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The Promise of a Green Revolution
Conceptions of climate change and sustainability in
local movements objecting to mining
establishment

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Abstract

This study explores how vernacular understandings of climate change and sustainability are formed in relation to local disputes concerning mineral exploration. In a search for a solution to climate change, the interest in rare earth elements (REEs), and other metals used in green technology has resulted in granting mining companies processing concessions in Sweden. At the same time, industrial scale metal extraction imposes great risks to the local environment. Offering an ethnological view on local resistance to mining in two areas in Sweden where mining corporations has been granted processing concessions for exploratory drilling, this study seeks to contribute to a theoretical discussion regarding the dialectical relationship between the material and the spatial and its influence on vernacular understandings of mining as a solution towards decreased environmental impact. Applying a phenomenological framework, this study analyzes how sustainability as a diversified concept is constructed through social and cultural practices in the everyday life. Through in-depth interviews with local inhabitants who have chosen to protest against mining establishment in two southern areas in Sweden, themes such as temporality, local cultural and historical identity, and the NIMBY-phenomenon is addressed. This study finds several climate change temporalities within the local resistance movements. Various time-scales intertwine, together stretching both the need for the slow pace of natural preservation, and immediacy through de-growth. These time-scales are in turn shaped by knowledge of the areas cultural history, as well as personal family heritage. Expressions holding temporal connotations, such as eternal destruction and permanent damage, indicate that conceptions of climate change and sustainability are shaped by current media climate change discourse. The positions in the local conflicts are continuously negotiated, as objecting to mineral exploration is considered an obstacle to necessary change towards fossil fuel dependency. This study concludes that local activism in the shadow of societal transformation into a green economy ultimately transforms into a question concerning what kind of nature that matters, and how we measure its value.

Keywords: Ethnology, social movements, mining, sustainability, climate change, phenomenology, temporality, green economy

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Abbreviations

CAB	County Administrative Board (<i>Länsstyrelse</i>)
EIA	Environmental Impact Assessment (<i>Miljökonsekvensbeskrivning</i>)
EPA	The Swedish Environmental Protection Agency (<i>Naturvårdsverket</i>)
MIS	The Mining Inspectorate of Sweden (<i>Bergsstaten</i>)
SFA	The Swedish Forest Agency (<i>Skogsstyrelsen</i>)
SIS	Swedish Institute for Standards (<i>Svenska institutet för standarder</i>)

1. Introduction

As climate change and sustainability increasingly become a part of our collective consciousness, so does the number of perspectives on how we may respond and, collectively as well as individually, take responsibility in order to reduce human inflicted climate impact. Trying to visualize the near and distant future ultimately leaves us with the open questions: What shape will the future take, and how best address it in a now soon to be the history forming that which is yet to come? The term climate change may appear misleading, as it might make one think only of changes in our atmosphere due to carbon emissions. Interlinked, however, are societal (un)sustainability and biodiversity loss (IPCC 2022). The consequences of climate change are at the same time complex and to some degree unpredictable. Human society's limited adaption to climate change in the continually increasing greenhouse gas emissions, as well as in the increased consumption of natural resources, risks a negative development down an unwanted path. However, a transition moving towards climate resilient development in which technology plays a part might offer us a future in a positive direction (IPCC 2022). Green technology is a concept referring to technological innovation aiming to reduce human inflicted climate change by offering an alternate use of natural resources through the development of new technology (Maczulak 2010, p. 29).

Essential to green tech are the rare earth elements (REEs). Used in the productions of technics within renewable energy, they can effectively reduce our carbon dioxide footprint. Today, the REEs are extracted through mining almost exclusively from China. The European dependency upon Chinese export has been questioned, as health issues among local population as a result of mineral exploration, as well as its negative ecological impact on the local environment, have been reported (Barnes 2020, p. 6). The European commission has further stated that dependence on China must seize out of geopolitical concern (Cater and Zimmermann 2022).

This study revolves around local protesting to mining in Norra Kärr and Österlen where mining companies have been granted processing concessions for exploration of metals intended for producing green technology. This ethnological study examines how local communities are affected by industrial initiatives for decreased environmental impact, and how

understandings of mineral exploration are shaped by everyday experiences, in turn forming vernacular conceptions of environmental and social sustainability.

Norra Kärr and Österlen are two regions in the south of Sweden that have been subjected to mining claims. The conflicts addressed concern the extraction of metals considered to be particularly essential to society: rare earth elements and Vanadium. Both areas are, however, in part protected by Natura 2000, a network of protected areas within the European territory containing species and ecosystems that are considered especially vulnerable. Local inhabitants fear the loss of their land, home and sometimes livelihood. The participants chosen for this study have all decided to involve themselves in local organizations that strive to appeal against mining establishment. The conflicts in Norra Kärr and Österlen are both ongoing to date.

1.1. Aim and research questions

This study examines how planned mining in southern Sweden is experienced and addressed by local population that has decided to protest against the mining initiatives. It is a study that explores how relationships to the places of interest for mineral exploration form an understanding of mining conflicts in the shadow of a global response to climate change. How are perspectives on mining shaped in relation to lived experiences? How are understandings of climate change and sustainability formed in relation to the mining conflicts? The aim is to shed light on local perspectives on societal conversion into a green economy where metals play a crucial role, a dimension that illustrates the complexity of the societal change at hand. Looking at local disputes creates an understanding of how the multifaceted concept of sustainability is formed, situated and lived. The macro-perspective of a global take on climate change benefits from the ethnological study of everyday life on a micro-level, as it deepens the knowledge of how solutions to climate change can be experienced locally. My research questions are as follows:

How are local understandings of mining related to lived encounter in the everyday?

In what ways are the positions in the local conflicts negotiated and fixed?

How does the mining conflicts correspond to the wider issues of climate change and sustainability?

1.2. Theoretical perspectives

To the greater extent, phenomenological theory is applied in this study, as the study aims to describe and account for the ways in which experiences form conceptions of sustainability and climate change through continuous acts of doing. In order to create an understanding of the experiences expressed, there is a need for situating those in relation to the contexts in which they evolve. While phenomenology offers possible entrances to the experienced realities, the understanding of how they are situated in relation to cultural and social practices sometimes create a need for analyzing the material discursively. Therefore, climate change is understood as a concept shaped by social, political and cultural practices, creating climate change discourses. Differing temporalities are then formed within these discourses. As this study addresses local rural conflicts, one might raise the question why time, rather than place, is emphasized when analyzing the material. Place as a possible entrance to the study of local societies attach meaning to the everyday processes and sensuous experiences, independent from the politically and economically oriented “world of systems” (Vallström 2014, p. 15). Being in place holds a highly existential dimension, created in relation to the material and sensed reality. In this study, place is considered to be formed through continuing processes in the landscapes, where *time* functions as a prerequisite for how place is experienced and shaped (Ingold 1993, pp. 155-157). This understanding of the landscape stretches the importance of how the landscape is formed through temporalities. Temporalities influence and co-create both place and space, and thus how areas are perceived. The following section contains a deeper account of the theoretical concepts chosen.

In this study, the relationship to the home is considered to be multifaceted. Together with sensual encounters, smells, images, as well as physical contacts, memories and dreams of the futures, the place and space of the home is considered to be formed spatially. It is through a process together with the surroundings that the identity, both for the individual and the home, is constructed. Phenomenology is the philosophy of experiences. Seeking to distinguish itself from abstract ideas, it is a perspective thriving to come close to answer the question: How is life, and human, shaped by our everyday encounters? Thus, it seeks to explore how life is constituted, focusing on the experienced reality (Frykman & Gilje 2010, p. 28). Phenomenology as a method for cultural analysis has long been of interest within ethnological research, and has come to earn a given place when in the field (Agnidakis 2018, p. 13). However, as Gilje and Frykman point out, while much effort has been put in in order to

understand how identities are constructed, little attention has been paid to the question of how identities are lived. It has been proven a challenge to turn complex philosophical theory into concrete analyses. Thus, the authors search for new ways of exploring identity through the phenomenological lens:

There is [...] an intention to go to things as they are and to the places in order to see how nature and the material influence people's ideas and actions much more than what they themselves are able to project in them. (Frykman & Gilje, 2010, p. 11)

This is also the way phenomenology as a theory of experience and an analytical tool is meant to function in this study.

1.2.1. To be in the world

In order to understand how a conflict is perceived, one may begin by reflecting upon everyday encounter, addressing the question of how we define what being, and the world, is. Heidegger suggests that the common distinction between the subject and the object does not explain our way of being in the world. It is based on a false premise. As individuals, we are not foremost in the world as isolated entities that has to create a relationship to the world outside of ourselves. On the contrary: we are thrown into a world of which we are already a part in a highly practical sense. This means that we do not experience our surrounding first and foremost by looking at it, trying to understand it intellectually in our mind. Rather, we experience it through the use of objects that are close to us (Heidegger 2004, § 12, pp. 78-85). Thus, the world is made of objects within our reach. How we experience these objects precede our view of the very same. This means, for example, that in order to understand what the soil is, one cannot simply look at it, but one needs to feel it with the hands, lift it up from the ground. An understanding of the world is formed through our encounter with our surroundings'. These experiences in our everyday shapes what Heidegger refers to as *In-der-Welt-Sein* (Being-in-the-World). A prerequisite for our being in the world is our understanding of the life-world. The life-world is the reality consisting of three main components: First, the physical tools with which we pursue tasks in our everyday. Second, our conceptions of future imaginaries to pursue for ourselves, both in short-term and in a long-term perspective. These goals are in turn pursued through the use of the objects referred to as the first component. The third aspect to the life-world is the way in which we interpret our world through the projection of the imagined future. This world, that are

of concern for us, is in its core a space of *verständlichkeit* or intelligibility (Heidegger 2004, §18; pp. 115-122). The objects within our reach are therefore not only physical fragments of the world that we are indifferent to, but rather parts of a whole. The ways we understand ourselves and those around us are thus created through readings of our surroundings, and predictions, in turn entangled within differing contexts (Heidegger 2004, § 24; pp. 147-150).

1.2.2. Temporalities

When addressing climate change, time, and different notions of time, play a significant role. Climate change is complex. While expertise finds that changes appear in a speed vaster than previously suspected, it is a phenomenon that is difficult to grasp due to its abstract nature. Although extreme weather events are sudden movements, the long-term effects move in another pace. Climate researchers develop prognoses that stretch into a future taking place sometimes more than a hundred years from now. These factors contribute to the rise of questions concerning time in relation to climate change. The question of how much time we have left to transform society in a more sustainable direction is one example. The denial of the existence of climate change, with references to the pace in which climate change evolves, is another. It is within this debate, in this study referred to as a part of the climate change discourse, one can find traces leading to different concepts of time making themselves known in the material presented. How then, do we find an understanding of differing concepts of time? This study leans on the understanding of culturally and socially situated time not as a linear time following a chronological concession, but as a variety of shifting temporalities. The understanding of time as temporal is based on the prerequisite of time being constituted by our *past*, our *present* and *future*, what Heidegger refers to as *Gewesenheit* (our having-been-ness) (Heidegger 2004 §5, pp. 35-40). These three are conditioned of each other. Without our past we would have no references to navigate around in our present, and, have nothing to form ideas out of about our future. Shaped by our understanding of our history, our present therefore becomes previously thought-of futures. This means, that what was once imagined to be the future is based on our past reality. In this way, past present and future are constantly with us and a part of our everyday reality. This understanding of time means that what I recall from the past may not be the same past as yours. And the past I recall today may be shaped differently tomorrow. Time, then, becomes temporal.

The historian Reinhart Koselleck formulated an idea based on this understanding with a significant difference: there is a chronological time, and, a temporal time. The chronological natural time is the pace in which movements occur within nature. How the earth rotates around the sun is such an example. It becomes the dates from which lived time can be comprehended (Koselleck 1979, pp. 37-38). Human history, then, can be distinguished from natural history in the sense that it contains multiple temporalities that are shaped through the understandings of historical events. Events, which in turn might be experienced in rather differing ways. How is history made and retold? How is it shaped by current social and political ideas? There are many examples of how historical retelling has functioned as a way of legitimizing societal change. Or, of how different concepts of time are interrelated. Central to an understanding of our present is the repetitive patterns we can trace back in how stories of the past are told. Such a phenomenon could be how we address the concept of nature. It is repeating and yet, new dimensions to the experience could be detected depending on the understandings of nature evident at the time.

With the ambition to deconstruct the understanding of time as a singular, Koselleck addressed central concepts in historical retelling (Koselleck 1979, pp. 43-155). One of them are the perception of revolution, a term that also fluctuates in the empirical material collected for this study. Concepts are considered to function on opposite sides within political and social contestations. Sustainability is another contested concept, whose meaning is in continuous change (Scoones 2016, pp. 295-296). By understanding the concepts addressed as ideas that have been formed through layers of experiential insights always present, one can detect how these concepts are formed through uncovering the layers of meaning embedded in them (Hoffman 2020).

How then, does differing temporal understandings influence how climate change as a phenomenon is perceived and understood? This study concerns local experiences of societal change as a result of mining initiatives. As mining is initiated as a result of its role in societal conversion into a green economy, it explores how the participants in this study relate and navigate in relation to climate change and sustainability. Important to state is, that while referring to climate change as a change formed by historical and cultural understanding, this does not mean a neglect towards the changes detected by the natural sciences. Rather, it aims to create an understanding of how these events take form culturally through the ways in which we address them. In this sense, climate change becomes a phenomenon articulated, lived and experienced in many differing ways, depending on where you are and what you perceive. It

thus transforms into a cultural phenomenon with layers of different meaning. Temporal dimensions to the perception of climate change are explored in the anthology *Climate change temporalities - explorations in vernacular, popular and scientific discourse* (Kverndokk, Ruge Bjaerke and Eriksen 2021). Two of their main arguments for the need of going beyond the dual division between natural and human time reads as follows:

Diversified and specific knowledge about the temporal aspects that are involved is important because of the immensity of climate change issues and the challenges that humankind has created for itself and for the planet. Climate change is too large and too general to be left to large and general concepts. [...] Detailed, complex, and nuanced knowledge about climate change temporalities is theoretically significant. Even more than generalizations, sophisticated and precise terms, concepts, and perspectives are needed to understand the social and cultural aspects of climate change. (Kverndokk, Ruge Bjaerke and Eriksen 2021, pp. 2-3)

Following the call for further analysis on how a variety of temporalities influence understandings of climate change, this study adds temporal analysis, taking the everyday experience in a variety of discursive practices into account. Furthermore, this study takes a closer look at several concepts interlinked with shifting climate change temporalities, such as collective memories and future imaginaries, and its influence on local experiences related to the mining conflict.

1.2.3. The sphere and the globe

Throughout the time working with this material, the question of power reoccurred; the power to define what nature is, what nature is regarded worthy of saving and what is not, and the question of defining nature and “the natural” itself. It has been suggested that a phenomenological perspective lacks the notion of how power influences the perception of reality. Tim Ingold’s theoretical reflections on the sphere and the globe suggests otherwise, and are therefore one of the phenomenological understandings that figure in this study. The concept of the spherical versus the global perspective suggests that modern society has been heavily influenced by the image of the globe since we first were able to grasp it from space in the mid twentieth century (Ingold 2000, pp. 209-211). Since then, the image of the globe has in different

ways made us aware of our world's physical limits, as well as creating a distance to the place which we inhabit. It becomes a place abstracted from our everyday reality in the sense that the image depicts a celestial body floating in the universe. Contrasted to this view is the spherical perspective, where the immediate surroundings, the place we inhabit, as well as the places we visit, help form another relationship closely tied to our everyday and our experiences. The spherical perspective is not however a new concept. On the contrary, it has a history dating back to Pythagoras (Ingold 2000, p. 209). In modern times, the global perspective has become associated with factual and scientific knowledge, while the spherical perspective – understood to create what is sometimes referred to as the local experience – is considered imaginary and incomplete (Ingold 2000, p. 217). Thus, this concept provides us with an understanding of how knowledge, and how its valued, are formed through power relations. The question the arises: How does these differing understandings play part in how local conflicts regarding nature, sustainability and climate change is perceived by?

1.3. Methodology

1.3.1. Interviews

During the fall of 2021, I conducted interviews with the ten participants in this study. Two of those interviews were group interviews with two participants. In both cases, the participants suggested a group interview themselves, stating that they wanted to be sure that they would not forget important sequences of events in the mining conflicts. On my part, I saw this as a possibility to experience not only how they expressed their conception of the mineral dispute and connected issues to me, but also to each other, allowing me to become an observer. All interviews were recorded, using the recording function on my cellphone. Two interviews were done over the phone. The informants were then put on speaker and the conversation were recorded using my tablet's recording-app. The chosen method for transcribing was ethno-poetical. The ethno-poetical method for transcribing considers the act of transcribing to be more than mere mechanic, putting one word after the other. On the contrary, a main ambition is to capture the many dimensions of the oral conversation that distinguish it from the written equivalent (Klein 1990, p.44). This way, the reader can come closer to conversation. Including pauses, rhythm, shifting paces in dialogue allows for identifying emotional dimensions of the

conversation sometimes not noticeable otherwise. Prior to the quotations being accounted for in this study, they have been adapted in order to increase readability.

The ambition was to attain a selection with a diversity in relation to class, age, gender identity, occupation, educational level and ethnicity. The informants participating in this study were between 36 and 78 years of age. However, a majority were middle aged. In the final group of participants there were an overrepresentation of women. Prior to the interviews, the informants were informed of the theme for this study and the overall aim. Four interviews were conducted on zoom due to the COVID-19 pandemic. This also influenced the decision to conduct interviewing with only a few notes for structure; with the apparent physical distance, promoting conversation felt even more important in order to create a space of trust.

The mining conflicts generate concern, emotional stress and sometimes the fear of losing one's home. All informants were informed that the material would be deidentified prior to transcribing and throughout the study. Even if involved in conflicts of similar nature, the areas have their own history, references and contexts that would have been lost had the areas been anonymized as well. The possible risk would be that an anonymizing would result in one voice, and that the unique character within each of the two areas would disappear. Although they share similarities, there are also significant differences that might have been lost otherwise.

During interviews, I mainly used a semi-structured method. It is a method where the interview is not structured against a specific set of questions, already formulated prior to the interview taking place. Instead, it is more of an open conversation, allowing the informant to speak more freely. In turn, the dialogue often reveals deeper and more detailed information on their thoughts on the subject in question, as it allows for the informants to reason in relation to the subject without a specific direction for the dialogue being encouraged. The open questions "What were your thoughts when you learned about the mining initiatives?" and "How come you decided to involve yourself in the issue of mining establishment?" meant the informant could take the conversation in a direction more freely. The ambition was always to create more of a dialogue than a formal setting.

1.3.2. Group interviews

Two of the interviews were conducted with two informants in the room. These were structured rather differently than the ones conducted one on one. When in a group, it felt important that

both informants were given the chance to answer the questions asked. Therefore, these interviews were to some extent more formulated in the beginning. However, as the time passed, they talked more to each other, together framing thoughts and answers. Sometimes they replied to the other participants' questions, both rhetoric questions and not. Sometimes one could continue the others answer, wishing to clarify a thought expressed by the other, or to correct details such as specific dates of events. In these situations, I sometimes became more of an observant in the sense that I could detect how they together created an understanding of both the mining conflict and how it corresponds to the wider issue of climate change, within the local resistance groups in question. Therefore, these interviews contained moments of participant observation. It gave insight on how some understandings of the mining conflicts were part of a joint cultural understanding, and as well as how these understandings unfolded in the moment as they talked to each other.

1.3.3. Participant observation

When in the field, I took photographs of the surroundings and paid attention to seemingly small details, such as the stickers that had been put up around the communities declaring a stand against mining in the areas. I listened to the informant's interaction with each other and tried to form a physical and emotional impression. At the same time, I continuously took photographs and wrote observations protocols. These observations were very helpful when returning back home and beginning the writing process. They helped me travel back in my memory, creating a broader understanding of the local experience. Since this study to a great extent concerns how lived encounter helps form an understanding of the local conflicts, the physical participation in the areas in question seemed even more important. Furthermore, the observations allowed for registration of moods and other non-verbal expressions in the room difficult to collect through recording or photography.

1.3.4. Netnography

Netnography as a method has functioned as an introduction to the field when collecting text-based material on local protesting in social media. Informants were recruited through chat conversations with groups mainly on Facebook, which then spread information about the study

to their contacts. In turn ensuring more participants through the snowball effect. Although not referred to specifically in this study, the conversations on social media have functioned as a background as well as an introduction to the local organizations. These observations also helped me understand certain references during interviews I otherwise wouldn't have understood, such as memes and other online content.

1.3.5. Close reading of legal documents and Natural inventories

The mining conflicts are complex, in the sense that the process of mining establishment in Sweden is a complicated process, and due to the fact that the conflicts ultimately concern multiple understandings and perspectives on sustainability. Often, these interests contradict each other. This results in extensive material on legal appeals initiated by the local organizations during the mining-establishment process, as well as different “tools” used in these processes, such as the result of natural inventories. The conflicts have been ongoing for several years, so this material, in turn, continuously increases. In order to understand the local conflicts and the many turns they have taken during this time, it was important to learn of the history of the local organizations, as well as individual informants appeals within the different stages in the mining process. Before I could interview, I had to learn “the language” and understand the references made during our conversations. I was also offered material that the local organizations had compiled as an introduction to the conflicts on several occasions. In the empirical sections, some references are made to this material, acting both as phenomena to discuss in themselves, and as a frame for discussions concerning the informants understanding of what is considered worthy of legal protection, and what is not.

