is what I heard in the car. It is a stunning, tactile-sounding piece with sustained spans of evolving, rather bluntly executed harmonies.

I was ecstatic. I had to listen to it multiple times, in the car, and felt, as I sometimes do, as if my senses were ahead of me, far outside the body, extremely alert in a laidback way, as if I grasped everything ten times quicker than normal, and could therefore take in huge amounts of information with no effort at all, with a complete overview of the constantly changing situation that a car drive along Norwegian roads is. This was a rare, powerful aesthetic experience. The music catalysed a mental flow, described by Mihaly Csikszentmihalyi as a state of effortless concentration¹¹² so deep and clear that the sense of time is lost.

INFORMATION DENSITY SPEED

I propose a new expression 'Information density speed'. This is to describe the degree, speed and character of change in the density of information in a musical, plastic texture. The idea is that this expression may be useful when describing and discussing durational music and its materiality.

The overall information density in musical textures and soundscapes varies. I think a carefully calculated *information density speed* is required for durational music to function well. When the information density speed is low and tends towards monotony, time as material becomes the active ingredient, as filmmaker Andrei Tarkovsky noted. Such a situation is not an action-driven or motive-oriented narrative. Monotony becomes active over time. The material grows. A special intensity of attention emerges. Perhaps this is due to the so-called 'standby mode' of the brain. These wandering thoughts, simulating the future, seems similar to what Csikszentmihalyi describes as a state of effortless concentration, and to what Tarkovsky says on extended time, that "...a new quality emerges, [with] a special intensity of attention."¹¹³ I speculate that this kind of stretched out time in relation to the surroundings enables a mode also connected to my ecstatic driving and listening experience described above, as well as to Tony Smith's sublime driving on the unopened New Jersey Turnpike (see chapter 'Site Awareness', section 'Context and connotations' on page 13). Perhaps isolation – solitude – too is a necessary ingredient in this mixture. I touch upon that in the chapter 'Method', section 'Vulnerability: Exclusion, gender and isolation' on page 62.

As a consequence, I think the integrated combination of duration and Land music is key to a type of work – an attitude – that carries a potential for opening up a both physical and mental space for cogitation. I think, paradoxically, that the less agogic information and the less "composed" agogic responses and the barer the structure, the greater is the need for interpretation. The need for involvement increases due to less pre-planned reactions. Bare structures are more open situations. I stress a close relation between event and the localization of the

event, and the use of time to lay out a mental space for the audience to make their own connections. I will try to exemplify by discussing some examples in the following.

Éliane Radigue (b. 1932) works with extended, durational music. She has restricted her material to work almost exclusively with one synthesizer for many years.¹⁴ She works with sustained processes, tiny changes with tone generators, true drones. Like Alexander Scriabin, Karlheinz Stockhausen and La Monte Young she has been profoundly influenced by Buddhism, but only *after* starting to work with sustained, sparse yet immersive sound-fields in *Adnos I* from 1974. Together with *Adnos II* and *III* this lasts for more than 3 1/2 hours, and is never boring because of the extreme unrest emerging from the almost infinite field. The sound quality is closed and dense with no spatiality – open and closed simultaneously. Her *Trilogie de la Mort* (1988-93) is equally rigorous. Her works demonstrate a highly consistent subtlety in information density speed which constantly and imperceptibly changes enough not to be experienced as static. They are more extreme in their economy than La Monte Young's. The economy of the material opens up time. She says in a short film portrait that you can "(...) fix on a detail and make your own landscape", as a kind of "mental mirror"¹⁵. The music opens up, stands there, bare, exposed to listen to it, closely, in detail. A kind of powerful transparency appears, spanning textural details and the totality, always together present, and despite its duration that makes you lose your grip – the totality is still there, present, possible to get hold of. Radigue's work is pioneering in durational music.¹⁶ It is an experience of how the sounds unfold over time. It can be compared to other bodily aesthetic experiences, such as long walks in the mountains in both summer and winter which are typified by slow movement in the terrain at a relatively monotonous pace, but which still constantly takes you forward in a vast, wild mountain landscape.

Vinge/Müller/Reinholdtsen's production of Ibsen's *The Wild Duck* (part 2)¹⁷ lasted a good 12-18 hours throughout the night, depending on subjective matters of each performance, with epic use of music and creaking, staccato sound design. Paradoxically, it was especially the repetition that made it possible to endure. The work induced time to lay out a mental space for the audience to make their own connections, to have time to spin out thoughts and associations.

In Mårten Spångberg's dance production *Natten* (The night), time played along with rather than against the work. A mental state of sleepiness and exhaustion throughout a 7 1/2 hour dance production from 23:00 to 06:30 changes the whole situation compared with whether this all happened in daytime. There was continuous loud-speaker sound: I remember clearly rolling electronic arpeggio loops, field recordings of rain and thunder performing a kind of interval function between the scenes. The audience sat and lay along the walls on carpeted floor, and were free to go out in the foyer afterwards and drink. Some of it was pulse-based in long numbers, other parts were in very fluid textures. This created a floating zone, a vague state between waking and sleeping. For me the repetitive, liberating, motif-poor music bore up the production. It made it possible to accept the slow turgidity of the dance motions. At night, it is as if time stands still, you doze your way out of time, you are startled out of and into it again, and must reorient yourself. I fell asleep several times along the way, slipped in and out of consciousness, but with this whole staged state around me which was registered by the sensory apparatus although not communicated in the conscious state of the brain, which is after all trying to rest.

Alvin Lucier has in his physically experimental sound art universe worked with time, as in *Music on a long thin wire*¹⁸ (1977), which is a conceptual and physical study of sound evolving over time. It is basically a suspended piano string, made to vibrate by an amplifier at each end with a sine wave oscillator, a magnet and microphones. A performer controls the oscillator. Lucier explores the poetry in what was previously seen "just" as science, combining art and science, not unlike the otherwise quite different practice of bio-art. (Bio art explores biological material).

I also mention Charlemagne Palestine's *Four Manifestations of Six Elements* (1973) and *Strumming Music*, where he simultaneously performs on two grand pianos. These were situated in the more experimental minimalist tradition. They are good examples of an attempt to establish a distinct situation, a state to be in. This is done with a certain extension of time and a focus on the sound situation, simplicity, control of information density speed.

I find the part of minimalism that really works with time as material interesting. It emerged more or less simultaneously with the New York School (notably Morton Feldman, Earle Brown, John Cage, Christian Wolff), preoccupied with indeterminacy and chance as a development of stochastic or aleatory methods in response (in short) to both serialized music and the combined infrastructure of expectations as to what music "is". Morton Feldman's use of time is typified by a relatively uniform, slow stream of musical events with a sufficiently high linguistic tempo to prevent it setting up its own space.

It is certainly unnecessary to point out that time alone as an element is inadequate. The tension arises in the way it is filled, the way the time is articulated. I think perhaps a well-developed sense of time and place is crucial to the creation of an artistic situation that endures over time. You have to find the balance in a concept with both external and internal logic that bears up the staging; to fine-tune the situations with an ear for information density speed. This is closely integrated with the listening position. In this respect I am not thinking primarily of 'sweet spot' listening positions in electro-acoustic music and ambisonics, but of the listening context, the placing, the rounding-off in time and place. The time of day and the position of the body. Perhaps one finds no productive or clear answers to this. But the questions must be part of the process. These aspects are by no means immaterial.

Postmodernism's inconsequentiality has no place here. The details, the context is not immaterial, on the contrary they are crucial to the way we view a work, music, any input, sensory data or stimulus, how the brain perceives, interprets, acts and reacts.

¹⁰⁵ Licht, 2018.

¹⁰⁶ Zuckerman, 2002.

¹⁰⁷ Licht, 2018.

¹⁰⁸ Kann, Gyle. (1997). La Monte Young's The Well-Tuned Piano. *Kyle Gann*. Retrieved 20 January 2019 from: <https://www.kylegann.com/wtp.html>

¹⁰⁹ Turrell, James. (n.d.). *Ganzfeld works*. [Installations]. <http://jamesturrell.com/work/type/ganzfeld/>

¹¹⁰ Julius Eastman, *Feminine* (1974), <https://www.youtube.com/watch?v=WHgDRv6NVCI>

¹¹¹ Dunn, 1996.

¹¹² Csikszentmihalyi, 2016; Kahneman, 2012, p. 47.

¹¹³ Dyer, 2012, p. 9.

¹¹⁴ ARP 2500.

¹¹⁵ mekonin. (2012).

¹¹⁶ Bécourt, 2015.

¹¹⁷ Vinge, Vegard, & Müller, Ida. (2010). *Vildanden del to – Director's cut* (by Henrik Ibsen). [Theater]. Blax Box Teater, Oslo.

¹¹⁸ Lucarelli, Fosco. (2016, July 12). Music on a Long Thin Wire by Alvin Lucier (1977). *Socks*. Retrieved 25 January 2019 from: <http://socks-studio.com/2016/07/12/music-on-a-long-thin-wire-by-alvin-lucier-1977/>; Lucier, Alvin. (1977). *Music on a long thin wire*. [Music]. <https://vimeo.com/158971253>

METHOD

I imagine what could have been. I seek to make a point somewhere. I research a lot, I go out, outdoors. I ask why should I engage on a particular project? I need a reason to engage on a project, a sensation that *here* is something I can work with to establish a situation.

With the creation of any artefact or any relational process intended for a public sphere comes a great responsibility because of the possible impact on other people and possible repercussions.

In this project, method and material have been developed in turn, entangled into each other, under mutual influence. Below I will discuss working with the unmade, site selection, guidelines, and how I work with the audio material and other media.

Working with the unmade

How does one go about trying to create works with an abstract¹¹⁹ touch? There are many ways of answering an artistic question, and it is essential to be aware of this. There are always alternatives. The important thing is to be able to choose something from the swarm of ideas and possible solutions. To be able to choose a concept that makes sense in the context, that gives coherence to the context it stands in. This is the difficulty in creating something that does not yet exist, which has no list of ingredients, no recipe, and which must come into being while the method for creating it is being developed. Like many people, I experience a helplessness and perplexity that it is difficult for others to help me find my way through. The creative phase, in which ideas, concepts and methods are developed in parallel with a mental experimentation of the material, is the great difficulty. It is in these waters that the basis for art is developed.

The way forward to materialization is a winding path. It is very easy to forget the original idea, or perhaps not forget but lose contact with it. The project grows into an apparatus of its own along the way, where all the decisions and logistics can come to overshadow the idea. As if there is poor contact in a cable. It has been said by many people, but cannot be repeated too often: Make sure to remember the idea. Go back to it. What was the original desire, what was the intention, what was the rationale behind the idea? Why did it appear, what was the need, what was the impulse? Make sure to go back and check that the contact is plugged in at regular intervals. Ask what the intention with the projects is. What is the main point? It is only so easy to forget the original idea amidst all the byways of organization, planning, explanation, conception, meandering economy and research on a project.

Changing of modes is demanding. It is not difficult when you have a recipe, when you know how the task is to be performed. Daily life is full of this. But it is these long processes where the work grows up laboriously while one has one's doubts about how it should be, that are mentally arduous. What is the proper balance in maintaining the idea through the doubts? How far should one yield to impulses from for example other works one is simultaneously creating? Obviously, they will have an influence, whether intended to or not, but should they affect the conscious choices? To what extent is it fruitful that they do so? Is it not precisely a point that not only the subconscious, but equally the conscious choices are affected by such concurrent processes? The work is always, inevitably, created in a context – the context of which the auteur is a part. This affects all the decisions along the way.

The thought, the idea, the notion of a situation in a not-yet-composed work can seem very clear when it arises, but is fragile and ephemeral. The idea might vaporize and disappear in a matter of seconds or minutes. Sometimes a single memorandum, a few words, or just some lines, scribbles with a figure or two, may be enough to store this thought for days, perhaps months, but usually it is only a desiccated skeleton of that thought when it is brought out again months after it was noted down. The memory of it has changed, it is influenced by what I have done in the meantime; it also appears in a new light. And in any case, in the process as a whole, there is much doubt and uncertainty. Precisely because there is no recipe for how the work is to be carried out. Anything can at any time be approached in quite different but also credible ways. It is crucial to remind oneself of this, and that it does not mean that the exact way one intends to deal with the issue is, for that reason alone, any the worse.

The project wobbles like a huge portion of jelly I am trying to carry in both hands and which is extremely difficult not to drop on the floor. It wobbles all the time. Constantly there is the risk that there will be a little too much lopsidedness somewhere in the system, and such lopsidedness could topple the whole project, because it would exceed its limits.¹²⁰

Format and context

What is imagination? I listen to the mental sound fields sometimes taking place in my head, that only I can hear. I can sit still, hear the timbre, hear an entire stream, sometimes concrete sounds, sometimes rather abstract and floating sound masses. Gaston Bachelard says that “*Imagination augments the value of reality.*”²¹ Imagination is to negotiate visions, utopias, dystopias; what is not yet. I do extensive research: Science is important. Culture is important. Infrastructure is important. History is important. Music is important. Music is not music alone. I take care to consider the context. There are two signifying typologies. One is the context of creation. The other is the context of realization.

Site, and what is happening at the site, do affect each other. They are dependent of each other. I work with this integration. The material itself must have a justification in the site. It is essential to glimpse the contours of a potential for creating material that enters into a direct relationship with the site. When I start a project, I get a more or less vague idea of some kind of site where some kind of sound and/or action, I don’t know yet, may happen. I think of it, let it stay in the back of the head for a while, pick it up again, add details to the idea, ask myself some questions of what form it would take, how realistic it would be. If the idea survives this period I write it down, in words, maybe a very simple pencil sketch illustrating a point, since I quickly run out of suitable words describing a relational or aurally propagating idea. Then I read a lot and go out to research site. The *format* and *expression* of the material cannot be drawn up without considering the site. Format and context are inextricably linked to the musical, auditory and thematic content.

I try to create immersive, audiovisual projects that are connected to and make a point at a certain site that I explore and embrace. I aim to involve qualities and characteristics from the site, shaping a conversation, creating an inconclusive situation and putting something at stake. I try to conceive a music that activates a site, making created situations. I do this because there is a close link between memory, comprehension and place. And I do this because I have an idea of what could have been.

I think a vital point is that the audience must be able to grasp a relationship between material and place; the connection must be appropriate to the creation of meaning. Such meaning must be *capable* of manifestation. The meaning may lie in something historical, social, economic, cultural or the like. It may lie in something sound-related that arises precisely there, an acoustic condition or something that activates the place and makes us ‘hear’ it in other ways than it is normally manifested.

I decided early on in the project that the use of time would be central: time for extended, sustained musical situations, and time for slowly evolving scenes or processes. The contextual themes involved vastness at various levels. It takes time to comprehend vastness. It takes extended time to communicate notions of extreme timespans.

AUDIO MATERIAL AND RELATION TO OTHER MEDIA

The strategy of siting yields an approach to what kind of audio material I would develop. The strategy comprises several fields of influence: Site interaction, cognitive perception, time and duration, structure and scarcity, coupled with my preferences, my style, abilities and the scope of limitations. The question of material is closely integrated with the entire idea and process of the project.

Style is a consequence of the particular sites, the related themes of the three works and my personal preferences. The style is also a consequence of the cognitive function of our brains; how it responds to siting and auditory stimulus. It is hard to separate what comes first. The choices are made in a constant negotiation between all implied factors of the process. For example, the sites share as a common theme history, dystopias, a darkness and future. How could I open a mental space for reflection on this, without being too suggestive or telling?

I wanted clean elements, nothing fancy and as such transparent, but dense textures. Bare sound masses and extended processes are approaches to what kind of material to use. I found that less agogic information gave myself as a listener more space for my own listening, for navigating within the sound. I could myself choose to zoom in on different audio details, and felt a greater presence to the musical situation. This fuelled my own thought processes, as if establishing a zone where I could myself think. I could develop longer strings of reasoning. Therefore, I chose to remove, as much as I could, superfluous motivic information. I found that this alone suggested a durational attitude. As discussed in the chapter ‘Time’ on page 49, I decided extended time to be a fundamental and independent type of material. This decision has consequences for how to go about information density speed, that is, integral speed, degree and character of information change. These choices mediate my initial frustration over conventions of materiality and agogic. In addition, they mirror a kind of vastness and large scale of outdoor spaces.

These preferences fall in line with my mind, how I experience topography when I move across a plain, a valley, in woods, mountains or along a trail or road. I remember once driving across a vast plain in the U.S., I think it was western Arizona, seeing only a flat horizon and a completely straight road ahead, for maybe twenty minutes.

Nothing changed. It kept floating and certainly everything was constantly changing. At some point I faintly, slowly realized that the way the horizon appeared altered. It was as if it came closer. We headed for a dive. The large plain ended in this very broad, steep dive, maybe some 100-150 meters high, quite straight, seemingly endless in both directions. We descended through a canyon, down, onto another vast plain at a lower level with somewhat dissimilar vegetation, yet equally monotonous, again seemingly endless.

Musically, I find *time* is needed to settle down and establish a certain zone. Such a zone does not restrict itself to a definite area. I think of a zone in time, in duration, there is a situation involved. I find that an extended, durational zone yield space for entirely other thoughts and experiences than more conventional durations of music. Something else happen. Another mental flow is possible. To me, something more *real* happens. It is a way of listening, together or alone, for an extended time, that is not often available to us in modern societies. Duration in itself is necessary to obtain this zone.

In *Mirnyj* I tried to respond on the scale of the Russian landscape, admittedly substantially larger than the small portions I had been able to experience. I tried to respond to the abnormal scale of historic lines with shift of paradigms. The audio material is intended to enable a situation, an auditory zone for thought and just being there, in the sound, encompassed by the sound, watching the film material. The audio is ripped of agogic affection, there is no melodic level. Instead I had to trust that pitch interference and very slow and simple harmonic processes negotiating the cinematic monotony would be enough, would carry the situation.

Visual expression is normally stronger and resides over sound. The low activity level in the film material may – in a performance situation – be balanced by the sound almost occupying the entire space. Immersive sound is vital in this respect. Powerful speakers in a four-channel array surrounding the audience, and throughout a relatively intense volume fill the room, the space. The soundwaves are constantly reflected and add up in the resonance of the particular hall. The volume is a prerequisite to contribute to create a special zone.

Alan Licht says on sound art that “In divorcing sound from image, sound takes on a life of its own, and this is what makes the concept of sound art possible.”¹²² He had a separation of causality in mind. For the most part, *Mirnyj* has no causality between sound and image, and there is no dialogue, almost no people. This establish a mental zone, apart from representing the nature of the landscape, trying instead to recontextualize the sensation of not a particular site, but a mood, an existence, a political reality over time.

The duration of *Mirnyj* was a necessary precondition and a test of ability to keep attention and intensity over time, in order to be able to do Himdalen. To test the durability and balance very little (but constant) change – barely avoiding standstill – with a still organic sensation. Our ears seem to immediately perceive and recognize a truly static sound situation, whether statically prolonged or mechanically repeated. To my experience, this is negatively unbearable and I immediately tend to think of it as a result of negligence at the side of the composer. I have worked with a continuous change, albeit small, and tested the evolvment over time manifold myself. I was surprised about the perceived sustainability, durability, of how I myself not only accepted the situation, but *enjoyed* being in the durational situation, staying there. I actually listened carefully, at times with full attention, anxious to listen to the development, even though I had made it myself and knew exactly what was going to happen.

Repetition is beautiful. Repeating something immediately creates a pattern. Slightly altered reiteration resembles a natural, organic vastness. I found repetition to be vital for obtaining an extended zone. Monotony, sustain and perseveration became tools for working with durational music. I induce tiny and slow changes, sometimes “fast” enough to be recognized by short the term memory, at other times too slow for the working memory to realize. Only over time the brain’s slower analytical mode realizes that something is altered, being alert by not knowing exactly what, and starting to listen more carefully to discern what it is, but again not finding immediate change and slipping into wandering thoughts. In Østby&Østby, the phenomenon is described as such: “A neuron somewhere in the brain sends impulses to neural cells in the hippocampus. If they are repeated, the neural cell learns, and fires (responds) more sensitively, which means less stimulus is needed for it to respond. A memory consists of many such connections. One neural cell can be part of many different memories. When something becomes a memory, new connections have emerged from neurons either turning on or off, and thus forming a pattern. These patterns are combined in networks in the hippocampus so they make sense to us”¹²³

The articulation of repetition was exciting to work with especially with Himdalen. I realized that I had to consider the effect of the entire duration, the night time and circadian rhythms carefully when planning the audio material. I had to deal with these durational issues to a much greater extent than I needed to in *Comfort Music* and *Mirnyj*. The inherent need for meals, unavoidable and intended drowsiness, occasional sleep, discomfort, need to interact with others in talking, the arrival and the transitional walks all had to be composed into the musical material. The late autumn freezing temperatures below zero and the silence of the landscape, the metaphoric death, as a consequence of the time of year, have consequences for how the music is mapped out and time articulated.

Particular descriptions of each work are presented in the chapter ‘Comfort Music’ on page 84, ‘Mirnyj’ on page 92, ‘Himdalen’ on page 112.

The order of the three works was not random. They are connected, testing different aspects of the projects, in different stadiums of development. The reasoning and conceptual themes are related. I only could make *Comfort Music* after the possibility of involving the Emergency Communications Exchange appeared. That site informed my process profoundly early on. To me, the divided audience and exclusion particularly opened the paths of an east/west divisive schism, and its political and historical reasons coupled with a little question that led me to chasing an idea to Athos and Delphi. All the reasoning that arose from that, made it clear I would chase another idea to Siberia, and during and after that trip I found a way to respond to these impulses and jump into making the audio-based film *Mirnyj. Himdalen* was only possible because of these previous works. The process leading up to *Himdalen* was more concrete, more political and leading up to an exploration of the Land music reasoning to its full potential. The project concludes there with an immersive durational outdoor situation, opening a wide range of spaces for consequential reflection.

While the transitions in *Himdalen* generally are very slow on the verge of imperceptible, *Comfort Music* has clear sections. The bare harmonic structure is ascetically constructed by insistent, repetitive minimalistic medium quick pulses that add to a sensation of unrest. Beneath most of the material is a principle of interval structure – interval relations of large and complex chords or harmonies as the basis for a harmonic structure – that I developed in the early 2000s. This structuring principle lies there as a basis for the harmonic development and degree of variation in harmonic fields. I have not actively, technically, used this for a long time. Nevertheless, it sits there, internalized, as a fundamental language of mine, where I know, before I search, what I search for, before I have planned or negotiated with myself what to do, knowing what I want to avoid, what to achieve, without rules or formalized composition. From this I plan a harmonic material, a harmonic realm.

When I worked with found material from the Beethoven string quartet no. 14 in C# minor opus 131 for *Comfort Music*, a bug in the computer software Max turned out fruitful. The bug made one procedure of the processed file chopped up as flickering. I hadn't planned that, although I did work with fast adjustments. Faulty programming led to the error. I liked the result of the error and kept it.

In *Mirnyj* I recorded most of the planned harmonic material in studio with one violinist. Together with violinist Odd Hannisdal I recorded long, sustained single tones, entirely separate and outside – *prior to* – a musical context. Likewise, I generated electronic material with synthesizers and processed and prepared the material as building blocks. Following was a phase when I play around, listen, compose and treat the acoustic material just as freely as the electronic material, although I normally keep resemblance to origin as of timbre and tactility. The method is simple and relieves me of many of the restraints coming along with a live musician and an instrument, without losing grip of the tactile sound quality of the acoustic instruments in question. On the contrary, I can get closer to tactile features with the instrument, if desired. In this way a free and integrated process of composition with material relieved of its physical aural origin can happen. I have focused on string instruments with rich and prominent overtone spectrum and capable of naturally sustained tones. A middle zone between the material of the acoustic instruments and the analogue synthesizer's electronic, yet organic quality appears. The way the different origins of material are treated is dependent on the other. Some would question the consistency of this method with the argument of grounding material to context. I would argue that this integration on the contrary is consistent and scaled or transferred from the integration between audio material and the materiality of the site. The intention is *integration and relation* as opposed to direct translation of aspects. There is no intention to recreate a non-amplified acoustic situation. This is evident in *Mirnyj*, where the audience due to the loudspeakers and volume at the beginning is close to the instrument, filling the aural space of the room. This approach renegotiates the traditional dichotomy between *acoustic* material/music and *electronic* music/material.

In *Himdalen* I wanted the natural fragility that comes with a live performance to balance the quite harsh electronic sound masses I was about to make. The acoustic scenes were introduced after more than five hours of electronic material, at midnight. Theatrically a harmonium was pulled on a trolley towards the main camp, constantly playing a chord, while the electronic material faded out. The instrumentation of percussion (vibraphone, bells and metals), guitar, contrabass and harmonium is a result of musical needs for pulses, tremolos and sustained pitches, from the pool of musicians in Aksiom ensemble. While guitar, bass and percussion within the context of art music appear as more or less neutral, the harmonium adds a patina, an air from something bygone. The particular instrument used is built by a long-time decommissioned organ factory on a Norwegian west coast island, where my grandmother's family is from. It is from the 1930s and was bought to be the house instrument of my mother's family. It was a reduction of the church organ that could enter regular homes instead of a piano. The acoustic, analogue instruments point conceptually both backward in time to a pre-atomic time, and to a possible dystopian future beyond our civilization. This works in dialogue with the campfires, in the cold darkness, in front of the portal that we have no access to, that just sits there.

The acoustic scene at the main camp was amplified to broaden the situation, to fill the acoustic landscape and better match the strength of the electronic material. I needed more pitches anyway for the harmonies than I could achieve with the four live musicians at hand. Those strata of the soundfield were pre-recorded and practically treated the same way as the electronic material, being balanced and expanding the instruments. Even though the

timing had to be fixed, the live performativity here added to the overall feeling of fragile anxiety. In addition, the acoustic scenes had a function as a focal point, a change of materiality at midnight. This presence is closer and literally amplified. The musicians were a part of the entire crew, themselves taking part as audience, further levelling a traditional hierarchy between the different roles of musicians, crew, composer and audience – all taking part in the same experience, where the audience was not bound to rules. The audience was free to walk around and do what they wanted. I want to bridge the apparent distinction between electronic and acoustic material that seems constructed from the origin of the material alone. By renegotiating traditional dichotomies between acoustic/amplified, acoustic/electronic and performer/audience the work may reduce also a traditional separation between who delivers and who receives in the context of a performance, without dismantling the integrity of the work.

At the lake scene the auditory experience was separated by a 15-20 min walk. The material was a version of the material at the portal, but change of scene made it possible to do that more or less acoustically. The percussion was acoustic at the lake scene, while the double bass was acoustic, coupled with extra pre-recorded bass from a portable battery loudspeaker, and the guitar on the island was supposed to be amplified with a portable battery speaker, had it worked. The scenes appeared more separate than intended though, as position G did not start playing as supposed. The four speakers here were intended to be barely audible from A, and increasingly audible during the walk to the lake scene.

I work with composed music, planned progression and planned soundfields. No matter how durational, a structured progression creates its effect over time. The stamina of the slowly evolving structure and coherency of the musical material is what carries this endurance.

A recurrent challenge is to keep hold of the overall idea of structural emptiness. Not to fall for the temptation to vary more, to add new layers of detail, to develop the details. For in the everyday, concrete work of selection, working out, composing, editing, filtering the material etc., one is deep inside it, inside the material, in the progression of the seconds. I should have a sign hanging on the wall saying “Stick to the monotony! Don’t depart from it!”

SITE SELECTION

The conceptual reason why the music should be *there* is essential. I must sense that the site is occupied by *something*, it must inform me in the working process. The type of site I have researched have in common a void quality, a sense of neglect and some kind of history. At some level it is non-human, although probably altered as a human artefact. It may be wilderness too, although rather cultural landscape, ruins, abandoned spaces or drosscapes. The interaction is the interesting thing, where the sound is the engine or catalyst for the interaction, for the experience of the site, and the engine for navigation and reflection.

In the context of this project I have looked for a number of qualities:

- Places having the potential for risk, danger, uncertainty, ambiguity.
- Places where one can investigate time and future.
- Abandoned, deserted structures.
- Places exhausted, depleted or obsolete.
- Voids, ruins. Silence.
- Imprints and remnants.
- The neglected and the idle.
- The desolate.
- Places pared to the bone, all the way to the basic structure, far from anything Baroque and decorative.
- Inconclusive, open places.
- Sites of former industry, equipment or machinery.
- Contextual landscapes, resources and geology whose former use has had a site-bound logic.
- History and rationale connected to landscape.
- Specific qualities rather than general qualities.
- The possibility of using a location such that the anticipatory gaze is out of play.
- Scope for construction of imaginary spaces.

Some investigated places

Here are some of the discarded places I have researched, to give an idea:

- Uksedalstjernet, near Slettmarkpiggen in Jotunheimen, Norway. Mountain lake in cirque.

