From Landscape to Music Notation:
A thesis that depicts my compositional practice
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Veronique Jacques
Kt.: 2901864479
Leiðbeinandi: Einar Torfi Einarsson
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Abstract

The intention of my work is to express in a musical composition a created poetic link between what I see, hear and feel in a chosen natural environment. I define my creative process of composing as a flexible approach based on landscapes which become the source of chosen musical parameters. This approach is stepped and contains multiple different perceptions of untouched nature. In the works under consideration I used landscapes as the inspirational groundwork that guided me through the process of writing music. I researched man’s relationship with the wilderness through the ages which brought to me awareness of the evolution of that relationship and cultural associations which might shape my own understanding. To counterbalance my subjective and possibly romantic feelings I relied on geologic and geographic facts of the landscape under study.

To translate a landscape into music notation, I developed a work method consisting of exploration of that very landscape through field work and cartography thus gathering material and data for use in the composition. I extracted an abstract representation of unspoiled nature of that very landscape and created from it a time progression for a piece with structural events. Since nature does not contain musical information but has soundscapes, I have relied on informed intuition and maid aesthetic choices to produce the music. I have developed my music language through techniques and articulations of orchestrations with a special intention to research textures and developed timbre. I have also built on the concept of a zoom-in process that Tristan Murail and Kaija Saariaho have presented in their works. This thesis brings forward examples of my works on landscapes which become the core of my discussion: the ensemble piece Fell, the orchestral work Rift and the Violin Concerto Sceadu.
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Introduction

As a composer of instrumental music I have search for a work method to guide me through the complex process of composing. I have found that working from a concrete source helps me to organise my creative work process and generate the form of music I desire. For this thesis I found my material in unspoiled nature. I chose unspoiled nature for its richness in details, its complexity, its contrasts and the ever-changing sensation it evokes. I chose not to work with a man-made source because of its predictability and as it does not have the same qualities of experience as I sense from landscapes. I find that there are similarities between scanning a landscape through sensation and experiencing music as I imagine both these features to be a single continuous event. To realise my thoughts on music I needed to obtain understanding of my material. In this thesis, I will describe the work processes of Fell, Rift and Sceadu by taking examples of the many steps involved in its creation.

I began with researching the anthropologic field concerning man’s relationship with the wilderness and how it has evolved over time. It brought to me awareness that the relationship has been perceived as either very harsh or contrastingly very grandiose. It is not my intention to depict in the music I compose a sentimental relationship with nature. Rather, I try to perceive nature as objectively as I can but then create an abstract representation of that perception. I am aware that I am under the influence of my own cultural associations so to counterbalance that I lean on geographical facts which give rational features of the landscape.

In the second chapter of the thesis I describe the process of choosing a location for translation in to musical parameters. The process builds on landscape mapping and field work where I gather data, such as photographs, sketches, recordings and geologic specimens which pertain to the formation of the landscape. I then explain how I analyse the
data through graphs, sketches and how I create an image of temporal progression from cartography.

In the third chapter I detail external influences on me from the composers Tristan Murail and Kaija Saariaho and aesthetic choices I make in the process of composing. This led me to create a form and pitch material inspired by spectral music. I apply the Murail’s and Saariaho’s concept of building tension which is released through time and expanding the pitch material with the overtone series. I have developed my music language through techniques and articulations of orchestrations, with the intention of researching textures and developing timbre. In continuity with the zoom in process I try to put an emphasis on transitions in the sound itself, as it gradually transforms from sound to noise. This emphasis results in a highly-detailed score which is my main communication with the performers. My aim is to notate the score so it creates imagery and awakens memories that can be interpreted by the performers and shared with the listeners.
1. Landscape: Anthropologic Thoughts

In this chapter I illustrate the different prevailing views of the populous towards landscape and unspoiled nature by era and compare it to my own views since landscape is at the core of my compositional practice. My intention is not to justify any one view but I cannot dismiss the fact that cultural history of our relationship with nature may have a subconscious effect on my experience with unspoiled nature. I will also touch upon the new field of recording nature as practiced by Chris Watson and how it has influenced my approach to music creation.

A landscape is what our eyes see from a distance. It is our perception of shapes and colours on the horizon and it involves all our senses and our memory. Our memories are influenced by convention and culture and they affect the way we perceive and interpret the land. Through history, our natural environment has influenced our living and cultural symbols of the natural world are within our identity and are also a part of our language. Unspoiled nature has inspired civilisations and it has been materialized and personified throughout history. Its influence is found in religions, architecture, visual arts, literature and music to name but a few examples.

From the middle ages to the early 18th century, wilderness was described as a place of hostility and unpredictability. It was a deserted and dangerous landscape for the one who dared to enter it. From this era there are stories, poems, legends and numerous descriptions that depict a harsh relationship between man and nature as he ventures into a dangerous journey in the natural world. The Icelandic Highlands illustrate this interrelation since the early age of the settlement and it has been described as a place where “man was tested to his limits and often lost.” Three words describe “Icelander’s sentiments towards

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the inland ³: “óbyggðir”, meaning “uninhabited area of land”, “óræfi”, meaning “wasteland” and “viðerni” meaning “a land of distant views.”⁴ Similarly, most folkloric tales⁵ from my native region Quebec, Canada, are linked to solitude, craziness, evil temptations – or temptations from the devil when it comes to religious matters - violence and frightening creatures from another world. However, by the end of the 18th century there was a dramatic change in perception of landscapes. Landscapes became to be perceived as grandiose or sublime and carried with it romantic images and powerful emotions⁶. Going to the countryside became associated with upper economic class, primarily the elite. The elite took to travelling out of town to experience the wilderness as a spectacle, a place where one could admire and enjoy the beauty of nature and the scenery. The wilderness was perceived as a form of entertainment, where one could enjoy hunting weekends and summerhouses, in other words the perception of nature was modified and adapted to reflect romantic ideas of the wilderness associated with luxury where all accommodations were on site. From that moment National Parks around the world were constructed to facilitate wellness of human beings.

