

A Surrender to Sila: Human-Snow Relations in Ilulissat, Kalaallit Nunaat



Nanna Sandager Kisby

Master thesis of Cultural Anthropology: Sustainable Citizenship

Utrecht University

Student number: 7266839

Word count: 19.997

Supervisor: Lisa Ausic

Second assessor: Hayal Akarsu

Abstract

Human-snow relations in Ilulissat, Kalaallit Nunaat [Greenland] are part of a larger *assemblage* (Bennett 2010) that shapes the everyday practices and lifeworlds of local residents. In some ways, snow is a limiting force, as it e.g. complicates certain ways of movement, takes up space or steals away body heat. However, snow is also the foundation for certain Indigenous practices such as dog sledge riding, hunting and ice fishing in Ilulissat. These practices are not only essential for a sustainable life in an Arctic climate, but have a potential to serve as inspiration for more sustainable relations to nonhuman actors across the planet. The dynamics of the assemblage of which human-snow relations in Ilulissat are a part can therefore be understood through what Ingold (2000) describes as an *ecology of life*, which challenges any notion of a “nature-culture” dichotomy.

Snow itself is an ever present entity during the long winter months in Ilulissat. It covers houses, doorways, roads, cars, mountains, sleeping dogs – and it shapes the landscape, reconfigures town infrastructures, as well as it makes (im)possible certain human doings. Snow therefore possesses a *vibrant materiality* (Bennett 2010), in itself, through its capacities to e.g. shape shift, move, take up space, be a source of life and produce impressions. However, snow harvests its agency from producing affect in the world through action (Sundberg 2021), as it relates to other matter. The assemblage in which human-snow relations is a part, is therefore made of and influenced by the agency of both human and nonhuman actors.

Acknowledgments

A great thank you to my supervisor, Lisa Ausic, for her wisdom, dedication and for seeing potential in my ideas. Thank you to all my interlocutors – especially “Nivi” for opening up the field to me, “Ingrid” for introducing me to her sledge dogs, “Natuk” and “Sofiannguaq” for all the translations, and “Paninnguaq” for welcoming me into her life – without whom this project would have never been possible. Thank you to the humans at Kangiata Illorsua [The Icefjord Centre] for sharing their knowledge with me and for giving me a place to belong in Ilulissat. Thank you to Johannes Renders for all the love and long-distance phone calls. And thank you to that February blizzard that gave me the strangest and most intriguing welcome to the field.

Table of Contents

Abstract.....	2
Acknowledgments.....	3
Introduction.....	5
Problem statement and relevance.....	6
New Materialism and academic contribution.....	7
Thesis outline.....	9
Stepping into the field.....	10
Ilulissat and its residents.....	10
Ethics and positionality.....	13
1. Restless snow: The vitality of matter, nonhuman agencies and assemblage thinking.....	14
1.1 Passive, dull matter vs. vibrant life.....	16
1.2 Snow agency in a larger assemblage.....	25
1.3 An <i>ecology of life</i>	27
2. Human-Snow Everyday Entanglements.....	30
2.1 When it comes to dog sledge riding, snow is everything.....	31
2.2 Learning how to walk.....	36
2.3 You can see from a distance who is Danish and who is not.....	37
3. “The politics of low temperature”: Climate change and its influences on human-snow assemblages.....	40
3.1 “For the world, [the ice] is like this huge pile of gold”.....	42
3.2 “In the dark times, it is no longer possible to go hunting”.....	45
3.3 Taking seriously the vitality of (nonhuman) bodies.....	47
3.4 It is only the world that decides.....	50
Conclusion.....	54
Bibliography.....	56

Introduction

I arrived in *Kalaallit Nunaat* [Greenland] in the middle of a blizzard. As the plane landed in Kangerlussuaq¹, we descended into what seemed like a never-ending cloud of whiteness. I felt nervous, since the visibility was gone, and these weather conditions were completely foreign to me. The plane was shaking and, looking out the window, I could see only white – until, suddenly, we were touching ground. Snow was everywhere, coming not only from the clouds but from the ground underneath us, as the strong winds and the wheels of the plane whirled it up and around, mixing it with the air and limiting visibility. While I could make out the approaching personnel, as well as a few houses, I could neither see where the surrounding mountains ended nor where the sky began.

I ended up spending that night in Kangerlussuaq, since all ongoing planes were canceled due to the blizzard. I later learned that this was quite normal, and that the airline company (Air Greenland) was popularly known in Kalaallit Nunaat as *Immaqa Airlines* [Maybe Airlines]. This was due to the frequent cancellations and rescheduling of flights, caused by the extreme weather conditions in Kalaallit Nunaat. While the pilots in this corner of the world are famously skilled at their work, the weather is unpredictable and often extremely dangerous. People have therefore learned not only to respect the weather, but to surrender to it, since doing otherwise can prove fatal – and since there is not much to be done about phenomena such as blizzards, in the first place.

However, the next day, I got lucky and made my way to Nuuk, where I had arranged to meet my friend Nivi; an Inuk classmate from my Bachelor's degree in Denmark, who had offered to host me for the week and introduce me to the field. But it turned out that we did not have much opportunity to venture outside, as the weather decided to continue its games.

The next few days, we were mostly forced to stay inside Nivi's house. While the blizzard grew stronger, Nivi's classes at the university were canceled and taught online instead, people were sent home from work, and the buses in Nuuk stopped driving. In the meantime, I sat inside, mesmerized, observing the outside world slowly being buried in deep layers of snow. However, no one seemed to worry neither about the cancellations nor the intensity of the weather. When I told Nivi how impressed I was by her calm manner, she simply laughed at me and told me this was nothing unusual. So instead of going out, we cooked seal from Nivi's meat storage in her gigantic freezer, listened to the loud movements of the wind, and talked about life in Kalaallit Nunaat.

¹ A small town located in-land, holding the transit airport for people traveling to Kalaallit Nunaat.

Problem statement and relevance

In a melting world, where the existence of snow seems to become increasingly scarce, there are some localities in which it continues to take up space. As this thesis will show, both snow and weather plays a crucial role to human life in Kalaallit Nunaat, since they have the power to e.g. cancel flights, hinder human visibility, or influence the ways in which humans talk about the world around them. In order to understand human existence in Kalaallit Nunaat, it is therefore important to pay attention to snow and weather, since human *lifeworlds* (see Breyer and Widlok 2018) and everyday practices are largely structured by what the Inuit in Kalaallisut [Greenlandic] call *sila* [a word in Kalaallisut roughly referring to both “weather” and “consciousness”].

In the light of climate changes across the planet, it is therefore important to ask ourselves: What can be learned from those human populations who already live under extreme weather conditions? How do we wish to lay out the foundation for future engagements with local ecologies? How can we pay attention to the ways in which our human lives are influenced by nonhumans?

As authors such as Chakrabarty (2021) call for planetary perspectives in the age of what is commonly understood as the anthropocene, I will answer this call by engaging in nonhuman perspectives on states of matter, in order to better understand sustainable engagements with local environments. Others have engaged in similar approaches, such as Tsing (2015) who has shown how nonhumans create their own lifeworlds and partake in global networks, through her studies of the matsutake mushroom – or Haraway (1991; 2008), who has argued not only against the dichotomy of “nature” and “culture,” but further against dichotomies of “mind” and “body,” as well as “idealism” and “materialism.” Through studies on nonhumans, it is therefore possible to challenge this often taken for granted notion that “nature” exists as something opposite to human “culture” – and I intend on doing so.

This brings me to my research question:

How do human-snow relations in Ilulissat partake in a larger assemblage² that shapes the everyday practices and lifeworlds of local residents?

But why study snow? While there already exists large bodies of literature regarding both ice (see Bravo and Rees 2006; Bravo 2017; Gearheard, Holm, Huntington, Leavitt, Mahoney, Opie, Oshima and Sanguya 2013) and water (see Attala 2019; Krause and Strang 2016; Hastrup and Hastrup 2015), both snow and human-snow relations are largely understudied. My wish has therefore been to inquire into snow’s role in relation to human existence, in a place where it still

² The notion of *assemblage thinking* is borrowed from Bennett (2010) and will be explained below.

exists in plentiful masses. Through my own research in Ilulissat, I found that snow is important in such a place because it is *everywhere*. In comparison to e.g. ice, snow seemed to have a much more insistent presence in human life, as it would literally bury cars and roads, block doors, or change the structure of entire landscapes. I arrived in the middle of a blizzard, but snow continued to take up space even in everyday life, in ways that simply could not be ignored.

New Materialism and academic contribution

I place myself in academic debates centered around *New Materialism* (see Coole and Frost 2010), strongly rooted in Bennett's (2010) notions of *vital materiality* and *assemblage thinking*. By vital materiality, Bennett refers to the liveliness – or vibrancy – of matter, arguing against “the life-matter binary” (Bennett 2010, 20), and thereby against the notion that matter – or anything nonhuman – is simply passive or dead. By assemblage thinking, Bennett refers to the ways in which (human and nonhuman) matter “never really acts alone” (Bennett 2010, 21) – but rather in compositions, alongside other actors. Snow acts e.g. in close relation with actors such as humans, temperatures, or the wind – and thereby produces affect in the world, through its capacity for action.

As New Materialism seeks to explore the agency of nonhumans, I build on this by contributing concrete ethnographic examples of nonhuman vitality and agency through my research on human-snow relations. Since this thesis is based on a three month ethnographic fieldwork in Ilulissat, my contribution to academic debates is therefore an understanding of the living ecology that makes up the town and its surrounding environment, in relation to planetary issues such as climate change. I make this contribution in order to both create a deeper understanding of the world of which we humans are a part, as well as to create a deeper understanding of the importance of nonhuman actors.

Furthermore, I follow Bennett's mission “to encourage more intelligent and sustainable engagements with vibrant matter and lively things” (Bennett 2010, viii). In fact, if only one point should stick with the reader from this thesis, this should be it. I encourage the reader to find inspiration from these words, to perhaps engage in more conscious relations to nonhuman matter – through personal sensory inquiries, listening, tasting, observing, reflecting, etc. Nonetheless, in order to understand human life (as anthropologists or as humans in general) it is important that we study the materiality, the behavior and the capacities of those nonhuman actors with whom we engage in our lives – especially as those actors and their behaviors are particular to particular places, influencing humans in various ways, depending on the environments of which they are a part.

However, where Bennett leaves out Indigenous perspectives on states of matter, I here give those priority. I argue that the ways in which Inuit relate to nonhuman actors – and what is roughly defined as nature, in general – would serve as a more-than-useful point of inspiration for arranging human worlds in these so-called times of the anthropocene. By Indigenous scholars (see Todd 2016; TallBear 2017), this is addressed as a call for non-Western ways of understanding planetary life, since Indigenous perspectives are often left out of Western academic narratives. Thus, according to authors such as Todd (2016), knowledge that has already been discussed by Indigenous scholars for decades is typically ignored or retold through Western discourses. I will therefore stress that, as I am myself a non-Indigenous scholar, I have made it a priority to listen, understand and engage with Indigenous narratives, prioritizing those over anything else I encountered throughout the scope of my fieldwork and later thesis writing.

Thesis outline

This thesis is based on inquiry into the capacities of snow, the ways in which it influences human life, and how it partakes in larger political discourses. In chapter 1, rooted in theory from Bennett (2010), I argue that snow possesses a vibrant materiality, in itself, as it has the capacities to change form, move, take up space, be a source of life, and produce impressions. In extend, based on Sundberg's (2021) work, I show that snow possesses agency through its capacity to produce affect in the world. Lastly, I argue that snow – and thereby human-snow relations – are part of a larger assemblage (Bennett 2010) of actors in and around Ilulissat. Because of the dynamics within this assemblage, I show that both snow and humans are therefore part of what Ingold (2000) describes as an *ecology of life*.

In chapter 2, I argue that human-snow relations in Ilulissat are paradoxical. This is because snow, in one sense, slows down or hinders some human practices, while snow in another sense is the very foundation for other practices and Indigenous skills. I show this through examples of some of the human-snow practices that I myself encountered during my fieldwork, drawing on theory from Ingold's (2000) notion of a *sentient ecology* in order to explain the development of skill over time, as well as the relationality to nature in all of this.

In chapter 3, I explore human-snow relations through a political lens, as I critically examine the relationship between Indigenous people, changes to local and planetary environments, as well as external political interest in places like Ilulissat. I discuss this through the lens of *cryopolitics* (Bravo and Rees 2006; Bravo 2017), as I explore some of the ways in which the politics of low temperatures are perceived and often misused in uneven power dynamics. I therefore conclude by

arguing for the importance of Indigenous perspectives – not only in order to understand local ecologies, but in order to seek inspiration for more sustainable ways of ensuring a habitable planet.

Stepping into the field

Ilulissat and its residents

In Ilulissat, located just above the polar circle, snow is an ever present entity during the long winter months. The snow season lasts approximately six to seven months, where new snow falls almost on a daily basis. During this time, snow is therefore an integral part of the environment of which Ilulissat is a part, as well as in the lives and everyday practices of the humans (and nonhuman beings) who inhabit the area. By its physical presence, snow covers almost everything (mountains, cars, doorways, the air, dogs, etc.), it takes up space, and it produces effect in its surrounding environment, as it moves and changes form. Snow fills up cracks and holes, it creates new shapes in the landscape, it moves it changes form, it becomes piles or powdered surfaces – it is something that can cover other somethings, swallow legs, make sounds, or become part of human lifeworlds.