- Tredjevatnet, Morka-Kolledalen in Jotunheimen, Norway. Mountain lake.
- Hardbakkatjønnen near Svartediket in Bergen, Norway. Lake in cirque.
- Pond 1290, Mjølkedalen in Jotunheimen, Norway. Mountain pond.
- Blåfjell, Røyken, Norway. Rock face in forest.
- Dausjøen, Maridalen, Norway. Forest lake.
- Delsjön, Gothenburg, Sweden. Forest lake.
- Centralia, Pennsylvania, USA. Abandoned city because of subterranean burning coal seam.
- Mount Buzludzha, Bulgaria. Abandoned futuristic memorial monument from 1981.
- Donetsk Airport, Ukraine. International airport devastated by bombing in the war of 2014.
- Østmarksetra kommandoplass, Oslo, Norway. Abandoned underground military facility.
- Yasser Arafat International airport, Gaza Strip. Airport built in 1998, bombed, closed and abandoned during the Second Intifada in 2000.
- Hashima Island, Nagasaki Prefecture, Japan. Abandoned coalmine island.
- Kadykchan, Magadan Oblast in Siberia, Russia. Abandoned coalmining town, built by gulag prisoners.
- Kiruna, Sweden. Ongoing partial relocation/abandoning of town due to ground deformation from mining operations.
- Lysebotn new water power plant, Norway. Large 40 m high cavern under construction 1450 m within the mountain, in 2017 still empty before assembly of turbines and machinery.
- Neft Dazlari, Azerbaijan. Partly abandoned city construction on a network of oil rigs in the Caspian Sea.
- Norilsk, Russia. Formerly closed arctic industrial city.
- Onkalo, Finland. Radioactive Waste Final Repository under construction. To be abandoned when complete.
- Pripjat, Ukraine. City abandoned because of radiation after the Chernobyl atomic power plant explosion in 1984.
- Pyramiden, Svalbard, Norway. Abandoned Russian arctic coalmining town.
- KTH R1, Stockholm, Sweden. Decommissioned underground atomic reactor, reused as art space.
- Tellnes Mine, Sokndal, Norway. Open pit ilmenite/titanium mine.
- Udachny, Yakutia, Russia. Open pit diamond mine.
- Varosha – Famagusta, Northern Cyprus. Abandoned city, closed down after the war in 1974.
- Flørli, Rogaland, Norway. Abandoned rural fjord village and water power plant.
- Holmenkollen leir, Oslo, Norway. Abandoned underground military facility.
- Kolmanskop, Namibia. Abandoned diamond mining town, being taken over by desert sandstorms.
- Ħal Saflieni Hypogeum, Malta. Only known prehistoric subterranean temple structure, a necropolis with a powerful acoustic resonance.



Photo of aerial photo of Blåfjell, Røyken, Norway, with positions where I and Cato Langnes made impulse response recordings that we never even processed.

Concrete discussions of the considerations of site selection of the final artistic works within this project are found in *part III: Three Works*.

GUIDELINES

These memory points guide my work until I find good reasons to break with them:

1. What is the **reason** for the work? Why does this work have to be done? And why by me? Will this work have a justification in a broader perspective? How can the reason and the material be connected? How does the context inform my personal choices? What is on stake?
2. Consider the **siting** of the work carefully, including the physical audience position. Try to have the work engage in the relationship between *where* the audience is and *what is happening* where the audience is.
3. Embrace **time** and duration as tools of perception.
4. Search for the balance between **scarcity** or musical asceticism, and change or **information density speed**.
5. Remember to delve into **immersive** situations. Engage hearing and sight at least.
6. Work with **presence**, bodily presence. Try to establish a need for the audience to *do* something, offer something, inducing a need to explore, to *navigate* – geographically, mentally or with the ears.
7. Seek ways to involve **risk** at some level. Develop unclear situations. Keep inconclusive. Try to make indifference difficult.
8. Travel to seek out **unfamiliar** positions. Look for a sense of another place.
9. Expand the musical **format**.
10. Be bold.
11. **Litmus test**: I must be able to like or acknowledge what I make as a listener myself.

The memory points were formulated during the process and partly after completion when thing had become clearer.

QUESTIONS WHEN ON SITE

I do research and sort and choose what I want to look for. I go somewhere – here. I listen, look, spend time, measure. Think through what I have researched about connotations and connections. Does it resonate? Am I able to conceive of something being brought to life here? How does it look? What about its accessibility? How will it be in a different season? What kind of equipment can be transported here? What possibilities does it open up? What possibilities does it preclude? What possibilities will probably be closed? In terms of an approximate budget, do ideas arise about a possible articulation of the site? What happens when I move around here? Do any positions stand out? What is this all about? How will sound be propagated here? What kinds of sound material will I have the opportunity to make? How will it be able to function here? What do the surroundings suggest, how will they affect the auditive? Will it drown in the wind? Will the dimensions be too big for the actual sound volume? To what degree can the sound fill the space? What are the echo effects? To what extent is this significant for the idea? I shout and yell – to what extent are the echo effects variable depending on position and direction? How will the sound material that can be relevant to compose relate to echo and timbral effects? Is a work needed here? Does the idea have a potential to affect the place, to say something about it, inscribe itself in its memory and that of the audience? Is the idea actually Land music? Or is it sound-in-public-space? Does it actually have no business being here? What about practical things like walking distance, location in relation to the population, access to power, drinking water, overnight accommodation? What type of duration do I envisage? Do I have the capacity to do this? Who can I collaborate with on this? Would I myself be interested in coming as audience? What is the reason to work with, to get involved with this place, and do I know enough about it or will I come to know enough about it? Where is the potential for uncertainty, risk and sacrifice for the audience?

This type of question should arise and preferably find an answer in the survey.

A note on participation

Claire Bishop writes about the kind of participation in art where, as a member of the audience, you become a static or active participant. Perhaps you have to participate in the formation of material that is created along the way. For me as an audience member this is usually something negatively imposed, something I have not agreed to. When I create something for an audience the participation I require shall not be performative, or on display for other spectators – that is, not imposed a *role*, other than being oneself. The engine for that involvement – that commitment – is the individual's experience of the work, with no requirement to be performatively on display for others. The commitment must be invited, open, friendly – with the necessary artistic conditions. In the case of *Himdalen* it is mainly a matter of accepting and preparing yourself for a night outdoors in November, and having to find your way around yourself with a headlamp, navigating with the map, moving in time and space, absolutely by choice, in order to build up your own experience of the entire situation. The further course of the work is not dependent on the actions of the audience. In fact, that is not quite true, for in such a setting a distinctive social dynamic arises where you are affected by the choices and moods of others. But beyond that I place an emphasis on an open situation. You must have free choice.

VULNERABILITY: EXCLUSION, GENDER AND ISOLATION

Giorgio Agamben says that inclusion presuppose exclusion (see chapter 'Landscape', heading 'Exclusion as foundation of power' on page 36). I had explored exclusion in *Comfort Music*. Could it be that I had been blind to the inclusion of exclusion in the making of *Himdalen*?

Travelling to the exclusively male Athos meant a study in exclusion and isolation, see chapter 'The Holy Mountain' on page 65. I, as a privileged white male, admittedly not Orthodox, could travel there. After having been to Athos and ending up with an all-male crew for *Himdalen*, one may question this pattern. I must emphasize that I will not pursue such a place as Athos, not in *Himdalen*, not in other projects. *Himdalen* is not inspired by the fact that Athos is all-male.

Early on the working process with *Himdalen* I had prepared to get everyone who would be involved in place, and to create the material at a late stage – that is, when I knew what, when, where and who I could work with. I asked the excellent new music ensemble Aksiom to be a part of the project, aiming for almost the entire ensemble, but economy restricted that to four musicians. The four musicians were selected based on the characteristics of the instruments they play. Since the particular musicians of these instruments in this ensemble were men, the artistic and practical evaluations had as a consequence that all musicians were men. Several postponements of the production of *Himdalen* led to parts of the crew that originally had a majority of female collaborators had to cancel because they were tied up in other projects. They in turn recommended qualified colleagues. The now almost all-male crew of *Himdalen* was unintentional and unforeseen. There were pragmatic reasons for that. Although all members of the crew were excellent people, there was a discomfort in the back of my head about the gender imbalance, that I also addressed to the crew.

Although I had hoped for a bigger audience, the ones who were there expressed an appreciation of the loneliness and scarcity of a few people in a small group, freezing at the campfires, in front of the portal inward to a future. The isolation helped opening the mental timespan, to yield more space – literally – to walk around, navigating an individual experience of the work.

In hindsight I regard this a rather positive quality. Walter De Maria says that "*isolation is the essence of Land art*". In order to enable an experience of a vast, open, natural site in his site-specific *Lightning Field*, he limited the number of visitors to six a day, and demand a minimum 24 hour stay to experience the work. Should that work have been popular and crowded of visitors, it is evident that it would have fundamentally altered the experience of the work. "*Part of the essential content of the work is the ratio of people to the space: a small number of people to a large amount of space.*" De Maria also stated.

A similar effect can be said to have occurred in *Himdalen*, not explicitly intended, but built into the logics of the work as a consequence of its format, the location, time of year, time of day and duration, leading to a close, somewhat local social situation, of a shared fate of experiencing this work. These logics, however, contribute to rejecting a potential audience of, for example, disabled, pregnant, small children, people on tight schedules etc. Late November is not only cold and dark, but also a very busy time of year for many people. Do these aspects involve an exclusion along gender lines as well? Did the values I have expressed in the work itself have any characteristics

that seem more dismissive to women than to men? In hindsight, the conversation with the young men from Cluj Napoca in the hills above Skiti Timíou Prodrómou in Athos, rings in the back of my head. They had expressed joy, a sense of liberation, a wonderful feeling of freedom, freedom from temptation, saying that it was easier to concentrate there (see chapter ‘The holy mountain’, section ‘Eastern slope, 12.4.2016 – early evening’, on page 68).

It hadn't been in my mind when working with *Himdalen*, but it's possible that this has been hidden from me. I have thought of the work itself and its design as completely neutral regarding gender. I can see that the work has a hardness, in addition to its explorative character. The format has an exclusionary effect, that is obvious. It rejects facilitating. This is built into its logics and design – on purpose. Consequently, the purpose was not to reach the widest possible audience, but an audience willing to sacrifice comfort and experience something unique. The intention was artistic research, to test the potential of new immersive formats. And I think the isolation aspect – the ratio of people to space – is interesting to investigate further.

This implies a resistance to a societal structure measuring the success of music in numbers of audience and listeners. This structure exists due to an inherent entertainment value, depending on popular opinion and public demand, according to Alan Licht¹²⁴, which deflect from the mass-producing music industry of various types of popular music to the various types of art music. Site-oriented works are like ephemeral performances. Their logics are outside a reproducible and transferable concert. Odd projects add to diversity – they may add to a deformatting of society. Popularity or broad acceptance is not the proper measurement of either visual art nor art music. There is a need to change the evaluation of art music more in the direction of evaluation of visual arts, away from both numbers and volume, and away from classical music. Works and projects that evade pre-accepted measurements are needed as wedges against minimisation – mainstreaming – of diversity.

Nevertheless, one possible finding that may lead to further investigations is whether some of the aspects I have used in *Himdalen* have a rejection effect on women, and what consequences it has, if that is the case. Maybe the symbols I use in *Himdalen* has a male trait that seems repugnant to women? This is a blind zone for me. Does it have any authoritarian traits, contrary to my ethics? Did the advertisement work differently on women and men? Which codes of the advertisement material similarly worked dismissive or appealing? On locals and a ‘concert audience’? On majority and minority population?

In the contemporary music field in Norway today, efforts are being made to equalize historical distortions of gender. There are distortions that can be difficult to see for those who have privileges. What I have been concerned with, has been that other perspectives than what is within the thinking of the current canon, to the current formats, should be able to take place.

To the greatest possible extent, I think artists and curators should be aware of such codes and their implications. Likewise, I advocate a society that, to the greatest possible extent, appreciates and safeguards the freedom of art with as little allowance for regulations to intervene in artistic practices as absolutely possible.

¹¹⁹ Abstract. From latin *ab* – “from” and *trahere* – “draw off”, literally drawn away. Something that concentrates in itself the qualities of a larger item disassociated from any specific instance.

¹²⁰ In the final phase of the work with *Himdalen*, just three weeks before the premiere, *Aftenposten* [the most important national newspaper in Norway] had a front-page article on 30. October.2018 headed “Doubts about Nuclear Safety”. The Norwegian Radiation and Nuclear Safety Authority had reported the Institute for Energy Technology for discrepancies at the *Himdalen* complex. The Radiation Authority thought there were serious breaches. IFE itself had reported the discrepancy, but maintained that it was due to the fact that several layers of requirements and rules had been changed along the way in the operational phase. I had not managed to read it when Knut Bjørnar Larsen from the Institute for Energy Technology called the same day and asked what I thought about the possible need for a team of watchmen outside the plant during the concert. Just afterwards the Aurskog-Høland municipality called about the application for an alcohol licence that I had sent in. Inasmuch as we wanted to serve outdoors after 23:00, an exception had to be made, and exceptions had to be dealt with politically. It had been put on the municipality's agenda on 19.11.2018. The local authority had itself reported the Institute for Energy Technology to the police for the discrepancy¹²⁰, and preferred to have it processed by the police before the local authority meeting got the issue of the alcohol permit on its table. Politicians are obliged by their programming to be concerned, and were perhaps thinking about the signals they would send by not only approving the concert at the plant (which had long since been granted approval), but in addition by granting an alcohol permit when at the same time they were worried about safety. Of course, these worries are at different levels, and are not necessarily about safety here and now. One imagines that the municipality would like to signal the greatest possible concern as their input to the political game about the possible expansion of the complex.

¹²¹ Bachelard, 1994, p. 3.

¹²² Licht, 2007, p. 38.

¹²³ Østby & Østby, 2017, p. 34, my translation.

¹²⁴ Licht, 2007, p. 13

PART II: CHASING AN IDEA

In the project I originally meant to use acoustic measurements to recontextualize the sound of specific places. Instead I have turned more towards conceptual impulse response which, although it does not use measurements, puts our cognition to the test. The approach increases awareness of the meaning of the context and the significance of our cognition for how we sense and how we create stimuli. The project is a kind of metaphorical impulse response that makes us attentive to biases; not in order to strive for neutrality, but to clarify positions.

Impulse response

Impulse response is a method of measuring a system. In all simplicity it is about sending out an impulse and measuring the response. In acoustics the method is used to measure the sound qualities in a room, a hall or out in a habitat. The impulse that is sent out may be a strong sweep of white noise over the whole frequency range, or a short burst of white noise, an impulse, such as a pistol shot. With microphones you record the response, that is the sound, and how it plays out in terms of amplitude (which is the quantity of energy – that is volume) and frequency over time. Then you have made a sound imprint. You make sure you know the raw data for the impulse and measure the response against the source. The result can be used as reverberation in post-production in all kinds of audio processing.

In fact, I travelled to Greece with a starting pistol in my luggage because I had intended to measure the sound in the two ancient theatres in Epidaurus and Delphi. This chapter comprises a travel log ‘The holy mountain’ and an essay ‘Delphi in fumes’ with thoughts on an extreme situation which has inscribed itself in the history of the place.

Einschub: starting pistol

I am not used to weapons. In Norway no licence is required to own and use a starting pistol, so I bought one and used it in Røyken and Mjølkedalen.

In my simplicity I imagined that Norway in general had stricter rules in such an area than other countries. At Oslo Airport Gardermoen the check-in staff were uncertain about this so of course we marked the checked-in luggage regardless with the clear orange label saying that it contained a firearm. At the airport in Thessaloniki in Greece the luggage was naturally enough taken aside. I had to show a document saying that I had the right to carry it. I must admit that it was not that simple to explain what the purpose of the weapon was: to explain the project and the impulse response measurement where it was the sound that was the point, to make a sound imprint. The customs officer was very friendly, culturally interested, had himself been to Athos, thought the project sounded interesting but had to insist that starting pistols did indeed require a weapon licence in Greece. It had to be confiscated. However, I had a scheduled domestic flight to Athens a few days later, and they could keep it for me until then, and gave me the phone number of a higher-ranking customs official whom I could call during office hours the next day.

On the way to Athos I called the Norwegian police to ask for a short letter that explained that one was not issued with any papers in Norway granting the right to own the starting pistol, since there was no such requirement, and I sent this on to the customs officer. It is difficult to document a right that is not explicitly written down. The Greek senior customs official on the telephone was considerably less patient and declared that the starting pistol unfortunately had to be confiscated and destroyed. Oh well....

The backup solution, too, with large, specially bought balloons, had a poor reception from the museum custodians in Epidaurus. They were not having me measuring acoustics: it might damage the ruins (!), but they had no problems with other tourists bellowing, shouting and acting up. It probably required considerably more energy than these balloons could muster if any sound waves were to damage these ruins, so this was probably just a standard excuse to reject me.

THE HOLY MOUNTAIN

This is a travel log and reflections from a trip to Athos and Delphi in Greece, 11-18 April 2016. Athos is a peninsula in northern Greece. It is a separate territorial entity (polity) within Greece, also called “The Holy Mountain of Athos”. This polity is an autonomous, theocratic, monastic state. Women and children have no access to the theocratic state, and only a few men can come every day.

The log explains the origins of an idea and how the context of creation is important, in this instance for what actually becomes or does not become a musical work. The journey to Athos enabled thoughts of long lines, unbroken traditions, absence, focus, concentration, cognitive priming and more. The incitement to go there, as it turned out, did not lead in the end to a concrete work. Although I was intrigued by the idea of following up on this, my judgement was that it would have to involve a stronger artistic emphasis on religiosity than I wanted to explore. However, the trip was an important prerequisite for choosing to travel to Mirny in Siberia. This, in turn, led to a concrete work.

THE QUEST

In January 2016 my 6-year-old son asked me what ‘speech song’ was. I guess he had heard some hiphop or rap with some friends and somebody at school maybe called it speech song. I said something about hiphop, *Sprechgesang* and recitative being used in churches for more than a thousand years, and now it was time to go play instead. A week later I sat in my studio, totally worn out from lack of sleep. My head felt like a ball of cotton wool, muffled, indistinct. Not a creative day. I wasted time surfing the web for used cabins, particularly poorly maintained shacks. They have potential, they represent an emptiness, not filled or pimped by someone else’s taste. It got me thinking of ruins. How do we know what we know about ruins? And I wondered about early speech song as musical ruins.

GREGORIAN CHANT

I researched *Sprechgesang* and recitative, song close to speech, using one or a few notes, in western music based on Italian monody. The concept of monody was developed in the 1580s by the Florentiner Camerata in their attempt to restore ancient Greek ideals. It meant “one person singing alone”, but could include a sparse accompaniment, such as basso continuo or bourdon. The ideals were filtered through the early medieval church and its Gregorian chant.

The associative research on this muddled day went on. Pope Gregory I the Great collected liturgical melodies from a variety of churches, so that his chants could be more consistent and uniform. He was a Roman by birth and lived c. 540 – 604 CE. The old melodies were probably transfigured during this process of assimilation. The reinterpretation spread over the entire Latin church.

What were these times like? They were difficult. The centre of gravity had moved east, the Western Roman Empire had collapsed in 476 CE. Crops were poor. Migrating peoples had destroyed large parts of Italy when the Eastern Empire attacked the Western Empire in 535 CE, beginning a twenty-year war, coinciding with a devastating plague in the 540s. Rome was left in ruins: only a few thousand people were left in the former centre of the world. These were Gregory’s boyhood years.

In the tradition of Gregorian chant from the late first millennium, the rhythm follows the textual rhythm, the melody follows one of the modal scales. These were not transposed. Frequencies or tones were thus fixed. Melody moved stepwise. It was therefore unnecessary to write down rhythm or melody. But one needed to know the relative melodic change of direction on each stave as long as the mode was given.

Song was monodic, in one part. A second supporting part, the organum, was first described around 895 in *Musica Enchiriadis*, the first known book on music. Notation was at first in neumes – simple dots and streaks suggesting melodic direction or an ornament.

The Church had come to cultivate asceticism and completely rejected the use of instruments in the 400-500s. In order to become a Christian a musician was obliged to give up his profession. “Instrumental music risked the kind of sensual beauty that could spur one into committing every conceivable sin.”¹²⁵ Music was perceived as

having the potential to influence or actually manipulate people into thinking otherwise than prescribed by the spiritual and religious framework.

THE GREAT CANON OF REPENTANCE

The advertisements for cabin shacks had me thinking. I didn't know very much about early medieval music, and listened to and read about church music from the first millennium. I quickly found and was intrigued by the *Great Canon of Repentance* – Megistis Kanon – the longest existing canon.

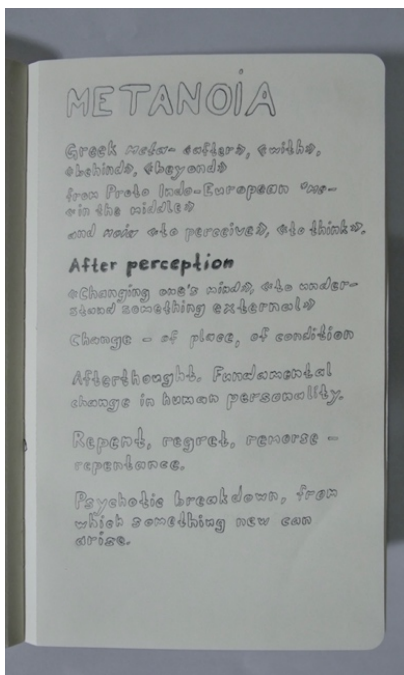
The Great Canon is still in use during lent as part of the liturgy in the Orthodox Church. Lent is the 40 weekdays from Ash Wednesday to Easter observed by the Roman Catholic, Eastern, and some Protestant churches as a period of penitence and fasting. I wanted to attend the Canon in an authentic context. What then, is authentic? The context of its creation is an uncertain period; the political weight had shifted significantly, the Western Roman Empire had collapsed, plagues haunted the towns, the Migration Period destabilized many areas (a Bond Cooling Event may have contributed to this). Systems were not maintained, a new order evolved with Islam, and we know historically less about this time than both before and after. Who maintained the stories? Whose view is communicated?

The Great Canon was written by Saint Andrew of Crete¹²⁶, who lived c. 660-740 CE. He was born into a Christian family in Damascus, Syria. When he was born, the country had been primarily Muslim for thirty years, after a fairly swift Islamic expansion in the early 600s CE. When I read about this, Syria was in the middle of a gruesome civil war. One of the belligerent parties – the Islamic State in Syria and the Levant (ISIL) – had conquered and meticulously blasted parts of the ruined ancient city of Palmyra. They saw their Salafist version of Islam as the only authentic and valid one. Non-Islamic and pre-Islamic cultural memories had to be destroyed, since they told another story. History was to be adapted to fit their worldview.

Canon is Greek and means guideline, model, rule. The Great Canon consists of 250 verses, a brief review of the Old and New Testament, and takes hours to sing. It is still used in the Orthodox Church at Easter and during Lent, which is a time of fasting, quietness and thoughtfulness, absence and asceticism, *to clear a space for reflection*. Repentance, or regret, remorse, is 'reflecting in hindsight', taking another position, and implies trying to change. To do things better this time. In the Canon, Andrew writes about the deepest remorse and sin. The ultimate repentance is *metanoia*. *Meta* means after, with, or outside, and *noia* is perception, thought and sensing.

After or outside perception.

Thus, *metanoia* means changing one's mind, a *fundamental change of mind*.



Metanoia

Greek *meta-* "after", "with", "behind", "beyond".

From Proto Indo-European **me-* "in the middle" and *noia* "to perceive", "to think".

After perception

"Changing one's mind", "to understand something external".

Afterthought. Fundamental change of mind. Fundamental change in human personality.

Repent, regret, remorse – repentance.

Psychotic breakdown, from which something new can arise.

ATTENDING THE CANON IN ATHOS

I asked Stig-Ragnvald Frøyshov, a professor of theology at the University in Oslo, and himself an Orthodox Christian, for advice on the various traditions. We talked about different traditions, valuing the degree of musical traditions versus the degree of authentic traditions. The most authentic would be Athos. I have been preoccupied with ruins, abandoned structures, remains, derelict places, and emptiness as a kind of blank canvas. Hence, Athos would probably best reflect such conditions.

The monastic state of Athos in Greece is a medieval remnant, with an authentic, closed Christian tradition surviving from the era of the Byzantine Empire. The whole idea underlying the monastic life is to be isolated from the outside world, focused and concentrated, and Athos stands as a closed territory which will keep itself as much as possible outside the secular, concrete, pulsating surrounding world in an inward concentration on one thing. The focus is inward, upward, to the divine.

It is exclusive, in that only 100 Orthodox and ten non-Orthodox men can enter every day. Women and children are excluded. In fact, female animals are also excluded. As far as I know Athos is the only territory in the world that so consistently keeps the gender gap open.

I decided to go there to hear the Canon in as authentic a context as possible.

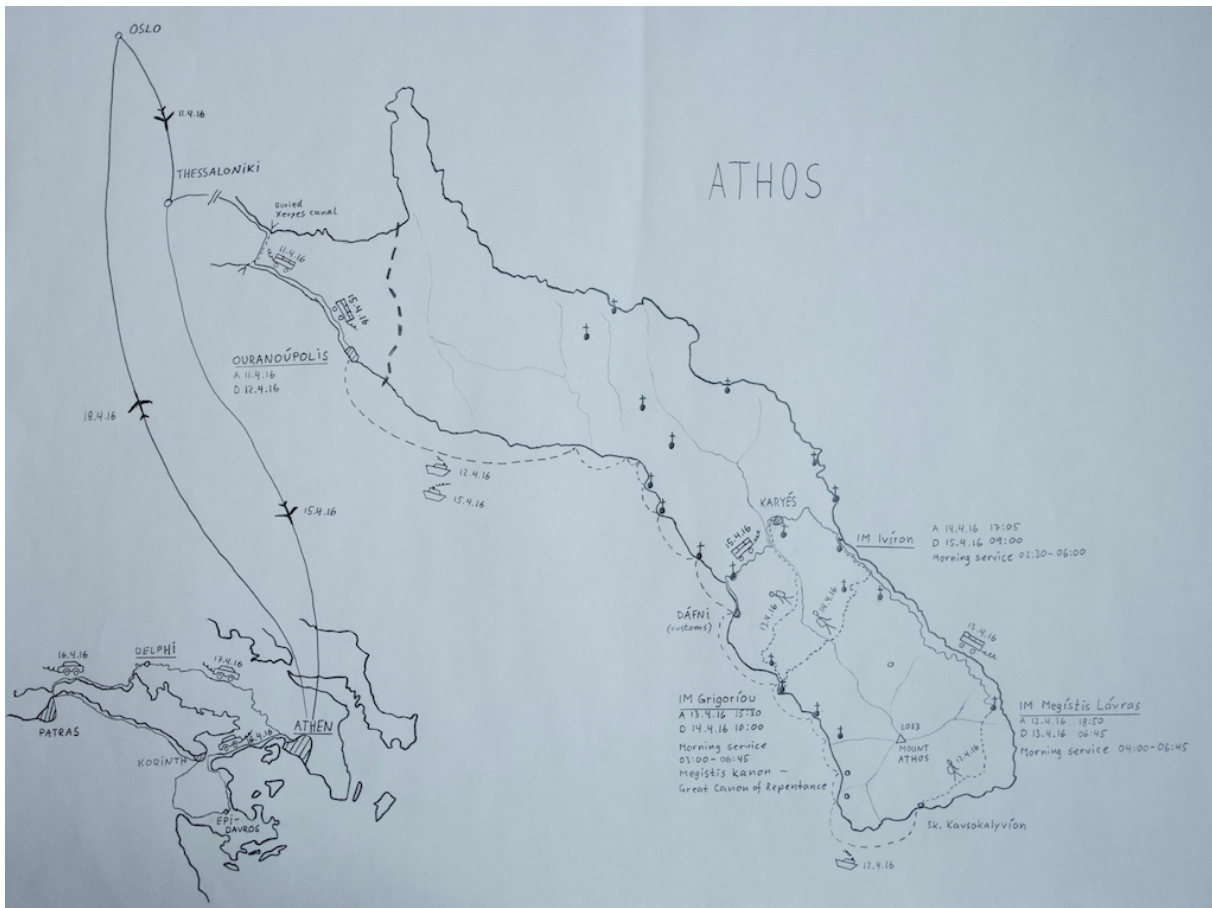


Photo of drawing of the route to Athos, Athens, Epidaurus and Delphi.

Dáfni, 12.4.2016 – 12:00

Dáfni is the small port of Athos. All transfers take place here, apart from a boat service on the eastern shore. It has been difficult to plan a route. Roads are few. Only trucks and local buses are allowed. Some monasteries are only accessible by foot along ancient paths. I want to walk, but asking for reservations is difficult. I've tried for weeks to call. Phones are not picked up. There is no official information for the monasteries, only a very helpful private web page¹²⁷ with some phone numbers reported by visitors. Most monasteries still use fax, and keep their e-mail addresses quiet. This has made planning a route difficult. Response from several monasteries has been non-existent or negative, and the response I have received restricts me to an awkward route.

The southern boat, 12.4.2016 – 14:24

I am at the southern boat, planning to get off at the next and last stop, Arsanás Katounakíon. I don't know how far it is to Megístis Lávra, nor if I can get shelter there. I take food for several days as well as recording and photo equipment, adequate clothes etc. for summer trekking in the mountains, including my later visit to Epidaurus and Delphi. The technical equipment is heavy. The backpack was probably the heaviest in Dáfni, 30 kg. Far more than recommended for just trekking.

Only men are around. There is something suspect about it. It feels awkward, abnormal. I am outside what these men have in common.

The main Orthodox Christian countries are Greece, Russia, Ukraine, Belarus, Bulgaria, Serbia and Romania. Most of the pilgrims and monks come from these countries, although men travel from all over the world.

South slope, 12.4.2016 – 16:46

At the peak of Mount Athos (2033 m above sea level), there is a chapel called Metamorfosis Sotiros – a reference to the Transfiguration of Christ on Mount Tabor, Israel.

Snow covers the peak for a good part of the year, and it is often covered in cloud resulting from humid air squeezed up into cooler air and condensing.

Eastern slope, 12.4.2016 – early evening

I had a break in the hillside above Skíti Timíou Prodrómou. The two men I had seen behind me caught up with me. They were pilgrims from Cluj Napoca in Romania, and recommended me to call IM Vatopedíou, but I have already tried for four weeks to get in touch with them. I asked what they thought about the Avaton – they were twenty-something. They expressed joy, a sense of liberation, a wonderful feeling of freedom, freedom from temptation, saying that it was easier to concentrate here. And that men are men – we can't help being tempted by women.