1.4. Previous research

Societal change transforms the landscape, and shape new conditions for life in the places as a result. The phenomenological notion of nature as existing beyond the traditional nature/culture division where it is regarded as “something out there” – instead suggesting a co-created reality (Dermot 2000), is an understanding that has earned great appreciation within a variety of disciplines during the last decades. Within anthropology, ecological anthropology explores human-nature relations and is studied to great extent. The anthology *Nature and Society*.

Anthropological perspectives (1996), edited by Philippe Descola and Gisli Pálsson, offers a valuable introduction to the discussion concerning the nature/society dichotomy and how this division has influenced previously conducted research. The dividing model based on western thought has proven to shape research conducted around the world, thus limiting the understanding of the observed. Research that explores human-nature relations within protected natural areas are of interest for this study. Addressing both social and environmental sustainability, it has been found that areas protected by environmental regulations hold a highly co-created dimension (Cortez-Vazquez and Ruiz-Ballesteros 2018). The perspective is of relevance as both areas addressed are in part protected by EU-initiated environmental regulation.

An historical perspective on the social and co-creating processes of the landscape is presented in the anthology *Periferins landskap. Historiska spår och nutida blickfält i svensk glesbygd* (Johansson 2002). This ethnological research address spatial conditions, the material realities, and how these are part in forming the historical landscape. Accounting for the pre-industrial forestry society in northern Sweden, it suggests that there existed a culturally organized capability to adapt to extensive societal change, such as the land reform. As cultural traits may be resourceful for the region's development and lifeforce today, knowledge on the historical pre-requisites are of relevance in the present. The entanglement of historical and present traces in the landscape are also of relevance in this study. Another ethnological study exploring extensive historical societal change in rural environment, giving emphasis to the relationship between human and landscape, is the article *Skogslöpare och vedbodsstökare. Jägare och bönder under industrialismens samhällsomvandling* (Johansson 2000). Reflecting upon the cultural relationship between the forest, the inhabitants and the communities, it explores local change through the phenomenological understanding of the landscape as a *taskscape*. The text thus applies phenomenological theory to historical cultural and social activities in the landscape.

Research addressing social sustainability is another field of relevance for this study. Within the field of ethnology, the interest in exploring culture as created through continuing processes has resulted in a tradition to explore cultural processes through a critical study of the urban/rural dichotomy. The ethnological study *Upp till kamp i Båtskärsnäs. En etnologisk studie av ett samhälle inför industrinedläggelse* (1969) by Åke Daun is considered to be a classic within the ethnological field, and address dramatic change in a small community as a result of swift societal change: the closing of a saw mill in a small town and the local

protesting that followed. Here, it is evident how societal change on a macro level where the development, going from an industrial to a post-industrial society, influences the everyday reality. The study revolves around the issue of social sustainability, and local initiatives protesting societal change as a result.

An ethnological paper that emphasizes both environmental and social sustainability are the master thesis entitled *Med kroppen som vapen: en studie av activism, mobilisering och motstånd mot en gruva i Gällök* (English title: *The Body as a Weapon: a study of activism, mobilization and resistance against mining plans in Gällök*) by Rikard Engblom (2015). Revolving around mining conflicts in the northern Sweden and Sápmi, the author reflects upon the values and common grounds detected within the group protesting, where emphasis is given the act of doing resistance through manifestations and civil disobedience. Exploring the dimensions to local protesting regarded as both cultural and political, Engblom suggests that local inhabitants meet over social and cultural groups in a common interest of resistance. This study bears similarities to Engbloms, as it explores local conflicts in the present that are a result of contradictory interests between the mining industry and political visions on the one hand, and local resistance movements on the other.

Climate research has traditionally been pursued within the natural sciences. As the question of the environment and eventually climate change became a research subject within the humanities, the phenomenon has been explored through a variety of complex perspectives. These include media and communicating climate change, moral philosophy on responsibility, and the discussion on the Anthropocene. As the Anthropocene became a concept for describing environmental change, research within the humanities has given time an increased focus, suggesting that the words ascribed to the change we experience deeply affect how it is understood. As a concept, the Anthropocene has been criticized for how the phenomenon suggests a fixed state, blocking political thought on possible change (Nordblad 2019; Simonetti 2019). Central to the discussion are how temporal frameworks operate in different ways as a result of differing descriptions where environmental change is suggested as an alternate description of the current state. Thus, research on climate change temporalities has been carried out before, to my knowledge mainly from political and historical perspectives.

Another field of research of interest for this study explore ethical considerations that emerge as a result of climate change. Research that addresses climate change's influence on the individual life has grown within a variety of disciplines over the last few years. The article by the professor in gender studies Jenny Björklund and historian Maja Bodin, entitled

“Can I take responsibility for bringing a person to this world who will be part of the apocalypse!?”: *Ideological dilemmas and concerns for future well-being when bringing the climate crisis into reproductive decision-making* (2022) is one example of this development. It addresses climate change as a possible factor influencing reproductive decisions. While the researchers found that climate change does not influence reproductive decisions, the participants do navigate around climate change and suggests other concrete ways to adapt their lives in order to reduce negative climate impact. This article accounts for moral dilemmas in relation to climate change, as is the case with this study.

Within the ethnological field, the many ways of understanding climate change in the everyday as a culturally shaped phenomenon is addressed in the article *Climate change as cultural trope in vernacular discourse* (2021) by Camilla Asplund Ingemark. The article is based on text material collected from participants from three Nordic countries. Asplund Ingemark examines the material through narrative analysis. Describing the tendency to suggest that phenomena such as conflicts and war is unavoidable consequences of climate change, Asplund in the end raises the question “Is the climate change a black hole concept?”. Such a predisposition would result in climate reductionism, the author suggests, as social, political and environmental issues all become sloped together under the climate change umbrella. The article thus explores how climate change is narrated, and in what contexts, within vernacular discourse. This study examines understandings of sustainability and climate change in relation to local conflicts mainly from a phenomenological perspective. Asplund Ingemark’s text has been a great inspiration as an example of how temporalities can be analyzed in collected empirical material.

The PhD thesis *Tillhör vi Sveriges framtid?: En etnologisk studie av vardag och hållbarhet i norrländsk glesbygd* (English title: *Do we belong to the future of Sweden ? : An Ethnological study of everyday life and sustainability in the northern sparsely populated area*) by Elisabeth Wollin Elhouar (2014) revolve around rural environment and issues concerning sustainability and climate change. It offers valuable accounts of how sustainable development and understandings of sustainable life choices are perceived in northern rural Sweden. The study reflects on the experience of neglect towards the reality in rural communities. This is explored in relation to the lifestyle choices recommended as ways to decrease environmental impact within the civil society, such as decreased commuting with cars. The informants however express that there is a neglect of the rural societies’ reality, for example that of long distances, when promoting alternatives for decreased climate impact on an individual level.

Thus, Wollin Elhouar highlights a discrepancy between norms and values created from an urban perspective, and factual life conditions in rural environment. This divergence is also confirmed in the book *När verkligheten inte stämmer med kartan. Lokala förutsättningar för hållbar utveckling* by the ethnologists Mikael Vallström and Maria Vallström, and sociologist Lotta Svensson (2014). The authors are influenced by the theory of the commons as first stated by the political economist Elinor Ostrom, as she argues that local civil society find ways of developing local sustainability without governance or privatization (Ostrom 1990, pp. 17-21, p. 202). The authors argue that previous modes for sustainable development were formulated within an urban context, which is proven unsuccessful in small communities on the countryside, or, as the authors calls them: places constructed as peripheral. If the perspectives are instead turned around, and new models are shaped based on the places' cultural and social resources, these might offer alternatives towards sustainable societies. The study gives emphasis to the physical place, and the authors conduct fieldwork in small towns in Hälsingland. Focusing on the local experience in the global context, the authors suggest the need to increase civil rights, eventually forming global communities for the global *commons*, such as the climate.

This study strives to add to the important field of research within ethnology that explores how conceptions of sustainability and climate change are formed in the everyday by contributing with research on how global climate goals, resulting in corporate initiatives for mining establishment, affects the local social environment in the forming of local protesting movements. The ambition is also to add to previous research on climate change temporalities by exploring how they are constructed individually through lived experiences. On a more general level, I hope it will contribute to the ongoing discussion on how understandings of climate change and solutions to this challenge are shaped in everyday life.

1.5. Reflexivity

The two areas Norra Kärr and Österlen have been chosen for this study since they both concern mineral exploration which is sought to be used for development of green technology. Not everyone living in or near the areas of interest for exploratory drilling are critical to these plans. The reasons why I choose to focus entirely on these local organizations protesting the projects are two-folded. First, the interest in exploring how local organizations on a small scale operate around corporate initiatives aimed to decrease societal dependency on fossil fuels, thereby reducing negative climate impact. Second, to shed light on how multiple understandings of

“nature” through lived experience affect that act of resistance. Had I chosen to widen my field of research to include local population on a more general level, that would most likely have affected the outcome. Therefore, this study makes no claim to account for local perceptions of the mining projects in general.

Among present-day ethnologists, there has been a tendency to study cultural contexts that the researcher has some form of a relationship to (Agnidakis 2018, p. 13). This is also partly the case with this study. Growing up in the countryside of Östergötland, the eastern shores of Vättern and the small towns in the area, are present in many of my childhood memories. This requires ethical awareness and a continuous reflection regarding its influence, both during fieldwork and throughout the writing process. While considering the pre-understanding these previous relations have engendered as an asset, much work has been put in in order to create the necessary distance that allows for new perspectives to be put forth on the subject of interest. Since the theoretical basis consist of phenomenological concepts addressing pre-understanding, as well as the fundamental ambition to ask “how” rather than “why”-questions, my hope has been that this will result in objective analyses so far that it is possible. Although previous relations to the subject of interest generate challenges, it may also create a deeper understanding when there is a personal closeness to the field (Davies 2008, p. 35). While having a personal relationship to Norra Kärr, that is not the case with Österlen. Therefore, fieldwork has also been conducted in an unfamiliar milieu. Combining both the familiar and the new allowed for the possibility to discover other aspects of the already experienced area, while the previously unfamiliar resulted in new cultural understandings and insights on how the two areas bear both similarities and differences. My hope is therefore that my previous relation to one of the areas addressed will further increase the credibility for the concluding reflections presented in this study.

1.6. Disposition

This study is divided into five chapters and a conclusion. Chapter 2 offers a general account of the process which precedes mining establishment in Sweden. An overall description of the Mineral Law, Natura 2000 and Natural inventory is presented to facilitate the understanding of the collected material and the legibility. The chapter also includes an account of the areas Österlen and Norra Kärr.

In Chapter 3, the variety of meaning that the everyday, local knowledge and sensuous experience play when shaping an understanding of (1) the mining initiatives locally and (2) climate change in a macro perspective is addressed. This chapter asks the questions: How does an understanding shaped by the everyday life motivate protesting? What roles do local experiences and personal history play in forming an understanding of mining?

In Chapter 4, the temporality of sustainability and climate change evident in the material is accounted for, collective memories, and how the conflicts form transnational identification.

Chapter 5 revolves around legislative processes that the informants have been part of and addresses the gap between concerns and legislative tools. The NIMBY-phenomenon is discussed and how the informants navigate their own conviction in relation to the concept.

Chapter 5 revolves around the participants ideas in relation to the future. What do they imagine to be the way towards sustainability and decreased climate impact?

Finally, Chapter 6 consist of concluding thoughts and future research. What conclusions can be drawn from this study?

1.7. Background

In the material collected for this study, references are made to different parts and actors involved in the process of establishing a mine. Depending on where in the process the project is, local inhabitants can raise appeals referring to different potential environmental risks. The following section functions as an introduction to terms and concepts addressed in order for the reader to get a better understanding of what the informants are referring to. Therefore, the section is meant not as detailed explanation to the complete process but as an overview. The section will begin by introducing the regulatory process. When presented, it will also include a description of what kind of activity these steps involve. The segment will continue with a description of rare earth elements and the metal Vanadium. After this, an account of Natura inventory and Natura 2000 will follow, as these functions in critical ways within the local conflicts at hand. The section will conclude with a presentation of the two local areas of Norra Kärr and Österlen.

1.7.1. Mining in Sweden

Swedish law considers mining to be an environmentally hazardous activity. As such, the regulatory framework surrounding the establishment of new mines is sought to protect the environment from negative impact. All mining affects the environment. To what extent an impact can be allowed is restricted in environmental law. The environmental effect can vary and depends on the area's climate, geology as well as the sensitivity of surrounding watercourses and groundwater resources (the Swedish Geological Survey, 2022). The legislation regarding mineral extraction differs depending on how the minerals are defined. The conflicts addressed in this thesis concern the extraction of minerals considered to be particularly essential to society. Metals that are regarded to be of that importance are also termed concession minerals. The regulations regarding extraction of concession minerals are set in the Mineral Law. The following is an account of the regulatory process concerning the extraction of concession minerals.

1.7.2. Examination permit

An examination permit is authorized by the Mining Inspectorate in Sweden. An examination permit gives the mining company the exclusive right to the area of interest. This means that the land owner can't influence possible activity on their land. In the conflicts addressed in this thesis, the examination permit result in exploratory drilling. The location for drilling depends on where the mining corporations expect that they could find a high concentrate of the mineral of interest. The findings are used in the next step of the process, when the mining company seeks out the right to extract the found metals in the claimed areas. In this study, exploratory drilling take place in part on private land. The informants interviewed have protested against the granting of examination permits in the areas addressed. In this stage of the process, civil society and private land owners cannot make a legal appeal against drilling on their lands. However, they have a right to be informed. The municipality and the County Board have a right to make a statement to the Mining Inspectorate. The granting of exploratory drilling gives the company priority over other possible stakeholders in the next step of the regulatory process: the processing concession.

1.7.3. Processing concession

If the mining company make findings they apply for so called processing concession at the Mining Inspectorate (MIS) in Sweden. The decision regarding concession states who owns the right to exploit resources in the area of interest. However, the right to processing concessions does not give the right to mining establishment. Before that can be achieved, the mining company must be granted permission set by regulations in the Swedish Environmental Code through the account of the activity's possible environmental impact declared in the Environmental Impact assessment (EPA, 2022). The Mining Inspectorate's handling of the inquiry aims to explore how and if the mining company qualifies to extract the findings in ways that aren't unsuitable in regard to other interests, including the protection of vulnerable nature and ecosystems (Ibid). In this state of the process, the civil society and local inhabitants can bring forth comments on how mineral exploration may affect their livelihood, and/or local ecosystems and natural resources.

The Environmental Impact assessment (EIA) aims to identify and describe the direct and indirect consequences industrial scale metal extraction imposes on animals (including humans), other species, the land, water, air and climate as well as natural and cultural values. Its aim is to create an overall assessment of its effects on people's health and the environment. During the process of evaluation of the assessment, the County Board and landowners, as well as other parts of civil society, may appeal the decision. If an agreement can't be settled between the County Board (CAB) and the Mining Inspectorate, the case may be forwarded to the Government in order to come to a decision. Even after the governmental decision there is room for appeal to the Supreme Administrative Court (HFD). This was the case with the conflict in Norra Kärr in 2017 which will be addressed in the empirical section of the study.

1.7.4. Natural Inventory

When the mining companies apply for processing concessions, they must include natural inventory in the environmental impact assessment. Inventories of nature conservation value are made by state authorities or private companies. The inventory must follow standardized methods that are developed by the Swedish Standard Institute (SIS). The aim is to identify areas containing valuable biodiversity as well as occurrences of endangered species. It also accounts for the habitats within the area chosen for inventory. A habitat is an area with a unified nature, distinguished through local climate, condition of soil and as well as similar vegetational

structure (The Swedish Forest Agency, 2022). A natural inventory contains an account of the ecological and environmental conditions for the local ecosystems to exist. The area is assessed based on two parameters – local species and biotopes.

1.7.5. Natura 2000

In order to protect biodiversity and threatened species and natural habitats, all countries within the European Union are obliged to select Natura 2000-areas that together create an ecologically coherent network of life environments. These areas contain species or eco systems that are especially worthy of protection from a European perspective. The measures necessary in order to attain this aim should be carried out within each area of protection. In Sweden, this means that when in a conflict of interest such as the mining conflicts addressed in this study, it is the state authority that is responsible for monitoring natural protection initiated by the European Union (SFA, 2022). As a result, the Environmental Impact assessment put forth by the mining company are given to the local state authority that is responsible for overseeing whether the assessment include necessary protection of the Natura 2000 areas in the region, or if the mining projects are considered too critical for the sensitive areas. There are also jurisdictional reasons for why this responsibility is given the county boards in Sweden. The Swedish Environmental Law aims to provide with jurisdictional tools for a long-term perspective when considering environmental concerns. However, mining and forestry are two large industries not included. Instead, they have separate sections of legislation: The Mineral Law and the Forestry Act (Ibid). When Sweden became a part of the European Union, the country was obliged to incorporate legislation set by the EU of which environmental directives, such as Natura 2000, are part. Apart from the legalizations incorporated as a result of EU membership, declarations of national interests formulated by several authorities in Sweden function as a way to secure specific areas.

The Swedish Network of Natura 2000 areas include luxuriant screes in Östergötland, the lake Vättern, and the bittern that nests in Skåne. Several environments are collected for protection due to its importance as habitats for endangered species. About 90 natural areas and 160 species are included within the Swedish Natura 2000 areas.

1.7.6. Rare earth elements and Vanadium

The conflicts in Norra Kärr and Österlen revolves around the extraction of rare earth elements and Vanadium. What could be its possible use in relation to green technology and societal transformation towards sustainability? This section provides a general account of the metals in question in order to create a bit of an overlook and an understanding in a national and global context.

The rare earth elements are used in magnets in electrical engines and catalysators, batteries and glass and ceramics. The REEs may be used for producing heavy magnets used in in electric generators, needed in the production of electricity in different power stations such as wind turbines. There is currently no production within the European union (Swedish Geological Survey, 2022). From a global perspective, China is by far the largest producer of REE export, providing 86% of the world supply (SGU). Australia provides 6% and the United States 2%. Within the European Union, the metals are provided almost exclusively through import from China (98-99%). A small percentage (3%) is estimated to come from recycling (Ibid). The findings in Norra Kärr are one of the largest findings in the world outside of China.

Vanadium is not considered to be an REE. However, it is considered to be a mineral of special interest. Vanadium is a metallic-element. It exists in nature in so called Vanadium-minerals where Vanadium is the main component. The metal is spread in low levels within the earth's crust, which is why mining for Vanadium demands a large volume of the earth's crust to be extracted and leached. There is currently no production within the European union. With increased demand for Vanadium, it is now extracted through magmatic rock. Its primary use is within the steel industry, where it increases the strength of the final product. It can also be used in the production of flow batteries, aimed for storage of large amounts of sun and wind energy. The mining company aiming to extract Vanadium in Österlen claim that they aim to produce batteries for storage of sun energy. Vanadium is produced in China (55%), South Africa (22%) and Russia (19%). The European Union imports Vanadium. Only 2 % is estimated to come from recycling (SGU). In Sweden, there have been active mines for the extraction of Vanadium in Småland, Dalarna and Skåne.

1.7.7. Österlen

Österlen is located in the south of Sweden in the landscape of Skåne. The area has a long history of agriculture. Österlen is known for its scenic beauty, containing fields, hills and small communities with a low degree of urbanization. As a result, it is a popular area for summer vacation and summer housing. The resistance movement that several of the informants in this study are involved in is in many ways founded from a previous movement concerning the extraction of shale gas initiated by an international oil company. The compact resistance initiated by the local population in 2009 resulted in a rejection of the proposed project and was noticed internationally. Today, the local organization against mining for Vanadium consists of local farmers, land owners and other local population as well as representatives within local politics within the municipality. The area of interest for mineral exploitation also contain areas protected by Natura 2000. The local organization were founded when the plans for extracting Vanadium in the area became public in 2018. The company Scandivanadium has been granted processing concessions for exploratory drilling by the Mining Inspectorate of Sweden.

1.7.8. Norra Kärr

Norra Kärr is a forestry landscape located west of the lake Vättern in in the south of Sweden. The area holds small scale farming and houses. It is located near the picturesque town of Gränna, most known for its traditional candy cane-factory. The distance to Vättern, which is the second largest lake in Sweden, is less than five hundred meters. Since it is one of Sweden's largest water sources, it is important both in regard to nature, environment and society. Therefore, the lake is deemed a water protection zone and comprises several national interests according to the Swedish Environmental Code. It is also appointed a Natura 2000-area. There are several local groups involved in protesting against the mining project. Some are smaller organizations such as Action save Vättern and Urbergsgruppen. The Swedish Society for Nature Conservation and The Federation of Swedish Farmers have both declared the risks with the mining project initiated by Tasman metals, and opposed the project. The conflict has been ongoing for over ten years. In 2016, subject owners and The Swedish Society for Nature Conservation appealed the granting of processing concession to The Supreme Administrative Court and won. That meant that the prior allowance stated by the Government and the Mining Inspectorate (MIS) was no longer valid. The court found that the potential risks to the local environment wasn't accounted for in the Environmental Impact assessment. However, a new mining project initiated by the mining company GREENNA Mineral AB (formerly named

Tasman Metals AB) is currently up for discussion. Therefore, the question of mineral extraction in Norra Kärr, and local protesting, continues.

