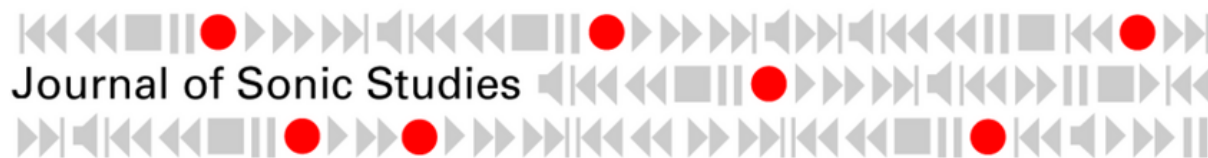# Experiencing Recorded Geophony. Listening to Arctic Winter Winds at Home

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Introduction

The howling Arctic winds is a familiar sound to many of us, either by direct experience in everyday life or from the sound design in countless fiction and documentary films that are set in the Arctic and the Antarctic regions. Such sounds might be associated with a setting that includes wild nature where the dangerous cold needs to be escaped, or perhaps the contrary: a more relaxed setting that depicts the taming of nature, sitting inside a warm and comforting "cave," relaxing and rather enjoying the sounds of the cold winds outside. The following discussion will present how these sounds involve individual differences and ambivalence when commented upon in YouTube commentary fields in connection with the playback of seven selected videos that present such winter winds. You can test your own experience by playing back one of the seven long duration videos that are included in the following discussion.

There is some uncertainty involved in estimating the level of attention that listeners give to the sounds in such a video, and different modes or types of attentiveness are relevant. However, when considering the dynamic qualities of the winter wind sounds, the listening will most likely and realistically reflect a type of "background listening" as described by Barry Truax. According to Truax, this involves a listener who is aware of the relevant sounds and is able to recollect having heard the sounds afterwards but who does not pay any real attention to them during the unfolding of the listening event. Even if the listening experience *starts off* as an attentive or semi-attentive way of listening (similar to what Truax [2001: 21–22] calls "listening-in-search" and "listening-in-readiness"), the static sonic experience will in these videos most likely motivate the user towards a background listening mode after a while.

Due to the very long durations of the materials presented, the process of listening and the different listening modes and shifts between them will be central in the following discussion. The videos are all between one and nine hours long. The duration is connected to the various intentions that, according to the publishers' notes, help the listener relax, meditate, sleep, study, block out unwanted noise, or achieve similar calming effects. However, the following will show that the intentions of the publishers and the desired effect on the individual listener will not always be achieved.

A parallel to the role of background music is relevant. People "use music as a background to help them celebrate, relax, clean house, or study," write music theorists Patricia Campbell and Carol Scott-Kassner. Furthermore, in "most of these instances,

the music is a kind of tonal bath that surrounds and washes over them but is not seriously attended to" (Campbell and Scott-Kassner 2010: 223). Campbell and Scott-Kassner describe this as *functional* listening, in contrast to a more active perceptive listening. And when users play back recorded geophony rather than music, as in this case, the functional use of natural sounds will have similarities to how background music is used.

R. Murray Schafer called attention to background sounds in the 1970s. Here, the sounds of "water, wind, forests, plains, birds, insects and animals" are described as part of "the keynote sounds of a landscape" (Schafer 1994: 9f). Even when such keynote sounds remain in the background of our living environments, they still affect us in powerful ways: "Even though keynote sounds may not always be heard consciously, the fact that they are ubiquitously there suggests the possibility of a deep and pervasive influence on our behavior and moods" (Schafer 1994: 9f). Schafer also proposes that such background sounds may possess archetypal qualities and presents a number of examples that draw attention both to the individual and cultural impacts of sonic environments.

In the following we will, based on the need for precision, rather use the term geophony than keynotes to describe the audio part of the relevant videos. Accordingly, we follow an important taxonomy developed about sonic environments by Bernie Krause (1987). Krause distinguishes between three acoustic sources: *geophony* (non-biological sounds, such as wind, thunder, rain, snow, ice), *biophony* ("biological" sounds generated by all organisms except humans) and *anthrophony* (later referred to as anthropophony by Truax - in both cases referring to sounds generated by humans). He uses this terminology while performing an ecological analysis of environments in nature by recording and analyzing sonic environments at specific locations over time, focusing especially on the different shifts in geophony, biophony, and anthropophony at specific locations. In the cases we present here, however, the recorded geophony does not represent a specific geographical location but has regional connections to the Arctic as well as to the winter season, high mountains, and wilderness in general.

