



Norwegian University
of Life Sciences

Master's Thesis 2024 30 ECTS

Noragric, Faculty of Landscape and Society (LANDSAM)

My sister *Calluna*: Inheriting responsibilities in Selected Cultural Landscapes (UKL)

Emma Eide Rydningen

Master of Science – International Environmental Studies

Declaration

I, Emma Eide Rydningen, declare that this thesis is a result of my research investigations and findings. All sources of information other than my own have, to the extent of my knowledge, been cited and referenced accordingly. This work has not been previously submitted to any other university for the award of any type of academic degree.

Signature:

A handwritten signature in black ink that reads "Emma Eide Rydningen". The signature is written in a cursive style with a large initial 'E'.

Date: February 15th, 2024

Acknowledgements

This thesis, like everything else in life, would not come into this world without a network of relationships. I have a lot to be grateful for and it is a privilege to be given the space to explore my interests in an academic context, especially under the guidance of professors who have introduced me to ways of thinking that will leave long-lasting marks. One of them is my supervisor, Esben Leifsen, who has offered his intellectual and emotional energy beyond my expectations.

I am beyond grateful for the experiences I had at Nystadbakkan farm and at Utsira. My sincere gratitude to Rakel and Ida, Hildegunn and Arnstein, May Britt, Oddvar and Bex for hosting and feeding me throughout the study period. Thank you for receiving me, adopting me, and challenging me. The lessons and relationships would never fit within a master's thesis, and I look forward to deepening them in future projects.

Family and friends have been patient with my absence, frustrations, and long drafts. Several friends and colleagues have read through drafts and their feedback and support have been essential. The finished product and potential errors are mine alone. To the beings that fill my home with love and laughter, Lucas and Dara, have offered overwhelming and unconditional love and patience. Thank you for bringing me peace and perspective.

Witnessing the seasons and beings shaping the lake of Årungen, have for the past two years offered daily reminders of the beauty and pain associated with living well on a damaged planet. The landscape holds my grief, rage and joy which moves my responses toward the university that still contributes to the pollution of the lake. One day we will meet in an arena of trust and show up in the labour of tending to the wound of Ås.

Finally, to the heathen landscape, that has sustained my family for generations, guiding beings to safe shores and keeping the stories alive when words are no longer coherent. I return to your scent with humility and gratitude. To all my present and future grandparents – this is for you.

Abstract

This thesis addresses the socio-environmental relationships and interactions that sustain selected nature types in Norway. The study seeks to contribute to the analysis of initiatives aimed at preventing the loss of biodiversity and heritage linked to agricultural landscapes, focusing on the impact of the status and subsidy scheme: *Utvalgte kulturlandskap i jordbruket* (UKL; *Selected cultural landscapes in agriculture*). The thesis research questions are:

- How are the UKL landscapes perceived by farmers and administrative employees in the UKL locations of Utsira and Engan-Ørnes, Kjelvik?
- Which notions of heritage are alive in UKL landscapes?

The nature types in focus are heathen landscapes, hay meadows, and natural pastures, which are endangered semi-natural vegetation types that provide habitat for species associated with open landscapes. These habitats are considered semi-natural due to their dependence on disturbance management such as grazing, burning, and harvesting that sustain various stages of growth and species-rich ecotones. Over time, the nature types in focus have adapted to the sustenance practices of other beings, preventing the progression of successional stages where shrubs and trees would otherwise dominate the open landscapes in competition for light. Human settlements with their agricultural practices and livestock came to resemble the disturbance management in which the nature types thrived. However, the agricultural practices associated with these nature types are no longer considered cost-efficient and the main threat to these nature types is the cessation of use.

This radically changes the ways policies and societies relate to nature as ‘something to be protected and preserved from human interference’ and demands a relational ethic of nurturing and enduring multispecies environmental justice. UKL is designed as Payments for Ecosystem Services (PES) that seeks to compensate landowners for the ‘inefficient’ practices of environmental maintenance that demand labour and utilization of local resources. Moreover, UKL is also designed as a follow-up to the European Landscape Convention (ELC) which defines landscape as ‘an area perceived by people’ and urges all signatories to establish procedures for local participation in landscape planning. To address the political, economic, and societal challenges facing rural communities and the areas they are intended to conserve, it is important to analyse the institutional arrangements that ensure norms and rules for the management of environmental commons, and not the least, the various and oftentimes conflicting perceptions of what the material, symbolic and political landscape is.

This study focuses on two UKL locations: Engan-Ørnes, Kjelvik and Utsira, the former were selected in 2009 and the latter in 2022. Three fieldworks were conducted in the period of July-October 2023, in which participant observation, farm work, and walks shaped semi-structured interviews with a total of 14 interlocutors. The two main categories of interlocutors were Farmers and Administrative employees. The recorded interviews were organized into four themes: agriculture, landscape use, landscape values and UKL.

Leaning on tools from feminist political ecology (FPE) and multispecies ethnography, the study conceptualises the social and ecological reproduction of the UKL sites as resulting from the everyday practices of the *commoning-community* which encompass human and nonhuman *critters* in their practices of shaping and reshaping access, use, care and responsibility towards life and death.

Perceptions of landscapes are determined by actors' experience in them. Administrative employees evaluate, appraise, and promote landscape values in accordance with applicability in planning processes and are therefore constrained by the notions of heritage promoted by professional doctrines and established policies associated with the authorised heritage discourse (AHD). Farmers' perceptions of landscapes and heritage are based on the use and practical applicability associated with food production based on locally available resources. Landscape and heritage values are therefore maintained by *thinking with* the past in an effort to achieve improved farming skills to be inherited by the next generation.

Although UKL primarily benefits landowners, it stands out in that grants can be directed towards creative arenas where broader challenges of the commoning-community can be addressed. In both UKL locations, such initiatives offered alternative ways of communicating landscape values. Carving space for participation in caring for landscapes that are not solely based on rights to land, the initiatives raise public deliberation on principles of food production and increase citizens' response-ability to their landscape. These initiatives, which are among the most vulnerable in terms of long-term funding, should be maintained to offer radical approaches to environmental justice.

Keywords: Utvalgte kulturlandskap i jordbruket (UKL; *Selected cultural landscapes in agriculture*), Selected nature types, Commons, Multispecies studies, Feminist political ecology, Norway, Utsira, Engan-Ørnes, Kjelvik,

Table of Contents

Acknowledgements.....	i
Abstract.....	ii
List of abbreviations.....	vi
List of figures and tables.....	vi
Chapter 1:.....	1
Introduction.....	1
Objective and research questions.....	2
Thesis outline.....	2
Thematic background.....	3
The agricultural landscape in Norway.....	4
Visiting <i>Calluna</i> and cultural landscapes.....	9
Selected cultural landscapes in agriculture (UKL; Utvalgte kulturlandskap i jordbruket).....	12
Chapter 2: Theory and methods.....	18
Theoretical framework.....	18
Feminist political ecology (FPE).....	18
Multispecies landscapes.....	20
Methodological framework.....	22
Research design: Multiple-case study.....	22
Choice of cases.....	24
Data collection.....	26
Data analysis.....	32
Positionality, ethics and limitations.....	33
Chapter 3 - Analysis.....	37
Zone zero - Case context.....	37
Institutional dimensions shaping perceptions in Environmental Governance.....	38
Engan-Ørnes, Kjelvik UKL.....	42
Utsira UKL.....	44
Themes and characters.....	47
Part 1 – Witnessing death.....	48
Slaughter.....	50
Loss of neighbours and practices.....	55
Loss of habitat.....	62
Part 2 – Inheriting responsibilities.....	70
Farming the Heritage.....	71

The Creative Creek - Showing Up.....	77
Literature list	82
Appendix:	93
1. UKL locations in Norway	93
2. Interview guide	94
3. Posters.....	96
4. Information letter and consent sheet	97
5. Rain dance and mu'u making.....	101
6. Category of interest @ Vestremarka.....	102
7. Outfield supervision - the Farmer's mapping of species interactions.....	103

List of abbreviations

AHD: Authorized Heritage Discourse

BCE: Before Common Era

BP: Before Present

EGS: Environmental Governance Systems

ELC: The European Landscape Convention

ES: Ecosystem Service

FPE: Feminist Political Ecology

NiN: Natur i Norge

PAR: Participatory Action Research

PES: Payments for Ecosystem Services

RMP: Regionalt Miljøprogram (Regional Environmental program)

SEFRAK: SEkretariatet For Registrering Av faste Kulturminner, (Registry for cultural heritage monuments)

SMIL: Særskilte miljøtiltak i landbruket (Special environmental measures in agriculture)

UKL: Utvalgte Kulturlandskap i jordbruket (Selected Cultural Landscapes in Agriculture)

List of figures and tables

Figure 1 – Illustrate the national, regional and local administrative and political governance bodies involved in the UKL scheme. Accounting for some of the differences in administrative and politically elected bodies.

Figure 2 – Map of the UKL area of Engan-Ørnes and Kjelvik (marked orange). Kjelvik is south of the Leirvik fjord, while Engan-Ørnes is on the north side. Total 73 hectares. Adapted from <https://ukl.ra.no/>

Figure 3 – Map of UKL Utsira encompassing the whole island (Orange). The total area is 6 square Km. The green circle is the nature reserve, Spannholmane. Adapted from <https://ukl.ra.no/>

Figure 4 – Photographs of Engan-Ørnes taken in 1929 and 2013. Adapted from www.ukl.ra.no

Table 1 – Themes and Definitions

Chapter 1:

Introduction

Biodiversity loss have been framed as an externality that must be valued correctly in the marked (Weis, 2010; Otero et al., 2020; Vatn, 2021). *Selected cultural landscape in agriculture* (UKL; *Utvalgte kulturlandskap i jordbruket*) is a Norwegian subsidy scheme designed to sustain rural livelihoods, while safeguarding cultural and biological values associated with agricultural practices no longer considered cost-effective within prevailing economic and technological conditions (Vistad et al. 2013). The status is given to a “collection of the most valuable cultural landscapes” and is intended to convey pride to rural communities (Directorate of Cultural Heritage, 2019) and motivate active farming as a prerequisite for landscape maintenance (Hoel et al., 2020; Vistad et al., 2013).

UKL derive from the fact that agricultural landscapes have gone through massive technological changes in the last hundred years which led to increased production, accompanied by great socio-environmental challenges such as falling farming income (Fuglestad, 2023; Løkeland-Stai & Lie, 2012) and loss of functional biodiversity, such as pollination and soil formation (Tschardt et al., 2012; Weis, 2010).

Previous mapping of biological values resulted in ‘Selected nature types’, referring to habitats that are endangered and under international commitments, in which Norway carry a special responsibility (Directorate of Environment, 2011). The species living in these habitats can be categorized as holding extinction debt, a process attributed to “local, regional or global extinctions that have not yet taken place, but which have been set in train by environmental impacts - such as habitat destruction, degradation and fragmentation. [...] Species or populations that make up the extinction debt can be said to be “committed to extinction”. (IPBES, 2019, p.1039).

Selected nature types that are the focus of this thesis are hay meadows, coastal heathland and natural-pastures, which are categorized as semi-natural vegetation types (Artsdatabanken, 2018) that depend on disturbance management such as occasional burning, harvesting, and grazing herbivores (Norderhaug et al., 1999). If such interferences do not occur the assemblage of species shifts and over time they disappear (Løvschal & Fjalland, 2023; Svalheim, 2019;2022; Kaland & Kvamme, 2013). Care for the habitat and associated vegetation strengthens the growth of semi-natural habitats and is therefore intrinsically linked

to millennia of cultural practices of sustenance and nourishment, in which food security depended on the transfer of wisdom, memory and traditions from generation to generation in what was held and managed as environmental commons.

The concept of cultural landscape seeks to illustrate relationships between human societies and natural resource use, to both prevent and motivate actions to maintain the values associated with the semi-natural habitat and symbolic landscape (Vistad et al., 2013; Setten, 2005). Life-affirming landscape management occurs in negotiations of material, political and symbolic values and the aim is to investigate such responsibilities through the everyday practices, social relations, and spaces of creativity present in the UKL locations (Nightingale, 2006; 2011). Achieving such outcomes require a profound change of how humans relate to nature, and exploration of more-than-human relations centring the variety of critters – plants, animals, microbes – in contact zones where who is in the world is at stake (Haraway, 2008; 2016).

Objective and research questions

The objective is to empirically explore the UKL status in two locations in Norway and contribute to the analysis of the effects of the UKL subsidy schemes in local contexts. For that reason, fieldwork has been conducted in the regions of Rogaland and Nordland where the former received its status in 2022, and the latter was selected in 2009. Local population, farmers and administration employees (latter on local and regional levels) were interviewed regarding local activities and practices to gain an understanding of the UKL scheme. The thesis is guided by the following research questions:

- How are the UKL landscapes perceived by farmers and administrative employees in the UKL locations of Utsira and Engan-Ørnes, Kjelvik?
- Which notions of heritage are alive in UKL landscapes?

Thesis outline

The thesis will be presented in the following order. Chapter 1 provides background for understanding the concept of landscape within prevailing political and economic structures conditioning agricultural development. This give the backdrop to the status and subsidy scheme in question and the notion of cultural landscapes in which it is founded on.

Chapter 2 give insight into “what thoughts think thoughts,” and “what descriptions describe descriptions” (Haraway, 2016, p. 35) influenced by tools from feminist political ecology (FPE) and multispecies studies. By centring everyday interactions and decentring the human in the political acts of storytelling, the chapter aim to give a thorough description of the methodological framework, inclusive of research design, researchers positionality and limitations of the study.

Chapter 3 engage in analysis of fieldwork insights. Starting from Zero, the chapter gives the case context in light of my studies in environmental governance. Part 1 starts from the end and draws on death narratives to witness and honour the inheritance of social and ecological fabrics as it unravels. In responding to loss, Part 2 moves toward the ways the commoning-community within the UKL locations draws on the past in the present to shape a future. Ending in a Creek, the story of this study calls for creative spaces for skills of becoming *with*.

Thematic background

The term ‘landscape’ has multiple meanings in both contemporary and historical contexts. Ingold (200) has long argued that material landscapes emerge from ecological relations in a world of process. In the book *The European Landscape Convention*, Jones and Stenseke (2011, p. 6) summarise three main interpretations of landscape - landscape as morphology, landscape as scenery, and landscape as polity. Morphology focuses on the material forms of our physical surroundings, and in this sense studied by scientists in an arguably objective manner as an area unit of distinctive physical character with associated forms and interrelated features (ibid). As scenery, the landscape relates to the visual content of an area observed from a particular viewpoint and is studied as an expression of subjective human experiences, feelings, and emotions (ibid p. 7). The conception of landscape as polity refers to historical administrative-territorial units in which the land was shaped according to customs and laws of people and systems of land rights (ibid). As such the concept of landscape expresses the complexity of the different relationships and dimensions that a landscape contains. When landscapes change, they evoke a range of expressions, from attention to material forms such as land cover, socially constructed ideals about landscape experiences, and customs and laws responding to needs and circumstances. It can be a radical break with the past or an enthusiastic leap for the future, as the temporal meeting ground of flows of material and immaterial features provide individual and collective records, meanings, and identities (Stenseke, 2018; Clemetsen

et al., 2011) are in continuous process of change. The landscape is at once absolute, relative, and relational, where objects and things are related in processes of societal relations (Stenseke, 2018).