Now a day we have similar tendencies to describe landscapes with keywords such as: relaxing, wonderful, meditative, rare beauty, emotional, sanctuary, pure just to mention a few. In many ways, it is the same romantic and poetic idea as during the 19th century. We who live in urban areas perceive mostly the “peaceful” representation of nature as we have grown up in a modified natural environment, sheltered from nature’s harshness and dangers. This perception of landscape is named “socionatural system”⁷. That is, Nature and Culture merge in an empirical relationship led by human activity which gives the environment purpose and the meaning. Tourism in Iceland is a good example. The romantic idea of Icelandic nature has attracted people in ever increasing numbers from around the globe so that the land is eroding from the thousands of daily footprints. The sublime has been domesticated. Now we see dualism in environmental thinking as we

⁴ Ibid.
⁵ La Chasse Galerie is the most popular French-Canadian folktale.
convert natural resources into cultural resources by human exploitation; as John W. Bennet said: “Humans exploit and degrade, but they also conserve and preserve”.⁸

Since the second half of the 20th century, there has been a growing awareness off the importance of protecting nature. A new way of preserving one aspect of nature is to record it as soundscapes, a term coined by R. Murray Schafer. We do experience landscapes through our senses and our memory. Adding to that the sounds of a specific location (keynote sounds⁹) through a recording gives a new way to experience and perceive the environment. It relies on imagination and memory but it also brings truly new experiences as microphones can record sounds at places where our ears can’t normally reach. We acquire new perspectives as one can now experience nature sonically. Chris Watson has specialised in capturing astonishing soundscapes from all around the world where recordings catch the atmosphere of unspoiled nature from a new perspective. Hence, Watson has generated a whole new branch of natural perception. Good examples are his works on Vatnajökull and field work in the Antarctica. What is evident in these works as a listener is the sense of space within the recording. One can hear sounds in motion approaching and disappearing, appearing to be slow or rapid, in the foreground with all its detail or in the background with less audible frequencies or sound can be heard as without motion with no indication of time progressing.

In my view, one’s ability to place origin or direction of sound and to sense it’s independent spectral behaviour is the gateway to imagining sound as having a shape, colour, texture or simply being a visual stimulus. In short, landscape can become a soundscapes and vice versa. Sounds form individual layers can be interpreted as layers in a landscape through our memory and imagination. Our sensations therefore always interrelated; hearing touches upon seeing, seeing touches upon imagination, imagination touches upon memory. We perceive landscapes through our mind, through all our senses, as Simon Schama said: “scenery is built up as much from strata of memory as from layers

of rocks”10. Soundscapes have opened a new pathway for my imagination as now I don’t restrict my perception of unspoiled nature to what humans can normally sense but with the aid of technology and my imagination I can expand my perception into a new dimension.

By having unspoiled nature of landscapes as a point of departure and trajectory in my compositions I am not trying to bring attention to only one specific aspect of nature or culture. Rather, I try to work from my experience, imagination and memory. As memory is subjective and perception and imagination interrelated, our interpretation of what we experience is personal with subjective meaning11. Landscapes have become for me an infinite source of material that leads my imagination and intuition as I compose music. Through the development of my work process the lines between experience, material, memory, imagination and aesthetics become more and more blurred. The complexity of unspoiled nature gives my thoughts infinite possibilities of exploration in music.

10 Janowski Monica and Ingold, Tim (ed.). Imagining Landscapes: Past, present and future. (New York, US.: Routledge, 2016) p.2
11 Janowski Monica and Ingold, Tim (ed.). Imagining Landscapes: Past, present and future. (New York, US.: Routledge, 2016) p.2-3
2. From Landscape to Music Notation: My Method

In this chapter, I describe the path taken from the very beginning of compositional process to its performance. In shaping my work method I have combined various perceptions of unspoiled nature, borrowing approaches and ideas from art and science. My creative process has been shaped mainly through three of my works. The first is *Fell*, a piece for eight musicians (flute, clarinet, horn, percussion, harp, violin, viola and violoncello) written for Caput Ensemble. The second is *Rift*, composed for the Iceland Symphony Orchestra (3-3-3-3, Timpani, +3 percussions, harp, piano, strings (min.12-10-8-6-5)) and the third is my graduation work named *Sceadu*, a Violin Concerto written for Una Sveinbjarnardóttir and Caput Ensemble (flute, oboe, clarinet, bassoon, horn, trumpet, trombone, percussion, harp, two violins, viola, violoncello and contrabass).

In these three pieces, one may sense a progression where my method is improved and adjusted with each work. The groundwork for my three pieces is broadly the same but it has evolved each time. It consists of three main steps. The first step involves mapping of the chosen landscape followed by research on history and geography of the location along with collection of data such as photographs and recordings from unspoiled nature. The second step is a creative procedure, where I translated the data and shape it into the structural pieces, that is temporal grid, associations of data and music parameters. The third step is the composition itself, that will be described in detail in the chapter Score and Intention. There I make aesthetic choices concerning pitch material, orchestration and settle on the best way to communicate my ideas to the performers.

**Source: Landscape Mapping**

The first step of my method was to carefully choose a location which had been sculptured with the passing of time so that natural phenomena had marked land and valleys. Once I selected a landscape, I gathered geographic information and began planning what I call my expedition. I brought with me expectations on what I might see
and hear in the location but kept an open mind as field work may bring unpredictable experiences. This mindset towards the environment is found in the theory of Hildegard Westerkamp in what she called soundwalk: the action of immersing oneself into a chosen location with the emphasis to listen to all the sound one accounts. She said: "It opens ears to the sounding details of a place and listeners notice the unique soundscape characteristics of a location. Interestingly enough, aside from heightening aural perception, a soundwalk also alerts all other senses." Similar to her approach I immersed myself in the location but my emphasis was not limited to audible stimulants.

