Nordic Drone:

Pedal points and static textures as musical imagery of the northerly environment

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Musical imagery that somehow references the environment is extremely common in works by Nordic composers, both past and present. Some pieces are given titles, programmes or performance contexts that directly refer to the local environment, its natural phenomena, landscape (be it concrete or mythical) or atmosphere; others suggest more conventional musical imagery, such as topics, allusions, inter-textuality and structural tropes (see Kramer, 1990: 1–7). Many more seem to convey or evoke in a more abstract and experiential way an acute sensitivity to the environment, like ambient music for instance. One of the most common ways in which Nordic music evokes its environment is through the use of static musical textures: barren pedal points, drones, stable chords, clusters or sound masses, and other long-lasting or repetitive gestures, combined with hushed, muted and often dark timbres. Such textures seem to suggest a mode of subjectivity beyond individuality or agency, and hence a depersonalized affect (see Cumming, 1997; Schwarz, 1997; Richardson & Välimäki, 2013). This makes static textures a topical case to study not only from the point of view of hermeneutics and phenomenology, but also as a significant trend of contemporary aesthetics in Nordic music, related to the ecological turn of twenty-first century art (see Välimäki and Torvinen, 2014).

It is precisely this 'Nordic drone' that we aim to elucidate by analysing relevant examples of classical music of the Nordic countries from the twentieth and twenty-first centuries that use static textures, pedal points and other repetitive imagery to induce a sense of nature, environment, space and place. A comprehensive quantitative listing or taxonomic analysis of such repertoire would not be possible in a single chapter, nor would it be particularly informative. Understanding the cultural and nature-related significance of such repertoire requires detailed analyses of specific musical imageries and compositional practices.

The following historical introduction briefly discusses Finnish music of the early 20th century and is supplemented by case studies of Finnish and Icelandic contemporary music (by Erik Bergman, Kaija Saariaho, and Anna Thorvaldsdottir). These two countries, occupying geographical border zones of the Nordic region, have produced music that is characterised by various kinds of static textures. Therefore, this repertoire can exemplify the topical and global significance of Nordic music in today's world with respect to its ability to reflect, construct and scrutinize the relationship between the individual and the environment, and between humanity and nature in general. Also, the exemplary, socially constructed 'Nordicness' of these three composers is supported by the fact that they all have received the Nordic Council Music Prize: Erik Bergman in 1994 for his opera *Det sjungande trädet* (The Singing Tree, 1986–1989), Kaija Saariaho in 2000 for the work *Lohn* for soprano and electronics, and Anna Thorvaldsdottir in 2012 for the orchestral work *Dreaming* (orig. *Dreymi*, 2008).¹

Methodologically, the approach draws on cultural music analysis: the materials of music are considered as always possessing a socio-historically conditioned significance. It also incorporates elements of (eco)philosophy and ecomusicology, a branch of research that considers the relationship of music and nature in an age of environmental concerns addressing cultural dimensions and the questions of value this relationship may involve (see Ingram, 2010; Allen,

2011a; Pedelty, 2012; Torvinen, 2012a & forthcoming [a]; Välimäki, 2015; Allen & Dawe, 2016; Feisst, 2016).

Is Nature Static?

The two general observations about Nordic music mentioned above — that it has a remarkable amount of static textures along with its strong tendency to be heard as depicting the environment — are connected in multiple and complex ways. Traditionally the use of static textures is precisely linked to nature in relation to pastoral music, found in Classical, Romantic and Post-Romantic repertoire from Haydn, Beethoven and Schubert to Wagner, Bruckner, Mahler, Grieg, Sibelius, Schoenberg, Webern and Copland (see Tarasti, 1979; Ratner, 1980: 64–65; Dahlhaus, 1989 [1980]; Johnson, 1999; Grimley, 2006: 42–43). The topic of 'pastoral' most typically employs pedal points, drones, open intervals and simple harmonies, a steady pulse, peaceful atmosphere and a closed form: nothing should change in the pastoral idyll (see Ratner, 1980: 64–65; Monelle, 2006).

In Classical and Romantic pastoral contexts, nature is constructed as an unchanging entity. It is the background (the environment) against which a heroic subject may engage in a period of conflict; nature is static and the human being is dynamic – in both movement and in development. The sonata-form aesthetic is perhaps the clearest example of this subjective model with its dynamic and forward-pushing main theme and often more static second subject. However, this state of affairs changes with late-Romantic music, especially with the concept of the sublime, whereby nature and natural forces may be described as the main point of focus within a composition – not just as the background for a subject – and the perspective of the human being is not necessarily even required. But even when late-Romantic music portrays the dynamic movement of nature, the bigger, surrounding context is usually somehow static. The same goes for the existential aesthetics of modern music in which a tiny human subject is thrown into the un-sensible universe. Stasis becomes a way of describing something so big that it is beyond human comprehension; and the human being, who tries to understand the universe or control nature, is in constant motion and thus in 'development'.

In accordance with this, Carl Dahlhaus has written:

[A]lmost all the outstanding musical renditions of nature [in nineteenth-century music] follow a principle that was driven to extremes in modern art music, even serving as the basis for entire works: the sound-sheet, or *Klangfläche*, outwardly static but inwardly in constant motion. [--] To put it another way, a musical depiction of nature is almost always defined negatively, by being excluded from the imperative of organic development which, at least in the mainstream of compositional history, dominated the thematic and motivic structure of nineteenth-century music [--]. (Dahlhaus, 1989 [1980]: 307.)