The European Landscape Convention (ELC) define 'landscape' as 'an area perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (Council of Europe, 2001, Article 1a). All the prevailing notions of landscape are included in the ELC definition of landscape and at the same time given a broad interpretation. As morphology, the landscape includes all types of physical landscape as well as waterscape, as scenery, the landscape is perceived not primarily by an elite but by people in general, as polity, the landscape is the responsibility of elected authorities together with a participating population (Jones & Stenseke, 2011, p. 8). The ELC (2001) underscores that "landscape policy can no longer be restricted to the idea of conservation alone" and emphasizes a threefold notion of protection, management, and planning in which "landscape must be a place of democratic citizenship". The ELC (2001) makes references to keeping inhabitants informed and encouraging their participation and under Article 5c states are to establish procedures for the participation of the general public, local and regional authorities, and other parties with an interest in implementing landscape policies. Norway has signed the ELC and considers the status of selected cultural landscapes (UKL), their follow up to the convention (Hoel et al., 2020, p. 6). The UKL scheme, established in 2009, aims to encourage farmers and landowners to maintain environmental and cultural heritage values associated with agricultural landscapes (Øian & Rønningen, 2013). Before giving a thorough introduction to the status and scheme, I will present the background of agricultural policies in Norway leading up to this focus area.

The agricultural landscape in Norway

The agricultural structure in Norway is relatively small-scale, based on family farms, with an average farm unit of around 25 hectares (SSB, n.d.). Forbord and Vik (2017) refer to Norway as a scattered, northern, scarcely populated, high-cost welfare state where labour and land are scarce, while capital is abundant. In Norway, the outfields [*utmark*] are understood as mainly uncultivated countryside areas such as forest, highlands, and mountains, and make up over 70% of the country's land area and is distinct from infields [*innmark*] which is privately owned cultivated land close to the farm, making out only 3% of the country's total land (Brown et al., 2019). Agricultural land refers to infields, land that is fully cultivated land or surface

cultivated land. If a property has such areas, it is subjected to the ‘duty of operation’ [*driveplikt*]. The obligation can be fulfilled by either the owner themselves, or through leasing the land for agricultural operation. If there is a change of ownership the owner must decide within one year whether to lease it or operate the land themselves. 50% of agricultural land in Norway is leased (Forbord et al., 2014).

With the introduction of artificial fertilizers, pesticides, genetic technology, concentrated fodder, and general mechanization since the 1950 a surge in food production have occurred (Weis, 2010; Almås 2002). UN recon that there has been a 300% increase in global food crop production since 1970 (UN, 2019). This productivity achievement was a prerequisite for industrialization and the rebuilding of the country after the war (Almås, 2002; Vik, 2020). The deployment of these technologies changed the use of landscapes. With concentrated fodder animals could become more ‘productive’ by quickly gaining weight. The focus on weight also determined which breeds were normalized with emphasis on bigger, better, and more babies. Mechanization made it easier to harvest areas that were accessible with machine. To harvest steep terrain or use the outfield for summer pastures were re-framed as costly and labour intensive and in the competitive market these actions were ruled out. Traditional agriculture where human and nonhuman labour determine the work, and the local resources laid the foundation for what was being produced and how, was replaced with fossil fuel inputs to increase production varieties and volume (Fuglestad, 2023). Weis (2010) even refer to industrial capitalist agriculture is at the centre of the challenges posed by peak oil as increasing awareness about the scarcity of fossil energy begins to drive rising costs, which destabilize the conception of efficiency, and relates to the inevitably rising costs of production as crucial biophysical overrides become more expensive. Assisted by technological advancements, the number of active farmers in Norway decreased by approximately 3% annually, while labour productivity has concurrently risen accompanied by a multiplication in herd sizes (Bjørlo & Rognstad, 2019; Forbord et al., 2014).

Increased productivity is promoted through grants and policies, and stable production to avoid overproduction is to be maintained by strict regulations of the domestic market (Mahlum Melås, 2019; Bungler & Tufte, 2016; Almås, 2016). In 1999, a governmental report (St. Meld. nr 19 (1999–2000)) issued several efficiency measures following the agreement with the World Trade Organization (WTO) in 1996 and subsequent policy adjustments (Vik, 2020). The report emphasized prioritizing the conditions of the most efficiently operated farms, particularly those where agriculture is the primary activity (ibid). A distinction is made between

the small-scale farms and the farms “which are suitable for professional farming”, and states that “The Government will give priority to these types of farms in the design of the economic instruments” (St. Report No. 19 (1999–2000), p. 112; Vik, 2020). Løkeland-Stai and Lie (2012, p. 223) emphasize that there is a lack of documentation regarding the relationship between size and profitability in Norwegian agriculture. Despite this, farmers were encouraged to take part in investment projects through grants offered to farm operations that were divided into different companies with performance-driven units. For instance, dairy farming could be organized in one company, farm buildings in another, tools in a third, and cows in a fourth. The Bondevik Government (2001-2005) aimed to support the risk of investment, and only farms organized in corporate forms received grants (Løkeland-Stai & Lie, 2012). Repeatedly there have been issues of local and national overproduction of mainly meat and milk (Vik, 2020). Through the 'canalization policy' overall production levels are supposedly maintained by guiding regions toward specialization based on comparative advantages (Almås, 2002, pp. 140–141; Mahlum Melås, 2019). For instance, grain production was encouraged in the central and southeastern parts, while the north, narrow fjords and mountainous regions specialized in grass-based production like milk and meat (Mahlum Melås, 2019). The geographical area, designed by the canalisation policy, designates production zones and subsidy levels (Mahlum Melås, 2019; Bungler & Tufte, 2016). The Norwegian agricultural policy model thus consists of high trade barriers, high level of direct farm payments, corporative market arrangements around key production areas such as dairy and meat, a strictly regulated market for farm properties, and a geographically distributed production structure that is regulated by a mixture of support schemes and quota regulations (Almås, 2016).

With the regional specialization, the geographical location of the farm determined levels of subsidy support and directed most farmers into milk production which would give stable income and had available technological efficiency gains such as the milk robot (Mahlum Melås, 2019; Bungler & Tufte, 2016). Increasing production and efficiency as a means of income improvement reveals the intrinsic predicament of the modern agricultural economy as a treadmill “that went faster the faster one leap” (Almås, 2002, p. 227-228; Vik, 2020). At the aggregated level, the effect is that fewer and fewer farmers produce the same amount of good, each of them on more land (Levins & Cochrane, 1996), and unless enough farmers quit, overproduction will be the result (Vik, 2020). Compensating for falling income from farming or the lack of available land for expansion, it is necessary for farmers to have other occupations, in 2021, only 12% of Norwegian farmers were full-time farmers (SSB 2021).

In Norway, the number of farms has dropped by 60% since 1989, as one farmer's expansion came at the expense of another (Flø 2014). In 1989 there were 99'400 farm units in Norway, today there are only 37'682 farms left (Bjørlo & Rognstad, 2019; SSB n.b.). To address the reduction in farm units the goal of agriculture throughout the country – or stable farm units - have progressively become integrated into Norwegian policy (Vik, 2020). Nationwide agricultural production the potential to increase Norway's food security and national preparedness (Landbruksalliansen, 2023; NOU 2023:17). In 2019, Norway had a self-sufficiency degree of only 36% after correcting for the import of concentrated fodder (NOU 2023: 17, p. 254). The Governments' preparedness commission communicated in the report "This is serious" [*Nå er det alvor*] (NOU 2023:17) that food security can be achieved by preventing building on cultivated land, and reducing concentrated fodder which would lead to increasing the use of grazing pastures (Engseth, 2023). The report highlights the economy of farmers if these suggestions are to be achieved.

Since the 2000s, agricultural policies have sought to diversify farmers' income through strategies of rural development and new businesses to escape the limitations of the trilemma and prevent the decline in farm units (Vik, 2020). The multifunctional role of agriculture was emphasized and refers to agriculture's importance in maintaining living settlements as well as several environmental benefits linked to cultural landscapes, cultural heritage, recreation, and biological diversity (Rønningen et al., 2005). This is a part of post-production-agriculture in which food and fibre are no longer the main production, at least for parts of the industry (Rønningen et al., 2005). In terms of living settlements, the challenges of rural areas revolve around the struggles of maintaining basic health and education services within their vicinity (Nyhus et al., 2023; Nyhus, 2023; Aglen, 2023). Thereby connecting agriculture with preparedness and welfare policy, instead of solely industry and trade (Flø, 2015). The Governmental report "Agriculture Pluss" (LMD, 2005, p. 31) states that business development within agriculture-related tourism would increase profitability for farmers and rural areas "based on food, culture, nature, and activity-base experience". Following, in 2007, the white paper "Take the Land into Use" (LMD, 2007) stated that stabilizing farm structure and ensuring the income base for farmers are to be obtained through new rural businesses. The experts and policymakers argued for the commodification of the outfields and their culture, transforming it into a commodity rather than solely a source for food and fibre production (Flø, 2015; 2020). The landowners in rural communities were supposed to become entrepreneurs and exploit their potential: barns could be used for weddings and restaurants, and farmers could plough the snow,

deliver bioheat and provide ‘green care’ referring to welfare services on farms, and tourism experiences (Rønningen et al., 2005). If the infields have already been optimized, ‘taking’ the whole ‘land into use’ crucially involves looking beyond the infield fences (Brown et al., 2019). The outfields could provide experiences such as hunting, fishing, and trekking (Flø & Flemsæter, 2021). The intention was not to diminish the value of outfields as grazing pastures but rather to enhance local value creation and a way to bring value creation back to the communities (LMD, 2007). In this way, outfields were to be commoditized and become a lifeline for both agriculture and social development in rural areas (Flø, 2015; Rønningen et al., 2005). Brown et al. (2019) state that as the government sought opportunities for commodification, the conflict levels have increased without commensurate means to resolve them.

Furthermore, Vik (2020) and Flø (2020) highlight that Norwegian agricultural politics can be the source of district-political mistrust. The loss of hands, practices and knowledge has made Norwegian agriculture vulnerable, not only to climate change and unmanageable prices for imported concentrate but also because it will weaken the legitimacy of Norwegian agriculture as a whole (Flø 2014; Bungler and Tufte 2016). The goal of productivity and efficiency conflicts with maintaining a small farm structure that strengthens rural communities (Vik 2020; Almås 2002. P. 226). The threat to societal functions and farmers' income and well-being are matters of collective concern, and farmers are pessimistic about the future (Zahl-Tanem & Melås, 2022). The latest farmer uprising in 2021, raised 60,000 signatories (Jordheim-Larsen, 2022) demanding decent incomes for farmers, the use of correct numbers when calculating farmers' income, and a fairer distribution of values in food production (Bondeopprør.no). According to the survey “Trends in Norwegian Agriculture” in 2021, approximately 25% of the farmers experienced psychological distress, in the form of tension, sadness and/or anxiety (Zahl-Thanem & Melås, 2022). In addition, 50% of the 1069 responding farmers, believe that the consequences of climate change will affect farming negatively in the future, stating that flooding and drought were two climatic conditions that affected the production of most farmers in 2021 (Zahl-Thanem & Melås, 2022). As the only industry in Norway to have entered a Climate-agreement with the state, academics and farmers have expressed concern that the only thing new about agricultural climate politics is new technologies (Norges Bondelag, 2020). The climate agreement regards reducing emissions by 5-million-ton CO₂-equivalents by 2030 (Meld. St. 39 (2008-2009)). To reach this, technological innovations are not enough and require dealing with relationships of power

embedded in current investments lock-ins (Vatn; 2021; Rønningen et al., 2021) and deliberation on what principles food production is to be steered by (Fuglestad, 2023; Norges Bondelag, 2020; Flø, 2014).

Visiting *Calluna* and cultural landscapes

The pursuit of cost-effective food production led to an array of socio-environmental problems such as loss of symbolic relationship between national identity and rural landscape (Setten, 2005) and loss of functional biodiversity and ‘services’ such as pollination and soil formation (Tschardt et al., 2012; Weis, 2010). Biodiversity has also been lost due to the cessation of extensive and labour-demanding agricultural practices associated with the use of outfields and infield grazing pastures in which semi-natural vegetation types resides (Vik, 2020; Svalheim, 2019; Kaland & Kvamme, 2013).

Biodiversity is defined by the IPBES (2019, p. 1033) glossary as the variability among living organisms and the ecological complexes of which they are a part, including variation in genetic, phenotypic, phylogenetic, and functional attributes, as well as changes in abundance and distribution over time and space, within and among species and ecosystems. Elliot (2020) highlights that the biodiversity concept, like other scientific concepts, are value-laden and is tied more closely to the notion that nature has intrinsic value than to the idea that nature is valuable instrumentally or relationally. The reason for this is that the concept of biodiversity describes elements of nature (such as genes, individuals, populations, or species) and the differences between them (i.e., diversity) rather than the relationships between humans and nature (Elliot, 2020). As a result, biodiversity has too often been conceptualized as conflicting with human activities (Kareiva et al. 2012).

When you draw on certain indicators you also draw on a whole set of worldviews. Encompassing the ways people conceive and interact with the world, worldviews are expressed through knowledge systems that are bodies of knowledge, practices and beliefs associated with culture and language (Pascual et al., 2023). An anthropocentric worldview gives humans intrinsic value, and therefore centres human interests (Pascual et al., 2023; Vatn, 2021). A biocentric or ecocentric worldview emphasizes living beings or nature’s processes as a whole, such as rivers and entire ecosystems (Pascual et al., 2023). The two latter are pluricentric worldviews that focus on several intertwined relationships among humans, other-than-human beings, nature’s components, and systemic processes (ibid).

Relational values are defined as ‘values relative to the meaningfulness of relationships’ (Pascual et al., 2017, p. 15) and is a concept resulting from a recognition that the axis intrinsic— instrumental values fail to cover the breadth of values of the environment expressed and realized by people. The concept ‘relational values’, opens up for conceptualizing the subjective values, held by individuals or groups of people in relation to specific qualities or features in the environment, including place-specific ones (Stenseke, 2018, p. 83). Relational values are to be understood as values that do not directly emanate from nature but are derivative of our relationships with- and our responsibilities towards nature (Pascual et al. 2017, p. 11). This is thus a concept that concerns a specific dimension of the human-environment relations, that is humans’ perceptions of them (Steneske, 2018).