Other than snow, Ilulissat and its surrounding environment is home to a myriad of both human and nonhuman dwellers. As the third largest town in Kalaallit Nunaat, it hosts about 4600 humans, 1000 sledge dogs, as well as great amounts of flora, wild animals, and ice. It is a place in which the average winter temperature is around -20°C , where northern lights dance across the sky on clear winter nights, and where colorful houses decorate the snow covered mountains. As I first arrived, I could already hear the dogs barking outside the window of the student dormitory where I resided, reminding me that we humans are never really alone:

Dogs barking in Ilulissat

The unique capacities of Ilulissat and its surrounding environment is related to its close proximity to Sermeq Kujalleq (see *image 1*) – which has been termed the world's most active glacier. The Ilulissat Icefjord is therefore full of icebergs, produced by the glacier, releasing nutrients into the water and thereby creating the perfect conditions for fish to thrive. Thus, the icefjord and sea surrounding Ilulissat is one of the most active fishing areas in Kalaallit Nunaat, attracting fisherfolk from all across the country. In Kalaallisut, "Ilulissat" means *iceberg*, which reveals its meaning to local residents, as well as researchers and policy makers across the planet who are increasingly drawn to this place of dynamic nonhuman action.

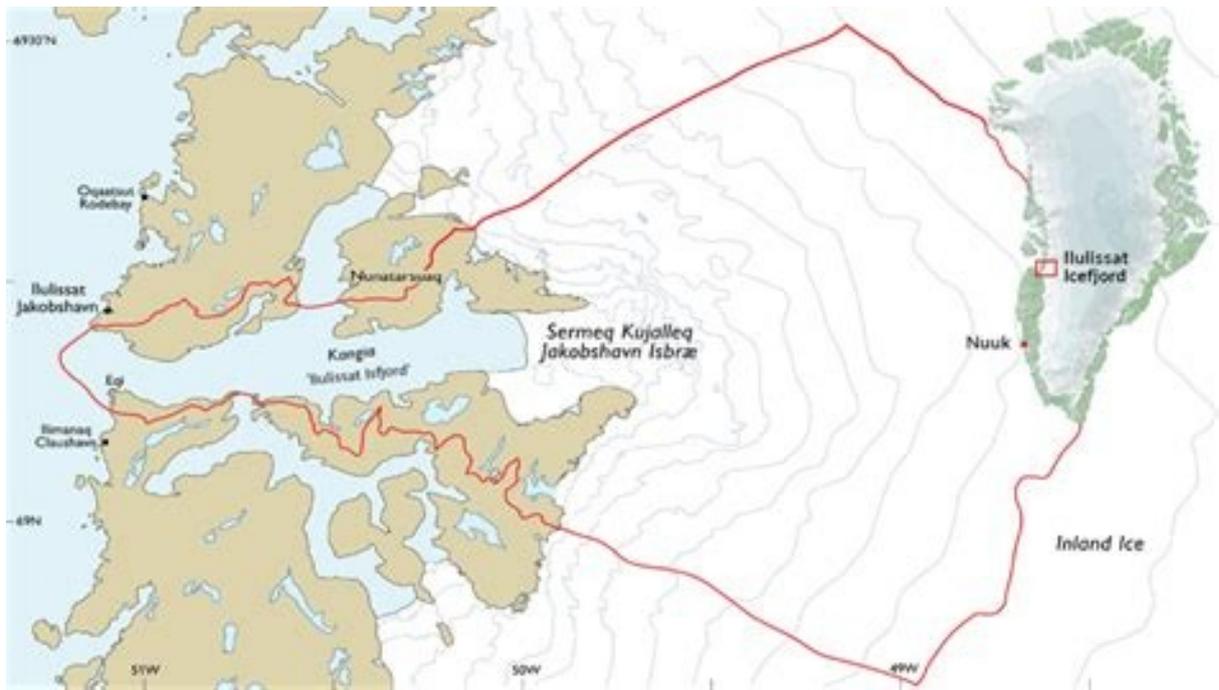


Image 1: Ilulissat (to the left) located near the Ilulissat Icefjord and Sermeq Kujalleq. Source: henrypall.com.

As I learned through volunteering at the Icefjord Centre³, Sermeq Kujalleq – as well as the larger ice sheet covering most of Kalaallit Nunaat – is made of compressed snow. The impacts of human-snow relations in Ilulissat are therefore greater than within this local ecology, as other localities across the planet will be impacted by the increased activity of Sermeq Kujalleq (I will discuss this in chapter 3). Ilulissat is therefore an important research site, as it reveals not only local dynamics of human-snow relations, but impacts of larger forces such as climate change.

Except for the snow itself, my research population consisted of residents in Ilulissat. While most were Inuit, I also encountered multiple Danish residents, some of whom I have included in this research. Because of the colonial history of Kalaallit Nunaat (Hermann 2021), the country is still home to a large amount of Danish residents. I therefore chose to not completely exclude these, as both Inuit and Danish residents partake in the local ecology that make up Ilulissat. However, I made a point of out interviewing mostly Inuit residents, since their perspectives not only provide a better understanding of the environment of which Ilulissat is a part, but also because these voices should be highlighted in debates regarding Kalaallit Nunaat.

As follows, this thesis is based on 18 semi-structured interviews – as well as about 100 informal interviews – with residents of Ilulissat (as well as a few from Nuuk) who are artists, film makers, political debaters, students, chauffeurs, a local priest, municipality workers, dog sledge owners, mothers, tour guides, retirees, and several humans who are skilled in hunting and fishing.

3 <https://isfjordscentret.gl/en/ilulissat-icefjord-centre/>

Methodology

During my research in Ilulissat, I made use of a variety of methods for data collection. My main methods were sensory (Pink 2015) and walking ethnography (Ingold and Vergunst 2008), participant observation (Hastrup, Rubow and Tjørnhøj-Thomsen 2011), interviews (O'Reilly 2012), visual (Pink 2010) and audio ethnography (Farina 2014), and writing fieldnotes – which has allowed for triangulation of data during the later analysis and thesis writing (DeWalt and DeWalt 2002). I found the variety of methods especially useful when researching various actors, their behavior and their way of relation, since some things could simply not be captured through interviews and participant observation.

Sensory and walking ethnography allowed me to experience snow and relate to it, as a human, first-hand – through touch, sound, smell, taste, vision, as well as experimentation with various ways of walking and thus moving through snow-covered landscapes. In the same sense, participant observation allowed me to not only observe snow, its behavior, and how humans relate to it – but also to participate in these relations, through engaging with local practices. The information gained from this method, as well as those above, were largely recorded through fieldnotes, audio recordings, as well as bodily knowledge. The interviews, on the other hand, allowed me to listen to the stories of humans, their lifeworlds, and their thoughts and unique formulations regarding snow.

In extend, I have made use of photography and soundscape recordings in order to research nonhuman actors. This has produced a large body of visual and audio material – most of which I will not be able to present within the scope of this thesis – which has aided me in better understanding snow, its capacities, its materiality, etc. Further, these methods contributed to acquiring various mediums through which I could communicate those parts of my findings that escape the written word.

However, as an anthropologist, I focused my research not only on snow itself, but on its relations to others – especially to humans. First, because I follow a long tradition of studies in human culture and social life, and second, because I cannot escape my own humanness, in any kind of study. As a human, it would therefore be impossible for me to leave out humanness completely. Even if I focused solely on snow, my findings would still be colored by my human mind, as well as the theory produced by other human minds.

Ethics and positionality

Because of my own nationality – as a Danish person conducting fieldwork in Kalaallit Nunaat – there were many considerations to make both during the planning and the execution of the fieldwork, as well as the later thesis writing. I will not mention everything here, but it should be mentioned that I put much consideration into whether it would be ethical for me to carry out my fieldwork in Kalaallit Nunaat, at all. I worried that the project might be considered inappropriate, harmful or take space from the voices of Indigenous people who currently work to reclaim their land and rebuild their culture.

However, after several conversations with an Inuk friend – Nivi – I decided to go through with the research. As Nivi told me, she believes that 1) a Master's thesis is not capable of causing much damage to Kalaallit Nunaat, and 2) that it would not benefit Kalaallit Nunaat to close its borders from the outside world. While Nivi does not represent all people in Kalaallit Nunaat, she is an Indigenous voice and a front figure in current decolonization projects. I have therefore trusted her to be informed about relevant social processes in Kalaallit Nunaat, but also to be honest with me about the potential consequences of my actions.

In the end, I decided to carry out the fieldwork based on my conversations with Nivi, as well as on a personal realization that it matters more *how* one carries out ethnographic fieldwork, rather than *if*. As to my best capabilities, I have been acting as an accomplice to Indigenous people in Kalaallit Nunaat – which has already included speaking up on several occasions – and I will continue to do so.

Before, during and after my fieldwork I have further been following the official guidelines of the Indigenous Circumpolar Council (ICC)⁴ for ethical and equitable engagement with Indigenous people. These guidelines include respecting and acting in accordance with Inuit values, respecting and avoiding misuse of Inuit knowledge, avoiding misconduct in Inuit communities, respecting Inuit methodologies for gathering information and validating knowledge, and always asking for informed consent.

Throughout this thesis, all appearing interviews and quotes have been translated by me, from Danish to English – except for the dialogue in the beginning of chapter 3, which was originally carried out in English. I have further provided all interlocutors with pseudonyms, with the intend to maintain anonymity, and in other ways done my best to hide everyone's identity.

4 Inuit Circumpolar Council (2021).

1. Restless snow: The vitality of matter, nonhuman agencies and assemblage thinking.

“I have been thinking about something, when I was out hunting,” Inumineq told me. We were headed back to the car after a walk through the UNESCO area close to Ilulissat. The temperature was around -20°C and the cold wind was biting my face, the only part of my body unprotected by thick layers of clothing. It was one of those days where you did not want to stand still for too long. I knew already that if I did, I would start to lose body heat – a scarce resource in these parts of the world. However, the beauty of the snow covered landscape with fragments of dark rock peaking out on the surrounding mountains, made the biting cold worth the effort of venturing outside. I could hear the wind singing outside my hood, and the dry snow squeaking as Inumineq and I moved through the landscape. The wooden path – which was meant to lead the way – was completely invisible, since it was covered in a thick layer of snow. We were therefore following the footprints of those who had walked there before us, earlier that same day. Through previous ventures, I had learned that this was indeed the smart way to walk through snow in Arctic landscapes. Footprints were not only the best way to avoid getting lost, but also the way to avoid sinking into deep layers of soft snow. On several occasions, I had tried to leave the path on which I was walking, only to find myself stuck in snow swallowing almost my entire leg.

“When I think about it, snow is life,” Inumineq then said. “When it’s frozen, yes, it’s as if it puts everything to sleep. Like the whole landscape is waiting, in a way. But when it melts, the water is the source of life for everything – plants, animals, even us [humans].”

I took a moment to think about this. Inumineq’s statement surprised me. As a newcomer to Arctic landscapes, I had imagined – until that moment – that I was not walking on much more than a frozen rock. But, of course, things were more complex than that. The snow was covering something. Quite a lot, as it turned out.

I inquired about the plants, since the idea that any kind of flora could survive in such low temperatures seemed rather puzzling to me. Inumineq looked slightly confused that someone would not know this, but he continued to explain:

“There are a lot of different plants here. All the time. They are just covered by snow during the winter.”

“But how does that work?” I asked, still surprised.

“The snow protects the plants from the cold wind. It provides cover,” Inumineq explained, and then went quiet. We walked on in silence, the snow still squeaking loudly underneath our feet. Around us, the wind engaged in a beautiful dance with the lighter layers of snow, lifting fragments of white above the ground as it rustled through the landscape. I thought to myself that these masses of whiteness closely resembled rivers, unapologetically flooding whatever appeared in their way.

I met Inumineq on a walking tour in Ilulissat, since he works as a tour guide for one of the larger tourists companies there. As is the case for many Inuit in Ilulissat, Inumineq’s life is centered around the growing tourist industry, as well as traditional skills such as hunting and navigating the landscape. He therefore spends great amounts of time outside, where knowledge concerning the behavior of snow is necessary not only in order to navigate and succeed as a hunter (and as a tour guide), but also to stay alive. As touched upon in the introduction, the weather in Kalaallit Nunaat can be quite unpredictable, and the low temperatures can be fatal even for the most experienced outside dwellers. Snow is therefore one of those presences that you immediately become acquainted with, as it is the very foundation on which you move. But it can also transform – into e.g. avalanches that have the power to trap you under their weight or steal away your body heat. In spite of this, most Inuit I encountered during my fieldwork described feeling almost drawn to the white landscapes, their powerful quietness – as well as a feeling of connectedness to nonhuman dwellers.

The conversation with Inumineq is important because he was the first person who described snow to me as *life*. Until then – as I later learned was the case for many “outsiders” – my perception of snow and low temperatures had led me to believe that their presence only posed a *hindrance* to life. At first, presences such as plants – which I believed to be *living*, as opposed to other matter – were nowhere to be seen in the landscape surrounding Ilulissat. However, after learning what was indeed hiding underneath the snow, my perspectives on the snow itself changed, as Inumineq and other interlocutors revealed its inherent capacities.

The above vignette therefore illustrates several things that struck me as important while researching snow in Ilulissat. First, it shows that snow is a source of human reflection – something that takes place in thought over longer periods of time. Second, it shows that snow can *do* things, such as keeping plants safe from cold, swallow human legs, make sounds, etc. Third, it shows that snow takes up physical space, as it e.g. covers mountains or walking paths, and thereby molds itself through interaction with those it encounters.

In this chapter, I will continue to explore some of these capacities of snow. Drawing on Bennett (2010), I will show how snow possesses a *vibrant materiality*, in itself. But I will also show that snow partakes in a larger assemblage of various human and nonhuman actors. In extend, I will

show how snow possesses agency, as it produces effect by performing actions within the environment of which it is a part. Snow therefore engages in relations with both human and nonhuman actors in Ilulissat, all partaking in what Ingold (2000) defines as an *ecology of life*.

1.1 Passive, dull matter vs. vibrant life

As a human, you may be tempted to think about nonhuman matter as passive or dead. After all, quite a lot of us live in societies sculpted by human hands, where materials are something we *use* in order to build houses, chairs, roads, etc.; where the form of things and their function are carefully thought out and planned by human minds.

As discussed by Bennett (2010, vii), many humans therefore have a tendency to divide the world into “passive, dull matter (it, things)” as opposed to “vibrant life (us, beings).” However, this divide tends to create an understanding of the world which forgets how nonhuman matter actually is vibrant and possesses a *vital materiality*, in itself (Bennett 2010, vii). Matter therefore does not have a “fixed stability” (Bennett 2010, 20); it is rather dynamic, made of energy, building a kind of force on its own.