During the preparation, the general structure of the composition slowly took shape. With the use of maps, aerial views and information about the site, I gathered ideas that were related to the form. For example in Rift, I decided in advance where on the map the work began and where it ended which generated a path which depicted progression of the piece. I created my own guidelines for the compositional process. This method has developed little by little through each piece and I feel slowly more confident about the process. Subsequently, I have begun to rely more on my imagination along with the geographical aspect of a landscape as the starting point of the composition. Here are a few criteria on how I select a landscape:

- It must be in unspoiled nature and with a minimal human interference.
- It should have enough resources to analyse, a certain complexity and or irregularity.
- If the location is not accessible, it should have maps available and available extracted material from the area for study.
- The location is not necessarily required to have anthropological information, though most areas do.

My approach to field work and landscape mapping has some connections with the work of archaeologists. As an example, the English archaeologist Dr. Tessa Poller described her relationship with the landscape as a “materialising” relationship. Her work

13 Janowski Monica and Ingold, Tim (ed.). Imagining Landscapes: Past, present and future. (New York, US.: Routledge, 2016) p.8
method “of observing, moving around, recording and measuring the remains of old buildings” remained a rational interpretation of the landscape and it provided her with material. She extracted information from the field without nostalgia or romantic connotation and what mattered the most was the representations of what she collected out of the land, for example “drawings, photographs, images on computer screens, which can then be classified and compared” . This is a professional scientific method of accumulating data in an objective manner. I feel a strong association with her work method because after choosing a location, I gather data in a similar way with the aim towards rationality rather than romanticism. I see my environment as an immense source of material and as examples of how I proceed to work with this material I present three different systems that show how I map a landscape.

Figure 1. Fell, Ömundarfjörður, summer 2016

My first experimentation of gathering data and landscape mapping was during the creation of Fell. Earlier I had decided to gather information during a camping trip for an upcoming project, without knowing exactly what that project would be. I did not focus on

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14 Janowski Monica and Ingold, Tim (ed.). Imagining Landscapes: Past, present and future. (New York, US.: Routledge, 2016) p.8
15 Ibid. p.8
any specific feature of the land but collected as much data as possible. The data ranged from the smallest details such as motifs of form and contrasting colours in the sand to a recording of Arctic Terns fishing in the fjord. I took long walks while I listened and reflected on what feature might have the richest quality for analysing and translating to music notation. It was only once I was at home, with some distance from the subject, that I went through the recordings, photographs and sketches and made the decision to work only from photographs that I took of the mountain chain. But even though I filtered and thus narrowed the landscape by focusing on photographs, I still had the memory of immersing myself in the landscape during my walks. The physical aspect of being there, at that specific moment, with defined colours and textures recorded by my senses existed in my mind. These memories have informed my intuition and influenced my translation of landscape into music, consciously and unconsciously. This aspect will be further explained in the next subchapter. The photographs (*figure 1*) are a one perspective scan of what I saw on the horizon and to filter it further I drew the landscape with the aim of achieving an abstract perspective, as shown in *figure 2*.

![Figure 2, Fell, sketch](image)

To frame the landscape and draw it as shown above (*figure 2*) helped me focus on what would become the structure of the work and to filter out abstractions of other aspects in the landscape such as the ocean and wildlife. The decision to filter the photographs was also influenced by the instrumentation of the work as it was written for eight players and I felt that I did not need more data or memories of the location to compose *Fell*.

For the second piece, *Rift*, I was more conscious of my work method and I researched the chosen landscape before exploring it in person. I knew that I would write for an orchestra and I was aware that I might need more material than for my previous work *Fell*. I wanted to collect as many forms, textures and colours as possible and I
thought that working with a fixed image, as in my previous work, might limit my creativity. So, I approached the landscape with a different perspective. Instead of only looking at it, I decided to immerse myself in it. I chose Búrfellsgjá as it is a large area of landscape and can be explored from within. I studied a satellite view to have an overview of the different characteristics of the location and to determine broadly which features of the land I could use as material (figure 3).

Figure 3. Rift, satellite view of Búrfellsgjá

To further my knowledge of the region of Búrfell, I contacted the volcanologist Dr. Páll Einarsson to learn about its geologic features. He explained that Búrfell is a monogenetic volcanic crater, created in a unique eruption around 8000 years ago. It is the northernmost crater of the Krísuvík volcanic system. He said: “The chasm, Búrfellsgjá, is not a true creak (“gjá”). It is a lava channel, so you can imagine it as a large river of lava. The lava forms many lava streams that run all the way to the sea.” This discussion resulted not only in a better comprehension of my subject but also inspired my imagination beyond what my senses could perceive. I had geologic information that motivated me to add imagination to my otherwise objective data. Hence, I felt inclined to begin my piece in the caldera (A on figure 3) to create a chronologic formation of the landscape. Importantly, I would like to point out that the scientific information brought forward by Dr. Páll Einarsson does not include any emotional qualities or cultural associations. This is in line

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16 Discussion with Dr. Páll Einarsson, May 2017
with how I wanted to explore the landscape. From my point of view, instead of perceiving a volcano as a poetic symbolism, I analysed its complexity in such a way that it became material which translated well into music. There is accumulation of tension in the earth followed by its fall and a flow of lava, all of which is expressed in the music.