As the use of natural resources changed over a brief period of time (since the 1900s) a range of nature types associated with the agricultural landscape declined (Norderhaug, et al., 1999, p. 5). Rapid societal changes for agricultural development have meant intensification, specialisation and rationalisation, but also depopulation, abandonment and overgrowth (Vik, 2020; Flø, 2015; Norderhaug et al., 1999, p 12). Overgrowth is a succession step occurring in cases of insufficient grazing and refers to new shrub and tree species that emerge and shade for the ‘original’, less competitive species such as *Calluna Vulgaris* in heathen landscapes (Kaland & Kvamme, 2013, p. 31.). For heathen landscapes, burning is also an important disturbance management for clearance and to maintain successional stages as older heather (25-50 years) have slower growth, reduced production of foliage and shorter shoots, has less nutritional value and becomes more vulnerable to frost and insects (Kaland & Kvamme, 2013, p. 18). If such disturbances do not occur, the balance is shifted between the heath's different plant species, and in time they disappear (Løvschal & Fjalland, 2023). The human-made heather moors took shape in the middle of the Stone Age about 5,000 years ago, when the forest was cleared and burned to make use for cultivation and grazing livestock (ibid). Everywhere in the sandy fields heather shot up in the newly produced clearings and with fire, axe, and grazing livestock both Stone Age- and Modern farmers maintain various stages of growth with species-rich edges and ecotones (Løvschal & Fjalland, 2023; Kaland & Kvamme 2013; Head, 2012). At regular intervals, the heath was interrupted by burning so livestock could graze on fresh shots. Later peat extraction and harvesting also became part of the maintenance and expansion of the heathen landscape (Løvschal & Fjalland, 2023). Conversely, the *Calluna* became related to the periodic removal of bushes and trees to rejuvenate the heather and prevent its successional

stage of overgrowth (Løvschal & Fjalland, 2023; Kystlynghei, 2014; Kaland & Kvamme 2013).

The heathen landscape bears witness to the longest nature type in Europe, stretching 3,600 km from Portugal in the South to Lofoten in the North, including large areas in Ireland and Great Britain (Kystlynghei, 2014). Flowering in August - September, its purple line tells a story of earthly survival. Being concrete, historical, and imaginative it can inform how socio-environmental communities self-organise around particular disturbance ecologies (Løvschal, 2021). According to Løvschal (2021) heathlands have primarily been studied through the evidence of eighteenth/nineteenth-century historical sources which at that time, heathland was a central political pivot for the expansion of agriculture and was considered a kind of depleted, ungenerous, peripheral, and residual landscapes associated with 'primitive' forms of economics organisation. From an archaeological perspective, Løvschal (2021) draw on how settlements from Early Iron Age western Jutland, in Denmark deviated from their neighbouring communities and sometimes organised in densely settled villages with regulation reflected in open forts, alignment, common entrances and fences – simultaneously with individual enclosures, storage spaces and livestock-keeping. Forms of organizations changed frequently with changing site densities and open and enclosed settlements, indicating abilities to readjust and Løvschal (2021) frame the heathlands as a starting point for considering how structures of governance can outmatch ideas of over-exploitation of common-pool resources. Following, Ostrom (2000) has rebuked dominant thinking of common management of renewable resources as leading to tragedy showing that commons have existed for a longer time and are more sustainable than Hardin's suggestions of private or public management. The main reason for success is that commoners are in social networks where they convene, act, deliberate and sanction each other and in effect produce and convey common norms for how to live well together (Ostrom, 2000). However, due to changed maintenance form, land-use change, eutrophication, and atmospheric pollution it is assumed that 85-95% of the heathen landscape is gone in Europe (Løvschal, 2021), and estimates from 1997, states that 90% of the heathen landscape in Norway is gone or in process of regrowing (Kaland & Kvamme, 2013, p. 30). This raises a critical concern for centring the knowledge and practices needed to care for *Calluna Vulgaris* and the associated habitat landscape.

In effort to evoke these relationships the term *Cultural Landscape* aim to promote management practices to ensure culturally dependent biodiversity that have come to represent cultural and biological heritage (Head, 2012). Plumwood (2008) critiques the concept of the

cultural landscape for attributing agency exclusively to the human element and the land as a space or medium for human creativity and argues that the terminology writes passivity, visuality, and human-centeredness into the landscape. Ideas of integration might just mix nature and culture without recognising that as concepts they are inherently problematic (Head, 2012; Plumwood, 2008). Although allowing reflections on human interactions with the land, it is primarily through the metaphor of sight excluding other ways of knowing land – walking, smelling, tasting, and imagining other species' perspectives (Plumwood, 2008). The terminology creates other practical tensions where the landscape can pin in place and time a static understanding of the cultural processes (i.e. traditional practices and notions of heritage etc.) that produced it in the past, while descendants might want to be in the present (Head, 2012; Setten, 2006). Freezing a process in time and distancing the seer from what is seen inhibits reciprocity and consent and must be balanced with other metaphors, senses, and narratives that decentres the human (Plumwood, 2008; Haraway, 2008; Kirsksy & Herlmreich, 2010). The first step is to acknowledge that the *cultural* in the cultural landscape, is redundant (Plumwood, 2008; Setten, 2006). Landscapes are already concrete and material, historical and imaginative narratives (Mathews, 2018; Ingold, 2000) and loaded with meanings constructing personal and collective, political and place identities (Head, 2012; Setten, 2015).

According to Rønningen et al. (2005), the concept of cultural landscapes has been given positive associations and a point of legitimation within agriculture; and industry which was associated with overproduction and environmental problems. Given an additional profile as a producer of good cultural landscapes, the term in the Norwegian context can be seen as the further development of multifunctional agriculture (Rønningen et al., 2005). The relationships and mode of actions that the term cultural landscapes try to evoke are commendable, and this thesis will provide reflections on the ways in which it fails and succeeds and how the term and associated subsidy scheme can be coupled with other concepts to achieve its long-term engagement in cultural and biodiversity management. A central focus is that of commoning-communities' relationships to land.

Selected cultural landscapes in agriculture (UKL; Utvalgte kulturlandskap i jordbruket)

Considered Norway's follow-up on the European Landscape Convention (ELC), the Selected Cultural Landscapes in Agriculture (UKL, Utvalgte kulturlandskap i jordbruket) are

a “collection of the most valuable cultural landscapes in Norway”, compiled under the slogan “Nature, cultural heritage and livelihood” (Directorate of Cultural Heritage, 2019, Hoel et al. 2020). UKL was designed to sustain rural livelihoods while safeguarding cultural and biological values associated with agricultural practices no longer considered cost-effective within prevailing economic and technological conditions in Norway (Vistad et al. 2013). It emerges as a response to decades of a trend towards agriculture industrialization, which is viewed as detrimental to biodiversity, historical, cultural, aesthetic, and recreational values, and resources, thereby considered disruptive to the symbolic relationship between national identity and the rural landscape (Setten, 2005). The use and maintenance of the landscape and buildings that are associated with a particular way of farming illustrate specific modes of operation and technologies that also constitute their own ways of relating to the landscape (Øian & Rønningen, 2013). Resonating to what has been pointed out as “the rescue of the villages” through rural development, UKL aligns with the need for income diversification in the agriculture sector through settlement and employment related to tourism and other business development, based on aesthetic and experiential qualities of the rural landscape (Rønningen & Øian, 2013; Flø, 2015). To understand the scheme’s conceptualization, it is important to elaborate on its history and organizational framework, how the cultural landscapes are selected, and what agricultural practices it is referring to.

The status derived from previous ecological and botanical mapping of endangered nature types in Norway, resulting in Selected Nature Types defined as a uniform type of habitat that includes all its biodiversity and environmental factors (Directorate of Environment, 2011). Selected Nature Types vary in size, ranging from small areas such as hollow oaks, to larger contiguous areas such as coastal heathland, and are instrumental within the Nature Diversity Act, enabling stratification of each habitat by its perceived importance (Directorate of Environment, 2011). Most of these selected habitats are semi-natural vegetation types, which depend on disturbance management such as occasional burning and grazing herbivores to maintain habitat and population assemblages (Svalheim, 2019; Norderhaug et al., 1999). These practices are often associated with traditional agricultural methods, where the labor of animals and humans drives the work, and the natural resources lay the foundations for what and how much is being produced on the farm (Fuglestad 2023; Norderhaug et al., 1999). Semi-natural vegetation types are recognized for holding genetic keys for climate adaptations due to species diversity enhancing its ecosystem functions (Svalheim 2019:15). While around 29% of the listed endangered species are connected to semi-natural vegetation types (Artsdatabanken

2021), the value of functional biodiversity on the farm is often inadequately acknowledged or understood, and conventional intensification tends to disrupt the beneficial functions of biodiversity such as pollination and soil formation among other (Tschardt et al., 2012). Maintaining these practices and vegetation types requires a combination of both preventing change and bringing about change in the form of active measures with specific forms of agricultural operations, and restoration of buildings and cultural environments (Vistad et al., 2013). The interference needed to maintain semi-natural vegetation types illustrates that biodiversity is not only threatened by land conversion and climate change, but also by the cessation of traditional agricultural practices (Dybdal 2023; Vik, 2020; Svalheim, 2019; Norderhaug et al., 1999; Tschardt et al., 2012).

In terms of environmental governance, UKL is a PES scheme with a pedagogical and economic intent, based on the producer-gets-principle, and founded on volunteer agreements between landowners and the state. Existing subsidies, such as Special Environmental Measures in Agriculture (SMIL, *Spesielle miljøtiltak i jordbruket*) and Regional Environmental grant in Agriculture (RMP, *Regionalt miljøtilskudd i jordbruket*), are based on the same principles and are also directed towards broad notions of landscape maintenance, however, UKL is considered a more specific approach (Øian & Rønningen, 2013). Through the UKL scheme, farmers and landowners can receive grants to restore heritage sites of cultural and biological values, typically involving activities such as trail maintenance, building restoration and ensuring grazing pressure.

The coordination of UKL is illustrated in figure 1 and results from the engagement between the Directorate of Agriculture, Directorate of Environment and Directorate of Cultural Heritage, and is funded by the Ministry of Climate and Environment and the Ministry of Agriculture and Food. The total fund is decided in the yearly Agricultural Negotiations between the State and the Farmers' Unions. The shared responsibility illustrates a first-time collaborative effort between the governance bodies involving multiple disciplines, professional authorities, sectors, and laws (Vistad et al. 2013). Under the authority of these three directorates, data on landscape values involves description, registration and inventory of landscape morphology deposited in national registries such as the SEFRAK-registry under the authority of the Directorate of Cultural Heritage and Natur I Norge (NIN) map for biodiversity under the authority of the Directorate of Environment. These registries and mapping platforms are informed by researchers and professional authorities in the fields of archaeology, botany, ecology, and history. After recommendations from regional authorities based on national

registries, the decision of selected areas is made by the Ministry of Food and Agriculture and the Ministry of Climate and Environment. Following the local governance reforms in 2020, the responsibility for implementation, issuing grants and their follow-up was transferred from the County Governor to the respective municipalities, while the County Governor acts as the appellate body (Hoel et al. 2020). Additionally, regional administration is given the task of facilitating knowledge transfer and coordination across municipalities, to maintain necessary information flow.

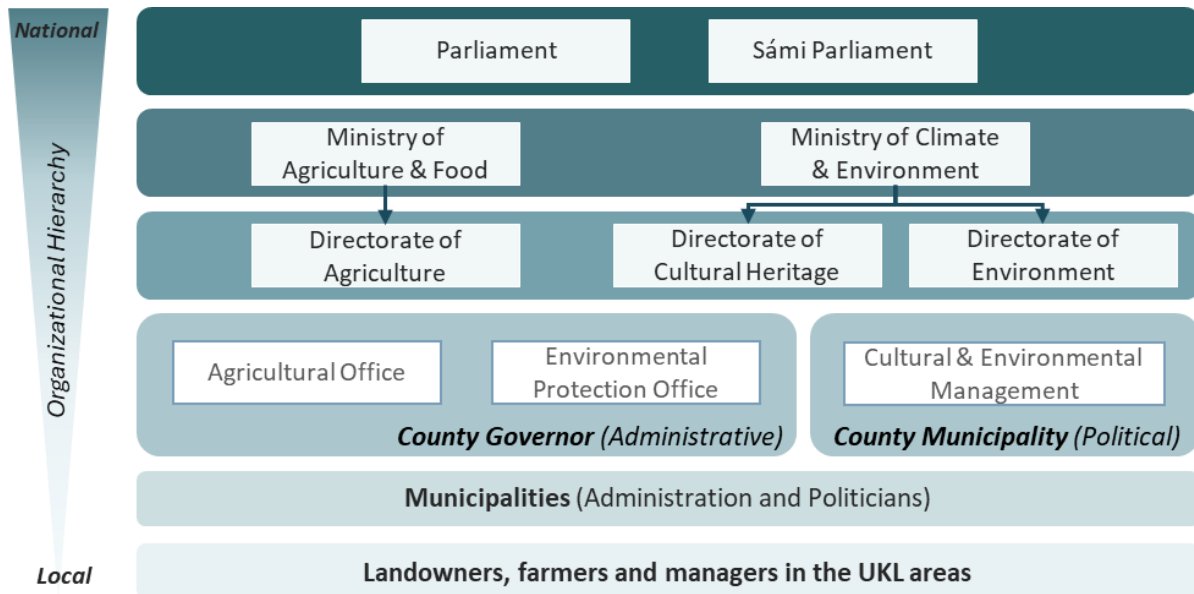


Figure 1 – Illustrate the national, regional and local administrative and political governance bodies involved in the UKL scheme. Accounting for some of the differences in administrative and politically elected bodies.

The protection sought to be achieved through UKL depends on both the local authority and various central government authorities respecting it and following up in their planning when considering individual cases (Bugge, 2013). This is because UKL is neither statutory nor regulated by a central regulation and differs from landscape protection with a legal basis in the Nature Diversity Act or protection of cultural monuments and environments under the Cultural Heritage Act (Bugge, 2013). By relying on laws in different sectors being applied in a supportive manner, there is a higher uncertainty about the future of such schemas (Bugge, 2013).

The UKL framework represents a softer and more flexible form of protection than that achieved through formal conservation decisions, where management can be perceived as limitations on operational possibilities and interference with the landowner's right to decide

(Vistad et al., 2013). To increase legitimacy, the scheme focuses on participation, influence, knowledge flow and potential benefits for several parties (Vistad et al., 2013; Hoel et al. 2020). This is expected to facilitate local and bottom-up initiatives in landscape maintenance based on voluntary agreements between public and private actors (Vistad et al. 2013). Farmers and landowners receive rights and performance-based payments to maintain cultural and biological values (Hoel et al., 2020). A distinction is made between agreements on remuneration for investment measures and agreements on remuneration for operations and management. In both cases, the core is simple: The farmer shall implement certain investment and/or management measures in return for remuneration from the state. This remuneration from the state does not cover the entire cost of the measure and requires own efforts and/or contributions from other sources (Vistad et al., 2013; Bugge, 2013).

Since its establishment in 2009, this status was given to areas which could report significant biological and heritage value, and where long-term maintenance through active farming was deemed realistic (Directorate of Environment, 2009; Vistad et al., 2013; Hoel et al., 2020). The selection is further linked to the age, representativeness, rareness, and architectonic significance of the area's cultural and biological heritage (Vistad et al., 2013; Directorate of Cultural Heritage, 2021). In total, the UKL status has been granted to 51 locations in Norway (Figure of locations in appendix), which serve as reference areas for maintenance practices and places agriculture within an active management role in cultural landscapes (Agricultural Directorate 2022).