Recorded geophony is made available for listening in numerous ways today, and the seven videos selected for this study are part of a larger body of online videos that present the sounds of ocean waves, rain, rivers, thunder storms, and other non-biological sounds for very long durations with static visuals. These kinds of online videos belong to the broader historical and contemporary phenomenon of listening to recordings of natural environments. In his recent book *Hush – Media and Sonic Self-Control,* Mack Hagood presents the long history of media technologies that have promised users the ability to achieve a "safe place," using technology to "fight sound with sound," similar to the stories of Orpheus in Greek mythology (Hagood 2019: 12). Hagood coins the term "Orphic media" to describe this use of sound and draws upon more than fifty years of historical trajectories, including the listening to LPs with nature sounds in the 1970s up to the current situation, about which he writes:

> Generating billions of dollars in revenue, these technologies include not just noise-canceling headphones, but also white noise machines, smartphone apps designed to make a noisy office or bedroom sound like the seashore or a rainy country field, wearable sound generators to suppress the sound of tinnitus, and new in-ear smart devices ('hearables') that filter, alter, and hush the sounds of the world. (Hagood 2019:12)

When these sounds are played back, they contribute to creating an individualized auditory experience for the listener, involving what Hagood describes as "sonic self-control." Other scholars have in turn discussed parallel situations where individuals perform "acoustic cocooning" and create "sensory privacy" (Bijsterveld 2010) or similarly define their "personal sound space" (Flügge 2011).

Today, the growing use of headphones and speaker systems also makes it possible to individualize sonic environments in cars, in working environments, while riding the bus, while outdoors, etc. In our study, based on the user descriptions, we have found that recorded and mediated geophonic sounds are generally played back at a domestic location. The sounds have not been played back as part of a survey set up by the authors but at the user's own initiative, and our analysis is based on this user-initiated listening and commenting. The large number of available comments in response to the seven videos, in this case 3894 first-level comments, opens up space for discussing questions regarding the experience, such as: How uniform is the experience for the users, and what kinds of variations are reported with regard to motivation, intentions, and result? Do the users express their experience as clearly pleasant or unpleasant, or is the experience connected to a certain ambivalence? Does listening to recorded geophonic sounds involve some of the same "powers" as playing back music or experiencing nature sounds from the physical environment in which the listener is situated?

Material and Method

When using a listener-centered approach here, the aim is to use textual comments (free self-reporting) as a basis for discussing how the YouTube users experience the recorded geophony. The study thereby connects to other studies that can be called listener-centered, involving focus groups and diaries, interviews, surveys or other materials and applying qualitative or quantitative methods to study affects and effects among individual listeners. However, in most cases these studies involve insights about everyday listening to music rather than listening to recorded geophony. Studies of subjective experience of music have presented a number of insights, often focusing on the experience in terms of emotion, mood, and perceived functions. Music psychologist Ruth Herbert (2016: 53ff) has used first-hand reports of everyday music listening to illustrate a number of phenomenological themes. Juslin, Liljeström, Västfjäll, and Lundquist (2010) have discussed how music may induce emotions in various ways, describing seven underlying "psychological mechanisms" by combining insights from field studies and laboratory experiments. It is, however, far from obvious that listening to recorded geophony would yield the same results as listening to music. Thus, rather than searching for existing concepts (connected to musical listening) or relying on traditional binary categories such as pleasant or unpleasant listening experiences, we sought to identify case-specific categories and concepts based on the sonic materials and the responses to those materials.

What initially generated interest in the seven videos that are discussed here, was how these (as well as other) videos seem to have similarities in how they present winter winds. Some videos have quite a large number of comments, something that we found interesting. The selection of the videos is strategic, and the ambition was to explore

rather than to categorize and quantify user comments for the purpose of generalization. The seven videos were selected on the basis of their similarities, their popularity, the number of playbacks they have received, and the number of comments they have received. The indented, functional use by the publishers is also evident, as revealed by the titles of these videos, which often refer to relaxation and sleep. Winter winds was chosen, as this type of geophony would likely stimulate ambivalent responses, meaning that such sounds would generate an interesting variation in the user comments.

After selecting seven videos and a large number of comments consisting of free self-reporting, this diverse and unstructured material needed to be narrowed down for relevance. Combined, the videos had received 3894 first-level posts in the commentary fields, published over a period of six years (when downloaded on 29 April 2019).