Figure 4

*Figure 4* is my mapping of Búrfellsgjá created after the field work. It is a mix of the aerial view of *figure 3* and of features collected during the walk of the area. At this stage, it did not contain any musical information and I used it more as a general structure that does not yet contain a time frame. It was divided in to five segments (letters A to E) that represented different aspects of the landscape. Each segment contained specific characteristics which I eventually translated to music. I also collected many photographs in addition to the sketch above which gave me multiple perspectives of the same location (see *appendix*). It was important for the creation of this piece to have a strong sense of structure. For this reason, I created a sketch based on Búrfellsgjá and drew lines and curves, as shown in *figure 4*, to guide me on further analysis and translation of music parameters, where shapes and textures were fundamental in the process.
My experience of gathering data for the pieces 
Fell and Rift gave me the motivation to try yet another approach for my graduation work Sceadu, that is a combination of the work methods of the two pieces above. Always based on concrete material, the concept behind Sceadu is the dualism between two perspectives. Alike Fell, I found most of my data in a fixed image of a mountain named Reyðarfjall, but this time I combined it with field work which focused on the details of the landscape such as the texture of the soil itself from up close which become a sort of zoom-in on Reyðarfjall. The memory of the ground and sound of the crumbling rocks when you touch them became an important feature and my compositional material.

This was a landscape that was too massive for me to only rely on photographs so I worked from a satellite view as well. I combined two points of perspectives: the aerial and the horizontal. It resulted in an abstract and unique view of the landscape and it was an attempt to bring an abstract translation early on in my compositional process.
In *figure* 6, I drew the outer edges of the mountain to make an abstraction of the surrounding land. I extracted facets and shapes, bushes and lupines (in green), moss (in blue), different shades of rocks (in brown and orange) and finally I included a focus on the mountaintop of Reyðarbarmur. These features became the core of the Violin Concerto in combination with the dual perspective that influenced the way I analysed the data.

I had wanted to work with this location for a few years because it had caught my attention often when driving past. My interest in Reyðarbarmur began because it stimulated my senses, mostly my sight. From a distant perspective Reyðarbarmur has fascinated me by its ever-changing shadows and its resemblance to a charcoal drawing with its strong shades of black and grey. It made me think of something solid and imposing, but the closer I got to this mountain, the more it transformed into something fragile that seemed to fall easily apart. Exactly, this contrast made me want to work with this location for *Sceadu*. The duality between an enormous structure versus the crumbling rocks guided me when I was in the writing process. It became a work based on data, memories and imagination. Having the opportunity to write for a soloist also brought awareness to me of the interactions between her (Una Sveinbjarnardóttir) and the Ensemble (Caput Ensemble) corresponding to how I perceived this landscape as a source of material.
Translation: Form and Progression

By analysing the landscape and the gathered data I began to imagine how to transform the inaudible to audible. This second step is a creative procedure where I took time to rethink the landscape. I explored it by creating new sketches, creating relations and shaping further the structure of the piece. At this point, my relationship with the unspoiled nature was transforming. At first it was a concrete source of material but at this stage I deconstructed it to an abstract representation. This representation was then filtered by my imagination and my intuition to further transform it to music. At this stage I organised the work from its structure to its colour. Now I will give an overview of some of my techniques used to develop the three pieces named earlier, where I translate a landscape to music parameters.

My first experiment in finding a way to progress in time and create events in music from collected data was with the piece Fell. From the figure 2, I created a new sketch to extract chosen details (figure 7) with the intention of illustrating movements found in this landscape. I wanted to find places where there was a sense of propulsion, of stillness and of irregularity. Afterwards, I created a time frame through these progressions and made the general structure of the piece. Here is further information on the details, figure 8:
I imposed a strict method and I tried to follow it with such precision through the piece that it became a great obstacle. Eventually, halfway through composing the piece, I experienced writers block. I spent weeks not being able to write a single note because of my demands for accuracy until I realised that a certain freedom is always needed to be creative and inspired. The moment I put my sketches aside and worked with my informed intuition, everything became easier and the work flow came back. This drastically changed the output. The piece became more organic, more flexible and the time progression ran smoother, in other words, it became more natural. This was an important occurrence for the evolution of my work method. I need to begin working from a concrete form with strict rules to little by little trust my intuition and develop an understanding of my process. I work from detailed material to a creative interpretation and allow my memory of the landscape to evolve and redefine itself through the composition.

The second landscape translation was for the piece *Rífi* based on the landforms of Búrfellsgjá. This time, I transformed my source of information into an abstract idea with a form. In *figure 9*, I created a structure which corresponded to the experience of field work and the analyses of the aerial perspective. The rough sketch demonstrated the main structure, divided in five points as shown. I used the sketch below (*figure 9*) as a guide but did not intend to reproduce it exactly but rather I accept in addition my imagination of the inaudible. In *figure 9*, rectangles represent events, zig-zag lines represent narrowness,

<table>
<thead>
<tr>
<th>Visual</th>
<th>Music parameters</th>
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<tbody>
<tr>
<td>Snow patterns</td>
<td>Pizzicato, quasi-col-legno, glissandi, aeolian sound, tremolo, harmonics, bow techniques (s.t., s.p.)</td>
</tr>
<tr>
<td>Altitude</td>
<td>Tempo variation (accelerando, rallentando) and register of the instrument</td>
</tr>
<tr>
<td>Valleys</td>
<td>Transitions towards new events</td>
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<tr>
<td>Remote mountains and fog</td>
<td>Alteration of the sense of tempo, rhythmically independent of each other.</td>
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<tr>
<td>Mapping</td>
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<tr>
<td>Shadows</td>
<td>Bowed vibraphone and superball stick on tam-tam and bass-drum</td>
</tr>
</tbody>
</table>

*Figure 8, Fell, techniques*
expanding lines represent the enlargement of the register; wavy lines (after E) represent instability.

I wanted to obtain a sense of continuity, both in the compositional process and for the listener, and I felt that a strong structure of the temporal progression was necessary to achieve it. Therefore, I wrote specific characteristics of events for each point on the map (from A to E) to have a clear sense of where the music came from, where it was at each moment and where it is going.