Considering the provided information, UKL represents an integrative approach to cultural landscape management, encompassing ecological, cultural and socio-economic considerations. As it aims to achieve a more sustainable land management by promoting community involvement, understanding the local perceptions and responses to UKL is fundamental to ensure the continued preservation of Norway's cultural landscapes through this schema.

The UKL scheme is situated in the interplay between the physical-material surroundings and how people, through social relationships and cultural ideas, norms, and values, experience landscapes. With the aim of incentivizing conservation through traditional farming practices and the use of local resources it is a shift from strict notions of landscape preservations. As various perceptions of landscape will influence the course of landscape management the ELC have encouraged participation in planning rooted within local

communities. How relationships and values linked to specific landscapes are included in UKL planning is therefore central to this thesis. Following everyday practices in the two UKL locations, perceptions of landscapes can be identified through the traces of the past that are treasured in the present illustrated by how notions of heritage are mobilized.

Chapter 2: Theory and methods

Theoretical framework

Chapter 3 demonstrates divergent perceptions of landscapes. I will interpret insight acquired through ethnographic fieldwork and explore these divergences using critical analytical approaches. The literature used in this study draws from feminist political ecology and multispecies studies, which focus on the processes of knowledge production and relationships of the ‘commoning-community’ in shaping environmental governance. In the next sections, I will present parts of the theoretical background that underpins the analysis of UKL landscapes.

Feminist political ecology (FPE)

Political Ecology begins with the premise that the environment is shaped by politics and is therefore not entirely natural. This field draws from various theoretical frameworks and academic disciplines to explore dimensions of power and justice across temporal and spatial scales (Benjaminsen & Svartstad, 2021). Political ecology case-studies focus on three aspects of environmental governance: (i) the *use* of nature that constitutes a prerequisite for satisfying needs and wants, (ii) implemented *conservation* measures to maintain certain ‘natural conditions’ for the future, and (iii) the *distribution* of economic benefits and burdens affecting i.e. farmers related to uses of nature (Benjaminsen & Svartstad, 2021, p. 8-10).

Feminist Political Ecology (FPE) is an evolving debate within political ecology and feminist studies drawing on amongst other decolonial scholarships and science and technology studies (STS) about the complex relations between society and nature to understand the nexus of dynamic relations of power within society and environmental change (Sultana, 2021; Nightingale, 2006). Political ecology typically explores power dynamics and social relationships by examining the political economy, including the relationships of production and class. Meanwhile, Feminist Political Ecology (FPE) pay more conceptual attention to the daily practices that contribute to larger structures and processes, connecting scales through networks and examining power dynamics through the lens of subjectivity and intersectional social relationships. (Nightingale, 2006; 2011). Subjectivity refers to the ways in which people are brought into relations of power, or subjected, which is part of how identities emerge (Nightingale, 2011). Intersectionality may be used as a concept about discrimination against individuals and groups based on mutually constitutive forms of social oppression (Benjaminsen

& Svartstad, 2021, p.117) and how the co-constitutive character of overlapping intersectionalities can reinforce marginalization and oppression across a range of axes (such as gender, class, race, sexuality, disability, age, education, etc.) (Sultana, 2021). FPE focuses therefore on how categories of gender, class, race, come to matter within environmental conflicts, what are the ways in which social differences both manifest within conflicts and get brought into conflict in order to promote the interest of particular people, to claim or exclude people from resources.

Feminist theory can help us understand how power is used in productive relationships to create inequalities in the access and distribution of resources. It also sheds light on how power is used to shape different types of epistemic authorities, which in turn impacts the focus of environmental actions and extraction. (Nightingale, 2006; Haraway, 1988). Although categories are inherently unstable, they appear as natural or fixed through repeated acts of performances and practices, and FPE emphasise how social difference is created through everyday activities (Nightingale, 2011). Feminist, performative, and intersectional understanding of power is used to unpack core issues of power in political ecology that are not reducible to women or gender (Nightingale, 2006).

Power is a multidimensional concept that is challenged in social and political sciences, as it manifests at different time/space scales (Svartstad et al., 2018). Generally taking the form of discursive and structural power, it is understood as the capacity of actors to mobilize agency, resources, and discourses to achieve their goals (Anderson et al., 2022; Svartstad et al., 2018). Discursive power is expressed through languages and practices, and it encompasses discourses, narratives, and knowledge production aimed at shaping, constructing, or disregarding worldviews, values, and conflicting positions (Arias-Arévalo et al., 2023; Svartstad et al., 2018). Structural power, rooted in historical, sociocultural, political, and economic systems, reproduces social hierarchies and value prioritizations and is exercised by alignment with specific institutional logic (Arias-Arévalo et al., 2023; Svartstad et al., 2018).

Environmental management is a key context where struggles over difference are created and re-inscribed through practices and discourses. The question of 'nature' has been a long engagement with critiques of science and feminist theory and led to the unpacking of binaries between society and nature and a start at understanding socio-nature and co-emergents (Haraway, 2008; 2016). An example of networks of relationships and practices are landscapes referred to as *commons*. Following the scholarship of Gibson-Graham commons are seen as “a

property, a practice, or a knowledge that is shared by a community” (Gibson-Graham et al. 2013, p. 130). Commons are the seeds, the water, but also the practices put into the commons, and many feminist scholars view commons and community as mutually constitutive: There can be “no commons without a community” (Mies, 2014). Commons are the product and site of communal acts of care and responsibility, and these acts – commoning – are a binding force that constitutes community (Sato & Alarcón, 2019; Mies, 2014). Commoning can be understood as a process of making and remaking of the commons—and a feminist perspective to commoning gives a particular attention to the everyday practices, social relations and spaces of creativity and social reproduction where people come, share and act together (Frederici, 2020). Gibson-Graham et al. (2016) state that this commoning process is relevant to any form of property whether private, state-owned, or open-access, and a community taking care of and responsibility for a common – the commoning-community – is in a constant process of negotiating access, use, benefit, care, and responsibility. By recognising commoning-communities as multispecies, the commoning of social reproduction is linked to ecological reproduction (Haraway, 2016) which goes well beyond the biophysical limits and include knowledges, practices, and senses of belonging (Sato & Alarcón, 2019). These are relational values tied to locations, practices, and beings with a strong commitment to an ideal relationship with the environment. A commoning-community can illustrate biocentric or ecocentric worldviews that focus on several intertwined relationships among humans, other-than-human beings, nature’s components, and systemic processes (Pascual et al., 2023) and are central to transformative politics (Sato & Alarcón, 2019; Gibson-Graham et al., 2013). Multispecies studies are combined with FPE notions of power and performative subjectivities to engage in material and ideological struggles of how a piece of land is to be seen as holy, an ecosystem, or a resource ready to be exploited.

Multispecies landscapes

Multispecies studies are a field born from the pressure to question human centrality in all kinds of disciplines and aim to normalize and extend questions in ethics and power relationships to the more-than-human world (Câmpeanu, 2023; Kirsksy & Herlmreich, 2010). The adjective “multispecies” is already used in biological and ecological research contexts, referring to phenomena of multispecies grazing, the collaborative formation of ecological niches, and strategies for wildlife management (Kirsksy & Herlmreich, 2010). By turning these events or objects into actions of becoming, Haraway underscores in “When Species

Meet” that becoming is always becoming *with* – in a contact zone where the outcome, where who is in the world, is at stake (2008, p. 244), or when who is on the menu is exactly what is at stake. In previous work, Haraway (1988) makes the argument for situated and embodied knowledge acknowledging that we carry divergent objectivities rooted in situated and partial understandings of the world. Grounded in critical feminism, situated and embodied knowledge challenges the aspiration for universalist explanations and the power-laden partial observations of scientific methods and highlights that social differences are always relational (Nightingale & Cote, 2023; Nightingale, 2006; Haraway 1988). Furthermore, thinking about other beings for whom things matter challenges human exceptionalism (Haraway, 2008; Nightingale & Cote, 2023). For, citing Rose in *Arts of Living on a Damaged Planet* (Tsing et al., 2017, p. G55), “to act as if the world beyond humans is composed of ‘things’ for human use is a catastrophic assault on the diversity, complexity, abundance, and beauty of life”.

More-than-human theoretical lenses enable collaborations across natural and social sciences to analyse intersubjectivity among actors in conservation research (Massarella et al., 2022). This challenges an anthropocentric worldview where humans are the only beings of intrinsic value and invites us to consider other beings for whom things matter as a multitude of organisms' livelihoods shape and are shaped by political, economic, and cultural forces (Kirskey & Herlmreich, 2010; Haraway, 2008; Nightingale & Cote, 2023). Following, active citizens in building multispecies communities involve other *critters* – such as forests (Mathews, 2018), crows (Van Dooren, 2017), flying foxes (Rose, 2012), mushrooms (Tsing, 2012) and pathogens (Haraway, 2008).

More-than-human landscapes cultivate attention to temporal processes of fast-paced fires, slow-growing trees, soil formation, daily cycles of weather, and the structural violence of politico-economic transformation and state formation (Mathews, 2018). Mathews (2018, p. 392) terms these overlapping processes multiple *throughscapes*, that is: landscape patterns that exist in partial relations to each other and that overlap and lie through each other, but have different histories, organizations, and temporalities and are always unstable in relation to the details and textures that they only partially contain. To grasp the embodied, situated, and partial understandings of *throughscapes*, multiple approaches and methods are demanded (Nightingale & Côté, 2023; Mathews, 2018; Stenseke, 2018; Haraway 1988). Only equipped to give partial answers, multispecies studies aim at “knowing more at the end of the day than at the beginning” (Haraway 2008:36) and to understand the multiple ethical obligations and perspectives of the current suffering and death of human and nonhuman beings and propose

relational ethics of learning to live on a damaged planet where relations will never be settled to everyone's satisfaction and once and for all (Tsing et al., 2017; Haraway, 2016; Rose, 2012). Through a lens of multispecies studies, cultural landscapes become a *contact zone* for investigating interactions that create mutual ecologies and co-produced niches between *Homo Sapiens* and other beings (Kirsksy & Herlmreich, 2010; Haraway, 2008).

Methodological framework

This chapter will give insight into research design and methods for data gathering and analysis. Further, it aims for transparency regarding my positionality and reflects on the ethical considerations and limitations of the study.

Research design: Multiple-case study

The study aims to empirically explore how the status of *Selected Cultural Landscape in Agriculture* (UKL: *Utvalgte Kulturlandskap i jordbruket*) is perceived by various actors and to uncover considerations that arise when different interests meet in landscape planning. Connected to the UKL phenomena qualitative research is suited to uncover unexpected tensions, exploring new avenues, (Marshall & Rossmann, 1995, p. 26) and study embodied knowledge (Nightingale, 2006; Haraway, 1988). Following an inductive approach with a focus on individual meaning and reporting the complexity of a situation, this research engages in theoretical analysis through intensive examination of the cases (Clark et al., 2021, p. 62; Creswell & Creswell, 2018, p.41), where encounters during data collection challenge and shift theoretical lenses. The cases are of interest in and of themselves (Clark et. al., 2021: 59-60) but for study purposes associated with the location and organization of UKL performed by the socio-environmental communities at Engan-Ørnes, Kjelvik UKL and Utsira UKL. The intent is to generate cases based on literature review and qualitative data from fieldwork to make relationships between cases (Creswell & Creswell, 2018, p. 311). Integration of multiple cases allows for theoretical reflections on differing findings (Clark et al., 2021:65; Nyseth & Aarsæther, 2015). The aim of case studies is not to make generalizable findings, but rather, quality is determined by how well the findings are representative of the cases (Clark et al., 2021, p. 61-62). Given that the two cases which will be introduced under case context in chapter 3, Zone Zero., have different experiences with UKL, they build on each other to shape an understanding of the UKL scheme in general, and the differences and similarities between the

cases aid in identifying underlying reasons for variations and the variations in turn assist in systematizing data to connect empirical findings with theory (Nyseth and Aarsæther, 2015). Furthermore, my exposure to their context raised new questions and perspectives and the learning experience of the first fieldwork in Nordland in which the UKL status has been in effect since 2009, served valuable to *think with* while encountering Utsira which received the status in 2022. Mainly through thinking around knowledge claims related to the tacit knowledge of farmers, my ability to notice what is ‘missing’ in a farming landscape through increased botanical vocabulary, the presence of care work, and the limited administrative capacity of smaller municipalities. The order of the fieldwork period has therefore been important in formulating questions and created the opportunity to share insights with curious interlocutors from one context to another.

This qualitative research follows an ethnographic tradition that includes in-depth interviewing and ongoing participant observation (Creswell & Creswell, 2018, p.280). Interview guide in the appendix Observing behaviours and interactions of particular groups ‘up close’ could reveal sensitive information and reflexive writing about own positionality was essential as well as the ethical implications (Fangen, 2010) highlighted under Positionality, Ethics and Limitations. Building on the theoretical framework, multispecies ethnographers explore *contact zones* where the boundaries between nature and culture are blurred, investigating interactions that create mutual ecologies and co-produced niches between *Homo sapiens* and other beings (Kirskey & Herlmreich, 2010). The research requires making ontological room for *domestic critters* – people and other organisms entangled in the contact zones of breeding, agriculture, pastoralism, and science (Haraway, 2010). I have therefore involved myself in an array of organisms and ecologies which has opened a door of methodological challenges. As the multispecies landscapes are the protagonist of the study, my *companion species* have extended beyond the household kind and included grazing animals, birds, vegetation types, shrubs, weeds, and cross-Atlantic species. Noticing their presence and absence have influenced my approach to the subsidy scheme in question and insisted on the epistemic assumptions of UKL’s foundations, as the companion species are produced and experienced by human consumption.

With the emphasis on how a multitude of organisms’ livelihoods shape and are shaped by political, economic, and cultural forces (Kirskey & Herlmreich, 2010), the study is inspired by the explicit political aim of participatory action research (PAR) to improve participation in research and politics (Huntjens et al. 2015; O’Brien, 2001). The field of action research is

influenced by many theoretical perspectives to guide the research process. Systems thinking and critical theory critique reductionist thinking and aim at social change by understanding interrelationships while addressing power relationships including that of researchers in their practices and institutions (Huntjens et al., 2015). Constructivist theory emphasizes the importance of learning through action and engagement, while feminist theory aims at raising awareness of intersectional structures of domination and adds the emancipatory goal of action research (Huntjens et al., 2015; Nightingale, 2005). Stressing the political aspect of knowledge production, PAR values experiential knowledge of local groups. Other ways of knowing are emphasised with the aim of improving the position of certain groups concerning institutionalised power (Huntjens et al., 2015). This research centres on the economic-political conditions of small-scale farmers in the UKL locations as well as their resources to shape agricultural discourses. With context-specific and problem-oriented case studies *in situ* research has been conducted where the researcher participates in the activities and developments under investigation, i.e. farming activities and administrative tasks. Action research methods such as participant observations, ‘walking’ and in-depth interviews have been implemented, to build up to focus group conversations. However, research never occurs in isolation, and with the death of a resident in the small local community, these conversations were cancelled. This limits my level of engagement relevant to PAR’s group processes of problem-identification, planning, action, and evaluation (Huntjens et al., 2015; O’Brien, 2001), but has still informed the epistemic stance and research design. Combining PAR with the attention of multispecies relationships allows for an exploration of how a multitude of critters have agency (or not) in landscape planning and situates this study within political ecological concerns to bring nuances to the concept of cultural landscape relevant to investigating UKL

Choice of cases

The initial choice of Utsira as a case study was based on relationships established during an internship with the municipality administration from September to December 2022. During this period, I focused on the roll-out of the UKL scheme and conducted brief interviews with five of the seven farmers operating on the island regarding their motivations and perceived prospects of the UKL status. The interviews included aerial photographs of Utsira from 1954, following the approach of photo elicitation (Harper 2002), and allowed the farmers to direct the conversation and share their experience of landscape changes and practices over time. After feedback and consent from the farmers, the findings were communicated in a report to the

municipality to assist the UKL advisor at the time. This led to an open invitation from farmers and the administration to return for a deeper investigation.