2. The meaning of sensuous experience

The first empirical chapter in this study address what roles the everyday life plays in shaping an understanding of mining establishment. Since all participants in this study have made the choice to protest the mining initiatives, thoughts on why that is, as well as possible reasons to why others have not, are addressed in the first sequence. This leads up to a discussion regarding the role rural living, as well as geographical closeness to the specific areas of interest, plays when getting involved in the mining disputes. The chapter continues by addressing how personal historical heritage, agricultural knowledge and the dialogues with representatives from the mining corporations help shape an understanding of sustainability, mineral extraction and the mining industry. In the final section, expressed thoughts on the possible role personal relationship to the areas of interest might play in political decision-making is addressed, followed by a summarizing discussion.

2.1. Waking up with the water

How does dwelling in the local area influence how mining is perceived? The quotation below is from one of the first interviews collected for this study. Due to the pandemic, we meet over zoom. He begins by describing the area: the scenery with the black water of Vättern which he could see from his kitchen window. The mixed coniferous forest. Outside the lake laid calm. With a depth of over eighty meters, the water is almost always cold, even the hottest summer days. Having lived here all his life, Jacob reflects upon how experiencing the place in the everyday influences who has decided to protest against the claims, and who hasn't.

I wake up with Vättern [the lake] every morning. Looking out my bedroom window, I can tell by its color how it is doing today. Having had problems with acidification in the 80s, I know how vulnerable these waters are.

The mountain they want to blast, creating an open mine strip, threatens all of us. Humans, animals, plants [...] the water. Everything. Of course, saying that not living near these areas makes you ignorant to these risks are somewhat

presumptuous. Still, it's obvious that us fighting this [mining project] all have everyday dependency upon it. They see water coming out from a tap.¹

The informant describes how everyday routines are shaped by the local scenery. The first glance at the lake in the mornings telling of its current condition with the knowledge of past environmental problems functioning as a reminder of the area's vulnerability. Continuing with an account of the imagined future a mine would result in, he emphasizes how it is a threat not just for humans, but for all life in the area. Jacob continues by expressing how living close to the area of interest for mining influence the degree to which one is involved in the question and how the physical distance means a tendency to frame oneself both from the local conflict and the dependency on natural resources.

The quotation reveals how the lived experience and the meaning of dwelling in a place shapes an interconnection: an ongoing relationship creating a spatial bond between human body and the world in its absolute closeness. Attributing emotions to the surrounding environment, it illustrates the meaning of sensuous experience when reflecting upon mining and possible consequences for the local environment. Fearing a negative change bringing to mind a former event, it suggests an understanding that proclaims that it is not our actions per se that change our world, rather it is a part of the world's own transformation through the ways in which we move along with it. However, when these movements are not aligned, the result may be unfortunate. Reflecting upon which locals who have chosen to involve themselves in political protesting, it suggests that an embodied subjectivity formed by everyday impressions influence the informant's own convictions: being close to the area of interest for mineral extraction, as well as the main water source, function as a constant reminder of its existence. Even more, it becomes a part of one's everyday reality.

The passage serves to reflect upon what moral imperative that motivates local activism. Our continuing life on the planet is of relevance in this perceptive not as a pivot around which the rest circulates, but through ongoing life processes in altogether collaboration with other species. Humanity is not the outset, although it plays a part. Nature is given its

¹ Jag vaknar ju med Vättern varje morgon. När jag tittar ut genom fönstret kan jag avgöra baserat på vattnets färg hur den mår den dan. Vi har ju haft problem med försurning på 80-talet så jag vet hur känslig den här vattentäkten är [...] Sprängningen av berget och ett öppet dagbrott i hotar alla. Människor, djur, växter...vattnet. Det är ju lite förmätet att säga att man inte bryr sig om man inte bor nära det drabbade området va. Men vi som kämpar mot det här, vi är ju beroende av den [vattentäkten]. Dom ser ju vatten som kommer från kran.

legitimacy not as a mean for continuous material wealth. Rather the opposite, it is a gaze radically shifting its perspective where the relationship between species is given space. Furthermore, it reveals something about the social worlds co-created with our surroundings. Worlds, that can help us understand how climate change affect everyday lives and act as an introduction to an alternate understanding of sustainable futures.

The informant cited above describes it as presumptions to let the immediate physical closeness function as a possible reason for the shifting engagement within the local population. Another reflection on the impact that geographical closeness has on the likeliness of being involved in the mining conflict is expressed by another informant. We meet in Österlen for an interview in the local monastery. In contrast to the informant cited above, Anne is not originally from the area. Before moving to Österlen, she lived in the capital. During our interview, she states that:

I believe the problem is... That if you live in a town... Before I lived here I lived in a city. And I had no knowledge of these very complex problems. But when I moved here, I started reading and I really became aware of it. But I understand that there is a really one-sided illustration of this [mining for REEs]. They are not aware. And of course, why should they? They don't *need* to be. They live so far away: Stockholm, Gothenburg, Uppsala. If you live there, all this is so far away. Physically and mentally. ²

What kind of knowledge is formed through experience, in the sense that it is shaped by our lived encounter? Here, Anne describes how she believes that there is a difference in how mining is perceived depending not only on the immediate closeness to the area of interest in the conflict, but also if one lives in a rural or urban area. Recalling her own journey when she moved from a bigger city to the countryside in the south of Sweden, this recollection acts as an illustration of the importance of the lived experience of living in a rural community. She describes how she prior to moving to the countryside wasn't aware of how multifaceted and complex the question

² Jag tror att problemet är...att om du bor i en stad... Före jag flyttade hit bodde jag i stan. Och jag hade ingen kunskap om de här väldigt komplexa problemen. Men sen jag flyttade hit så började jag läsa på och blev väldigt medveten om dem. Men jag förstår ju att det blir en väldigt ensidig bild av det här. Dom är inte medvetna och det är klart, varför skulle dom vara det? De *behöver* inte vara det. Dok bor så väldigt långt bort: Stockholm, Göteborg, Uppsala. Om du bor där så är allt dt här väldigt långt bort, både fysiskt och mentalt.

of mining is, and how moving made her interested in, and aware of, the conflict at hand, as well as mining in Sweden in general. The impression that people in urban environments lack awareness is easy to understand she claims, since they don't have a *need* to understand them. Gaining knowledge of the conflict is therefore described as a necessity and not a manner of curiosity. The physical distance as well as the intellectual, means that these conflicts do not become a part of the urban every day. Furthermore, the quotation holds a critique of the mining conflicts being addressed only from one perspective and is explained by the distance to the areas of interest. The need to usurp other perspectives is missing when there is a physical distance to the area in question.

Phenomenologically, the possibility to understand is regarded as dependent on our horizons of understanding. What reality is transformed into for us is a question of how our experiences, and the knowledge we seek through those experiences. This knowledge in turn is shaped through our lenses, how we view the world. Knowledge, then, becomes a question of our former and prior experiences formed by the space we inhabit, which in turn help create an opinion and an understanding affecting future action. The description above suggests that the lived encounter of rural environment is a prerequisite to understanding the question of mineral extraction as a question concerning more than a solution to modern society's environmental impact. Here, the difference in perception is not only dependent upon living near a specific area of interest for mining corporations: it is the urban environment itself that creates a physical and mental distance to questions concerning nature preservation and sustainability in rural areas of interest for mineral extraction. This indicates, in turn, that the likeliness that one would have another view on the matter increases if living in a rural area, regardless if the area is being a part of a mining conflict or not. The common factor of living in a rural environment becomes a lived experience that forms another understanding of the conflict of interest.

2.2. The living fed earth – on knowledge production and its value

The previous sequence addressed the roles geographical closeness and urban living play in how the informants perceive mining in the areas, as well as thoughts on possible differences in urban and rural perspectives on the conflicts. Participants in this study comes from various disciplines; some are retired lawyers, others professors, nurses or farmers. A common factor is the involvement within environmental movements. Several have small scale farms on the side of their ordinary work. Thus, knowledge of farming and agriculture, as well as an interest in

natural preservation in general, is detected throughout the material. While some have gained knowledge through education, others have learned of agriculture, the local environment and sustainability through personal contacts, or everyday experiences. In that sense, they are self-taught. This chapter continues by addressing how differing knowledge's influence and motivates local protesting.

In Österlen, I met with an informant that had grown up in the area. Lily is a farmer in the fifth generation. Meeting over zoom, she begin by describing how she, together with neighboring families, decided to appeal the granting of exploratory drilling that would take place on her land. She has also been involved with the local organization, founded in order to protest the mining initiative. The following sequence contains details on aspects of the mining process. The method for extracting Vanadium would be through open mine-strip. This means that the mine would be open and not underground. In Österlen, the idea is to remove the top soil in a larger area instead of creating a deep quarrier. Asking Lily how she first came to hear about the plan to extract Vanadium, she tells me of the first encounter with the mining company's foreground figure:

They [the mining company] suggested, when I asked how we were going to go back to what we were before they removed the top soil on our fields, to simply put it back again. They expected it to function the same way after a year in a pile...(Laughs) There is no going back. Soil is not dead material. It is living. It needs continuously to be fed. You can't simply remove it, store it to dry out somewhere and then put it back again, expecting it to behave the same way. They really have no idea what they're talking about.³

The tonality during this passage of the interview is best described as amused frustration. Lily recalls how, when she asked about their possibilities to farm after the potential mineral extraction, were given the answer that they would remove the top soil and leave it without maintenance, to then put it back in its original spot. Continuing by explaining how soil is a

³ Dom föreslog när jag frågade hur vi skulle kunna gå tillbaka till det vi va innan de tog bort jorden på fälten, att den, den kan vi bara lägga tillbaka sen igen. Dom förväntade sig att det skulle fungera på samma sätt efter ett år i en hög...(skratt). Det finns ingenting att gå tillbaka *till*. Jorden är inte dött material. Det är levande. Den behöver matas kontinuerligt. Du kan inte bara flytta den och lägga den att torka ut någonstans och sen lägga tillbaka den, och förvänta dig att den ska bete sig på samma sätt sen. Dom har verkligen ingen aning om vad dom pratar om.

living material, she states her impression that the mining organization lacks necessary knowledge on agriculture.

The quotation points to how the ongoing, repetitive experiences of agricultural life creates a complex understanding of the challenges we face due to climate change, and mineral extraction as a solution. Here, the informant's deep knowledge on agronomy result in suspicion towards the mining corporation. Left with the impression that they lack necessary knowledge on mine-reclamation and agriculture, the project becomes a threat to her livelihood and her place of origin. Beyond having the theoretical knowledge on farming, it is also an everyday encounter with the phenomenon. She knows and describes to me how the soil contains worms, bacteria, fungus and nutrition's that in a constant loop need maintenance. The professional knowledge and personal relationship, and the experienced neglect from the mining company of this knowledge, creates a feeling of mistrust towards those responsible.

Drawn from knowledge on agriculture, the informant's life-world challenges a perspective where life and world are considered separated from each other. It is, to use the terms by Tim Ingold, an illuminative example of the contrast between a global and a spherical understanding of the Earth. The former arises from the image we most commonly detect when we think about the planet: a globe separated from us, whereas the spherical perspective is thought of as world view formed by how it is perceived by us, experiential in its core. The life cycle of the soil here creates an understanding that expand beyond its specific area of knowledge. This knowledge questions an understanding, and in extension, a solution formed outside this reality. If the soil and the lands are dead, then what is left after extracting the minerals suggested to offer a sustainable future? Left with the impression that this question remained unanswered, the informant states that the mining corporation lack necessary knowledge. The spherical perspective, what we experience and detect, is not taken into consideration. Viewing the planet from the outside, the world becomes a standing reserve for mineral extraction.

Knowledge gained through professional farming creates a split, where the mining corporations suggested plan for mineral extraction is considered to lack perspectives on its effect on local environment. Other knowledges, gained through the social life and everyday experiences in the local area, also influence how the mining project is perceived.

In November, I met with the Abbess at the local catholic monastery outside Tomelilla. I had paid for a room at the local monastery and we sat down in the library aimed for visitors. Us meeting here was no coincidence: the monastery has become a meeting point for the local movement protesting mining in the area. Here, meetings and gatherings have been held, discussing ways forward for the local organization in the work to create awareness, and protest the mining project. Traces from the monastery's involvement in the local matter were visible throughout the public spaces. When entering the public area of the monastery, a small table containing information on church service, answers to theological problems and collaborations with local green farms also provided stickers with a clear anti-mining message and a pile of pamphlets with a description of the conflict, waiting to be read.

Aside from the low book-shelves with literature on Christian theology within catholic and protestant thought, there were a large oval table big enough to make room for eight guests, a sofa and two armchairs. Two floor lamps provided a small amount of a warm yellow light. Next to the table, three large windows let the little light in one can expect on a grey and rainy November day. The sound of the small drops made a ticking sound on the window glass. As we started talking, the Abbess looked at the rain dripping down outside, turning towards me from a safe pandemic distance and recollected her first meeting with the mining corporation:

They promised us a part in the green revolution. And who wouldn't want to be a part of that? If it meant saving the planet? But when questioning their risk-analysis of contaminating the ground water, they talked as if they were better than us, as if we didn't know better. And the state sees these processing concessions as a free inventory of Sweden's resources underground. But it is obvious for us living here that this amount of chemicals stored so near our groundwater-sources impose a great risk of contaminating the water. And then it isn't a local problem [anymore]. These waters run out in the Baltic sea.⁴

⁴ De lovade oss en del i den gröna revolutionen, och vem skulle inte säga ja till det? Om det betydde att planeten skulle räddas? Men när vi frågade om riskerna för förgiftat grundvatten så pratade de till oss som om de var bättre än oss. Som om vi inte visste bättre. Och staten ser ju de här provborringarna gratis inventering av landets resurser under jord. Men det är ju uppenbart för oss som bor här att så stora mängder med kemikalier förvarade så nära våra grundvattentillgångar innebär en stor risk för att vattnet förgiftas. Och då kommer det här inte vara en lokal fråga längre. De här vattnen rinner ju ut i Östersjön.

The promise of a revolution, and the willingness initially to take part in such a movement, serves as a fond for thoughts on the wish for a swift solution to a complex problem. Historically, the term green revolution has referred to the technological development in the mid 20-th century, where industrial countries exported technology for the farming industry to expand food production in developing countries. Temporally, the revolution implies a vast and radical movement towards another future (Koselleck 1964, pp.44-46). As a term for societal change, it holds a demand for a radical shift where the current system would fast be put to history. With current reports on climate change and the acute need to decrease greenhouse gas emission, the wish for such an answer is understandable.

This quotation illustrates the reoccurring split between knowledge and insights gained through the ongoing relationship with the surroundings, and the impression that the mining industry has a predisposition to make nature into raw material for human creation. The abbess states how she, through her everyday encounter with the area, understands the risk of contamination of the groundwater. However, she does not consider the mining company taking this risk into account, as she feels that representatives from the corporation address her in a manner where she is deemed inferior in terms of knowledge and insights. Heidegger refers to the phenomenon of making nature into a storage as *Gestell*, a perspective in which our planet is thought of as a standing reserve. Regarded only as resource, it is an image with only one dimension. This understanding is further underlined in the quotation when referring to the first stage of the mining process as “free inventory”, functioning both as critique of what’s perceived as an enframing of reality and of the conclusion that something is free when it is without financial cost. It is in this split, where the informant detects the tendency to detach nature from human reality that motivation to political protesting is formed. This quote also points to the questioning of the division between global and local perspectives where the former is given scientific weight over the latter, as she describes how she felt that they “talked as if they were better than us, as if we didn’t know any better”. The informant experiences that knowledge gained through practices of everyday-life, by being-in-the-world is regarded as fragmentary and insufficient where the global perspective – delivering REEs to an international industry – is considered complete and objective.

Both the Abbess and Lily underline how the communication, or lack thereof, became an important reason for their distrust towards the mining project in Österlen. When they asked questions that remained unanswered, questions that concerned local sustainability and possibilities to continue farming afterwards, it helped shape their conviction that the project

was a risk to the area. The role that processes of communication over societal spheres such as political, social and corporate, plays in the conflicts is further addressed in the upcoming section.

2.3. “Maybe we stand a chance, but what about Sápmi?”

Mining in Sweden has a long tradition. Within the public debate concerning mining in both in the northern and southern regions, it has been stated that the industry is part of the national self-identity (Priftis 2021). Therefore, it has been suggested that the mining conflicts concern more than the region of interest for mineral extraction; it is a debate concerning the self-image as either the green, sustainable country, or as the mining nation in the north (Ibid). Aside from following the media debate closely, many participants also have contacts with other local organizations of similar nature across the country. When meeting with informants in Norra Kärr, they had heard of, and have had contact with, some of the participants in Österlen. During the period when the material were collected, the debate on the mine in Gállok were ongoing as the decision from the government were expected some months later. Gállok is a region in Sápmi in the north of Sweden and an important area for the indigenous population of Sami and their reindeer husbandry.

As the participants expected the outcome in that conflict to give an indication on their chances, thoughts on how the personal and lived experience influence the conflict are also addressed by the informants themselves.

Brigitte: At the moment, I’m quite pessimistic. I have some hope that we will be able to save Skåne. But what about the other areas...

Anne: Especially in the north for the Sami population. [Gállok mining conflict]
...

Brigitte: I don’t know. We have agriculture. And the brand “Österlen”. The fact is, that many of the decision makers spend their vacation here during the summer months. And they *feel* for this landscape. There, we have an advantage. Towards

the other groups because... mines. In Österlen. That evokes some feelings. Still, it feels like David against Goliath right now.⁵

Here, it is evident how a cultural discourse within society addressing climate change influence, and are incorporated in, how the informants perceive their situation and chances when accounting for all the possible parameters that they believe might affect the outcome of the local conflict: agriculture, as well as the culturally framed landscape. The informants observe the conflict through the lens of the media discussion on mining, addressing the imagined importance of a personal relationship to the area of interest when decisions are made as to whether or not to open a mine. From this perspective, Brigitte measures the possible value the area would be considered to have that other areas with mining conflicts, does not. The imagined personal bond and sensuous experience as well as the understanding of the area, is thought of as imaginable reasons that would increase their chances. Reflecting on the possible outcome in Österlen, Brigitte gives the feelings towards the landscape special significance.

When imagining the possible role relationships to the area might play in the outcome of the local conflict in Österlen, Naomi Klein's term *climate change mismatch* is of relevance (Klein 2014). Suggesting that current cultural and financial priorities are out of step with the demands on collective action in favor of handling climate change, she claims that it is a result of current financial and political system in the neo-liberal era. Which solutions to climate change that gain public acceptance is narrowed down to several phenomena tied to this system. One of them are how corporations influence and are part of current debate when suggesting possible solutions, thereby overshadowing alternatives suggested by the public (Ibid). When Brigitte suggest that "the brand of Österlen" might influence the outcome of the current mining conflict, the informant illustrates this current societal phenomenon where one financial interest, the cultural worth and how it is considered worth preserving in being a summer resort for the politically influential, is weighted in relation to another, being the extraction of Vanadium.

⁵Brigitte: jag är pessimistisk just nu. Jag har viss förhoppning om att kunna rädda Skåne men hur det går med de andra områdena. Anne: Speciellt i Norrland och för samerna. Brigitte: Ja det är... Jag vet inte. Alltså vi har fördelen att vi har jordbruket. Varumärket Österlen. Faktumet att många av beslutsfattarna också är här på somrarna. Och känner för det här landskapet. Där har vi ju en fördel. Gentemot de andra grupperna, för att... gruvor på Österlen, det väcker ändå lite känslor. Men... nej... Det känns verkligen som David mot Goliat just nu.

Returning to the concept of our horizons of understanding formed through personal encounter, this quote further stretches the belief in its importance. The conflict in Gallók is contrasted to Österlen and she describes it as a question of saving the area. Although Brigitte expresses a belief that a mine could be avoided, she uses the biblical metaphor of David and Goliath to illustrate her feelings. This parable does however suggest that while it feels hopeless now, a stone to the forehead might strike the giant. The biggest might not win.

When reflecting upon the areas cultural, political and social value, Brigitte depicts a landscape based on knowledge of its historical and present importance. The landscape is even referred to as “a brand” and that a mine in this landscape is not aligned with the expectations of what is included in it. At the same time, she expresses an awareness of the possibility that this present reconciliation of the area might change depending on the outcome in the mining conflict. The understanding of the landscape being formed through an ongoing process is a concept addressed by Tim Ingold (Ingold 2000, pp.164-169), where the landscape is likened to a history continuously unfolding. In the following short account of the theoretical concept, I will restrain from including the discussion on the differences between the concepts of nature, landscape and space by the author, as this does not function in the following analysis in any decisive way (for further reading on that, please see Ingold 1997). The dwelling perspective aims to eliminate the distinction between the place of human and nature, including non-human worlds. Instead from understanding them as separate entities, they are considered conditioned of each other, creating the terms for each other’s existence. Human influence on an area transforms the landscape. This in turn is a process continuously unfolding in the landscape as well as within those inhabiting the space in question. Viewed this way, the landscape bears witness to the area’s history and present temporalities. The memories of the people in contact with the place is formed through a pendulum movement between nature and human, the action upon the landscape. These memories in turn shapes how one address the landscape in question. What claims that are made on an area is in the end a political question of power relation (Ingold 2005, p. 8). How the landscape and nature is made comprehensible is ultimately acted out through a process in which an actor makes claims in the hope of their perspective becoming the perception, which in the present and future will be in sole authority. What, then, should this landscape be turned into for us?