As a first step, we chose the initial, first-level user-generated comments and excluded all of the replies by other users. Our focus was to target the initial user responses rather than the dialogue between users, which seemed to quickly focus on other aspects than the listening experience, serving more of a social function.

Secondly, we separated the relevant comments, those which explicitly described the user experience in one way or the other, from the less relevant. The many posts that were put aside included a broad array of expressions that primarily revealed how commentary fields can be used as a social arena: the users may express gratefulness to the publisher, greet other users, try to be funny, argue about others' spelling, present thoughts on the local weather, etc. After excluding these, the relevant material was reduced to 564 comments.

In the next step these comments were treated as (textual) qualitative data and studied by means of a hermeneutic process often used within studies that aim for ideographic end results. Evaluating and mapping single comments, comparing comments, and identifying possible categories, larger structures, and themes, resulted in a growing understanding that could be used to check and modify the initial mapping of comments. This iterative process mostly involved induction, but also some shifting between smaller steps of deduction and induction, identifying and testing concepts and categories based on repeated comment comparing. This process was performed manually, but showed similarities with coding and computer-assisted processes, such as when using software for the analysis of qualitative data.

The material was then categorized as follows:

- Users found peace, became relaxed, sleepy, or ended up sleeping
- Users felt uncomfortable or ambivalent
- Personal memories were evoked
- Users experienced changes in perceived temperature
- Users reported an acoustic contribution to situations of work and creativeness, studying, or reading
- Memories of dramatic scenes in fiction films were evoked
- Health problems were ameliorated (tinnitus, dementia, insomnia, etc.)

These categories were again combined to form three themes that will be discussed in the following: 1) reported changes in mental states, 2) reported evoking of memories, and 3) reported powerful effects on health and temperature.

While the videos consist of both audio and video tracks, we focus on the relevant experience as a *listening* experience. This is because the visuals that complement the sound often contain only a single still image projected for the majority of the sound event or consist of a short loop of a limited number of video frames. A typical example can be found in Video 2.

This eight-hour long video begins with a quote by William Shakespeare and a description that leads to several slowly dissolving moving images of empty winter forests. These moving images continue for the first half hour of the video before they are replaced by a still image of a mountain cottage, which serves as the visual content of the video for the remaining 7,5 hours. Another example can be found in Video 1 above, where we see a nine-hour loop of a lamp post at night, layered with (most likely animated) gusts of fog, in the winter wind. This reflects a common phenomenon on YouTube, for example when popular songs are published with a still image of the band or the cover sleeve of the song. The visuals may in this case function as a visual reference for users that have no or little experience with winter winds by depicting some sort of a winter storm, trees without leaves, graphical representation of ice and snow, etc. However, it is rather unrealistic to assume that users watch these static visuals for a very long time. For this reason, we focus in our study on the inner imaginary visuals evoked as part of the experience rather than the visuals presented in the videos. This approach mirrors what is expressed by the user comments.

As concerns visualization, a listening experience can contribute to mental processes that involve images, visual associations, memories, and daydreams for the listener. In a phenomenological sense, experiencing these recordings can involve the evocation of mental images that may be explained in relation to the interplay of senses, such asthe poetic image written about by philosopher Gaston Bachelard, whereby mental images arise while reading poetry. We might also connect this to the case of reading novels, where the reader creates mental images of characters or places based on the text at hand. Philosopher Don Ihde (2007: 208) writes that listening to sound may also lead to the same phenomenon: the experience of sonic sensations can stimulate visual images in the listener.

Listening Outward – Listening Inward

While analyzing the comments, we found it striking that the YouTube users showed very little interest in where the geophony was recorded or how it was recorded and edited. Neither did they describe or evaluate the winter wind in itself at any length. This means that the users did not present relevant comments speaking to what film theorist and composer Michel Chion (1994) describes as three listening "modes" when experiencing mediated sounds: "causal listening" (focusing on cause or source of a sound), "reduced listening" (focusing on the acoustic characteristics of the sound

itself), or "semantic" listening (focusing on semantic meaning, usually of spoken language, Morse, or other "codes"). This lack of commentary is perhaps natural when considering the low level of complexity and dynamic changes in these sounds. After reaching an initial understanding of the source, including a possible dismissal of any semantic meaning, the geophony seems to mainly foster what might be understood as a kind of reduced listening. However, the users consistently report on the effect on their individual inner world rather than commenting on the source, the characteristics of the sound itself or referring to a possible semantic meaning.