However, Bennett’s goal is not only to create a better understanding of shared environments and the dynamics between various actors, but also “to encourage more intelligent and sustainable engagements with vibrant matter and lively things” (Bennett 2010, viii). That is, without this clear opposition, we humans may learn to perceive matter not only as something that exists *for* us to use, but as something that has its own life and performs actions in the world. Bennett’s project is therefore political, as she calls for a different treatment of what is commonly defined as “resources” (I will elaborate on this in chapter 3), exploited to serve mostly human interests.

As one of the main voices of *New Materialism* (see Coole and Frost 2010), Bennett falls into an interdisciplinary branch of thinking that seeks to challenge this notion of opposition between beings and non-beings, life and non-life, vibrancy and passivity – by inquiry into various matter, their capacities, matter-energy (Deleuze and Guattari 1987), etc. As known from other academic disciplines such as physics, the vibrancy of matter can very well be measured, as it has been proven that everything is always moving – energy, particles, atoms, snow – as well as undergoing constant change. However, new materialism extends this knowledge beyond natural laws, through inquiry into material worlds and nonhuman life in relation to surrounding environments. This is especially important for the social sciences because matter – as well as nonhuman agents in general – greatly influences human life. This is highlighted by Coole and Frost (2010, 1), as they argue that:

“As human beings we inhabit an ineluctably material world. We live our everyday lives surrounded by, immersed in, matter. We are ourselves composed of matter.”

In order to truly understand the world of which we humans are a part, we must therefore not only inquire into various material lives, but recognize their inherent vitality.

So, let us return to this notion of “vitality,” as discussed by Bennett (2010, viii):

“By “vitality” I mean the capacity of things – edibles, commodities, storms, metals – not only to impede or block the will and designs of humans but also to act as quasi agents or forces with trajectories, propensities, or tendencies of their own.”

According to Bennett, the vitality of matter thus becomes apparent through the actions it performs – or, more specifically, the actions it *can* perform – unique to that kind of matter. In extend, various matter therefore holds various capacities – but what they have in common is exactly the fact that they indeed possess capacities, independently of any human intervention or discourse.

In the case of snow, some of its main capacities that I discovered through both observation, physical engagement, interviews, and sensory impressions are: 1) that snow is a shape shifter, 2) snow can move, 3) snow takes up space, 4) snow is a source of life, and that 5) snow can produce impressions. In this sense, snow is far from passive or dull, but indeed both vibrant and dynamic. In the following, I will elaborate on these capacities, attempting to describe them as best as I can, in spite of my own humanness.

Snow is a shape shifter because, on the one hand, it can *mold* itself to fit into cracks or holes, maintain the shapes or patterns of those whom it encounters – whether it be the underside of human shoes, animal paws or rocks – or compress itself into ice, such as the world-known ice sheet covering most of Kalaallit Nunaat. This kind of shape shifting is particular to snow in its frozen forms where it consists largely of clumps of snowflakes. But on the other hand, snow is a shape shifter because it is essentially made of water. Although snow in its frozen forms only materializes and afterwards continues to exist under certain conditions, it can alter both form and consistency because of its composition. Snow can therefore change between vapor, frozen and liquid forms, and thereby turn itself into piles, slush, clouds, droplets, lakes, glaciers, etc.

An example of this can be seen in *photo 1*, which shows an iceberg in the sea close to the Ilulissat Icefjord. Through volunteering at the Ilulissat Icefjord Centre, I learned that the famous inland ice covering most of Kalaallit Nunaat – and thereby the glacier in Ilulissat and the icebergs which it produces – is essentially made of compressed snowflakes. That is, snowflakes can land on

ground and built on top of each other, changing their material form into ice, over time. In this sense, the capacity of snow to shift shape gives it great power, as it can gather into larger forms that can e.g. produce tsunamis through calving. In the photo, the line across the iceberg shows where the water surface used to reach – before the iceberg calved and therefore shifted weight points, causing it to turn around in the water.



Photo 1: Compressed snow in the form of a glacier, close to the Ilulissat ice fjord.

These shape shifting capacities of snow are further what enables it to *move* – not only from clouds onto the ground, but across landscapes, between continents, through air, underground, into human boots and doorways, on top of buildings, or deep into the sea. Snow is therefore restless, in a way, as it never stands still – perhaps aimless, but nevertheless constantly on the move between different places and often changing form.

In *photo 2*, this is shown through the example of meltwater from snow carving its way through a road in downtown Ilulissat. Due to unevennesses in the landscape, the meltwater finds

specific routes through which it moves during the melting period, leaving permanent marks on human-made infrastructures.



Photo 2: Snow in the form of meltwater, moving through the town and carving a long trench in a road.

As snow materializes and moves, it also takes up *space* – in the world, on top of mountains, covering dogs, roads, and literally anything on which it lands in a large enough quantity. One interlocutor, Ellen – a Danish woman who grew up in Nuuk and later moved to Ilulissat – shared her childhood memories with me, of the times her family would get snowed in during the winter:

“Our house was not very tall – and it often got completely buried in snow. Therefore, all outer doors had to close inward, because otherwise one could not get out. So if it had snowed a lot, we could hear the wind going **shuuu** – whirling around the snow outside and howling around us – and then, suddenly, it got dead silent. Then we knew that we were inside the snowdrift. Then there was no sound. We could not hear anything. Then, when we

got up in the morning, we would open the door – and then we would just start shoveling snow inside. All the way at the top. One always had a shovel standing in the entrance of the house – and washing bowls and such – and then we made a little hole. All the way at the top edges. And then, the oldest child – or whichever child could use a shovel – was dressed up and then thrown out of that hole with a shovel. And then the door was shut. And then one began to shovel from outside, so that the others could get out.”

In this sense, snow also takes up space in a non-material sense: In the minds of e.g. humans. Just like it was illustrated in Inumineq’ story, in the beginning of this chapter, the material capacities of snow can therefore manifest in a non-material sense.

As discussed by Law (2009) through *material semiotics*, there exists an ongoing interaction between discourse and materiality. However, the way we humans ascribe meaning to matter is dependent on the matter itself. In this sense, discourse is somehow limited, as one cannot build stories out of nothing. But the relation between discourse and matter is somehow interconnected, as it is also possible to shape matter through meaning. However, as I in this thesis will focus more on the material aspects of snow, I will not dive further into this here. But it is important to note that, in human-snow relations, a part of this relation is not only material, but taking place in the human mind.

The material space-taking of snow is further illustrated in *photo 3*, which was taken during one of the days spent at my friend Nivi’s house, during the blizzard in Nuuk. The photo shows how snowflakes in union can become a heavy mass, covering e.g. cars, snowmobiles and doorways – but also how snow can take up space in the air, as lighter groupings of snowflakes can lift from the ground.



Photo 3: Snow taking up space, as it decided to cover several cars, a snowmobile and the entrance to a house, during the blizzard in Nuuk described in the introduction.

Further, aside from being life in itself, snow is also a source of life for both human and nonhuman matter. As pointed out by Inumineq in the above vignette, snow is essentially life because snow is essentially water. During the winter, snow provides cover for most of the flora in and around Ilulissat, and thereby protects them from the low temperatures. However, during the melting period in spring, snow transforms into water. Some of this water runs out into the ocean, some sinks into the ground or carves canals, some becomes lakes, and some gets drunk by plants, animals or humans. Especially the lakes feed a variety of beings dependent on water in order to thrive. They function as a drinking source for much human and nonhuman lifeforms, as well as a breeding ground for mosquitoes.

These life-giving powers of snow are illustrated through *photo 4*, showing some of the vegetation in the UNESCO area close to Ilulissat, revealing itself as the snow cover melted. The photo shows a stage in which the landscape is slowly waking up, after a long winter, as well as some of the various species who inhabit the area.



Photo 4: Vegetation slowly revealing itself during the early melt season in the UNESCO area close to Ilulissat.

Lastly, snow has the capacity to produce impressions, which can be picked up by e.g. human senses. Snow produces sound – it squeaks when someone walks on it, but it also muffles other sounds, which makes the landscape turn quiet – it creates a fresh, clear flavor as it interacts with taste buds, it cools down human skin through touch, it feels soft, hard, or slippery, it has a certain smell, it can blind human eyes through interaction with sunlight – or function as a light source when sunlight is scarce – or it can color what seems like the whole world, white.

As touched upon in the above vignette, sensory impressions of snow are particularly important to human life. Through eyesight, snow can e.g. aid as a way of orientation, as it molds itself through interaction with other entities or beings, and creates e.g. footprints. However, most residents of Ilulissat would know the landscape well enough to not completely depend on these – but one occasionally gets lost, and then footprints is a way of finding one’s way back to other humans. Snow therefore has a revealing capacity, which can also aid in hunting during the winter, as one can locate the animals by following their footprints in the snow. Snow further aids visual orientation, as it creates the tracks used by dog sledge mushers or snowmobile riders, who use eyesight to locate these tracks and thereby orient themselves in the landscape.

Also, one particularly important aspect with regards to visual impressions of snow, is that it reflects light. One interlocutor emphasized this during an interview, as he told me that:

“The snow means a lot to us, because it lights up – especially when you are out in nature. Then you can see everything around you. When we don’t have snow here, during the fall, then it’s very dark. Especially here where we are, in the northern part of the country, where we have winter darkness. The sun disappears here in Ilulissat on November 28 – and then it reappears only on January 13. So we have darkness for 1.5 months. Therefore, the snow means a lot for the light. First of all, it has a psychological influence, because the darkness gets a bit lighter when we have snow. That’s probably the most significant thing about snow, for us. The dark period is not so dark when the snow has arrived.”

However, as discussed in the introduction, snow can also hinder human orientation, if it e.g. blends with the wind and colors the air white. Snow therefore has the ability to hide things, as well as the ability to reveal.

These impressions have proven particularly important to my own studies of snow, as they have allowed me to experience some of the capacities of snow first-hand. I was therefore able to not only capture the vibrancy of snow through fieldnotes and photography, but also through recordings of soundscapes. This particular method of data collection has allowed me to capture impressions of

snow that escape the written word. But it further heightened my attention towards the sounds of snow during my fieldwork, revealing e.g. that the shape shifting capacities of snow can not only be seen or felt, but also heard. For example, when I first arrived in Kangerlussuaq, there was a chill factor of -41°C . The air was incredibly dry, and so was the snow – covering the ground in a kind of powdery form, which caused the snow to have a rather particular sound:

Snow in Kangerslussuaq

During later inquiries, I recorded the sounds of snow during spring. In Ilulissat, the snow never sounded as squeaky as on that cold morning in Kangerlussuaq, but as the temperatures rose, the snow developed a completely different sound and texture:

Touching wet snow

Even later, during the early melt period, much of the snow in Ilulissat transformed into water. This again created new kinds of sounds and behaviors as the melted snow e.g. gathered in tiny lakes or rivers – or fell from rooftops and landed on areas of snow that had yet to melt:

Melting snow from the church rooftop

Of course, the capacities of snow exist without any interactions or relations to humans. But being a human (and an anthropologist) myself, it is impossible to study snow through a completely nonhuman lens. While snow itself produces e.g. those impressions which my senses picked up, I of course experienced them through my own human capacities. However, those impressions reveal inherent material capacities of snow, rather than solely my own interpretations of them. For example, I learned that snow materializes in different ways, depending on temperature – through my recordings of soundscapes.

To sum up, this all relates to what Bennett (2010, 2-17) defines as *thing-power*; that nonhuman matter possesses a kind of force that affects its environment. Matter – or things – in this sense has power, on its own. This power exerts itself through the capacities of matter, its physical presence in the world, its aliveness – and thereby challenges the human notion of opposition between humans and nonhuman. However, as Bennett herself points out, this thing-power suggests

an individualism which is not entirely truthful regarding neither humans nor nonhumans. Further, it supports the notion that things are fixed, rather than dynamic, which leaves out the ways in which *matter-energy* (Deleuze and Guattari, 1987) moves and acts in the world.

1.2 Snow agency in a larger assemblage

While snow possesses a vibrant materiality in itself, the agency of snow is tied to its relation to other matter. That is, snow produces effect in the world as it acts and thereby influences other (human and nonhuman) actors. In effect, snow itself is influenced by other actors as well, through various encounters and interactions.

This approach to the agency of the nonhuman is discussed by authors such as Sundberg (2021, 218) who calls for “taking nonhumans seriously as actors,” as such clarifications aid in explaining also human practices and ecologies. Rooted in *posthumanism* (see e.g. Haraway 2003, 2008; Braun 2008), Sundberg defines agency as “*doing-in-relation*” (Sundberg 2021, 321-22). Sundberg’s conceptualization of agency therefore argues that 1) agency does not belong to only humans, 2) agency is happening in relations between actors, and 3) agency is dependent on the capacity for doing, in the world. This way of approaching agency therefore argues against the much discussed nature-culture divide – or what Bennett (2010, 20) describes as “the life-matter binary” – as it does not claim to be dependent on the material constitution of actors, nor on their species or so-called status as living or nonliving. Rather, according to Sundberg, agency is dependent only on relations and actions performed between various actors.

In the case of snow, its agency is therefore linked to the fact that it has the capacity to do things, to perform actions, in relation to other agents. As discussed above, snow possesses various capacities for action. However, these capacities influence not only snow itself, but indeed also those actors with whom snow engages in relation. As snow e.g. changes shape, it can create small lakes within a town, blocking the way way for cars and humans or feed plants; as snow moves, it can shape and re-shape landscapes, when its water form e.g. carves holes through roads, or when its frozen form fills up holes and creates new walking paths for e.g. dogs and humans; as snow takes up space, it also takes space from other actors – and it asserts a kind of domination on the landscape, as it colors everything white or buries whatever it pleases on any given day; as snow is a source of life, it supplies other actors with something they need in order to survive in Arctic landscapes – but this is also a dependency-relationship, as these other actors truly rely on the presence of snow; as snow produces impressions, it influences the *lifeworlds* (Breyer and Widlok 2018) and everyday experiences of other actors, as it stimulates our senses and thereby shapes our

perception of the world. These are all actions that snow is doing, in relation to others, and thereby produces affect in the world. The mountain on which snow lands is essentially still the mountain, and the walking path is still the walking path – but as they interact with snow, they reach a different potential, as cracks are e.g. filled or matter grows taller.