Brigitte’s reflection upon how memories of the place by people in power might influence the outcome of the mining conflict express the understanding of how space and

personal experience are entangled. When this relationship is missing, Anne expresses concern about the future in other areas of interest for the mining industry in Sweden, exemplifying with the conflict concerning an ore mine in Gällök. (This interview was conducted prior to the decision announced by the government in May 2022 stating an allowance for ore extraction in Gällök).

The thoughts expressed on the meaning of emotional relationships within political decision-making can also be understood as a reflection upon the dualistic division between objectivity on the one side and subjective experiences being emotionally charged on the other. Believing that the personal relationship might influence decision on mineral extraction in Österlen, it suggests that the division between them is not sharp. On the contrary, personal relationships are imagined to affect the future outcome.

2.4. Summarizing discussion

In this chapter, the everyday encounter has been discussed from a range of different perspectives. Initially, the first sequence suggests that the physical relationship to the place helps motivate political protesting as a bond is created to the surroundings through sensuous experience. The influence of the immediate physical encounter is further underlined in the analysis of an informant's reflection upon her own journey moving to the rural area of interest for mineral extraction. This transformation is understood through the concept of our horizons of understanding influencing how a phenomenon is perceived: when new horizons emerge so another understanding unfolds. Local knowledge, personal history tied to the area, as well as the physical encounter in the everyday, helps form a critique of the mining project. There are several reasons for this: the impression of neglects towards local knowledge of the area's history from the mining company creates a feeling of mistrust towards the project and those responsible. The critique expressed towards the mining inspectorate's allowance for exploratory drilling is understood as a critique of nature considered to be a standing-reserve for human exploitation. The lack of knowledge of agriculture, contrasted through the analysis of the spherical and global perspective of the world, illustrates how differing knowledge result in the questioning of the project and a fear of its possible consequences. Finally, thoughts on the landscapes influence on the politically prominent actors suggest that the emotional relationship functions as an important factor when reflecting upon the possible outcome in the conflict in Österlen, suggesting that dwelling in a place result in giving it special significance. The

emotional entanglement between landscape and human functions as a motivator for political protesting.

3. Conceptualizing sustainability

The following chapter aims to account for how sustainability as a concept is framed within the local organizations. What role does the previously addressed everyday encounters play when shaping understandings of sustainability? How do the informants navigate in relation to the past, present and future when responding to the mining initiatives and the solution to climate change, in which these metals are meant to play a part? These are the questions which the following section aims to answer. The chapter begins by addressing thoughts expressed on mineral extraction in relation to sustainability. It will continue discussing how personal and cultural history, as well as differing knowledge's, help shape an understanding of the mining projects. Finally, the chapter will address collective memories and transnational identification, followed by a summarizing discussion.

3.1. Time: historical, present and future

Reflecting upon how mining is perceived in relation to differing understandings of sustainability and climate change, a variety of references to time constantly emerges: history, in relation to the historical periods detected in the areas, as well as personal history, and thoughts of possible futures. The imagined futures concern the risk of permanent effects on the environment. Permanent, in the sense that the possible consequences of mining would be marked in the landscape for an undefined future. These concepts of time detected will be narrowed down to three main themes: First, the cultural-historical temporalities of the areas. Second, the personal history to the areas as well as possible futures. The third theme revolves around the environmental concerns for the areas formed by local and professional knowledge in the present on biodiversity, environmental law and geology.

All participants were involved in local organizations. Some of these organizations were founded when the question of mining in the areas became public. When bringing up the subject of sustainable futures and the possible role of REEs, the answer often holds a critique of the societal systems creating and upholding fossil fuel dependency. The quotation below is a sequence from one of the first interviews for this study. Elsa lives in the rural area near Norra Kärr close to the lake Vättern. When talking to her as she sat in a room covered by bookshelves

and her Labrador lying in the brown armchair next to her, she reflected upon the possible role REEs could play in global change towards sustainable futures:

Even REE: s is a finite resource. How can one believe that they could be the solution? It is in itself embedded within a system, the system that caused this situation to begin with. The minerals here would make EU independent for 15 years. Is that sustainable? We have settlements here from the bronze age. 15 years is like a blink. [...]

Of course, we face enormous challenges when it comes to the climate crisis. It's not that. The solution is not to design more AI and more high technology. I do not believe in it. I think what we need is more protected areas.

The truth is, that we have to start to live simpler lives, beginning now. However, that's an inconvenient truth.⁶

Elsa describes how the rare earth elements is a resource that will finally run out. Therefore, she claims, is it not a sustainable alternative that meets the need for societal change to reduce the negative impact on the environment imposed by human society. She argues that the problem lies within the current societal system. What parts of the system or in what ways are not further described. Instead, she continues by stating that 15 years of independence is not sustainable, contrasting the timely difference to the historical settlements in the area that has been standing for thousands of years. Continuing by underlining that she sees that we face challenges in the light of climate change she states that she doesn't believe in the solution being new technology.

What future do we wish to sustain? For how long does it expand? By incorporating historical settlements in the context of current mineral conflicts, the comparison disqualifies climate change temporalities within the green economy and growth discourse. Elsa rejects mining as a sustainable solution because those fifteen years of dependence isn't regarded as solution for the future. Here, a climate change temporality in regard to nature preservation and the protection of endangered species intertwines with today's notion of climate change as a humanly created condition, where the temporal understanding is that of urgency. Stating that settlements from the bronze age are still evident in the area function as a timely reference to an historical past. Concluding that there is a need for a rapid shift towards a life-style that decrease environmental impact, the two temporalities intertwine with each other, creating at the same

⁶ Men till och med REE:s är en ändlig resurs. Har kan man tro att det är lösningen? Det är ju själv en del av det system som skapade den här situationen till att börja med. Mineralerna här skulle göra EU oberoende i 15 år. Är det egentligen hållbart? Vi har liksom bosättningar här från bronsåldern. Man blinkar och så har det gått 15år..[...] Det är klart att vi står inför enorma utmaningar när det kommer till klimatkrisen. Det är inte det. Utan lösningen är inte att vi utformar mer AI och mer hög teknologi. Jag tror inte på det. Jag tror det vi behöver är mer skyddsområden. Sanningen är ju att vi måste börja leva enklare liv från och med nu. Men det är ju en obekvämlig sanning.

time parallel and entangled understandings of two climate change temporalities within the local movements. The tendency to stretch the role of immediate response to climate change can be detected as a recurring temporality within climate change discourse in public debate and academia. Immediacy also plays a significant role as a temporal understanding within the local protesting movements. At the same time, natural preservation, historically known for the slow pace of preserving function as a perspective encouraging nature to “stay as it is”.

This quote also points to how differing notions of time is perceived in relation to climate change and how these differences form the questioning of how sustainability is defined. The disbelief in REEs being the solution lies on two axes. First there is the time-scale where the solution is regarded short-term in relation to the challenges faced. Second, there is the belief, or disbelief, in to what extent human society can produce itself out of this crisis through investments. The disbelief in thinking concession minerals would make a significant difference to long-term future outcomes is based on the understanding of it being shortsighted, and the feeling of urgency to de-growth, describing how we “need to live simpler lives”. De-growth is a movement that consider downscaling of consumption a possible way forward in order to reduce climate impact. By questioning the necessity of economic growth, this perspective suggests that solution to human-inflicted climate change also lies within deeper knowledge and defense of ecosystems (Schneider 2010). In proclaiming that the way to solve climate change lies within a radical change, it proposes that we not only have a moral duty to think about climate change and our responsibility in another way, but that it also demands instant action in another direction. De-growth is further underlined by the participant as the only way forward by illustrating how green growth function as artificial maintenance for a planet in critical condition.

In the quotation above, the cultural history of the area functions as a way of navigating in relation to the current conflict. In the following quote, another form of history plays a part: the family history tied intimately to the local area. For Lily, it all begun with an ad in the newspaper stating that a company had made claims on the area. They later made a phone call, and she described how one of the representatives from the company came to her house and sat down at their kitchen table. She describes her initial response like this:

The farm has been in the family for 161 years. The children are the seventh generation... We own the lands together, me and my husband. I tried to be open-

minded towards this process. Because...(sighs) I mean, we want to be part [of the change]. Climate change is a real threat to us farmers. I mean... We will be the *first* in Sweden affected by climate change. It is a *very* important issue for us. And that's why I felt one shouldn't be negative just to be negative. But we needed to ask questions. But it was then, when we started asking questions that I experienced that... They really didn't want to answer them all [...] The risk of these exploratory drillings destroying the lands, hitting the pipes for drenching hidden underneath the soil and no one knows where [they are]. They didn't have any answers. But I mean, they had big visions.⁷

When telling of her family history, Lily made very detailed account of time. In stating the precise number of years the family had worked these lands and lived on her farm, it points to the importance of that personal family heritage, something to be treasured as well as protected. Telling how her children are the seventh generation, this also expresses the hopes for continuing family life on farm for them in the future. Still, it was important for her to point out that one shouldn't oppose development and change just for the act of opposing per se. She, too, has concerns for the future in regard to climate change and how it could impact her and her family's life. But, as they started to ask questions, she was left with the feeling that the mining company were reluctant to answer them.

In this sequence, a wish for taking part in a movement towards decreased climate impact is detected, and a wish for that change to be possible. This hope in turn is shaped by an understanding of environmental change being a threat to her, and all farmers, livelihood. Climate change therefore seems to be formed through the cultural concepts of risk and crisis. At the same time, something happens when she experiences that the representative from the mining organization lacked the necessary knowledge of the local area for such a project. Furthermore, she experienced that they didn't seem to have an interest in learning about agriculture, local circumstances and local history when telling of the drainage systems out on the fields, established in the 1930s. Made of brick, they are easily punctuated with the possible

⁷ Gården har varit i släkten i 161 år. Barnen är sjunde generationen... Vi äger marken tillsammans jag och min man Jag försökte vara öppen, i den här processen för liksom. Jamen vi vill ju va me (suckar). Jag menar, klimatförändringarna är ju ett reellt hot. Mot oss lantbrukare. Liksom eh.. vi kommer ju vara de *första* i Sverige som drabbas av klimatförändringarna. *Superviktig* fråga för oss. Ehm..och därför känner jag att man ska liksom inte vara negativ bara för sakens skull. Utan vi behöver ställa frågor. Men det var när vi ställde frågor som jag upplevde att .. att eh..nja.. de ville inte riktigt ge oss svar på allting[...] Och..Risken är ju att provborringarna , att de borrar igenom en sånt tegelrör och det ger efterverkningar på hela fältets odlingsbarhet. Ingen vet riktigt vart [de ligger]. Och dom kunde ju inte svara men visioner, det hade de ju.

consequence that it would destroy the drainage systems, making it impossible to harvest the lands. The lack of maps over the systems makes this task quite difficult. As she felt the mining company lacked an interest in preserving the lands, making it impossible to continue with agriculture in a safe way, she didn't believe in the promise to play a part in societal change toward a sustainable future.

That there lies an appeal in taking part in a development towards a healthier climate can be understood in several ways. The cultural concepts of risk and catastrophe has prior been suggested to be loaded with multiple layers of meanings. These meanings in turn play a significant role in shaping an understanding of a crisis (Kverndokk 2015 p. 176). The concepts of risk and catastrophe reemerge in time of crisis, although the type of crisis in question may differ. It may revolve around climate concern, or a medical crisis, such as covid-19. However, interlinked are the ways in which these differing crises are understood as creating chaos, demanding need for immediate response (Kverndokk 2015, p. 152; Rosario 2007 p.10). As the word crisis implies, immediacy again becomes an important temporality within the climate change discourse. It is not, then, only a question of how climate change is understood in the present that the informant navigates in relation to, but also a question of how it influences the understanding of her own historical past and local knowledge. It turns into a question of navigating in relation to cultural concepts of climate change and the personal understanding of the everyday life and knowledge on agriculture. How are these combined and how can this process be understood?

The informant describes climate change as a negative development threatening her livelihood. It is a crisis which is considered to have a negative effect in her immediate closeness of life in the everyday. Here lies a temporal understanding of immediacy in order to prevent a negative development with the possible consequences of droughts and bad harvests. The climate crisis has been made concrete despite its abstract nature through a discursive understanding of climate change where extreme weather events being a part forms an image of how this thought of future may affect the everyday life. At the same time, mining as a proposed solution is conceived as a threat to both her livelihood and the continuing of the family tradition developed for generations. It results in a balancing act where various horizons of understanding influence how thought solutions to the climate crisis can be comprehended. Experiencing that the mining company where reluctant to answer her questions based on her understanding deepens this distrust further.

Central in this quotation is how the informants have a different pre-understanding than that of the representative from the mining industry. Her pre-understanding is shaped by knowledge inherited in her family as well as professional knowledge about agriculture and knowledge of the region's history. When meeting with the representative from the mining company, she is left with the impression that the representative lacks an interest in the knowledge she brings forth. It thus seems that the differing pre-understandings of the local conditions generates mistrust towards the project at hand.

Returning to the Heideggerian concept of *Gewesenheit*, where past, present and future are conditioned of each other, it can further help to structure a temporal understanding of how mining is perceived in the citation above. The retelling of family history is entangled with the present: it is a repetitive pattern and an ongoing history where farming, and the home through the physical place, ties the history to the present. It is by the very definition sustainable in the sense that it has sustained through a period marked by large societal change. The past and the present together shapes an understanding of the thought of future. However, in the present lies also climate change, affecting how that same future is understood, transforming the future into something uncertain. Understanding the landscape as a space in continuous movement in the sense that is transforming in an ongoing process, it becomes evident how the family ties to the area become a part of the landscape itself. Spatially, through the growing area of fields harvested. In memory, through the cultural heritage where knowledge of the areas previous changes is communicated. Possible future transformation of the landscape created as a result of the current mining initiative function as a reminder of this ongoing processes where society may transform the area into something else. Thus, the future transforms into a possible reality that may lead down two paths, very different from each other.

The temporal understanding of possible futures in the quotation above is shaped by regional- and family history interlinked, reminding us of how the future is uncertain, and, even more so, in the light of the current mining conflict. Beyond being uncertain, what kind of imagined future, is expressed in the material? The following quotation is from the interview with Brigitte that moved to the area from a city in another country a few years ago.

What I've learned on this journey revolve around farming to a great extent. I don't have a background within agriculture [...] And I do live in an agricultural landscape, and therefore I have come in contact with a lot of farmers. And a

terminology I didn't know about [before]. And now I understand "Ok, *this* is how it works. And all this is at stake? And will now be destroyed for all eternity. It has become so obvious, and that is something that a lot of people don't understand. They think of a mine as a hole in the ground that you dig something out of and then fill up again. And then one can continue farming. But that's not how it is."⁸

Brigitte's time in the local movement is described as a journey. As the area is an agricultural landscape to great extent, her new acquaintances have consisted of local farmers that has shared their knowledge with her. For her, this journey therefore has centered around the collecting of knowledge on agriculture that she didn't have prior to moving to the area. After gaining new knowledge and a language for understanding the many dimensions farming contains, she can comprehend what may be lost in the event that mining will become a reality. Continuing by describing this realization as obvious, she suggests that this is not common knowledge, and that others therefore might think of the possible negative effects based on inaccurate premises.

Here, a new collective identification with the local area has grown, becoming a cultural formation in the local context of the conflict. By stating that "all this will now be destroyed for all eternity", it suggests that another temporal understanding within the local movements protesting mining revolve around eternal effects on local environment. Eternal, in the sense that there is no ending time to its negative effects in the undefined future. Returning to the phenomenological analysis of historical, present and future constantly being reproduced in the present, the future in the present here becomes that of destruction. As such, the moral demand on protesting does not concern only present time but act as an objection against consequences reaching into the undefined future. Eternity and thoughts about the everlasting are not considered within Heideggerian thought to be a part of Being more than a figure of thought within our finite reality, even if humanity and the world are considered to be "one" (Heidegger 2004, § 5, pp. 38-40; Ruin 2005, p.18). The critique therefore concerns the classical distinction within philosophical tradition between time and the eternal, where temporality is considered to arise from the eternal. Eternity within this tradition is thus thought of as a time that is not temporal but consistent as the eternal now of God. The term eternity thus has a mystic

⁸ Vad jag har lärt mig på den här resan är ju väldigt mycket om jordbruk. Jag har ju ingen bakgrund inom lantbruket. Jag bor ju i ett jordbrukslandskap och har ju på det viset kommit i kontakt med jättemycket lantbrukare. En terminologi som jag inte kände till. Och att jag nu förstår: är det så här det fungerar. Är det *det här* om står på spel? Och som nu kommer förstöras för all evighet. Det har ju blivit så uppenbart. Och det är någonting som många inte förstår. De tänker på en gruva som ett hål, som man gräver och tar ut någonting och fyller på det igen. Och så kan man fortsätta med jordbruk. Men så är det ju inte.

dimension and can be understood in the light of how crisis has been described through theological Cristian narratives within the European context. That a natural catastrophe is considered a punishment or warning from God is one example. These narratives have been traced back to how we speak of climate change within modern day media debate (Kverndokk 2015, pp.168- 173). As such, the term eternal destruction functions as a description of a possible apocalyptic scenario that answers to the larger climate change discourse. Thus, it can be considered as influenced by the discourse and express a temporal understanding of a catastrophic end stretching in to a future with no end. At the same time, this can also be understood as an illustration over how local or personal experiences and thoughts also influence the public debate in a kind of pendulum movement.

The immediate relationship with the surroundings results in a transformation of how sustainability is comprehended through the knowledge gained from dwelling in a place. Contacts with local inhabitants form knowledge of the lands, thereby adding new perspectives to the conflict at hand. Mining is thought of as unsustainable, both because of its immediate effect on food production and of the feared environmental impact in the future.

As we saw in the quotation, the informant gained knowledge of agriculture after moving to the area. Returning to the analysis of the differences between the spherical and the global perspective, it becomes evident how a local knowledge through everyday encounter influences how the informant perceives mining. Rather than viewing it from a distance, the spatial understanding on a micro-level shapes an understanding of the mining project as a risk to local agriculture. The differing views on mineral extraction becomes a conflict of interest between local industries of food production, and the global mining industry with the need for concession minerals.

3.2. Collective memories and transnational identities

What role does the experience of previous events in the regions play when reflecting upon the current conflict? In November, I met with Brigitte. She begun our conversation by describing how she came to involve herself in the movement against mining. As she first moved to a house in the south of Sweden about fifteen years ago, she one day received a pamphlet in her postbox. The pamphlet told of the plans to extract shale gas in the area initiated by an international oil company. As this was a phenomenon rather unaddressed at the time, she started to search for

information online and quickly decided to found an organization, together with other local inhabitants, with the main goal being a refusal of the application. During our talk, Brigitte reflects upon the experienced differences between the two movements:

What I feel is... When we debated against Shell, then it concerned shale gas. So, it concerned fuel and it was... When we stood outside the tower just a few kilometers from here and we had a manifestation one winter night. At the same time, there was the climate summit in Copenhagen. And then, people actually listened to us. Then the attentiveness regarding climate change had started to grow: 2009 or 2010. So, it was actually rather simple to argue that: "This, extracting gas, is not good since it has a rather big climate impact". And, what we said were that gas had an even bigger impact on the greenhouse effect than oil or coal. So that was the argumentation and we were heard because of that. But *today*, they use climate change *against* us which makes it so much more difficult, and at the same time much easier for our opponents, to break through within politics. It feels rather hopeless right know.⁹

Comparing the former conflict to the current, Brigitte points to a significant difference between the two. While the former initiative was regarded to work in favor of a healthier climate, the current is considered to be an obstacle for necessary change to the very same. The informant doesn't specify who "they" are that make these statements. Instead, she continues by accounting for its negative consequences for their cause and how it leaves her with a feeling of hopelessness.

The previous regional conflict and its solution transforms into a collective memory. The memory of the past event is reflected upon in relation to the contemporary conflict where the informant finds substantial differences. The quotation illustrates how cultural changes in society at large regarding environmental concerns influence regional conflicts.

⁹ Det jag känner idag... När vi höll på mot Shell då var det schiffergas. Då var det alltså ett bränsle, och det var..När vi stod utanför tornet, bara några kilometer härifrån, i Ry och hade en manifestation en vinternatt..eh.. då var det ju klimatklimateppmöte i Köpenhamn . Och då lyssnade man ändå på oss och så. Då hade medvetenheten verkligen börjat bli större för klimatfrågan, 2009 eller 10. Så det var egentligen ganska enkelt att argumentera att "Det här är inte bra att de ska utvinna gas för det har en så stor klimatpåverkan" och det vi sa redan då var att gas det har betydligt större påverkan på .. växthusgaseffekten än olja och kol. Så det var den argumentation vi kunde ha och den fick vi gehör för. Men *idag*, så använder man ju klimatförändringarna *mot* oss och det gör det otroligt mycket svårare, och det gör det mycket enklare för våra motståndare att få gehör hos politiken. Så det känns ju rätt hopplöst just nu.

When describing the former conflict, she reflects upon the differences to the current issue of mineral extraction. The quotation suggests that the local question of shale gas acted as an illustration over a global issue. In that way, the cultural context at the time, with the international political discussions, helped their cause. Their standing point in the conflict was in line with the current medial climate change discourse on sustainability.