According to this citation, Dahlhaus (writing in 1980) seems to draw a clear line between intellectual human action and other-than-human nature; he clearly separates the 'depictions' of nature from the organic development that takes place in the thematic and motivic structure of music. Even in musically static renditions of nature there is, however, an 'inward motion' that is required by the 'dialectical contradiction' in the 'temporal structure of music' (Dahlhaus, 1989 [1980]: 307). In his view, it seems, nature is transcendent, self-evident and essentially different from music and human action and, therefore, something that can (and is to) be 'depicted' only.

The idea of nature, supported implicitly by Dahlhaus and modern musicology in general, as something transcendent and to be 'admired from afar' has been criticised by many environmental thinkers (see for example Morton, 2007: 5). Environmental philosophy, social constructivism, deep ecology, new materialism and post-humanist thinking, are examples of critical fields that have questioned the concept of 'nature' as normally understood and challenged the borderlines of human/nature and nature/non-nature. Recently it has been noted in musicology too that music actually challenges this kind of binary thinking and transcends such conceptual oppositions as human/nature, culture/nature, subject/environment and nature/non-nature. For example, Daniel M. Grimley has noted that besides pictorial representations, nature and landscape in music can be understood in a more abstract and structural way. He points out, with reference to the phenomenological theories by Edward S. Casey, that landscape is not something that is created in nature without human intervention. Instead, landscape is constructed through human perspectives, moods, views, our temporality of perception, and all the apparatus of observation itself (Grimley, 2006: 56–57).

All this applies not only to landscape, but to the conception of nature as a whole. This chapter draws on the etymological roots of 'nature': a term that derives from Ancient Greek notion of *physis*. Physis is not a name for the constituent parts of the reified universe – as contemporary term of the same root, 'physics' might suggest – but the name for the *way* in which reality presents itself (Toadvine, 2009: 7; Dreyfus & Kelly, 2011). In the words of the philosopher Ted Toadvine, nature is, 'precisely what discloses itself *through* our expressive acts, and as requiring such expression for its disclosure' (Toadvine, 2009: 15; original emphasis). In this sense, music and musical practices are not mere passive objects in the world but things that have their own active agency – an ability to influence the surrounding environment and nature (see Abram, 2014: vii–viii).

Accordingly, Nordic music can be approached as a mode of expression through which nature actively discloses itself. Focusing on pedal points and other static musical imagery traditionally understood as representations of nature prompts questions: what kind of musical forms do these textures take? And what does the frequent use of static musical textures in this repertoire tell us about our changing relationship to nature today? While our relationship to nature has changed during recent decades due to the growing awareness of environmental problems, and nature itself is not (anymore) something self-evident, simple or permanent, it is obvious that musical practices have also evolved, especially in our understanding of the relationship of music to nature. Indeed, the connection between static textures and nature has become a much more complex and multifaceted issue in our age of environmental crisis than what was the case in the nineteenth-century.

Static Musical Textures

The term 'static musical texture' is taken here as a generic expression for all such musical principles or devices that highlight stasis instead of change: pedal points, ostinato figures, sound-sheets, long-lasting clusters and so on. Various static textures are among the most common and age-old features in examples that associate sound with space, ranging from Irish folk to Indian classical music and many contemporary Western musical styles. Especially in the form of drones, bordunas and pedal points, such techniques belong to the oldest and most widely-used musical elements – as in vocal polyphony, for instance (see Jordania, 2006: 26–30). In the art music of today these principles are still important, though naturally more significant for some styles and aesthetic trends than for others. Examples might include genres like (post)minimalism, 'holy' minimalism (Pärt, Tavener) and neo-spiritual music, new age music, environmental music, sound art and sound installations, or Krautrock and EDM, as well as certain modernist and experimental styles and

techniques such as the sound-mass music à la Penderecki or Ligeti (see Vadén & Torvinen, 2014: 218–219). Furthermore, many contemporary idioms of electronic music, such as ambient, drone and noise music, base themselves almost completely on the idea of stasis (Demers, 2010: 91–109).

Below are four different yet overlapping ways of understanding how static musical textures in Nordic music can relate to nature. This differentiation is methodological and designed for music analytical purposes; musical reality is more complex, and rarely does a single composition fit into only one category.