In the case of humans, especially the sensory impressions of snow produce affect. Many interlocutors told me that they especially enjoy the winter in Ilulissat because of the snow covered landscape. In this case, snow produces an aesthetic pleasure, as it interacts with the human visual sense. But snow also produces feelings of annoyance, if it e.g. collaborates with the wind and hinders human visibility. Or, as a colleague at the Icefjord Centre told me: “When it snows, one gets tired.”

Snow is therefore part of what authors such as Bennett (2010) – following Deleuze and Guattari – describe as an *assemblage*. That is, a composition of various actors who all influence each other, who produce affect upon each other and in their surrounding environments, through the actions they perform. In Ilulissat, this assemblage consists of e.g. water, temperature, air, ground, humans, birds, sledges, etc. – and because these are all vibrant matter, they influence each other in a myriad of ways, through their being interlinked.

Just like the actors of which an assemblage is composed, an assemblage itself is dynamic; it is always in movement, changing, producing different kinds of affect dependent on its components. An assemblage is therefore not a set entity, but a constitution of actors, of vibrant matter. Actors may also leave the assemblage or reappear at a later point in time. So what is important, is not to make a set list of all the components of an assemblage – but to highlight that assemblages exist, through affect, and to discuss what this means for the dynamics of what takes place in a certain locality, as well as on a planetary scale.

According to Bennett, the need for assemblage thinking has emerged out of the dynamics of globalization and thus a manner of seeing actors across the planet as interconnected. While tensions occur between local relations on a larger scale, it is thus necessary to not only develop a vocabulary to discuss these, but to understand the ways in which they are created and then produce affect. Assemblage thinking is therefore a way to understand not only local ecologies, but dynamics of actors across the planet. Assemblages themselves can thus occur in smaller places, but also influence and be influenced by actors on a larger scale. In the case of human-snow relations in Ilulissat, the dynamics of the assemblage of which it is a part do not only exist on a local scale. Rather, this assemblage is influenced by powerful actors such as capitalism and climate change, threatening its current dynamics. I will discuss this in chapter 3.

It is further important to note that, while I am aware of the larger bodies of literature that exist regarding both assemblage thinking and actor-network-theory (see Latour 1993; 1996), I here make use of Bennett's assemblage thinking for several reasons. First, because assemblage thinking assumes that matter possesses vitality and power, in itself, independently of other actors. I see this fitting to the results discovered from my own research, since vitality of snow and its behavior is indeed prominent not only in dependency with other actors, but through snow's own capacities, in themselves. Second, as my research deals largely with matter, I follow Bennett's assemblage thinking because of its rootedness in New Materialism and thus its political agenda.

However, Bennett draws on Latour in some ways, as she e.g. uses his notion of an *actant* (Bennett 2010, viii-ix) as inspiration to account for a more *distributive* agency. That is, according to Bennett:

“[A]n actant never really acts alone. Its efficacy or agency always depends on the collaboration, cooperation, or interactive interference of many bodies and forces” (Bennett 2010, 21).

In this sense, what Bennett (and Latour) defines as an actant – “a source of action that can be either human or nonhuman” (Bennett 2010, viii) – performs actions only in groupings, alongside various others, perhaps with various motives. But this is how they do things, how they produce affect – which is what Bennett defines as an assemblage.

In the case of snow, it therefore acts not only as it falls from the sky. It acts in unison with gravity, temperatures, time, location, humans, mountains, walking paths, etc., shaping landscapes and ecologies.

1.3 An ecology of life

One thing that greatly fascinated me during my fieldwork was how the landscape changed almost on a daily basis. One day, the ground would be covered in a thick, fluffy layer of fresh snow – and the next, most of it would have blown away or gradually melted, revealing pieces of dark rock or small bits of vegetation. Or – as I experienced during the early stages of the melting period – the streets within the town could one day be covered in water, and the next, in a layer of ice, as the temperature would have dropped during the night. These changes within the environment are characteristic of life in Ilulissat, but they also reveal how the assemblage of which human-snow relations are a part is made of a myriad of relations between various actors.

Because of this inherent relationality, the dynamics of the assemblage can be described through what Ingold (2000) defines as an *ecology of life*. That is, an environment in which human and nonhuman dwellers live together in cohabitation – and thus keep a balance between giving and taking, maintaining and reshaping, slowing down and dynamically participating.

In this sense – much like Bennett – Ingold calls for a different understanding of “life” than what is commonly understood in much academic theory. Instead, Ingold refers not only to living, breathing beings, but also to matter in the forms of various nonhumans. Life according to Ingold is therefore a totality of elements that make up a certain place and somehow influence each other.

Furthermore, in order to explore the notion of ecology, Ingold draws on Bateson’s (1973, 423) question: “What sort of thing is this, which we call “organism plus environment”?” However, where Bateson focuses largely on the human mind, Ingold shifts his focus to further include “energy flows and material exchanges” with the totality of life that makes up their surroundings (Ingold 2000, 21). Ingold’s understanding of ecology is therefore defined as “an indivisible totality” (Ingold 2000, 23) – of humans, snow, rocks, sunlight, etc. – not in separate states of being but influencing each other.

These dynamics of the assemblage of which human-snow relations are a part can be seen through a story shared by one of my interlocutors, Aviaja – my neighbor at the student dormitory in Ilulissat where we both stayed. Aviaja was a young mother, a nurse student and – like most Inuit – she told me that she often goes on hunting trips during the hunting season. During this time, Aviaja usually spends longer periods away from town, closely entangled with various nonhumans:

“The place we went hunting last summer was near a broad river. We made camp next to a place where the freshwater running down meets the seawater. Then you wear waders, and you can sail pretty far inland with a rubber boat, so you won’t have to walk too far. And then [in order to find the animals for hunting] you just walk and look and assess the wind – and maybe there is someone [among the humans with whom you are hunting] who knows, in relation to the mountains, that if we walk up here, how good of a view we will have, and if we go that way, then... well, you should preferable not walk against the wind. Because then they [the animals] can smell you. So it’s important to walk against the wind, but it’s also important to think about where you walk. Because you shouldn’t just walk up where everyone can see you.”

While Aviaja’s hunting trip took place during the summer, snow was still a crucial presence in some of its unfrozen forms as both meltwater and the life force given to those who drink it. But what

Aviaja's story shows how actors such as the river, the rubber boat and the wind – as well as the humans and animals – partake in a common ecology, making possible human practices such as hunting. As the river flows, it can transport other actors. As the rubber boat inflates, it can expand and float on water. As the wind moves, it can transport scents, etc. The relations between these actors can be characterized by simple co-existence through doing-in-relation, each giving something to the ecology through their individual capacities and then in turn taking what they need.

During my fieldwork, I encountered several Inuit who compared hunting to farming. Since the cold climate renders it impossible to grow food in most of Kalaallit Nunaat. Instead, humans instead “harvest” animals. Therefore, while hunting is also a source of pride and a leisure activity, it is one of the main ways in which humans acquire food in Arctic environments. Not everyone goes hunting, but I quickly learned that those who do not, are provided with meat from friends or family. It is therefore common for a household to own multiple freezers, in order to store hunting meat over longer periods of time.

In this sense, human relations to nonhuman actors in Ilulissat are quite sustainable. While humans are sustained by hunting, animals are sustained by the vegetation (as well as through regulated hunting quota), which in turns feeds on the meltwater from snow, etc. These relations between actors therefore make up an ecology of life, built on exchange and interconnectedness.

Nonhuman actors therefore play a crucial role to human existence in Ilulissat, in the sense that they not only take up space within a shared environment, but also as they function as a source of life. The dynamics within the assemblage can therefore be described by a sense of interdependence, as some actors quite literally depend on others in order to thrive.

In the following chapter, I will elaborate on this interconnected between actors, through the ways in which snow influences human everyday practices and lifeworlds.

2. Human-Snow Everyday Entanglements

“Hold on tight,” the musher told me. The next moment he released the sledge from its safety hold and we rode down a steep hill, across the road, onto the sledge trail. We were pulled by 15 dogs, all rested from the day before, so the sledge was moving astonishingly fast. As we took a sharp turn, I understood why I had been instructed to hold on, because I felt my body sliding sideways, almost falling off the sledge. But I clutched the ropes tight in my hands, leaned my body to the right, and somehow managed to stay on.

“Dama! Dama! [Go! Go!]” the musher shouted to the dogs. We followed the sledge trail past the other dog lots, as we headed for the edge of town. I knew this part of the route already from previous sledge drives, but it never ceased to puzzle me when cars stopped in order to let the sledge cross the roads. In a way, it seemed chaotic that 15 running dogs had the power to stop traffic. But I also knew – after asking interlocutors about this – that it made sense, because the cars had brakes and the dogs did not.

As we drove through the town, we waved at strangers passing by, and then we reached that part of the trail that leads into the hinterland. Ah. I felt a wave of peacefulness washing over me, as the landscape opened itself up in front of us, and the colorful houses in the town slowly grew smaller behind us. There were no other sledges or snowmobiles nearby, and soon there was nothing but open landscape, mountains and a big, wide sky.

We were lucky, because the temperatures had dropped to -10°C a few days before. This meant that a fresh layer of snow had been allowed to settle on the ground, which gave us the necessary foundation for a smooth ride. It only happened a few times that the sledge had to struggle across uncovered rocks, so we made our way to the icefjord in not much more than an hour. We then made a short stop, not far from the beach, and the musher pointed ahead:

“This is where the fishermen used to fish,” he told me. “This all used to be covered in ice, all the way out to that mountain.” The distance he pointed out was about a kilometer, which now was part of the sea. I was astonished, as many people had already told me about the disappearing ice fishing lots, but it felt surreal seeing one of them simply gone.

The musher then explained that, because of the disappearing sea ice, fisherfolk now have to drive much further away, in order to reach other fishing lots. We quietly drove on in silence, not quite sure how to address these feelings of helplessness towards the greater forces of nature.

The relation between humans and snow in Ilulissat is, in a sense, paradoxical. On one hand, snow enables certain practices in everyday human life, such as dog sledge riding, tracking footprints, navigating in the dark, skiing, or transporting one's children around town on small sledges. This shows not only that there is a relation between material presences and human skill, but that the relation between human and nonhuman actors in Ilulissat enables humans to partake in a larger ecology of life (Ingold 2000).

But on the other hand, snow renders human life rather impractical, as it takes up space and hinders movement. It often blocks doorways, covers cars and slows down walking – either because it demands more energy to walk through snow while one's feet are constantly sinking, or because the compressed snow in the streets transforms into ice. Overall, snow therefore slows down human life in Ilulissat (as well as in other places in Kalaallit Nunaat), since fresh layers of snow arrive almost on a daily basis during the winter months. As a result, one often has to spend time shoveling the doorway or liberating the car before leaving one's house – and it is simply impossible to rush anywhere if one is moving on foot.

In this chapter, I will therefore explore both aspects of this paradox. First, I will lay out how dog sledge riding depends on the presence of snow, drawing on Ingold's (2000) notion of a *sentient ecology*. Second, I will draw on my own experiences of learning how to walk in Ilulissat, through Jackson's (1983) notion of *techniques of the body*. While there exists a myriad of other human-snow practices in Ilulissat, I will here focus on these two – partially due to a limited word count, partially because these practices stuck out to me as particular to human life in Ilulissat. I will show that development of skills takes time and is rooted in bodily knowledge, but it is important to note that this insight can be applied to most human skills – not only dog sledge riding and walking in various conditions. Third, I will show how snow, in extend, is part of shaping human lifeworlds and *social imaginaries* (Taylor 2004).

2.1 When it comes to dog sledge riding, snow is everything

While snow, in some ways, poses an obstacle to human life in Ilulissat, snow also enables certain human practices. In fact, most of my interlocutors told me that they eagerly wait for the first snowfall to set on the ground every year – because only then is it possible to go dog sledge riding, skiing, ice fishing, riding snowmobiles, build snow caves, ride sledges down steep hills, etc.

An especially important practice to human existence above the polar circle is dog sledge riding, which the Inuit are known for in many corners of the world. In Ilulissat, dog sledge riding is used mostly for fishing, hunting, tourism, as well as leisure rides into the hinterland and local sports

competitions. It is thus a practice that the majority of the residents rely on in order to make an income, since especially fishing and tourism make up the main industries in Ilulissat – but it is also a practice simply associated with great joy, as it provides opportunity to spend time in nature.

When it comes to dog sledge riding, “snow is everything,” I was told by Ingrid, a sledge dog owner I met in Ilulissat. Ingrid was Danish, but had lived in various locations across Kalaallit Nunaat for more than 20 years, and she had owned and raised sledge dogs for most of this time. I was lucky, because she invited me to meet her sledge dogs on several occasions, and to accompany her on a few trips on dog sledge into the hinterland. Through Ingrid, I therefore gained insight into the dynamics of a pack of dogs, but also into some of the skills necessary in order to both prepare and steer a dog sledge through the landscape.

Getting ready for a trip on a dog sledge can take a lot of time, since it is necessary to both prepare the sledge, pack essential equipment and lastly move the dogs one by one from their spot on the lot and attach them to the sledge. As seen on *photo 5*, a sledge prepared for usage consists not only of the wooden structure of the sledge itself, but further of pieces of reindeer skin to keep the musher warm – attached by a long, elastic rope – as well as ropes for emergency breakage, a dog whip, a brake mat, and a bag packed with extra ropes for the dogs – as well as emergency equipment to keep warm, should the musher get stuck in the hinterland.