The comments include very few mentions of other examples of mediated sounds, musical compositions or works of art, yet some users associate the recorded geophonies with the sound design of specific films. These associations point to "referential listening," proposed by sound designer and author David Sonnenschein as a fourth possible listening mode, next to Chion's three modes. Sonnenschein describes referential listening as

> being aware of or affected by the context of the sound, linking not only to the source, but principally to the emotional and dramatic meaning. This can be an instinctual or universal level for all humans (e.g. a lion's roar), culturally specific to a certain society or period (e.g. a horse and buggy on cobblestone), or within the confines of the sound coding of a specific film (e.g. Jaws' famous dah-Dah ... dah Dah). (Sonnenschein 2001: 78)

When comparing the comments with Sonnenschein's examples of referential listening, the explicit references mentioned by the users are mostly personal – memories from their own life stories, associations with their personal experiences of sounds in films, etc. – rather than the universal or cultural meanings that Sonnenschein emphasizes. This listening mode can therefore be described as mostly "introspectional," rather than "extrospectional," and characterized by the listeners' examination of their own thoughts and feelings. Accordingly, the listening mode involves a *process* where attention shifts between outer and inner worlds over time – between sounds, sonic environments, and the inner life: affects, memories, associations, and imagination. Herbert writes about everyday musical listening experiences involving, similarly, "an alternation between an inward and outward focus of attention – from preoccupation with internal thoughts and images to scanning the external environment" (Herbert 2016: 55).

When looking beyond the user comments, the experience of the seven videos *does* connect contextually to a number of other productions and listening experiences. Due to their particularly long durations, they can be identified as related to audio-visual productions like the so-called "Slow TV," originating mostly from Norway (Puijk 2015), as well as sharing some attributes with "slow cinema" and the soundtracks thereof, or what film scholar Philippa Lovatt has described as "slow sound." Slow TV refers to the coverage of an ordinary event in its full length, similar to the (extreme) long take in slow cinema, which includes lengthy continuous audio recordings within the "slow sound" that often accompany slow cinema.

However, while the typical slow audio-visuals (TV, cinema, sound) have at least some sense of narrative attached to them, the videos discussed here do not contain this kind of development. These videos are thereby even slower than the visuals in slow TV or slow cinema by being static and repetitive, as well as lacking changes in camera angles, camera movements, editing, etc. While it is easy to see connections between the recorded geophony and various "slow" expressions, recorded geophony does not present a narrative. Nevertheless, one example containing a minimal narrative, is the video titled "Pure Arctic Wind." Here, the audio is quite static and the visuals can be said to have a "screensaver quality," due to looping.

Although we recognize how the recorded geophony connects to the material of some musical or soundscape compositions – for example the work of Andrea Polli, Chris Watson or Hildegard Westerkamp – the winter winds in our discussion are not composed in any other sense than looped for purposes of extending the duration. The recorded geophony is typically presented as field recordings rather than offering some sort of expressive intent. The political and ecological concerns that are often expressed in response to soundscape compositions are also totally absent in the user comments. This absence is in itself interesting and is in sharp contrast to other cases where Arctic sounds and their aesthetics are involved, where such concerns are quite prominent. This concern has been extensively discussed within sound studies, for instance in *The Farthest Place: The Music of John Luther Adams* (Herzogenrath 2012) as well as in *Far Field: Digital Culture, Climate Change, and the Poles* (Marsching and Polli 2012).

In this case, the intentions of publishing recorded geophony align to the expressed intentions of publishing ambient music. When music historian Victor Szabo combines writings of Brian Eno with descriptive responses from music listeners, it results in the following description: "Ambient music is unobtrusive electronic music, made using sustained tones, that fosters an atmosphere, mood, or sense of place, often with a calming effect" (Szabo 2015: 6), a description that explicitly points to the intentional mental effects of ambient music. Furthermore, ambient music also reveals similarities in function with recorded geophony as concerns background listening. Eno's oft-quoted statement describes his own intentions in an early stage of his carrier: "Ambient Music must be able to accommodate many levels of listening attention without enforcing one in particular; it must be as ignorable as it is interesting" (Eno 1978: liner notes).