*From inside the Earth to the surface → A: Eruption of Búrfell (appendix -rehearsal mark 2) → B: descending flow of lava (rehearsal mark 5) → C: Lava channels (appendix -rehearsal mark 8) → D: large lava river (appendix -rehearsal mark 12) → E: Rupture, and small lava streams flowing to the ocean (appendix- rehearsal mark 20).*

All these points represented imagined movements or events that I translated to music. I will describe the process of attributing musical features from point to point. To begin with, I re-imagined the eruption that occurred 8000 years ago by studying how it looks today but considering that erosion has shaped the landforms. In my structure, A is the eruption (starting from bar 14) but I needed elements that would lead to it so I visualised accumulations of energy in the lava chamber as something light, extremely textural and unpredictable in the aim of proposing directionality. I had to imagine how it might sound. The main character of this part was reproduced by the string sections, for
their ability to go from sound to noise. The quantity of players available offered also the opportunity to use divisi through which it was possible to develop an unpredictable motion by echoing voices, as well as of sounds that can change gradually (see violoncello section - figure 10). By combining different techniques, such as natural harmonics, whispertones\textsuperscript{17}, tremolo, air sound on the bridge (contrabass), sul ponticello\textsuperscript{18}, sul tasto\textsuperscript{19} and glissandi, I could give the impression of a material building up into a complex and organic identity which afterwards arrived at the presentation of the first occurrence of the eruption at bar 14 (see score in appendix).

![Figure 10. Rift, bars 8-12](image)

The way I chose to present section A was by accumulating energy to a moment of propulsion using crescendo as the motive of eruption as well as a rhythmic impulse on last beat of the triplet played by the brass and an emphasis on the first beat by the orchestra that comes at bars 11-13, 22-24 and 31-33. Between these three events, I wanted to sustain the characteristics of instability and tension which I produced mainly through the use of second minors by the woodwinds. After the last “eruption”, comes a moment of semi-

\textsuperscript{17} Whispertones (w.t.): the pressure on the string is adjusted between and harmonic and ordinario

\textsuperscript{18} Sul ponticello (s.p.): playing near the bridge of the instrument

\textsuperscript{19} Sul tasto (s.t.): playing close the the fingerboard.
inertia represented at bars 37-39 which shows the release of the accumulated tension from the section A. Which lead to section B, representing the descending flow of lava, which I imagined slow and contrasting in texture of the timber, in duration and register. I reduced the orchestration, keeping the lower register woodwinds, the brass, the violoncello and the contrabass (appendix - rehearsal mark 5 to 6). A sense of unhurried melody can also be detected in the tuba and it is taken over by the horn and the bassoons to create flow, and to accentuate this movement I worked with very slow glissandi in the low register of the violoncello and contrabass. From rehearsal mark 6, to express a progression and more movement in the flow, I added one instrument at a time which creates a natural crescendo, accumulating complexity in the timbre and a sense of rhythm. From bar 64 (figure 11), the piano brings a new colour followed by repetitive figures by the marimba and harp. It became the presentation of section C.

Here I wanted to represent the narrowness of the lava channel and its curving shape seen in figure 4. To achieve this, I simplified the orchestration keeping a textural carpet in soft dynamics, played by the string sections. The harp and the marimba are representing a path (figure 11), a single channel with a directionality that ends at bar 78. The piano, which plays until rehearsal mark 11, is also an element of directionality, of narrowness with the use of second minors. It also depicts the shapes of the remanence of the flowing lava that is visible today, sculpted through the passing of time, which is represented through the use of its amplitude as well as the length of its phrases. Since section D represents the enlargement of the channel which is turning into a substantial river I wanted to create a sense of space by creating a contrast that is strong enough to feel a dramatic change in the
music’s quality. Shown in (figure 12), I reduced the orchestra to put an accent on the harp, which gives a sense of breathing before entering in D with the use of synchronicity played first by the English horn and clarinets followed by the three flutes.

As the river varies in size, I orchestrated the score to be flexible in time, texture, density and complexity. This is the longest segment of the piece, where I developed fragments of figures, heard in parts A-B-C, to a more lyrical state that progressed to a more variable and abstract landscape made of the accumulation of tensions and releases. In other words, I personified the large river with interactions between instrument groups with their own sense of time and flow. Since the final fracture in the landscape is now approaching, it seemed as a natural place for the climax of the piece. Through the accumulation of energy
written in section D (pages 28 to 31 in appendix) there is directionality towards the final rift – section E (bars 156-158) that is written for the timpani and bass drum (figure 13). It represents the drastic change in the lava river when it filters into many streams that flow all the way to the sea.

For the segment after E (appendix - bar 159), until the end of the piece, I wanted to evoke a sense of distance and remoteness. This part was based on my imagination and as in the beginning of the piece I needed to assign musical features to what I imagined being the shapes of these small rivers. With less energy than the lava channel and the river but with the same textural qualities as the entire work, I prioritised a restricted instrumentation, leaving the woodwinds and the brass and focused on the quality of the strings (except from rehearsal mark 21, where the trombone and the tuba are playing very softly air sound). The string sections represents the multi-directionality of the rivers, for a sensation of dispersion. I used divisi and solo parts to create more voices and to create a feeling of independency with a different sense of the flow of time between them. In opposition to the strings, the harp has a sense of directionality, even if played with low dynamics. I feel that it gives an impression of nearness and intimacy which is connected to my intention and aesthetics as a composer that I will describe further in the next chapter.

Finally, we arrive at my last work Sceadu where I translated the landscape of Reyðárbarður. As said earlier, I gave myself more freedom in this composition, which resulted in a more abstract translation of the landscape with less accuracy from the concrete material and more use of an informed intuition. The aim of this work was to extract features from Reyðárbarður that could provide me with information for the interactions between the solo violin and the chamber orchestra. The first step was the
division of the first sketch (figure 14) into a temporal grid and define characteristics of the landscape as material.