- i) Static musical textures turn our attention to 'nature in us': to the listening body and its material processes. Music that foregrounds static elements, and in which changes (if there are any) come very slowly, shifts the listener's attention from a teleological conception of music as information and onward movement, to music as occupying a space and environment; listeners become more aware of their corporeal existence, as well as of the physical environment in which they are listening. Long durations and repetitive gestures test our limits of concentration and call attention to physical aspects of the listening body, and are even able to change our sense of being and way of listening (see Demers, 2010: 91–92). As the musicologist Joanna Demers has stated, this is essential for such genres as drone, noise and dub techno, for instance, characterized by extensive use of static elements combined with loud volume, and which run counter to the habitual expectations for how musical syntax works in most Western (art) music. Instead of waiting for new musical information, listeners become more sensitive to the present moment, musical space and environment. This is essential to such genres as ambient, new-age and meditation music too, as well as to 'holy' minimalism and various forms of spiritual music.
- ii) Musical stasis creates feelings of nostalgia and/or apocalypse. Leonard G. Ratner points out that pedal points have two main functions in eighteenth-century music: those on the tonic emphasise closure and statement, and a pedal point on the dominant represents a drive towards closure (Ratner, 1980: 64–65). In both cases, the pedal point is not effective unless it is in contrast with at least some of the harmonic and melodic material around it; it is characteristic of a pedal point that it requires resolution and closure (see Schoffman, 1993: 97, 123; also Dahlhaus, above). In the context of music and nature, both of these forms of pedal points (and other respective static textures) have a clear nostalgic character literally longing for a lost or non-existent home exactly because they are yearning for a closure (Grimley, 2006: 85–86). As producers of nostalgia, pedal points and other static textures, tonal or non-tonal, can be seen as representing or creating an experience of a (lost) unity and harmony with nature. But, as symbols of an immersion within a larger existence, they are also something quite the opposite. Demers has proposed that drones in ambient music can create a feeling of anticipation of the end of the world (Demers, 2013: 103).
- iii) A pedal point is a common musical practice for representing nature (as in the topics of pastoral and *sicilienne*). Static textures can be used in contemporary music just as they were deployed in Western art music during past centuries, as well as within various other cultures, for depicting other-than-human nature: real, mythical or imagined. This is also related to the fact that pedal points are often thought to refer to eternity, infinity and timelessness (as in the music of Bach for example).
- iv) Static textures highlight the experiential homology between Nordic music and the northerly natural environment. Arguably, there is a so-called 'northern tone' that characterises the music of the Nordic countries (Torvinen, forthcoming [b]). As part of this tone, pedal points and other static textures in Nordic music can be considered experientially homological with respect to the northerly environment. For example, the excessive use of musical time and space corresponds to unique

seasons (a long winter without day, a long summer without night), unusual forms of illumination (midsummer night, *kaamos*), cold weather and large and sparsely-habited areas in the north. As far as static musical textures generally oppose the typical musical syntax of Western art music – as both Dahlhaus and Demers seem to think – they could also oppose the typical binary-divides of Western thought such as two-valued logic, gender dualism, and mind and body division.

Early Examples: Nordic Darkness in the Musical Landscapes by Sibelius and Madetoja

Static textures evoking northerly nature are usually made dark and barren by their orchestration and atmosphere. Early examples of this 'pan-Nordic' trend can be found in early Finnish modernism, such as impressionistic, symbolistic and expressionistic music (ca. 1900–1945). This repertoire contains a great deal of musical imagery depicting the northern environment, and it may be considered an important source for establishing pedal points and static textures as the primary elements in this imagery even up to the present day. (Here it is important to note that in the Finnish context, national romanticism overlaps with impressionism and symbolism, and even to a certain degree with expressionism.)

Jean Sibelius's (1865–1957) late-Romantic and early-Modernist style forms a case in point where pedal points, static textures and dark ambient sonorities are used to suggest a northern atmosphere or landscape. This is especially true of his orchestral tone poems – works that draw not only on nature but also on Finnish mythology and national epic *Kalevala*. These compositions often begin by evoking a mythical atmosphere through a pedal point in the bass, a static haze in the upper strings (often divided or muted) and dark timbres. This musical principle constructs a sense of mythical time and space outside of the temporal linearity of everyday experience, as well as the natural Nordic environment where such mythical events take place (see Tarasti 1979).

The opening of *The Swan of Tuonela* (1895/1897), the second movement in the *Lemminkäinen Suite* (Op. 22), for instance, depicts the austere and grim environment of *Tuonela*, (the realm of Death or Hades), deploying a pedal point of an A minor triad combined with dark timbres. The work is born out of the ambience of gloominess. This soft and spacious chord gradually shifts from lower strings (the bass and the muted cello) to divided and muted higher strings, which produce an ethereal haze as if vibrating the stagnant air and dark light of *Tuonela*. A soft roll of *gran cassa* is added to the mix. Against this shady, ambient world, the English horn – the instrument of Death in many lateromantic works – inscribes its melancholic melody in the Dorian mode, often interpreted as the weird song of the swan of *Tuonela* or its slow swim in the black water. The sombre orchestration is enhanced by the exclusion of flutes, clarinets (except a bass clarinet) and trumpets.

This is an example of Finnish music that is simultaneously national romantic and symbolistic, in which pedal points and static textures evoke both the archaic realm of myth and the barren natural landscape of the north. National romantic characteristics include, for example, a mythological story from the *Kalevala* and echoes of runic singing, rhythms and modal harmonies. Symbolist elements include the mysticism of the music: the powerful audio-images that evoke the realm of Death, and since there is no temporality in the realm of Death, it is described by a pedal point. Also the rhythms in general lack a sense of urgency, as if there were no linear time but only an eternal, mythical time. This atmospheric music, playing with dark shades, places unusual colours to the foreground and typically blurs melodic and accompanying elements into the sonic continuum of an overall texture or ambience.

The fourth piece of the suite, *Lemminkäinen's Return*, begins with a C-minor triad pedal point: an open fifth in the double basses and cellos, *tremolandi* in thirds in the lower register of violas, and a

timpani *tremolo*. Against this static texture – the natural environment – the motif of the subject (the hero) is heard on a dark-sounding bassoon. The orchestral poem *Pohjola's Daughter* Op. 49 (1906) follows the same basic idea. It opens with a quiet pedal point of a G minor triad in divided and muted cellos, French horns (also muted), bassoons and contrabassoon. Against this brooding environment, the subject (the mythical figure of Väinämöinen) is portrayed by a solo cello melody using a pentatonic minor scale. Moreover, in all these examples is a sense of vast space – the 'universe' – which the juxtaposition of extreme low and high registers creates, together with the static nature of the surrounding texture.