The intentions for using what Hagood calls "orphic media" can also be brought into connection with the seven videos. Hagood describes his examples of orphic media as "technologies designed for the sonic control of one's affective state and environment, usually deployed in utilitarian practices that privilege sleep, concentration, and the freedom to remain unaffected" (Hagood 2019: 25). Various kinds of sounds are used to achieve such "sonic self-control," and in two cases this involves geophony. One case is when Hagood discusses the LP series *Environments* with sounds from nature from the 1970s, published by Irv Teibel and Syntonic Research, Inc., for commercial use. Teibel used simple questions from listening tests to gather information about the listening experience, and positive feedback from listeners (possibly also written by Teibel himself) were printed on the sleeves of the records (Szabo 2015: 36f).

Hagood's discussions of the digital descendants of such recordings, as in the case of more recent applications for smart phones offering sounds of nature, are clearly relevant as well. The promoted effects of such apps are the very recognizable: "sleep, calm, and concentration." "The economy of orphic apps indicates that these affective states are considered hard to come by and are therefore prized, worried over, and carefully conserved" (Hagood 2019: 121). However, subjective responses to the experience of recorded geophony can be quite diverse. While orphic media involves the *attempted* control of affect (Hagood 2019: 13), the actual results are far from predictable.

Hagood's extensive discussions involve historical, commercial, promotional, technological, aesthetic, social, and cultural aspects of orphic media. In our case the discussion is focused on aesthetic experiential aspects of listening to recorded geophony, and grounded in individual reports on the listening experiences. This will be discussed in the next three sections, followed by some concluding remarks.

Individual Differences and Ambivalence When Influencing Mind States

Relaxation and sleep are the most frequently reported effects. In 238 comments, representing approximately 42% of the selected 564 first-level commentaries, users wrote that they found peace and became relaxed or sleepy – or slept – when listening to these winter winds.

> This is great! I just snuggled up under a blanket and covered my eyes (in the middle of the afternoon). Suddenly I was there, in the midst of it … fell asleep within a minute or two. (comment by Machru, Video 1)
>
> I have fallen asleep to this for the past three nights. I can see why others think it's terrifying, but it relaxes me…? Not sure why, but it clears my thoughts so I can sleep. Thanks for posting this. (comment by Elliott Walker, Video 1)
>
> when ur stressed ur gona fail ur exam. (comment by Ricky Rodriguez, Video 1)

An interesting aspect concerning relaxation is that the sounds have some similarities with "white noise," or other broad-spectrum static noises that are traditionally used to achieve a relaxing state. Broad-spectrum noise can also mask symptoms of tinnitus, and a handful of the comments explained how users dealt with the condition of tinnitus by masking its rather constant sound with a more enjoyable one. This resonates very well with how Hagood (and others) describes the various attempts to use broadband noise to "fight" tinnitus. However, the number of such comments is quite low in our material.

Finding a relaxed state is only one part of the picture. 101 persons reported the effect of feeling *uncomfortable* or *ambivalent* towards the experience of these geophonies. Typically, the soundtracks are in such cases either described as "terrifying," "spooky," or "creepy," or users will express individual ambivalence: "terrifying, but calming" and "relaxing or sinister?"

this makes me anxious. (comment by Haidar Alley, Video 2)

Ok I'll go back to rain sounds, creeping me out. (comment by BigTimeAndy, Video 2)

it scares me more than anything it sounds like a tornado getting closer and closer. (comment by Justin Williams, Video 1)

Cool but scary. (comment by staub feger, Video 1)

Yet another part of the picture is that users signal other motivations and results. Some reported that they use these sounds to concentrate and achieve an *attentive* state towards activities other than listening. In 27 comments people are positive about playing back the sound of Arctic winds to support studying and reading, while 15 others refer to how the geophonies are used to support either work or creative pursuits.

I listen to this while reading my psych textbooks. Good stuff. It makes me want to wear a scarf while listening. (comment by Giles Hawthorn, Video 1)

I'm listening to this while reading 'Biggles in the Antarctic'. It adds so much atmosphere. (comment by Isaac Reed, Video 1)

I was stressing and trying to study, this really helped. Thanks. (comment by Olwethu Dyasi, Video 1)

Very good for reading. Especially during intense moments with scenes taking place during winter. Great vid. (comment by Charles, Video 2)

It is interesting, but not surprising, to note that some of these comments refer to how the experience involves the phenomenon of creating mental images, thus corresponding to Bachelard's poetic image or Ihde's visual imagination. Thus, the recorded geophonies can potentially trigger associations or evoke internal visual images of landscapes with endless white snow and ice.

In the case of music, Herbert (2016: 59f) connects visual imagination and listening when discussing what she calls "visual listening," describing how music can evoke an experience of an imaginary "filmic narrative." Visual imagery is also mentioned as one of the seven underlaying mechanisms through which music might induce emotions (Juslin et al. 2010: 1170), combined with "episodic memories."