On *photo 6-7*, Ingrid’s equipment is shown, as it is packed away in the shed. It is necessary to store equipment like this, since it would otherwise deteriorate because of the weather, or disappear under newly fallen layers of snow. As Ingrid told me, sledge dog owners make use of different materials and systems – especially with regards to the ropes used for dogs – but Ingrid herself had an intricate rope system, as seen in *photo 7*. She told me that her main priority is to keep the ropes in order, since they easily become entangled. I later learned that this can be quite inconvenient, as it is difficult to fix entangled ropes when at the same time attempting to manage a pack of strong sledge dogs.

Photo 5: Ingrid’s dog sledge prepared for a trip into the hinterland.



Photo 6: Reindeer skin, dog harnesses and brake ropes in Ingrid's shed.

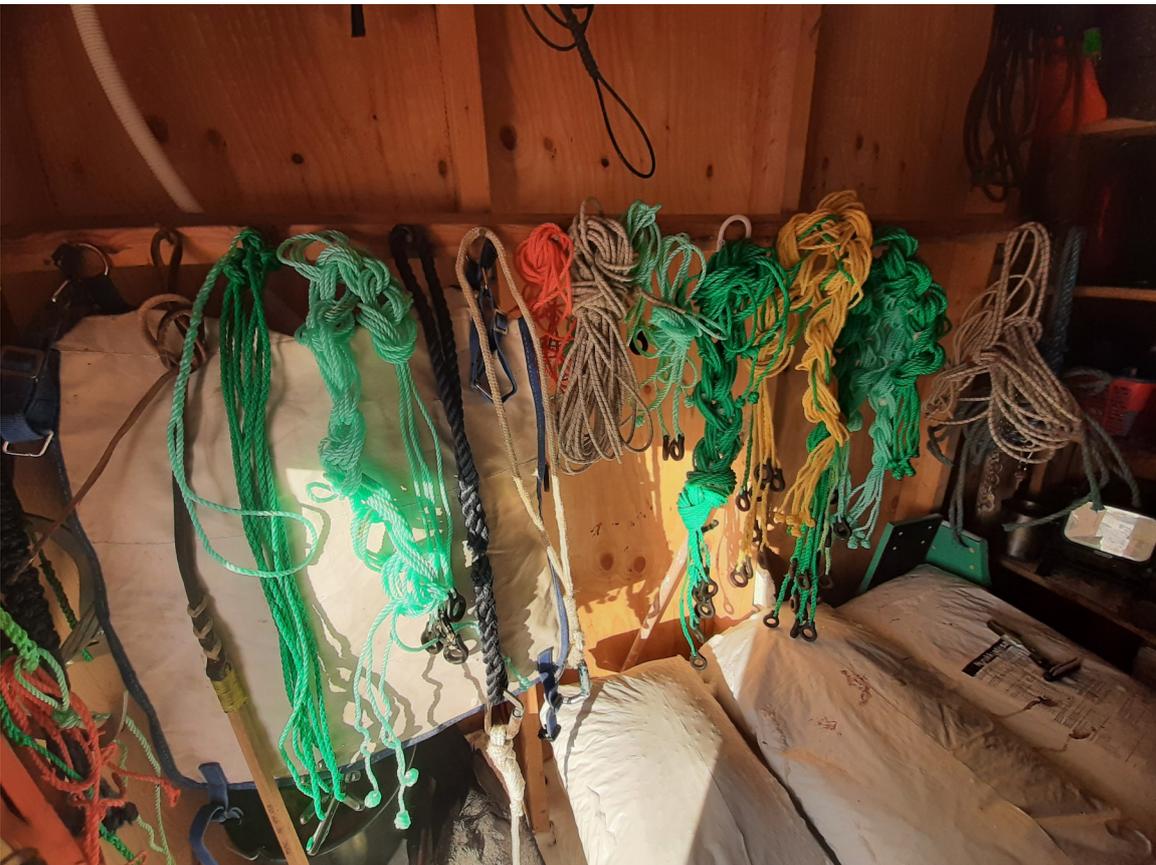


Photo 7: Ingrid's knot system for keeping her dog ropes in place.

On our trips into the hinterland, I learned that snow is indeed the very foundation for dog sledge riding. It is only possible to venture out on one's sledge when a thick enough layer of snow has settled to cover most rocks and unevenness in the landscape – but mushers also look for specific kinds of snow, as the sledge moves better on e.g. ice-like, slippery snow than soft, dry snow. But snow is essential, because it becomes too dangerous and too inconvenient to go dog sledge riding without it. Without a proper amount of snow, a musher is at risk for accidents, such as getting stuck in a hole or crashing into a rock. Also, the material of the sledge is worn out quicker if exposed to too much friction, and it also becomes harder for the dogs to pull the sledge.

What is particular to these kinds of knowledge is that the humans in Ilulissat act within what Ingold (2000) describes as a *sentient ecology*. That is, an environment which is alive and consists of multiple actors, such as e.g. snow, dogs or the wind; an environment in which human thriving depends not on authority, but on “feeling, consisting in the skills, sensitivities and orientations” that are learned and developed over time, through constant interaction with that particular environment (Ingold 2000, 29). In relation to chapter 1, this notion of nonhuman actors being sentient shows that there is an ongoing interaction between e.g. humans and snow when a musher ventures out into the hinterland. I learned this on my trips with Ingrid, as we both used our senses and our knowledge to steer the dogs and the sledge. But the nonhuman actors within the landscape also influenced us in several ways, since e.g. the snow often blurred our vision, covered or disappeared from spots on the ground, landed on or clothes and boots, and shape itself to the imprints of the sledge.

In extend, in this sentient relation, the capacities of snow can therefore be said to enable certain capacities in humans. Exactly because snow can transform into thick, icy layers, move far enough to cover large pieces of landscape, take up space, be a life source for various beings and produce sensory impressions, human practices such as dog sledge riding are possible, and humans can harvest their capacities for inventing things (such as sledges), easily move great distances, accessing fishing and hunting grounds, listening to snow, etc.

The above vignette, as well as my experiences with Ingrid, therefore illustrates several things that are crucial to dog sledging as a practice within the assemblage of which human-snow relations are a part. First, it illustrates that dog sledging is dependent on skills that need to be learned and embodied over time – by dogs as well as humans. The dogs are trained from a young age, in order to gain the necessary physique required to pull a sledge and everything on it, as well as responding to certain commands. But the humans need to embody certain skills as well. A musher needs to know their dogs – their different personalities, their strengths and weaknesses – as well as how to navigate the landscape, the various weather conditions, what equipment to bring, etc. These

skills take time to acquire, based on both inter-human knowledge sharing as well as personal experiences in relation to nonhuman actors.

Second, the vignette illustrates how dog sledges are part of the town infrastructure in Ilulissat. That is, the dog sledge trails are incorporated into the city planning, and the places where trails overlap roads are marked by signs. As described in the vignette, these signs signal that cars need to slow down and stop if a sledge approaches. But the dog sledges also create their own infrastructure, in a way. That is because the sledge trails are the only “roads” away from town (except if one travels by boat or airplane), as they lead into the surrounding landscape, toward fishing lots or private cabins. It is simply not possible to leave the town by car, as the concrete roads do not lead further away than the nearby airport. The ways in which movement happens between places surrounding Ilulissat is therefore quite particular to Arctic regions of the world.

Third, the vignette shows how certain practices in Ilulissat are dependent on snow and weather. The dog sledge needs a solid layer of snow in order to ride smoothly – but also in order to ride at all. During the snow free summers in Ilulissat, the dogs are never working, because the ground without snow simply has too much friction for a sledge to ride across it without becoming damaged. But there are also other weather conditions at play, such as storms and whiteouts. The mushers need to know the early signs of these in order to stay safe, since getting stuck in the hinterland without proper equipment and luck can be fatal.

Through their relations to snow, humans in Ilulissat thus become skilled actors with knowledge particular to existence in a sentient ecology. They know how to e.g. move through different forms of snow and how to read the weather – and then there are those with knowledge particular to certain practices, such as dog sledge riding, who know how to navigate the landscape, how to take care of a pack of dogs, how to fix broken equipment, etc. This is knowledge that cannot simply be learned without the shared experience from a skilled musher, as well as knowledge developed through interaction with all those other actors within a shared environment – by watching their movements, listening to their sounds and familiarizing oneself with their behaviors.

2.2 Learning how to walk

When I first arrived in Ilulissat, I was surprised to discover that something as simple as moving around outside would actually become a challenge. Even though the roads were cleared almost on a daily basis, there was always an icy layer of compressed snow left, almost as an intentional trap for human feet. I discovered this the hard way, as I managed to fall on my back in the middle of the town, spilling bags of groceries into the street. The culprit was a thin layer of snow, cleverly

masking the ice underneath it – or perhaps my own ignorance towards my surroundings. Either way, I realized that I needed a different technique of walking, in order to safely move around. I therefore concluded that I needed to adapt, in order to thrive in this new environment – so I decided to observe and mimic the movements of other town-dwellers.

I quickly realized that my walking style was completely wrong. While my steps were narrow, allowing my feet to slide quickly across the ground, others were taking broader steps, shifting their weight from foot to foot. I began to mimic these techniques, and I did not fall again after that – but to be honest, I feel like I never completely managed to walk skillfully across the icy roads. My body never learned to completely relax with these movements, to give into the uncertainty of unsteady ground. Instead, I felt it stiffen in attempts to control the outcomes of movement, steered by the past memory of falling on my back.

In this sense – as well as in relation to dog sledge riding – movement consists of a set of skills, learned and developed over time, dependent on a specific environment. While this may be difficult to notice in environments to which the body has already adapted, it becomes obvious when the body is exposed to unfamiliar conditions. This is important, because it shows that skill is not something simply learned overnight. Instead, skill takes bodily and mental effort to develop, through interaction with other actors in a shared environment.

These kinds of experiences are described by Jackson as *Knowledge of the Body* (1983, 124), as he argues that “human experience is grounded in bodily movement within a social and material environment.” In this sense, the body learns by doing things, by moving through deep layers of snow or walking on ice, by engaging in social and material relations. In result, what the body develops is a kind of knowledge, grounded in physical experience and experimentation.

Building on Bourdieu’s (1977) notion of *habitus*, Jackson therefore shows that individual bodies are made of interactions with others, as well as the repetition of certain practices particular to certain places and social groups. He writes that “habits are interactional and tied to an environment of objects and others. Forms of body use [...] are conditioned by our relationships with others” (Jackson 1983, 128). In this sense, the notion of knowledge of the body relates to Bennett’s assemblage thinking, since both are made of interactional relations. As a human body partakes in a given assemblage, it acts in relation to other actors – which shapes the body itself and therefore also the knowledge that it possesses.

2.3 You can see from a distance who is Danish and who is not

While I never learned to walk exactly like the local residents in Ilulissat, I did learn to walk slower, to take broader steps, switching the weight from foot to foot rather than sliding the point of contact from front to back. I learned to use my feet as a tool for exploration in relation to the snow covered ground underneath me, to look for friction, to avoid ice, and thereby to relate to the environment in which I was temporarily a part.

But I also learned that the ways in which humans in Ilulissat move is rooted in social mimicry, repetition and community-making (Jackson 1983). For example, when Nivi first saw me moving around outside, she had to laugh at my clumsy attempts at walking:

“You can see from a distance who is Danish and who is not,” she told me. “The Danish people are those who move very carefully, afraid to slip in the snow and fall.”

This shows not only that techniques of movement are developed over time, in relation to nonhuman actors within a shared environment – but that certain ways of movement reveal in which kind of environment someone has been raised. In this sense, a body is shaped by the environment in which it dwells, but it is also inherently social, as it mimics other bodies and experiments in relation to nonhuman actors.

However, it turned out that my fear of falling when walking on the icy streets was not completely uncalled for. Through later interviews in Ilulissat, I learned that it is not uncommon for local residents to fall and become injured. Paninnguaq, an Inuk woman who later became a good friend of mine through the Icefjord Centre, told me during an interview that:

“It happens that [...] people break their legs or their arms when they fall in the snow. [...] My mom also broke both of her arms once. The first time because she fell. She broke her left arm when she fell in the snow. And a few weeks later, she fell in the snow again, and then she broke her other arm. Then she had two broken arms at the same time.”

Although this happens mostly to tourists and the elderly, Paninnguaq told me that the hospitals are often full of people with broken limbs during the winter. As a result, some resolve to wearing spikes underneath their shoes, in order to have a safer grip against the ground. However, as I later discovered through conversations with several interlocutors, these spikes are generally considered “uncool” or embarrassing to wear by local residents. This reveals that one of the ways in which

humans relate to snow in Ilulissat, is through a striving towards proving one's own "toughness" by possessing the bodily skill to interact with snow without unnecessary aid.

As explained through Taylor's (2004, 23) notion of *social imaginaries*, the ways in which humans behave within a certain society is based on social rules and moral codes. Taylor himself defines these social imaginaries as "the ways people imagine their social existence, [...] the expectations that are normally met, and the deeper normative notions and images that underlie these expectations." In any society or group, according to Taylor, its human actors are therefore steered by these rules and codes in the ways in which they move and interact with one another. In Ilulissat, this means that there is a sharp difference between local residents and newcomers, which can easily be identified via the manner in which their physical bodies interact with e.g. snow and ice.

While newcomers are often seen and therefore expected to wear spikes underneath their shoes, as well as moving in a careful and stiff manner, local residents are taught through their childhood upbringing how to engage in a close relation to the landscape and its nonhuman residents. They are expected by other residents to become skilled actors within their environment – and therefore know not only how to find balance and simply slide across icy ground, but also how to move in ways that conserve energy, how to avoid walking on certain foundations, etc. Ellen (introduced in chapter 1) elaborated on this during an interview, when she told me that:

"It may well be that it looks like you can walk there, but it could easily be the case that there is very thin ice underneath the snow, and such things. I'm never just wading into anything without being certain. So that thing about always being attentive towards what you step out into... it could be that you either fall through the snow or the ice or... that you fall. Especially if you are used to always walking on a prepared foundation of sidewalks and roads, where even the curbs are not too tall."