Avaton

Avaton is Greek for "what may not be set foot upon". As a term it describes a taboo, something forbidden, restricted and sacred – what must be avoided. In this context, it has come to mean prohibition of women.

Between 539 and 1046 CE a number of regulations helped to define the 'Avaton' that is still being practiced at Athos. In 1046 a Golden Bull (Chrysobull) was issued by the Emperor Constantine IX Monomachos "[...] *forbidding access to ... All women, female creatures, all eunuchs and all glamorous youngsters.*"²²⁸ This formally settled the terms of the Avaton. The reason was to make celibacy easier, and because the Virgin Mary allegedly said so. According to this, men feeling the presence of women alter their social and sexual dynamic. In 1989 the EEC (the present EU) accepted that the rule on free movement of persons does not apply to Athos. Hence only ten non-Orthodox men are admitted daily to Athos. Women and children are never admitted.

Athos is a monastic, theocratic autonomous polity within Greece. After the Eastern Roman Empire with its capital Constantinople (also referred to as Byzantium, now Istanbul), not far away by sea, was ultimately defeated by the Ottomans in 1453 CE, Athos has survived shifting times as a remnant, a conceptually standing medieval ruin, of the Byzantine Empire. The 20 monasteries are still under the direct jurisdiction of the Ecumenical Patriarch of Constantinople.

The polity, or state, consist of a peninsula some 40 km long and 5-8 km wide. It has a customs border with Greece. No road crosses the border. Access is restricted and is by sea only. A council of four men functions as the government, with its seat in the only village, Karyes. The main idea of Athos is segregation and asceticism. Monks have lived on Athos since around 300 CE.

Holy mountains

In Greek mythology there were three main holy mountains: Olympus, Parnassus (just north of Delphi) and Athos. Just think of the idea of holy mountains (striving towards the sky, 'impregnable', unchangeable, unreachable (people didn't use to climb mountains as we do nowadays), up there in the wind and the clouds, 'near' the sun (sun god)).

One tradition says that the Giant Athos threw a rock at Poseidon during the Battle of Gods and Giants. This rock is said to have landed where the peninsula of Athos is today. Another tradition says quite the opposite – Poseidon was the one to throw a huge rock at Athos, crushing him where the mountain presides over the sea today. This rock-throwing recurs in the myth of how Delphi was located. Old customs are most often carried over as far as possible into new customs, where they may have to be recontextualized. The now-Christian hegemony required a new myth to explain the sacred place.

The Christian story is that as an old woman Mary, the mother of Jesus, 30-40 years after his death, was invited to Cyprus to visit Lazarus. She sailed with St. John the Theologian. A storm arose and they drifted off course,

presumably along the Anatolian shores and passed all the Aegean islands in the north, arriving at the shores of Athos, where IM Ivíron is now located. Mary disembarked, and it is said that Jesus spoke to her from the sky:

*“Whatever you ask and pray for, O my Mother, is Yours always, if they keep my commandments! From now on this place will be Your share and Your garden and Paradise, and a haven of salvation for those who desire to be saved, but also a recourse and refuge and unshaken haven of repentance for those who are weighed down with many sins.”*¹²⁹

Custom

Customs are fixed when they are enshrined in scripture and explained as something that must remain intact, preserved permanently and in their entirety as holy archetypes. Or as timeless. Custom – cult – culture are all just a pattern.

Custom is not meant to be fixed. A dismantling of imagined barriers is necessary.

Customs must be customized for a society that changes through time.

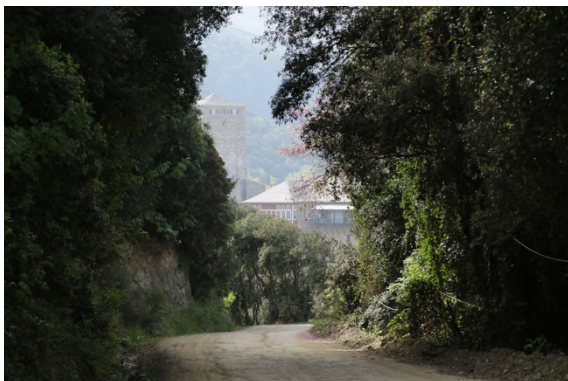
*“The remembrance of custom is fundamentally flexible – memory is a marvellous instrument of elimination and transformation.”*³⁰



1.



2.



3.



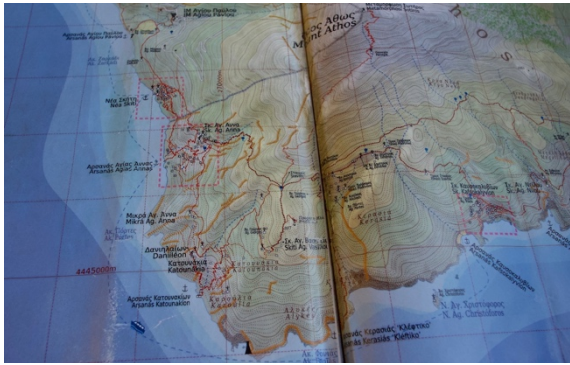
4.

1. Along the path between Sk. Timíou Prodrómou and IM Mэгístis Lávras

3. Approaching IM Ivíron from the south

2. Old path between between Sk. Timíou Prodrómou and IM Mэгístis Lávras

4. Along the path between Karyés and IM Símonos Pétras, looking north to the hills just west of Karyés



5.



6.



7.



8.



9.



10.

5. Pilgrim's map of Mount Athos

7. Hermitic cabins near Mikrá Ag. Anna, seen from the sea

9. IM Simonos Pétras to the left and the goal for the day, IM Osiou Grigoriou by the sea to the right. Mount Athos in the middle.

6. Crossing the helipad at IM Mégistis Lávras

8. Approaching IM Simonos Pétras

10. The Central square in Karyes

Hesychasm

Hesychasm is a mystical tradition of prayer that is important in Athos. It is a process of inward focus, repetition and solemn silence, until one ceases to register the senses, so as to achieve an experience of God. The specific prayer is a short sentence repeated over and over again while sitting still for hours. This is a kind of focus and concentration where one ceases to be aware of one's bodily appearance, becoming a mental stalagmite, gradually appearing, slowly adding presence, a kind of anaesthesia, a not-sensing.

A sense of floating may be felt when one sits completely still for a certain time, as the fluid in the organ of balance in the inner ear has fallen still and the nerves stop transmitting positional information to the brain. This is one possible physical effect of solemn, focused concentration. As soon as the head is moved, the motion again stimulates the nerves, again firing signals to the brain. Prolonged minimal stimulus has the effect of sensory deprivation evoking hallucinations including flashes of light and colours, which may turn into complex scenes.

IM Megístis Lávras, 12.4.2016 – 20:55

IM Megístis Lávras in the remote south east is the oldest monastery still standing, from 963 CE. I passed a heliport just outside and arrived at this medieval castle through a heavy gate at 19:10. No men around. It's huge.

I got a bed at the dorm, and had no time to change or wash if I wanted dinner. I was stinking of sweat. Sunset will be soon, when the gates close and no more visitors are accepted. A group of middle-aged Russians waited outside the dining hall. Doors were opened. I had no idea what I was supposed to do, whether there was some particular ritual or something, so I waited and observed. The large hall was decorated with icons everywhere. Benches around round tables. Plates for 7-8 at each table. Some black-clad monks (I presumed from the clothing) sat gravely around one table. The host stood smiling and showed me with a gesture where I could take a seat. I thanked him.

There we sat, a group of men, at the oldest monastery, in the April evening. Nobody said anything. There was bread and cold soup in some plates, potatoes on some others. A man in full-length flowing black robes sitting next to me was clearly dissatisfied with the food in front of him. Nobody ate. After a while the host seemed to say a short prayer, and everybody crossed themselves. I had to make a quick decision, as the crossing ritual was already in progress. Not being religious, I have never crossed myself, so I don't know exactly how to do it. I chose to adapt and do as the others did: crossed myself as best I could, attracting as little attention as possible. I offered to swap plates with the discontented man next to me if he preferred the food in front of me. He accepted in a brusque, dismissive way and started eating.

A man dressed in colourful trousers and a worn-out T-shirt at our table fiddled with his phone. He was abruptly accosted by a monk who walked over to him, seized his collar, pulled him up and simply threw him out of the dining hall. This was clearly a serious offence, and since I had read there was a general reluctance towards photos, and video cameras were prohibited, I chose to be on the respectful side.

The monastery runs on Byzantine time, starting the day at sunset, while the liturgical day starts in the afternoon, and operates according to the Julian calendar¹³¹ and is therefore thirteen days behind the outside world.

Morning office IM Megístis Lávras, 13.4.2016 – 06:42

I attended the morning office (*orthros*). A bell rang at 03:25. There was complete silence in this unmechanized medieval environment. After a while there were isolated sounds of doors creaking. The ceiling lamp in the seven-bed dorm had been on for the few hours of potential sleep. The service started at 04:00.

From outside in the dark morning I saw a man going in through a door at the side corner of the main church. Hoping that this was the main entrance, I followed after him into a long, narrow, empty room with *stacidia* chairs along the walls. Immediately to the left there was a door behind a red curtain to a small dark room with a large box containing some relics. All the walls were covered with icons. To the right there was a larger room with chairs along all the walls, and a small door in the middle led to the innermost chamber, also with *stacidia*, where the reading took place. There were three main rooms in the church, representing the Holy Trinity. It seemed like a blend of a transept and aisle church with the altar more or less in the middle, and a main dome above the transept intersection. The model for this church was the second Hagia Sofia in Constantinople, which was set on fire and destroyed in the Nika riots of 532 CE. The third Hagia Sofia was immediately erected and is the one that still stands in Istanbul.

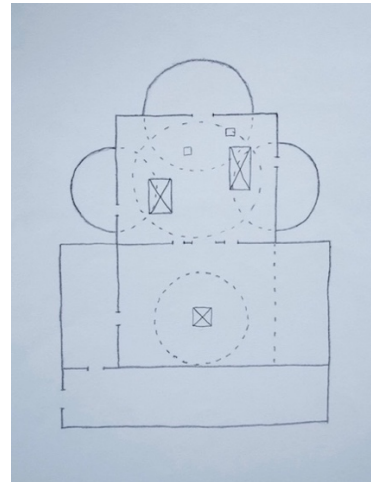
The service mainly consisted of text recited in Greek, of which I understand nothing, lasting two and a half hours. The church was dimly lit by just a few candles and paraffin lamps, judging from the smell. The air was heavy, but at the same time chilly and rather raw. Priests and monks took turns on reading from different positions. Everyone came and went in no particular pattern. Attending the beginning did not seem to be compulsory, nor did the end, so the service was not a collective performance from A to Z, formally presented, that everyone had to attend. Instead, visiting pilgrims walked around in their Adidas outfits and golden necklaces. Gradually, more men arrived. Monks shambled around all the time, shifting position, resting at new spots, in the high-armed *stacidia* chairs all

around the walls. The armrests are high enough to support someone standing. One is supposed to stand before God, but the chairs had a flip-down seat. After all, men do get tired. A man walked around a couple of times with small bells and incense, as if a little too quickly, with slightly clumsy, over-long steps, and thus apparently recklessly. Monks walked around lighting and blowing out candles, setting out and removing reading tables, opening books for someone else to read. There were no instruments. No organ, no accompaniment. Barely any sound other than shambling steps and sometimes exaltations from the congregation. Everyone manoeuvred around in a pattern they felt was suited to the day, and there was no rush. The office takes time, a long time. This establishes a ritual space. The result is at the same time a more static and more vivid performance, which makes the service more personal. It also seems more inclusive (for the included), more participatory, than the Protestant service lasting 40 minutes, with people submissively sitting in one position on hard benches, receiving the word of the priest.

All monks have a full beard, black floor-length flowing robes (a cassock), a stiff black hat with cloth attached over the back (*kamilavka* and *epanokamelavkion*). The absence of women accentuates the sexual. Consequently, each man here is accentuated as a dangling penis.



Sketch of morning service IM Megistis Lávras, after memory.



Sketch of floor plan of the main church in IM Megistis Lávras, after memory.

On holiness – hiking from Karyes to Grigoriou, 13.4.2016 – 09:20

All these monks have grown up in different places in the world with assorted backgrounds, and now take part in this rehearsed theatre – a huge, encompassing, truly immersive spectacle.

Almost all aspects of life here at Athos are part of a construct meant to shape this context. Everything is a part of this continuous play. And once it starts to play, it just keeps rolling. Stopping it is almost impossible.

What constitutes ‘holy’?

In modern art, art becomes art when someone, preferably the artist, declares it to be art. Art is art because someone says so. In religion something becomes holy because it is declared so by someone. The nature of the ‘holy’ is determining, setting up the scene, deciding. The action shapes a context, creates a story.

What makes something so important that it has to be surrounded by a holy taboo, that it cannot be questioned? That it has to be declared holy, exempted from scrutiny, from questioning? The religious culture shapes context. An abstract god is instigated as creator, as an incomprehensible, impregnable, unreachable zone.

Who were these entities?

What could the first god-like idea have been?

When did someone start to conceptualize such an idea?

The idea of deities was probably developed with society, its needs and opportunities through tens of thousands of years – as explanations, as guidance, as someone to refer the validity of the law to, as models to structure life around, as constructs to bridge the knowledge gaps. It is about learning, repetition, creating memories and new patterns in our brains, to make us behave and react in certain ways.

Lead and mislead.

One is led to do something. Or beguiled? The path is shaped to follow. It makes choices easier. I think of incense used in churches and the fumes of ethylene that Pythia in Delphi breathed, which intoxicated her and made her hallucinate. “And lead us not into temptation” is part of the famous Lord’s prayer (Matthew 6:13), with the prior instruction, “This, then, is how you should pray”. A pattern, a ritual is presented, where one is told (how) to express one’s *belief*, what one should think. However, what religion does, is precisely temptation in the shape of a promise. It tempts you with paradise, eternal salvation, a life after death, the idea that everything will be better, will be all right, that you will achieve peace – splendid comfort in a dismaying, complex, merciless, arbitrary world. It tempts you with order, simple structure and mild happiness.

IM Osiou Grigoriou, 2016-04-13, 15:03

My shoulders are sore. I walked from Karyes over the hills, passed through IM Símonos Pétras.

The concierge at the guest house stared at my visa (*diamonitirion*):

– Hm. Protestant?

– Yes.

– .

He stared, moderately disapproving, into the air ahead of him for a second, before he wrote something in his papers. As if I wasn’t welcome, though nothing was said.

The twenty-something Father Hieronym from Florida was the interpreter when I talked to the Abbot, who is the spiritual and worldly leader of the monastery. The morning office starts tomorrow at 03:00 with an hour of prayers, then the Great Canon is recited until about 06:30. The Abbot will not allow me to record the Canon. However, they have a recorder and will record themselves, and I can get a copy. I had of course asked about this by fax when I enquired about hospitality (the only medium of contact I could find), only to get a one-sentence answer:

Your request has been accepted only for
one day, for ^{the} Wednesday 13 of April.
 Monk Porfyrios - 6-4-2016

2016-04-14, 02:45

The first wake-up was by a faint, distant bell ringing somewhere in the courtyard. Then came the woodblock, a *talanton* (which means balance, weight, and is the origin of the word ‘talent’). It has the sonorous sound of a quite large stick hitting a hollow wooden block or box. It is hit at two spots, so one sounds higher pitched than the other. The rhythm symbolizes the two natures of Christ as God and Man in the Holy Trinity.

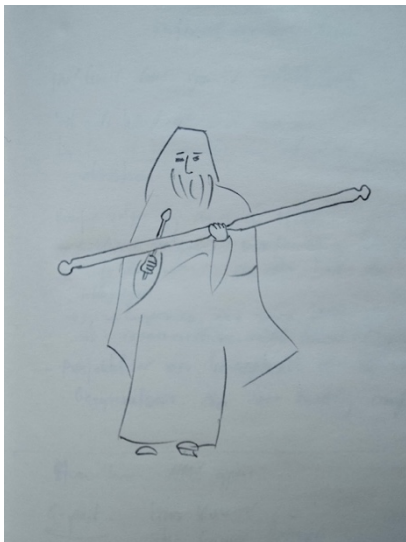


Figure: Talanton being played

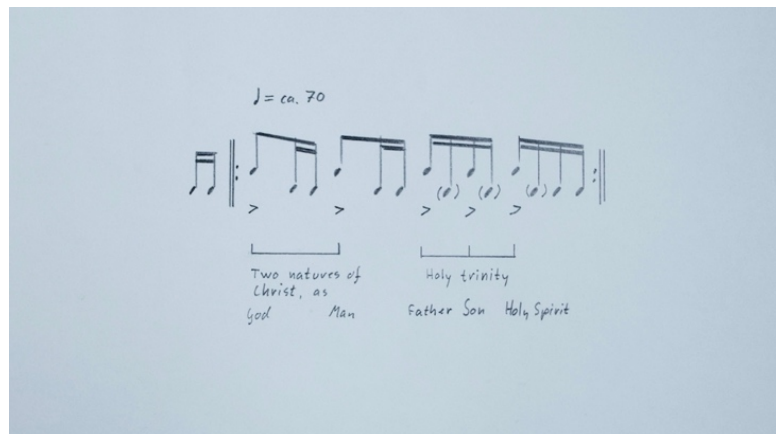


Figure: What was played on the Talanton

Somebody walks around the passages and courtyards of the monastery to wake up everyone, playing the talanton. The sound is distant, growing and resounding differently according to the shape of the space the player is passing through.

The Canon is extremely monotonous, the text is recited with indifference, verse after verse, sometimes with repetitions of a single word perhaps 40 times. After a week with four or less hours of sleep every night I fall asleep in my *stacidia* during the Canon. Dark men move around like dark shadows. It is sung with nasal voices. Intonation is clearly not important. It is partly sung homophonic in unison, but not much of a unison. Yesterday I was asked why I wanted to attend the Canon when I didn't understand Greek. I wanted to listen to the singing, I said. Now I understand the question better. Apparently, the *musical* tradition at IM Vatopediou is far stronger.

The Byzantine song tradition is extremely conservative in the Athos monasteries. Instruments are completely banned. What I heard was a subdued, almost rushed, mumbling singing style. Not only instruments, but music as a concept is considered to have an obscuring effect, as something sensual, tempting, obstructing the words, occupying the available space for reflection. The almost total absence of music accentuates what is left of it.

There is no radio, no TV, absolutely no advertising, no illustrations. There are no chain stores in the small village of Karyes, merely a few cafés and a small grocery and souvenir shop. The monasteries are silent places. No voices are raised, there is only quiet speaking from time to time. There is almost no one around, apart from an occasional pilgrim, a monk watering some flowers or crossing the courtyard.

IM Ivíron, 2016.04.14 – 17:26

Ivíron. Dinner is apparently in 5 minutes. I am drenched in sweat and dust. I just bumped into the Dutchman I met in the hills yesterday. Everyone wonders why I carry such a heavy backpack. I reply that as a Protestant I have to suffer in order to enjoy. At least people find that amusing and give a short snorting, but friendly laugh. I find no reason to stir up the social situation by adding that my status as a Protestant is only formal. Today's walk was 21.54 km. It took me seven hours.

I get the impression that many men here have a literal belief in miracles. This is a strange tradition from which conscious, critical, comprehensive interpretation has been removed. The filters of interpretation have been cleaned, the ambiguity of poetry is gone, depth of language (or the many layers of music) are also just gone. The concept of symbolism is... I don't know exactly... not present perhaps, or just ignored. This is most peculiar. A thought pattern, a belief with its origin in texts so full of symbolic language, analogies, metaphors... How is it possible to interpret things literally in such a context?

In dogmatic literalism interpretation is set aside. A mental shift towards dogmatic literalism would be a most unfortunate setback, were it to gain territory in humankind as a whole.

Mary

"It is 'unlawful for any man to bring forward, or to write, or to compose a different Faith as a rival to that established by the holy Fathers assembled with the Holy Ghost in Nicæa.' They confirmed the Nicene creed that Mary should be referred to as Theotokos (Birth giver of God) and saying anything else was heresy."
(Schaff, 1890, referring to Council in Ephesus 431 CE)

What happens when dogmatism is coupled with misleading translation? To both Catholics and the Orthodox, Mary, the mother of Jesus, is perceived as absolutely perfect, pure and incapable of error. This is strongly interpreted as not having had sex, being a virgin, not having been touched, being forbidden, holy.

In the Old Testament, collected and written in Hebrew from 6-700 BCE onward¹³², Isaiah 7:14 is perceived as a prophecy of the Messiah: "The virgin will conceive and give birth to a son, and will call him Immanuel." The word used of the woman is the Hebrew *almah*, and is rarely used. It describes a) a woman, who b) is young, and c) has not (yet) born a child. Whether or not the young woman has yet had sex with a man is not conveyed by this word. If that is important to state, i.e. that a woman has in fact not yet had sex, there is the Hebrew word *betulah*, and this word is frequently used in the Hebrew Bible.

These texts were translated into Greek during the second century BCE. At that time Judea had been ruled by Greece for quite some time, at the height of ancient Greek culture. This was the 'Septuagint' translation. The Hebrew word *almah* is translated as Greek *parthenos* in this particular verse. *Parthenos* has the meaning of a woman who has not yet had sex – thus our present conception of the "virgin". In other places, however, *almah* is translated



Photo of CD-R with the recording of the Canon (Megistis Kannon) the monastery gave me. It is dated 1 April 2016 because Athos observe the tradition with the Julian calendar. At kosunde.no the recording of the Canon from IM Osiou Grigriou and the Canon as text is presented.

as Greek *neanis*, which simply means young woman. Isaiah 7:14 is in fact the only place *almah* is translated as *parthenos*¹³³.

The interpretation and choice made by the translators have had tremendous consequences. This interpretation grew stronger, since Matthew the Evangelist wrote in Greek and quoted the Greek Septuagint Bible. He is the only Evangelist to claim that Mary was made pregnant by the Holy Spirit (Matthew 1:18-22). Luke the Evangelist describes an angel telling Mary that she will become pregnant¹³⁴, John the Evangelist says that Jesus is the son of Joseph, while Mark the Evangelist refers to Jesus as the Son of God without being more specific.¹³⁵ This translation has had huge consequences for later societies, including a very probable influence on gender gaps past and present.

Karyes, 15.4.2016 – 10:29

I spoke with two men more or less my age in Karyes – Panos and Yannis – while waiting for the bus to take us to Dáfni. The crowd of men forced, pushed and elbowed their way to get on the bus. The mood was clearly irritable and aggressive with yelling, pushing and ill temper. Panos was grumpy, he did not appreciate such behaviour. I was grumpy, and couldn't resist noting that here, at this presumptively holy place, raw egoism ruled among the visitors. Then Yannis got grumpy.

Yannis lectured me on the alleged impossibility of surviving winter at Athos without God's benevolence. When he got up at 03:00 that morning he had also seen the Milky Way so clearly, thanks only to God, and the wonder of a beautiful male community, where everybody (!) was welcome. Everyone = men. Women are excluded from this "everyone". What does that imply about males thinking of women? Everyone becomes a term that does not include everyone. Yannis exclaimed that he was pleased, so sincerely happy that there were no women around. That he felt free.

Einschub: Homo Sacer

That made me think of the Italian philosopher Giorgio Agamben (b. 1942) and his thinking on power and law – exclusion as a prerequisite for inclusion – in the light of the old Roman law about a "Homo Sacer", a person who could be killed, but not sacrificed, and was outside the law, so the killer could not be punished, as the person was not regarded as a proper person protected by the law.¹³⁶

Dáfni, 15.4.2016 – 12:17

"It is a human error, a human flaw, that we are so obsessed by memory," Yannis exclaimed. "We shouldn't look back, we shouldn't *save* so much. We should rather *create*, move on – in the belief, security and faith that new opportunities will come to us," he said, now in Dáfni, waiting for the boat to take us back to the secular world. "Reproduction, actually just the potential for reproduction, has spoiled parts of our ability to perceive, to sense, and to experience the moment, the present. In recent times, especially in the social media," he said. "Pictures are central to this flawed attention. They lead to a focus on the documentation of life, on saving, remembering, archiving. This leads to a focus on memories, a nostalgia, a kind of erroneous attention to what has been, to backward thinking rather than thinking about what *is* and what *will come*." These were sensible notions.

"That seems true," I said. "But everything boils down to our cognitive structures and context. We know only what we know, we do as our habits and learning have led us to do, we interpret on the basis of internalized knowledge, already 'known' information."

"The fundamental errors of the human mind, such as our obsession with memory, are in the cognitive structures," he said.

"Well, errors and errors, but yes, they are."

"I am a devoted believer," he said, "and God will always look after me. I don't need to look back, all I need is to *believe*."

¹²⁵ Bush, 2006, p. 327.

¹²⁶ Odden, 2006.

¹²⁷ The Friends of Mount Athos.

¹²⁸ Denizeau, 2014.

¹²⁹ Agioi_Anargyroi (alias), 2010.

¹³⁰ Olwig, 2002, p.52

¹³¹ Holy Trinity Russian Orthodox Church. (n.d.).

¹³² Solevåg, n.d.

¹³³ Aschim, Aasgaard, Berge & Mørk, 2008

¹³⁴ Although: “How will this be’, Mary asked the angel, ‘since I am a virgin?’ ” (New International Version). Luke formulates the next verse as an echo of Isaiah 7:14 in Septuaginta translation. The tradition influences new ways of formulating events. (Aschim et al., 2008.)

¹³⁵ Aschim et al., 2008.

¹³⁶ Agamben, 2010.

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DELPHI IN FUMES

After leaving Athos I travelled to Athens, hired a car and drove to the ancient theatre in Epidaurus, then on to the small village Delphi up on a steep mountainside late in the evening of the same day. The following is an essay on extreme siting. This shaping of context has inscribed itself not only in the memory of the place, but to an entire culture and through history.

Delphi is one of the most famous ancient sanctuaries in Greece. The small town overlooks the Pleistos river running from east to west down a quite steep southward slope. The settlement is from the Late Bronze Age, about 1600 BCE. To the north there are steep cliffs, with the terrain rising into the mountains and Mount Parnassus. Not far to the south is the Bay of Corinth. The shrines and monuments are gathered on the hillside just outside and above the town. Athens is – as the crow flies – some 120 km to the east, the city of Mycenae about 85 km to the south, the city of Patras some 70 km to the west and the strategic city of Lamia 50 km to the north – all substantial ancient cities.

TECTONICS OF GEOLOGY

Motion between the African, Anatolian and Eurasian tectonic plates hold Greece in a vice. The Corinth Rift Zone has two crossing faults below Delphi¹³⁷, leading to recurring earthquakes. In ancient times, long before our present knowledge of geology, evolution and atoms, earthquakes must have been perceived as an immersively frightening phenomenon. The entire ground shook as if it was alive, pottery and furniture rattled or was crushed, some houses collapsed, perhaps there were even some landslides in steep terrain. And imagine the sound. The roar, the noise of bedrock clashing (this is geophony), louder and stranger than any manmade sound, or the normally occurring sounds in such a soundscape.

When the archaeological site of Delphi was excavated a century ago, archaeologists found no trace of a chasm or vapours. They rejected the old stories about the oracle of Delphi inhaling vapours as a mere myth. However, more recent research has revealed that one fault – the Kerna Fault – is precisely below the Temple of Apollo. Another – the Delphi Fault – crosses east to west. Its precise location is difficult to determine, but projections suggest it is below the Temple of Apollo, putting the intersection below the temple. This geological situation is in a quite steep slope, where many rock slides over the years have formed this natural amphitheatre in the hillside. The bedrock of the area consists of sandstone, limestone and strata of bitumen. This porous ground is heated by the seismic activity, and gases are formed: carbon monoxide, methane, ethane and ethylene have been detected in springs in the faults.

NARCOTIC EFFECT

As a gas, ethylene was identified scientifically in 1865. Ethylene has a sweet smell. It was used as a surgical anaesthetic. It affects the central nervous system. Low concentrations of ethylene give a sensation of floating or disembodied euphoria, with a reduced sense of inhibition, of presence. Delirium and hallucination may occur. In high concentrations, the anaesthetic effect is complete, with unconsciousness or death as a result.

Aesthesia is Greek for *capacity for sensation or feeling, sensitivity*.

Anaesthesia is the opposite, an *inability to sense*. In medical terminology it means the *soothing of pain, relief of suffering, thus the removal of feeling, of the ability to sense*.

The effect of inhaling the identified gases matches the ancient description of the prophetic vapours.

The Adython, upon which no one was permitted to set foot, was a basement chamber, as we recall. It was small and enclosed. For weeks or months, it was closed off, so that the chamber was gradually filled with the fumes, as the temple was constructed directly above the chasm. Only Pythia had access, and she only entered occasionally. She

was then intoxicated by the gases, affected by drugs, with a euphoric and delirious appearance and inconsistent utterances as a result. The theatrical impact was effective, and apparently established a credible canvas for the priests next door to state their ‘interpretation’ and thus give advice.

POLITICS OF ANCIENT GREECE

The Bronze Age Collapse was severe in the Eastern Mediterranean and Middle East. It happened over about a century from 1250 BCE, and the causes were diffuse, probably complex. However, the Bond Event 2¹³⁸ (recurring climatic fluctuations effecting temperature drops primarily in the North Atlantic Region) is associated with this collapse, with its two peaks around 3200 and 2800 years ago, quickly causing severe drought in the Eastern Mediterranean.

A series of invasions and wars ruined almost all the cities from Greece via Anatolia and Israel to Egypt. Trade routes were ruined. Severe cultural collapse disrupted societies during this period. Literacy declined. Several centuries of decline followed, with depopulation and almost no written records. What was left was often isolated villages with little contact and trade.