The terminology for speaking about climate change and the environment is rather new. The term environment was first introduced in the 1950s. Before, when questions concerned the natural world around us, it was referred to as “nature”. This was not because humanity didn’t inflict on the climate before, or that there was an ignorance towards that fact. Rather it was because there hadn’t been an idea formulated around humanity’s societal impact on the world. Without it, there was no concept of how chains of events were interlinked, dependent of each other’s movements (Warde 2018, pp. 20-23). When this understanding was put into theory and became narrated – that the world is formed and transformed through an interconnection – the concept of the environment was founded. The environment became a tool for illustrating how seemingly local changes were connected to global sequences of events. As the rise of a new language became a part of our collective understanding of the world, new questions began to emerge. Questions, more often than not related to ideas about our common future. Since the rise of the environment as a concept, it has become more multifaceted with the inclusion of ecosystems, the atmosphere and the increasing urbanization.

Within the current conflict, the informant experiences how climate change functions as an argument against their stand in the mineral-conflict. When describing this shift of sides in how their aim is perceived, going from being regarded as an expression for environmental concern to being considered as enemies of the solutions to human inflicted climate impact, feelings of hopelessness is expressed. The local issue transforms into a struggle concerning the very epithet climate friendly. As such, it becomes a struggle over being included in medial climate change discourse on environmental sustainability. The struggle in turn illustrates how sustainability transforms into a phenomenon on opposite sides of political contestation. The local conflict transforms, now concerning the power to define what environmental concern really constitutes. The meanings, what is included, is constantly shifting, as are our understanding of climate change as a cultural, social and political subject.

Reflecting upon how the environment came to be, and are reconstructed through layers of meanings formed through experiences and ideas means addressing local perspectives on ongoing climate related conflicts. Most likely, very few would have suspected that the

mining industry would be included within public debate as a part of a green movement toward sustainability fifteen years ago. Yet today, there is an ongoing discussion on green mining. The quotation above illustrates these ongoing changes. The question of mining suddenly moves from concerning regional interest and climate negative impact, to become a conflict in which local interests are weight in relation to global climate goals.

As accounted for in Chapter 1, *Gewesenheit* as a concept suggests that when anticipating a future developing in a certain direction, one projects an idea shaped by personal experiences in the past. Therefore, what can be visualized as a future are unavoidably entangled with one's personal history. (Heidegger 2005, §73, p. 181). Aren't we then stuck in the present just looking at our history transforming into a limited view of the future? On the contrary, an awareness of how ones having-been shapes an understanding of the future in the present mean that one can set this accumulated history free in the present moment of action. This insight is referred to as *Augenblick*, the time of vision. *Augenblick* is not an Heideggerian concept originally, but is used within Heideggerian thought to explain one aspect in the historicity of being.

In the quotation cited above, the informant recalls a former event and expresses a feeling of hopelessness when left with the insight that their protesting is considered on the wrong side of the conflict; the side not in line with current political ideas of ways towards environmental sustainability. Her having-been-ness formed an anticipation of the future, recalling what happened when they won and the loss for the oil company "on the other side". The imagined future is that they will lose in the same way, leaving her with a feeling of hopelessness, as if the question was already decided upon. Still, in the moment of vision lies the past events linked to the future, in the act of continuing the struggle of which actions should be deemed unsustainable, and which shouldn't.

Violet is a retired nurse living in the countryside not far from Vättern. For seven years, she was also a small-scale farmer and described how she then gained knowledge of the lands and agriculture. She and her husband together involved in an already established local filial to a national nature organization. When first becoming involved, the issue concerned a wind turbine project in the area. Considered to be a potential threat to the local bat population, she describes how the organization went from addressing local concerns regarding the animal life, to include environmental conflicts with a national and global dimension:

Before, it was really more things like planning excursions to see the bird life... and such. But there wasn't really an involvement with societal issues. The way I see it[...] So, the involvement with environmental concerns really begun with the plans on wind turbines near Norra Kärr. 2010, I think. We actually succeeded in stopping those. Then we got news of the plans on a mine. We held meetings with invited speakers on the risks, using the community centers. And a lot of people became involved. And were *really* angry. Not just those we knew of before. But others that lived in the small towns around here. ¹⁰

The passage serves to reflect upon the phenomenon of collective memories tied to an area or a common interest. The social mechanisms are shaped and reshaped by current issues. Community Centers (in Swedish Byalag) were originally used as a place where important local and regional issues were debated. The informant describes how the community centers became important places for spreading information on the mining project. By inviting speakers critical to mineral extraction, that informed the local inhabitants about their concerns and perspectives, a local movement began to take form. She describes this group as different from the previous one, telling how participants came from smaller communities in the area. It thus seems that they raised public opinion in the mining question among a heterogeneous group that had no previous attachment to environmental issues and organizations. Being an issue with affect not only on the local natural life but civil society, the response and interest was another.

If the community centers in the area where previously used for addressing a local matter, they now transformed into a local institution addressing questions with a global dimension. The mining conflicts occur as a result of increased globalization, and the demand for metals that come with the modern-day society's technology, used in our everyday. This way, it becomes evident how global political concerns for reducing greenhouse gas emissions, and corporate initiatives revolving around the extraction of rare earth elements as a result of these concerns, result in new social arenas locally. The local concerns are entangled in a global demand of a solution to climate change. As such, the mining conflicts become examples of how

¹⁰ Innan gjorde vi olika utflykter och tittade på fågelliv och så. men man hade ju inget direkt samhällsengagemang som jag uppfattade det.[...] Så, det här med miljöfrågor började egentligen med vindkraftsplanerna som hotade fladdermöss och lite så. 2010 tror jag. Som vi lyckades stoppa faktiskt. Men sen så va det så att vi fick nys om planerna på en gruva. Så vi bjöd in talare till byalagen här omkring som berättade om vilka risker det för med sig. Och det var ju många som engagerade sig. Och de var *riktigt* arga. Inte bara dom som var engagerade sen innan utan andra också. Som bodde här runtkring.

climate change influence regions in Sweden in term of social sustainability, aside from the possible negative environmental effects of industrial scale metal extraction.

Natural conservation and the safekeeping of vulnerable species on the one side, and societal change, demanding new usage of nature on the other, become a recurring conflict of interest. Thus, the changing course of time result in a new use for old societal institutions. They are refunded and adapted to the needs at the time. Returning to how the concept of climate change became a way of explaining the connection between local changes and global sequences of events, this example illustrates how local social changes may appear in the light of these global issues. It becomes a pendulum movement between the local communities and the global industry, striving to define responsibility in the shadow of current concerns.

In this study, it is evident both how traditional local institutions are used to address a current new scenario, and how the different movements also identify and connect with each other over geographical distances, in the common interest of protesting mining initiatives. When speaking on the phone to Angelica, she first shared how her story of her upbringing on the Island of Visingsö in the lake Vättern meant learning in an early age not to take more from nature than necessary. She continued by telling me of her first meeting with the mining industry, and how it all begun by an invitation from her new contacts to come visit them in the United States.

I had the luck to meet native Americans when they visited here. It must have been 1998. And we talked about all that we had in common. How one shouldn't take more [from nature] than you need[..] And then they asked if I could come visit them in Montana. And the next year, I did. And then I came in contact with people that fought for their survival really, against a big mining corporation. The traditional Hopi and Navajo societies tried to stop a coal mine in Arizona. And I became really involved and went there several times [...] And all I can think of now, in this conflict of Norra Kärr, is of the term used there. Nature sacrifice. I have seen this side of the mining industry. The global industry I should say, because it is global. They do not work only in one small area.¹¹

¹¹ Jag hade turen att träffa på några nordamerikanska indianer när dom var här. Det måste varit 1998. Och då så pratade ci och om allt vi hade gemensamt. Att inte ta mer [från naturen] än man behöver... så frågade dom om jag inte skulle komma över och hälsa på dem i Montana. Och året efter fick jag möjligheten att göra det. Och...då kom jag i kontakt med människor som kämpade för sin överlevnad mot stort gruvbolag. Och då handlade det om en stor kolgruva i nordöstra Arizona där det

Here, Angelica tells of how she met a group of native Americans as they visited her on her home Island of Visingsö over twenty years ago, and how she, during their meeting realized that they shared similar views on their relationship to nature. Continuing by describing how she was invited to visit them, she recalls this visit as being her first contact with the mining industry. Through the local protest of the Navajo and the Hopi societies in Arizona, she came close to a mining dispute. The term “nature sacrifice” were used in the conflict of Arizona, now lying in the back of her head as she thinks of the current conflict of Norra Kärr. Finally stating that she has seen the mining industry close up, she underlines that it is a global industry rather than tied to local mining projects.

The informant links the past mining conflict in the United States to the current conflict in Norra Kärr. She tells of how the relationship created between her and her new encounters were based on common views on nature and sustainability. As the current conflict unfolds, it brings back memories of the time when she saw local inhabitants in Arizona from the Hopi and Navajo societies protesting the mining initiatives. These memories now become a part of how she reflects on the current situation, as a conflict of similar nature. In stating that it is a global industry she links the both conflicts together. As such, they should not be understood as separated events but rather as parts of a whole.

There are evident differences between the past conflict in Arizona and experienced threat of the current conflict in Norra Kärr. The former has the dimension of being a part of a larger sequence of events with the colonial American history, and the crimes against the native population in north America. This is a significant difference that cannot be underlined enough, since it put the former mining conflict in light of another history than that in the region of Norra Kärr. Angelica tells of the similarities she sees between them, being a shared understanding of human-nature relations. Using the term nature sacrifice to describe the outcome of mining projects, this is what she fears would be the result, should the mine in Norra Kärr become a reality. The informant makes no difference between a coal mine and the extraction of REEs. No significance is given to the former product being a known cause for greenhouse gas emissions, while the second is thought of a solution to decrease dependency on

traditionella Hopi och Navajo-indianer försökte få stopp på. Så där blev jag jätteinvolverad och åkte dit flera gånger [...] och allt jag kan tänka när jag tänker på Norra kärr är vad de säger i USA ”nature sacrifice”. Så. Jag har sett dom sidorna av gruvnäringen. Den globala gruvnäringen ska jag säga, för den är global. De verkar inte bara på en liten yta.”

coal and oil. The threat to nature is considered the same, focusing on the possible consequences in the area of interest, while leaving the value of the products that would be the result of such a project, out of her reflection upon it. The sole focus is on mining and the mining industry.

Returning to the understanding of time being temporal, this passage shed light on how the past, present and future are entangled. Her past experiences of mining when coming in contact with the local conflict in Arizona, turns into a frame that creates an understanding of the current mineral conflict in Norra Kärr. That way, the past is in the present in a kind of continuum movement: she tells of how she returns to the phrase nature sacrifice again and again. Being-in-the-world, is conditioned to being with others (Heidegger 2004, p. 127). In the shared experience of nature, the new encounter became part of her lifeworld and thus, are with her in the present through that experience. The previous encounter in turn, shapes an idea of the imagined future, as she asks herself if her home area will turn into a nature sacrifice. She continues:

“What’s left after they’re [the mining corporation] done, is a moonscape”.¹²

A moonscape could refer to the landscape on our moon where no life is detected. It also functions as metaphor describing an area that has been submitted to bombing. The recollection of the term nature sacrifice and the reference to the moonscape being the envisioned outcome after mineral extraction, together create a catastrophic image. Previous ethological research has shown how motifs evident within the narrated stories of extreme weather events as a result of climate change today can be traced back to the discussion on the theodicy problem in 18th century. Voltaire’s thinking on the earthquake in Lisbon 1755 became the catalysator for reflection on God’s defiance. Elements of these discussions are part in a present disaster-discourse (Kverndokk 2015 pp.11-13). The way of understanding mining as resulting in local destruction, can be understood as examples of how this disaster-discourse exists beyond narrated media stories, creating an understanding of imagined futures in climate change discourse. The term sacrifice has deep religious connotations that has been traced down within western thought as a way of explaining catastrophic events. This description illustrates how it is part of a narrative for understanding current mining conflict.

The informant describes how she shares the view on nature with her new contacts within the Hopi and Navajo societies in Arizona. She also expressed how the mining conflict becomes integrated in her thoughts on the events in Norra Kärr. The sequence illustrates how

¹² Det som blir kvar när dom [gruvbolaget] är klara är ett månlandskap.

transnational identification takes form, creating transnational practices of intersections, consisting of shared understandings of nature, and personal experiences on local protesting.

3.3. Summarizing discussion

This chapter has addressed local views on sustainability and how they can be understood. Sustainability and the supposed unsustainability of mineral extraction is addressed using examples in the local area containing historical settlements. The understanding is also shaped through the everyday encounter and personal relationship to the area through professional agriculture. New experiences through everyday encounter and the personal experience of moving to the area of interest, as well as transnational identification and collective memories also form an understanding of sustainability. The process of going from being regarded as striving towards sustainability, to now feeling excluded and considered as part of a movement with opposite intentions were analyzed in relation to how sustainability, climate change and nature are concepts that continuously are reformed and given new meanings and associations. Sustainability is in this chapter understood in relation to the local area's natural preservation, climate change as a global concern and social sustainability, where local concerns for livelihood is entangled with global political and financial interest in mineral concession.

When addressing conceptions of sustainability, several temporalities are traced in the material. Thoughts on imagined futures return continuously, sometimes expressed in catastrophic terms with words such as eternal destruction and nature sacrifice, in turn demanding a new moral imperative. Climate change impact on the future is associated with the cultural and narrated concepts of crisis and risk, and explain why the invitation to be a part of a movement that promised a positive change, made informants want to listen to the mining corporation. The role immediacy as a temporality plays within the anti- mining movement is also evident in relation to climate changes possible future effects on local environment.

The past becomes entangled with the present which motivates political protesting. Here, the past is the area's cultural and historical past, functioning as reference to a time stretching far back, reminding one of the believed shortsighted solution that mineral extraction can offer. The past referred to is also the personal past containing family history tied to the area, as well as past encounters with similar conflicts, or experiences of previous conflict of similar nature in the area. Past, present and future are therefore existing in parallel in shifting ways,

together forming an understanding of the mining projects and sustainability. The disbelief in the sustainability of mineral extraction is explained through temporalities revolving around it being short-term in relation to how far the future stretches. Instead, immediate social changes are suggested as a solution. At the same time, natural preservation functions as another climate change temporality, suggesting that the two are entangled within the protesting movements.

Local protesting result in the renewal of community centers, where they now address local concerns with a global dimension. As such, they become examples of how traditional societal institutions adapt to a present time, increasingly marked by globalization. The mining conflicts becomes an example of how corporate initiatives for reducing greenhouse gas emissions as an answer to climate change influence regions in term of social sustainability. Global concerns generate local responses, as they are adapted to current societal issues. It thus turns into conflicts where the mining projects is redeemed a threat both to social and environmental sustainability in the areas of interest.

4. In the land of laws

The mineral act allows for governmental interest through the national interest in rare elements, to be superior to the land owners' jurisdictional right to their land. Instead, other factors than personal right to private land are of relevance when objecting to mining establishment. Reoccurring in the material are the informants' adaption to language and certain issues when raising appeal in different stages in the mining establishment process. Since the participants' personal concerns sometimes are not considered legitimate reasons for appeal, such as family heritage, historical and cultural values or decreased income, they were adapted to the regulations set in specific laws.

The nimby-phenomenon plays in many ways a central part within the two local conflicts. NIMBY is an acronym for "Not in my backyard". Several informants commented on the phenomenon when reflecting upon alternatives for mineral extraction, and how local protesting are depicted in media and by mining lobbying organizations. The nimby-phenomenon has previously functioned as an explanation model for local objection to societal change, and is therefore addressed in this chapter. How does the informants navigate in relation to the nimby-phenomenon? How is it visible in the material? And, does it become visible in the reflections by the informants as they address current legislation and regulative tools?

The local initiatives of opposing mineral extraction have developed a set of tools for protesting, that can be taken into consideration within legal processes. These include stretching the importance of Natura 2000 as an EU-initiative and the result from Natural Inventory, as well as seemingly small details on the plans laid forth by the mining companies in their description of the projects. Such details concern for example how the mining corporations plan the storing of residual waste, or the specific spot for exploratory drilling, as stated in Chapter 2. This chapter address how the informants reflects upon legislative and regulative tools, as well as thoughts on current legislation and regulation. The case of Norra Kärr is accounted for, as it is referred to by several informants throughout the material.

This chapter will begin by addressing the nimby-phenomenon, followed by an account of Natural Inventory as a mean for protesting. The chapter continues with an account of the case of Norra Kärr and Natura 2000. After that follows reflections on the experienced

lack of legal protection for landowners and local inhabitants in general, ending with a summarizing discussion.

4.1. The Nimby-phenomenon

NIMBY is an acronym standing for “Not in my backyard”. Previously used within scientific literature as a possible explanation model for local development disputes, the nimby-phenomenon is described as phenomenon where local inhabitants welcome societal change in a direction considered morally correct but, when these social changes affect them personally in the everyday, protest the change. Instead, civil society argues that the consequences should be visible “somewhere else” (Burningham 2000, p. 55). The acronym has functioned as an explanation model for local protests to societal change where it has been suggested that the critique holds unsubstantiated arguments based on selfish motives. Since the phenomenon of local inhabitants protesting against change has been considered as a blockage towards needed development, studies have strived to find ways of understanding, and through that, overcoming, the phenomenon. The reasons for the nimby phenomenon’s existence have been researched primarily out of two explanation models (Burningham 2000, pp. 56-57). The first one claims that NIMBY is the result of an emotional and illogical response to the issue at hand, suggesting that there is a lack of knowledge leading up to the dispute. The possible solution suggested would then be to educate or to ignore the protests, claiming they are in the wrong. The second suggests that NIMBY is a result of selfish motives where larger societal concerns stands back in favor of one’s own personal and local reality.

In this study, the phenomenon is not used as a way of explaining local protesting. Instead, the main interest lies in the question of how the informants navigate in relation to it. What strategies are used to argue their standing point? How do they express what it means for them to be associated with its meanings? This section continues by accounting for arguments that could be considered as being the result of the nimby-phenomenon. The ambition is to offer alternate possible ways of understanding them.

In the following quotation, Anne accounts for how the argument has been expressed to her in discussions on the mining-project in Österlen.

We are pushed in to this corner. That it is a moral duty as a citizen to uphold your land. The whole NIMBY-argument. And how does one argue yourself out of that? If Skåne can help to save the world. And create job opportunities. And we develop the mining industry. And all the new technology! That will be exported to other countries where they have a need, and in that way, we save poor children. One can push different buttons, and from that, there is no escape. You can't come out from it. If I say "oh ok, so you want Kobalt from Kongo? The filthy Kobalt industry, where children die? But you don't want a mine in Sweden? What kind of human are you?". And what can you respond to that? Then you can't... no matter how you argue, you can't get out because you have to defend yourself. You can't have a dialogue.¹³

The informant describes how she feels pushed into a corner; and when debating mines in the local area an argument reoccurs where it is argued that she is obligated to accept mining. She continues by reciting all the positive outcomes suggested: A chance to "save the world", while creating the conditions required for new green technology, and increased job opportunities in the local area. Claiming that it isn't possible to argue against such stands, she continues by accounting for what the supposed consequence not allowing mines in Österlen would result in: the continuing in exploitation of child labor in other countries, putting their lives at risk.

Several passages were expressed with irony, such as the arguments recited on the many benefits with a mine in Österlen. The irony functions to express how she thinks the arguments concerning mineral extraction as a possible way of saving the planet, the trust in new technology and the created job opportunities, are not in fact based on a true premise. When ending with stating how there can't be a discussion, she does not try to address the arguments recited. Instead, she points to how impossible it is for her opposing mining when such a stand automatically results in the only alternative in a dichotomic argumentation: if you are not positive to a mine in Österlen, that means that you are willing to scarify children in other countries with less of a legislation in term of human – and environmental rights. She does not

¹³ Vi pressas in i det här hörnet. Att det är en moralisk plikt som medborgare att upplåta din mark. Hela NIMBY –a argumentationen. Hur argumenterar du dig ur det? Och Skåne kan bidra till att rädda världen. Och skapa arbetstillfällen. Och man utvecklar gruvbranschen. Och all den nya teknologin! Den exporteras till andra länder där man har behov och på det sättet räddar vi fattiga barn. Man kan trycka på olika knappar och därifrån kommer man inte ut. Om jag säger till dig "jaha, så du vill ta kobolt från Kongo? Det smutsiga, där barn dör? Men du vill inte ha en gruva i Sverige? Vad är du för människa?" Och vad säger man då? Då kan man. Hur man än argumenterar så kommer man inte ur för man måste förvara sig. Det blir inte en dialog

consider this to be the only alternative however, and the irony functions as critique to how she claims that the public discussions are outlined.

The informant describes how they can't have a dialogue since the premise assumes that we need the technology, the metals must be found, and that they must be extracted through mining. Arguing that it is a question of moral, it suggests that there are no alternatives, leaving the informant with feelings of frustration. Returning to the concept of differing horizons of understandings, this quotation suggests that different experiences and knowledges result in difficulties meeting in a discussion. As discussed in previous chapter, the understanding of sustainable futures within the local movements contain several shifting temporalities intertwining. Rather than suggesting mineral extraction as way forward, a combination of local natural preservation and degrowth is proclaimed. The informant's argument is based on perspectives where natural preservation play a central part. None of the premises in the argument stated above address these matters, and the informant feels pressured in to a corner she can't escape. Recognizing that such a position would provide with insufficient grounds for opposing the mining project, the informant express frustration over a situation where she is accused for being unethical and inhumane, when stating that the question "what kind of human are you?" becomes one of the reactions to her stand.