Preparing for fieldwork at Utsira in August 2023, I decided to sign up for *Grønt Spatak*, a collaborative project between Nature and Youth and the Norwegian Farmers' and Small-Holders' Association that deploys volunteers on farms, *Sæter*¹, and *utmark*² intending to communicate Norwegian agricultural practice, politics, and dilemmas through active engagement (Spatak, 2023). Disclosing in advance my aim of gaining experience of farming conditions in Norway in general, but in UKL landscapes especially, the farmer agreed over the phone that it would not interfere with the expectations and tasks at the farm. Rather it would give me valuable humbling experiences of the hard physical labour required in cultural landscape maintenance. Travelling expenses were covered by Norwegian Felleskjøpet, Tine and the Directorate of Environment through the *Grønt Spatak* initiative.

In addition to the established connections at Utsira, and the opportunity granted by *Grønt Spatak*, my choice of case and phenomena is influenced by personal elements. Acknowledging that conservation will not take the same form everywhere and aware of the tensions between food production and biodiversity conservation, I was determined to understand multiple considerations and approaches to increasing species diversity, enhancing ecosystem functions, and achieving stable yields. Additionally, being educated in the urgency of climate mitigation involving a more proactive approach through my studies at NMBU, I adopted a rather depressive notion of human impact as the scales of extinction are unfolding worldwide. Through studies in political and decolonial ecology, I learned that this depressive notion of human agency is also fundamental in shaping mainstream conservation programs currently designed to protect nature from the optimizing, selfish, free-rider referred to as the 'economic human' (Vatn, 2015; Büscher & Bram, 2020). Necessary for protected areas 'safe from humans' to be seen as legitimate, is a discursive and material production of 'wilderness' which is often created through violent acts of dispossession (Büscher & Bram, 2014, 2020). Writing local and indigenous communities out of the history of the land raises fundamental questions regarding justice and knowledge production, as well as demanding a reconceptualization of conservation in contexts where humans and more-than-human beings have coproduced niches (Singh, 2015; Massarella et al., 2022) such as in the 'cultural

¹ Seasonal pastures in mountain regions.

² Outfield, uncultivated countryside areas such as forest and mountain areas. Makes up over 70% of the country's land area.

landscapes'. Engaging in literature on convivial conservation (Büscher & Bram, 2019;2020; Massarella et al., 2022) practical measures to conservation must involve 1) conservation spaces that integrate rather than separate humans and other species, 2) direct democratic governance arrangements that challenge elite technocratic management, and 3) novel finance arrangements that redistribute existing wealth and resources (Massarella et al., 2022). In theory, UKL represents a radical approach to conservation as it conceptualizes conservation 'through use' and active farming, illustrate a first-time collaborative effort between governance bodies and cross-political support, and aim at facilitating local empowerment and bottom-up initiatives. It is therefore highly relevant to evaluate how the UKL strategy succeeds, or not.

Ethnobotanist Kimmerer (2020) worries that as the land become impoverished, so too does the scope of her students' vision, and refers to the lack of imagination of beneficial relations between humans and other species present in her classroom. I recognize this situation, in myself and in my studies at NMBU and align with Kimmerer's question (2020, p. 5) "How can we begin to move toward ecological and cultural sustainability if we cannot even imagine what the path feels like?" For me this necessary imaginative exercise came from falling in love with coastal heather, the scent, the colour, and species assemblies weaving local and international stories of earthly survival. I was reminded of the ways in which my own ancestral lineage co-created this nature type and found a 3500-year-old story that forced me to think differently about human agency and the story I had lived by. The story of cultural landscapes accepts the entanglement of multiple socio-environmental relationships and involves an expansion of 'communities' to also include the agency of continuing events of geological formation, such as that of glaciers. Although the concept of the cultural landscape allowed me to engage in a different story than that of destruction and dispossession, I am still devoted to countering the separation of humans and more-than-human beings embedded in the same concept (Plumwood, 2006; Head, 2012). I bring these aspects into my investigation of UKL, and the related challenges of shaping conservation efforts in Norway.

Data collection

Fieldwork

Conducting fieldwork was a natural step in my inquiry to gain a deeper understanding of the context in which UKL operates (Fangen, 2010). To gain access to the lived realities of the beings shaping the landscapes, it was crucial to interact in the environment in which the

practices occurred (Haraway, 1988; 2008). From the 19th to the 29th of July 2023, I volunteered at Nystadbakkan farm in the village of Engan in the municipality of Sørfold, in Nordland County. As my presence was facilitated through the *Grønt Spatak* initiative, I was expected to work five hours per day, five days per week. I was hosted, together with another participant, in the family house on the farm, and included in all meals and activities in and around the farm and village.

From the 14th of August to the 11th of September, I lived at Utsira, hosted by previous colleagues during my internship, which are now considered dear friends. Although having some meetings planned for in advance, this stay was marked by the privilege of ‘going with the flow’ and the intuition of my interlocutors, elaborated in the next sections. During this field, I was informed about a regional network gathering on the 26th and 27th of October, in which two other UKL areas in Rogaland, Rennesøy and Suldal, would come to Utsira to “exchange experience and motivate each other”³. After some initial organizing of data and reflection with supervisor in Ås, I returned to Utsira for a third fieldwork period from 24th to the 28th of October. In addition to attending the gathering and follow up on some interviews, this opportunity was of high value to me personally, as I could experience the October slaughter. Making lasting impressions, it nuanced my understanding of ‘maintaining cultural and biological values’ and forced a presence in conversations around the ethics and justifications associated with causing the death of another being.

The UKL gathering allowed me to engage in reflections with invited landowners, farmers, and representatives of local, regional and national governance bodies. This gathering also challenged researcher involvement during action research and led to me moving from participatory observation with no explicit intervention to the opportunity of giving feedback based on my observation and analysis to possibly improve practice (Huntjens et al., 2015). My feedback mainly concerned the lack of administrative communication regarding national and local aims of UKL, and a short presentation on how UKL is part of Norwegian agricultural politics and the opportunity to link UKL to an international conversation regarding the ‘protection and restoration of 30% of land area’ (IPBES, 2019). Concluding with the crisis of biodiversity loss being contingent on society's capacity to operate between ecologically safe and socially just boundaries (Gomez-Baggethun & Naredo, 2015), this started exciting conversations about the role of ‘nature’ and the specific nature types in UKL which depend on

³ Interlocutor 7 in interview, 31.08.23.

disturbance management. Conversations were cut short but in reacting to my topics, farmers and administration workers agreed on the role of farming as a source and solution for managing biodiversity and that the time frame of human interplay with landscapes are far deeper than that of the selected nature types in the UKL locations. I will return to this. During all three periods of fieldwork, I followed the PAR guidelines of reflexive journaling with the examples of anthropologist Fangen (2010) and guidelines for thematic analyses by Braun & Clark (2019). Engaging in journaling highlighted my internalized biases and stereotypes as well as my impact on conversations and situations such as the UKL gathering. Brief writing sessions every morning and/or evening, and after interviews, assisted me in reflecting on my perspectives, expectations, and frustrations.

Selection of participants

Initially, the selection of participants was purposive and aimed at key participants being farmers and administrators directly related to the UKL scheme. However, the UKL status implies an active network of farmers, landowners, and other interest groups regarding the use, maintenance, and description of landscape values. Snowball sampling (Clark et al., 2021, p. 384) was considered appropriate to broaden my understanding of perceptions and use of landscapes. The inclusion of other inhabitants and visitors at Utsira also provided an understanding of the status farming had in the local community. With this scope the aim was to host focus group conversations on the topics encountered, as illustrated in my information letter and consent sheet. However, during my stay at Utsira, the island experienced a tragic loss. Several days of collective mourning were felt by all residents without exception. Focus group conversations about landscape themes was not appropriate at the time.

I was recommended to others through key interlocutors, but also chose to hand up two posters upon my arrival at Utsira (Appendix 4). In the posters at the administration centre and the local grocery store, I shared my phone number, my aim of investigating the UKL scheme, and a request for being included in walks and storytelling connected to the reader's landscape. The posters were also shared in a Facebook group for exchange and communication between inhabitants and visitors of Utsira, a site I had used the previous year to borrow a bike during my internship. Both the posters and the Facebook post helped establish my presence and I was often recognised as I passed by, leading to shorter and longer spontaneous conversations about landscapes, history, and invitations to join activities. Seven out of twenty-two 'walks' were a direct result of the posters, and visiting archaeologists with the aim of facilitating public interest in cultural heritage documented the poster as inspiration for their future work. The walks and

conversations with other local and external actors were based on invitation, and conversations were not recorded but provided an arena for reflection of general impressions and corrections as well as shaping the interviews. In individual interviews with key interlocutors, we reflected on the ethical concerns of the small contexts which would affect their anonymity. Key statements have been disclosed with interlocutors in advance of the thesis delivery.

Participant observation, walks and interviews

While conducting research into everyday life one encounters the challenge of finding both the articulated and unarticulated. That life is fundamentally contextual, and this can be grasped by bringing the research into selected parts of the context such as observing and participating in labour and recreational activities. Because people seldom comment on what is happening in their everyday activities, it can be difficult to grasp the meaning of practices through observations. But at the same time, the traditional sit-down interview deprives informants from participating in their surroundings or places (Setten, 2013). This limits my opportunity to participate in the places my interlocutors talk about and (re)produce. Inspired by landscape geographer, Gunhild Setten (2013), I chose ‘walking’ as a hybrid between participatory observation and interviews, allowing me to experience the landscapes in focus with interlocutors.

To walk is something most of us do and even though it is fundamental it is often taken for granted. While walking we are bodily engaged – feeling the terrain, light, sound, and smell, and often socially engaged while walking with others (Setten 2013). Crucially, this occurs in the body, as the vehicle for what could be termed the thoughtful sensing of the environing world (Ingold, 2000). I have been walking alone and with interlocutors. In terms of methodology, walking alone to familiarize my body with the new landscape is referred to as field observations and is ideal for field researchers (Setten, 2013) as it equipped me to meet interlocutors in their own context while being aware what shoes would assist me best in the terrain, locations of cultural heritage objects and a rough sense of the distances. This assisted my memory but were irrelevant to some situations where Google Maps did not show the names for agreed meeting spots, and locals had to adapt their place-based communication to my tourist-map so I could follow certain conversations.

Because landscape and stories about it are incorporated, they are embodied and challenging to describe with words (Setten, 2013). This was expressed by interlocutors being

uncertain about where we should walk and what was “worth” looking at and talking about. *In* the landscape, certain places trigger emotion, reactions and memories which bring out the social, cultural, and political dimensions of the landscape (Ingold 2000; Basso 1996). Through the poster and interviews, I explicitly asked to be ‘brought along for a walk’ and contributed thereby to produce what took place. I most likely conveyed some expectations when sharing my interest in personal or collective stories or knowledge about farming practices, species habitats, or cultural history.

Through a combination of talking, observation, and mobility by foot I observed how my interlocutors navigate the landscape: how they avoid wet and dirty areas and challenging terrain, navigate fences, grazing animals, cultivated land, and find the ‘best spot’ and sites that offer an overview. For the interlocutor, this implies actively deciding on whether to stop, talk, point, rest, or showcase in a landscape. The walks provoked reflections regarding the physical landscape, how it has changed and why. These reflections concerned family and kindred, more-than-human beings, technological developments, environmental problems, artistic expressions, protection of cultural heritage and agricultural politics. Visiting, observing, and learning the names of places I also learned stories about what was considered wise and unwise behaving (Basso 1996) such as principles of avoiding stepping on cultivated land, how to cross fences, and sites of plantation forests that illustrated outdated knowledge. Insights from walking together or assisting in farming activities were combined with pre-established questions concerning the UKL status and contributed to a more ‘organic’ conversation. Through combining walking and sit-down semi-structured interviews with all 14 interlocutors, I have approached the physical landscape and its more symbolical and discursive meaning by focusing on what people do in it as landscape-producing practices (Setten, 2013). This led to 11 recorded semi-structured interviews, one including a married couple, that lasted from 30-90 minutes each. These served as the coding material for thematic and narrative analysis explained in the section for data analysis.

I also took part in public gatherings of celebration and mourning. To support both the preparation of the interviews and to gain a general understanding of the context, I also walked and participated in a range of activities with external visiting actors. At Utsira a lot of attention is directed to the development of a windmill park called *Utsira Nord*, and several public meetings aim to inform the inhabitants and ask for their participation in ‘deciding the future of Utsira’. Some meetings were led by the municipality, others were led under the agenda of external business and research actors. Meetings were generally aimed at findings ‘co-existence’

between the future floating windmill park and local fishing, and other marine industries, and the perceived opportunity of energy development on the island could benefit the society in terms of job opportunities and increased population. In these meetings and walks, I found assistance in anthropologist Fangen's (2010, p. 108) suggestions for notetaking where I organised my notes in categories of observation notes (the who, what, where, when and how of the interaction), theoretical notes (reflected attempts on hypothesis and assumptions), and methodological notes (instructions regarding the validity of the observation requiring self-reflection including emotional impression). The four-week timeframe at Utsira allowed me to keep open to the impulses of others and I generally showed up to any activity I was invited to unless I had previous arrangements.

Secondary data

I have made use of secondary data to supply the contextual background of UKL. By examining state documents such as white papers, reports, and other official records related to UKL, agriculture, rural development, climate adaptation, and preparedness, I gained insights into the narratives and considerations presented by the directorates, and ministries engaged in facilitating UKL. Following, I have looked at regional and local newspapers, such as *Saltenposten*, *Stavanger Aftenblad*, and *Haugesundavis*, and the local pamphlet, *Siraposten*, concerning local development projects, the presentation of UKL, and how actors were storied publicly. The majority of this was shared with me by engaged administration workers at Utsira, who wanted to share the publicity they had achieved in relation to Utsira Nord. I have also read through the local land management plan as the base for the voluntary agreements in Sørfold, and the two management plans for UKL and cultural heritage at Utsira. This provided an idea of 'the UKL vision' with desired measures and the communication between farmers, administration, and experts in meeting targets. The combination of primary and secondary data enhances the triangulation of the research. The intention behind incorporating secondary sources, however, is not to challenge conflicting narratives. Rather, I allow room for divergent narratives found in empirical reality, refraining from seeking to discredit them with additional data.