The Trojan War may have been part of this collapse. Ancient Greeks saw the war as a historical event around 1200 BCE. Oral traditions about previous heroic activities surviving as records of war events seem to have been transmitted during the dark centuries following the collapse. Then a new era came. The isolated villages of Greece grew stronger, grew into city states with territories surrounding the cities providing food and mining resources, and materials for tools and construction. A reconstruction of the past began, with a cultural revival and epic poems. Homer is symbolizing this, having lived around 800 BCE, passing on the old tales, enshrining them as scripture. The golden age of ancient Greece lasted from about 750 BCE to 27 BCE.

Until the mid-1800s CE the Trojan War was widely seen as mythical. This changed when ruins of the city of Troy were discovered and excavated from 1870 near Hissarlik in Turkey.¹³⁹ The city states shared a common Greek culture, but had no common political unity. They were all independent, members of a variety of alliances against their adversaries. This was the Iron Age.

SITING THE MYTH

Greek mythology appears to us today as a strange and complex wonderland. The cast of characters is complicated, full of overlapping, variants and contradictions due to different storytellers and traditions over time in changing societies. The characters are presented with heroic qualities, and in general as models, as an explanation or way of understanding the world that emerged.

The characters are presented as having been born, and they may have children; they look like humans, but they do not die – they are exalted. In this system all the qualities of human creatures are given to them, although in name they are gods or deities. The deities mix with the humans. The deities are heroes and leaders, taking care of different sectors of society, nature, phenomena and life. Humans often challenged the gods and went to fight them, and if successful humans could transcend mortality and enter the sphere of the gods as mixed – born as humans, later to become gods or demigods. This could happen in particular after honourable and heroic actions or achievements, as in politics or sports – meaning saving someone or taking charge in a critical situation, and thus becoming a person people could count on, perhaps seek advice from. This suggests that a god was someone to look up to, to learn from, to be inspired by, to get advice from – not some paternal spirit to obey.

The conception of Zeus can be traced back to the Proto-Indo-European religion, from which stories with similar characteristics have come down to different cultures. We know little from this time, but Indo-European wanderers seem to have entered and settled Greece from the north east. A recurring concept in the Proto-Indo-European religion is a Sky Father – Proto-Indo-European **Dyēus Ph₂tér* – Greek *Zeus*, Etruscan and later Latin *Jupiter*.¹⁴⁰ Try to pronounce it! Proto Indo-European may have been spoken as one language as late as 5500 years ago. This figure was seen as the father of a pantheon (a number of gods), perhaps a sun god (or simply the sun) with a counterpart in Mother Earth (Gaia).

No one stood guard over the right way of to believe. There was no orthodox dogmatism. Much of what we know about Greek mythology is from Homer’s *Iliad* and *Odyssey*. What would later become heresies were thus not heretical, just variants of the stories. Priests and prophets therefore interpreted and guided people to a greater extent, helping them to make choices. Prophets had an important function in Delphi – they had the role of interpreting the “divine will” – and thus also had a say in important decisions regarding the State.

To legitimize Delphi as a holy place for rituals, worship and advice, it must have been important to explain it as the centre of the (known) world. This need was fulfilled by shaping a context. A myth explains the localization

of Delphi. It starts with Zeus, who in order to establish the centre of the world (Mother Gaia) sent out two golden eagles, one in each direction. Where they met, he was to throw a rock to see where it fell. It supposedly fell in Delphi. The Omphalos (a pillar statue) in Delphi (in Greek ‘navel’, as in the navel of the Earth) represents this rock. Then the god Apollo slew the serpent *Python*, which was here to protect the navel of (opening into) Earth/Gaia, and built his temple at this exact site.

Speculation

My speculation is that only priests, prophets and dignitaries were allowed to raise their voices in the sanctuary area. It is at least possible to imagine that only a few were allowed to do this, to use the acoustics of the place. Probably before and for a long time up to our own times, lowering the voice was a sign of respect, submissiveness and humility. Delphi was the supreme sanctuary in Greece, located on a steep hill. Certain spots in the sanctuary can produce a sublime acoustic effect. Perhaps the acoustic use of the place was reserved for special authorities.

DISCOVERY OF THE ORACLE

From at least 1600 BCE there was prophetic activity at this site. According to Diodorus Siculus the first to discover it was a shepherd¹⁴¹, who noticed his goats behaved strangely when near a chasm in the ground. When he got close he hallucinated and began to see future events. Now word spread and eventually it was decided that only one person at a time should be the prophet, sitting safely above the chasm on a tripod. Only later did Homer write about how the site was appropriated? by Apollo, the god of music, truth and prophecy and more.

From around 600 BCE the Oracle was rededicated, or recontextualized, in the first Temple of Apollo, and now served as a place of worship for the Apollo figure. Every month or a few times a year it was possible to seek advice from the Oracle.

PYTHIA IN HER ADYTHON

Visitors seeking advice first sacrificed, then were led to a chamber adjacent to the Pythia priestess, which was a role filled by different local women. Her role was to be a medium through which Apollo spoke his oracles – in tales and messages. She sat in a closed chamber in the basement of the Apollo temple, on her special Tripod. This chamber was the Adython, a place where one may not set foot upon, a forbidden place with no entry for ordinary people. Only the priestess had access. The visitor asked for advice. Pythia was in a state of delirium and trance, uttering inarticulate speech in a daze. This was then ‘translated’ by priests in a chamber next door into verse in comprehensible language. The old stories say Pythia sat over an opening in the ground, a small chasm. Fumes – *pneuma* – are said to have emerged. This was explained by Apollo having fought and killed the snake Python there. Python was supposed to have fallen into the chasm as Apollo slew it, and the gases came from its decaying, rotten corpse. People took advice on any important decisions, including engaging in wars.

Plutarch was a priest at the temple in the first century CE. He noted that gases evaporating in the Adython had a sweet smell like perfume and that the underlying rock might have had a vein of vital essences that produced the gas. Around 361 CE Pythia claimed that she could give no more oracles because the temple had collapsed and the spring had fallen silent.¹⁴²



John Collier: *Priestess of Delphi* (1891)

AFTERMATH

Roman hegemony increased during the last 100 years BCE and Greece was absorbed in 27 BCE into the realm of the Roman emperor Augustus. Delphi lost its position as a meeting place, sanctuary and centre for managing truths and treasures. Its significance was reduced since it could no longer play a prominent role of intervention in political developments, since the city states of Greece were no longer politically independent. The people in charge were not operating in accordance with the culture of Delphi. Important decisions were now being made in Rome.

Nor must we forget the seismic activity in the area and the way the ground shifted slightly from time to time, which meant that the fumes either did not pour out as much as before or stopped altogether, pouring out elsewhere instead. And Christianity spread fast during the first centuries of the new millennium. After first having been persecuted by the Romans, Christianity was decriminalized in the Roman Empire in 313 CE and made the state religion – indeed the only permitted religion (except for Judaism) in 380 CE. The oracle of Delphi was ultimately closed down in 381¹⁴³ or 392¹⁴⁴. The old Greek mythology with its polytheism, which had been holy, was now to be forgotten and hidden away behind the new pattern of omniscient truth and holy thought. Nevertheless, many of the old ideas were transmitted to the new faith.

A very potent symbol is the tripod. The tripod is an ancient symbol of balance and stability, as it is quite simply physically stable, right there before our eyes. Pythia's tripod was the most famous throughout ancient Greece. This symbol continued with the Christian Holy Trinity, a balanced and stable way of combining the old polytheistic custom with the new monotheistic ideas by joining three deities in one. Polytheism also survived through Christianity's pluralistic cast of characters – the saints, who took care of separate territorial areas or phenomena in life, with roles not entirely unlike those of the different deities in Greek, Roman, Norse, Arab (etc.) mythology. The mythological idea of sacred landscapes was also transferred.



Tripod. N38°27'02.02" E022°52'47.95". Photo: Knut Olaf Sunde

IN-SPIRE

Pneuma is a Greek word meaning *breath, wind, air in motion*. Air in motion includes smoke, vapours, fumes and wind. In the Stoic philosophy, *pneuma* is the concept of the *breath of life*. It is the material that sustains consciousness in a body, and constitutes the human soul as part of the *pneuma* which is the soul of Zeus. The human soul, as air, was also linked by the ancient Greeks with the *pneuma* encompassing the entire world. All this is quite understandable and straightforward, and good explanations and concepts, considering that they did not possess all the scientific knowledge we do today. On the other hand, the reality surrounding them 2700 years ago was much the same as it is today.

The Pythia of the Oracle breathed in fumes – vapours of ethylene. These filled her and transformed her personality: she could be understood as *inspired*, apparently in contact with the gods able to utter their prophecies. The Greek concept of a connection between life/mind/spirit/soul and air is not surprising. After all, air is necessary for us to breathe, to give and sustain (animal) life. This concept was also translated into Christianity with the Holy Spirit (or Holy Ghost), from Latin *spiritus*.

The Holy Spirit fills everything, is everywhere, and does not have the shape of a human body (as the other two deities do). *Inspire* (from the Latin *inspirare*) has the same root, meaning to breathe into, stimulate, animate, give rise to. The Old Testament was written in Hebrew. The Greek translation of the Hebrew Bible (Old Testament), called the Septuagint, translates the Hebrew term *ruach* as *pneuma*, meaning *breath, air*, thus spirit and inspiration. *Pneuma* is what is used throughout the New Testament, which was originally written in Greek, and where the figure of the Holy Spirit is introduced¹⁴⁵. Our language today, and our concept of how we conceive ideas, are influenced, *inspired*, by previous concepts, customs and practices long gone, but still persisting in time by way of regeneration and adaptation. The specific institution of the Oracle was closed down and allowed to go back to nature, and the site became ruins in the future, but the ideas found ways to sustain themselves through recontextualization.

SOMEBODY KNEW

What is ingenious in this whole process is the combination of the knowledge of the hallucinatory effect of the narcotic vapours with the use of the terrain, the erection of a temple and sacred site, and the entire explanation, story or mythologization of the area, its patterns of why and how and to whom. But most importantly, how it was used to exert power; to control leaders and important people, and to advise them in their decisions. In other words, the entire use of the place with its incredible influence on both concrete actions and later cultural ideas and customs. Its contextualization.

This is an example of extreme site awareness and the construction of a controlled spectacle; a complete performative theatre meant to shape and maintain the illusion. This was done by someone who understood its effect. Someone saw an opportunity to make an impact, to exert power. Human beings want to hear some kind of truth. To fill their knowledge gaps. They want to make connections, so they can believe they understand.

¹³⁷ de Boer, Hale, Chanton, 2001; Piccardi, 2000.

¹³⁸ Bond et al, 1999; Wanner et al. (2008).

¹³⁹ Sande, 2009.

¹⁴⁰ Mallory & Adams, 2006, p.408-9, 431); Proto-Indo-European Religion. (n.d.); Kraggerud, 2009; Sky Father, 2016.

¹⁴¹ Nevins, n.d.

¹⁴² de Boer et al, 2001.

¹⁴³ de Boer et al, 2001.

¹⁴⁴ Piccardi, 2000.

¹⁴⁵ Levend Water, n.d.

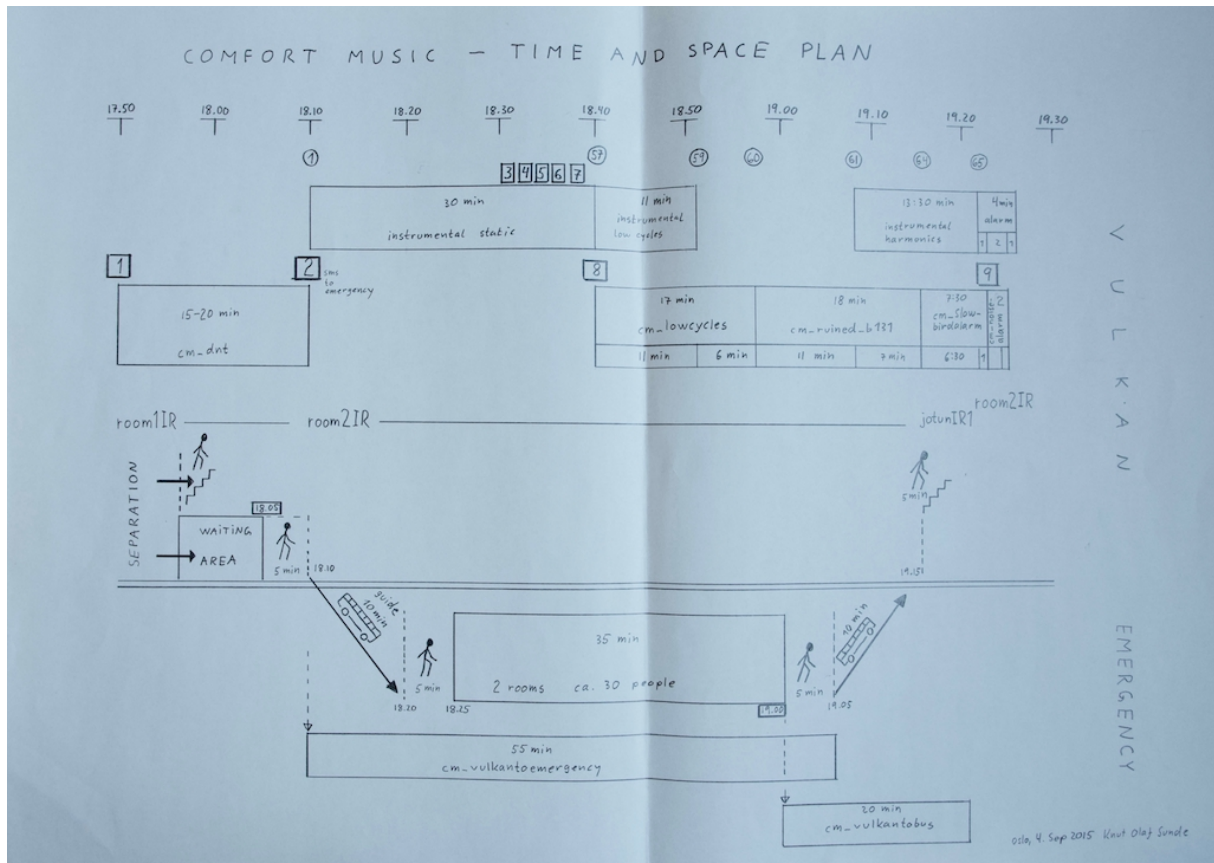
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PART III: THREE WORKS

This chapter comprises a description of each of the three works that are the artistic results of the project. Here I give an account of the choices made, what I proposed to do, what I did, and what I did not manage to do, to the extent that such issues are not commented on in *part I: Siting*.

COMFORT MUSIC



At the Research Catalogue there is a 5 min introductory video, score, audio and the album release booklet.

The conductor script can also be read at Research Catalogue. It only exist in Norwegian.

<https://www.researchcatalogue.net/view/565811/565812/0/27>

The album can also be heard at

https://open.spotify.com/album/3Ml5kosef8XHclj5nX7zfq?si=fiLILUb_RCOG-CsYUaFMtg

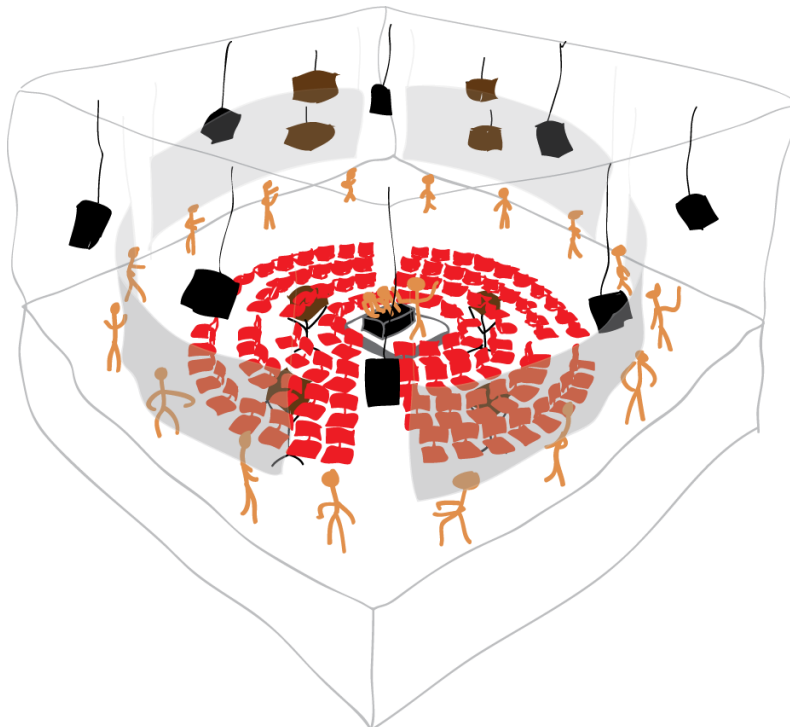
CONSTITUENTS

Comfort Music is a staged concert that investigates the significance of surroundings and context for the way we relate to a situation or a place, or understand music. Through the use of two different localities, the role of the context for the understanding and interpretation of what is actually one and the same situation is put to the test. The locations are *Vulkan Arena* and the *Åsen Emergency Communications Exchange*, Oslo, and the event involved eight musicians (saxophone, trombone, vibraphone, piano, guitar, violin, cello, double bass), a conductor, three sound engineers, a bus with a driver, a 4-channel loudspeaker setup at both locations, and a divided audience.

Only Vulkan Arena was announced. This is today a concert club in a closed-down industrial hall where there was once an iron foundry. The second locality is the secret, forgotten and abandoned Emergency Communications Exchange at Torshov, Oslo. The exchange was built in a hurry immediately after the Cuban Missile Crisis in 1962 to maintain basic communications during a catastrophic event. Now it is abandoned, a ruin and a witness to the past. On arrival the public is divided into two groups with little information about what is to happen. The two groups are given quite different experiences of what is basically the same material. The information and the overview are insufficient. Each group must be aware that something is happening to and for the other group. This articulates the sense of a different place.

PROCESS OF SITE SELECTION

I set out to interact with the space, to work with a created situation as an audiovisual performative concert installation. At the start I had also formed some quite rudimentary ideas about the audio material, which could go in different directions. I had quite concrete thoughts about an immersive listening situation with chairs in circles facing out over a podium, speakers beneath the audience, musicians in an outer ring and speakers above and in an outer circle, as well as four curving screens on which visual material would be projected. This is the sketch I made for such a situation:



The expectations of others can be unnerving. I had an agreement to work with the Oslo Sinfonietta. Musicians' ideas about the performance of music, what music is and can be, will always enclose the space for ideas, more or less explicitly. Different people apply different evaluations to what their profession is actually about. Where do the musician's and the composer's expectations meet in terms of idiom, rehearsal, theatrical tasks, their mutually dependent roles? What ownership does the musician have of the work that is about to be brought into being? What

is the dialogue like in the ensemble? How does the composer communicate? What are the underlying attitudes before their meeting, and what premises for cooperation are taken for granted?

We set out for a workshop. At the wish of the ensemble it was scheduled for nine months before the premiere. Oslo Sinfonietta did not know what I considered doing, and were uncertain about the project. I understood that the ensemble wanted to ensure that a type of material would be used that made the ensemble come out of it well in terms of sound, and that it was to be challenging to work with in terms of technicalities. The workshop was timed so the ensemble would be able to cancel.

This involved a resistance, an unwillingness that I attempted to handle, but I was unable to find a way. I remember an embarrassing session with the very able and likeable trumpeter Jan Fredrik Christiansen. I am very well aware of the possibilities and limitations of a trumpet, so I have no recollection any more of why exactly we agreed to meet one on one. Different expectations caused me to fall into a politely questioning role where, to tell the truth, Christiansen spent time explaining and demonstrating things I knew very well from before, and I didn't stop him. This came to be because my musical ideas did not follow the lines for technical instrumental challenges, partly because I was struggling with quite different issues, such as place and context. Neither this single meeting nor a musical workshop and testing a musical material could help me with this. I must emphasize that I am sure everyone came with the best intentions. But I seemed to have become bogged down in expectations that partly came from the ensemble, and were partly my own projections in trying to create a material that could at all yield some sound in a workshop.

At the last moment I put together some sound material for the workshop. This may well have been material that could have been developed into something, but it had little to do with what I was struggling with in that phase. Oslo Sinfonietta probably felt that I was not using their time well. I would agree. I felt rather shamed in the course of that day. I had brought little to the table and we had far too much time for it. Nor did I need them to test the material, if in fact I needed to test anything at all. I was caught up in my own perception of other people's expectations of me, which I tried to fulfil even though I was working in another direction. It just felt wrong.

Oslo Sinfonietta broke off the cooperation. Naturally, I was frustrated and bitter. After all I needed very able musicians, just not for scintillating music. All the same, the break was fruitful. It was like being set free. Set free from the expectations. I further realized that my position as a composer can only become truly interesting when I have broken free of these bonds. This was important if I was to be true to the project.

CHOICE OF LOCATION

The issues of place and ensemble remained, however. I considered bussing the whole audience somewhere else after they had assembled at Vulkan. I did research on the history of the factory with the river as energy source and as the basis for early mill operations and later industry. The iron foundry was given the name Vulkan after the Roman god who reigned over smiths and fire, and was supposed to extinguish malignant fires. The god Vulcan was a regulatory power – like modernity, which attempts to map and regulate actions and territories. Regulation tames what is wild. If there were nothing wild, there would be no regulation. The hall itself had aesthetically and functionally drifted far from this after its closure in 1968. Exclusion became an important theme to take hold of because it accentuated the experience of what are fundamentally the same events, but from different standpoints and situations.

Research at places now revolved around closed-down resource exploitation sites and nature areas of social or cultural significance. Places that were investigated at more than just the ideas stage were the underground Ytterborg beer halls beneath Gamle Aker Church with the old silver mines nearby, the old charcoal-burning stacks at Monsetangen by Solemskogen and the lake Dausjøen in Maridalen. The beer halls were rejected in view of the access problems, while the other two were too far away with too much travelling time, which would exceed the available time window of the concert logistics. Nor did I think those sites had sufficiently convincing links with the themes I wanted to work with.

But when I came across the Åsen Emergency Communications Exchange¹⁴⁶ at Torshov in Oslo, the problem was solved. This is an emergency communications facility in the event of war or a serious crisis where the main exchange in the city centre would be out of action. This was to be a secret, and it is today a kind of contemporary ruin. The emergency exchange activates issues of exclusion, survival and potential war. Something ultimate could be set in motion.

Einschub: Åsen Emergency Communications Exchange

When the Cuba Crisis arose in 1962, with misunderstandings and inadequate information, it was clear that all-out nuclear war was a real danger, and even Norway had to prepare for it. When the tension was at its highest it was decided that 13 secret telephone exchanges had to be built. They were to form a top secret, independent, secure communications network that would function even if the country ended up at war and it had to be assumed that the general infrastructure would be sabotaged, controlled or in the worst case entirely destroyed in the event of an outbreak of nuclear war. The exchanges were to secure contacts among authorities and important institutions. The rest of the population would provisionally have to manage as best they could with what would probably be very inadequate information and partly collapsed structures. Only a few selected politicians, and people from the Intelligence Services and the Armed Forces, as well as some selected top people from the telecommunications authority knew anything about this. The emergency exchange was not even shown on internal maps. The construction of the exchanges was highly classified. So far only a minority of such exchanges have been found. One is Åsen Emergency Communications Exchange at Torshov in Oslo, hidden away in a bomb shelter in a cellar.

It was all abandoned, discontinued and locked up in 1963 when the Soviet Union began withdrawing the nuclear missiles from Cuba. The emergency exchange lies there today as an abandoned structure, a ruin, still almost intact. It lies there as an image of a dystopia. Not only was the emergency exchange abandoned; the supposed dystopia has also been abandoned: the emergency exchange lies there as a symbol of an avoided dystopia that never happened. At least not yet.

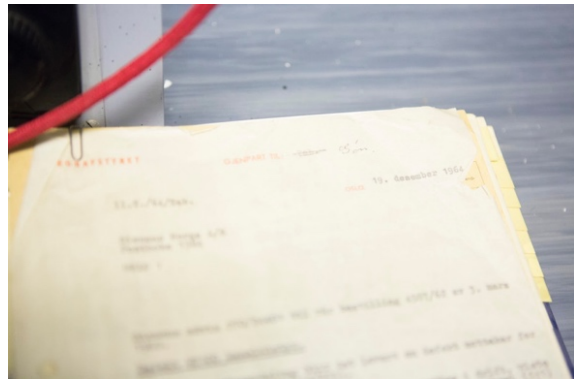
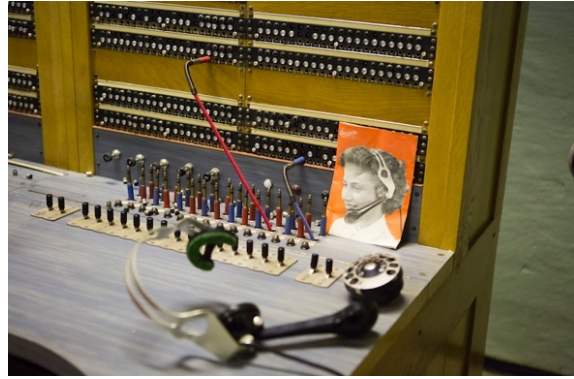
The Cold War had two relatively easily identifiable opposite poles. ‘Relatively’, because many different conflicts of interest were disguised, were misinterpreted or were drawn into the maelstrom of the Cold War. On both sides great fear prevailed in parallel with optimism about the future, especially in the 1950s. On the one hand there was a nuclear pessimism with the dystopia of war and the destruction of the world as the great concern of the ‘wild’. On the other hand, we can speak of a nuclear optimism, with technological development, the taming of nature and full mastery of the components and energy of the world in a regulatory optimism about the future.

I could work with that. Conceptualizing Åsen and Vulkan and how they were to be dealt with had taken over from working with visual projection material. I would have to get back to that in later works. The dynamic Aksiom Ensemble for new music fortunately had an opening in their calendar, and we established a good, hopefully long-term collaboration.

The emergency exchange is built in a bomb shelter in a basement. There is not so much room, it was just possible to send around 30 audience members there. I therefore divided the audience, wishing to see what exclusion and inclusion did to perception. Two groups were to encounter the concert not knowing what was to happen, and each from its own position was to experience what was fundamentally the same material, with different access to information.

Vulkan here represents something universal and open. It is visible, known, and publicized. It is an expression of earlier industry, production, economics, and now of culture – that is, of life. But it is still an empty shell. One function has abandoned the place, another has occupied it. All the musicians will be here. Most of the audience too. This group stands as a symbol of the people.

The emergency exchange represents the secret, the inaccessible and the hidden. It was long unknown, has been abandoned, an empty space, a ruin and has not been announced as a place for the concert installation. The conductor acts here as a guide for the minority of the audience. The conductor – the (power) elite – is separated from his ensemble – the people.



Photos: Henrik Beck Kæmpe. Comfort Music at Åsen Emergency Communications Exchange.

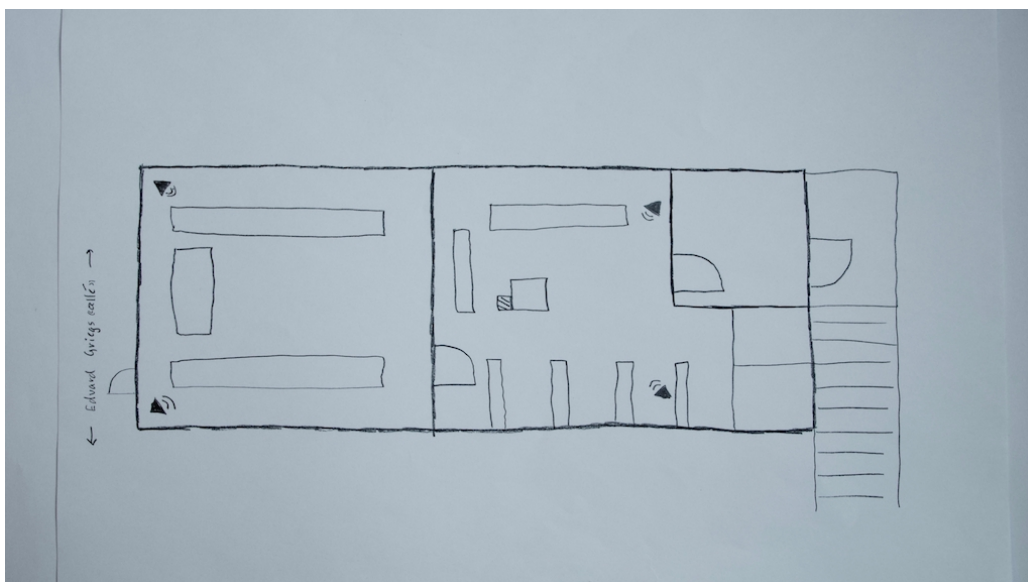


Photo of approximate blueprint of Åsen Emergency Communications Exchange, Oslo

THE WORK

During the arrival scene the selection or division of the audience took place. Two of the musicians stood there and welcomed every single member of the audience. They picked out audience members for whom they succinctly and politely opened the side door and whom they asked to be so kind as to step in there. The other audience members were shown up the stairs to the concert hall. They were given no more information. People who needed assistance (children, elderly, disabled) were to be accompanied by those they came with. If anyone asked what was happening, why, or wanted to join the other group for various reasons, they were met with a smile and directions to do what was asked.