Furthermore, in Ilulissat, it is generally sought after to be skilled not only at outdoor movement, but at practices related to nonhuman actors within the surrounding environment. Both mushers, hunters and fisherfolk are therefore celebrated in Ilulissat in annual competitions through which they can show off their skills. Snow is therefore a crucial part of how humans in Ilulissat imagine their social existence, since it is not only the foundation for multiple practices that make up human lifeworlds there, but also the origin of certain notions of normality and social expectations. Ellen told me that it is e.g. considered highly immoral to venture out into the hinterland without considerations for the weather, since this would not only put yourself at risk, but also those who would lead the rescue

mission. The social imaginaries of Ilulissat are therefore rooted in relations to nonhumans, making up not only desire, but expectation of certain skills and knowledge.

Humans and snow are thus entangled in various ways in Ilulissat, which influences human everyday practices and lifeworlds, rooted in experiences and relations to nonhuman actors. But since the world is made of assemblages stretching further than local environments, the dynamics of Ilulissat are influenced by actors from multiple localities across the planet. In the following chapter, I will therefore elaborate on these human-snow entanglements through a political lens. Since the lifeworlds of (certain) humans are often prioritized in political and academic debate, I will highlight a different approach to issues such as climate change, based on my fieldwork in Ilulissat.

3. “The politics of low temperature”: Climate change and its influences on human-snow assemblages.

“The worst case scenario would be that you turned off the fishery in Ilulissat. And that would cost some money. I don’t know exactly how much that would be. Maybe millions a year. But if you think about the value of sea level rise that would be saved, it would presumably be compensatable,” the geoscientist explained.

We were sitting in the Culture Hall in Ilulissat, where the geoscientist had just given a presentation concerning a potential project with the purpose to conserve the retreating glacier, Sermeq Kujalleq, in Ilulissat. According to him, this project had noble intentions: To save around 200 million people from becoming climate change refugees, due to rising sea levels. The method would be to insert a curtain into the water below the glacier. This would protect it from exposure to rising sea temperatures, and thus, from melting – at least at the rapid speed which it is currently undertaking. However, after discussing the project for a while, it turned out that it would likely create negative complications for the fishing industry in Ilulissat.

The geoscientist continued:

“So the idea, in general, is a kind of compensatory for any loss of the fishery in Ilulissat. You would have to compensate by generating this money from stewardship of the ice sheet instead – or extra tourism, or something like that.”

The room was large, but sparsely filled with people. Most of us were researchers from abroad, from different disciplines across both social and exact sciences, except for a single Inuk woman who was hired as an interpreter – in case other residents would have joined – a few municipality workers, all Danish, and a Norwegian man who had lived in Ilulissat for a large part of his life. The day before, my friend Paninnguaq had told me that she wanted to participate in the discussion. But since the event was taking place in the middle of the day, she had to work and was unable to attend – and it seemed this was the case for most other residents as well.

The Norwegian spoke up, an annoyed tone in his voice:

“Compensation, from a social perspective, is so dangerous. Because, what do you mean? Do you want to give every fisherman 40.000 kroner a month – and then they don’t fish, but go to the pub and get drunk? Or what do you want to do? What does compensation mean?”

The room went quiet before one of the other researchers continued the critique:

“I guess one thing to think about is the types of compensation for loss of activity and such things is, I mean... in Indigenous contexts, obviously, the right to practice one’s culture is important. And, you know, it’s not something that necessarily can be compensated in a way that the current generation cares about.”

The question regarding compensation was never answered, in a complete sense. The development of the project was still ongoing so, according to the geoscientist, they did not yet possess all the answers. However, this discussion at the Culture Hall shows several things, which are crucial to discussing climate change and its influences on the network of human-snow relations in Ilulissat. First, that humans from multiple locations across the planet have a great interest in the glacier, Sermeq Kujalleq, in Ilulissat – as well as the larger ice sheet that covers most of Kalaallit Nunaat. This is because 1) Sermeq Kujalleq has been titled the fastest retreating glacier in the world, and 2) the impacts of the melting glacier – as well as the ice sheet – will increase the rise of sea levels across the planet.

Second, the discussion shows that some humans who visit Kalaallit Nunaat from abroad view nature and all its elements as something that can and should be controlled, in order for the human species to thrive.

Third, that some humans who visit Kalaallit Nunaat draw a distinction between the human and the nonhuman in terms of value. That is, during the discussion, it is implied that 1) the glacier is only valuable in the sense that its continuous existence/slower melting would protect human lives, and 2) that the potential absence of fish is something that can be compensated by money.

Fourth, the discussion shows a Western-centric tendency to disregard or down-prioritize Indigenous people in reflection and decision-making. This is evident because of 1) the almost complete absence of Indigenous people in a discussion regarding the use of their land, and 2) the notion that Indigenous practices can and should be sacrificed for the benefit of someone else. These tendencies are problematic because 1) they produce effect in the world, and despite potentially “good intentions,” Indigenous people are often harmed by the actions of even scientists and researchers, due to insufficient knowledge regarding Indigenous rights and practices, and 2) the Indigenous population in Kalaallit Nunaat should not be overlooked in decision-making concerning their land, rights or practices

In this chapter, I will elaborate on these claims in relation to *cryopolitics* (Radin and Kowal 2017; Bravo 2017; Bravo and Rees 2006). And I will discuss the role climate change plays as an actor in

the network of human-snow relations in Ilulissat – and on a larger, planetary scale – adopting nonhuman perspectives.

3.1 “For the world, [the ice] is like this huge pile of gold”

“The politics of low temperature” (Radin and Kowal 2017) – or *cryopolitics* (Radin and Kowal 2017; Bravo 2017; Bravo and Rees 2006) – have become loaded with increasing urgency in debates across the planet, as the effects of climate change can no longer be ignored. Many eyes are watching as glaciers are retreating, sea ice is melting, and sea levels are rising, which is predicted to cause a great number of humans to become climate change refugees. Or, put by Radin and Kowal (2017, 3): “[A]s the planet warms, “naturally” occurring cold has come to be understood to be a scarce resource.” However, these debates are full of ambiguity, as they render essential questions of power, rights and ontologies. For example, how does power determine what happens to the planet and its nonhuman environments? What are considered (human) “rights,” and how does this influence actors in various localities? What can be learned from recognizing perspectives from diverse ontologies, rather than taking for granted subjective perspectives on states of matter?

In an early attempt to address the politics and unequal power dynamics concerning the influences of climate change, the term cryopolitics was coined by Bravo and Rees (2006) – in order to “argue for a cultural politics of melting polar sea ice” (Bravo 2017, 32). In doing so, they bring attention to the geopolitical tensions regarding so-called “claims” to Indigenous land – as well as the consequences of climate change for Indigenous people, animals and plant life in the Arctic. These discussions are not only important because they call for action against environmental catastrophe, but because they reveal a deep-rooted Western-centrism and anthropocentrism in previous as well as current human decision-making regarding the Arctic. Cryopolitics therefore essentially raises the question: In light of climate change and the impacts it will have on planet Earth, what can and should we humans view as global “commons” (Hardin 1968) – and who should have priority in these kinds of decision-making?

Climate change thus renders geopolitical tensions problematic, as the notion of a “common” world is largely used and misused by powerful human authorities (Bravo and Rees 2006). As discussed above, the effects of climate change will have dire consequences across the planet. If e.g. a glacier melts, it influences not only its local environment, but a myriad of actors in various localities. In the same sense, the melting of the glacier itself is again caused by actors far away, whom it is likely to never have physically encountered. However, the ways in which things assemble themselves stretch beyond local scales, as actors such as snow (and thereby also glaciers)

e.g. melt and move between places. In this sense, everything and nothing is common, but illusions of human ownership over other actors is problematic, as it tends to cause more harm than good.

However, these first attempts at discussing cryopolitics leave out nonhuman perspectives, as well as Indigenous ontologies. Bravo and Rees deal with sea ice mainly as a “resource,” which is problematic because 1) this create a false notion of non-agency while, in fact, nonhuman actors – such as ice and snow – not only influence human life but are the very foundation for it, 2) by ignoring the agency of nonhuman actors, they feed into the narrative that these actors are passive or dead “things,” that we humans can use as we please, and 3) if we humans continue to act on this narrative, it will have dire consequences not only for ourselves, but for other actors who dwell in our common environments.

It is therefore important to address not only the fact that climate change influences things, but how humans talk about it, as well as the role multiple actors play in these influences. I will not dive into discourse theory here, but I do believe that the ways in which we humans talk about things matters – or at least that it reflects the ways in which we act. In extend, it matters how many of us humans often place ourselves in binary opposition to the nonhuman and how this influences our relations to other actors with whom we share environments. I therefore see it as problematic when, in the discussion described in the beginning of this chapter, it was claimed that:

“For the world, [the ice] is like this huge pile of gold – if you think about that you need to keep it as “the ice” rather than letting it melt and raise the sea levels. It’s like this huge, valuable thing. But people here don’t realize that.”

Claims like this one are problematic because they reveal and reinforce a perceived human vs. nonhuman binary, and thus a division of certain types of actors in terms of hierarchy. In short, claims like these create false justification for human treatment of other actors as worth less – or worth something only in their perceived usefulness to those humans.

Further, as discussed by TallBear (2017), these ways of perceiving and talking about matter in the world reinforce Western-centric narratives of things while leaving out Indigenous voices. That is, even academic debates often create “a barrier between what it is thought humans can know through their materialistic, empirical investigations and what (some) humans believe to exist beyond the knowable material world” (TallBear 2017, 192). It is therefore crucial to understand the lifeworlds of local actors – narrated through Indigenous ontologies – in order to even begin to understand the ecology of a certain environment.

In the above example, the glacier was reduced to an object-status, through a monetary perspective, while the views of the Indigenous residents were completely misrepresented. Based on my own fieldwork in Ilulissat, I would argue that the glacier is perceived as far from worthless – for humans, snow, fish, the wind, etc. For the humans, the glacier and the icebergs it produces are loaded with life and feelings of identity. As said during the debate, by the only Indigenous person present: “Without the icebergs, Ilulissat won’t have meaning. Because Ilulissat means iceberg.” In the same sense, the glacier is the basis of existence for multiple species, as it e.g. releases nutrients into the water – which in turn causes Ilulissat to be the main fishing area on the West coast of Kalaallit Nunaat – it produces wind through the changes it causes to temperature, and it provides a resting place for snow, exactly because of its low temperatures.

The glacier is therefore not an object to be controlled for its resource potential, but an actor – within a larger assemblage of actors – that partakes in a local ecology of life, as it performs actions, based on its unique capacities. Therefore, cryopolitics should deal with nonhuman matter in order to not only understand local ecologies, but to produce effects that are more sustainable for these ecologies.

3.2 “In the dark times, it is no longer possible to go hunting”

It is clear that the melting of Sermeq Kujalleq – as well as the larger ice sheet – will produce effect beyond Kalaallit Nunaat. However, this should not be enough to render Indigenous land “common,” or for political authorities to ignore Indigenous – as well as nonhuman – perspectives. Instead, in order to create political debate that is rightfully grounded, discussions like the one described above should be held by Indigenous people themselves, with knowledge of local ecologies, lifeworlds, practices and relations between various nonhuman actors. It is further important to remember that Indigenous people will suffer the consequences from climate change as well as anyone else, since practices that depend on e.g. snow are likely to disappear in the near future.

Bravo and Rees discuss several petitions defending the rights Indigenous people, such as “An Inuit Petition to the Inter-American Commission on Human Rights for Dangerous Impacts of Climate Change,”⁵ which have received little attention in popular debate. Among other things, the petition states that:

5 Martin Wagner and Donald M. Goldberg, “An Inuit Petition to the Inter-American Commission on Human Rights for Dangerous Impacts of Climate Change.” Center for International Environmental Law (CIEL). December, 2004. <https://www.ciel.org/reports/an-inuit-petition-to-the-inter-american-commission-on-human-rights-for-dangerous-impacts-of-climate-change-december-2004-ciel-earthjustice-goldberg-wagner-2/>

“As sea ice retreats and ecosystems shift, access to vital resources becomes more and more difficult. Weather becomes unpredictable and the ice itself becomes hard to read, even for the most experienced hunters. To gather the resources they need, hunters must increasingly put their own safety at risk.”

The petition shows that, while the network of nonhuman actors is influenced by climate change, traditional Indigenous practices are endangered. With changes to the climate, skills that have been developed over generations – such as being able to read the weather conditions or navigate by certain appearances in the landscape – can no longer be trusted. In Kalaallit Nunaat, this will especially cause problems to the hunters and fisherfolk who depend on certain conditions within their surrounding environment in order to carry out these vocations.

Since Ilulissat is a fishing town, the disappearance of snow and ice is predicted to seriously impact life there. While the residents I encountered during my fieldwork mostly expressed joy because of the increased melting of the glacier – as this has caused an increase in amount and diversity of fish in the ice fjord as well as in the surrounding sea – people also expressed concern regarding the future of practices such as ice fishing that cannot be done without extremely cold weather conditions that produce thick ice and thereby ensure the safety of the fisherfolk.

While fishing is also done from boats, it is only possible to access the best fishing lots within the ice fjord via dog sledge. The sea around Ilulissat is the main fishing area in West Kalaallit Nunaat because the melting of the glacier releases nutrients in the water, creating the perfect environment for fish to grow. But it is mostly too dangerous to actually sail within the ice fjord because it is full of icebergs and sea ice. People therefore travel to fishing lots along the coast of the icefjord via dog sledge, where they do ice fishing in order to catch the biggest fish. But this practice is only available during the colder months of the year, when the ice along the coast has grown thick enough to carry both humans, dogs and fishing equipment – and when a thick layer of snow has fallen on the ground, enabling the sledges to travel through the landscape. However, as the ice connecting the land to the fjord is increasingly disappearing, fisherfolk already have to travel further away in order to reach the good fishing spots in the ice fjord. In the future, ice fishing as a practice might therefore completely vanish, as it is already becoming increasingly dangerous to lead a heavy sledge full of equipment, humans and dogs out towards the fjord, only protected from the freezing water by a thinning layer of ice.