![Figure 14. Sceadu, temporal grid](image)

I translated the landscape mapping into six points through time, from A to F. Each point has its own inner meaning with the aim of leading organically to the next point. This approach helped me to create the general form of the work. Similar to Rift, my process was to organise the progression in time through different parts which are all interrelated but guided a sense of continuity of the work. I assigned the colours green, blue and shades of brown to represent the textures of the timbre and articulation of players but only as a general idea, because I did not want to follow the sketch that I drew exactly. This brought about an experiment on how much my memory would record the figure 14 and how much it would influence my intuition at the time of composing. In opposition to freedom and intuition, the structure was strongly organised. I will now present my translation of materials gathered and how I developed a blend of the two perspectives of Reyððarbarður, its main form and a zoom-in on the matter.
The section A (appendix -from the beginning to bar 54) was to be a slow and homogenous progression and presentation of the textural material of the piece. As the peaks of the mountain was personified by the solo violin, it appears at the beginning of section B. I wanted to prepare the entry of the soloist in a subtle manner so I decided to blend the solo violin with the textural effects created by the rest of the ensemble as shown in figure 15. All the instruments have the same purpose of exploring the material that was used in the entire work, but little by little, the solo violin emerges with particles of a soloistic material at the beginning of the second perspective (appendix -bar 42). Section A is built on the complexity of the landscape, with its shapes and grains, that are translated through the independency of each voice that creates tension and arrives at three points in the piece where there is a certain synchronicity between the instruments: bars 9, 29, 39 (see appendix).

From rehearsal mark 7, we enter section B (appendix -from bar 53 to 105). The main feature of the landscape is the narrow mountaintop which I translated as natural harmonics played by the solo violin (figure 16) as it can pierce through the ensemble and appear in the foreground. It’s mainly supported by very soft motion in the string section. It has the function of reflecting simplicity, stability and clarity that develops gradually.
towards a rhythmical independency and a rise of dynamics in all the ensemble from bars 73 to 102 (see appendix).

I identified a building of tension in figure 14 (beginning of the section C), where there is an enlargement of the mountain peak, and I chose to place there a violin cadenza – the section C (appendix -from bar 105 to 151). I thought it ideal to develop the cadenza through the additional features of the landscape. The violin part represents two perspectives; one transmits a feeling of vastness and great distance through the use of the entire register. Second, transmits a feeling of closeness, a zoom-in on the crumbling rocks that I depicted through the use of fragmented and unfinished sentences as well as with extended techniques that evoke a sense of granulated and rough material (figure 17).

The motives found in figure 18 played by the soloist have the function of calling the chamber orchestra which represents the transition towards section D.
This event brings a moment of stillness before a rapid accumulation of tension which leads to the climax of the piece. After the climax, the solo violin fades away to give place to the ensemble. At this point, the ensemble represents the mountaintop and there has been an exchange of roles. My aim was here to give the ensemble a larger spectrum and rhythmical complexity. The energy accumulated during the climax is slowly released until section E (appendix - bar 189) which is a very short passage that connects the ensemble and the soloist together through synchronicity and the last (section E in figure 14) expansion of the register that is cross-faded to the last section, F (appendix - from 201 to the end), depicted in figure 19 as textural which goes from a sense of space towards a feeling of intimacy. I wanted to orchestrate an atmosphere that was related to the beginning, since both sections A and F are represented on the map as textural moments. I therefore end the piece with a simple reminder of material heard before, played by the solo violin where there are fragments of earlier material played with circular bowing that gives a perspective of remoteness and unpredictability (figure 19).

Figure 19. Sceadu, bars 197 to the end, section E and F
In *Sceadu*, the general form was created from landscape mapping but there is a strong sense of intuition and aesthetic choices involved that are slightly distant from the relationship with the natural environment. I realised that, for me, working from a landscape is not enough information to create an entire piece so I need additional material. I translated the information that I gathered with flexibility and creativity but I also harbour my own music aesthetics and influences that I have been gained over time and through experiences, which I allow to influence the output. This is what gives a specific colour and creates a common thread in my pieces. In the next chapter, I will describe the final step of my work process. There are aesthetic choices that I take during the composition, ranging from additional perspectives of the form to the music’s smallest details.
3. Score and Intention

Even if a chosen landscape is at the core of my work, I need a more theoretical approach to express my musical thoughts. My aim, while composing, is to research new sonorities, new timbres, new instrument combinations and to have a sense of evolution in my art by exploring new elements. These aspects are not all obviously related to the chosen landscape but unspoiled nature has influenced my work process through an informed intuition. I took aesthetic decisions during the final step of expressing landforms in music. These decisions concerned four aspects of the music: the general form, the pitch material, the instruments techniques and the details of the sound itself. I found this step to be like an artistic direction that was influenced by more than one source. Comparable to my perception of a landscape, my approach to sound is a combination of many perspectives such as a philosophic approach to music, aesthetic choices related to the concept of spectral music, the musical form of Tristan Murail and the exploration of details in the music of Kaija Saariaho.