This same imagery is found in Sibelius's symphonies and the Violin Concerto (1905) as well. The concerto opens with divided and muted violins in a D minor haze, constructing an effect of a dull light or airborne mist. Once again, this static texture is the landscape against which the subject – here the solo violin – embarks upon its journey. This topic of a vast environment is clearest at the opening of many of Sibelius's compositions but it exists naturally (and in many forms and variations) in other places too; static and mechanical textures often return later-on in a work. In the Symphony No. 6, Op. 104 (1923), for example, we frequently hear divided strings, mystically trembling textures and pedal points which seem to suggest a kind of subjective assimilation into the natural environment.

Interesting from a contemporary perspective is that the northern landscape or atmosphere in Sibelius's work is so static that it can be even heard as pre-minimalist music. As several scholars have mentioned, the mechanically repeating patterns of (post)-minimalistic music seem to suggest a mode of subjectivity that loses its separateness from environment; rather it assimilates to its surroundings, or at least there is no difference between subject and object, 'I' and the world, 'as though they were caught up in a greater chain of events that sweeps them away or overwhelms them' (Richardson & Välimäki, 2013: 222; see also Cumming, 1997; Vadén & Torvinen, 2014).

The Finnish composer Leevi Madetoja (1887–1947) worked with impressionist, expressionist and national-romantic styles. The first movement of his orchestral suite *The Ostrobothnians* (1927) is an interesting example of applying pedal points to evoke northern nature and a particular Finnish landscape, since it uses a pedal throughout the movement. The title of the suite refers to the people of the West Coast region of Finland called Pohjanmaa (Ostrobothnia). Madetoja had composed an opera with the same title a couple of years earlier (1923).

The first movement is called 'Lakeus', which can be roughly translated as 'Open plain'. This refers to the typical flat landscape of that specific region, as Ostrobothnia is mostly former seafloor brought to the surface by a post-glacial rebound. Geographically the landscape here is characterized by expanses of flat cultivated fields with no topographical relief. This environmental atmosphere is conveyed in various ways. Most important is the static texture of the divided upper strings, which keep on playing in the same way throughout. This is easily associated with the sense of a vast and austere landscape. The unchanging pedal point on high strings could be said to construct the topos of the northern light: the arctic light that is diagonal, sharp and often cold (see analysis of Bergman's *Lapponia* below). Against this ambience, some patterns of pastoral woodwinds and open intervals are heard, both suggesting the natural phenomena in the region, occasional birds and open spaces.

From Depiction of Nature to Experiential Homologies: Erik Bergman

Erik Bergman (1911–2006) was a Finnish composer well informed about foreign cultures and exotic topics. Nature, both in familiar and exoticised forms, is a recurrent theme in his

compositions, bringing a clear national-romantic streak to his Modernist ethos and aesthetics. Furthermore, Bergman composed many works with northern or Lapland-related topics (see Howell, 2006: 57–82; Torvinen, 2014; forthcoming [b]). Static textures of many forms are at the core of Bergman's musical style. Already in his early works that are still rooted in tonality, one can find examples in the song 'Olet tuskani' ('You are my torment') from the song cycle *Rakastetulle* ('To the beloved') Op 6, written in 1942. The vocal melody consists of repetitions of a single note only. It becomes an inverted pedal point, resulting in a continuous and more-or-less dissonant tension between the melody and piano accompaniment. The text by poet Yrjö Kaijärvi portrays, with the aid of metaphors of nature, a bittersweet experience of an unattained and unspecified (thus mystical) object of love. A double bind of simultaneous enjoyment of longing for harmony and never fully obtaining it becomes clear at the end of the song where the text 'Olet tuskani, jonka en loppuvan sois' (You are my torment I wish would never end) is accompanied by restless harmonies. The closing tonic notes on piano appear to be included more because of the requirements of the tonal system than any artistic needs.

After his serial period (ca. 1952 to 1965) Bergman adopted the free-atonal harmonic style for which he is probably best known. Influenced by the music of Penderecki and Lutosławski, this approach is characterised by its focus on timbre and texture. Whether constructed from detailed notation or controlled aleatoricism and improvisation, the main focus is to create an overall effect to which all the small-scale elements of the music are subordinated. Compositions proceed from one texture to another by way of contrasting, antiphonal blocks of sound created by various mixtures of prolonged notes, the use of unusual playing techniques, repeated rhythmic patterns, abandoned bar-lines in favour of time-space notation, and avoidance of any clear rhythmic pulse. Bergman's style of this period relies, somewhat paradoxically, on constant change in stasis. According to Tim Howell, Bergman's music from this phase of his career 'moves (rather than 'progresses'), not by any conventional process of thematic configurations [--], but in response to a strong dramatic impulse' (Howell, 2006: 67). Exemplary works include *Colori ed improvvisazioni* for orchestra Op. 72 (1973), *Triumf att finnas till* (Triumph of Being Here) for soprano, flute and percussion (with a text of Edith Södergran) Op. 87 (1978), and flute concerto *Birds in the Morning* Op. 89 (1979).