Individual Differences and Ambivalence When Evoking Memories

As concerns memories 74 user comments show that, while music enjoys a special status regarding its relation to and ability to evoke memories when compared to other kinds of sounds, the sounds of winter winds also appear to function similarly. It seems clear that these sounds also evoke memories, leading users to subjective (and mostly pleasant) memories of places they have visited or lived in for a shorter or longer period of time.

> Reminds of a winters day in the mountains when I was young! delightful! (comment by Mo Dolaghan, Video 1)
>
> I am retiring in the Philippines. Taking this just to remind me of many lonely nites on the Trans Canada. (comment by Peter Young, Video 1)
>
> Thanks for uploading this. It reminds me of Patagonia. Good night. (comment by Daniel Santana, Video 2)

We detect a certain nostalgia in these as well as other comments that share memories of locations and lived life. By listening to recorded geophony, listeners recall situations and places to which they are no longer affiliated, triggering memories and mental images of past times and places.

Individual memories of sounds and acoustic environments have been described and treated as central topics in the discourses around soundscapes. Schafer's discussions around "soundmarks" and "earwitness" are two primary examples where traditional terminology is connected to sonic memories. Soundmarks, sounds that are directly connected to specific geographical locations, are the sonic equivalents of landmarks. Earwitness is the sonic equivalent of an eyewitness and involves someone to identify various sounds – often soundmarks – and how they are linked to prior experiences of the same – or similar – sounds at specific location(s) and specific time(s) (Schafer 1994: 8).

"Sound romance," another term coined by Schafer and later discussed by Barry Truax and others, has been used to describe the positive feelings that can arise when listening to a sound that one has heard before and is familiar with. According to Truax (2001: 29), sound romance refers particularly to the nostalgia around sounds that have been experienced in the past and have since disappeared.

Together with sound romance, the term "sound souvenirs" (Bijsterveld and van Dijck 2009) is relevant with respect towards how the memories of winter winds are described. Keeping in mind that music is much more precisely remembered than other sounds and that most of us have a higher involvement towards music, Bijsterveld and van Dijck (2009: 13) point out that people use recorded music more often than recordings of everyday sounds as a way of evoking memories. Recognizing this, we still argue that all kinds of sounds *can* function as sound souvenirs. The sounds experienced in life carry the potential to be individually (or collectively) connected to an event, time, and/or a specific location. The recorded geophonies function as sound souvenirs to some users, from the Arctic region for example. While a soundmark points to sounds that are very specific for a place, sound souvenirs are more general, in the sense that they may represent a larger area, a state of mind, a specific time of the day or year, or a specific period in the life of the listener. At the same time, memories evoked by sounds are varied, and some users associate the winter winds with prior experiences of dramatic scenes in fiction films (found in 32 comments). This is not surprising, as howling cold winter winds form a central sonic element in many fiction and documentary films. It enhances the experience of solitude and often amplifies the presentation of inhospitable and dangerous environments. For audiences who have not experienced the Arctic region in real life, these kinds of film productions may be the most important references when experiencing winter sounds on YouTube.

At this point we suggest that you test what kind of memories are evoked, if any, by listening to another one of the seven videos. The 32 posts that refer to films center around rather old productions, and all of them describe the experience of recorded geophony as evoking a "scary" or "creepy" atmosphere. *The Thing* (Carpenter 1982), *The Shining* (Kubrick 1980), and the first three *Alien* movies (Ridley 1979; Cameron 1986; Fincher 1992) are all mentioned. So even if the recollection of sounds from the referred fiction films are inexact or only partially precise, these memories clearly contribute toward making the sound of the howling winds even more dramatic and perhaps scary to some users, a result of having been directly linked to their prior experiences of similar sonic environments in films.

It is interesting to note that sounds can have the same function as a certain smell or a special (visual) object in their capacity to evoke a memory. Truax points to this ability of sounds to "remind one of pleasant or unpleasant memories and therefore evoke a conditioned response" (Truax 2001: 28). He emphasizes that sound memories will often have connections to the other senses: "Sounds and their original context are stored in memory as patterns. Recalling the context may revive a memory of the sound, and the sound, if heard again, usually brings the entire context back to life" (Truax 2001: 29).