Returning to the concept of *Gewesenheit*, were the accumulated experiences of one's past leaves you with the possible view one can have of the future, this example functions as an illustration of the impossibility to meet. The informant has the experiences as described in previous chapter, of meeting with local inhabitants and farmers informing her of the possible consequences of mineral extraction. She sees the risks that it would become impossible to farm the land and that food production which the country is dependent upon might not be possible afterwards, as well as the risk of water contamination. In the previous chapter, the new moral stand suggesting degrowth was addressed as part of a discourse on environmental concern. Here, moral is demanded of the informant as her humanity is questioned. As Anne considers the arguments being false and that the suggested solution in reality would destroy the natural environment as well as increase climate risks, differing horizons of understanding suggest it to be impossible to meet. She does not sign up to any of the premises in the argument. However, that is not the case in the following quotation from Marcus:

What we [in the organization] reacted to was this false contradiction. Because the fact is that the mining industry and the battery-industry, as long as the price is low and the availability is good, are happy to buy cobalt from Congolese child workers. The price would rather go down even more, should we open mines in Sweden. Because the availability increases. So, there is no guarantee that they stop abusing children in other countries just because they open up a mine here. And if they had some kind of moral courage and a real... I mean if they *actually cared*. Then they would do that through their buyout and say "We only buy metals from you if you can live up to these and these terms and conditions". But no one says that. [...] And as soon as the price goes up, other alternatives are put forth [...]: the new models of Renault electric cars don't have any REEs in their motors [...] So, we are really doing the environment a favor. By keeping the price high, other environmentally friendly alternatives will be created.¹⁴

Marcus refers to the conflict of interest as a false contradiction, adding arguments that he believes illustrates why that this. If the mining industry were genuine in its concern for human rights, why do they not demand that child labor would be stopped through their buy out of the metals? Suggesting that the concerns are not in fact genuine, he leaves the reason why that is, unanswered. Marcus then describes how the increased price for the metals on the market result in the development of new green technology, not dependent on REEs, drawing the conclusion that the local environmental organizations is actually doing nature a favor rather than the opposite.

In contrast to Anne, that criticized the idea of technological development being a solution to the environmental crisis, Marcus does not argue for an alternate solution and does not describe a possible development such as degrowth. That technological development is needed for diminishing negative environmental impact is thus left undisputed. Instead, he

¹⁴ Vad vi reagerar på är den här falska motsättningen som skapas. För det är ju faktiskt som så att gruvindustrin och batteriindustrin, så länge priset är lågt och tillgängligheten är bra så köper de gärna från kongolesiska barnarbetare. Och priset sjunker ju snarast, om vi öppnar gruvor i Sverige. För tillgången ökar. Och hade man någon som helst kurage och verklig .. att man *verkligen brydde sig* om hur förhållanden var i de andra länderna, då skulle man ju göra det genom sina uppköp. Säger "vi köper bara metaller från er om ni klarar de här och här villkoren". Men så är det ju ingen som säger. [...] Utan det här är en falsk propaganda för att tvinga fram gruvverksamhet på fler ställen. för så fort priset stiger, så kommer ju alternativ fram[.] De nya modellerna av Renault elektriska bil har inga jordartsmetaller i sina motorer. [...] Så där gör ju vi miljön en tjänst. Genom att hålla priset högt, så kommer fler miljövänliga alternativs kapas.

questions the need for REEs in that process. However, they both claim that the mining industry doesn't offer a sustainable solution for the reduction of greenhouse gas emission, although with different arguments and from different perspectives. Anne argues that there is no way out from a discussion where the alternatives are left to either mining, or risking the loss of job opportunities, the environment and people's lives. Marcus however, seems to have found an answer to this question by turning the argument around. Sustainability for Marcus becomes a discussion how to use the market-driven economy to his advantage, arguing that the high cost for REEs as a result of them postponing the establishment of a mine in Norra Kärr is actually resulting in sustainable development rather than the opposite.

The argument given by Marcus argues that mineral extraction in Norra Kärr would result in further exploitation of the social unsustainability in other countries. In this way, protesting mineral extraction also becomes a stance for social and environmental sustainability. How social and environmental sustainability functions within the protesting movements was also addressed in the previous chapter, as inhabitants that hadn't previously engaged in environmental issues involved in the conflict out of concern for the local area. In the argument, it is evident how the informant balances the local mining issues with the global mining industry. The question of social and environmental sustainability stretches beyond the immediate geographical closeness. This illustrates how, as the world becomes smaller from globalization, this forms an understanding of how sequences of events are interlinked. As accounted for in the section on previous research, involvement in an issue on a local scale among a few, might motivate the formation of larger commons for increasing environmental and social sustainability (Vallström 2014, pp. 207-208). The quote above can be seen in the light of this possible outcome: an example of how local concerns creates a linkage over physical distances, where environmental sustainability and mineral extraction could motivate another governing of common resources.

The so-called phenomenon of the third interlocutor suggest that during interviewing, informants might answer to questions not asked by the interviewer. It becomes a way of refuting ideas and descriptions attributed to the group that the individual represents (Pripp 2001, p.100). The result becomes that of the felt presence of a third interlocutor that the informant answers to during interviewing. The sequence above illustrates how the informant strived to offer a positive image of the movement that contradicts the expected negative perception of the movement being selfish, only seeing to its own regional interests. As the nimby-phenomenon suggests that the objection to local development is based on lack in

knowledge or selfish motives, the informants strive to reject this notion by answering in a way that shows concern for the issue of child labor, knowledge of the need for green technology, and the complexity of the issue at hand.

Lily addresses the nimby-phenomenon in another way. During our conversation, she reflects upon how climate skepticism is attributed the resistance movement.

I feel, that the debate can become so warped, that we are deemed as climate skeptics, while the basis is so very unstable. There is nothing that says in their agreement that they will use Vanadin for car batteries. Or even that such a production would take place here in Sweden. It might as well end up in China.¹⁵

The informant describes the discussion as warped or twisted when the movement is regarded as a symptom of climate skepticism. She states that the agreement put forth by the mining corporations doesn't contain any information that suggesting that the Vanadin would result in local battery-industries, or that it would be used for that purpose. She continues by explaining that the lack of writing in the agreement means that the metal could be exported to China.

Here, the basis of the argument is deemed unsubstantial, since it is considered based on false assumptions. The agreement doesn't contain the promise that the metal would be used within the green industry. Would it end up in China, it would just become a part of an industry responsible for a large part of carbon emissions. Therefore, the mining project might result in an increase of carbon emission and a negative development in relation to climate concern, rather than the opposite. As in the previous quotation from Marcus, knowledge functions as a way of questioning selfish motives or lack of knowledge as the reason for their stand in the local conflict. Here, that knowledge contains information on the writings in the agreement. The passage suggests that knowledge of the details the specific issue result in questioning the attributed climate skepticism. At the same time, this argument implies that if the agreement stated that the mining project would result in a local battery-factory and would be used within the car industry, she would understand why that argument would be of relevance.

¹⁵ Debatten kan bli så himla skev, känner jag. Att vi pekats ut som klimatmotståndare, fast underlaget är så himla svajigt det finns ingenting som säger i deras avtal att de kommer att använda vanadin för bilbatterier. Eller ens att en sådan eventuell produktion kommer att ske här i Sverige. Det kan lika gärna hamna i Kina.

Both Anne, Marcus and Lily addressed NIMBY and climate skepticism in a direct manner. The chapter will now continue by accounting for passages in which local interests and responsibility in a global context is addressed. Returning to the interview with the Abbess in Österlen, she answers the question why they chose to involve themselves in the mining conflict the following way.

It is the second time that we are involved in this kind of projects because they reoccur from time to time. And it is... fundamental. The role of the Abbess is to make sure that the monastery isn't exposed to threat or danger. That is one reason for our involvement in this conflict. Our own existence. And our home regions survival.¹⁶

Describing how this is the second time that they as a monastery are involved in local environmental disputes, she states that these issues reoccur. This is the second time that the monastery is involved local disputes of a similar nature. She expresses two reasons for their involvement: the monastery's existence and the survival for the region that they live in.

Here, it is evident how the collective memories, as addressed in the previous chapter, serve as a way to form regional identification. The struggle against that which is perceived as a threat to their existence becomes unifying, in the sense that they, as part of this movement share past experiences with others in the region. Describing it as fundamental leaves little room for alternatives. It is a question of existence or not. The main reasons for getting involved in the local dispute are personal and concerns in the immediate regional closeness. The informant fears that the mining project would result in it becoming impossible to continue living in the area, and for the region to survive. Being a region with agriculture as a vast part of the landscape, the possibility to continue with food production, thereby maintaining social and environmental sustainability also functions as a primary reason for involvement. The nimby phenomenon has been suggested to be the result of selfish motives. However, these arguments can be understood as expressed concerns for the area's social sustainability and future.

¹⁶ Det är andra gången vi är engagerade i ett sånt här projekt för de dyker ju upp med jämna mellanrum—och de e ju..grundläggande. abbedissans roll att se till att klostret inte utsätts för hot eller fara. Det är klart att ..gruvdrift här skulle omöjliggöra för ett kloster att finnas Det är väl ena grunden till att vi har engagerat oss. Vår egen existens. Och vår hembygds överlevnad.

Within Heideggerian thought, the form of existence that is considered most close to our being is that which is within our reach in the average everyday (Heidegger 2004, §14, p. 66, p. 94). Through an understanding of the average everyday of being-in-the world, it is possible to grasp how the world comes to be for us. What is of concern for the Abbess, is the survival for the local area and the monastery. Thus, it expresses a concern for the region existing within the everyday being. Rather than explaining this idea from the basis of selfish motives, caring only for oneself, one can begin at the other end. The understanding of the surrounding world (*Umherum*, in Swedish *omvärld*) does not include a meaning as space, prior to experiencing it (however meaning in other aspects of the word). The outer world becomes an imagined reality. To care for the experienced world, being-in-the world, is then to care for the lived reality. The only reality, and thus, the world. Concern for local survival can therefore be understood in the light of how our *In-der-Welt-Sein* is constituted, how the world comes to be for us. The dichotomy between the regional and selfish motives on the one hand, and altruistic motives in concern for the global on the other, then becomes irrelevant. It says nothing of the experienced world and the informant's horizon of understanding. Concerns for a non-experienced world in the end become a concern for one's own world. This, since the thought reality of the world not experienced always is a result of one's own horizon of understanding, ascribed to that not experienced. In imagining a place where I've never been, it will always be an imagination based on previous experiences. As I then visit the place for the first time, it will not be the same as the place I imagined. Concern for survival can therefore be understood as a concern for existence only.

That agriculture plays a significant role for the area's identity is evident as she later continues by stating how she sympathizes with the local farmers already struggling financially:

Perhaps it would be different if they [the farmers] got some kind of financial compensation. For them drilling on their land. But they don't.¹⁷

¹⁷ Kanske skulle det vara annorlunda om de [bönderna] fick någon form av kompensation ekonomiskt för att de provborrar på deras mark. Men det får de inte.

Here, the Abbess suggests that the reactions towards the project might be another if the farmers were financially compensated for the effects that the project has, and would have on their lands, but that it isn't so.

The question of financial compensation is addressed by several informants. Therefore, it seems that protesting against the mining projects does not always arise solemnly out of environmental concern. It is also a question of risking the livelihood, therefore wishing for financial compensation for upholding their lands to the mining project. Wishing for financial compensation could be understood in the light of the farmers fear of risking that their lands would be negatively affected. She continues:

It is not the state that is responsible for these plans. It is the companies. And their risks analysis is... You can't take them seriously. If it was the state that were responsible [for mining], perhaps the reactions to the projects would be different. You would trust them in another way.¹⁸

The informant describes how the company's responsibility for the mining project means that they lack necessary precautions in their risk analysis. This, she believes, would be different if it was the state rather than singular companies that were responsible, which, she suggests, might create a feeling of trust between state and civil society during the mining process.

This passage addresses the critique previously traceable where there exists a mistrust in relation to the company due to its financial interest as a main reason for extracting the metals. Would it have been the state that was responsible, this informant believes that there would be other legislations and the local inhabitants would be less critical towards the mining project. The trust that authorities would treat the mining projects another way that would feel more secure is not shared by all. Sofia lives next to Vättern in a small town. She addresses her view on governmental power and the mining industry the following way:

¹⁸ Det är inte staten som är ansvariga för de här planerna utan det är ju gruvbolagen. Och deras riskanalyser är... du kan inte ta dem på allvar. Om det var staten som ansvarade för gruvdriften så skulle reaktionerna på projekten nog vara annorlunda. Det skulle finnas en tillit på ett annat sätt.

In Sweden, people trust authorities. Not one political party has been critical to mineral extraction. They even want it to become easier to open a mine.¹⁹

Uncertainty is a recurring topic. The experienced uncertainty result in a mistrust toward the project. The motives for involvement in the local dispute are, as we can see by the previous examples, sometimes out of concern for personal and regional interest and survival.

Sustainability transforms into a question of social sustainability, in the sense that it concerns financial sustainability for the local inhabitants and possibilities to continue living and farming in the areas. Knowledge of the projects where the participants have closely read the material from the mining companies, and understand the regulatory process of mining establishment, results in a critique. At the same time, the awareness that the NIMBY-phenomenon is attributed to the anti-mining-movements evokes feelings of need to distinguish oneself from the phenomenon. Therefore, the informants strive to demonstrate knowledge of the mining process, the projects, as well as how these regional conflicts are a part of a larger global concern.

4.2. Natural inventory as a tool

In the application for processing concession, the mining company must include an Environmental Impact assessment. Natural Inventory is part of this assessment. The results from the natural inventory, as well as the mining company's appliance, are public documents. Therefore, the results of the natural inventories can also be used by the local organizations and private land owners in order to appeal the mining projects. In Norra Kärr, the natural inventory stated the areas importance in obtaining vulnerable ecosystems and endangered species, containing pastureland, meadows and fields. Together, several local municipalities, the County Administrative Board, private landowners and local organizations submitted a written opinion to The Mining Inspectorate. It concerned the experienced deficiencies in the Environmental Impact assessment provided by the mining company regarding the protection of Vättern, and

¹⁹ Människor har en tilltro till auktoriteter i Sverige. Inte ett enda politiskt parti har varit kritiska till utvinning av kritiska mineraler. Tvärtom, de vill till och med göra det lättare att öppna en gruva.

detected vulnerable ecosystems reported in the Natural Inventory. Commenting on the result, Violet stated over zoom that:

But these are slow processes... Species people may have never heard of. I mean, they don't contain any swift solution to climate change. Not if one by solution mean a way to continue like business as usual. But what is the alternative to co-existence?²⁰

Violet expressed concern that the result from the natural inventory wouldn't affect the decision regarding mineral extraction in the area. The reasons given are the pace in which the processes of natural preservation move. She suggests that the rare species detected within the regional ecosystems wouldn't make a significant change, since they might be relatively unfamiliar, and continues by stating that the findings don't hold a fast solution to climate change. That is, not if the solution offered wouldn't allow for the possibility of continuing in the same way. What "business as usual" refers to is not explained. Instead, the informant asks the question what the alternative to develop a way to co-exist with nature would consist in.

It turned out that the findings of the endangered species, together with the detected deficiencies in the environmental impact assessment provided by the mining corporation, was enough for the Supreme Administrative Court. The governmental decision to approve mining lease in Norra Kärr was overruled, and demands for a report on the mining corporation's planned action to prevent environmental destruction became the condition for an allowance for mineral extraction. Instead of putting forth a new report, the mining company decided on a whole new plan for mineral extraction in Norra Kärr.

When mining companies are granted an examination permit, it can be prolonged for fifteen years, giving the mining company exclusive right to the area during that time. The judgment from February 2016, as well as the whole case has been widely referred to as "the case of Norra Kärr" (*Norra Kärr-målet*). The case became precedential, turning it into a strong incitement for ruling against mining establishment if the Environmental Impact Assessment is found to be incomplete. As a result, there is an ongoing political debate where a majority of the

²⁰ Men det här är ju långsamma processer... Arter som folk kanske aldrig har hört talas om. Jag menar, dom erbjuder ju ingen snabb lösning på klimatförändringarna. Inte om man med lösning menar ett sätt att bara fortsätta som vanligt. Men vad har vi för alternativ annat än att samexistera?

political parties suggest the need to overhaul current permit examination in order to make it easier to establish a mine in Sweden (TT, 2022). Since the examination permit stands for a long time, and given ongoing political debate in favor of making the process prior mining establishment in Sweden faster and easier, the concerns that the informant express in the quotation above are easy to comprehend.

Safeguarding as part of environmental awareness is not new. In Sweden it has a long history, stretching back to 1850 resulting in the founding of organizations such as Naturskyddsföreningen. Today, safeguarding often revolves around the protection of vulnerable ecosystems and endangered species. Often are these two related. As the quotation above explains when mentioning the endangered species in the area, they are processes taking more time, standing in sharp contrasts to the swift change that the term revolution implies. As such, the temporality of cyclical motions within ecosystems stands in sharp contrast to that of the swift solution served by green technology. At the same time, climate change temporality within the degrowth movement stretches the importance of immediacy as a response to the ongoing crisis. This passage therefore supports previously addressed temporalities within the local movements suggested in this study: the slow pace of nature preservation and the acute response invoking degrowth as a necessary way forward. In order to define one process as slow, it must be contrasted to that which moves in a faster pace. Striving for the preservation of vulnerable ecosystems and endangered species, one cannot alter time. Of course, there are ways to protect them, as the informant states when referring to the results from the Natural Inventory. However, if the intention is to protect these ecosystems, one has to submit to the cyclical, natural, time, understood by Koselleck as independent from human created temporalities (Koselleck 1979, pp. 37-38). One cannot stress enough the seasons and, consequently, the pace in which the species reproduce. The time taken for this process is here deemed slow, thus becoming culturally situated within climate change discourse and contrasted to the swift solution offered by the mining industry.

Natural inventory is here an asset in protesting against the mining project. In Chapter 2, exploratory drilling was referred to by another informant as “a free inventory”, there functioning as a critique of how nature is considered as merely an asset. In this passage, it is evident how the local organizations have found a way to use the societal phenomenon of measuring worth in their own cause in striving to prevent the mining project.

The quotation above shows a concern regarding what that in the end will be considered to hold the most satisfying answer: the response perceived as immediate in the

extraction of rare earth elements, or the slow processes of conservation. This worry in turn results in a fear of slow processes becoming subordinate when in search for a solution to negative climate impact.

4.3 The case of Norra Kärr

The case of Norra Kärr is shortly addressed in previous section but deserves a deeper discussion. What happened in Norra Kärr, leading up to the appeal to the Supreme Administrative Court? What role does it have when reflecting upon the continuing conflict today? In Norra Kärr, all begun in 2012 when Tasman Metals Corporation was granted processing concession for exploratory drilling. The mining organization sent in an application to the Mining Inspectorate (MIS), informing of their interest in extracting REEs from the mountain. The findings in Norra Kärr have been known for some time. The new interest in the metals can be explained through the global political discussion concerning the dependence on Chinese export. The Mining Inspectorate's approval of exploratory drilling took place in 2013. During the same period, the local initiatives were formed and got involved in the mining process.

As addressed in Chapter 3, meetings were held in the area's community centers. The local organizations invited speakers that informed local society about their perspective on mineral extraction, European and Swedish legislation and regulations for natural preservation. Several informants described that they experienced an unwillingness from the mining corporations to include civil society in their plans. The local organizations weren't allowed to see the whole Environmental Impact Assessment (EIA) , and when demanding it from the County Administrative Board (CAB), several sections were marked with a black pen by the mining company, making them impossible to read. Local organizations made an appeal against the decision to allow mining in Norra Kärr to the Environmental Court where they lost. They then took it to the Government. The Government decided in favor of the mining company, stating that the EIA was satisfactory. The local organizations then continued to the Supreme Administrative Court (HFD). HFD overruled the governmental approval, stating that the environmental risks are too great and that the risk of water contamination and extinction of endangered species meant that the mining company had to provide a more thorough account of the mineral extractions possible environmental effect. As stated in the previous section, they did not. Instead in 2021, they put forth a new project for metal extraction in the area. Looking

back, several informants reflect upon the sequences of events. The following quotation is from Jacob:

I *do* think, that the biggest thing about all this is the fact that here, the authorities and our government approved a proposition: to have a mine next to Vättern that even the mining company itself now sees is environmentally hazardous. That it can't be done. But it hasn't been presented like that. But I do think that it...and it...[laughs] That they should be *grateful* then, that there are a lot of people doing voluntary work, protecting these irreplaceable natural values.²¹

In the quotation, the most important insight is considered to be that a project, which later in highest instance was declared lacking in terms of accounting for possible negative environmental effects, at first was approved. As the governmental approval prior to the decision in the Supreme Administrative Court proved incorrect, the authorities and the mining company can make an incorrect assessment. Describing that this, however, wasn't how the incident was portrayed afterwards, he doesn't describe how it was reported. Instead, he continues by stretching that a feeling of gratefulness should be expressed towards the civil society for voluntarily working for the protection of natural values. In stating that they should be grateful for their protection of irreplaceable values, this suggest that the question of mineral extraction in Norra Kärr is of concern not only in the present, but also for the future. The informant stresses that they were right all along, and thus that the critique of their opposition being based on lack of knowledge and an emotional and irrational reaction, were proven to be inaccurate. Emphasizing that they worked voluntarily during the legal process, he underlines how the participants worked in their free time. It indicates a critique of the approval to begin with. Local inhabitants wouldn't have to use their spare time to protest the mining initiative, had they made a correct assessment to begin with. The sole reason for the local protesting is described as being the concern for the local environment.