Data analysis

I have combined thematic analysis and narrative analysis to give attention to both ‘what happened’ and ‘how people make sense of what happened’ (Clark et al. 2021:541-542). The initial inductive thematic analysis of the 11 recorded conversations was assisted by Braun and Clarke’s (2006) six phases for thematic analysis and an approach checklist. This includes my familiarization with the data through transcribing recordings, noting initial codes, searching for, reviewing, and naming themes and producing the report. Addressing the inconsistency in implementing their recommendations, Braun and Clarke (2019, p. 594) emphasise the active position of the researcher in developing themes that “reflect considerable analytic ‘work’ and are actively created by the researcher at the intersection of data, analytic process and subjectivity”. Therefore, while developing themes, I first processed the data transcripts through careful reading and checking audio for accuracy. I kept memos of assumptions and tentative ideas for patterns and relationships and experienced these memos as useful to mediate the validity threat of researcher bias in light of my positionality (see own section). The tentative topics frame a literature search with the focus on critical heritage studies, commodification of landscapes, and innovative democracy. Following an action research process, an open dialogue was kept with some interlocutors and key statements was checked and elaborated on during phone conversations with a focus on creating actionable knowledge and possible implications of i.e. increasing grazing pressure and restoring hay meadows in UKL landscapes. The coding process of the data set was done in the software program NVivo (version 14) to gain a systematic overview of recurring themes. This formed the fundament for thematic maps that conceptualized the overall data patterns and relationships between them and was visualised for personal use in the software program Miro, an online collaborative whiteboard platform. This process resulted in themes of agriculture, landscape use, landscape values, and UKL.

To avoid losing the themes’ contexts I reflected on the form and function of the narrative it was extracted from, and (re)produced. A narrative is a constructed story where experiences are expressed and told by individuals as records of lived life and is therefore subjective with internal stories, arguments, and scenarios that shape premises and conclusions (Benjaminsen & Svartstad 2021). The most abstract use of the term ‘narrative in narrative theory, refer to ‘structures of knowledge and storied ways of knowing’ Cortazzi (2001, p. 384). ‘Narrative’, can be analysed as a text or product (story), but can also be understood as a ‘social process or performance in action’ such as the active relating of an experience that simultaneously relies on a mutual understanding between speaker and listener (ibid). Using qualitative interviewing

for narrative analysis, I paid attention to the description of events (who, what, where); the feelings and reactions that the narrator gave to those events; the form that the narrative takes; and how the narrator tries to evaluate the events they describe (Cortazzi, 2001). Narrative approaches offer a comprehensive way of communication that is socially, structurally, and conceptually inclusive. This method is useful in producing participatory knowledge and promoting dialogue. By focusing on narrative as a process, it introduces a self-reflexive paradigm that highlights the interactive social space where diverse narratives are produced and is an approach can help address the knowledge-policy-action problem. (Paschen & Ison, 2014).

Positionality, ethics and limitations

The way I perceive and engage with reality is shaped by my positionality. Throughout the research process, my experiences, knowledge, and values have played a significant role in influencing various stages of the study. As objectivity in research is unrealistic (Andersen, Anjum & Rocca, 2019; Haraway, 1988), I focused my energy on creating an inventory of assumptions and biases and paying particular attention to situations that frustrated or surprised me. This allowed my judgement and curiosity to be critically examined and justified through dialogue with both interlocutors in the field and conversation with academic colleagues in other disciplines when starting the analysis.

My position in relation to the agricultural topic of this thesis is first and foremost shaped by my first occupation as a teenager in Rogaland, in which I was to relieve the modern small-scale farmer when duty called them to the offshore platform. This gave me experience of the physical stress of the farmer occupation, the need for routines as well as flexibility and quick responses to ensure animal welfare. Borrowing tools from Haraway in *Staying With the Trouble* (2016), my being on duty two weeks a month, fostered my *response-ability* to attune and respond to the needs of a herd of 40 sheep. This was not a relationship of equality but based on control and I grew accountable for my forms of love and violence in cultivating species for meat production justified as maintaining grazing landscapes. I found myself in a conjuncture of events, ideas, things, people, and other *critters* – plants, animals, and microbes (Haraway, 2008), that shaped and was impacted by my routines and deviations. Today, when interacting with Haraway's (2018) practices of *Making Kin*, I find these experiences valuable to *think with* and gain other perspectives. Not only did I have sheep, but the sheep had me, in complex relations of labour and play, and love and violence (Haraway, 2016), and I honour the complex,

difficult and joyous relations we shared in attempts to cultivate my response-ability to the multiple ongoing crises on Earth. I also learned how valuable it was to cooperate and reflect with other farmers when facing challenging tasks. Overall, being trained as a farmer's replacement (*avløyser*), positioned me to assist some of my interlocutors in their farm activities in which we could know-with, and know-otherwise in mutual respect (Haraway, 2018).

My connection to Rogaland involves having ancestral ties to the gold mines and fisheries of Bømlo, being raised on the islands of Rennesøy and Vassøy, and working as a lighthouse guide for a decade at Tungenes lighthouse in Randaberg⁴. In addition to my last name, my connection and past experiences gave me a surprisingly varied network and relations of mutual interest. With the desire to be transparent about the project aim as well as my associated interests, many encounters during fieldwork involved the utterances “I want to become a farmer, what do I need to know?”. Moreover, my experiences of coming of age in the oil capital of Norway, Stavanger, and devoting my life to environmental justice, my presence encouraged reactions and added complexity in group settings on the topic of our region and nation's fossil fuel dependency.

I received positive feedback that I was sensitive and able to “speak to people that do not talk to each other”. Although this provided a broader perspective, I am certainly no expert on the lived experiences of my county, or the two UKL locations. My emphasis is just that my background gave me exclusive perspectives, allowed me to fit into particular (but not all) contexts and issued a greater challenge in the already tough but important aspect of connecting theory with practice. Returning ‘home’ as a university student I must acknowledge my connection to the knowledge-producing institution of NMBU which previously was called the ‘College of Agriculture’. This did not always resonate positively in contact with some landowners, as I had preconceived, and comments that NMBU was an acronym for *Nå Må Bonden Ut*; Now Must the Farmer Go, forced me to reflect on my institution's history. In conversations, I gained a comprehension that NMBU has been an active promoter of technological (and debt-increasing) solutions resulting in efficiency gains and the reduced need of farmers. This awareness shaped my concern for the declining small-scale farmers and therefore the aim of communicating the empirical reality of those livelihoods at the brink of extinction.

⁴ Obligatory shout-out to Tungenes Fyr: Which since 1828 has facilitated a safe voyage to and from Stavanger that made the establishment as a city possible! It all started with a candle in the attic window of Eivind Tunge...

In advance of the research project, I obtained an ethical clearance from the Norwegian Agency for Shared Services in Education and Research (Sikt, previously NSD). Experiencing local interest in my presence and research, I face significant ethical considerations in that I cannot ensure full anonymity in such small case contexts. This issue has been addressed before conducting the interviews and has likely impacted the responses of my interlocutors. I have asked for feedback and consent on my formulations in the result sections, where identities might be revealed. Otherwise, I have strived for gender-neutral language and abstraction in terms of narrative presentation. Moreover, in translating the collected data from Norwegian to English I have likely lost some nuances and meaning in the presented citations.

I argue that the multiple-case study approach builds on each other to enhance an understanding of national aim and organization of UKL and how these aims is implemented in various contexts and under differing prioritizations. This might be seen as a limitation by some reviewers, but I underscore that it is not possible to control the settings or exclude certain factors and the grounds for making comparisons are always context-specific (Nyseth & Aarsæther, 2015; Clark et al., 2021, p. 65). As an example, I did not get a hold of administrative workers in Sørfold municipality to comment on the UKL implementations communicated by farmers and landowners. This hinders a comparison of administrative circumstances in the two cases, but still allowed for meaningful reflections with administration workers in Rogaland. Similarly, while individual land management plans were only issued in Sørfold and served as an entry for reflecting on farmers involvement in shaping priorities in landscape planning, this topic were covered by the Utsira farmers directing their understanding of participation in terms of their context and involvement in development projects that would require grazing pastures.

To uncover entangled multispecies stories involves training in decentring the human and would benefit from longer ethnographic exploration. The study would have benefitted from longer fieldwork with a combination of follow-up interviews and observations as well as transdisciplinary collaborations to gain a deeper understanding of for instance the fields of archaeology, ecology, economy, and agroecology. This would be beneficial for the collective evaluation and learning that are necessary to near the emancipative goal of participatory action research (Huntjens et al. 2015). A longer timeframe would facilitate the dynamic cycles of problem identification, planning, action, and evaluation intended in PAR (Huntjens et al. 2015), and could further assist in involvement during action research, namely intervention and experimentation to increase understanding of decision-making processes for participation to become meaningful (O'Brien, 2001). A collaborative project would benefit from engaging

bodily and thoughtfully in the literature of anti- and decolonial theory in which my understanding of the literature is only based on my own readings and reflections on implications. Due to these limitations, I refrain from making strong statements about local conditions and specifically, conclusions concerning epistemological and ontological aspects outside of the empirical material.

While aiming to nuance the cultural landscape concept, I do retain some degree of human exceptionalism in that the urgency of land-use change must achieve priority in value-articulating and decision-making institutions currently designed for human politics. Doing research in my own cultural context is therefore appealing to me in that I can identify pathways to broadening the political agency of more-than-human beings in landscape planning.

Chapter 3 - Analysis

“It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties. It matters what stories make worlds, what worlds make stories.”

— Donna J. Haraway, (2016, p. 35)

This chapter will take as a starting point the political act of storytelling as I enter the contact zones of cultural landscapes entailing diverse situated thinking, feeling, and narrating. The chapter will first position UKL within the environmental governance systems (EGS) framework followed by context for the two cases: Utsira and Engan-Ørnes, Kjelvik. These sections are the base for thinking of perceptions of landscape and are referred to as a starting point - Zone 0. Thereafter, my findings are presented through a narrative format which evokes the immediacy and intimacy of my fieldwork journey. The analysis of fieldwork experiences starts in Part 1, where witnessing the loss of human and nonhuman ways of life in the UKL locations is presented and analysed in relation to background literature, in which I will elaborate on how death call for modes of responses by their survivors (Rose, 2012). Part 2 will deploy theoretical lenses on the concept of heritage evoked by various actors in the UKL locations. Followed by participation in landscape planning are embedded in ways of caring for the ways in which responses to challenges are shaped through various mobilization of heritage. At this stage the contours of two landscapes in conflict are drawn, referring to ‘production landscape’ related to food production (Setten, 2005) and the ‘experiential landscape’ which can be consumed as a part of rural value creation (Flø, 2015; Flæmsøther & Flø, 2021). These landscapes call for the commoning-communities to meet in creative arenas which can be initiated by art projects and strengthened by UKL. These arenas serve as both a closure and a springboard for reinventing practices where environmental justice can become the means and not just the end toward partial healing and flourishing on a damaged planet (Haraway, 2018; Tsing et al., 2017).

Zone zero - Case context

Starting from ‘zero’ illustrate the information available to me before entering fieldwork. At first, I wish to showcase how my understanding of the UKL subsidy scheme is informed by

the structure of the environmental governance framework by my professor Arild Vatn (2015). It focuses on human economic, political, and civil society actors that interact to shape societal priorities concerning the common environment, and draws some concerns over PES framework. Following, an overview of my understanding and assumptions on the municipalities presentation their landscapes is provided, based on websites, reports and news articles.

Institutional dimensions shaping perceptions in Environmental Governance

It is possible to present the Environmental Governance System (EGS) framed by Vatn (2015, 2021) in the same layers a landscape can be perceived, as per outlined by Jones and Stenseke (2011, p.6). The EGS framework is embedded within environmental processes, the material and physical characters, that produce environmental resources as well as manage waste. Following is the polity, which is the historical and administrative rules and laws that make up the resource regime that governs access to resources and norms for interactions within and between actors having such access (Vatn, 2015, p. 158). The scenery, referring to subjective expressions, concerns the governance structure in which the political, economic, and civil society actors hold rights to resources and have the power to define the institutions that govern resource use (Vatn, 2015, p. 159). Vatn (2015, p.78). defines institutions as “*conventions, norms, and the formally sanctioned rules in a society. They establish expectations, stability and meaning as fundamental for human existence and cooperation. Institutions regulate life, support values, and create and protect interests*”. Altogether, these layers shape and reshape societal perceptions and preferences, as well as actions and outcomes by influencing allocation of rights, responsibilities and transactions costs related to creating and maintaining institutions (Vatn, 2015). The coordination of activities and solutions to environmental problems depends on the institutional context of what is considered plausible or the best approach and are articulated as values.

Value-articulating institutions are essential sites for analysing power dimensions in environmental governance, comprised of methods and procedures for valuation and incorporation of such values into decision-making (Vatn, 2021, p. 185). These processes are guided by rules that define who can participate and in what capacity, the type of process in which participation is allowed, the validity of knowledge systems and rationalities, and how the conclusions will be reached (Arias-Arévalo et al., 2023; Vatn, 2021, p. 185). These

mechanisms are essentially weighing worldviews which encompass the ways people conceive and interact with the world, expressed through bodies of knowledge, practices and beliefs associated with culture and language (Pascual et al., 2023). The values in which these mechanisms are built upon can both refer to guiding principles and life goals (broad values) and context-specific justifications of what matters to people (specific values) (Arias-Arévalo et al., 2023; Chan et al., 2018). Specific values can be instrumental (nature as a means to a desired human end) or intrinsic (value of nature, considered and expressed by people, as an end in itself) (Pascual et al., 2023). As conveyed by Martinez-Alier (2023, p. 8-10) in what is referred as “*valuation contests*”, conflicts associated with value articulation may arise, where the protagonist of the conflicts displays different valuation languages and highlights that values cannot be measured in the same units. Although there are political opportunities for dialogues across valuation languages, the outcomes will often depend on power relations (Martinez-Alier, 2023, p. 10; Svarstad et al., 2018).

Formulations of instruments and policies cannot occur without reference to an overarching discourse (Vatn, 2015, p. 234) entailing narratives and knowledge that construct worldviews and values (Arias-Arévalo et al., 2023; Svarstad et al., 2018). In this context, it is important to mention the shift discourse on the relations between economic growth and sustainability in environmental governance. Although the publication of the “Limits to Growth” report (Meadows et al., 1972) stressed the importance of physical limits to economic growth for the needs of future generations, a shift occurred with the Brundtland Commission in 1987, where economic growth was reframed as a solution (Gomez-Baggethun & Naredo, 2015), and a business model for tackling societal and environmental problems associated with Western consumerist culture (Flø, 2020). The Brundtland Commission places the human at the centre of sustainability, and poverty was identified as a key factor in environmental ‘degradation’. On that instance, the path to justice was framed as economic growth, notably, through the instruments of international market liberalization (Gomez-Baggethun & Naredo, 2015). Under the discourse of ecological modernization, technology and trade were framed as solutions toward decoupling environmental degradation from economic growth involving efficiency gains posed by expert-led innovation and management (Vatn, 2021, p.234-235; Flø, 2020; Fuglestad, 2023).