The arrival scene at Vulkan consisted in musical terms of a processed song. The song was a lightweight, lush-sounding popular hit from 1951, not so distant in time from the musical style of the songs that I imagine were being used when prisoners arrived at the Nazi concentration camps. The song I used is from a time when World War II was some way back in the past; it was a time of affluence, and it was still some time before the iron foundry at Vulkan was to close; the Cold War was gathering momentum, the fear of nuclear war had arrived. The song *De Nære Ting*⁴⁷ (translates to something like ‘The Dear Matters’) by Kurt Foss and Reidar Bøe was about a constant longing for another place, but about finding “*the way back to what you have*”, to “*loving the close things*”.

This down-to earth song about the grass not really being greener on the other side can evoke associations with the lounge music in the bar in Stanley Kubrick’s *The Shining* from 1980. It can arouse a gentle feeling, a wish for presence, to be in the situation one is in. To be observant to the concrete, what exists where we are. It is also situated in time midway between the ultimate alienation of the Holocaust and the Cuba crisis of 1962.

The song is processed such that the playback speed is increased somewhat and it is repeated over and over again in an ever-shorter loop which in the end is nothing but a pulse. It functions like waiting music that points to the fact that the split-off audience group is to do something else, that something is happening concurrently. The hall in the Vulkan Arena is up a flight of stairs. There people bought beer. Downstairs the 30 audience members sat in a side room shut off for the occasion and waited while a bad speaker crackled out the same waiting music. The conductor was there too and soberly welcomed everyone. He was to be their guide to the emergency exchange, and thus not present at Vulkan, where the musicians were. He was given his own script, which must be considered part of the score.

As the arrival scene ends – with the fragmented lounge-music song – a minimalistic, static, repetitive instrumental movement on a few repeated notes begins. It consists on the whole of 16th notes at a tempo of 88. The harmony and instrumentation go slowly through a few changes. The situation is intense and static. Gradually, long sustained notes are introduced. After 23 minutes these merge into a few long glissandi with ‘difference tones’ as the result. The agogic has gone. The time aspect is thus more open. The harmonic field emerges and becomes more important. The actual sound, the frequencies, and in time standing sound waves in the space have built up and form an important element. A cyclic low-frequency electronic drone sequence with new added layers takes over after half an hour.

Then this all merges into a musical ruin: Beethoven’s *String Quartet no. 14 in C# minor, opus 131* from 1826, is one of the last works he wrote; the foremost by one of the most important composers in world history. Beethoven himself thought this quartet was his best work, and Franz Schubert remarked: “What is left for us to write after this?” Beethoven was almost entirely deaf when he worked on it, and the last string quartets were considered to go far beyond what musicians and audiences were ready for at the time. A contemporary musician is said to have stated: “We know something is there, but not what it is.” One can say that this work marks the fault line between the Enlightenment with Vienna Classicism, and Romanticism with a turn towards nature and the emotions. The first section of Beethoven’s first movement is played at a very slow tempo and chopped up into quickly pulsating flickering. We hear only remnants, flakes and husks of this work. After 11 minutes cello and double-bass enter with a veil of harmonics at an even slower harmonic pulse. Even more of the original music has gone, but in the form of an extra layer of disguise.

The musical ruins then drown in a distorted wilderness, a shaped blend of mystic artificial landscape and yet natural sounds. Recordings of birds in different habitats have been combined at a low tempo into a kind of setting where nature has completely taken over – or perhaps this is where it all came from. Cello and double-bass still overlay it all with a slow harmonic veil. The work ends with an alarm and noise from the Emergency Exchange.

The title *Comfort Music* plays on the discomfort in the comfort. Comfort can mean both physical comfort and consolation. Consolation brings comfort. Consolation cannot exist without some preceding pain; it requires earlier or chronic discomfort. *Comfort* depends on *discomfort*. At the same time this illustrates a comfort which is (perhaps) conscious about the absence of discomfort. The listener with his or her available cognitive structures is a not entirely unimportant part of the context. To be involved, something must be excluded. Much normally musical information is omitted. Artistically I create open situations, (empty) spaces for reflection.

In terms of sound the places are linked by the fact that the music that is played at Vulkan is also heard at the Emergency Exchange. The music has no ‘foreground’ in a classic sense. Much has been cut out. Only traces, a

framework, remain. There is no melody, no motif level. It is pure, with no concrete surface at sentence level, no linguistically formative sentence construction; no song, no speech, as if it is the ruins of music, a structure abandoned by humanity, by life. It is like an abandoned place. The structure is conspicuous. It is exposed structure, translucent, transparent music. It lies there open, empty, accessible. The music creates an open space which you must actively enter and navigate in by listening, by tuning into its frequencies. The music is typified by great persistence. Long, drifting floes – clear in their simplicity but unclear in their lack of direction – create an immersive sensation of being abandoned or lost.

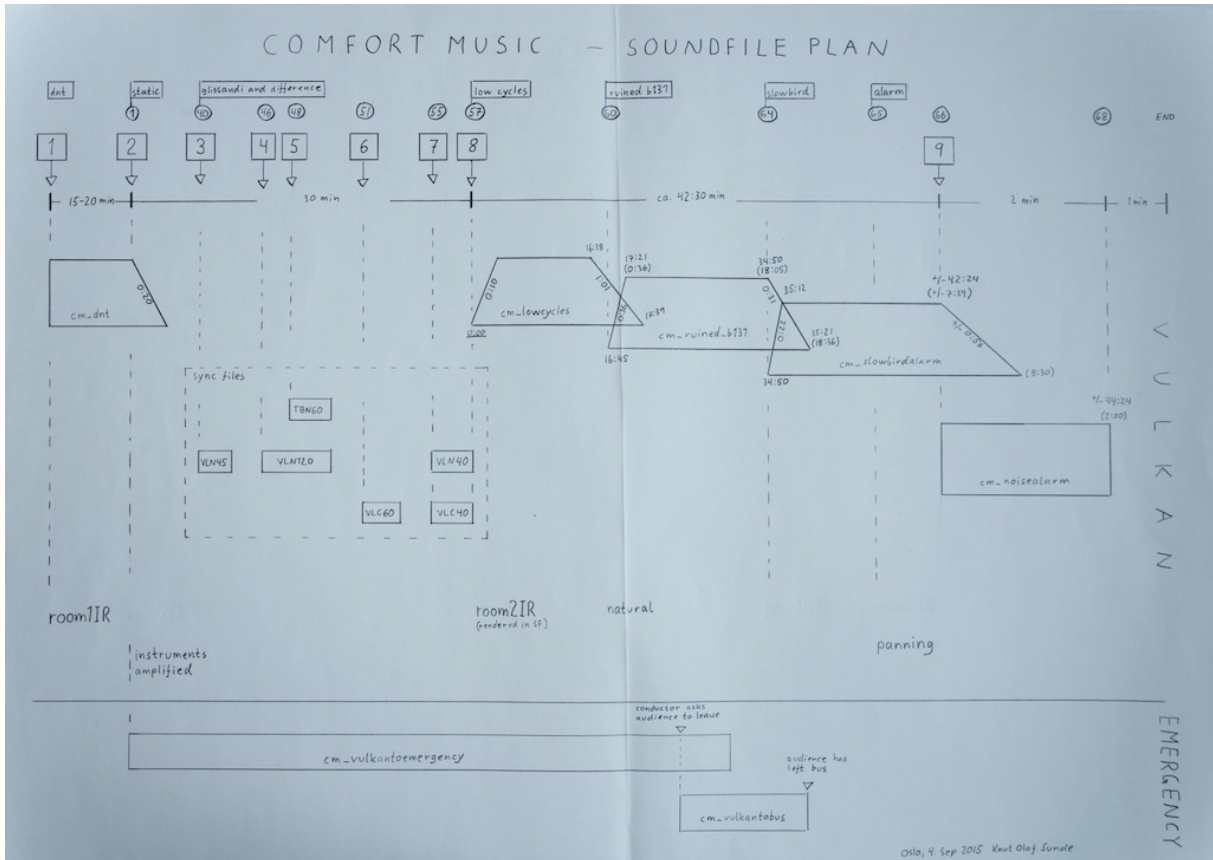


Photo of Sound file plan for Comfort Music

What was to be protected had to be sacrificed. The included had to be excluded. The abandoned elements – the empty spaces in the ruins – remind us that everything is perishable. They remind us of what disappeared, who disappeared and what *could have* disappeared. The empty spaces are open, leaving space for interpretation. The empty spaces are where we must ask questions. They remind us of how fragile the linkages are, how little it takes before a fragile balance breaks apart in displays of power and violence. The linkages can be seen as thresholds, limits or quite simply as boundaries – that is, territorial boundaries. Power and law delimit and regulate territories, they create a space, an area for the exercise of power: a space, a territory, a place to be filled, defined, demarcated and regulated. Political power, or state power, lays claim to territories, that is places. Artistic power, as in a concert, lays claim to an audience. The link between the use of Vulkan and the Emergency Exchange, each of which is in its way a kind of ruin, is the Emergency Exchange’s intention to protect through exclusion. Audience and ensemble become actors in this fiction, in which a – gradually – more informed elite is sent to the Emergency Exchange, while the largest group and all the musicians – the people and society – remain at Vulkan. Many issues arise from this separation and labile situation. Musically, open spaces are created. The anatomy of listening is more or less turned around or reversed. The charged, partly collapsed situation requires navigational listening – as in a terrain; active listening, as when one travels by listening, just as one travels in thought. It is essential at all times to try to place oneself ‘somewhere else’ to build up and maintain the preconditions for understanding foreign perspectives. But since our ‘somewhere else’ is constantly in motion, we cannot remain anywhere for long. For then the preconditions lock on to particular motifs that gradually become known and included: then just *something else* is excluded, and we only *thought* we were navigating with a fresh ear in unknown territory. If we then settle into this frame of mind we are just as blind as before. Challenge, exertion and concentration over time, at any time, are necessary. It takes

time to tune in to a situation; the pieces in the incomplete game must be fitted together; this requires us to reflect over the situation.

INSIGHTS

The audience at the Emergency Exchange reported a feeling of claustrophobia. Being there, with what they had been told, with the music being played out, and the certainty of the other group remaining at Vulkan, meant that many thoughts about survival and crisis and who knew what had arisen. The music that flowed out from the speakers and filled the dense space created a space for reflection.

One objection might be that the work clearly functioned better at the Emergency Exchange than at Vulkan. The conceptual was more consistently thought through for that part of the work. At Vulkan a poster text was hung up saying among other things: *The two locations depict different potential courses of history, and furthermore explore the relationship between past and present as (thus far) an avoided dystopia, and a future that must live in our ruins as we live in the remnants of the past.* Incidentally the part of the audience here was told no more than that some of the audience had been sent somewhere else. In fact, not everyone at Vulkan had this information with them either – after all some people go alone to concerts. If they did not read the poster either one could say that the whole conceptual foundation remained unknown to this part of the audience. The musicians and the best sound system were at Vulkan. For the part of the audience that had not been told that there had been a separation, the work appeared as a more or less ordinary, minimalistic abstract acoustic and electro-acoustic work. This is a weakness. The consequences of the informational choices that were made had not been sufficiently thought through to catch this. However, I have been told that those who knew this did think about where the other group was, or whether they were being monitored by them where they sat in the concert hall. But this part of the audience too knew nothing further of the place themes.

One audience member who was at Vulkan wrote this: “When it comes to the division of the audience I think – precisely with the idea of the different levels in mind – it was an interesting idea. But in that respect, I quite simply have my doubts about whether it got through. It was done, of course, but I didn’t experience that the quality of the ideas broke through and became ‘present’ as a fruitful part of the ‘work’. The point was maybe precisely that it wasn’t supposed to, but in principle I consider this problematical. The fascinating thing about the division of the audience, viewed in purely intellectual terms, is – I think – that it is a radical break with the ideal of presence that permeated minimalism, and which in many cases – in my view – makes it rather uninteresting. Spatial aspects of the division are taken far – perhaps in fact too far – especially since the actual articulation of them was not satisfactory – in my ears and eyes.”

In my own view several members of the audience placed too great an emphasis on the ‘comfortable’ element in the title. The choice of title may have been counterproductive in that respect.

¹⁴⁶ Telenor Kulturav, 2015.

¹⁴⁷ Foss & Bøe. 1951/1955.

MIRNYJ



COBēT

(Cyrillic 'Soviet')

*Proto Indo-European *ksun- "with" and vetu "council", hence "with council".
Vetu related to Proto-Slavic *vět-iti "to inform", Slavic věst "news", English wise, Dutch
weten, German wissen, Norse vite, "to know".
Russian soviet "council", "advise".*

At the Research Catalogue <https://www.researchcatalogue.net/view/565811/565812/0/27> there is a 6 min introductory video from the premiere, and full-length film with stereo audio.

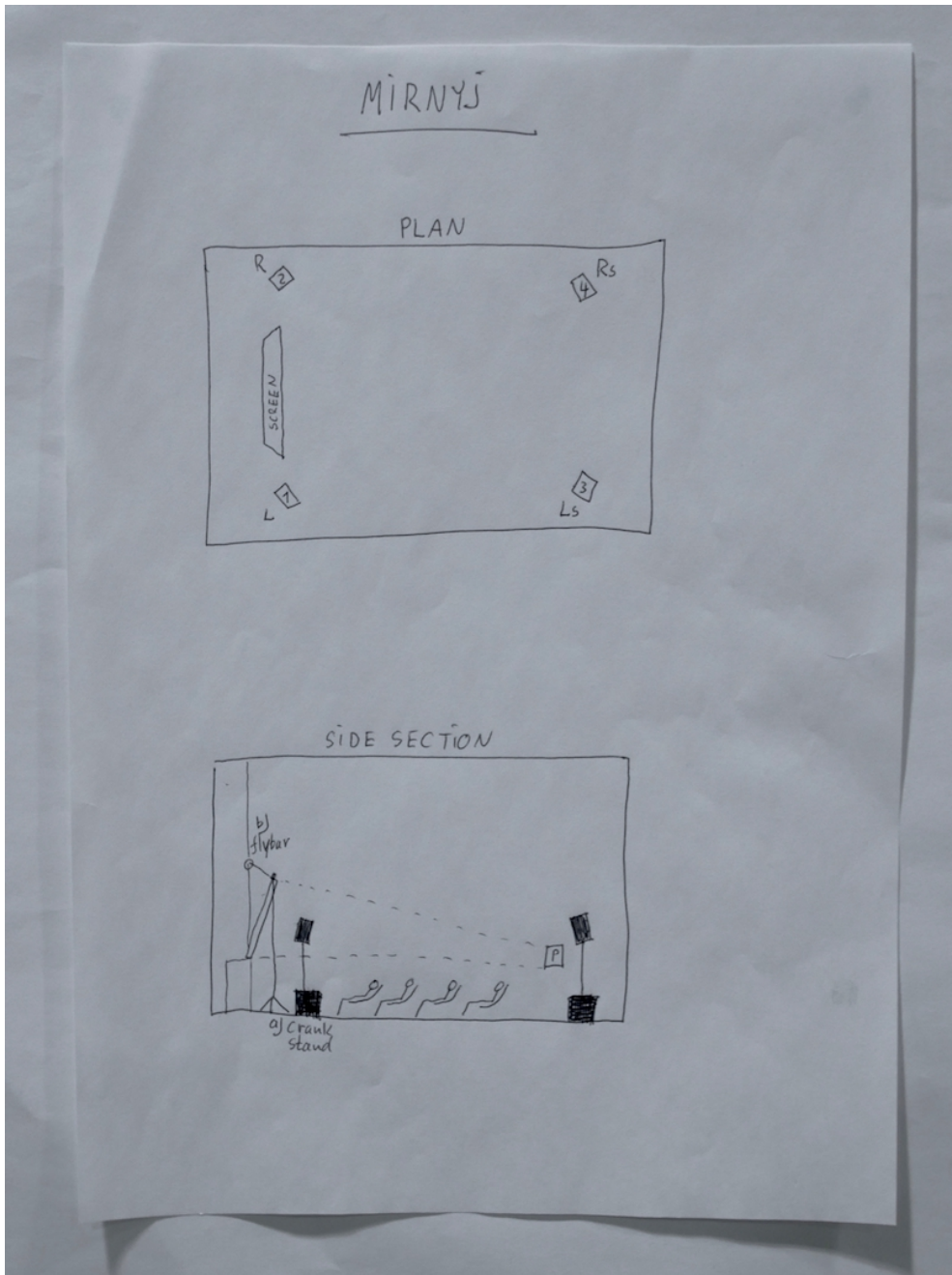
At <http://kosunde.no/2017/02/27/russia/> thoughts from the travel to Siberia are collected.

At <http://kosunde.no/2018/08/22/mirnyj-2/> practical information on the work Mirnyj is presented.

CONSTITUENTS

A four-hour audiovisual work, based on a trip to Siberia and the mine in Mirny. The abandoned open-cast pit, as a remnant space resulting from the excavation of resources contributing to the economy of the state and local community, is observed and functions as a focal point for the connections among place, memory and understanding; for manoeuvring in the unknown, always with unstable and deficient information. The sensation of another place is vital to the recognition of unfamiliar perspectives. The sound situations are sustained, sparse and tense. The sound material is from recorded violin, synthesized sounds and soundscapes from Mirny. The video material was filmed along the travel route in Russia, around the pit in Mirny, at the town Mirny, in a generated flickering sequence, and a hovering satellite imagery.

The audience is surrounded by a 4-channel loudspeaker system. The video is one channel. A tilted frontal screen and deckchairs was used at the premiere. It is also possible to view the work in a cinematic setting. Originally, the audience was intended to lie on the floor, looking upward at a horizontally suspended projection screen. The work can run as several shows in succession during the day.



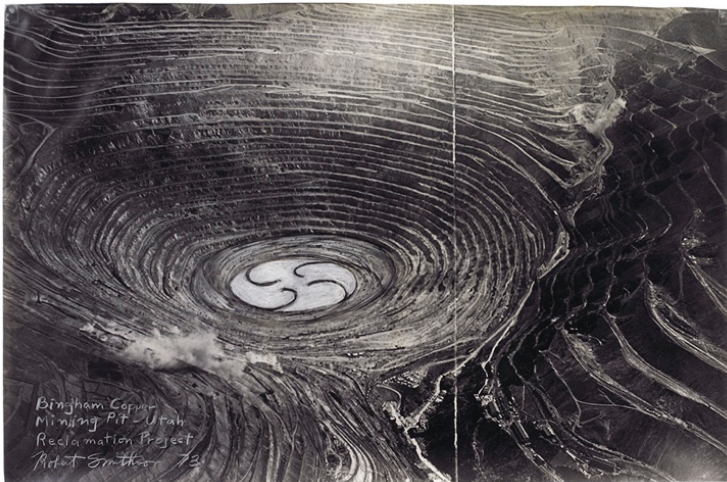
Mirnyj rider sketch

PROCESS OF SITE SELECTION

After a broad research phase I still had Mirny in the back of my head. The dimensions, the regular conical form, the location in Siberia and thus the scope for contextualizing the place in a broad political territorial spectacle were the reasons for this. The open-cast pit has a rare, almost conical form – manmade, pointing downward, inward, backward in geological history, smelling of sulphur, excavated in the atheistic Soviet Union. It sits there as a dangerous, industrial hole, abandoned as a modern ruin.

Whereas Athos has its rationale in a recontextualized ancient Greek idea of holy mountains striving upward to the ideal heavenly world, the pit is the opposite: an inverted mountain, the world's second-largest manmade hole in the ground, a grand scar in the terrain unpreserved, looking backward in geology and reality, to economic life and a political territory. The world is banal. I wanted to embrace and expose this banality. Athos was a premise for the Mirny project, which was its distorted image.

But it was probably Robert Smithson's *Bingham Copper Mining Pit – Utah / Reclamation Project*¹⁴⁸ that gave me the idea. Smithson worked for the last two of his 35 years with several land reclamation projects. The aim was to propose the transformation of ruined industrial landscapes, such as wastelands, abandoned industrial sites, airfields, and open-cast mines – drosscapes – into new kinds of public art. Markings on maps and images of found objects were to be the building material for the art. *The Bingham Copper Mining Pit – Utah / Reclamation Project* from 1973 is a proposal for a revolving disc with a spiral pattern at the bottom of the open-cast pit if it was closed down. In the nineteenth century Bingham was a small village, now gone, in what in 1973 had become the biggest manmade excavation; it has been operational since then and is even larger now. Physically, Smithson's expansive Land art proposal is quite simply a photograph with pencil marking on a plastic overlay. The potential alone, or the vision and dimensions of it, are striking, and make it an important work. I immediately thought of how sound could behave in such a gigantic acoustic space. How much would I have to upscale to fill it? And then I was unable let go of the idea of Mirny, the existing open-cast mine with the most regular conical shape that I had found in my research.



Robert Smithson, *Bingham Copper Mining Pit – Utah Reclamation Project*, 1973
Wax pencil and tape on plastic overlay on photograph,
20 x 30 inches (50.8 x 76.2 cm)
Art © Estate of Robert Smithson/
Licensed by VAGA, New York, NY
(<http://notations.aboutdrawing.org/robert-smithson/>)

However, I did not know what kind of work it would materialize into. I had to go there, to do the research, to look, listen and see what I could find.

OBSERVING RUSSIA

RUSSIA'S ROLE

Russia appears in the work as a metaphor for thought patterns, for what we have been taught to think. The relationship between the pit as a negative (excavated) space and its positive value stands as a symbol of potential or lost/spent potential, of monotony, emptiness, of our knowledge gaps, of the remnants of what has been. The gap is also present in the video material, and time is set aside just so it can be there, to create open spaces for the audience itself to forge connections, interpret, imagine. It is an invitation to go on a mental journey.

To create an immersive mental journey, I think extended time is necessary. Short duration requires effectiveness; little time available to hammer in the message, the solution; it is a rhetorically closed effectiveness. Short duration is like a courier. It carries a message about something specific. Long duration is more rhetorically open,

creates more ambiguity. Long duration opens up time for considering, it invites more evaluation, detail and room for movement. In purely physiological terms it also leaves time for the fluid in the balance organ of the inner ear to settle, with the result that the neurons stop transmitting positional information to the brain, if the head is kept still for some time. The vastness of the country opens for a durational, mental journey.

Russia's ambivalent and difficult historical relationship with the rest of Europe, and the vastness of the country, therefore opens for a durational, mental journey. The work has a very long contextualizing approach, opening up the idea of Russia and what it is, what it struggles with as a country. Its dimensions take time to comprehend. Only after almost two hours do we close in on *Mirnyj*. The space and spectacle unfold slowly. The work *Mirnyj* is also a study of monotony, using the Russian landscape as material.

It is important to emphasize that *Mirnyj* is not a documentary about *Mirnyj*, nor about Russia. But it takes its point of departure in the place and my encounter with it. It takes this as a starting point for saying something about the myriad alternative directions the course of history can take at any time, on the basis of all the different decisions and choices that the people and states of the world make at any time. You always have a choice. There are no fixed answers, you only face choices. But does the textual narrative open things up? Or close them? For whom does it have which of these functions?

OBSERVER

It might be objected that I am exploring a history which is not my own. My outlook is from Norway, a small northern neighbour of Russia. When I grew up the Soviet Union was seen as something clearly outside our realm, inaccessible, huge and dangerously hostile. An idea of present Russia as hostile to the west has its grounds in realpolitik. But the western Cold War perception of the Soviet Union as the main antagonist continues to affect the relations between neighbouring countries and world politics.

Public dialogue has narrowed down into knowledge niches over the past few years. The result is niches of misunderstanding and misconception. Attitudes are reinforced in echo chambers, and what is left in a truly public domain is poster rhetoric. Today, many people and political leaders seem to take pride in being easily offended. In combination, these factors impose simplified perspectives on one another that seem to be on the harsh and hostile side. Exchanges of knowledge are vital, transfers of meaning are vital. The attempt to understand other people's views and arguments is fundamental to collective existence.

It is vital to tell a story from different angles. The issues I present regarding Russia will be presented differently according to the background and standpoint of any other author. Even 'objectivity' is presented in a pattern coloured by time and available knowledge. Russia and its position and integration in the world are important. Russia is truly unique in its size and history.

The work *Mirnyj* is just a glimpse through a window into Russia. Although I have tried to present the events in a both objective and balanced way, it is precisely from my position that this work was done. My position is as a distanced outsider. I have tried to convey an outline of historical lines. Others will emphasize other aspects. But I suspect that foreigners in general struggle with understanding Russia's political *landscape*, literally. The enormous scale, vastness and continuous federal and national discourse on how Russia should keep itself together as a country, what kind of country it is, and its orientation in the world, is carried out in Russian contexts. Russia struggles to determine its role between east and west. The country is in the grip of a constant polarization. This follows from its size. Different interests literally pull in different directions, towards different geographical and political centres of gravity. Through time, the country struggles with its identity. Meandering foreign perspectives and notions are challenging, since they take place precisely *in between* standpoints. No localized position has in its capacity to truly understand *other* localized positions and convey *their* view. This middle zone is both exciting and important to navigate in.

During the trip to Russia and after, when reviewing the material, I gradually understood that this zone in between was worth trying to enter, to find a possible way to negotiate and recontextualize perspectives on political landscapes. I tried to close in on history, establishing a both rational and emotional connection without personifying the story. This method is in line with the main idea of refraining from an agogic level.

The satellite imagery hovering over Russian landscapes is observational, on distance. At the same time the perspective gives excellent overview. The coupling with text that deals with WW2 could be seen as something backward, but WW2 (in Russia named 'The Great Patriotic War') has a contemporary presence in Russian public life. However, the work *Mirnyj* may be said to have too little emphasis on present Russia and its politics, on present and possibly coming issues. This might lead to an overall impression of the work that contradict my intention of contributing to understand Russia, not only in historical terms but as of today. Herein lies a learning point and potential to develop such a fact oriented, informative artistic work towards other present and flammable issues, that I want to research further.



1.



2.



3.



4.



5.



6.



7.

1. Main square in Mirny

3. Playground dragon, Mirny

5. Part of WWII memorial monument in Mirny

ing vodka in -28 °C

2. Soviet orders given to Komsomol⁴⁹

4. Second generation housing; wooden tenement barracks, Mirny

6. Meal at the dacha of Dmitry Y. Ivanov's brother

7. Kristian Krohg-Sørensen firing shotgun at clay pigeons before drink-



8.



9.



10.



11.



12.



14.



13.

8. Frosen moose liver, at the datscha of Dmitry Y. Ivanov's brother
10. Knut Olaf Sunde at work at the rim of the pit
12. Grocery store (in Russian 'produkte'), Mirny.
13. Along the road between Lensk and Mirny

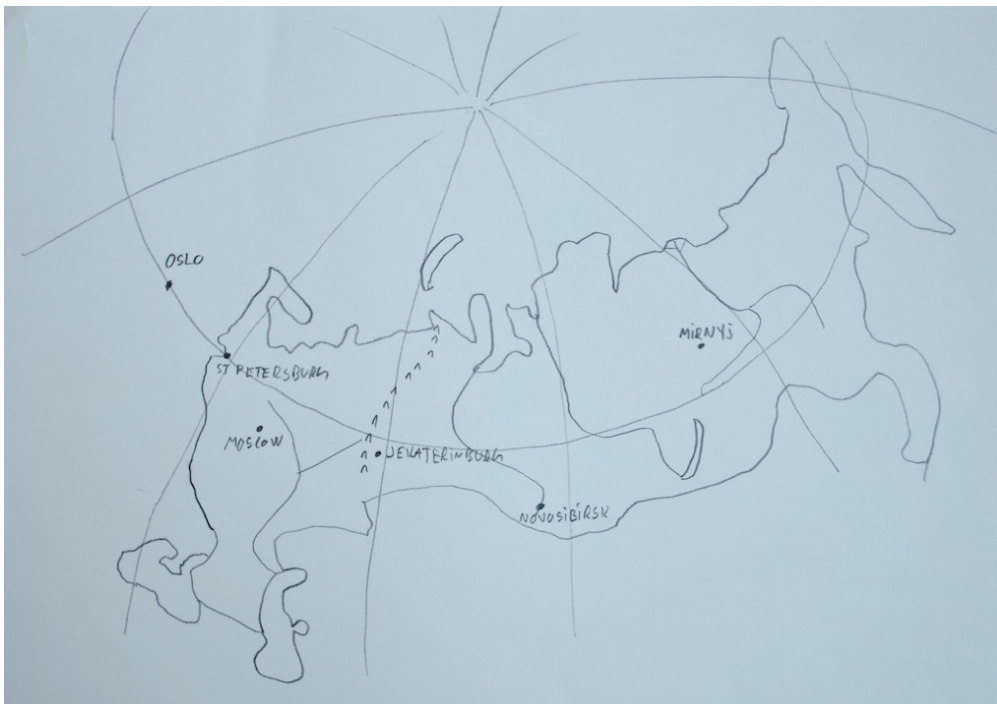
9. Backyard of the datscha, continuous wood chopping
11. K.O.S. at work along the road to the south of the pit
14. Third generation housing; concrete lamella in Mirny

RECONTEXTUALIZING A SENSATION OF ANOTHER PLACE

Mirnyj is an attempt to create a sensation of another place. It is an audio-based film from Russia. This was testing the idea of a work informed by a site. Choices were informed by all the impressions and information gathered during and after the journey. I have tried to recontextualize a sensation of another place primarily through the form and creation of the actual content of the work and secondarily through the staging of it.

A discussion of the choices regarding audio and its articulation is presented in the chapter ‘Method’, section ‘Audio material and relation to other media’ on page 56.