Returning to the topic and focus of Nordic nature, of special interest here, among the works of this period is *Lapponia*, Op. 76 for mezzo-soprano, baritone and mixed choir (1975).² The piece has four parts: 'Midwinter', 'Yoik', 'Midsummer Night', and 'Storm on the Fells'. Despite their descriptive titles, the text consists of phonetic sounds, rather than full words. The penultimate movement, an evocation of sunlight on midsummer night, provides a good opportunity for a more detailed exploration of these issues of nature. The 'light' is produced for the duration of the movement by a constant ringing interval of a major third (c2-e2) in the mezzo-sopranos. This musical device is reminiscent of Madetoja's 'Lakeus' (see above), and, indeed, both composers were born in the region of Osthrobotnia. As the Swiss musicologist Hans Oesch points out, the interval of third in Bergman's *Lapponia* alludes to C major, a traditional key for representing light and brightness (Oesch, 2005: 240–241). The hues of the all-enveloping midnight sun are reflected by the varying 'clouds' of other major thirds in the sopranos and altos, and by the sounds of different vowels both in the 'light' itself (i–e–ä) and in the 'clouds' (ä–u–a–o): see Music example 1.

<Music example 1. here>

Bergman consciously wanted this musical evocation of 'light' and 'clouds' and was well aware of the historical and cultural conventions of musical imagery; he even considered the interval c2–e2 the most 'sun-like' of all (Oesch, 2005: 241, 8n). He also reused the idea of depicting light with

major third in the orchestral work *Arctica*, Op. 90 (1979), and in the 'Midsommarsång' (Midsummer song) of the cantata *Bygden*, Op. 107 (1985).

The nature of northern light as depicted in 'Midsummer Night' can be analysed by using the ideas of Norwegian architectural theorist Christian Norberg-Schulz, who has proposed that the character of this light is typified by its peculiar direction. Generally speaking, light defines appearances and manifests inhabited spaces. Southern light shines high, often even directly overhead, giving each object its own distinctive form and character. In the north, by contrast, where the sun does not rise so high and always shines more or less horizontally, light defines the world through the casting of shadows and shifting nuances. According to this view, the world in the north is more of an atmosphere than a collection of discrete and individual things (see Norberg-Schulz, 1996: 2–4).

This lack of discrete musical agents in 'Midsummer Night' can be interpreted as being a musical evocation of the all-encompassing space created by the veil of northern light, and the thirds of the sopranos and altos do not succeed in dominating the overall effect. The dissonances and the low male voices at the end of the movement in turn hint at what is obscure and unknown: the northern light creates shadows and darkness that have traditionally been the realm of trolls and other 'indefinite creatures' (see Norberg-Schulz, 1996: 9).

Furthermore, the overall atmosphere of the movement can be related to the Nordic landscape through its prominent use of stasis, silence and desolation. This is a landscape without a subject – or it could be said that the environment itself assumes the function of a subject. Also, the movement is not constructed here as a causal-linear musical procedure developing from one event to another, but rather as a cyclic endurance. It is a representation of the *atmospheric* quality of the northern natural environment and thus lures the listener into an immediate, static, affective experience. 'Midsummer Night' embodies the principle that Dahlhaus sees as characterising much of the exoticism and folklorism in nineteenth-century music; regardless of the milieu depicted, the same technical devices are used, including bass drones, ostinatos and pedal points (Dahlhaus, 1989 [1980]: 306). Indeed, in addition to depicting natural environment as such (see above the third category of nature-related pedal points) the use of pedal points in this movement turn our attention to homologies between the experience of this kind of music and the experience of northern natural environment not only locally but in general, too (see the fourth category of nature-related static textures).

Hyper-objective Environment in Kaija Saariaho's Orion

In an interview given during her composer-in-residence period at Carnegie Hall, New York in 2011–2012, the composer Kaija Saariaho described the relationship between her music and nature as a complex one. She pointed out that while it can easily form a starting point for a composition, she never aims at depictions of nature in her music. Rather, she sees nature as a source of specific experiential qualities – like the symmetry in a flower or like a gust of wind breaking that symmetry – that offer guiding principles for the moulding of the composition-specific musical material (Anon, 2012).

Such a statement does not grant nature any kind of special role among the possible sources of compositional inspiration because such perceivable qualities as symmetry and non-symmetry exist in various other realms – if not in all realms of existence. In this light, despite many nature-related work titles (for example *Petals* [1988], *Neiges* [1998], *Sept Papillons* [2000]), Saariaho's music could not be considered Romantic *nature art* where nature is considered absolute and transcendent and where an artist depicts nature from a distance of admiration. For her, nature is an important but

not in any way essential source of inspiration. This compositional stance can be associated with Modernist objectivism/subjectivism.

However, there are no musical, ideological, aesthetic, logical or epistemological reasons why the techniques, intentions or inspirational sources of a composer should restrict how we listen, study and experience her/his music. If we follow the notion of nature as that which discloses itself through our expressive acts (like music), we can start to ask of any work of art – and not only of those that are explicitly ecocritical or related to nature – what does it reveal about the environment (see Morton, 2007: 5). Therefore, instead of expecting depictions of nature or compositional intentions in Saariaho's music, we can look for what kind of particular environment this music evokes, in what exact ways it achieves this evocation, and what does that tell us about our cultural understanding of the natural environment in general.