As shown in chapter 2, practices such as dog sledge riding – which are used by hunters and fisherfolk alike – are dependent on certain weather conditions, which can produce and maintain a thick layer of snow and ice. However, as my interlocutors told me that the snow season appears to

grow increasingly shorter, it is likely that certain ways of hunting and fishing will disappear in the future. Paninnguaq's father, Salik, grew up in Thule⁶ where he was taught to fish and hunt. However, during an interview, he told me that he not only expects the conditions for hunters and fisherfolk to grow different in the future, but that these people are already suffering from changes to the climate:

“In the dark times [mørketiden]⁷, especially in Thule, it is no longer possible to go hunting. Because there is no ice on the sea. And it is dark. And it is unstable with fragile ice, where one cannot sail with a smaller boat. So it means a lot to the hunters in Thule that there is no longer the firm ice that should be there.”

In extend to these increased risks, Salik told me that hunters and fisherfolk are loosing work and thereby their main source of income. In the future, it might therefore be necessary to adapt to these changes by finding other kinds of work, for example in the growing tourist industry.

But changes to the environment will also cause problems for all of those people who depend on hunting and fishing as food sources. During my fieldwork in Ilulissat, every single person I encountered either went hunting or fishing themselves, or they knew someone else (a friend or a family member) who did so and thus supplied them with meat. Salik's family, for example, often receives meat from the father of Paninnguaq's boyfriend, who both hunts and fishes. It is therefore common for a family to own not only one, but several, large freezers in order to store large quantities of meat for longer periods of time. However, with decreasing opportunities for hunting and fishing, these sources of food may slowly become scarce. This is problematic, as the Arctic climate in Kalaallit Nunaat does not allow for e.g. farming practices to be carried out. Most other kinds of food are therefore imported, which causes them to be sold in the supermarket for extremely high prices – especially if the supply ships has trouble reaching its destination, as it had during my time in Ilulissat. During this period, vegetables were often flown in, but sold for high prices such as 7 euros for one eggplant. Thus, while hunting and fishery are ways for local residents to independently acquire food without having to go bankrupt, the changes to these practices are likely to increase social inequality in Kalaallit Nunaat.

6 The north-western area of Kalaallit Nunaat.

7 “Mørketiden” refers to the dark months during winter where the sun does not rise.

3.3 Taking seriously the vitality of (nonhuman) bodies

Cryopolitics as a term was later broadened by Bravo (2017, 33) in order to deal not only with the tensions regarding sea ice, but “to take into account the productive agency of natural and artificial “material frozen states” more generally.” In doing so, Bravo calls for reflection on anthropocentrism and Eurocentrism in human relations to climate change and resource extraction. That is, for cryopolitics to properly deal with the state of matter, it is necessary to recognize unequal hierarchies of power, as well as the role we humans have had and are currently playing in the destruction of planetary ecologies.

While Bravo still fails to address that the notion of “resource” is problematic, his coupling of political tensions with a goal “to overturn the long-received view of ice as intrinsically empty of value, indifferent to life, and indeed lifeless” (Bravo 2017, 33) is important for nonhuman ethnography. Throughout this thesis, I have shown that actors such as snow indeed possesses an agency in itself – not only as it affects other actors, but as it takes up space and simply exists on its own. This is important not only in order to understand snow as a vibrant actor, but to understand – as humans – that we live on a planet that we cannot control. We only put ourselves in danger if we imagine so, and if we continue to treat things with disrespect and carelessness. While snow is a relatively harmless actor – aside from e.g. avalanches and slippery streets – its probable absence in future ecologies will be dangerous to those who depend on it. But there are also other actors that are far more dangerous, whom many humans tend to ignore. Thus, by recognizing the nonhuman as vibrant, vital agents, we humans might yet create a shift in behavior that could help against larger issues such as climate change.

This falls in line with a body of environmental thinkers, such as Chakrabarty (2021) who calls for a switch from “global” to “planetary” perspectives in academic as well as in popular human debate. According to Chakrabarty, the idea of globality originates from European expansion, and thereby colonial mentalities of ownership over land, bodies, matter, etc. Planetary perspectives, on the other hand, recognizes a “planetary consciousness” beyond human lifeworlds (Chakrabarty 2021, 82) – although Chakrabarty criticizes human tendencies to mostly place this in the background, while giving space to human priorities.

Thus, Chakrabarty further calls for a distinguishing between “sustainability” and “habitability,” arguing that sustainability often is deeply political and “a human-centric term” (Chakrabarty 2021, 83). It is therefore crucial to always ask what we want to sustain – whether it be Indigenous practices, a glacier, human civilization, etc. – although, because of human anthropocentrism, “the idea of sustainability puts human concerns first” (Chakrabarty 2021, 82).

Therefore, in line with planetary thinking, Chakrabarty suggests the term “habitability,” because “[i]ts central concern is life [...] and what makes that, not humans alone, sustainable” (Chakrabarty 2017, 83).

I therefore return to Bennett, whose work I discussed in the first chapter of this thesis, as her goal is “to encourage more intelligent and sustainable engagements with vibrant matter and lively things” (Bennett 2010, viii). Would it be possible to discuss sustainability from a nonhuman point of view? Perhaps the best way to sustain ecologies, is to do nothing at all – to avoid control, regulation, etc., but to trust in the actions of nonhuman actors, and for humans to practice surrender and humbleness. In this sense, Chakrabarty’s notion of habitability indeed provides a starting point from which to approach these discussion, as “humans are not central to the problem of habitability, but habitability is central to human existence” (Chakrabarty 2021, 83). Indeed, we humans need to make space for other actors, on a planet that we already share – in order to not only sustain ourselves, but to allow ourselves the privilege of partaking in multispecies ecologies.

In the beginning of Bennett’s (2010) *Vibrant Matter: A Political Ecology of Things*, she poses the question: “How would political responses to public problems change were we to take seriously the vitality of (nonhuman) bodies?” (Bennett 2010, viii). The question is posed in order to express Bennett’s political agenda, but also to provoke the reader into considering things from perspectives potentially alien from otherwise considered ontologies. Because the answer, from a human point of view, seems painfully clear at this point: If we humans were to take seriously the vitality of (nonhuman) bodies, the very notion of “resource” would disappear and instead make space for nonhuman ecologies to simply exist, without human desires for control or manipulation. Political responses to public problems would not be centered around sustaining human civilizations, at the cost of other actors considered worth less or placed in binary opposition to humans. Rather, they would perhaps be centered around adaptation to environmental changes and a knowledge that the planet does not need us humans in order to survive – but we do need the planet.

However, for a moment, let us consider this question from the perspective of snow in Ilulissat. As far as it is known, snow may not have a political agenda, in the same sense that we humans tend to have one. Nor does it have desires, wishes, fears, etc. Snow does not worry about climate change, nor the fact that it is likely to suffer a large-scale extinction in the near future. In a way, snow simply exists. But snow does respond to other actors with whom it interacts. It responds to changes in temperature, the weight of other matter, the force of wind, the shape of that on which it lands, gravity, etc. Also, snow does things – intentionally or not – which affects other actors. Throughout this thesis, I have shown that snow has the power to delay flights, to cover mountains (what human could honestly claim that they would be able to do that?), to shape shift, to color

landscape, block doors, etc. Snow therefore holds great power, although not political. The responses of snow move beyond politics, beyond agendas and fears. It is vital but free of desire – however, its responses to changes and various interactions may prove to be fatal to other actors.

The task of us humans is not only to recognize this power of actors such as snow, but to realize the potential of nonhuman agency, in general. Snow is but one actor, but there are so many more on this planet. What can we learn from observing them and their behavior? How can the perspectives of the human influence human thinking and decision-making in ways that (hopefully) aid the habitability of our planet?

Returning to TallBear (2017), it is therefore important to give space to Indigenous perspectives in environmental debates, as these are humans who partake in nonhuman ecologies and “see ourselves in intimate relation [...] with nonhuman beings” (TallBear 2017, 193). Our task as academic thinkers, politicians, and human beings in general, is therefore not to make up new frameworks of thought, but to listen to the knowledge of those who already recognize the vitality of the nonhuman. As TallBear argues: “agency should be understood as distributed more widely among human and nonhuman beings. Understanding these things can help transform how we humans see our place in the world, and therefore how we act. [...] And, unfortunately for everyone, it forecloses valuing Indigenous peoples and their dynamic conceptual frameworks that could, if taken seriously, help shape broader knowledges and practices in ways that might lessen global devastation” (TallBear 2017, 199).

3.4 It is only the world that decides

During one of our conversations, Paninnguaq told me that:

“There is a text in a song which says *silarsuaq kisimi naalagaavoq*, which means that it is only the world that decides. A lot of people also say this when things are for example canceled because of the weather.”

Paninnguaq told me that this is how she sees the world, and I can only assume that this comes from living in a place where the weather controls everything. If a snow storm rages outside, activities are canceled and many humans do not leave their house; if it is warm and sunny too early during the spring, the snow will melt and thus hinder e.g. hunters from carrying out their work; and if it then again grows cold, humans will have to walk carefully on the newly frozen streets in order to avoid falling. In short, the humans I encountered in Ilulissat are used to not only surrendering to extreme

weather conditions (without complaint, because what can be done, really?), but also to adapt to changing conditions and thrive from whatever is available.

What this reveals about Ilulissat is a general state of mind that is rooted in relations to nature and nonhumans. While the town itself is largely perceived as different from being out in nature, it is constantly invaded by nonhuman actors such as snow or wind, shaping the everyday lives of human residents. There is therefore a constant interaction ongoing with these nonhumans – and residents know all too well how important it is to listen.

But the thing is, while they are inhabitants of a town, most of the Inuit residents of Ilulissat spend great amounts of time out in nature. While some depend on hunting and fishery in order to make a living, others engage in these practices as a leisure activity. In extend, as I was told by multiple interlocutors, most residents have access to a cottage far into the hinterland where they often spend their weekends and shorter holidays. A friend of Paninnguaq, Maliki, told me for example that her family shares a cottage where they often stay for longer periods during the summer, where they catch and dry *amasetter*⁸, pick berries and other edible plants. During the winter, Maliki often take her children on shorter trips into the UNESCO area, where they play together in the snow.

This relates back to Ingold's (2000) notion of a sentient ecology, since both human and nonhuman inhabitants of the environment that makes up Ilulissat relate to one another, through various ways of language that moves beyond words. The humans build up knowledge through experiences and shared stories, which shapes the ways in which they interact with actors such as snow, through skills, practices and bodily movement. Meanwhile, nonhumans such as snow communicate by e.g. lifting itself from the ground and thus revealing that the winds are strong, squeaking loudly as it encounters human feet and thus revealing that the temperature is extremely low, or transforming into water and thus revealing that the weather is changing. But what is important to take from this, is that human relations to nonhuman actors in Ilulissat are never based on the notion of human control.

The human existence in Ilulissat is therefore centered around what is conceptualized as *Sila* – an Inuit word referring to both “the weather” and “consciousness,” but also hinting at some greater power. But because of the colonial history of Kalaallit Nunaat, many details from Inuit mythology are lost, since these were criminalized by the Danish sovereigns (Hermann 2021). However, it is my impression that the effects of these myths still influence the ways in which many Inuit think and approach the world today. As shared by Paninnguaq, it is often repeated that only the world decides – by which she refers to the weather, to nonhuman actors in the surrounding

8 A type of fish.

environment, as well as this notion of a greater power, drawn from Inuit mythology. While I will not dive anymore into cosmologies here, I suggest this as a topic for further research. But what to take away from this, is that the legacy of concepts such as Sila manifests into human ways of perception and concrete everyday practices in Ilulissat. It shows that humans live in a sentient ecology, along nonhuman actors – but also that the dynamics of this ecology are dominated not by human will, but by nonhuman actors such as the weather.

Furthermore, it is my impression that the notion of Sila influences the ways in which the Inuit in Ilulissat relate to climate change. When inquiring into the effects of climate change, two things became apparent to me: 1) That climate change will impact and likely disrupt certain Indigenous practices in Ilulissat, and 2) that the Inuit I encountered throughout my fieldwork did not seem to desire any control of these upcoming changes.

The second point is important, because it reveals a general notion of surrender, which contrasts both the approach of the geoscientist discussed earlier in this chapter, as well as popular discourses regarding climate change in other localities across the planet, such as continental Europe. It should therefore be asked who really benefits from discussions regarding cryopolitics and glacier conservation – especially if Indigenous perspectives are left out of these discussions.

In my own everyday life, I am a resident of the Netherlands, where not only cities are planned, but also nature. Large areas of land have been created by draining them from sea water, forests have been purposely planted in specific places, machine dug canals lead excess water away from cities in intricate systems. So in this sense, it is not so strange that many humans believe that nature is something that can and should be controlled. But it is important to ask whether this sense of control is rather an illusion – and whether it can be maintained long-term, in relation to climate change.

In Ilulissat, where extreme weather conditions already rule everything, the general approach to a sustainable everyday life is driven by respect towards nonhuman actors, as well as this notion of surrender to Sila. While the residents of Ilulissat are aware of the impacts that climate change will have for e.g. local hunters and fisherfolk, their general approach towards these changes is dominated not by fear or desires to control future events, but rather through a focus on adaptation and potential future gains. These perspectives were further revealed through a conversation with Nivi, as she described her thoughts regarding the future of Kalaallit Nunaat:

“I think the weather will become more extreme. Both in one way and the other. I think that the way one just exists with nature will change. [...] But that can also open up for other things. [...] If, for example, it becomes warmer, there might not come so much ice – and

then the ships can come through [with supplies]. And that can open up for some new ways. I think that things are gonna change. But I think that one can use some of those changes. I hope that I will be able to ride a snowmobile and dog sledge in the future. But, of course, there are some old ways that will just be lost.“

What can be taken away from this notion of surrender is a deep knowledge that ecologies are dynamic and therefore bound to change. In this sense, the main skills of the future in Ilulissat will perhaps be those of adaptation rather than generational experiences in relation to ice and snow. However, I believe that these ways of relating to local ecologies could serve as a point of inspiration for humans across the planet, since the ways in which many of us currently relate to nonhuman actors will undoubtedly be forced to change. The human-snow relations in Ilulissat are therefore important in order to not only understand the dynamics of a local ecology, but to understand that we humans relate to and are effected by nonhumans actors in our everyday lives. As everything is connected through assemblages, after all, it is only the world that decides.