All the material is based on two weeks of continuous conversation from 27 February until 12 March 2017 on the journey in Russia, with Russia expert, Home Guard officer and comic-strip creator Kristian Krohg-Sørensen. We went to museums and exhibitions, including the Armoury of the Moscow Kremlin Museums, the Museum of Political History of Russia in Saint Petersburg, the Savrasov Kimberlitov Museum in Mirny, and we attended one part of the Canon of Repentance in the Trinity Lavra of Saint Sergius monastery in Sergiyev Posad outside Moscow. I wanted to attend parts of the Canon in a Russian monastery in addition to the trip to Athos in 2016, still thinking I would incorporate a recording of this early medieval work in what I was about to do. I did record reciting and singing from the Canon, standing in the *stacidias*. This material did not end up as part of the work. I found it too religiously loaded. We took the train to Yekaterinburg and flew from there to Mirny in central Siberia. I filmed and recorded situations, conversations, soundscapes all the time. In the desolate mining town of Mirny we were taken care of by the guides Dmitry Y. Ivanov and Natalia Y. Ivanova at Yakutia Travel. They took us to the usual commemorative sights of the town and were patient when I spent hours at the open pit in 28 degrees centigrade below zero. We were served frozen raw elk liver over conversations about pollution by slag in the rivers, about private ownership, the future of the town, what was here before the diamonds were discovered, how goods and people were transported, and how the profits from the mining were distributed and the town was run. We took a wood-fired *banya* at Dmitry’s brother’s dacha. We were out shooting clay pigeons with shotguns and drank vodka on a crystal-clear winter day, we drove a 50-year-old scooter on the taiga. Another day we were in a remote nature park with yaks and bears, and we drove and walked around the town. On our way back, we had a stopover in Novosibirsk and flew on to St. Petersburg, to understand the most European of the Russian cities, in our own vicinity, but still mentally so far away.



Brief outline of the travel route.

As discussed in the chapter on ‘Method’, context, place and spatiality are decisive for perception, interpretation and memory. Involvement and bodily experience had to be emulated. This had consequences for how I formed the work. I tried to create an extended situation with a mainly low-paced materiality of high presence to immerse

oneself in. Size, volume and time are key to this. Where the materiality of the text is concrete and factual, the music has its structure audibly bare, stripped of surface motivic information.

A few fundamental considerations were decisive. The large surfaces of the imagery, all the room, all the space in the visuals, are there to resemble a sense of scale. There are few humans in the footage, and hardly any dialogue. The footage is characterized by long shots, observation, a standing overview of the landscape, views from a train, and the hovering bird's-eye view of satellite imagery. The slowness of what I have called information density speed is also there to create a mental space, to be able to settle down. The music is durational, marked by a generally high intensity of sustained monotony. Its dense sound masses are distributed in a 4-channel system. In the beginning, the violin pitches are spatialized individually. There is no silence, no breaks. A relatively high volume suspends the monotonous auditory situation continuously, to hold on to and carry an experience of being *there*. The footage conveys different stories more clearly. The music is for the most part marked by slowly evolving stratas of suspended sound. The distribution and timing of the text fragments resemble an extended conversational monologue, allowing time to dwell and think between the stanzas.

As for the text, I have aimed at a kind of succinct, sober, objectively verse-like form in the text. The texts are concise fragments. For me there is much poetry in facts, in reality, in all the ambiguity that exists in reality, and in the attempt to grasp all the small events that can have great and unforeseen consequences. The poetry in the randomness of reality, which always arises, is formed, is influenced and developed as a constant recasting of the matter of which the world, culture and history consist. I have attempted to avoid emotions and evaluations; to ensure that everything in the text is correctly, rigorously and compactly expressed, clearly if tentatively, with one consistent voice. The data are objective, testable and calmly presented, without pathos in the actual text. I believe that the objective, rigorous expression along with the abstract, undulating drones in the soundscape can evoke – precisely through absence, seriousness, emptiness – an emotional response. It becomes like a negative that produces a sense of Russia's distinctive, severe vulnerability. I have chosen the large font size, capitals and a placing in the centre of the screen to give the text its own place above the image. The text is not a voice-over or commentary. It rarely stands in a concrete, direct relationship with the image that is shown at the same time. I have therefore often chosen to fill the screen in such a way that the text enters the picture and is part of the visual expression.

Sound engineer Cato Langnes at Notam always says regarding the quality of microphones and the kind of array to bring that *the best microphone is always the one you have available!* Thus, *any recording at all is always preferable to no recording* having been done because of equipment that is heavy, impractical, simply unavailable or has not been brought with you. The same goes for the video. On this trip, I had to be responsible for the video myself. This was a prerequisite for the work, and would affect what it was to become.

I often combine pre-recorded material from acoustic instruments with synthesized material. This is discussed in the chapter on 'Method'. The work opens with a fluid half-hour of intense violin textures. Single pitches are pre-recorded, composed and edited in studio. The material consists of pure, sharp acoustic treble of relatively high frequencies. There are only sustained tones, immediately establishing a slowness. The harmonic relations are simple, with a few resulting summation tones and difference tones, resounding within the walls. The text after a while starts off with a slow long-term historical approach. The selection has been based on an emphasis on pivotal events with some detailed context. The Revolution with its opportunistic circumstances is fairly neutrally presented. Many points are omitted so the audience itself can connect the fragments. Visually, the screen is black for more than ten minutes before a train scene appears. It is a journey through the landscape with long scenes and changing details, but where the big picture persists, in a way *a chanting monotony*. Author of the book *Zona*, Geoff Dyer said that "[...] it is equally impossible to film anything like a horizontal view of a landscape from a train without a similarly alert viewer saying 'Ha! Tarkovsky! Stalker.'"¹⁵⁰ What does the train trip tell us? With a train one is restricted to the rails, one cannot deviate. Is history fixed? How could it have been otherwise? During the train sequence the text gives an account of the historical context. All the same, the landscape we look out at is inconclusive. It just is there; certainly, it is made use of and organized in changing ways, but it does not end up with any particular kind of polity or organization. The constant motion has an inexorable direction. It is constant transition.

The human touch of the violin is transformed to become a raw, chilly and mechanical sound situation, which, apart from some soundscapes from Mirny, carry on for the rest of the duration. The function of the synthesized sound is to make a more or less mechanical sounding monotony with stretched-out sound walls, of sound masses. The material for more than two hours contains no naturally recorded sounds, as if a mental zone, separate from the images. I have avoided recordings of onboard or passing train soundscapes. The scene goes on so long that it perhaps establishes a kind of focused trance where you develop an extreme focus, a sense of presence, at the same time as the experience of your physical "I" is transformed, perhaps into something hovering. An immersive tension arises, into which you are absorbed; you lose your sense of time, your awareness of yourself, of what is outside, and it becomes – well, perhaps something like a hesychastic experience: a process of inward focus, repetitions and solemn silence, until one ceases to register the senses, so as to achieve an experience of something outside oneself. The term is associated with a kind of ascetic prayer. The point is to establish a lasting situation, perhaps by repeating

something over and over again. This produces a kind of focus and concentration where one ceases to be aware of one's bodily appearance, like a mental stalagmite, gradually appearing, slowly adding presence, a kind of anaesthesia, a not-sensing. A sense of floating may be felt when you sit completely still for a certain time, since the fluid in the organ of balance in the inner ear has fallen still and the nerves stop transmitting positional information to the brain. This is one possible physical effect of such focused concentration.

A sonorous, subtly changing bass fills the hall for a substantial time, enabling a sensation of largeness, of a vast space. Night falls. An abstract flickering scene immersively fills the field of vision. Two streams of monochrome colour slowly change, meet and interact in a static and very fast flickering between the two colours. The intensity imposes a perceptual deprivation where the brain amplifies neural noise in order to search for possible missing value signals. This flickering 'Ganzfeld' can make geometrical patterns or colours appear if keeping the eyes wide open, especially when seated closer to the screen so that it more or less fills the visual field. A red dot appears centred in the flickering, increases in size and suddenly becomes a red Earth, continuing the zooming-in to Mirny from space. (The scene is a reference both to Lars von Trier's *Melancholia* and to Stanley Kubrick's *2001: A Space Odyssey*, in which Johann Strauss the Younger's gentle, harmless waltz *An der Schönen Blauen Donau* becomes its opposite in the scene where the space station floats in orbit around the Earth. In Von Trier's film the planet *Melancholia*, in the course of several days, is drawn inexorably towards the Earth in a highly oppressive gravitational dance to the accompaniment of Wagner's yearning Liebestod from *Tristan und Isolde*.)

We are on the ground, *there*. Footage from the pit is inconclusive, non-judgemental. We just watch the details of the altered landscape, in slow pans shot with a monopod. The soundscape from Mirny starts with the first images from the ground, halfway through the work, with my footsteps in the snow, heading for the rim of the pit. Traffic, wind and barking dogs come along. These are ordinary, honest sounds, from the area around the pit and the town, although the soundscapes are blended with the continuous voice of the abstract, synthesized drones throughout. Text stanzas on the mine and the town of Mirny are informative and bare.

The physical form of the open-cast mine evokes associations with ancient Greek theatre, which were places for trying out ideas, exposing them to view. What does this have to do with Russia, Siberia, the huge distances? The mine worked well as a platform for raising many questions. Why is the antagonism so strong even in our own time? In World War I ordinary people were cannon fodder, and it was not rare for them to protest against the prevailing order and the regime that had led to it. This came from somewhere. Without World War I one can imagine there would have been no Russian Revolution; nor would there have been the intense bitterness among surviving soldiers all over Europe (and large parts of the rest of the world) and among the family members who reached their forties in the course of the 1930s, and by then had reached the authoritative age when they were in central positions everywhere in society. The feeling among both sides in the war, that World War I had all been for nothing, was strong. Many had stated that the Armistice was nothing but a long truce that would end with a new war. The Ottoman Empire collapsed, as did Austria-Hungary; new countries, and in time self-determination, came to the Middle East. Germany was decimated. And for some time, the balance, often maintained on a knife-edge, was able to offer enough stability for society to develop rapidly. But World War II came. And then the antagonism of the Cold War. This antagonism, the very idea of hostility between civilized countries, between integrated groups of countries in the same parts of the world – we still cultivate it.

The subsequent city scene encompasses live still images of building facades and some city life with people on the central square. In my view the city scene did not function as well as the rest of the work. The people introduced an element of life, but the length of the scene and the amount of and quality of interaction with the people did not sufficiently take up a position that expanded or completed the work. Perhaps it would have worked better if there had been shorter or fewer shots with people? What does this portrait actually say about the city? It shows a realism, parts of everyday life outdoors. Perhaps the work would have been even more consistent without these city scenes? Or what if the city scenes had been entirely without people? After leaving the city square with the sledging scenes, I also return to them later. Perhaps it would be enough just to use one. In retrospect I see that the work loses intensity with these city scenes. It falls apart slightly, the suspension that I aimed for does not carry through this part. I think it manages to pick up momentum again. But if I were to revise the work I would probably look at exactly this. It is difficult to predict the effects of all the scenes, in relation to one another and over time.

After the city scene a flyout scene gives glimpses of the landscape from a distance, from above, and takes us into the clouds, obscuring directionality. After a while hovering satellite imagery takes us across areas to which industry was evacuated, presented in factual text stanzas. Important Soviet industrial areas were Minsk, Kiev, Donbass in eastern Ukraine, Leningrad and Moscow and many other cities in European Russia, joined between the wars by annexed industrial areas. But the Winter War with Finland in 1939-40 showed the Germans how weak the Soviet Red Army was. And the German attack on Belgium, the Netherlands and France, as well as Denmark and Norway, was quite swift. Stalin was surprised by the sudden German attack on the Soviet Union in 1941, and immediately started evacuating its industries from the most developed western areas to the vast territories east of the Urals – some 2400 km, a huge number of enterprises, vital equipment and people. It had to be done. The western territories could not be defended, and the Soviet Union could not afford both to lose its own production capacity and thus

yield to an increased, strengthened German production capacity. What other country can evacuate almost 70% of its industry thousands of kilometres away in the course of an autumn, at the same time as fighting a critical war? What other country has the space to undertake such a strategic move? The displacement of the industrial resources changed Russia's own perspective, withdrawing it from Europe. But Russia had time. Russia had space. Historical time and political time were at the country's disposal – Russia could wait, wait until time had healed the wounds and Russia again could have its own way.

Here I want to mention *The Jefferson Grid*⁵¹ by an anonymous, allegedly Israeli photographer. It consists of satellite images from Google Earth of the consequences for the landscape of the geometrical territorial demarcations in the American Midwest. The system was introduced in 1785 because the old (English) way of surveying land took its point of departure in the concrete topography. This corresponded poorly in scale to such vast, 'new' areas as the USA now quickly had to map, divide up and make use of. For that reason, Thomas Jefferson proposed a logical, geometrical grid system that was easily definable and made possible the sale of land without anyone having viewed it. The different ways of organizing the landscape have important consequences for actual land use, Land articulation and population mentality.

At the very end, after the text has stated the estimated Soviet/Russian loss of lives 1914-1955, the Soviet patriotic *Pesnya o Dnieper*⁵² (Song about the Dnieper) breaks out. It was composed by M. Fradkin, and E. Dolmatovskiy wrote the text in 1941 after Nazi Germany's Operation Barbarossa. It is an expression of the shamelessly traditionalistic emotional pathos style of music cultivated in this era, in line with the Stalinist architecture and the values of Stalinist cultural policies. The river Dnieper runs through Belarus and Ukraine, the historical core area for Russian culture and self-understanding. Strong feelings are associated with the rivers and areas, and people back then were evacuated in droves when the Germans invaded. The song expresses a proud, patriotic love of the landscape, as culture and nerve, where people belong, not unlike the notions of Nazi Germany, only the other way around. These lands are now a part of the independent Ukraine and again not under Russian control, although still being perceived by Russia as a historical core area. This song, being a remnant of Soviet culture connects with the feelings of the time and point as well to today's politics with the ongoing war in Donbass in eastern Ukraine.

The primary sources for the text are conversations with Kristian Krohg-Sørensen during the trip 27 February to 12 March 2017, The Museum of Political History of Russia, Saint Petersburg, Savrasov Kimberlitov Museum in Mirny, *Livelegen* (book) by Tor Bomann-Larsen, Dan Carlin's *Blueprint for Armageddon* podcast, conversations with Dmitry Y. Ivanov and his brother and Natalia Y. Ivanova 4 to 8 March 2017, and Georgy Alexandrovich Kumanev's article *War and evacuation in the USSR 1941-42*.

Have I given the listener enough responsibility? Maybe the text becomes too insistent? It may be objected that when I am arguing for audio wise release from a straitjacket, which can be summed up as 'leading through agogic', this function is merely transferred to the text. I am uncertain about the effect of the text, but I have tried to keep the text concise, pared to the bone, to avoid flowery language and subjective descriptions. I have sought advice from supervisors and textual experts I know.

I must emphasize that I am not arguing for a fundamental showdown with the melodic, or agogic, level. Rather, it has been interesting to explore how the music can open up the situation more, can create greater space for reflection than I have felt was possible with an agogic level that restricted the space of reflection more to particular pathways. The large surfaces between the text fragments even things out and provide space for thinking; space that has consequences; and which helps us to think. This is the intended function of the text in *Mirnyj*. It must in other words be possible for the listener to create his or her own space.

STAGING

As for the staging, I had to do something with the room. I hoped to get further in finding out how to actually use a pre-existing production space; in better understanding of how I could create a work using the premises of such a space, avoiding working against it and avoiding a *subdued-by-format* creative process. The 4-channel audio is distributed to a powerful loudspeaker system to fill the room, consisting of 4 top L'acoustic 108P cases with 4 sub, L'acoustic SB15P cases with sufficient amplifier power. They were placed on floor stands outside and surrounding the audience. I imagined the audience lying flat on the floor, looking upwards – in the direction of the sky – at a horizontal screen suspended above them, with back projection from above, and surrounded by multichannel audio filling the space. The screen arrangement proved to be more technically and economically difficult to accomplish than I had imagined. Many concert venues have ceilings too low to allow an ample distance, even for 'short throw' projectors. The flybars may be dimensioned only to carry a certain array of lighting, with weight limitations. In that case a custom-built floor standing array would have to be either expensive or occupy visual space. In the Jakob Church in Oslo, the ceiling is naturally high, and we discussed possible solutions.

I had also planned to work with two-channel video with contrasting and supplemental material. Quite early, this was reduced to one channel, but the notion of two screens still remained. The idea was that two audience groups should lie opposite each other on the floor, looking upward at two screens, 180 degrees in relation to each other. However, when in an all-encompassing workflow being asked how two opposite screens with identical content would function, and if that was actually the intention, I realized that this was a remnant of an abandoned idea and instead settled for one screen.

At the end of the day, we ended up with a large, tilted frontal screen and deckchairs to sit comfortably on for four hours that would provide a good head and eye angle to the screen. This gave us a certain element of dislocation in the space, a rupture, a shift in expectations. The size of the screen was important to fill most of the peripheral vision. The tilted screen idea was borrowed from the artist and filmmaker Hito Steyerl and her deckchair-and-tilted-screen work *Factory of the Sun*¹⁵³ (2015), a video installation on a loop, in a custom-built space.

NOT ACCOMPLISHED

I had the idea of a semi documentary work. I travelled with a DMS (double mid/side) mic array, camera and interpreter. I tried to contact the mining company Alrosa in advance, to negotiate access to the production plant, but got no response. The guide said that they never gave outsiders – only business connections – access to the mining complex. I would have had to work much longer to establish contact with someone and build a relationship if I was to get access inside the plant.

We travelled on a tourist visa. But we had to work, to create art. Well aware that the police in Russia can arrest you for very trivial things, we did not want to arouse too much attention. We kept a relatively low profile. We asked about a starting pistol – the town's sports club must have one? No. Or rather yes, they did, but they had run out of blank shots, and it would take too long to order new ones. One of our guides was incidentally a former policeman.

We were invited to a clay pigeon shooting range. It was cold, we had a good time with a variety of characters – men only – some tough guys, others not quite so hard, but friendly and teasing, often dressed in camouflage-patterned thick winter jackets. None of them were willing to go off with us to the pit to fire some shots. It is absolutely not permitted, so there was nothing odd about that. On the contrary. I had a starting pistol confiscated in Greece, and naturally did not travel out with a new one to Russia. It was enough to imagine the questions at customs.

Instead we tried with big balloons I again had brought. They had worked very well in Greece, but there it was +30°C. Here it was -25°C, and they just collapsed lazily when holes were stuck in them. We bought what we could find of fireworks in a shop that sold weapons (and of course had no blanks), but there wasn't enough energy in them. Therefore, the sound measurement with impulse response couldn't be done. All the same we had a conceptual impulse response. The trip and its purpose were known – observations, the gathered material and choices resulted in a work, as a kind of measurement.

¹⁴⁸ Smithson, 1973.

¹⁴⁹ The Soviet state awarded orders (орден). These are given to Komsomol 1928: order of the red banner, 1931: order of the banner of red labour, 1945-1948-1956: order of Lenin, 1968: order of the revolution. <http://smkrsm.ru/smk/go.php?etc.htm&id=61>

¹⁵⁰ Dyer, 2013, p. 54.

¹⁵¹ The Jefferson Grid is an instagram photo series. Bliss, Laura. (2015, September 16). Photographing the American 'Grid,' One Square Mile Per Frame. *Citylab*. [About Instagram photo series 'The Jefferson Grid'.] Retrieved from: <http://www.citylab.com/design/2015/09/photographing-the-american-grid-one-square-mile-per-frame/405610/>

¹⁵² Soviet Music, 2001-2019.

¹⁵³ Steyerl, Hito. (2015). *Factory of the Sun*. [Immersive video installation]. 23 min.

THE MIRNYJ TEXTS

1.

Dnieper and Volga
are the largest
river systems on the
Great European Plain

The terrain and rivers
are oriented towards
the southeast

Moscow sits some
150 m above sea level
The Moscow river is a
tributary of the Volga

which floats calmly
through woods and
farmland more than
3000 km over the plain

to the Caspian Sea
28 m below sea level

After the Asiatic Huns
crushed the earlier
eastward moving Goths
in a westward expansion
in the 300-400s CE

The Goths went west

The Kievan Rus federation
was established by
Vikings who settled among
nomadic peoples around
Dnieper in the 700s CE

It was destroyed
by Mongol invasions
in the 1200s

The Grand Duchy of
Moscow emerged
in the 1300s

Eastward expansion
both geographically
and culturally under
Ivan the Terrible from
the 1500s

Conquering Siberia
which formerly belonged
to the Mongols

The eastern focus left
Russia without access
to either the Baltic
or the Black Sea

Sweden dominated the
Baltic Sea
Finland
Karelia
Ingria
Estonia and Latvia

although many
territories
shifted forth and back
in wars

Tzar Peter the Great
decided on a western turn
to transform Russia into a
modern European country

Peter conquered Ingria
during
Great Northern War
1700-1721 to gain access
to the Baltic Sea

and founded
Saint Petersburg
in the swamp at the
outlet of the Neva

to be the new
capital of Russia
and a stronghold with a
new and powerful navy

5 million inhabitants
make the present Saint
Petersburg by far the
largest city in the
Nordic region

2.

A man enters
the compartment

He is about 30

We converse

He is an officer
in the Russian Navy

on his way home to
Perm for military leave

– I did my compulsory
military service on a
submarine, so I have been
into the Norwegian fjords
frequently
he says with a smile

3.

Throughout the 19th
century there were
numerous revolutions
in Europe

Karl Marx
released
Das Kommunistische
Manifest 1848
and
Das Kapital 1867

The upper class and
nobility in the western
Russian cities spoke
French and German as
their daily languages

while workers
and farmers
spoke Russian

The word for the
colour red
in Russian also means
beautiful

Tzar Alexander II
reluctantly abolished
serfdom in 1861

It happened the day before
Abraham Lincoln took
office as President of the
United States

leading to
the US Civil War
1861-65
Slavery was a
central issue

But in Russia, the now free
farmers often got land
with bad soil
and had to pay a new tax
to the former landowners
as compensation

To many this meant
serfdom continued
in practice

The Russian Social
Democratic Labour Party
was formed 1898
splitting into Menshevik
and Bolshevik factions
in 1903

The Bolsheviks left
the Labour party
in 1912

The First Duma
was called together
in 1906
It was dominated by
people inspired by the
British Parliament

Tzar Nicholas II
could have supported
the democratic
development
but instead he
dissolved the Duma

The tensions caused
by military strategies
imperialism
alliances
and nationalism exploded
in Austro-Hungary in 1914

The territorial states
acted as if trapped in a
political game
without sufficient time
for good decisions

Farmers and workers
died in high numbers
as poorly equipped
soldiers

Food shortage and war frustration	but he also called for a global war between the proletariat and capitalism
Demonstrations on the International Women's Day 8 March 1917 escalated to become the February Revolution	The interim government led by Kerensky passed the most progressive and liberal legislation in Europe
Tzar Nicholas II was forced to step down a week later	But they planned the 'Kerensky Offensive' 1 July in Galicia in present western Ukraine
Bolshevik leader Vladimir Lenin was exiled from Russia and lived in Switzerland	Feeling obligated by substantial economic war support from Britain and France, even though they had given up the goal of total victory
He was unable to return Due to the ongoing war over vast territories on the eastern front	Two million Russian soldiers deserted during the summer Their morale discipline and will to fight had evaporated
Erich Ludendorff was the leader of the German military as well as the German civilian Government at the time	The interim government was greatly weakened
Ludendorff hoped a return of revolutionaries would further undermine Russia's cohesiveness and stability and eventually pull Russia out of the war	Russia was facing defeat
so that the Germans could focus on the Western Front before the Americans arrived	The previously marginal Bolsheviks promised they would pull Russia out of the war
He arranged for a return of many revolutionaries in covert operations	They gained support during the summer
Lenin arrived in Saint Petersburg 16 April 1917	The Bolsheviks took power 7 November 1917 in the October Revolution and ended Russia's participation in the war
He called for peace bread and land	But on poor terms

Immediately an even worse civil war broke out	immediately contributing to the country's economy
The Tzar and his family were executed by the Bolsheviks in July 1918 to prevent their release	Diamonds are pure carbon, a volcanic mineral, the hardest of all known
Lenin reluctantly instigated the New Economic Policy in 1921	formed more than 2.5 billion years ago under high pressure and temperature in the mantle deep beneath earth's surface
a capitalistic liberalization to get the wheels spinning	erupting through deep-source volcanic kimberlite explosion tubes
It was successful	80-90 million years ago
The New Economic Policy was abolished by Stalin in 1928 as the first five year plan of the command economy was launched	Hydrogen sulphide (H ₂ S) evaporates from the ground as a component of the volcanic gases
4.	The quarry is the second largest man made hole in the world
Mirnyj Мирный	with a depth of 525m and a diameter of 1250m
Мир – world, peace, quiet, system	Discontinued, groundwater being pumped out
Мирный – peaceful, silent	until the underlying tunnel mining operations also come to an end
<i>STOP!</i> <i>RESTRICTED AREA</i> <i>Quarry 'MIR'</i> <i>Passage prohibited!</i>	All ground is initially owned by the district Mirnyj Rajon
The Mir deposit was discovered 1954 in what was then uninhabited wilderness	Alrosa mining company operates the concession
Komsomol youth came to build the town to patriotically serve their country	
during the blooming Moscow Thaw under Krushchev	

in practice
alone
sustaining
the town

When diamond
operations end
the town will
close down

– Do you see the plane up there?
– Ты видишь там самолёт?

[Bust inscription]
*To the
commander in chief
of the armed forces of USSR
Generalissimus
Joseph Vissarionovich
Stalin
From veterans of the
Great Patriotic War
and thankful descendants
9 May 2005*

[Wall poster]
*Our faithfulness
to the fatherland
gives us strength
Military service
and a contract
gives self-confidence
and stability in life
Apply to the nearest military commissariat*

5.

In our brain
grid cells
place cells
speed cells
head direction cells
and border cells

constantly code
our surroundings
and constitute
a hexagonal map
of cells depicting
our environment

The way the brain
records
and remembers
movement in space

is closely
connected to
memory

What we know
what we think we know
what we believe
and what we sense
in which context

form our
perception
of the world
around us

6.

Magnitogorsk
Магнитогорск

Expansion
as a steel city
during Stalin's first
five year plan

A closed city
(restricted access)
from 1937

Unternehmen Barbarossa
started 22 June 1941

Germany attacked
the Soviet Union

The next day a
Council for Evacuation of
Industries was set up

The western areas
of the Union
near the neighbouring
European countries
were the most
industrialized

and vulnerable

The previous and present
Russian western borders
cross the
Great European Plain
of farmland and woods

<p>with no natural or clear topographical boundaries</p> <p>A relocation of industry to the east of the Urals to the cities of western Siberia kept critical production out of reach of Germany</p> <p>Incomplete official records list 2,593 relocated companies</p> <p>Critical elements and machinery were often dismantled at the last minute with no time for documentation</p> <p>In reality approximately 32,000 enterprises were moved</p> <p>After the evacuation 70 % of Soviet industry was east of the Urals</p> <p>Again inadvertently shifting Russia's centre of gravity eastwards</p> <p>The war devastated the economy again generating extreme rebuilding needs</p> <p>Emphasis was on modernization of heavy industry and deployment of natural resources</p>	<p>A Closed Administrative Territorial Formation</p> <p>Internal gate crossing from the closed city to the exclusion zone of MAYAK Маяк</p> <p>First facility constructed 1945-48 in great haste and total secrecy</p> <p>Surrounded by a 250 square kilometre exclusion zone</p> <p>not shown on Soviet maps</p> <p>The former Lake Karachai was a dumping site for atomic waste</p>
<p>7.</p> <p>Chelyabinsk Челябинск</p> <p>Eastern domestic border gate</p> <p>Ozyorsk Озёрск</p>	<p>8.</p> <p>Russian Empire / Soviet Union loss of lives 1914-55:</p> <p>4-5 million in World War I 1914-17</p> <p>8-13 million in the following Russian Civil War 1917-22</p> <p>(of which about 5 million died of hunger, 1921-22)</p> <p>6-8 million died during the Soviet famine 1931-32</p> <p>2 million killed during the Great Terror of political repression instigated by Stalin 1936-38</p>

27 million
killed during World War II
1941-45
– 16 % of the Union's
population

At least 2.7 million
died in the GULAGs 1929-55
(18 million were interned,
4.5 million never returned)

A total of
50-58 million
people

9.

Ekaterinburg
Екатеринбург

*By the coastal vines, by the steep banks
Did we grow up and learn to love
Oh Dnieper, Dnieper!
thou art wide and mighty
Above thee, cranes are flying*

*Oh Dnieper, Dnieper!
thou art wide and mighty
Above thee, cranes are flying*

*Thou hast seen battle, thou father of rivers
Under the mountain we went to attack.
He who perished for Dnieper will live for centu-
ries
For he has fought like a hero*

*The enemy attacked us, we marched away from
Dnieper
A deadly battle raged like thunder.
Oh Dnieper, Dnieper!
thou flowest in the distance
And thy wave is like a tear.*

*From thy streams the enemy was drinking
He did choke on thy water!
One glorious day we marched forward
And once again we reached thy shores*

*Let the blood of fascist dogs flow in rivers
The enemy will never take Soviet lands.
As by the eternal Dnieper, all enemies are wiped
out
By our Army and our People!*

Song about Dnieper, 1941
Music: M. Fradkin
Lyrics: E. Dolmatovsky
English translation: Kristian Krohg-Sørensen
Source: sovmusic.ru

Epilogue. Bolsheviks' Victory and its Price

The Civil War in Russia finished by November 1922 by complete annihilation of active units of the White movement in the territory of the country and joining of the buffer Far East Republic to the RSFSR.

The Russian revolution resulted in the victory of the Bolsheviks, who strengthened it with establishment of the new state – the Union of Soviet Socialist Republics (USSR). For the Bolsheviks it was a major step towards spreading of their ideology to other peoples and states, and ideally – to all countries of the world, that was unambiguously stated in the “Declaration on formation of the Union of Soviet Socialist Republics”. Formation of the Soviet Union on December 30, 1922 initiated unification of territories being parts of the former Russian Empire before the revolution based on a new foundation. This process lasted for almost two decades.