In Saariaho's music, one notable type of environment is especially prominent: the topics of space, light, and celestial bodies (found in works like *Io* [1987], *Asteroid 4179: Toutatis* [2005], *Notes on Light* [2006], *Light and Matter* [2014]). While cosmic themes have long been commonplace in the arts, in Saariaho's music – and in many other contemporary contexts – these themes can be seen as reflecting a category of objects that environmental philosopher Timothy Morton (2013) has called *hyperobjects*. Hyperobjects are things that are too massively distributed in time and/or space for humans to comprehend. Even though hyperobjects usually affect our everyday lives, we don't quite understand them because they last too long, are too far away, are too big, are nonlocal, are too fast and so on. Morton's own examples of hyperobjects include climate change and radiation of nuclear waste, among other things.

The focus here is on Saariaho's orchestral work *Orion* (2002), particularly its first Movement 'Memento mori'. Here the debate concerns what significance the static textures in this work has with regard to 'hyperobjective' nature, and, consequently, for our understanding of the natural environment in general. As Howell aptly remarks in his analysis – the only extensive existing treatment of the piece – 'the mythic character of Orion is energetic and earthly but at the same time cosmic, still and heavenly'. This is why the work can be seen as an exploration of what is 'static or dynamic' (Howell, 2006: 221–227).

As Howell has pointed out, '*Memento mori*, is an exploration of multi-layered ostinati. These can be seen as emblems of mortality because of their unpredictable nature: how, where, and when will ostinati end?' (Howell, 2006: 223). Indeed, pedal points, a regular pulse, uni-directional movement and symmetrical scales are what this music is built upon. Its first section (bars 1–50) exhibits three primary characteristics. Firstly, notes drawn in an ascending order from a symmetrical (and, hence, potentially infinite) octatonic scale (B, C, D, Eb, F, F#, G#, A) form pedal points that last usually for four (sometimes also three or five) bars. Secondly, upward melodic motives, especially in woodwinds and strings, follow and overlap each other in rapid succession. They create, together with the pedal points built on an ascending scale, a sense of a constant ascent in the music. Thirdly, the regular pulse created by piano, percussion instruments (especially timpani), and double bass *pizzicati* (bars 1–16) on pedal point notes creates a kind of a *rhythmic* drone characterising the whole section. This pulse is reminiscent of a heartbeat, a common rhythmic-semantic idea in Saariaho's music (Hautsalo, 2011: 119; Välimäki 2012).

In the second section (bars 51–100) the trajectory of events turns downwards through a sensation of constant descending motion. The use of pedal points continues, but it becomes less systematic, both in terms of deploying the octatonic scale and in the duration of single notes. Especially during the first half of this section, pedal points are shorter (operating over two bars; see Howell, 2006: 222–

224.) This, together with *forte* and *fortissimo* dynamics in the upper voices, diminishes the effect of stasis created through the use of persistent bass notes.

Nevertheless, an overriding static sensation is still present, while the constant sense of descent creates an atmosphere of its own. Morton has suggested that an atmosphere is a function of a *rhythm* created by the succession of relevant sonic, visual, conceptual or graphic elements. This rhythm creates a particular physical *vibe* that shows how atmosphere is in fact a material product. (Morton 2007, 160–168). Rhythm in this context is not being referred to as a music theoretical parameter, but as something created by the (fast, slow, multilayered) temporal chain of musical events that causes vibration and a sense of something staying the same. Descending musical motifs, especially scales, are associated with musical-semantic topics of *catabasis* and *passus duriusculus*, which, aptly for this example, act as a reminder of mortality; they have traditionally been used for depicting sorrow, lament, hell and death – the ultimate in stasis (see Hautsalo, 2011: 117–121; Benestad, 1978: 116–117). While the rhythmic, heartbeat-like pedal points and upward motion of the first section create a sense of birth, life, growth and thriving, the persistent downward movement of the second section sucks the listener into a swirl of mortality. These two contrasting musical atmospheres are created by various multi-layered, static, musical textures: ostinati, pedal points and repeating melodic motives.

The movement ends with a Coda (bars 101–132). The short zigzag motive, characterising this passage, is reminiscent – in melodic rather than timbral terms – of a bell toll, a common symbol of mortality; general pauses punctuate this passage, enhancing the sense of impermanence. The movement even ends by using a general pause with a fermata: death is the greatest mystery of all, and one cannot predict its duration. Nor can one predict the time of occurrence of death: the final general pause is preceded with a bar that can be repeated *ad libitum*. Thereafter, the use of static textures continues in *Orion's* second movement 'Winter Sky', which is characterised by focus on stillness and a prominent use of pedal points. While the first and second movements are mostly about the celestial and mythical aspects of Orion, the last – 'Hunter' – focuses on his earthly drive. This movement is full of ostinati and *perpetum mobile* which portray Orion as an active hunter (see Howell, 2006: 224–227).

Saariaho's *Orion* forms one link in her chain of compositions with mythical or mystery themes (Howell, 2006: 221; Välimäki, 2012). The popularity of Saariaho's music among scholars and audiences alike might in part lie in its ability to combine commonplace musical practices (music, rhetoric, topics and figures) and subject matters (cosmos, mystery, death, love, violence, gender) of great historical and cultural relevance with a highly-singular musical expression that touches both the mind and the body, the intellectual and the sensual. Interestingly *Orion*, by maintaining the idea of music's relationship to celestial bodies and harmony of the spheres, tells us about the connections between music and the environment in the widest possible sense and, through its captivating musical sound-world, turns our attention to 'nature in us'.