Compositional Aesthetic: Form

After the second step, analysing my data, I created an additional translation which is more related to my aesthetic impression. Even if it is tightly linked to the shapes of the landscape, it took influence from Tristan Murail and Kaija Saariaho with regards to the perception of a musical form. With the sketch, figure 20, I tried to define more parameters such as the complexity, the speed, the dynamics and the density of the music to achieve progression and direction in my piece. This process is important since it gives orientation to the data collected on the landscape which was then translated with another perception and with external influences related to music.
In the music of Tristan Murail, the temporal progression of the pieces has common shapes in most works

The **figure 21** is the envelop used in his works, which holds its proportion according to the length of the piece. It describes the relation between the building of tension and its fall, through time that leads to the climax, around the 2/3 of the piece. For Murail, the more restrictive rules are during his compositional practice, where he thinks about continuity, the relationship between concept and perception and their complex interrelations

The way I applied this approach to the form is through the organisation of the music’s progression and it helped me to shape the directionality of my material. In **figure 20**, I combined a similar envelop (upper part of figure) with the texture found in the landscape of Búrfellsjá (lower part of the figure), which brought two perspectives: one based on musical structure and the second based on the landforms.
Compositional Aesthetic: Pitch Material

After organizing the form, I began to explore the pitch material. The exploration is directly connected to my intuition, experiences and influences as a composer, since this step involves my imagination. Throughout my studies, I have developed an interest in analyzing the overtones series to expand my pitch material. The root of this process comes from spectral composers like Gérard Grisey and Tristan Murail but I work from this material in a slightly different way. First I extracted colours that reflect the different points in the main structure. For example, in *Rift*, my pitch material from A to E was as described below (figure 22).

![Figure 22. Rift, pitch material](image)

Once the roots of each chapter were found, I begin an exploration of the chosen pitches, by combining them, expanding them in the register, creating chords, interchanging their disposition, etc. But I also found it necessary to expand the colours of the pitch material through an analysis of the overtone series to create a distance with the sense of tonality in my work.

![Figure 23. Sceadu, overtone series](image)
Figure 23 depicts the pitch material which is at the root of the entire work. In Rift I worked from the relationship of five pitch groups, but in Sceadu, I based the score on the second minor interval of G#, A and chords. To begin with, I found the common overtones between these two notes. I did not restrict myself in keeping the register of the resulted overtones, but instead I worked with them as a flexible material that can be interchangeable within its context. From there, I added three chords, always in relation to my root: E⁴- (G⁴- A⁴) C⁵, E³- (G#⁴- A⁴) F⁵ and F³- (G#⁴- A⁴) B³- C⁶. For each pitch of the chord I applied the same process as in figure 22. With this process, I categorised the twelve tones into three groups. With the example of the first chord (E⁴- G#⁴- A⁴- C⁵), I had the pitches E, Ab, C, Eb, A, B as my main material, to bring foreign tones I used G- D- Bb and to create a greater dissonance I used C# and F.

Compositional Aesthetic: Effects and Techniques

My work is built from timber and pitch material instead of melodic and harmonic phrases. The organisation of the instrumentation, sketched figures, overtones series and textures has the aim of enriching the colour of the work and to create a time progression. I perceive sounds as a living organism, with constant variation and a unique lifespan. To reproduce this sound quality, I created a table of techniques that I found colourful and that can develop the inner sound quality of a single pitch. This organisation is linked to the analysis of works by Kaija Saariaho and other composers such as Tristan Murail. Both, Saariaho and Murail, have studied at IRCAM where their profound analysis of sounds through a computer process has developed an awareness of the inner quality of a single pitch or sound. This awareness can be seen in all the details and extended techniques used in their instrumental scores. What I feel relates most to their music is the concept of a zoom-in dimension\(^2\), general form, sections, figures, sounds, etc. While I compose, it is my aim to have the general structure of a piece in mind as well as thinking about the smallest and barely audible sounds. Here is the table representing the techniques used in my previous works.

In *figure 24*, I used these techniques when I translated the landscape map but the translation is subjective and there were aesthetic choices involved. I took these decisions based on my intuition and imagination when deconstructing the landscapes features. I shaped the organisation of sounds and textures from these features. Categorizing the effects helped to sustain fluidity and continuity in the evolution of sound.

**Compositional Aesthetic: Details**

Finally, I applied the *zoom-in* approach to the score, concerning the form, the pitch material, the techniques and the timber. With a background in electro-acoustic composition, I developed a relationship not only with my sound environment but with the inner quality of a single sound. In the context of instrumental music, I was influence by the music of Kaija Saariaho and her exploration of sound material. Her development from sound to noise is one of the most inspiring aspect of the *zoom-in* process. For Kaija Saariaho, details in the score propose another dimension in the music\(^\text{24}\). To achieve this dimension, she explored the harmonic and rhythmical features of her pitch material and by

thinking and organizing them by their timbre qualities. To achieve a continuum between these parameters she used the techniques of traveling gradually from sound to noise.\(^{25}\)

![Image](image1.png)

Figure 25. Sceadu, Violin from bar 1

When composing I keep in mind that each sound has an attack, a decay, a sustain and a release (ADSR). I imagine sound as a living cell with a lifespan. To recreate this I, notate a lot of details for the performer to modify the timbre through time. In figure 25, I wrote these gradual transitions: \textit{whispertone} – \textit{harmonic} – \textit{whispertone} – \textit{ordinario}, etc. As mentioned earlier, \textit{harmonics}, \textit{sul tasto} and \textit{light bowing} create an effect of thin sound but the use of \textit{whispertone} brings an unpredictable sound that is closer to noise. By slowly shifting from one sound to another, I created a subtle complexity in the voice of the instrument and enlarge the richness of the texture. I found it interesting to have many voices creating this effect simultaneously and to gradually enlarge and diminish the richness of the texture. Using techniques that produce sounds with an element of unpredictability also makes each performance more unique.

![Image](image2.png)

Figure 26. Sceadu, Violin solo from bar 26

Working with a soloist gave an opportunity for the exploration of the spectrum between sound and noise. I could develop refined fluctuations in the sound with diverse combinations of bowing techniques that gave each tone an organic element. These details in the timbre have the function of creating an artificial sense of space and give diverse perspective. For example, one may perceive details such as the sound of a string player’s bow as being close and effects that weakens the purity and brightness of the timber as


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being distant. Finally, I have learned through experiences that details not only bring variation to the timber and the harmony but it becomes the main dialogue between me, the composer, and the performers.