²¹ Jag *tycker* ändå att den stora grejen är att här har myndigheter och den sittande regeringen godkänt ett förslag: Att ha en gruvverksamhet intill Vättern som till och med bolaget nu inser är miljöfarlig. Som inte kan genomföras. Men det har inte presenterats på det sättet. Men det tycker jag att det ... och det [skrattar] de ska vara *tacksamma* att det finns en massa folk som jobbar ideellt för att skydda så viktiga värden då.

4.4. Natura 2000

The protection of endangered species and vulnerable ecosystems through Natura 2000-regulations illustrates the linkage between local disputes and a larger European context concerning environmental preservation. Therefore, Natura 2000 becomes an effective tool in the local environmental conflicts. Violet tells of the long legal process in Norra Kärr that led up to the demand for a new Environmental Impact assessment, stressing the importance of Natura 2000 legislation for the outcome in the conflict.

We were right all along. Tasman began in 2012[...] And here, we worked together with other environmental movements and together we put a stop to it in the High Supreme Court, but both the Mining Inspectorate and the Government had approved this [project]. They had to go back and get a better Environmental Impact assessment declaring the effects on local Natura 2000 areas. That was the reason. Thanks to the extensive resistance within the local society and from different environmental movements, we have prevented an environmental disaster.²²

In stating that they have prevented an environmental disaster, it is evident how the understanding of the outcome being disastrous is not understood as simply a feared outcome but the only outcome, should they have lost. In this way, the anticipated future was already a reality in the present. Now they have changed the course of the future.

Let's return to the Heideggerian concept of *Augenblick* or moment of Vision, where one anticipates the future by references to the past, leading up to a moment of vision that

²² Vi har haft rätt hela tiden. Tasman började 2012.[...] Och här jobbade vi tillsammans med andra miljörelser då och tillsammans fick vi i högsta förvaltningsdomstolen stopp på det, men både bergsstaten och regeringen hade godkänt detta. Men var alltså tvungen att gå tillbaka och skaffa sig en bättre miljökonsekvensbeskrivning över hur man skulle påverka natura 2000-områden. Det var anledningen. [...] tack vare det här stora motståndet bland lokalbefolkningen och olika miljörelser så har vi alltså förhindrat en miljökatastrof.

results in a choice set free from the past expectations. This quote suggests that the anticipated future and the act of resistance in the moment of vision left the informant with the experience of the future taking another direction. Even if the future yet hadn't occurred, it was already taking place. Since they won in the Supreme Administrative Court, she is left feeling assured that they have prevented a definite reality waiting to happen. In that sense, a future already happening existed in the present, which then changed course.

In Chapter 3, the farmer Anna recalled that climate change is of great concern and impose great risk to her as a farmer. Immediacy as a temporal understanding within the climate change-discourse illustrated how concepts such as risk function to stress the importance immediate response. Here, the word "disaster" works in a similar way. Mineral extraction as a mean for preserving the environment is considered a threat of disastrous proportions. Natura 2000 becomes a tool in the dispute, as the EU-legislation primary function is to maintain natural habitats and biodiversity within the EU in order to attain the set goals within the convention for biodiversity.

Both quotations above address the case of Norra Kärr. As described above, Natura 2000 legislation was central in the legal process. However, the majority of the areas claimed are not Natura 2000 areas. This generates a discussion and concern among the participants regarding the areas not included. It also raises questions regarding the reasons why some areas are protected, while others are not. Elsa describes the area north of the lake Vättern that contain what she considers to be cultural and natural values of importance.

It contains a lot of small-scale farms, and there are special species that feels at home in grazing landscapes. And they would disappear. This cultural heritage from centuries back...There is an area [...] that is protected by Natura 2000. But the neighbor, where the mine is, that [area] is not a part of it.²³

Here, the informant reflects on how seemingly identical areas aren't protected by the same legislation, and that the area that has been claimed by the mining corporation might be at risk.

²³ Det är mycket småskaligt jordbruk och där finns speciella arter som trivs just i betade landskap. Och det skulle ju försvinna. Det här månghundraåriga kulturarvet som finns... Det finns ett område, som heter norra Vättern-branterna som är ett Natura 2000 område. Men grannen, där gruvan finns, det ingår ju inte i det.

Describing with certainty that the cultural heritage from centuries back would disappear as a result of mineral extraction, she stretches the importance of the Natura 2000 legislation as a mean for cultural protection. The legislation is considered to function not only as environmental protection but as a safe keeper for the cultural heritage in the region as well.

Several values are lifted: the cultural history, natural preservation, and protection of endangered species. In referring to a history from centuries back, the historical past is integrated in the present. The distinction between cultural and natural values isn't there, instead the small-scale farming and endangered species have turned into cultural history that stretches into the present. It is its current cultural identity as well. Where the past is in the present, Natura 2000 prevents its disappearance. While the word disappearance isn't as definite as previous temporal references such as eternity, it however suggests that it all will diminish, and that the traces of past and present time may be lost. The imagined future for the area not protected by Natura 2000 is that of vanishing cultural and environmental history. However, this is contrasted to the area protected by the legislation. Thus, the legislation makes possible for the past and the present now existing to be part of the future.

Angelica expresses a similar view of how cultural and environmental values are integrated, as she describes the history on the island of Visingsö where she grew up.

People have lived here long before there where people in Birka. Out on Visingsö, there are tombs from the stone age. Perhaps that's not something people think about, but it is of great importance to people in this country really. This long, long tradition of residency, and that they decided to establish naturally, around the lake [...] Because the water is a prerequisite for everything, and it still are. And that people have forgotten that [...] There, Natura 2000 is completely decisive, I think.²⁴

²⁴ Det har bott folk här nere långt innan det har bott folk i Birka. Ute på Visingsö finns det stenåldersgravar. Det kanske är sånt folk tänker på men det har ju jättestor betydelse för folk i landet egentligen. I sig. Den här långa långa traditionen av bofasthet och att man bosatte sig naturligt runt en sjö. Vattnet är ju en förutsättning för allting och det är det ännu. Och folk har glömt det [...] där är natura 2000 helt avgörande, tänker jag.

The historical reference is made to a past dating thousands of years back. The past is linked to the present and the future as the water as is a continuing pre-requisite for life. Returning to the understanding of our past, present and future being interlinked, this quotation tells of how the collective cultural and historical past is integrated in the present, functions as a reminder of the water's vital importance. Where the previous quotation addressed local agriculture and the continuing life of endangered species, the water here functions in as similar way as a bridge between the past and the present. Natura 2000 is considered to be crucial, as the waters importance are considered forgotten.

The spherical perspective forms an understanding of the regulation's importance, as the informant integrate her knowledge of the area where she grew up with the national history and the present. The personal encounter forms an understanding, while she states that others lack this view of the water, taking it for granted. Her pre-understanding shapes the way she views Natura 2000 as both a protector of natural value, and as a reminder of its importance.

4.5. Protection for the environment – but what about us?

While extensive legislation exists in order to protect natural values or endangered species, the impression that local societies don't earn the same form of legislative rights was expressed by several informants. This understanding is based partly on the Mineral Act, which allows for companies to establish industries on private land. Another aspect is the experienced lack of network or protection in the like of Natura 2000, acting as a support for civil society in local disputes where income, private land, employment, or cultural heritage is considered being at risk.

Brigitte that moved to Österlen from Germany around the millennia, recalls a dialogue she had with a couple that had been living in Österlen for generations:

This tension is an unbelievable burden for us that lives here. I mean, we feel it on the whole body. That “Now, someone is here to drill, and they don't [drill] just for the sake of drilling, the do it for the likelihood of opening a mine” [...] One couple told me that they experience that they are completely rightless. Powerless. They have lands that has been in the family for generations. And then, someone

comes and says “I will drill on your land”. And no matter what they say, their arguments aren’t take into consideration.²⁵

Brigitte expresses a severe emotional stress as a result of the exploratory drilling and the mining process. The informant continues by recalling a dialogue with a couple where they described the feelings of rightlessness and powerlessness when the corporation pursue exploratory drilling on their lands. While we cannot be sure that the recalling of the dialogue is completely accurate, these are still the words that the informant chooses to describe her, and their, feelings.

The exploratory drilling becomes a bodily experience as the informant states how she feels it on her whole skin. It is a physical burden, and in that regard a highly sensuous experience. Expressing the feeling of lacking legal rights, it also suggests an experience of vulnerability. The experiences of the drilling become part of her effective history, where the feeling of rightlessness also function as a reminder of the risk that these felt burdens might continue to exist.

Again past, present and future coexist, shaping physical and emotional reactions to current events. In the present, the drilling generates physical reactions where the activity is felt on the whole body, as a result of the imagined future these actions may lead to. The family history, where the couple has owned the lands “for generations”, illustrates the past in the present, now at risk of not being a part of the future. This quotation also points to the importance of the areas cultural and historical identity of being an important area of agriculture. The informant, not being a land owner herself, recalls the conversation she had with the couple. A conversation, that illustrates the area’s regional identity through the personal experience of the mining project.

Brigitte described how the couple she talked to experienced a lack of jurisdictional rights. This is also what Jacob express as an insight gained during the time fighting the mining project.

²⁵ Den här anspänningen är ju en otrolig belastning för oss som bor här. Alltså vi känner ju det på hela kroppen. Att ”nu kommer det nån som provborrar, de provborrar ju inte för provborringen skull och de gör ju det för att eventuellt öppna en gruva”. Ett par sa de att upplever att de är fullständigt rättslösa. Maktlösa. De har jord som varit i familjernas ägo i generationer. Och så kommer någon och säger ”Jag ska provborra på din mark”. Och oavsett vad de säger så tas ingen hänsyn till deras argument.

It has really struck me during this decade that I've worked with access to justice, that... the smallest copepod in the lake, really have more legal protection, than the people on the shore has. Or up on the mountain. So... that is a bit special, one must say. That we have legislations that... don't consider the local population, or the person's, lives. However, beach grass [...] has a developed support all the way up the EU Court of Justice.²⁶

Jacob has a professional background as a lawyer, which become evident in the quotation as he expresses how he has worked with legal concerns in the local organization for more than a decade. His opinion is that the civil society lack legal protection within environmental conflicts. This is contrasted to the legal support for endangered species, illustrated by an example of beach grass. How come the grass has a greater legal protection than the human standing on the shore? He asks himself. The way he states this supposed fact, with an irony to his statement, works as a way of questioning if its reasonable.

Here, the perspective is on civil society. The experienced absence of legal protection creates a feeling of vulnerability. By describing how people on the shore lacks the protection that the fish in the lake has, the informant creates an image of the local environment where human and non-human co-exist. Civil society is also a part of the environment. However, legal protection is only experienced as given to parts in this shared space. The human experience, how mineral extraction would impact dwelling in the area, he feels, is neglected.

The possibility to co-exist function as an argument for increased legal protection of local society. Ingold suggests through the *dwelling perspective* that place is co-created with those who inhabit it. This is contrasted to the *building perspective*, where place is prior those inhabiting it. In this sense, the building perspective proposes that the world, what it contains, already exist, and that people consciously create it (Ingold 2000, p.153). When understanding the quotation from the dwelling perspective, the lack of protection of those inhabiting the area can be deemed as a critique of the current legislation, not considering that local civil society is

²⁶ Jag har ju verkligen blivit slagen av det under det här decenniet just när vi hållit på just med de här juridiska överprövningarna, att minsta lilla hoppkräfta i sjön, har alltså betydligt större lagligt skydd, än vad människorna på stranden har. Eller uppe på berget. Så att...det är lite speciellt måste man väl säga. Att vi har en lagstiftning som... egentligen inte tar hänsyn till lokalbefolkningens eller människornas levnad. Men däremot strandgräs [...] Det har ett utvecklat stöd ända upp i EU-domstolen.

a pre-requisite for the area to continue being that which it first set out to protect. The legislations are understood to protect parts, not taking into consideration how the area exists through continuous acts of doing. They are erased, as the area is viewed only as a place containing natural resources, not considering the agricultural history, and how small-scale farms sometimes are a pre-requisite for the vulnerable species in the area. The world, then, becomes distinguished into separates: there is the human world, and the natural world containing non-humans. As we saw in Chapter 1, the informant's understanding of the mining project is also formed through everyday sensuous experience with the environment (see chapter 1 on Jacob waking with the water). Dwelling is a continuous activity, where the surrounding nature and the life of the human in it co-exist. However, the legislation is criticized for lacking that view. It is considered formed by ideas sprung out of another perception of the environment where nature and culture within the region of concern are divided.

Lily reflects upon the imagined consequences for local inhabitants in Österlen that are landowners and whose lands are not protected by legislation:

Where there is a lack of protection, their heritage will cease to exist because people will be pulled up by the roots. And their lives won't be as good. Yes, they will be worse off. If they are deported from their roots. That will have consequences, for the psyche, and the area as well, and so on. The way I see it.²⁷

The lack of protection is imagined to result in the human society being uprooted. Being pulled up by the roots, the consequence will be the end of heritage. Describing it as if they will be deported from their roots, this process in turn will have negative effects on their mental health. The metaphor referring to the roots of a life, effectively create an image of a present and a past that will be erased. The quotation holds several temporalities and illustrate how the areas human and non-human population are entangled. The area is a part of their life, as a well as their lives are linked to the area, deep under the soil's surface. This imagined future is further described as having negative consequences for both the area and the local inhabitants: being uprooted

²⁷ De områden som saknar skydd kommer ju inte finnas kvar för människor och hela deras arv kommer att ryckas upp med rötterna, om man säger så. Och man får helt enkelt... sämre, ja sämre liv kan man väl säga. om man liksom blir förvisad från sina rötter. Det påverkar ju väldigt mycket... psyket, området också, osv. som jag kan se det.

means that the memory of their existence will diminish from the area, and in that regard change the landscape. This is also considered to have personal negative effects on the health of those who has to leave both their dwelling place and their roots.

Ingold defines the co-created area of the landscape as a place formed by human and non-human. Temporally, remembering becomes an act not distinguished as an intellectual process, but an act in which the past continuously lives in the landscape: “It enfolds the lives and times of predecessors who, over the generations, have moved around in it and played their part in its formation. To perceive the landscape is therefore to carry out an act of remembrance.” (Ingold 2000 p.198). To reiterate a point made earlier, the lack of legislation results in the impression that the dwelling experience lacks importance, instead submitting to a distinction made between culture and nature. However, this quotation suggests that the process of co-creating the area is a part of an identity where the physical place and human body are entangled.

4.6. Summarizing discussion

This chapter has addressed how the informants navigate in relation to the NIMBY phenomenon, and how legislation and regulation are used within the protesting movements for objecting to the mining projects. This chapter has also accounted for the experienced lack of protection for the civil society, an experience that has been contrasted to the legislation for environmental protection and other species.

The informants concern regarding financial compensation and the supposed (im)possibility of continuing in exercising their profession, is understood as concern for social sustainability rather than a symptom of the NIMBY phenomenon. As several informants shows an awareness of the NIMBY phenomenon and how it is defined, some take great measures in order to distinguish themselves from those attributed emotions and ideas. This was evident as some participants during the interviews answered questions not asked, informing of their knowledge of the projects, the complexity of climate change, and need for alternate models of living. This way, the ascribed selfish motives or ignorance were thought to be contradicted. Differing horizons of understanding results in difficulties to meet in a discussion, where the informants consider the mining project to be a threat to the environment rather than a sustainable alternative. The local resistance movements are thus considered to protect not only the local area but the climate, as well as exploited labor in other countries.

The role green technology is supposed to play for future sustainability varies in the material. While some criticize trust in technological development, others suggest that it may be the way forwards in order to decrease dependency on concession minerals. While some do not question the need for technological development, others argue the need for a new moral imperative where degrowth and co-existence is considered to be the only alternative towards environmental and social sustainability.

Natura 2000 regulations become a way of linking local disputes to a larger social context of natural preservation, and function as an effective tool in the local environmental conflict. This was evident in the case of Norra Kärr, where the environmental impact assessment regarding the protection of vulnerable species and eco systems were found to be incomplete and the mining project therefore had to be postponed. The regulation role transforms into becoming a means for protecting local and global environment and social sustainability. A variety of temporalities are linked to the regulation. It is considered to protect both past regional histories, the present, as well as a protection of the future, as the imagined alternatives are considered to result in environmental disaster and in local history vanishing. The imagined future for the area not protected by Natura 2000 is that of a fading cultural and environmental history. This is contrasted to the area protected by the legislation. Thus, the legislation is regarded as mean to make possible for the past and the present now to be part of the future. The spherical understanding is evident since the water is a pre-requisite for all life, expressed through stories of personal encounter with the area. The temporal time-scale stretches thousands of years back through references to a historical past: the same need for water that made people settle around the lake then still exist today.

While there exists legislation in order to preserve natural values, several informants expressed a lack of protection for human society. The experienced lack of legislation results in feelings of vulnerability and in the impression that dwelling lacks importance. This critique functions as a way of questioning the division between nature and culture. Human society being uprooted is also considered to have consequences for non-human existence in the areas. The process of co-creating the area is a part of an identity where the physical place and human body are entangled.

5. Envisioning another future

Previous chapters have addressed the role everyday encounter, local experiences and differing forms of knowledge's play in forming an understanding of mineral extraction. The study has continued by accounting for how temporal understandings within the climate change discourse influence how mining is perceived, and how legalizations and regulations have functioned as tools for protesting. At the same time, the experienced lack of legal protection for the civil society result in a felt physical burden. A moral imperative suggesting degrowth and a relationship with nature understood as collaboration between species where natural values are taken into a higher regard was addressed in the previous chapter.

The future has previously been addressed in relation to the perceived crisis that mineral extraction would result in for the environment and local populations. A terminology loaded with catastrophic terms such as disaster, eternal destruction and crisis has been used and studied in relation to the ways these concepts function within temporal understandings of climate change. But what possible alternatives and ideas concerning sustainable futures are expressed by the participants in this study? What does the alternative to mineral extraction look like more specifically for them? When asked about their thoughts on the future or alternatives to mineral extraction, many were reluctant to answer at first, saying that it was not their question to answer, and that their focus was the preservation of natural values in the local areas. Responsibility for the way forward towards a decreased fossil fuel dependency was not theirs. However, thoughts on possible alternatives existed within answers to other questions. Often, they came as a comment to critique aimed at the mining industry. These imagined futures are here distinguished into two imagined alternatives: the circular economy as a model for assuring the availability of metals needed in green technology, and increased legislation for protection of the environment.

This chapter begins by accounting for the ways that circular economy fluctuates in the material as a suggested alternative, beginning by giving a short account of what circular economy is. It is followed by an account for the ways natural preservation is argued as the alternative, and how mineral extraction is considered to be the solution within an unjust societal system. The chapter continues by addressing more open thoughts on our dependency on technological devices where minerals are a pre-requisite, among them REEs and Vanadium. The chapter will end with a summarizing discussion.

5.1. Circular economy

Circular economy is a financial system striving to reduce societal resource-usage and negative environmental impact. By minimizing the amount of waste and continuing to keep materials and goods within the market, as well as the usage of renewable resources and systems, the goal is a decreased environmental impact and at the same time a functioning economic system. Central is the circular concept, where products would be used for a long time, then to be repaired and re-used (Confederation of Swedish Enterprise, 2022).

Anne tells of the mining lobbying organization and how the goal should be to gather the metals stored in broken sand that covers mines no longer active. She continues:

The whole circular economy, or re-cycle economy that we called it in the 70s...that obviously have been forgotten now, when they... as a first step doesn't take the lowest hanging fruit, which is waste and recycling. Re-usage, and even this whole idea that if we just exchange oil for metals... that doesn't create either a good climate or a good environment.²⁸

Here, the informant describes how circular economy as a concept is now forgotten when the metal waste already extracted isn't in the system. Waste and recycling are referred to as the lowest hanging fruit. Continuing, she criticizes mineral extraction as being a solution based on the idea that dependency on oil could be exchanged to dependency on metals, a solution that is suggested to have a negative impact on environment and climate.

The past taking place fifty years ago, functions as a temporal reference to a time forgotten where circular economy was an established idea. The impression that it is a concept forgotten is based on the fact that minerals that have already been extracted are not re-used. That the concept has been forgotten here functions as the only suggested reason why these minerals are not in the system. At the same time, she states that there is an idea based on

²⁸ Hela den cirkulära ekonomin, kretsloppsekonomin som man kallade det på 70-talet .. den har man ju tydligen glömt bort nu då när man i det första steget inte går på de här enkla lågt hängande frukterna som är avfall och återvinning, återanvändningen och även den här själva idén att bara man byter olja mot metaller...det skapar ju varken något bra klimat eller någon bra miljö.

exchange that in the end are deemed negative for climate and environment, thereby criticizing the premises within the current financial system. The past becomes tied to the future as she recalls a period when she was younger and the circular economy as an idea was a reality that now is considered to exist in her own present. This thought of future alternative are overseen as a consequence of it being forgotten. Future ways forward thus seem to be that the system again should earn attention, thereby replacing current idea of exchange between oil and concession minerals. Now retired, the informant reflects back on a past when she was working, remembering her own personal past and knowledge and thereby link them to the specific historical and political context in the 70's. As stated in the previous chapter, the idea of climate change and human impact on the climate started to earn attention in Sweden during the same decade. Here, her horizon of understanding based on her personal history create an understanding of a thought future and a solution that lies within change in the present.