The static musical textures (pedal points, repetitive rhythmic patterns, ostinati, continuous upward/downward motion) in *Orion* can be associated with all of the aforementioned categories of static textures in Nordic music. The delicate sounds of the second movement, the stubborn swirl in the second section of the first movement, and the frenzied zigzag motif in the end of the first movement turn our attention inward, to our bodily presence and sensations, for instance. This piece – especially its second movement, 'Winter Sky' – can be heard as depicting the northern environment in a dark winter illuminated only by stars as well as evoking the similar experiences that the natural environment engenders. A nostalgic aspect is also evident, since the work hints at the harmony of the whole of existence, and since pedal points are often associated with a mythical

time and eternity. But the contrary is also true: for example, the *ad libitum* repetitions ending in a general pause at the close of the first movement could be, at least in principle, performed so that they create a single huge drone. As Joanna Demers has pointed out, much of contemporary ambient drone music speaks about the end of time, the end of the world, and all the unresolvable dilemmas that accompany such ends (Demers, 2013: 103). Indeed, there is no reason why the effects of contemporary classical music should differ from this.

Finally, *Orion* as a whole can be understood as a musical depiction of *hyperobjective* nature outside ourselves. The work is about things beyond our comprehension (cosmos, mythical figures, death, the course of nature). But instead of creating a Romantic, sublime experience of pleasurable anxiety, where something is so big or powerful that it becomes both frightening and fascinating at the same time, the work resembles the Lyotardian interpretation of postmodern sublime, where the sheer existence of the modern art work and its inherently puzzling, incomprehensible, weird nature, comes to the fore (Lyotard, 1985). Accordingly, pedal points and other static textures function in *Orion*, in the words of Timothy Morton, as *re-marks*: re-mark is a special symbol that makes us aware that we are in the presence of significant signs or 'marks' (Morton, 2007: 48). Ultimately, it is static textures that make us aware of, and make the whole *Orion* a symbol of, hyperobjective things – the most incomprehensible things in our (natural) environment.

Icelandic Resonance: Anna Thorvaldsdottir

Like Saariaho, Icelandic-born Anna Thorvaldsdottir (Anna S. Þorvaldsdóttir, b. 1977) is also interested in celestial themes and has always been, in her own words, 'fascinated with the "infinite" and the grand design of the universe, and how the elements come together as a grand structure.' (Thorvaldsdottir n.d. [a]) In fact, *Orion* is one of her favourite works in Saariaho's output. *Dreaming* exemplifies another connection between Saariaho and Anna Thorvaldsdottir, namely the inspirational significance of nature. Neither seeks to depict nature directly through their music. However, whilst nature seems to be only one influence among many for Saariaho, it is the main source of compositional inspiration for Anna Thorvaldsdottir. In a short text 'Inspiration: nature' published in *Magma*, a web page devoted to Nordic Music, she writes:

[N]ature provides me with my biggest inspiration, which I use as a tool to work with various structures of sounds. The inspiration does not come from the sounds heard in nature but rather from my perception of the combination of grand structure and effortlessness. This is the purest form of inspiration – then, when paying attention, noticing that within the bigger picture rest various details on many different levels. (Thorvaldsdottir n.d. [b])

In the very same text she discusses her compositional process. After an initial, broad framework has been created, 'it is possible to alternate between focusing on the details, on single elements from the whole, or on the larger structure. You can decide if you want to watch the mountain, or if you want to focus on a single rock from the mountain' (Thorvaldsdottir n.d. [b]). Nature for her is not an object of depiction or auditory representation but a tool to generate proportions, structures and musical materials. Her guiding compositional principles are formed by dynamism and interplay between two poles: large, solid, stable and eternal elements on one side, and details, change, evanescence on the other. How do these principles apply to orchestral work *Dreaming*? And, especially, how do these principles and this music relate to pedal points and other static textures?

Dreaming, sub-titled 'flow for orchestra', has a motto printed on the first page of the score with an exceptional typography. Together with the title and sub-title this motto functions as a fruitful hermeneutic window (Kramer, 1990) for studying the work:

Nature

listen float free individually embrace listen

Nature

It is both a description of Anna Thorvaldsdottir's compositional process and an outline of the temporal unfolding of this work. As mentioned, nature is not an object of representational depiction for her, though she has said on many occasions that she likes to 'listen' to landscape, to the structure and grand design of nature. However, she also stresses that her music and its sounds come 'from within'. They become an 'individual embracement' of nature to which everything ultimately returns. This resembles the thoughts of the French philosopher Jean-Luc Nancy, who has maintained that all symbolic meaning and sound are similar in one particular sense: they share the same space of referral. Thus, listening (to sounds), according to Nancy, becomes re-sounding (resonance) and straining towards possible or even inaccessible meaning, while 'to hear' always means understanding the sense that is already present (we hear a siren, a bird, a car, etc.). Similarly, as Nancy writes, 'the point of occurrence of a *subject* in the substantial sense would have never taken place except in the referral, thus in spacing and resonance, at the very most as the dimensionless point of the re- of this resonance.' (Nancy, 2007: 6–9; see also Vadén & Torvinen, 2014). This is an apt philosophical description of Anna Thorvaldsdottir's compositional process: one could say that she clearly wants to resonate with nature by listening to its non-evident sense, sounds, and meanings; and through this very listening act she wants to become a composer and a subject ontologically tied to nature. '[In] the presence of [nature's] grand figures you feel like whispering out of respect to nature.' (Thorvaldsdottir n.d. [c])