The Russian Revolution of 1917–1922 became one of the most significant and tragic events in the Russian and world history of the XX century. It entirely reformed the country and set a development vector for decades ahead, as well as considerably impacted many global historical processes.

The population of Russia paid a huge bloody tribute: according to different estimates, over the period of 1917–1922 8 to 13 million perished. About 2 million, including outstanding figures of science and art, had to emigrate to other countries. About 7 million children became homeless.

We can still feel consequences of the Revolution in the Russian society.

Photo of text poster at The Museum of Political History of Russia, Saint Petersburg.

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HIMDALEN



At the Research Catalogue <https://www.researchcatalogue.net/view/565811/565812/0/27> there is a 50 min film from Himdalen. The performance material consists of a technical rider, audiofiles from the listening post, storyboard, production maps, crew summary and a musical score for the acoustic scene.

A review by Rose Dodd on Himdalen, published by Seimograf.dk 27 December 2018 are accessible at <https://seimograf.org/artikel/deep-norwegian-forest>

CONSTITUENTS

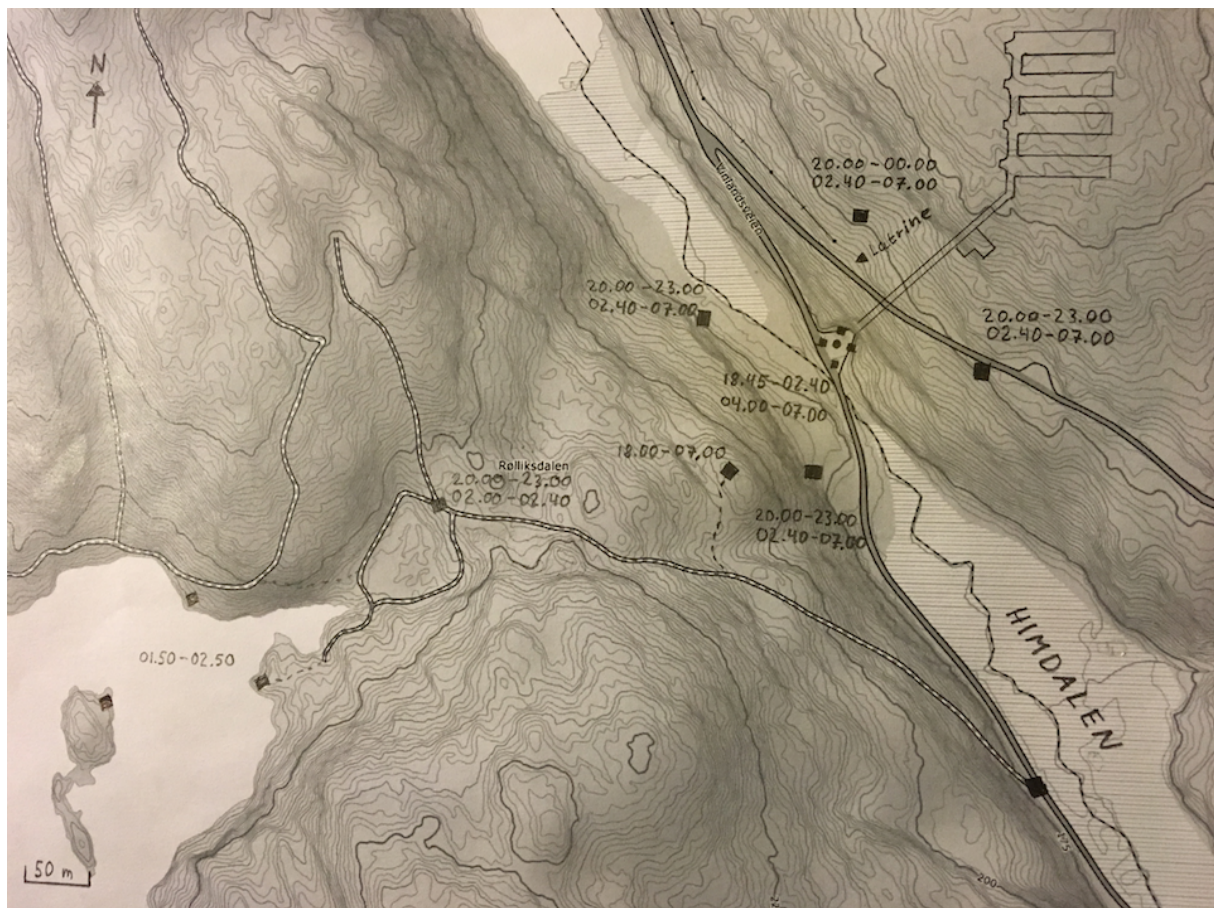
Land music the entire evening and night outdoors in the end of November. Composed for and realized on 24. November 2018 at and around a Combined Repository and Storage Facility for radioactive waste in Himdalen, a narrow unpopulated valley surrounded by pine forest hills, 45 km east of Oslo, Norway. The work requires four musicians and 12 loudspeakers – 4 at the gate to the facility, 4 at an equal distance of 85 m away from a central spot, 4 along a hiking track, a listening outpost overlooking the central camp and an acoustic scene using three positions at a forest lake. The instrumentation is double bass, guitar, metallic percussion, harmonium and multichannel electronics throughout the night.

The project explores regeneration as concept, and the sustainability of information. It requires the audience to be bodily present, navigate, decode information, listen closely, combine deceptive information, reach local positions at different times, to experience a subjective version of the work. Perception is a matter of who we are, our cognitive structures – a result of custom, choices and context. Ignorance of context yields misunderstanding.

The work is in detail mapped out as a time-based performance. It is conceptualized and tailored for this particular site, time of year and time of day. Its logics are closely connected to Himdalen as a site. More performances on the same site is fully possible. However, to perform *Himdalen* on another location would alter the work and change its logics.

AUDIENCE INFORMATION

A map was handed out to the audience. The map showed approximate times for activities at each position. On the back was a contextualizing printed text (in Norwegian). The text is shown on the next page.



1951 – First Norwegian research reactor.

KLDRA – *Combined Repository and Storage Facility of Low- and Medium-Radioactive Waste*. The only one in Norway is at Himdalen – east of Øyeren, between the nuclear research plants in Halden and on Kjeller, in a rock hill in forest terrain with low population density, at a local authority boundary. Built in 1998, it is 63% full in 2018.

At Himdalen radioactive waste is disposed of from industry, the health sector, the armed forces and nuclear activity at the Institute for Energy Technology. Examples include luminous exit signs, markers and sights from military weapons, smoke alarms, industrial radiation sources, or contaminated remains from industrial plants such as paper, tools, clothing, air filters and demolition waste.

'Repository' means final storage. The waste must not be moved, it must stay here forever. When it has been filled with 10,000 concrete-filled cast steel barrels in the eight 'sarcophagi', operations cease. Then the complex must still be monitored institutionally for 300-500 years, subject to among other conditions restrictions on land use.

One of the four halls is for storage. There are for example 166 barrels with a total of 35 grams of plutonium. Before KLDRA Himdalen is closed this long-lived waste must be moved to a new temporary storage which will perhaps be built for a period of 100 years, or will perhaps go straight to a final disposal of fuel and long-lived medium-radioactive waste, for which there are considerably stricter requirements.

In addition, spent reactor fuel and other long-life medium-radioactive waste are now stored at Halden and on Kjeller. Uranium, plutonium, thorium, some of it formerly highly radioactive. A proportion of this is unstable metallic uranium with or without aluminium casing. If this comes into contact with water it can react to form uranium hydride, which ignites spontaneously in air and explodes. This has to be stabilized – a time-consuming process – before disposal.

A series of reports and reviews attempt to find answers to what we should do. A new intermediate storage facility for long-lived waste, perhaps collocated at Himdalen? We also need new capacity for low- and medium-radioactive waste. Or should we build a final deposit in deep geological formations (500 to 1000 m below ground level) and with constructional barriers, this too perhaps at Himdalen? *"It is a generally accepted principle that future generations must not receive higher dosages of radiation than the generations that have produced the waste"* (NOU 1991:9). For spent fuel the need for storage will in practice be eternal – up to several hundred thousand years – possibly millions of years (DNV GL 2014-1329).

In such a long time perspective other events or influences must be considered. These may be climate changes and geological processes such as earthquakes, shifts in tectonic plates and ice ages. There may be a new major war. It is impossible to predict how long today's societal structure – our basic civilization as such – will endure. Our written culture developed 5000–

8000 years ago. The last ice age ended between 10,000 and 20,000 years ago, and we – *Homo sapiens* – evolved around 250,000 years ago. How are we to imagine the situation in 300, 5000 or 100,000 years?

Himdalen, 24.11.2018

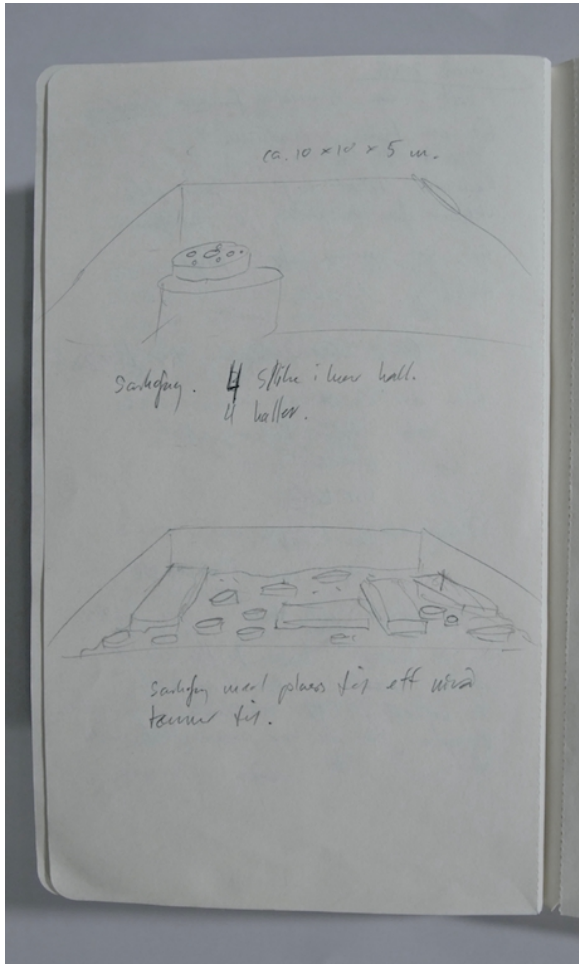
SITE SELECTION

The *Himdalen* work has developed over time. In November 2013, in the project description with the application for the artistic research project, I wrote about Land music. I proposed working with Uksedalstjernet in Jotunheimen. The development away from this is explained elsewhere. But it is this – working outdoors, with the landscape, with music that relates directly to the landscape, to the specific place where it is played out – that has become *Himdalen*. I began on the research project in the autumn of 2014, and already then dropped Uksedalstjernet after research at the site. In 2015 I abandoned the idea of finding a magnificent landscape, rejecting such a romantic angle of approach. Then in 2015 I worked with the Emergency Exchange at Torshov, and had opened a door to a landscape that resonated. In 2015 and 2016 I conducted broad research to find out what I actually wanted the term ‘Land music’ to mean, and what kind of place I could work with to demonstrate it. I travelled to Greece and Athos in April 2016 to pursue an idea and rejected the idea of working specifically with that. I was unable to put aside the idea of Mirny, and decided to travel there to see if there was anything about the idea that could become something. The Mirny journey was planned for February 2017 when, in October 2016 at a meeting with my main supervisor Ole Lützow-Holm, I discussed this last work and what it should become, what was important to accomplish. One of many places where I had conducted broad research was Himdalen, with the time perspective in mind. The preceding month I had gone to the Norwegian artist Hege Tapio’s ‘Article Biennial’ exhibition in Stavanger with bio art as the theme. Bio art is an artistic practice that works with biological material, using among other things genetic technology. I went to Stavanger solely for taking in the exhibition. The American artist Joe Davis was represented by the work *Malus ecclesia: The oldest Eden*.¹⁵⁴ This is a proposal for a work that encodes 50,000 Wikipedia articles in binary code in the DNA string of an apple plant culture to become a new Tree of Knowledge. With its endless scope, the poetry in the work is just as striking as the technology in it is complex. Before I had talked about the unfathomable question of communication over the extreme timeframe that arises when long-lived radioactive waste is to be handled and deposited. Ole gave me the idea of linking these two ideas: the time scale involved with radioactive waste and the scope of saving knowledge through DNA coding. Himdalen was the place that could activate this complex of themes.

The future abandonment of the storage facility has poetic qualities. It is its actual purpose to be abandoned, a future ruin (the line ‘*Alles nur künftige Ruinen*’ sung by *Einstürzende Neubauten* echoes in the back of my mind). A final repository (for radioactive waste) is a place for storage, that must not be opened. It resembles a sanctuary, as a holy place, untouchable, and as a safe place, a protected place. These meanings connect up with religious symbolism – how and why our societies keep certain things hidden, stored away, a secret.

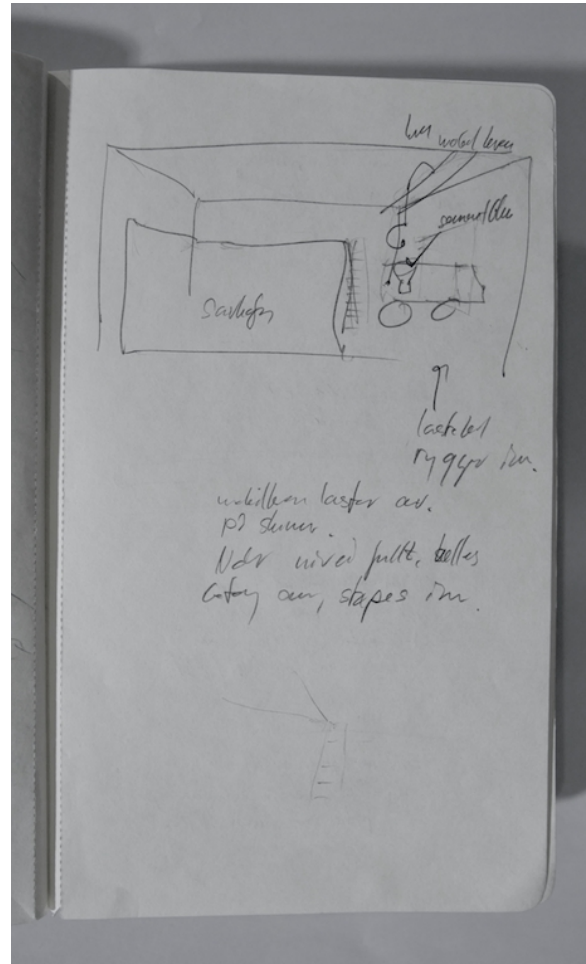
I hesitated for months before contacting the operator, the Institute for Energy Technique (IFE). But when I did, they found the theme interesting. They acknowledged my pursuit of conceptual questions and the locatedness I was working with artistically as research – from an artistic perspective. IFE wanted to cooperate, but stressed that of course they had to do so within certain operational and legal constraints. On 2 May 2018 I was on a visit to and in the facility. Some sketches from my notebook are shown below. (For technical perspectives filtered through my cognition, have a listen to the listening post files, linked to from the top of this chapter.)

A month later, the rules had been tightened up, so from now on IFE had to be far stricter with such visits. The door was sadly finally closed, literally, to the possibility of staging parts of the coming work inside the facility. However, we were allowed to mount a musical work right outside.



1. Sketch after memory of interior of sarcophagus from the inspection platform. The text says:

- a) c. 10 x 10 x 5 m
- b) Sarcophagus. 4 such in each hall. 4 halls.
- c) Sarcophagus with room for one more layer of barrels.



2. Sketch after memory of side section of one hall.

The text (probably) says:

- a) mobile crane
 - b) cement mixer
 - c) sarcophagus
 - d) truck backs up
 - e) mobile crane unloads, on rails
- When level full, concrete is poured, cast in.

ATOMIC WASTE HANDLING – FINAL REPOSITORY

The treatment of radioactive waste is complicated and expensive – physically, economically and politically. Unlike other energy forms, all waste from nuclear power is in fact treated, while coal-fired power plants for example have considerably emissions to air. The final repositories must have physical safeguards able to resist dimensioned threats. The time perspective is determined by the type of waste to be stored and/or deposited in the repository. If the different half-lives of the waste are expected to reach safe levels in the course of the next thousand years, for example, there is no need for dimensioning against the most extreme geological threats; but terrorism, major war and information about and knowledge of the plant are a challenge. Permanent storage of long-lived waste must protect humans and the environment against radioactive radiation over several hundred thousand years.¹⁵⁵

There are no completed final repositories in the world today (2019). Only Onkalo in Finland is under construction, and Sweden is planning one. Geologically deep deposits are today considered the best way of handling atomic waste. The documentary film *Into Eternity* from 2010 by Michael Madsen follows the construction of Onkalo, the Finnish final repository for atomic waste. Onkalo means 'hiding place', or small cave. The film opens with a voice slowly reflecting, thinking, saying: "I would say... that... you are now at a place where we have buried something from you to protect you, and we have taken great... pains to be sure that you are protected. We also need you to know that this place should not be disturbed. And we want you to know that this is not a place for you to live in. You should stay away from this place, and then you will be safe."¹⁵⁶ The film beautifully balances facts, concerns, scientific solutions and ethical considerations.

The handling of these substances is what we human beings do today, on the ground, that has the most far-reaching time perspectives. This raises many questions – including matters of communication over extreme timespans, which is what I wanted to deal with in the work with Himdalen.

The question of how to accomplish long-term communication with deficient information where you need a transfer of meaning, means of encoding and decoding, is in itself intriguing. Himdalen is a natural geological fault. This weak zone has been thoroughly evaluated and is regarded as safe for all risk scenarios. But in this artistic context it functions as a reference to Delphi, where the evaporation of gas from weak geological faults beneath the site was a necessary component in contextualizing the spectacle of the oracle, one could say of the political theatre and its trustworthiness. It also functions as a reference to Mirny, where an open-cast mine dug 500 m into the ground for the extraction of geological resources (diamonds) – actually with even deeper underground mines beneath the pit – shows that we will in fact keep digging and drilling if we stumble across evidence of further resources underground.

The concept of 'knowledge' has a suggestion of fixity, of something learned 'once and for all'. But that is self-deception. In reality there is constantly change. Human beings are mutable, their opinions are mutable, their need for action is mutable. This leads to changed perceptions of the meaning of information or facts. In addition, there are coincidences and misunderstandings. This is a permanent state of affairs. Regeneration is permanent. Constant change is permanent.

In the context of the work *Himdalen*, the storage facility has a symbolic function. It activates thoughts about extreme time perspectives and all implications of communication and information permanence across extreme time spans.

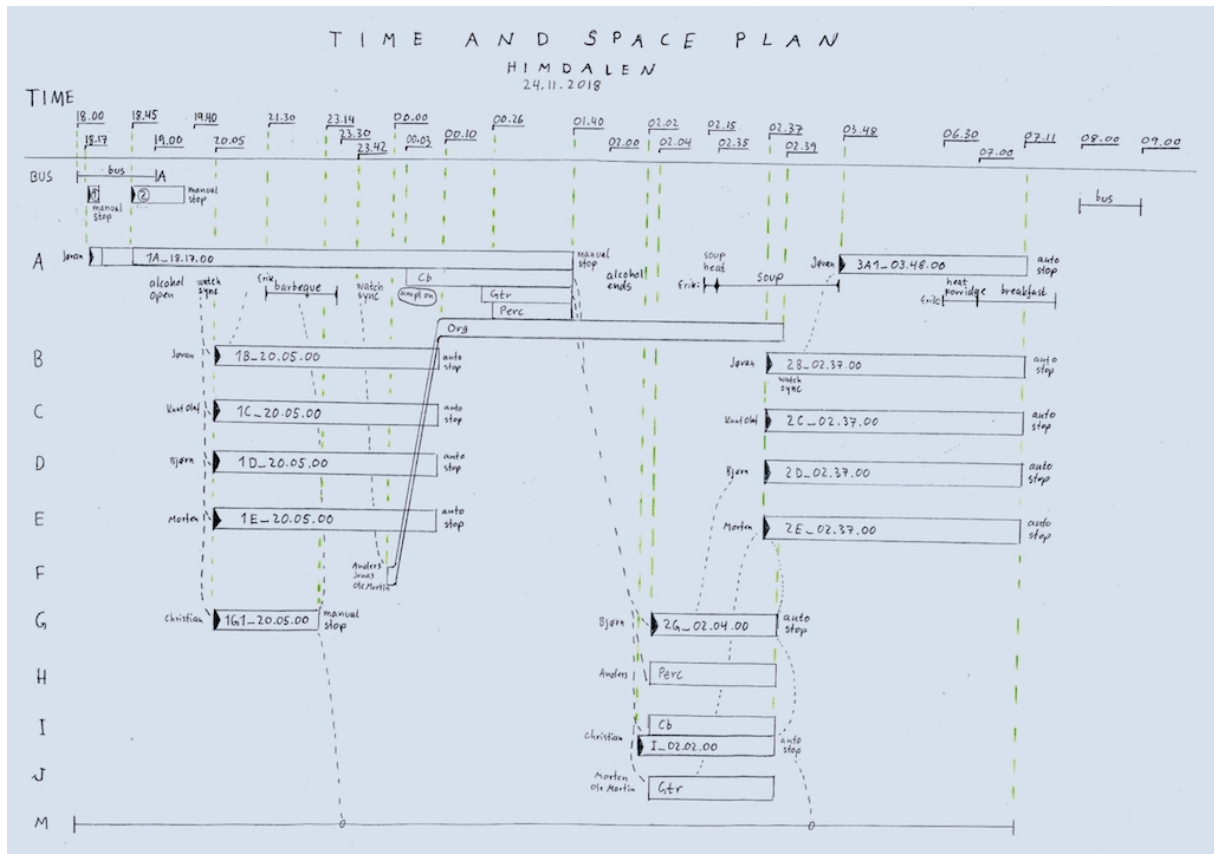
THE WORK AND ITS ORGANISATION

TIME AND SPACE PLAN

Initial sketches are typically a few keywords and rudimentary drawings that I rarely keep. Many more or less detailed plans are refined, but I seldom work them out in a readable form. Below is the well-known time and material planning tool, translated to a time and space and audio file plan.



Time and material wall plan



Time and space plan (a soundfile plan) for the crew to have some overview of the event.

ORDER OF AUDIO AND EVENTS

A discussion of the choices regarding audio and its articulation is presented in the chapter 'Method', section 'Audio material and relation to other media' on page 56. Following is a description of the audio and events.

The bus leaves Oslo shortly after 18:00. Passengers are given a sheet of paper with a map and a text. At 18:45 the noise music starts simultaneously at the bus and in Himdalen. The same sound is heard outside and on board the bus upon arrival around 19:00.

There is fire in the two fireplaces. From 20:00 a pulse-based scene starts where the distance between the speakers is important. It alternates a little between just B C D E without A, and A B C D E, so it will be clearly noticed, and a part with just G active and the others quiet, so that from down at A something faint will be heard from up in the forest suggesting that the area activated is larger. A metallic pulse corresponding to a translated kinaesthetic halving time over 10 minutes transforms the prior pulse to a chord undergoing a more than an hour long glissando. From 22:35 this calms down to a bass and swirling sound with a pulsating bass from 23:15. The listening post is at position M. There are two mp3 players with headsets and 9 sound files where I read texts from reports and thoughts on storage, communication and time. The audience can come and hear these at any time. A sheet of paper shows the track list. From 22:00 to 23:30 there is barbeque.

At 00:00 the pump organ is pulled from position F towards A while being played. The sound slowly approaches the main camp at A and the audio situation is transformed from electronic to acoustic. This is the first time the musicians play anything. The acoustic scene consists of long notes, sustained situations, until it becomes a slow, pulsating section, lasting one hour and 40 minutes. The acoustic instruments are amplified to match the impact of the electronic material. The organ goes on with its drone chords while the three other musicians walk off to the lake scene at 'Bråttjenn'. The audience follows. Percussion is setup at position H, the bassist heads to position I and the guitar paddles in a canoe to the island and position J.

At 02:00 the acoustic lake scene starts, with pre-recorded organ material from the speakers at position G. The music is a variation of the first acoustic scene, lasting for 40 minutes. The musicians have now performed for two and a half hours outdoor in the middle of the night and are from now on only required for their conceptual presence and partaking as audience.

At 02:40 a new electronic bass and middle tone drone situation carries the auditive responsibility at position B, C, D, E, now with further allowance for the normal low activity of the time of night. Night food is served.

From 03:45 soft drones emerge from position A, blending with the extremely slow durational processes of sounds in the speakers at B, C, D, E. From 06:30 a composed bird song soundscape from Himdalen, from another time (May 2017) slowly appears. This displaced and altered reality adds to an uneasy yet naturalistic atmosphere, and this soundscape gradually is transformed to the actual soundscape of the site as dawn breaks over the valley, ending 07:10.

Breakfast porridge, coffee and bus departure at 08:00, back in Oslo at 09:00.



Himdalen map with position references.

LISTENING POST

The listening post was on the ridge, lit up, on the opposite side of the valley, with an unimpeded view down to the base camp outside the gate (M on the map above). An mp3 player was hung up there in a bush, with two headsets. A sheet of paper with a list of the sound files was also hung up. The nine sound files consisted of two to eight minutes of speech that I had recorded, in Norwegian. They are texts from reports, articles and thoughts on storage, communication and time. The sound files were: 1. Irradiated fuel, 2. History, 3. Intermediate storage, 4. Nature's nuclear reactor, 5. New facility, 6. Radioactivity, 7. Radioactive waste, 8. Time perspective, 9. Inspection.

Please refer to grey box at the beginning of this chapter for a link to the audio files.



1.



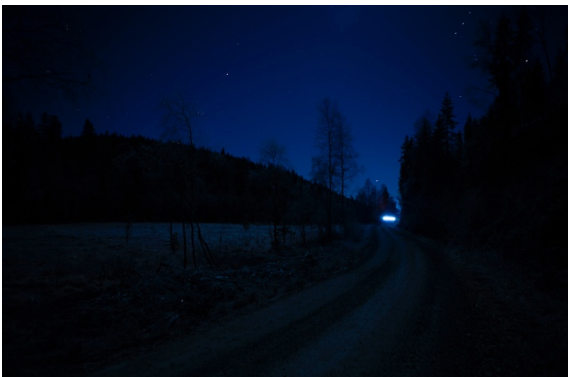
2.



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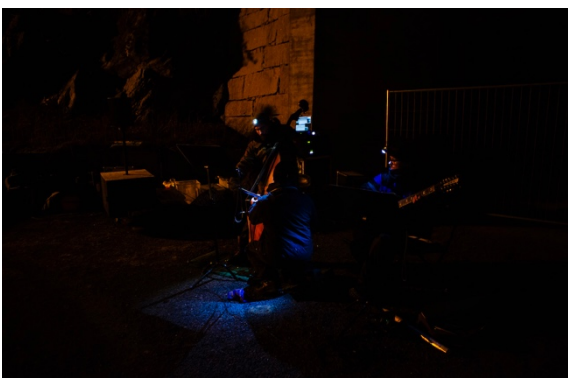
4.



5.



6.



7.



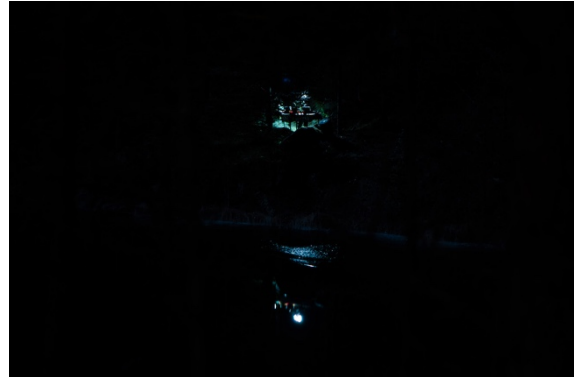
8.

1. Himdalen at small road east, between position B and position C.
3. KLDRA position A towards ch 3
5. Himdalen road (Vinlandsveien) southwards between position A and position F
7. Himdalen position A. Guitar: Ole Martin Huser-Olsen, Bass: Christian Meaas Svendsen

2. Himdalen from main camp up towards M.
4. KLDRA position A towards ch 1 and 2
6. Himdalen position A. Guitar: Ole Martin Huser-Olsen, assisted by Knut Olaf Sunde
8. Himdalen position A. Organ: Jonas Cambien



9.



10.



11.

9. Bråtatjenn acoustic scene part II heading position J to the left
11. Bråtatjenn acoustic scene part II position I



12.

10. Bråtatjenn acoustic scene part II heading position H
12. Himdalen main camp A late at night

TIME AND MANOEUVRING

The very act of moving about in the local terrain with inadequate information is also referred to in Eduardo Sánchez and Daniel Myrick's mystical horror film in the documentary style, *The Blair Witch Project*¹⁵⁷, and in Andrei Tarkovsky's *Stalker*, where the title figure guides two others to the mysterious Zone "[...] [a] place of refuge and sanctuary. A sanctuary, also from the cliché."¹⁵⁸ Frank Darabont and Angela Kang's post-apocalyptic zombie TV series *The Walking Dead*¹⁵⁹ (2010-present) modestly said puts human beings to the test with permanent, imminent mortal peril and chronic resource scarcity, while John Hillcoat's inexhaustibly despairing, black and beautiful portrait of a post-apocalyptic, hostile, joyless, toneless, cold, grey and dead dystopia with no future, the filmization (2009) of Cormac McCarthy's *The Road*¹⁶⁰ from 2006, dwells upon and simply exists amidst the impossibility of maintaining a constructive role as a parent when absolutely everything around you has come undone.