Conclusion

In this thesis, I have shown how human-snow relations are part of a larger *assemblage* (Bennett 2010; Deleuze and Guattari 1987) that shapes the everyday practices and lifeworlds of local residents in Ilulissat.

An assemblage is dynamic, it changes over time, and it is made of a myriad of relations between a multiplicity of actors. In Ilulissat, the dynamics of the assemblage studied can therefore be explained through what Ingold (2000) defines as an *ecology of life* in which actors engage in relation with their surrounding environment.

The actors within this assemblage are both human and nonhuman – local residents, tourists, dogs, snow, the wind, temperature, plants, rocks, fish, mountains, etc. – but what they have in common is the fact that they possess inherent capacities.

Snow itself possesses a *vibrant materiality* (Bennett 2010), which can be studied through its capacities such as shape shifting, movement, taking up space, being a source of life and producing impressions. However, the agency of snow is dependent on its capacity for *doing-in-relation* (Sundberg 2021). The ways in which snow produces affect in the world is therefore through its relation to other actors – by the ways in which they act, react, influence and collaborate with one another – as they partake in a larger assemblage.

In extend, human-snow relations in Ilulissat consists of much more than simply the ways in which *humans* act upon snow. While local residents have adapted to the environment by growing certain skills and knowledge, they also have a deep respect towards forces such as the weather – and thereby also snow – as they know that these extreme conditions can be fatal if one is not attentive.

The human-snow relations in Ilulissat are therefore paradoxical, in a sense, since snow on the one hand is the basic condition for certain human practices, but on the other hand it hinders human everyday life. I have shown this through the examples of dog sledge riding, snow shoveling and my own attempts at learning how to walk on the ice and snow covered roads of Ilulissat. While dog sledge riding is a way of relating to one's environment as a *sentient ecology* (Ingold 2000), the human body itself is also affected by this environment as it grows knowledge and is thereby shaped by other actors (Jackson 1983).

Human-snow relations therefore create human *social imaginaries* (Taylor 2004), as certain rules and moral codes regarding snow entanglements are implemented into human everyday life. The total human lifeworld in Ilulissat is therefore influenced by snow as it takes up material space as well as contributes to human experiences.

As an ethnographic researcher, I myself took part in this assemblage of multiple actors during my time in Ilulissat. While my role was temporary, I partook in everyday human practices, took up space, inquired into the lifeworlds of other humans through interviews, made footprints in the snow, fed a pack of sledge dogs, went to *kaffemik*⁹, etc.; all actions that have produced some kind of effect in the local community. While the effect of my presence may have been small, assemblage thinking in this case aids in understanding how the presence of an anthropologist is never neutral. Even in spite of our typically adaptable nature and ethical considerations, we always produce some kind of ripple effect.

What can be learned from inquiry into human-snow relations in Ilulissat is therefore how a multiplicity of actors can influence what may appear as simple, everyday events. While we humans may take for granted the things we do, our practices are carefully developed and remade in relation to other actors with whom we partake in a larger assemblage.

However, by adopting planetary perspectives (Chakrabarty 2021), it is clear that the assemblage of which human-snow relations are a part exists not only on a local scale. Rather, it is influenced by actors from multiple localities across the planet, as phenomena such as climate change have been and is expected to further alter local ecologies.

In Ilulissat, this is experienced by local residents through e.g. increased glacier activity, shorter snow seasons, and disappearance of ice fishing lots. While the glacier activity improves conditions for the larger fishing industry, the changes to the environment are predicted to threaten traditional Indigenous practices such as dog sledge riding, hunting and ice fishing who all depend on snow.

However, as the increased glacier activity – as well as the melting of the larger ice sheet covering Kalaallit Nunaat – is expected to be a main contributor to rising sea levels, external scientists, policy makers, etc. are showing a great interest in Ilulissat. In this context, I have introduced the notion of *cryopolitics* (Bravo and Rees 2006; Bravo 2017). Through this term, I have discussed how low temperatures is often considered a resource by humans, based on an illusion that nature is something opposite to us that can and should be controlled.

In contrast to this, I have referred to Indigenous perspectives (TallBear 2017; Todd 2016) as sources of inspiration for more sustainable ways of engaging with nonhuman actors and assemblages that make up ecologies of life. Through the stories of my Inuit interlocutors, their everyday practices and lifeworlds, I have shown that it is indeed possible to partake in ecologies

9 A *kaffemik* in Kalaallit Nunaat is a celebratory gathering, often hosted in the events such as birthdays, graduations, etc.

through relations with a multiplicity of actors, and thereby challenge the human vs. nonhuman binary.

What should be taken away from this thesis is therefore this call to engage in more sustainable relations with nonhuman actors – through recognizing their vibrant materiality, their agency and the ways in which we humans depend on them in various ways. In order to deal with crisis such as climate change, it is not enough to simply continue on this path of seeking control over what many perceive as “nature” as opposed to human “culture”. Doing the same while expecting different results is often the best proof of insanity. Rather, we humans need to adopt different perspectives for relating to nonhuman actors within the assemblages of which we are a part. Luckily, a source of inspiration to this already exists in Indigenous ecologies.

I therefore hope to see a rise in Indigenous scholars, activism and political debates across the planet, considering both Indigenous rights and nonhuman agency. I hope to see humans such as my friend Nivi not only normalize ways in which Indigenous peoples perceive and relate to surrounding environments, but aid in implementing concrete changes to law and policies regarding human and nonhuman rights. After all, this is what the planet obviously cries for in these times of crisis.

In extend, while this research focused mainly on human relations to snow, its results can be applied and compared to the behavior of any kind of nonhuman actor. While snow is a crucial component to the assemblage of Ilulissat, other localities are made of other kinds of actors. For further studies, I would therefore call for such ethnographic inquiries, in order to better understand nonhuman worlds across the planet – as well as the ways in which they produce affect in human lives. After all, we humans cannot ignore that the world is made of matter, that we ourselves are made of matter, and that our matter entanglements make up the practices and social imaginaries of our everyday lives.

Bibliography

Attala, Luci. 2019. *How Water Makes Us Human: Engagements with the Materiality of Water*. Cardiff: University of Wales Press.

Bateson, Gregory. 1973. *Steps to an ecology of mind*. London: Fontana.

Bennett, Jane. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham, NC: Duke University Press.

Bourdieu, Pierre. 1977. *Outline of a theory of practice* (trans.) Richard Nice. Cambridge: University Press.

Braun, Bruce. 2008. Environmental issues: Inventive life. *Progress in Human Geography* 32 (5): 667-79.

Bravo, Michael and Gareth Rees. 2006. "Cryo-politics: Environmental Security and the Future of Arctic Navigation." *The Brown Journal of World Affairs*. Volume xiii. Issue 1 (fall/winter 2006): pp. 205-215.

Bravo, Michael. 2017. "A Cryopolitics to Reclaim Our Frozen Material States." *Cryopolitics: Frozen Life in a Melting World*. Cambridge & London: The MIT Press.

Breyer, Thiemo and Thomas Widlok. 2018. "The Situationality of the Lifeworld". In *The Situationality of Human-Animal Relations: Perspectives From Anthropology and Philosophy*. Bielefeld: transcript Verlag.

Chakrabarty, Dipesh. 2021 Sustainability and Habitability: Distinguishing the Global from the Planetary. In: *The Climate of History in a Planetary Age*, 81-85. Chicago: The University of Chicago Press.

Coole, Diana, and Samantha Frost, eds. 2010. *New Materialisms: Ontology, Agency, and Politics*. Durham, NC: Duke University Press.

Deleuze, Gilles, and Félix Guattari. 1987. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. Minneapolis: University of Minnesota Press.

DeWalt, Kathleen M. and Billie R. DeWalt. 2002. *Participant Observation: A Guide for Fieldworkers*. Walnut Creek, CA: AltaMira Press.

Farina, Almo. 2014. *Soundscape Ecology: Principles, Patterns, Methods and Applications*. Dordrecht and New York: Springer Science+Business Media.

Gearhard, Shari Fox, Lene Kielsen Holm, Henry Huntington, Joe Mello Leavitt, Andrew R. Mahoney, Margaret Opie, Toku Oshima, and Joelle Sanguya. 2013. *The Meaning of Ice: People and sea ice in three Arctic communities*. New England: University Press.

Haraway, Donna. 2003. *The companion species manifesto: Dogs, people, and significant otherness*. Chicago: Prickly Paradigm.

Hastrup, Kirsten, Cecilie Rubow and Tine Tjørnhøj-Thomsen. 2011. "Deltagerobservation: At være der". In *Kulturanalyse: Kort fortalt*. Copenhagen: Samfundslitteratur.

Hastrup, Kirsten and Frida Hastrup. 2015. *Waterworlds: Anthropology in Fluid Environments*. New York and Oxford: Berghahn Books, Incorporated.

Haraway, Donna. 1991. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century," in *Simians, Cyborgs and Women: The Reinvention of Nature*, pp.149-181. New York; Routledge.

Haraway, Donna. 2008. *When species meet*. Minneapolis: University of Minnesota Press.

Hardin, Garrett. 1968. "The Tragedy of the Commons." *Science*. Vol. 162, No. 3859 (Dec. 13, 1968), pp. 1243- 1248. <https://www.jstor.org/stable/1724745>

Hermann, Anne Kirstine. 2021. *Imperiet Børn: Da Danmark vildledte FN og Grønland for at beholde sin sidste koloni*. Copenhagen: Lindhardt og Ringhof.

Ingold, Tim. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. New York: Routledge.

Ingold, Tim and Jo Lee Vergunst. 2008. *Ways of Walking: Ethnography and Practice on Foot*. New York: Routledge.

Ingold, Tim. 2012. "Toward an Ecology of Materials." *Annual Review of Anthropology*, 2012, Vol. 41 (2012), pp. 427-442. <https://www.jstor.org/stable/23270720>

Inuit Circumpolar Council. 2021. "Ethical and Equitable Engagement Synthesis Report: A collection of Inuit rules, guidelines, protocols, and values for the engagement of Inuit Communities and Indigenous Knowledge from Across Inuit Nunaat." Synthesis Report. International.

Jackson, Michael. 1983. "Knowledge of the Body". In *Man*, New Series, Vol. 18, No. 2 (Jun., 1983), pp. 327-345. London: Royal Anthropological Institute of Great Britain and Ireland.

Kisby, Nanna. "Sounds of Human-Snow Relations." Soundcloud. July 3, 2022. <https://soundcloud.com/nanna-sandager-kisby?fbclid=IwAR2W1aGwG2ubQv8IBN9zmhDULeZtvoO3hNxxXhRexW2Hp2CNoxprGOy5x2o>

Krause, Franz, and Veronica Strang. 2016. "Thinking Relationships Through Water". *Society & Natural Resources* 29 (6): 633–38. <https://doi.org/10.1080/08941920.2016.1151714>.

Latour, Bruno. 1993. *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.

Latour, Bruno. 1996. "On Actor-Network Theory: A Few Clarifications." *Soziale Welt* 47, no. 4 (1996): 369–81.

Law, John. 2009. "Actor Network Theory and Material Semiotics." In *The New Blackwell Companion to Social Theory*. Blackwell Publishing Ltd.

O'Reilly, Karen. 2012. *Ethnographic Methods*. Second edition. New York: Routledge.

Pink, Sarah. 2015. *Doing Sensory Ethnography*. Second Edition. London, California, New Delhi, Singapore: SAGE Publications.

Pink, Sarah. 2021. *Doing Visual Ethnography*. Fourth Edition. London, California, New Delhi, Singapore: SAGE Publications.

Radin, Joanna and Emma Kowal. 2017. "Introduction: The Politics of Low Temperature." *Cryopolitics: Frozen Life in a Melting World*. Cambridge & London: The MIT Press.

Sejersen, Frank. 2004. "Horizons of Sustainability in Greenland: Inuit Landscapes of Memory and Vision." *Arctic Anthropology*, Volume 41, Number 1, 2004, pp. 71-89 (Article). University of Wisconsin Press.

Sundberg, Juanita. 2021. "Diabolic Caminos in the Desert and Cat Fights on the Río: A Posthumanist Political Ecology of Boundary Enforcement in the United States-Mexico Borderland." *Annals of the Association of American Geographers*, March 2011, Vol. 101, No. 2 (March 2011), pp. 318-336.

TallBear, Kim. 2017. "Beyond the Life/Not-Life Binary: A Feminist-Indigenous Reading of Cryopreservation, Interspecies Thinking, and the New Materialisms." *Cryopolitics: Frozen Life in a Melting World*. Cambridge & London: The MIT Press.

Taylor, Charles. 2004. *Modern Social Imaginaries*. Durham and London: Duke University Press.

Todd, Zoe. 2016. "An Indigenous Feminist's Take On The Ontological Turn: 'Ontology' Is Just Another Word For Colonialism." *Journal of Historical Sociology* Vol. 29 No. 1 March 2016.

Tsing, Anna Lowenhaupt. 2015. *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton and Oxford: Princeton University Press.

Wagner, Martin and Donald M. Goldberg. "An Inuit Petition to the Inter-American Commission on Human Rights for Dangerous Impacts of Climate Change." Center for International Environmental Law (CIEL). December, 2004. <https://www.ciel.org/reports/an-inuit-petition-to-the-inter-american->

[commission-on-human-rights-for-dangerous-impacts-of-climate-change-december-2004-
ciearthjustice-goldberg-wagner-2/](#)