Dreaming can be interpreted as being both a musical evocation of the compositional process itself and, simultaneously, an invitation for a similar experiential process in listening to the work. The underlying idea of nature is rendered primarily in two ways. First, as a 'flow of sound' for orchestra, the work is like a journey of sounds from nature to human – and back. The beginning (before bar 4) and ending (after bar 103) are to be performed without any metre and without the conductor beating a pulse. These sections signal a state of affairs without human control: nature. Secondly, the work makes extreme use of pedal sonorities. Throughout the whole piece, and almost without interruption, there are continuous long notes in the low-register instruments (double bass, double bassoon, cellos, tuba, trombone). These pedal points are usually conspicuous, but sometimes, especially in the 'human' central section, hidden in the texture so that one would realize their existence only if they were suddenly missing. In other words, there is always an auditory base over which all the other sounds are in harmony, in contrast, or in tension. As such, the work can be considered as being built upon a grand pedal note of nature: it emerges from it and finally recedes into it.

The first notable occurrence of a pedal note/chord takes place in bars 11–14. Bassoons and double bassoons play a low E (in octaves), which is soon supplemented by a low A in the double bass. In

various combinations, and occasionally supported by tuba and trombone, this pedal note/interval/chord is capable for creating natural harmonics and, consequently, a richness to the orchestration and overall textural effect. It is conspicuous throughout the first section, lasting until the short transition in bars 41–45 that leads to section two.

This second section starts with an orchestral chord followed by a short motif on the solo violin (bars 45–47). This use of the most individualistic instrument of the classical tradition marks the beginning of a section where an emphasis on natural processes is substituted by a focus on human individuality. The orchestra becomes more like an ensemble of soloistic events, and static elements in the overall texture now become rhythmic ones; main elements in the overall sound world include a repeated steady pulse of a chord played by celesta and harp (bars 46–59) and the 'shamanistic' drumming. Drumming comes gradually to the fore starting from bar 55 and after that it is played over a huge orchestral pedal until bar 64. What follows is the frighteningly powerful dynamic climax of the piece where all the instruments of the orchestra are, for a while, like individual virtuosi (bars 64–69).

The rest of the piece (starting from rehearsal letter E in bar 70 and amounting to over a half of the total duration) forms a long journey back to nature, returning to where events began. A short meditative and transitory section (bars 70 to 80) leads to a final section entitled 'NATURE' in the score. Everything that follows constantly employs pedal notes and chords that create an overall feel of stasis despite the many detailed events on the surface. The main (and perhaps the only) truly-melodic element of the NATURE section is a recurrent two-note figure introduced on the celesta in bar 81, marking the start of this section. This simple, modest but beautiful melodic fragment brings to mind wind chimes or aeolian harps that create music without human intervention (see Music example 2.). The overall effect of this last and longest section is a clear example of Anna Thorvaldsdottir's musical aesthetics and compositional process that relies on the interplay between detail and grand structures.

<Music example 2. here>

From an ecomusicological point of view, following Aaron S. Allen's analysis of symphonies of the nineteenth century, one could hear this music as a complex pastoral (see Allen, 2011). When considered in this way, the work is an evocation (but not necessarily a depiction or representation) of nature. Yet the middle section of the work, with its emphasis on humanity and individuality, is a symbol for things that are external to physical nature and interrupt its course. This is exactly why the pastoral idyll becomes a complex one; the transcendence of nature becomes unstable. However, underlying pedal notes and other static textures in Anna Thorvaldsdottir's *Dreaming* suggest that such an interruption never succeeds: we are part of the physical nature whether we want to be or not. Perhaps this is what the title indicates: we can only *dream* of being separate from nature. Indeed, one could hear this piece as a comment on (and even as a depiction of) the idea that nature itself is not something outside us but instead needs our expressive acts *through* which it can disclose itself.

Topical reciprocity between music and nature

This chapter has analysed the significance and role of pedal points and other static textures, 'the Nordic drone', in selected examples of Nordic classical and contemporary music. Our approach has been cultural, musicological and ecomusicological with music-philosophical constituents. Although the focus has been on Finnish and Icelandic works, there is no denying that similar arguments and analyses could be made in respect to other examples. Nordic music may well mirror elements from

nature and environment, and it can do this in multiple ways. However, the opposite is also true: the northern environment may mirror Nordic music, because Nordic music shapes our views on this very environment.

The latter comment is especially important in this discussion given the preoccupation with environmental concerns in today's world. It is widely accepted that natural sciences cannot alone offer solutions to these concerns and we believe that music which has some kind of relationship to nature has a significant role in both shaping our conceptions of the environment and in negotiating the values and meanings we give to it. Needless to say, such a role does not require music to be explicitly or intentionally nature-related or ecocritical. Yet ecomusicological listening invites us to consider the possibility that all music, at least in principle, can be heard in the context of nature and our relationship with it. The manifold forms and uses of static textures in Nordic music and the significance of nature in Nordic music and discussions about it form a unique object of (eco)musicological analysis that has global relevance in a world where our relationship to nature has become such a big question.

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¹ It is obvious that Nordic music is not the only form of music that is characterised by an extensive use of static textures and nature topics. However, through our analyses we attempt to show that a very particular use of static textures in close connection with natural imagery is in many ways unique to Nordic music.

² One of the authors of this chapter has analysed Bergman's *Lapponia* elsewhere (see Torvinen, 2014; forthcoming [b]), but since this piece is an extremely appropriate example of static textures as musical imagery of the northerly environment, we have decided to include an extended analysis of it here.