The night is important. Our biological clock makes most people tired; the body is programmed to sleep. In Himdalen, the audience is free to lie down and rest a little, possibly sleep but perhaps not deeply; drifting back and forth between being half asleep and semi-conscious. A diffuse perception of time sets in, and the distinction between dream and reality, the sleeping and waking state, is obliterated.

Duration is important for the same quite concrete reason. The idea is to take away the possibility of listening and paying attention to what I may call 'sentence elements', motifs and variation, and to prepare for a more trance-like listening state. The duration opens up other spaces for reflection, several in succession; there is time to let the thoughts wander, travel with the ears, to establish one's own whole world of imagination on the basis of



Access tunnel. From tour May 2 2018. Photography beyond the gate at the end of the access tunnel was not permitted.

what is heard, what happens, what is bodily felt. Resistance, discomfort, relief and rest, faced with the inconclusive situation and its openness play along with the freedom to explore the area as wanted.

Many years ago, I had an idea for a Dionysian whole-day-and-night continuous listening festival in the forest. This idea was at the back of my mind when planning Himdalen. In the meantime, I developed problems with my right hand, my working hand on which I depend, and had to have some surgery. This meant that the tight time schedule had to be changed. In several stages the project was postponed, affecting the time of year and as a consequence affecting the possible materiality of the audio material.

I was satisfied with placing the concert in November, which is dark and cold. The leaves have withered and fallen from the trees, which stand naked and brown. The landscape is dead, ready for winter. The vegetation is thus also more open, the sound carries better. At night the temperature is normally lower than during the day. The air is often calmer, more stable, it sinks down, lies at rest. This will favour the diffusion of the sound in the landscape space. The Himdalen valley is very narrow around the KLDRA portal, around 45 m at the bottom, with around 50 metres difference in height, and roughly speaking 250 m wide at the crest of the ridge. This produces a nature-close acoustic environment.

The weather is a variable that follows from my statements. It is as it is, conditioned by the place, the time of day, the time of the year, and meteorological variations. You have to accept that: relate to it, not pretend it isn't there, isn't a part of the work, of the experience that colours it.

One of the premises of the work is *presence*. The body must be there. You must be able to sense it, sense the time, feel the weather, the temperature, the smell. Sense and hear the sound waves in precisely *that* landscape space. The work makes use of a quite particular landscape space, and you have to be *there*, move on, walk, doze, navigate in both time and space, experience it. This is because the brain experiences and remembers and associates by means of mapping, as explained in more detail in the chapter on cognition.

Experiencing this kind of work requires a discipline, an effort to make a connection, a sacrifice from the audience (of comfort, of other uses of one's time). An investment, if you like. This is related to Alan Kaprow's first happening *Eighteen Happenings in Six Parts*¹⁶¹ (1959), which were events over six days rejecting a narrative structure and audience/performer division that involved risk, excitement and fear, encouraging the audience to make their own connections between material and idea.



Survey in Himdalen Oct 30 2018. From left: Bjørn Erik Haugen, Morten Minothi Kristiansen, Jøran Rudi, Knut Olaf Sunde, Mattias Pollak.
Photo: Henrik Beck Kæmpe



Production map Himdalen detail A.

ENCODING DNA

How to go about when the need is to communicate over extreme, vast timespans? Could the durational take on musical materiality, with tiny, slow changes be transferred to DNA encoding? I followed this string of idea. The plan was to include this visually in Himdalen. A thought was to suspend a very large sheet across the road to project onto. An easier alternative was to use a 3 x 2 m screen to project onto. In the end, I dropped all plans of such a video element, both in lack of production time and in lack of a thorough reasoning on the function of this visual material and what other visual material to include. Instead, I decided to do the lab and DNA manipulation scene in the film on Himdalen. Here follows the regenerative reasoning.

What is the most stable information-carrier in a very, very long-time perspective – let us say two hundred thousand years ahead – as far forward as it is backward to around the time *Homo sapiens* established itself as a species? We must allow for the possibility that all systems will have been broken down. Language is continuously developing and will be incomprehensible in the course of a few thousand years. As long as expertise in linguistic history is available this can be solved. But we must allow for the possibility that such knowledge can be lost. Physical markers are a possibility, but they will be worn down, eroded and covered up by weather and vegetation. Objects

in hard materials such as stone, shell or ivory have turned out to be able to endure very long with inscriptions, but this requires relatively well protected storage. The disadvantage of this is accessibility – finding them again when you do not have a map, when you do not know what type of materials you are looking for, when you do not have the key to the objects or what might be inscribed in or on them. All solutions with concrete information are highly vulnerable. The more concrete the medium, the more contextual knowledge is necessary to understand the information.

Symbols are more enduring than actual language. Symbols stands for something else, represent something, have value as transfers of meaning, and can have more general qualities which may survive. Symbols have survived in mythological narratives, but they are susceptible to far too concrete interpretation, especially if the surrounding society is focused on images, as ours perhaps is, compared with other historical epochs. The concrete overshadows the transfer value, which remains hidden from us.

Nature's own regeneration¹⁶² is perhaps the most stable kind. Nature uses natural regeneration as its storage solution, constant renewal and adaptivity for its slowly evolving permanence. This is perhaps the most reliable carrier of information there is in the extremely long term. The longer the time that has passed, the farther away from the original you have come in a process which for long periods does not have so much change; in other periods it shifts more sporadically, more rapidly, but compared with our bodily perception of time it is still almost constant from year to year. Nevertheless, permanence is temporary.

If one could encode a message in the DNA of organisms, the DNA, if the species survives in the evolutionary process, would be passed on to ever new generations. Then the code would exist even if future mutations could alter it, mess it up more or less – we do not know. It would remain for future intelligent life to find the key to decoding the DNA. That would be difficult, but not inconceivable. We have found it, after all. It is a long shot, clearly. But what if it is the best we have?

The nitrogen bases A T C G form the base pairs in the DNA molecules. The ordering and sequencing – in threes – of the base pairs is the information code which specifies the sequence of amino acids necessary to form a protein. A single gene can consist of between 150 and 1 million such bases. The genes follow one another as codes in the DNA molecule, which joined together make up chromosomes. In human beings there are between 86 and 2968 genes per chromosome, and we have 23 chromosome pairs. Around 95% of all DNA is non-encoding. At least this chunk does not control the formation of proteins – that is, the development of the actual material of an organism. Some of it has been found to have other roles. But there are still many 'empty places', or else we have not yet discovered their function.

Is the placing of biological material with encoded type messages of some kind a plausible way of communicating, warning of, marking a storage site for radioactive waste – in an artistic context? Biological material which would regenerate in the habitat, with positions encoded?

I must point out that the complex at Himdalen does not contain, nor does it need to safeguard long-lived or dangerous waste. In Norway there are two research reactors (as per 2018), but no nuclear power stations. For that reason, the volumes of waste are small. Most of what ends up at Himdalen comes from hospitals, research and industry. All the same, the place has transfer value and activates issues of communication, especially over an extremely long timespan. I contacted Dag Undlien, a Norwegian biologist, physician and professor of medical genetics to discuss the idea of and possibilities for binary encoding of non-encoding DNA in various organisms (genetic manipulation). It is fully possible in restricted use in laboratories, but strictly regulated. Genetically modified organisms, on the other hand, can only be released into the environment after approval by the Crown.¹⁶³ In the decision on the release of material "*considerable emphasis must also be placed on whether the release has social utility value and is suitable for promoting sustainable development.*"¹⁶⁴

At Himdalen the vegetation is typified by much pine forest. Biogeographical calibrations of fossils show that pine DNA has one of the lowest silent mutation divergence rates among plants. Calibrations place the origin of *Pinus* at 190-102 million years ago.¹⁶⁵ What if one encoded a sequence in pine DNA, which uses nature's own information storage channel – the regeneration of the organism – and which has a low risk of mutation within the necessary time perspective (which is up to 200,000 years)? I discussed such ideas with Anne-Marte Bakken Kran, who is a physician and scientist in microbiology at the Oslo University Hospital Ullevål. How would it turn out, how would it look?

How does one design the key not just to this code, but to the structure of language, to where one must search how it is to be decoded technically speaking, and the context for the interpretation?

A	AAA	T	TAC
B	AAT	U	TTA
C	AAG	V	TTT
D	AAC	W	TTG
E	ATA	X	TTC
F	ATT	Y	TGA
G	ATG	Z	TGT
H	ATC	-	TGG
I	AGA	.	TGC
J	AGT	o	TCA
K	AGG	1	TCT
L	AGC	2	TCG
M	ACA	3	TCC
N	ACT	4	GAA
O	ACG	5	GAT
P	ACC	6	GAG
Q	TAA	7	GAC
R	TAT	8	GTA
S	TAG	9	GTT

CONTEXT OF CREATION

In the daytime, in the city, it proved difficult to actually draw up the material. It must have been difficult to step outside, to get into a kind of durational mode. Unfortunately, my workspace at the time closed down completely without access for anyone as early as 22.00 and earlier in the weekends, and I could not move my studio home. I was prevented from working at night back in the city.

I had to isolate myself, to create more time and space to draw up the material. I have had the disposal of a cabin in the mountains, above the timberline. There, time is open, the landscape is open, and I can work all night and all day as much as I like. This has helped me to develop a state of mind that on the whole let me create the work. The context of creation had to be of a character that contributed to the composition of this music. It might be obvious, but the music is wholly dependent on who the composer is, when and where the composer lives and works, *has* lived and worked, what the composer knows and does not know. When working with Himdalen I was influenced by several composers regarding the audio material, perhaps especially with the concept of information density speed in mind. I can briefly mention Roland Kayn's cybernetic work *Tektra*, Éliane Radigue's *Adnos I, II, III*, La Monte Young's *Just Charles & Cello in The Romantic Chord* and his *The well-tuned piano*, as well as David D. Dunn's *Espial*. There is of course more. The influences are numerous, countless. They comprise all the artistic experiences and knowledge acquired until now by each and every one of us. I keep remembering and forgetting works and artists and composers that have influenced me.

Einschub: July 27, 2018

I need to know exactly what to work with, before I can actually start elaborating the material. Now it is four months until the Himdalen concert. I shall make about 12 hours of music until then. There are four weeks I cannot use for creative work (I have to do four-channel audio mixing for Mirnyj, allow time for production meetings, continuous writing-down of reflections, making film sequences, meetings and courses, as well as bad days, sick leave, living a family life with two children and so on). Basically, I have to make 1 hour of sound a week. Everyone making music knows that is more than a lot, close to impossible. This timeframe is now part of my material –fundamental raw material for my work. As it happens, the basic sound ideas for the project have all along circled around long timespans, monotony, single processes and so on. And I have striven throughout this project to resist the inherent, acquired, learned reflex to vary, always vary the material.

These are the details that eroded composing time, as well as absorbing and drowning out the need for overview, keeping the actual sound processes of this project simplistic. One of my biggest challenges, as regards craftsmanship, has been precisely to trust the material, to dare to maintain monotony, really to use time as a material. But now, over the coming months, I simply have to. I have to view the very limited time as a friend, as part of my material, contributing to what the end result will become, to work with audio material, processes, technical solutions and artistic choices that are possible to realize in such a short time, also in practical terms. I must maintain a close relationship with the technical producer, and Notam, producing the project, avoiding a bureaucratic production line, and at the same time keeping a close eye on the limited budget. I have to husband my time, not get absorbed in meetings and technical decisions. This will also be a study of how to conduct such a project. I am dependent on good collaboration with everyone – just to make it happen as smoothly as possible, but also so the collaboration will be pleasant.

DOCUMENTATION OF HIMDALEN

Himdalen is a sited, temporal, spatial, performative and immersive event. It might well be the only performance of the work, although new performances on the same site is desirable. Given the ephemeral and spatial essence the question of documentation is difficult. Situational art, actions, spatial audio, created situations or as here, Land music, is notoriously not only difficult, but problematic to document. *Himdalen* evades the possibility of documentation in similar ways as to performance art and relational art, and cannot be fully grasped by proxy material. The *experience* of being *there* is not possible to document. The experience of the tactility of the site, smell, dirt, crisp air, uncomfortable seating and sleeping, unspoken companionship among the few, interactions with looks and nods, conversations between audience, musicians and other crew, the act of eating and drinking – all the *contextual* experiences surrounding the mere impulse of frequencies – and what this does to you as a listener – is not possible to document. The spatiality and the way the sound propagated through the air and vegetation in the small valley cannot be documented. The experience is what is happening *between* the auditory material, *between* the facts and descriptions on how the work is organised. The work is the organisation of possible new neural networks and

connections. Walter De Maria says about his “Lightning Field” that *the land is not the setting for the work but a part of the work*. He also states that “[n]o photograph, group of photographs or other recorded images can completely represent *The Lightning Field*”. For *Himdalen I* add that no audio recordings, no collection of facts, no notation, and no film footage can determine its aesthetics or completely represent the work.

That said, there exist complete production material for another performance at the same site. This physical material combined may be called *notation*. But browsing the notation may only suggest a vague idea of how the work will function at the site. A documentation of the event, how the actual musical work functions at the site, as a kind of object, cannot be made and does not exist as such. A report of the event exists though, in the form of a review written by Rose Dodd.¹⁶⁶

Instead I decided on another approach. With audio recordings and film footage from the event, I could collect material to create another work, a reinterpretation that is separate from the original ephemeral event. The choice is influenced by the 35 min 16 mm film *Spiral Jetty*¹⁶⁷, edited by Barbara Jarris. Robert Smithson’s iconic *Spiral Jetty* (1970) is an example of 20th-century Land art integration of format and context – moulded earth inscribing itself in the terrain. The work itself is world famous and widely analysed. The film is a kind of portrait or semi documentary, an offspring as a separate artistic statement. It can be seen at Moderna Museet, Stockholm. The film starts off with a sun storm and a brief associative review of the history of the Earth. A car drive en route to the site, filmed book pages with a map of the Great Salt Lake, a bookshelf with referenced books; more driving, a dinosaur skeleton, a steady voice-over. Filmed along a map closing in on the locations, with technical measurements and a reference to Bingham, it poetically describes the location of the site. The conditions of the soil and the algae colouring the water are mapped out, and then comes the construction of the Spiral Jetty. The sound is characterized by noise from construction machinery and a long scene filmed from a hovering helicopter following Smithson as he runs stumbling along the spiral; then the helicopter climbs and we zoom out to a medical description of sun-stroke. The film evokes the grounding of the concept, managing to activate a sense of remoteness, and shows the construction, the scale and how it can be experienced.

Cinematographer Mattias Pollak was part of the crew to film parts of the event. I had invited him to collaborate with me to make an independent film *from Himdalen*, based on the event, but not as a documentation. Together we planned which parts and positions to prioritise. He was also responsible for lighting together with photographer Henrik Beck Kæmpe. The lighting was planned based on function, economy, effect and needs for film shooting. We planned the film in advance to be a separate work with audio and visual material from the event. In the early ideas I had planned to include projection on either a large screen or the storage portal. The only scene that I had had the chance to more or less work out was a DNA manipulation scene in a laboratory. I decided during the autumn 2018 to simplify *Himdalen* and not include projection. Mattias and I decided to include this scene in the film, clearly separating it from the concert. No audio material that was not present at the event is included in the film. I mixed and edited the audio recordings, occasional camera sound and preproduced audio files. Mattias and I had a close dialogue on what parts could be included, what had to be synced, what did not have to be synced, based on desires and practical decisions from available recorded audio and film material. Musically, it was challenging to try and condense durational sections of slow progress from different but not all parts of the event, to a new musical work in one stretch. This is a recontextualization of the material into another format, adopting the distinctions of the film medium. We decided to keep the film shorter than about an hour, to enable it to be presented in more practical contexts. With this approach it was possible to leave the ephemeral work where it was, to not break the inseparable relationship to the site and to the immersive performative interaction the audience formed an important part of. The event is thus left to do its work in the memory of those who were there.

However, I have planned to use edited sections of the audio material from *Himdalen* as a release of durational music. The thought is that this will emulate at least the essential durational feeling of the work.

Himdalen exists with the following physical material – its *notation* together with documentation and a film:

- Production material (notation)
 - Musical score for the acoustical scene
 - Production plan
 - Storyboard
 - Audience map with a text mapping the site
 - Sound files for the listening post on the hillside
 - Extension sound files of acoustic instruments
 - Audio files of electronic sound material
 - Crew information
 - Technical rider
 - Maps, facts, descriptions
- Photographs from the event by Henrik Beck Kæmpe.
- Extended double M/S audio recording from position A by Jøran Rudi

- Partial stereo audio recordings from the acoustic lake scene
- Reflections on the work, which is the chapter on Himdalen in the Reflection text, part of the artistic PhD
- Concert review written by Rose Dodd, published in Seismograf
- A 50 min independent film from Himdalen by Mattias Pollak and Knut Olaf Sunde

INSIGHTS

One purpose with the project was to challenge conventions. Himdalen exceeded the limits for how far the institution was willing to go, as far as 'Health, Safety and Environment' were concerned. The Norwegian Academy of Music waived any liability, neither taking part in the production, nor requiring the assessment committee to attend the performance. As a result, only one out of three committee members were present. At this very point, different and mutually exclusive agendas met. This is a specific example of the ongoing judicialization of society, intervening with artistic research. This is a finding and could be a good starting point for a thorough discussion of which interests should prevail in which contexts. To what extent should external considerations – be it practical or political – limit the scope of possible artistic ideas and research outcomes? To what extent are artistic ideas today, in different societies, conformed to available – legally or practically – formats? Where is the limit of artistic freedom? How differing is the interpretation of this limit in different art forms?

PRACTICAL LEARNING POINTS

The sound files were synchronized with clocks and decentralized media players that had to be started manually. It would have been technically possible either to connect up sound cables or to programme an interface for wireless synchronization, but this had to be rejected for reasons of both economy and time. The solution was to plan the audio material according to the available playback equipment as follows:

At position A the distance permitted the connection of all four speakers to one mixer and computer. The sound material here was 4-channel files in a DAW (digital audio workstation) on the computer. For the speakers spread over positions B, C, D and E we had drawn 240 V from a fuse box and there was power we were able to borrow from the actual system of the Institute for Energy Technology in order to run such relatively power-hungry equipment. We did not have the option of drawing cables for sound signals. Each of these speakers was connected to a clearly marked media player with a memory card with mono files for that specific channel, and a mixer. At several points these four had to be turned on or off at the same time. Perhaps we would have been able to use large memory chips and let the media players run continuously with silent intervals in the quiet periods. But the assessment was that irrespective of this it would be safest to re-synch these along the way because of the risk of losing synchronization as a result of the small differences in the playback speeds that such equipment can have, especially if affected by cold and moist, which we could not predict. This kind of equipment is not necessarily designed to play 100% in synch with other units.

The clocks had to be set in advance. Each of the crew had a clock, and everyone had a schedule with clock times, positions and actions. It was a challenge that the clocks turned out to be hard to synchronize. When you pressed the button to reset the clock time, it was reset to the nearest second in an internal counter, unlike if you started the actual stop watch function (in which case it started exactly when the button was pressed). We could have used the stop watch function, but by then everything had been planned and printed out with clock times; it would be too complicated to relate to or work out new numbers for timing, and there was no time to write about and print out new material. Instead one person had to rehearse and test the clock synchronization to allow for the internal (unfortunately individually set) timer in all the clock units, until they were sufficiently synchronized.

From the listening post with sound recordings of me talking about radiation and the handling of waste and about the naturally occurring reactor in Gabon two billion years ago, you looked down at a small group of shivering people trying to keep warm through the night around two fires. They stared into the flames outside the concrete portal of the eternal refuge. This is far from populated areas: it is desolate forest – bare, cold, dark night. The experience changes radically when navigating in the terrain. The diffusion of the sound is closely connected to the body's specific position. You use your ears to get your bearings, to map the terrain, to experience the place.

The monotony borders on stasis. Time is nevertheless used as an important instrument for avoiding stasis. The small changes just take place over such a long time. This meant that things did not stand still at all; that would have been intolerable. The level of intensity kept the situation tense all the time, according to the levels I wanted through the course of the hours.

The totality functioned well. The overall shape of the intensity curve kept up one's interest all the way without becoming static or unbearable in a negative way. Even the part between c. 03:40 and 06:30 kept this up, and in the right context, i.e. the time of 'day', the sleepest part of the night. I had tested listening to this part several times in daytime and thought it was far too hard. But at night during the testing I had sunk into the chair and just existed with the sound, accepting it and experiencing that it held up. I had chosen to stick with the nocturnal experience and rely on the material, on the idea. I chose rightly in this.

We should have tested and prepared the lake sequence better. The guitarist paddling out to the island in the lake worked fine, but the musician should have had time to paddle over and test the sequence before it was part of the performance. Then he would not have had to search for the landing place, and would have noticed the missing amp cable in time. If we had managed to practice this, the planned time window for getting there would have been enough. But as things went, it was too little. The musicians arrived at Himdalen with the audience bus, and we did not have the canoe during the inspection some days before. All the same this sequence worked well, I have been told. As for myself I am easily annoyed by such shortcomings. In addition, we in the crew had to walk halfway through the lake scene to start the speakers at B, C, D and E again. One of the field recorders had not quite started or was functioning incorrectly. Another only recorded half of the session. The third recorded all of it. The assessment of the setup with a recorder by each musician was that it would all have to be synchronized in the work afterwards, without the delays from the sound sources. In retrospect I can see that we could have had one central field recorder standing on a point that recorded it all. Despite this it was possible in the post production to put together the lake scene for the documentation film.

A battery LED lamp made it possible to light up a fairly large area. Practical notion: Take along a Glad pack and tape for packing down the cable sheets in the event of rain. Chargeable batteries should be laid in a Pelicase along with a shoe drier to keep them warm and ready for use. Rather than using tarpaulins, which must be hung in the trees, one can hire a pop-up tent to protect the mixer and large speakers from rain, although the aesthetics of it might not add up. Also, it is important to be clear about what the crew must and can say to the audience. This was communicated, but not clearly enough.

If there had been cold rain at this time of year, the performance would have been different. We did have rain protection for the equipment, but very little for ourselves. It would have been tough going.

At one point the speaker at C stopped playing and I was called up on the walkie-talkie by Morten Minothi-Kristiansen, who had discovered it. After a little counting and testing of the actual behaviour of the media player I gave him instructions on what he should set it to, and when he should start it so that everything would be synchronized again. Walkie-talkies and a detailed and clear 'storyboard' that I had with me all the time were very useful.

My assessment is that this work functioned better than I had anticipated. I was tempted to vary, but I stuck to the monotony. The acoustic landscape space was exploited. The terrain around us with its different locations was used, and the audience found its way around in it. The base camp functioned as a chilly camp where a few people tried to keep warm in front of a clearly present gate to something. They knew what it was, something abstract and intangible, but they were not allowed to see it, and they did not have access to it – in other words an 'adython'. Everyone was free to do what they wanted, yet they were nevertheless linked together in this situation, in collective listening, each reflecting separately but with the same external information. An abstract, magical situation was established in close contact with the place, which aroused associations. The work required the body to be *there*.



Ongoing synchronization of clocks.

¹⁵⁴ Steinke, 2014; House, 2014.

¹⁵⁵ Vahr et al, 2015, p. 3.

¹⁵⁶ Madsen, 2010.

¹⁵⁷ Sánchez & Myrick, 1999.

¹⁵⁸ Dyer, 2013, p. 48.

¹⁵⁹ Darabont, Frank, & Kang, Angela (Directors). (2010-present). *The Walking Dead* [TV-series]. New York, NY: AMC. 42-67 minutes

¹⁶⁰ Hillcoat, John (Director). (2009). *The Road* [film based on book by Cormac McCarthy]. 111 min

¹⁶¹ Bishop, 2012, p. 94.

¹⁶² Regeneration, from Latin *re-* “again” and *generare* “bring forth”, “produce”, from Proto Indo-European **gene-* “give birth, beget”.

¹⁶³ Norway is a constitutional monarchy with the world’s second-oldest constitution, which is still in use. In legislation ‘the Crown’ is therefore still used as a concept in the sense of ‘the King’s Council’, although the true meaning has long been ‘the Government’.

¹⁶⁴ Genteknologiloven (The Gene Technology Act), 1993.

¹⁶⁵ Willyard et al, 2006.

¹⁶⁶ Dodd, 2018.

¹⁶⁷ Smithson, 1970.

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OUTLOOK

Site Awareness in Music is an artistic research project attempting to contribute to a better understanding of the cognitive and social terrain of music. It could be summed up as investigating the connections between music and social and actual siting, as well as how these are connected to our memory and cognitive perception of the world around us.

FINDINGS

To me bodily presence, bodily reactions and emotional experiences have been crucial points during the project. That is because I find that they create stronger neural connections – and thus memories – than theoretical experiences. Memory spins an extra strong network of emotional and personal experiences, of events where the self has in some way been involved. And even more so when strong impressions and deviations from a norm are involved. Movement also contributes to more immersive experiences. I think this suggests that the field of Land art pins down something more than a conceptual, theoretical problematization of conventional art spaces. It rather opens a path towards immersive experiences and perhaps something more connected and memorable. An activation of context and site in music stimulate our individual future planning. To me, an artistic consequence is to engage in site awareness when conceptualizing music.

We learn better what is repeated. Phenomena appearing repeatedly seem cognitively more important and necessary to handle skilfully. Also, the brain needs zones of a kind of *standby mode* to process and sort out information. The standby mode is a zone of free flow, of wandering thoughts and of simulation of the future. This zone is precious and needs time to appear. Such a time to *space out* seems to have become scarce in many of today's modern societies. I think some kinds of music can function as such zones. One artistic consequence could be durational music with carefully calibrated information density speed.

Exploring *zones of uncertainty* sharpens perception. Intriguing, unclear and inconclusive situations sharpen our senses by putting something at stake. Therefore, I think working with deceptive information is a way to urge connection and engagement. Transgressing predetermined formats is one path to expand the field and contribute to diversity. An interesting finding in this respect is that *Himdalen* exceeded the limits for how far outside pre-conceived formats an institution would go. This was based on a judicial judgment of 'Health, Safety and Environment' regulations. An unfortunate consequence of this was that the Norwegian Academy of Music would not require the assessment committee to participate in what I consider to be the project's most important work. I know that other institutions have accepted similarly challenging artistic projects for assessment. This finding supports the assumption that the music scene is more traditionally oriented and less inclined to explore new formats than for example the field of visual arts. At this very point, different and mutually exclusive agendas met. This turn of events, however, represents a good threshold for a thorough discussion of which interests should prevail in which contexts, and thus a contribution to the discourse on where the limits for artistic freedom are.

Seemingly benign and 'objective' structures such as concert halls, festivals, financial means, calls and regulations are to a large extent coloured by contextual tradition. In effect, such structures limit the available scope for ideas. Of course, limits will always have to be placed *somewhere*. The exact placing in each instance, however, could benefit from more considerate discussions. I think different challenges of the conventions surrounding *format* and *context* could be more welcomed.

Production spaces, festivals and institutions are increasingly profiling their undertakings. While profiling often is perceived positively and more communicative, a risk is that the composers and artists that are actually producing the content are regarded more as suppliers of material supporting the profile. As such, one consequence is moving the *artistic idea* down the value chain. I do not have concrete suggestions for counteracting this tendency, other than appealing to place the *artistic initiative* at the composer/artist and raise the *artistic idea* further up in the value chain again.

CONCLUSION

I have become much bolder, artistically, than when I started the project. I think I have developed a method to be clearly more confident in the *artistic idea*, combining the ability to stick to the idea and switch positions to observe the idea from different perspectives. I am, to a larger extent, capable of developing large scale conceptual works in consistency with content and context.

Control over the entire process might improve artistic consistency on one hand, and might decrease artistic outreach on the other hand. Project design should be differentiated to be beneficial for the project at hand. It remains to establish a fundamental mode for devising beneficial project designs, and how and to what extent this would involve institutions.

I think there is a huge potential for conceiving new works that actively engage with, are informed by and inscribe themselves into particular sites, by any available technological and/or artistic means, to be articulated individually or collectively in performative situations. The project points to the potential inherent in a reorientation of format, context and time. There is, however, a lot more work to do.

Artistically, I would pursue this line of development of musical materiality *artistically informed* by particular sites, rather than musical material *transcribed or derived from measurements* at particular sites. In my view, the project opens for more radically conceptualized and connected works. There are situational aspects from *Himdalen* that I would like to develop further, of created situations, questioning social terrain in a kind of obscure maze to submerge the audience. Another is pursuing a sensation of another place, mostly down the line from *Mirnyj*, in works that reveal an intermediate terrain – landscapes of desolation and conflict – probably as musically based films. I would, however, try to respond more clearly to the landscape, and enable for more immersive spatialization. A third line to follow is durational music, to confront and connect to existing performance structures. A fourth line to pursue is the documentative, mapping and collecting of soundscapes, perhaps enabling future archives.

Research wise, I regard that the combination of durational music and Land music could be entries to a type of work – an attitude, so to speak – that have a fair potential for an opening up of both physical and mental space for cogitation. I have focused on a musical and artistic, conceptual side, rather than a more technical approach to psychoacoustics. This has been fruitful to me. But a more thorough understanding of the two will create a better basis for creating precise works in the future. The crucial element is to know more about the effects, applied artistically, to immersive, sited, durational musical works.

Working with this project has been an intense, hard and rewarding journey. I am utterly thankful for having had this opportunity, and I hope I can pay back by making strange, inscribing and intriguing works to be experienced by a broader audience in the future.

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Knut Olaf Sunde
Oslo, 16. September 2019

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