In my score, I am trying to be as detailed as possible which transmits my intention to the ensemble. Since I am not communicating my work process to the conductor or the performers, their interpretation and perception of my piece depends on the score. I put an emphasis on the notation, symbols (noteheads), small text, etc., which have the purpose of creating imagery for the one who plays my work. I am conscious that what is symbolic for me as a composer may not be so for performers and listeners, and I find it important to let them have their personal approach and perception of my works. Our individual perception of a landscape is a unique experience which is linked to our memory, the present time, our emotions, our culture and doubtlessly other things. Since my work is an abstract representation of a landscape, the intention behind my work is to create an experience which awakens our senses and memories.

Conclusion

The development of my work process has been influenced by many different perceptions of untouched nature. With an anthropologic approach, I realised that culture and history could have influenced the output of my works through a romantic notion of a relationship with the wilderness. But as I do not intend to depict such sentiments in my works, I have informed my works with a scientific approach. Discussing with the volcanologist Dr. Páll Einarsson and reading about the work method of Dr. Tessa Poller, an archaeologist has helped me understand the formation of landscapes and extraction of working material from it. Today’s technology has additionally influence the way I imagine a landscape. The perceptions of the field recordist Chris Watson have inspired me. He preserves the soundscapes of natural environments which create imagery which can awaken the senses and memory of a listener. My intention when a piece by me is performed is to awaken interrelated senses of the listener through memory as I am creating an abstract representation of a landscape. To be able to transmit this experience to the listener, I have developed a work process that begins with research of a landscape and field work. I find it works best for me to have a sense of the compositional structure from an early stage to achieve continuity throughout the piece. From the analysis of a chosen location I apply a variety of procedures to translate it into music. I build the foundation of my compositional practice on concrete sources, imagination, informed intuition as well as my own aesthetics.

The main reason why I choose to work with the untouched nature is for its richness in textures, details, colours and shapes. Similarly, this is how I perceive a piece of music, as the unity of a complex living organism with its own time progression. From this research, I learned to appreciate the positive effects of having a good structure before writing music. My work method and material might change over time, but the organisation is crucial for me to achieve a sense of flow throughout the duration of the piece that resembles experiences that I have had when out in untouched nature. I would like to expand my research by focusing less on the visual aspects of landscapes and by putting more emphasis on its soundscapes. The sounds of a place in symbiosis with instrumental music will mark my next explorations.
Bibliography


Interview:

Appendix

Field work, Búrfellsgjá.

Summer 2017. Example of photographs: shapes and textures
FELL
Veronique Vaka
2017

For 8 players:
Flute, Alto Flute
Clarinet in B♭
Horn in F

Percussion:
Bass-drum
Tam-tam
Vibraphone

Piano

Violin
Viola
Violoncello

Full score is written in C
c.a. 08:30
poco accel.

A. Fl.

Cl.

Hn.

T.-t.

B.D.

Vib.

Pno.

Vln.

Vla.

Vc.
Veronique Vaka

**RIFT**
c.a 10'00"
The full score is in C

3 Flutes (3. Alto Flute)
3 Oboes (3. Cor Anglais)
3 Clarinets in Bb 2 (3. Bass Clarinet)
3 Bassoons (3. Contrabassoon)

4 Horns in F
3 Trumpets in C
3 Trombones
Tuba

Timpani

Percussion (3 players):
Bass Drum
Tam-tam
Crotales
Marimba
Vibraphone

Harp / Piano

Strings (min. 12-10-8-6-5)
RIFT

Veronique Vaka
(*1986)
superball stick on the lower G and A

*Whoop whoop (in tune): the passages on the string should be played between an harmonic and ordinario

** Glissandi should always be played slowly for the entire piece
\* Glissandi should always be played slowly for the entire piece
de plus en plus articulé

* Gliksendi should always be played stably for the entire piece
sen peu plus mouvementé
*From here, players are dropping one by one from the last desk to solo. Each player should make his/her last note as if its slowly disappearing (decrescendo to nothing)
de plus en plus lente

Vln. I solo

Vln. I div.

Vln. II solo

Vln. II div.

Vla.

Vc.

Ch.

*From here, players are dropping one by one from the last desk to solo. Each player should make his/her last move as if in a slowly descending (hesitant) to nothing.*
SCEADU (2018)

f. Violin and Chamber Orchestra

written for Una Sveinbjarnardóttir and Caput Ensemble
SCEADU (2018)
Veronique Vaka
c. 13'00"
the score is in C

Flute
Oboe
Clarinet Bb
Bassoon

Horn F
Trumpet C
Trombone

Percussion (1 player):
Triangle
Bass Drum
Tam-Tam
Wooden Block
Glockenspiel
Vibraphone

Harp

Violin Solo
Violin I, II
Viola
Violoncello
Contrabass
PERFORMANCE NOTES

Change gradually from one sound to another.

Crescendo from silence

Diminuendo to silence

ord. ordinaro

When vibrato markings are not specified, players may use their usual vibrato.

senza v. senza vibrato
molto v. molto vibrato
v. ord. vibrato ord.

Grace notes should always be played right before the beat.

Percussion:
The choice of mallets is left to the player. Always choose mallets that give maximum resonance. Never damp the sound, but allow it to ring on.

Harp:
Harp sound should always be allowed to ring as long as possible. Harmonic sounds are an octave higher than written.

String:
All glissandi should be started immediately at the beginning of the note value.

S.P. sul ponticello
S.T. sul tasto
N. normale, (used with S.P. and S.T., otherwise ord.)

whispertone (w.t.): The pressure on the string should be adjusted between harmonic and ordinario.

Quasi-col-legno (q.c.l.): The player should play with the bow slightly rolled so that half of the hair touches the string as well. (half hair/half wood)

fast release: fast glissandi (freely), it should always be played with a light bowing and a light left hand.

crushed sound: extreme bow pressure

circular bowing

the played should use all the length of the bow

natural harmonics (play and sound as written)
À la mémoire de François Briand.