Opposed to this notion, Otero et al. (2020) established a causal link between economic growth and biodiversity loss via greater resource consumption and higher emissions. Hickel and Kallis (2019) refute the notion that technological advancements can enable global

decoupling of GDP from resource use and carbon emissions as they find no empirical evidence supporting absolute decoupling at a global scale, even under optimistic policy conditions. Instead, more efficient resource use tends to drive economic growth, leading to increased resource consumption (Hickel & Kallis, 2019; Vatn 2021; Büscher & Fletcher, 2014). All resources taken into the economy for production and consumption will eventually become waste, and ecological economics are therefore concerned with the size of the economy (Hickel & Kallis, 2019; Otero et al., 2020; Vatn, 2021). Given nature's finite resources, economic processes must be kept with the regenerative capacity of ecosystems (Hickel & Kallis, 2019). In practice, failing to consider cycles of ecological systems means that we deal with environmental problems as we become aware of them and have created sufficient political consensus to introduce instruments that can remedy the problem (Vatn, 2021). Responding to the effects of environmental problems (ex-post reactions) is much more costly than if the causes were addressed before (ex-ante regulation) (Vatn, 2021). In addition, one encounters path dependencies in which the decisions presented to various actors are dependent on prior decisions or experiences in the past, for instance in the choice of a particular technology or policy (Rønningen et al. 2021; Vatn, 2021). Over time the choice of a particular technology will lead to a situation in which it will become increasingly difficult to follow a different development path (Rønningen et al., 2021), and create interests favouring the maintenance and expansion of these systems (Vatn, 2021). Neglecting the conflict between economic growth and biodiversity conservation from the start is risky (Vatn, 2021). However, with the aforementioned shift with the Brundtland Report, economic growth gained discursive power to construct ideas about possible and desirable actions.

To reflect the language of dominant political and economic views, environmental scientists advocated for the economic valuation of ecosystem services as a pragmatic short-term strategy to communicate the value of biodiversity (Gómez-Baggethun & Ruiz-Pérez, 2011). The concept of ecosystem services (ES) originated in the 1970s to communicate how ecosystems provide services to human society and economy (Westman, 1977; Ehrlich & Ehrlich, 1981). The utilitarian framing of material resources, species habitat, water filtration, and recreation was separated into four categories of provisioning, supporting, regulating and cultural services and served as a pedagogical tool to demonstrate how the disappearance of biodiversity directly affects ecosystem functions that underpin critical services for human well-being (Gómez-Baggethun et al. 2010). Based on neoclassical notions of markets and human motivation, Payments for Ecosystem Services (PES) was created as a way to internalize the

value of nature and change the behaviour of the economic rational human which prioritizes self-interest by maximizing personal satisfaction (Flø, 2021; Vatn, 2021). Based on the producer-gets-principle founded on voluntary agreements between rights-holders and the state, rights-holders may receive compensation to offset the potential economic loss of refraining from resource exploitation or changes in their patterns of resource use (Vatn, 2015; 2021). This compensation would reflect the use value of the ecosystem service as a commodity in the market. Generally implemented in a top-down approach, PES recognised technical knowledge and expertise as most valid (Bremer et al., 2023; Arias-Arévalo et al., 2023; Muradin & Gomez-Baggethun, 2021). Oftentimes within this frame, metrics for costs and monitoring to reinforce program objectives, emphasise instrumental and monetary values, while downplaying relational and intrinsic values (Arias-Arévalo et al., 2023).

In effect, PES developers exercise operational power by defining measures, potential participants, ecosystem services, and in distributing costs and benefits (Arias-Arévalo et al., 2023; Buscher & Bram, 2020; Singh, 2015). There is a vast literature from various disciplines critiquing the PES approach relating to its assumptions about nature, human motivation, environmental problems, and the market (Muradin & Gomez-Baggethun, 2021; Büscher & Fletcher, 2020; Büscher & Fletcher, 2014; Singh, 2015). While analysing the UKL scheme, certain issues must be addressed. Firstly, since current ecological knowledge is insufficient to draw boundaries of environmental services and to monitor their flow (Rowher & Marris, 2020; Norgaard, 2010; Setten et al., 2012), it is important to consider to what degree do simplifications serve as a ‘complexity blinder’ of ES functions and challenges. Secondly, conservation efforts are often driven by personal and collective motives, values or concerns for future generations (Singh, 2015). When signalling self-regarding behaviour through monetary compensation, it may undermine moral sentiments for conservation and erode pro-social norms such as Bowels (2008) observed in behavioural experiments. On the other hand, it is important to understand if local actors are able to mobilize discourses to challenge the implicit goals and social norms of PES by for instance emphasising reciprocity and collective action over individualist market-based exchanges (Arias-Arévalo et al., 2023; Singh, 2015). Finally, PES conceptualizes environmental problems as resulting from the failure of current production systems to internalize environmental costs and markets as the most cost-efficient way to coordinate action. Does this framing epistemologically lock in pricing as the problem and solution of the ecological contradictions of capitalist markets (Vatn, 2005; Büscher, 2012)?

Engan-Ørnes, Kjelvik UKL

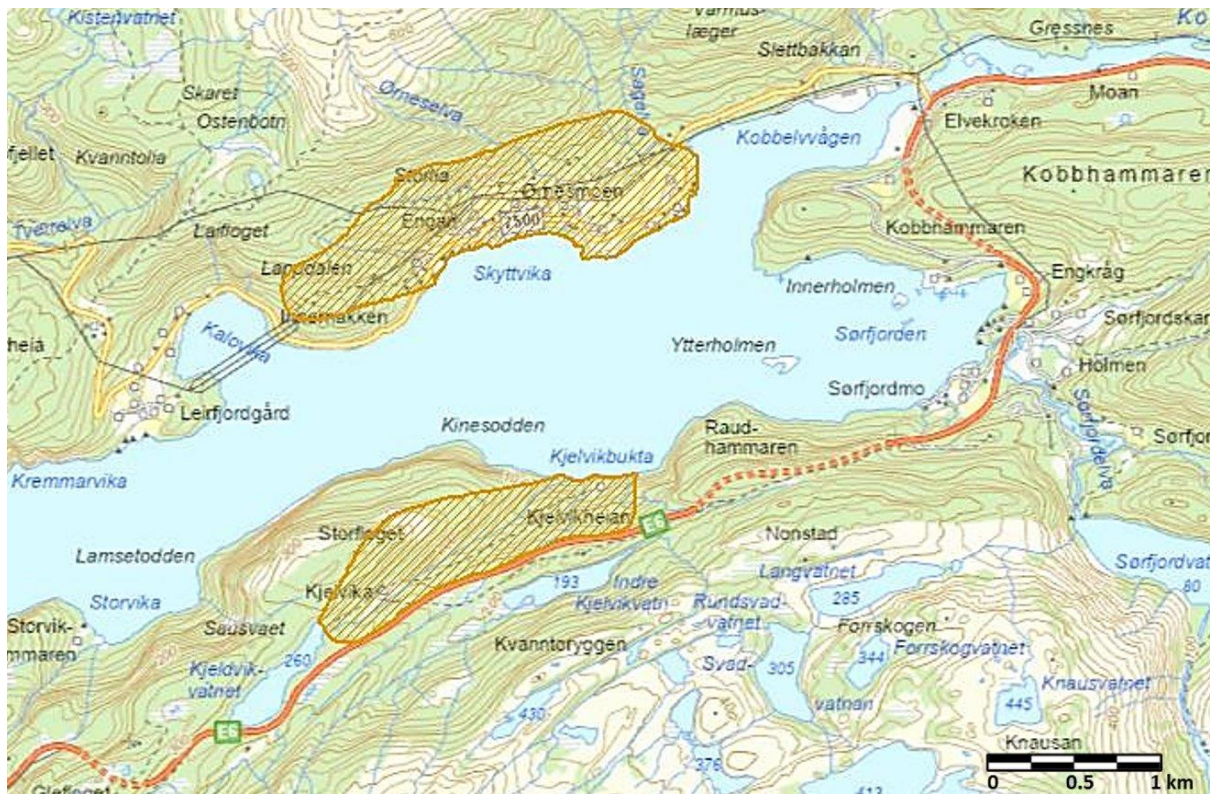


Figure 2 - Map of the UKL area of Engan-Ørnes and Kjelvik (marked orange). Kjelvik is south of the Leirvik fjord, while Engan-Ørnes is on the north side. Total 73 hectares. Adapted from <https://ukl.ra.no/>

Located in Sørfold municipality, in Nordland County, the UKL area Engan-Ørnes, Kjelvik is well above the Arctic Circle. Sørfold municipality is called Fuolldált in the indigenous Lule Sami language and had 1855 inhabitants in 2023 (SSB, n.d). The entire Rago national park is located in the municipality, and together with three national parks on the Swedish side, it is referred to as Northern Europe's largest continuous 'wilderness' area.

According to the municipality's website, Sørfold used to be a municipality where people lived off what they harvested from the sea and the land, however, in 1967, the hydropower plant Elkem Salten was put into operation and provided the municipality with secure finances and workplaces (Sørfold Municipality, 2007). The aquaculture industry has also become a significant industry with smolt facilities and fish farms. In a report communicating strategies for agricultural measures from 2014, the municipality informed that there are around 550 agricultural properties, where independent agricultural operations occur on 12 of these, mainly producing milk and forestry products (Sørfold Municipality, 2014).

At the end of Leirfjorden, 46 minutes driving from the municipality's centre Straumen, the UKL area of the two villages Engan-Ørnes, with the Sami homestead, Kjelvik, constitute 73 hectares of steep northern fjord landscape and was selected in 2009, when the status was launched. The entire area of Engan-Ørnes and Kjelvik has a long and multicultural history, representative of the livelihoods, settlements, and buildings in Nordland's fjords (Directorate for Cultural Heritage, 2019). Eight registered findings from the Middle Ages, Viking Age and Stone Age showcase the deep roots of the cultural environments (Map - Kulturminnesøk, n.d.). In total, there are 44 landowners in the UKL area, but only two active farmers residing in Engan-Ørnes with herds of wild⁵ and white sheep (Sørfold Municipality, 2014; County Governor of Nordland, 2021).

The homestead Kjelvik on the south side of the fjord has several listed buildings. In the yard, you will find a kiln, firehouse, barn, farmhouse, farm fences, earthen cellars, and several other buildings. There was a Sami settlement with cows, goats, sheep, a horse, and a herd of reindeer until 1967 when the last of the four siblings moved (Bär, 2009). The farmyard is owned by the municipality. Sørfold History Society owns the houses, while Nordlandsmuseet runs the farm, which is open to the public during the summer.

The infield pastures in Engan-Ørnes and Kjelvik are sites for the semi-natural vegetation type called hay meadows [*slåtteeng*], which is the most endangered habitat type on the Norwegian Red List (Artsdatabanken, 2018). Hay meadows are defined as open or highly dispersed wooden semi-natural meadows with vegetation that is conditioned by traditional mowing [*slått*], and which still bears the mark of this (Svalheim, 2022). The harvesting of hay from meadows is assumed to be tied with the intervention of the scythe [*ljå*] in the Merovingian period (550-850 B.C.E.) (Norderhaug et al., 1999). Hay meadows typically reside in challenging terrain that cannot be harvested by machine, and so, the use of hay meadows in Norway declined from the late 1800s and led to major changes in habitats with the successional stages of overgrowth with woody shrubs and forests (Norderhaug et al. 1999; Svalheim 2022). In 2019, the area of hay meadows in Norway was approximately 2500 hectares, mostly near farm units and their associated infields. It was very likely that the current area of this habitat type is representative of less than 1% of the area of hay meadows 50 years ago (Svalheim 2022, p. 13).

⁵ Referred to as old Norwegian "spælsau" which is a collective designation for a group of sheep descended from the oldest sheep in Europe, the peat sheep. 'Spæl' means short tail." (<https://snl.no/sp%C3%A6lsau>)

With the UKL scheme, farmers are incentivized to maintain these hay meadows by refraining from using modern technologies and taking abandoned areas into use. The meadows are often surface cleared, but not cultivated or sown in later times, and not fertilized in a modern way (Svalheim, 2022). They are harvested late in the season to allow for the seeds to disperse, and it is common for meadows to be grazed in the following autumn and to some extent also in spring (ibid). These actions of late harvest and refraining from adding seeds and fertilizers are the basis for individual land management plans between the farmers and the state through voluntary agreements that ensure UKL grants (Bär, 2009).

Utsira UKL

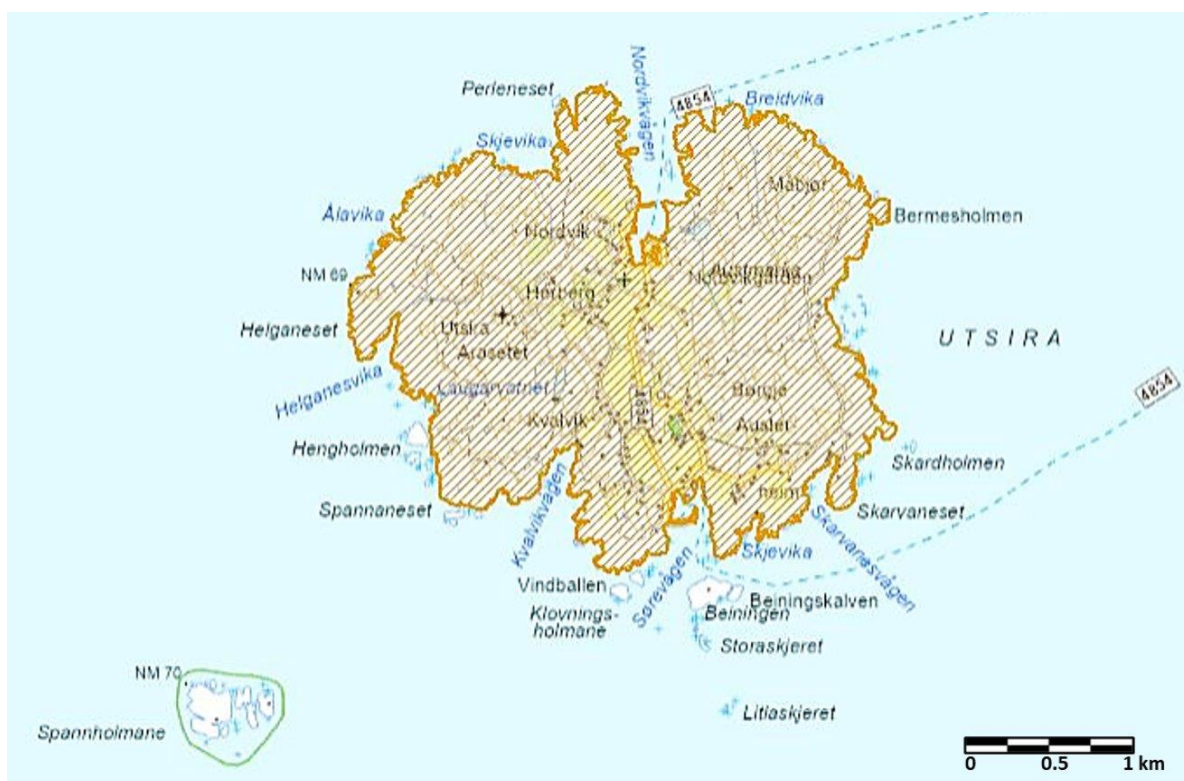


Figure 3 - Map of UKL Utsira encompassing the whole island (Orange). The total area is 6 square Km. The green circle is the nature reserve, Spannholmane. Adapted from <https://ukl.ra.no/>

UKL Utsira is the smallest municipality in Norway assessed in population with only 215 inhabitants in 2023 (SSB, n.d.). Referred to as *Sira*, by the inhabitants, the island lies engulfed by the sky and sea, 17 kilometres off the west coast of Norway in the county of Rogaland. On a good day, the ferry from Haugesund to Utsira takes 70 min. The whole island with its 6 square kilometres, is selected as a UKL area, making this the first time that a whole

municipality is encompassed by the status. The only exception from the status is small islets reserved as nature reserves for nesting and fledging birds. The island is characterized by the shipping and fishing industry, which has always provided stable workplaces (Eilertsen & Danielsen, 2021; Austreheim, 1995). Due to the location, and uncertain ferry departures in autumn and winter seasons, most permanent residents have jobs in the public sector or work shifts in the fishing, shipping, or oil industry (Eilertsen & Danielsen, 2021).