The same mechanism is also discussed when it comes to situations of experiencing music, as in the description of "evaluative conditioning," regarded as one of the seven underlying mechanisms of how emotion can be induced (Juslin et al. 2010: 1170f). The same kind of multisensorial connections are also described within cinema studies, as when film scholar Laura Marks notes: "Since memory functions multisensorially, a work of cinema, though it only directly engages two senses, activates a memory that necessarily involves all the senses" (Marks 2000: 22). This also speaks to how the users respond to the "powers" of the listening experience as a multisensorial experience.

Individual Differences and Ambivalence Towards the Power of the Experience

In *Music in Everyday Life*, music sociologist Tia DeNora discusses how music can influence mood and create atmospheres for activities, routines, and occasions. Under some circumstances "music can be said to be reformulating parameters of embodied experience, to alter pulse or breathing, for example, to diminish awareness of pain" (DeNora 2000:161). It is interesting to note how geophony can have some of the same powers that are typically associated with music – perhaps primarily with music therapy.

There are some comments in the material that elaborate on typical therapeutic effects, connecting listening to the lessening of or aiding with pain, or helping people cope with ADHD, dementia, and insomnia. There are also some examples of powerful, but *unwanted* effects described, although these are quite low in numbers. In these comments, listening experiences are connected to memories of unwanted life experiences or the negative experience of being alone, associating the winter winds with death. As an interesting parallel of unwanted effects, DeNora (2000: 14) refers to how the playback of Brian Eno's composition *Music for Airports* was cancelled due to

complaints at Pittsburgh Airport as, contrary to the implied intentions of ambient music, travelers felt the music made them nervous.

One interesting example of powerful effects is that users reported feeling physically cold – even if their experience took place in a normal and constant room temperature. 73 users reported such changes in perceived temperature, relating it either to a pleasant or unpleasant experience – trying to stay cool in high temperatures or trying to stay warm.

> Why do I feel dead-cold while listening to this? I usually don't use a blanket when I go to bed but if I'm listening to this one, I always look for one. (comment by Tyrenious, Video 3)
>
> Suddenly I feel physically cold goes outside to sunlight. (comment by Helena, Video 1)
>
> Brad, do you have any soundscapes of desert winds? Does anyone? Don't get me wrong, this one's fantastic too. It's 40*C where I live today so I use it to cool off. (comment by Anna Inspain, Video 2)

It is plausible that the perceived coldness is related to personal memories of being situated outside during winter blizzards. Personal memories can also contribute to mentally connect these kinds of sounds with cold temperature (again involving multiple senses). One of the videos also has "cold" mentioned in the title, and it is possible that such descriptions may guide or influence the listeners' experiences.

It is, however, plausible that the reported experience of bodily coldness is a result of a more direct emotional response to experiencing geophony, similar to how music at times can produce sensations like chills or goose bumps in an audience without depending upon some sort of prior memory or without being directly connected to an earlier experience. Music researcher Dale Bartlett writes that music also "affects the body's physiology with changes in heart rate, respiration, blood pressure, skin conductivity and temperature, muscle tension, and chemical composition" (Bartlett 1996, as referenced by Kerchner 2014: 7). Similarly, in the article "Thermoception in the Arctic Film," film scholar Luis R. Antunes – when discussing Arctic cinema and what he calls the "aesthetics of cold" in the films of the Norwegian Knut Erik Jensen – addresses how movies can contribute to influence thermoception, and the sensation and perception of temperature. Antunes argues that "thermoception should be redefined from being merely the result of an objective measurement of external thermal energy to being a sensory modality that is integrated into a complex system called homeostasis, which is influenced by our emotions and the other regulatory functions of our bodies" (Antunes 2016: n.p.).

One aspect possibly influencing the listening response in this particular case, is that listening to geophony is one of the oldest listening experiences in human history, and therefore involves inherited instincts towards sounds associated with cold temperatures, triggering survival instincts and an urge to find a shelter. However, more certain than such speculation is that this perceived experience of a change in room temperature is an effect of the complex interplay between the senses, a multisensorial experience most often involving various shifts in both attention and in ways of listening.

Concluding Remarks

The desire of YouTube users to search for, find, and listen to Arctic winter recordings represents one of many ways that people engage with this region today. When many users take the time to share their experiences, including when their listening leads to unwanted effects (probably after they have pressed the stop button), it makes the data nuanced and rich.

The online exploration of and written response to videos is an interesting aspect of everyday media use today, offering insights into a situation where geophony, in addition to the traditional use of music, can be browsed, swiped, selected, and "home tested." The users *try* to create a new situation when playing back the recorded geophony, attempting to establish a desired "personal sound space," creating a "safe space," or "setting the scene" for some personal task (see also Hagood 2019; Flügge 2011; Bijsterveld 2010).