Sofia also refers to circular economy as she starts to tell me about a current project initiated by LKAB that strives to re-use rare earth elements, and the new mining project in Norra Kärr. Reflecting upon the future, she states:

We have to start change our lifestyles... basically. And those that consume the most carbon dioxide, they have to change. And if every one of us does something small, and they who consume the most try harder, then perhaps we don't have to open any more mines. Because we already have enough [metals] as it is. And, that we develop other materials that can replace these metals. Because, they will end. I mean, we don't know for how long it will last. Perhaps we will run out in 30 years. [...] And what will we make things from then? If we don't have other technology, or another lifestyle? ²⁹

Sofia reflects on responsibility, as she addresses the differences in carbon dioxide emissions, depending on individual lifestyle. She does not suggest that everyone should change their way of life completely. Instead there is a moral conception suggesting change in relation to the

²⁹ Vi måste ju börja ändra våran livsstil...i stora drag. Och dom som gör av med mest koldioxid, det är ju dom som mest måste ändra sig och om var och en försöker någonting litegrann.. Och dom som gör av med mest försöker göra mer, då kanske vi inte alls behöver öppna nya gruvor, för vi har tillräckligt med det vi har. Och att utveckla andra material för att ersätta de här grundämnena. För att alltså. Dom tar ju slut. Alltså vi vet ju inte hur länge det kommer att räcka. Det kanske är slut om 30 år [...] Ja, och vad ska vi då göra saker utav? Om vi inte har annan teknik eller någon annan livsstil?

amount of emissions the one's lifestyle demands. This way, justice is considered to be that the individual adapts her life in relation to the emissions one is responsible for. If everyone carries their responsibility, we wouldn't need to extract more minerals, since those already extracted aren't in the current system at the moment. Here lies also a thought solution being that of new technological development that would make society less dependent on concession minerals. Referring to the metals being a finite resource, she argues that the only ways forward are social change in terms of a changed lifestyle with decreased environmental impact that demand less metals and technological innovation.

In this quote, Sofia criticizes the metals as a possible way towards sustainable futures, alike the thought expressed in Chapter 2. There, another informant questioned REEs as a sustainable solution, referring to the minerals in the current project in Norra Kärr making EU independent for little more than a decade. Here, the informant claims that the metals will run out, therefore arguing that the solution is shortsighted from a global perspective as well. While not referring to circular economy specifically, the idea that we should use those metals already extracted rather than opening new mines, are in line with circular economy as a concept. "Another lifestyle" could here refer to downscaling, with the alternative being a decreased consumption of goods containing concession minerals.

Marcus continues by telling of recently published statistics, and of the differences between countries as well as within national borders in emission of carbon dioxide. After accounting for the percentage of emissions and how it defers, he continues:

It is a question of justice both internationally as well as nationally [...] And it's also a fact that those who are affected the most by a mining politic that is completely reckless, also are those who consume the least [of the metals extracted]. Like the Sapmí reindeer-herders and us on the country side, and has the least need of flying to New York for weekly shopping, for example.³⁰

³⁰ Så både internationellt och nationellt så är det här en rättvisefråga [...] Och det är ju också som så att dem som i många sammanhang drabbas hårdast utav en fullständigt hänsynslös gruvpolitik, som de samiska rensköterna och vi på landsbygden, det är ju också dom som gör av med minst. Och har minst behov utav att flyga till New York för att veckohandla till exempel.

Marcus describes the mining industry as completely inconsiderate, telling of the uneven distribution of carbon dioxide between societal groups locally, as well as between different parts of the world from a global perspective. At the same time, he says, those that consume the least are those who are the most affected by the mining industry. This point is illustrated by contrasting the life of the reindeer keeper in Sapmi and others living on the countryside to the person flying to another continent for shopping.

If a new moral imperative is suggested in the previous chapter, expressing that the only alternative is co-existence through the inclusion of other species and life on this planet as a whole, this quotation is also based on an argument with moral dimensions, concerning the inequality in consuming the metals of interest. The quotation suggests that the understanding of nature within the current unequal system as being a standing reserve has consequences on the local and the global scale. Differences in the relationship to the environment are mirrored by the examples of the reindeer keeper in Gállok and the people on the countryside on the one hand, and the weekly New York traveler on the other. Where the former is considered to live more sustainable lives, the latter are argued to be the symbol of unsustainable life choices, living of nature rather than with it. Returning to the concept of the enframing of reality, the informant here illustrates differences in the relationship to nature and what it turns into for us through our everyday experiences. Considering nature as a standing reserve that should be within our grasp, this conviction is suggested to uphold inequality where those responsible for the smallest amount of carbon dioxide emissions pay the highest price.

While this argument highlights international and national injustices in the amount of carbon dioxide emissions that they are responsible for, it does not answer for the fact that car batteries as a means for decreasing carbon dioxide emissions is in fact a tool which effectively decreases emissions. That people on the countryside may be affected by mineral extraction does not mean that the same population doesn't use electrical devices where metals are a prerequisite. However, this quote illustrates how the inequality on a global and national scale raises the question of responsibility and consequences for the means taken in order to uphold the continuing of metal dependency.

The informant reflects upon the mineral dispute as an issue concerning experiences. That those taking the plane to New York for weekly shopping aren't as affected by mineral extraction means that their understanding is that of looking at the question from outside. It is a perspective where the globe is a means for extracting that which has a purpose for them, thereby overseeing its possible consequences for the environment regionally and

globally. Referring to the countryside, having an immediate relationship to the surroundings, function as an experience being the result of a spherical perspective. Here lies a critique of commoditization of nature, or what Heidegger refers to as a view of nature being a standing reserve for supposed needs.

5.2. Sustainable present and sustainable future

Previous chapters have addressed the imagined future if mineral extraction would be granted in the areas. Therefore, they are loaded with negative connotations. But how are sustainable futures addressed in the material? The impression of unwillingness to decrease the usage of goods containing concession minerals were addressed by Anne as she recited some questions asked as she argues against the mining project in Österlen.

“But we *need* to do it.” “You also have a smartphone” “But what should we do then?” We contaminate the groundwater, we contaminate the lands. By digging it up. But we want it. And we have it. And the whole development goes in that direction. So where do we get it from? And we don’t not want to compromise when it comes to modernity.³¹

Anne begins by accounting for questions and counterarguments that she has been asked. She continues by stating how current way of life results in the contamination of lands and water. The dilemma is suggested to be the feeling of need to have a certain life. The smartphone here illustrates this supposed need. Continuing by saying that this description is in line with current development, she asks rhetorically where we can find the metals that this need demands, since we are not willing to give aspects of modernity up for securing a sustainable future.

Here, the informant highlights a current dilemma. She does not exclude herself as she addresses the question of modernity and responsibility. This argument suggests an understanding being that there lies no sustainable alternative within current financial and societal system. If it is not possible to live another way, and this lifestyle demands concession

³¹ ”Men vi måste ju göra det.” ”Du har ju också en smartphone”. ”Men vad ska vi göra då?” Vi förgiftar grundvattnet. Vi förgiftar land. Genom att gräva upp det. Men vi vill ha det. Och vi har det. Och hela utvecklingen går i den riktningen. Så varifrån får vi det? Och vi vill ju inte kompromissa när det kommer till moderniteten.

minerals, the only possible solution is that the metals are extracted. This quote holds a critique of current system upholding dependency, in creating a need of a certain way of life. Hence, she suggests that the compromise is the alternative. Brigitte continues:

I don't believe in metals being the solution. I think, that what we need is more protected areas. That's what I believe. And that agriculture lands are considered a national interest. And a definitive prohibition of prospecting in Natura 2000-areas. And the water. Protect the water. We have to do that. Secure clean water. We have claimed areas that are Natura 2000. It is unbelievable. What then, does this regulation mean? ³²

Here, Brigitte states how she doesn't consider technological development to hold the answer. Instead she gives concrete examples of that which she believes would be an alternative. An increased protection of natural environment that are part of Natura 2000 is a suggestion that focus on the European Union. Thus, this alternative has its focus on that region and does not have a global dimension. That is also the case with the protection of agriculture by making it a national interest. Finally, the water is argued as in need of protection.

All suggested alternatives can be linked to the passage in the previous chapter, addressing natural preservation and the local movements societal history. Here, natural preservation is made concrete through the suggested sustainable solutions. That food production ought to be protected, as well as the water, is also in line with previously expressed concerns in this study, however, expressed in terms of personal relation to the place or income. The proposed alternative demands an alternate use of natural resources. As such, they become an answer to the question formulated by Anne. The alternative is thus narrowed down to societal change in lifestyle and relationship to our surroundings, since natural preservation will demand it.

³² Jag tror inte att metaller är lösningen. Jag tror det vi behöver är mer skyddsområden. Det tror jag faktiskt. Dels behöver vi ha jordbruksmark som riksintresse. Och definitivt förbud mot prospektering av Natura 2000 områden. Och vatten. Skydda vatten. Det måste vi göra. Att säkerställa rent vatten. Vi har inmutade områden här som är natura 2000. Det är helt otroligt. Vad betyder då det?

Elsa express a similar solution towards sustainable futures when we talk over the phone.

But you know... one also starts to think of... We have these seventeen global sustainable development goals, and clean water is one of them. Biodiversity and green forests. I don't remember them from the top of my head but I do know that one of them is clean water, clean air and also food security (sighs) [...] There has to be some kind of consequence if they are not followed.³³

Recalling some of the global sustainable development goals being clean water, biodiversity and green forests, Elsa states that although she doesn't know them by heart, she does remember the significance given to clean air, water and continuation of food production. Unlike the previous quotation from the interview with Brigitte, Elsa have a global perspective on sustainability in addressing the global climate goals. She suggests that if not followed, there should be consequences. However, she does not go into what those consequences should be. In this sequence, the informant expresses a frustration when she talks about the lack of consequences when natural values become vulnerable due to industrial projects. In stating that it should have effect, she believes they could be a tool in order to increase chances of sustainable futures.

5.3. Summarizing discussion

This chapter has accounted for proposed alternatives to mineral extraction suggested by the informants in this study. At the core lies a critique of current financial system that is considered to uphold inequality in the living standards that in turn result in an imbalance in greenhouse gas emissions, nationally as well as internationally. The circular economy is suggested to decrease dependency on concession minerals, thereby reducing the need of the establishing new mines. Through a reuse of the metals already extracted, it is suggested that the need for an increased mineral extraction would diminish. This is combined with the idea of decreased consumption through another way of life. An increased protection of natural resources, already protected areas, and agriculture is lifted as concrete methods to create prerequisites for these values to

³³ Men du vet... man börjar också tänka på... Vi har de här sjutton globala klimatmålen, och rent vatten är ett av dem. Biologisk mångfald och gröna skogar. Jag kommer inte ihåg alla på rak arm men jag vet att ett av dem är rent vatten, ren luft och också mattillgång. Det måste ju finnas nån slags konsekvens om dom inte efterföljs.

exist in the landscapes. Global climate goals link the local question of mineral extraction to a macro-level discussion about responsibility on an international level, where it is suggested that not taking them into account should have negative consequences for the parties responsible. This way, the seemingly local concerns of mineral extraction in two rural areas in the south of Sweden become entangled with the global take on climate change and sustainability. However, this also indicate that while mineral extraction is an answer to the increased inquiry from the technological industry, local responses question it as an alternative. If the seventeen climate goals demand protection of the environment, then mineral extraction can't be the solution towards a sustainable future.

6. Summary and concluding thoughts

The aim of this study has been to explore how local protesting to mining is formed through everyday experiences, and how understandings of climate change and sustainability are shaped in relation to local mining disputes. The overall aim has been to offer an example of how the complex phenomenon of climate change is made concrete and comprehensible in our everyday lives, thereby providing a micro-level perspective on a global concern. This has been achieved by examining how participants in local protesting movements in two areas in Sweden, where mining companies have been granted processing concession, express their understanding of mineral extraction, human-nature relations, sustainability and climate change. My research questions have been the following: *How is local understanding of mining related to lived encounter in the everyday? In what ways are the positions in the local conflicts negotiated and fixed? How does the mining conflicts correspond to the wider issues of climate change and sustainability?* By applying these questions, the participants' experiences were given a fundamental role. It became evident that sensuous experience, personal and cultural heritage contributed to understandings of the mining projects. Temporal understandings of climate change interlinked with notions of past, present and future further contributed to these understandings. The participants who shared their descriptions of the conflicts and their personal lives, all described the areas in ways best likened to that of a body: spaces with emotions, life cycles and its own life worlds. A phenomenological conceptual apparatus has therefore provided a deeper understanding of the ways in which cultural practices of the everyday shape their convictions. This chapter will provide a summary of the analyses and conclusions drawn in this study.

Lived encounter helps form an understanding of the mining conflict in a variety of ways. The physical relationship to the surroundings creates a spatial bond to the areas. Everyday encounter results in an understanding of human dependency on natural resources. It also forms the belief that physical distance to rural environments creates a mental and emotional distance to conflicts of interest that concern environmental protection. The role that physical encounter plays in shaping an understanding of the mining projects is further illustrated through the experience of moving from an urban area, to the area of interest for mineral extraction. New horizons of understanding emerge, forming a personal stance in the mining conflict. Through new relations with local inhabitants, knowledge is passed on, as well as views on the mining industry. The importance of *dwelling* is further underlined, as transnational identification and

collective memories are addressed. Past conflicts of similar nature in the areas create collective memories that become entwined with the area's present identities. These in turn shape an understanding of the current mining issue, and help structure how the local organizations will pursue their protesting. Village associations that historically addressed regional concerns now function as a mean to spread knowledge, and raise public opinion on a conflict with an international dimension. As such, they become an example of how deep-rooted societal institutions adapt and transform, as the world becomes increasingly affected by globalization. Transnational identification is formed through personal encounter with other communities protesting mining projects. At the core lies the experience of a shared view on nature and human-environment relations. This perception is in turn contrasted to the climate change discourse in which green technology is considered a solution to negative climate impact.

Apart from physical encounter, everyday experiences through professional and lay knowledge of agriculture also contribute in forming an understanding of the mining projects. The impression that the mining company lacks knowledge of the area's history and agriculture create a mistrust towards the mining companies. This knowledge is considered necessary by the participants in order to secure environmental and agricultural interests. The experience of neglect by the mining industry and authorities towards these perspectives further deepens the distrust, and contributes to the conviction of mineral extraction being a threat to the environment, rather than the opposite. The perceived differences in perspectives on nature is contrasted through the spherical and global perspective of Tim Ingold, as the mining companies are criticized for not considering environmental and social sustainability. In this study, this is understood as a critique of a view where nature is considered to be mainly a standing reserve, containing goods that society demands.

As the informants addressed the NIMBY-phenomenon, they negotiated their stance in the mining dispute against the perceived reasons for protesting suggested within the explanation model. Answering to questions not asked, the so-called phenomena of the third interlocutor resulted in dialogues where the reasons for protesting as a result of selfish motives, or lack of knowledge, were dismissed by the informants. As the past experiences are part in the present and imagined future, the mining industry's motives were questioned, with references to current mining projects. Thereby, the participants turned the argument around, stating that the protesting movement is protecting the environment. Apart from the concern for the local environment and the broader understanding of both sustainability and climate change, factors such as decreased income or loss of employment become reasons for protesting. Therefore,

concern for the environment and regulations such as Natura 2000, functions as means for protecting that which is of personal concern. In this study, this is understood as a wish for social sustainability. However, it is evident that there are continuous negotiations regarding the reasons for protesting. These negotiations concern both individual fears for one's personal future, the continuing existence of the local area, and sustainability in a global context. As collective memories of previous environmental conflicts in the areas influence current mining disputes, it is described how the local movement went from being considered a part of an environmental movement, to an organization that question necessary change towards sustainability. The change evokes feelings of hopelessness, and the insight that, whilst they consider themselves being protectors of natural values, others ascribe the local movements an opposite role. This illustrates how the understanding of sustainability within climate change discourse are continuously under change as new concepts of green growth, and new industries, are part in creating a perception of its substance.

Climate change and sustainability are continuously fluctuating in the material. As metal extraction is suggested as an alternative to current fossil fuel dependency, the view on green growth's role varies amongst the informants. Some welcome green technological development, suggesting it might decrease dependency on REE and Vanadium. Others express a critique towards green growth. The critique is based on the conviction that technological development is a short-term solution in relation to the challenges climate change impose. This temporal understanding is contrasted using examples in the local area's cultural history. The expressed concern for the local areas also addresses sustainability as a global issue in suggesting legislation of global climate goals, de-growth and circular economy as possible alternatives to mineral extraction. Referring to the unequal carbon dioxide emissions, both nationally and internationally, this further illustrates how the local mining conflicts are interlinked to a global concern.

Several temporalities are evident when the mining conflicts are associated to climate change and sustainability. Thoughts on imagined futures are expressed in catastrophic terms, with descriptions such as eternal destruction and nature sacrifice, or the loss of one's roots. Climate change's impact on the future is associated with the cultural and narrated concepts of crisis and risk. This suggests that these concepts are part of individual understandings of climate change. As previous ethnological research suggests, the concepts are part in a media climate change-discourse. In this study, it is suggested that catastrophic terms are evident in local environmental movements, as well as within individual narratives, thereby

co-creating an understanding of climate change in line with a broader climate change discourse. The catastrophic dimensions to the understanding of climate change also explains the preparedness to listen to the mining corporations, holding a promise to be part in a movement that offer's a swift change through a green revolution. The role that immediacy as a temporality plays within the local movements is evident when climate change's imagined future effects on local environment is addressed. Aside from a terminology holding temporal dimensions, time-scales are also fluctuating in the material. Immediacy as a temporality within the protesting movement exists as an argument for de-growth and circular economy, in order to reduce dependency on metal extraction. The slow processes of natural preservation are also visible, resulting in the two temporalities intertwining. The lives of endangered species are considered to be held higher within legislation and regulative tools in the mining disputes, than the everyday lives of local inhabitants and landowners. Describing a fear of being uprooted, it illustrates how dwelling means that human and nature/non-human are entangled. The mutual relationship that creates the areas protected by regulations, is considered to be neglected and overseen. Experienced lack of legal protection for the local civil society results in a feeling of vulnerability and a critique of the dual division between culture and nature.

This study has explored how local mining disputes actualize climate change concerns in the everyday. It is my belief that further explorations that address how language, social and cultural practices, and human nature-relations continue to form and transform understandings of climate change and sustainability, are needed. Ethnology as a field of research has a history of giving emphasis to the small life in the everyday, and can thus offer valuable insights on how local experiences are interconnected to the most vital global concern of our time.

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Interviews

1. Anne and Brigitte (Pseudonyms)

Interview conducted: November 9, 2021

Interview length: 1 hour and 34 minutes

Conducted by the author

2. Lily (Pseudonym)

Interview conducted: November 25, 2021

Interview length: 1 hour 45 minutes

Conducted by the author

3. The Abbess

Interview conducted: November 8, 2021

Interview length: 2 hours

Conducted by the author

4. Jacob (pseudonym)

Interview conducted: November 3, 2021

Interview length: 48 minutes

Conducted by the author

5. Jacob and Sofia (pseudonyms)

Interview conducted: October 3, 2021

Interview length: 1 hour 32 minutes

Conducted by the author

6. Elsa (pseudonym)

Interview conducted: October 13, 2021

Interview length: 1 hour 10 minutes

Conducted by the author

7. Angelica (pseudonym)

Interview conducted: October 12, 2021

Interview length: 57 minutes

Conducted by the author

8. Violet (pseudonym)

Interview conducted: October 28, 2021

Interview length: 1 hour 23 minutes

Conducted by the author

9. Marcus (pseudonym)

Interview conducted: October 16, 2021

Interview length: 1 hour 2 minutes

Conducted by the author

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1. Sofia Wik. Uppladdning: En etnologisk studie om Northvolts batterifabrik, Sara Kulturhus och framtidsutsikter i Skellefteå. Juni 2021.
2. Moa Broqvist. Den andre spelaren. En etnologisk studie av kvinnliga gamers i en manlig spelkultur. Oktober 2021.
3. Jeanna Hylén Ullman. Historier får liv. En etnologisk studie av performans och kulturhistoriska kläder på friluftsmuseet Skansen. Juni 2022.
4. Hannah Lovisa Wennerström. Dockor är för tjejer, figurer för barn. En etnologisk studie om vuxna och barns konsumtion av leksaker i Sverige. Juni 2022.
5. Maria Engström. Män mot destruktiv maskulinitet. Politiska ställningstaganden och praktiker för ökad jämställdhet. September 2022
6. Caroline Reinhammar. The Promise of a Green Revolution. Conceptions of climate change and sustainability in local movements objecting to mining establishment. Januari 2023.

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