By modifying and shaping their immediate sonic environments with winter winds, the YouTube users attempt to use recorded geophony in a way that reflects the use of recorded music. Our essay thus points to the relevance of adopting insights from related areas within music studies, such as music psychology and music sociology. Going beyond obvious differences between music and recorded geophony (often connected to differences in rhythmical and tonal qualities), there are some interesting similarities to be found within the analysis of users comments regarding their subjective experiences. The "powers" of recorded geophonic sounds involve some of the same "powers" of music or the nature sounds from the physical environment in which the listener is situated.

We found that listening to recorded geophony should not be underestimated when it comes to impact. Even in the case of background listening, experiences often involve significant affects, memories, associations, and imaginings – effects that are more commonly associated with the experience of music listening or physical environments rather than listening to recorded geophony.

Based on the data we used, we explored written comments within three themes: changes in mental states, the evoking of memories, and the effects on health and perceived temperature. The range of reactions was broader than anticipated or intended by the publishers. The comments display diversity rather than uniformity. Many find the experience pleasant and report that they were helped to achieve a desired state of mind when playing back these sounds: pleasant memories were evoked. Some also use the videos to cool off in hot temperatures or as a beneficial "enhancement" of their reading or writing tasks. Others, however, report as to how the videos influence their state of mind in unwanted ways, "creeping them out." Some people even describe their listening experiences as bone-chilling, revealing how these sounds are associated with unwanted existential thoughts. Many express an in-between-ness in their response.

Additionally, it is interesting, and perhaps surprising, that ecological or political concerns are expressed to such a small degree in the commentaries, given that this region fosters global environmental concern today. Commenters do not focus on the actual location or the time the recording was made, nor do they emphasize the

production process or the composition of the sounds and visuals. The comments do not reveal an awareness of the medium being utilized, nor do they reveal much interest in what these original recordings represent geographically; they primarily communicate what the sounds "do" to the user and what such a geophony represents for them individually.

The methodical study of free descriptions based on self-reporting, with informal direct responses, raises challenges when it comes to establishing criteria for interpretation and relevant categorization. Equally challenging is the process of selecting the most informative comments. However, through a listener-centered focus, the selection was narrowed down to the comments that disclose the listeners' experiences, providing categories that are more nuanced than simply indicating if the experience was pleasant or unpleasant, thus revealing differences and ambivalence among the users. Based on the number and content of comments, it seems that users think of listening as an individual act, that they like to share their thoughts on this, and perhaps also express their individuality in how they respond. The large number of online comments in response to geophony (as also reflected with other sounds and music in general today) makes such material a relevant candidate for future studies of mediated sounds and sonic environments.

What is not disclosed in the comments is whether the users have been listening on headphones or other technical devices. We recognize that this last aspect may also have an impact on the listening experience that is not incorporated here, but would certainly be interesting in a further investigation. As such, these kinds of analyses can present new knowledge on the experience of everyday listening to recorded geophony. The methods (and data) are especially useful in order to explore *why* online users listen to recorded sounds from nature and *how* they describe their experience of playing back such sounds. The online comments provide a direct and immediate response from the listeners, and reports on such introspective listening can be interesting to be "listened" to.

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Videos:

Video 1, published by Funny Channel 2, 10.05.2014, https://www.youtube.com/watch?v=3eILoQChD_A

Video 2, published by Brad McBride, 02.17.2014, https://www.youtube.com/watch?v=Jrg9E2YBgsI

Video 3, published by Andreea81, 09.12.2012, https://www.youtube.com/watch?v=3yzwpn0VfQg

Video 4, published by Richard Arsenault, 12.17.2014, https://www.youtube.com/watch?v=V6cNXL2TUIM

Video 5, published by Relaxing Soundzzz, 01.07.2016, https://www.youtube.com/watch?v=mtmB30Prqvs

Notes on the Material

The videos (numbered 1-7) and the attached comments were all accessed on 29 April 2019. It should be noted that there have been some changes in the titles and descriptions since then. Video 6, published by GlobalSuperStorm, 04.03.2013, is available at https://www.youtube.com/watch?v=0T4Bq8zYN4E. Video 7, published by Relaxing Soundzzz, 02.04.2016, is available at https://www.youtube.com/watch?v=9-tOXQLFyNE.