Utsira got the UKL status in 2022 and became the 51st addition to the list of selected cultural landscapes. The landscape at Utsira tells the story of coastal fishing and small-scale agriculture with deep roots. Archaeological findings of human settlements have been dated back to 7500-8000 BCE (Lindøe, 2003; Nærøy, 2015) and the island showcases 83 registered findings (Map - Kulturminnesøk, n.d.) of automatically protected cultural monuments⁶, such as tufts⁷, grave mounds and seagull houses⁸ (Directorate of Cultural Heritage, 2021). During the Viking and Stone Age settlements, horticulture and grain cultivation have only been a small but important supplement to the diet consisting mainly of fishing and livestock (Directorate of Cultural Heritage, 2021).

The outfields at Utsira are characterized by stone fences, built at the end of the 19th century and the first part of the 20th century (County Governor of Rogaland, 2021). Together with farmers, these were built by shipwrecked sailors who received meals and lodging as well as a few pennies per meter of fence they stacked (Austreheim, 1995). This hard labour provides habitats for several different animals and insects. The infield stretches through the island's central valley and is used for conventional grazing, harvesting and fertilization regimes.

Ditches and rectangular holes in the marsh surfaces in the outfields bear witness to the coastal population who covered its energy needs by exploiting the peat resources in the open landscape (Directorate of Cultural Heritage, 2021). Through pollen analyses, peat harvesting in Norway has been dated back to the earlier Iron Age, but cannot be dated at Utsira due to the activity only decreasing when the coastal population got electricity (approx. 1920-1950) (Kaland & Kvamme, 2013). The nature types in the outfields (heathen landscape and nature-pastures) are threatened by the rapid spread of Sitka spruce (*Picea sitchensis*) planted in the

⁶ All permanent cultural monuments and sites from before 1537 are automatically protected under section 4. first paragraph of the Cultural Heritage Act.

⁷ Remnants of house, building, or infrastructure

⁸ Gull houses were used to catch birds and are rare elsewhere in Norway. This method was used until the end of the end of WW2, but its use may go back to medieval/prehistoric time according to the Cultural Heritage Authorities (2021).

1950s. Ditches would drain marsh areas under nation-building project to support the forestry industry after the world wars.

In addition to a source of fuel, the eastern outfields in Austremarka are home to 150 hectares of heathen landscape dominated by its evergreen *Calluna Vulgaris*, which were important sources of food for grazing animals. Due to Norway's long coastline, the heather bears witness to our international responsibility of maintaining a third of the longest nature-type in Europe. Unfortunately, this type of nature is declining by 85-95% in Europe (Løvschall & Fjalland, 2023; Kystlynghei, 2014; Kaland & Kvamme 2013).

In the western half of Utsira, Vestremarka consists of 214.1 hectares of wood- and natural-pastures [*naturbeitemark*]. This is an open landscape where herbivores stop wood density and is referred to as a 6000-year-old vegetation type (Norderhaug et al., 1999). Like coastal heather, natural-pastures are dependent on grazing, have not been cultivated and contain no or minimal fertilization (Nordrehaug et al. 1999). Natural-pastures have not been cleared and are characterized by species that naturally occur in the area in variation according to the biogeochemical composition of the soil, such as its nutrients, moisture. They contain a high diversity of vascular plants, fungi, and invertebrates (Bratli 2010). Natural-pastures are particularly important for pasture mushrooms, and among these, 94 species are red-listed, primarily wax mushrooms (*Hygrophoraceae*), red disc mushrooms (*Entoloma*), tongues of earth (*Geoglossaceae*), and club mushrooms (*Clavariaceae*) (Jordal, 1997, in Bratli, 2010).

Although the UKL status does depend on active farmers keeping the grazing pressure in the outfields, there are no land management plans between farmers and the municipality as the basis for grants. The Management Plan for Utsira UKL 2023-2027 (Utsira Municipality, 2023) does give a list of proposed measures that regards “creating robust farming units, promote collaborations between agriculture and tourism, create projects that document and communicate cultural landscape heritage, fund removal of Sitka spruce and other unwanted species such as the Iberian snail (*Arion lusitanicus*), and restore heathen landscape and natural-pasture”. The same management plan informs of changes in farm structure based on applications for production support. In 1991 there were 15 farms on the island, with a steady decline to only 4 farms remaining in 2005 with aging Sira-farmers. Establishing fences in the outfields in 2010, motivated a grazing collective to increase the number of sheep and cattle to tackle problems of overgrowth. In 2023, the number of farmers increased to 8 with an average of 40 years of age.

There have been 105 red-listed species recorded at Utsira, of which birds, plants, butterflies, wasps, lichen, and fungi (Government, 2022b; Utsira Municipality, 2021). For many of the birds, Utsira is the last stop on the continent, before migrating across the Atlantic Ocean. Of great interest to ornithologists, the open landscapes at Utsira provide habitat, nesting, and fledging locations for several familiar and rare bird species, with over 330 registered species on the island (Utsira Municipality, 2023).

Utsira's location on the West Coast was chosen to host a 1010 km² wide floating offshore windmill park, making it a pilot for offshore windmill technology in Norway (Offshore Wind Design AS, 2023). The project is estimated to be in production in 2030 and is envisioned to produce power for 30 years (Government, 2022a). The park will be located 7-12km from the island's West Coast and require infrastructure on the ocean bed as well as on the island to build and monitor the park, as well as to capture, transport, and store the energy (Offshore Wind Design AS, 2023). Due to the UKL status at Utsira encompassing the whole municipality, the claims on land by this development project will likely conflict with the UKL aim of protecting selected cultural landscapes and grazing pastures.

Themes and characters

Before diving into the fieldwork insights and analysis of the UKL landscapes considering feminist political ecology and multispecies studies, I will introduce the main characters and themes.

The presentation of the findings is centred around two main characters: the *Farmer* and the *Administrative employee*. The *Farmer* in the study refers to current and previous farmers and farmworkers who are engaged in part-time small-scale animal husbandry defined by their herds of 70-130 wild and/or white sheep. The character is based on 7 interlocutors ranging between 30-72 years old. The farmer has other shift jobs or seasonal occupations. Their farm units hold minimum 300 years of agricultural history. The farmer is motivated by animal welfare and considers farming a lifestyle.

The *Administrator employee* in the study is based on 5 interlocutors employed in local and regional governance bodies with up to 35 years of experience. Their expertise is related to areal planning, and broad environmental topics including agriculture, pollution, biodiversity, cultural landscape, and/or cultural heritage. The *Administrative employee* have the primary

responsibility to oversee legal regulations in planning and executing local and national politics, providing welfare services, and issuing UKL grants.

After analysing recorded interviews with 12 interlocutors, four themes were created: Agriculture, Landscape Use, Landscape Values, and UKL. Their content is illustrated in Table 1. Toward the finished thesis an additional round of consent gave new insight about the UKL prospect at Utsira, and two interlocutors were interviewed over phone to give their feedback.

Themes	Definitions
Agriculture	Practices, production and technology, nature and climate considerations, knowledge, and economic and political dimensions.
Landscape Use	Refer to the various activities and actors using the landscape, including farming, tourism, development projects, and community commons.
Landscape Values	Biological value, cultural heritage, visual aesthetics, and relational values.
UKL	Conversations about the UKL status involve the selection process, land management plan, opportunities, challenges, and structure and organization.

Table 1 – Themes and Definitions

Part 1 – Witnessing death.

“What is important about a death narrative is that one’s own passing away becomes a gift for those who follow, as well as an address to them. Death narratives are vocative; they call to one’s survivors for some mode of response”

— James Hatley, (2000, p. 212; in Rose, 2012)

A story from Aboriginal country goes like this: “when the flying foxes hang upside down over the river, they are telling the Rainbow Snake to bring rain” (Rose, 2012). To understand this story, Rose (2012) explains the life worlds of Australian flying foxes (*Pteropus species*) and their co-evolved myrtaceous flora. The myrtaceous flora benefit from the basis of the flying fox diet, which in turn is crucial for their pollination and seed dispersal (Rose, 2012). Co-evolving within the dynamics of wet and dry seasons, the flying foxes arrive when the

eucalyptus start to bloom. When the flying foxes are camping along the river, the mob is telling the Rainbow that the earth is getting too hot, and that it must get to work and bring the rain (ibid).

It is a story of time in mode of sequence: the flowering of eucalypts in a series that starts in the higher and drier country and finishes at the riverside. It is also a story in mode of synchrony: the arrival of flying foxes come from somewhere else to feed on the pollen and nectar (Rose, 2012). Similarly, it is a story of communication, where trees call to flying foxes and how flying foxes call for rain, and where desire for food and for pollination meets in what Rose (2012) calls embodied and embedded ethical knots of time. The interface of ethical time ‘knots’ illustrates socio-environmental relationships with transmission of wisdom, memory and traditions from generation to generation, and associated obligations and responsibilities, as life is sustained. It is a form of intimate inheritance of ethical relationships that crucially starts with events in land, and assist us in thinking about complex time in concrete manners following strings of entanglement, one interaction at the time. Adding flesh to abstract notions of time, Rose builds on Hatleys’ work on death narratives and the murder of ethical time (2000, p. 212), and address stories of loss as a gift “*breathed through generations arrives unasked for and carries an obligation*” (Rose, 2012, p. 130).

By the Victoria River the number of grey-headed flying foxes of eastern Australia (*P. poliocephalus*) have dropped by one third, and Australian woodlands, forests, and rainforests have been reduced by 95% since 1788 (Eby, 1995 p. 31; in Rose, 2012). As we witness fragmentations and functional extinctions, such as the assemblages of species in the heathen landscapes and hay meadows, silence is the failure to acknowledge the gravity of violence of extinction debts and adds to the victimization of the one whose suffering appear to not matter. Rose (2012) encourages writing as an act of witnessing and the narration of analysis therefore starts with the end, witnessing death, and centering the responses death and loss calls for. Following the call of Haraway (2008; 2018), the narration pursues a kind of affective-effective thinking in which subjective, emotional, and experiential dimensions of knowing and not-knowing in multispecies becomings shapes a sense of ‘we’ capable of responding. It centres the affective labour of care, which sustain interdependent worlds which cannot be grounded in the longing for a smooth harmonious world, but in vital affective-ethical everyday practices of *doings* that engage with the inescapable troubles of interdependent existences (Puig de la Bellacasa, 2012).

Slaughter

Field notes, Wednesday 25th of October 2023:

Today I'm going to join the slaughter of a sheep. What if I try to stop it, a second too late? I need to observe this if I am going to become a farmer. I need to learn this if I am going to become a farmer. My aim is that the only farmer on the island that still slaughters for their own consumption can teach me. I'm not sure the younger farmers know how to do this.

“Fill your head with good thoughts,” the farmer tells me. “Here we are moved by three principles: Calm, Quick, and with Respect.” We are sitting in their office in the barn. The amount of daylight has decreased while the winds increase in strength. Autumn is the season when trees redirect their nutrients to their roots deep underground to avoid potential frost. The deciduous trees let go of the leaves, for to hold on would mean certain death. It is a season for reflecting on composting cycles and what must die so that other opportunities may live. October also marks the month were migratory birds leave Scandinavia for warmer regions. On this journey they make a last stop at Utsira, and this month a total of 3046 birds of 48 different species were registered during the 28 days of ringing in the Sitka spruce forest, Merkeskogen (Grimsby, 2023). From the list of bird species assessed by the Species Data Bank 40% are currently red listed mostly due to decline in the breeding population and area of occurrence (Stokke et al., 2021). Seabirds linked to the agricultural landscapes are at particular risk (ibid).

The sign of autumn signals the culling of the herd size so that there is enough space and fodder for the remaining herd that will spend the winter in the barn. The animal welfare authorities have strict regulations in place regarding the access to appropriate shelter, bedding and access to outdoor areas. The Farmer must also ensure adequate nutrition through high quality hay and grains, as well as routines on monitoring health. To cover these needs for a 100 winter fed sheep, the herd sized must be controlled.

Only the males designated for breeding will survive the season and are selected on the basis of their wool, hooves, horns, and scrotum. The Farmers at Utsira select males from each other's herds to avoid inbreed. On this Wednesday, two male lambs will be slaughtered for the Farmer's own consumptions. Any home-slaughtered meat is illegal to sell. Once they are separated, they will become very anxious the Farmer informs me. My task will therefore be to hold the one remaining in the barn while the first one is led outside. “This is never easy.” The farmer presses, mumbling that they can't understand the concept of hunting for sports.

Field notes: My whole body is filled with good thoughts as I repeat what your life has taught me. My grip is firm around your horns, and my heart is beating rapidly. I hear the shot from outside. Your brother is dead. Death is a relational exchange. I thank our

forebears, who brought us nourishment. Death usually arrives unasked for and with an obligation. It calls for a response by its survivors. How will I respond to this planned to take of a healthy life?

My immediate response was nausea and numb fingers. But once the life was gone, my obligation shifted: to make sure the material remains of the sheep were utilized well and with respect. The captive bolt gun released a retractable bolt that swiftly extends and retracts impacting the skull of the sheep, which is then turned into a carcass. The use of captive bolt is regulated by certification of proper training. Causing brain damage, the animal is immediately unconscious, and the necks major blood vessel is cut to allow the blood to leave the carcass as it can affect the quality and taste of the meat.

The killing happened behind the barn. The rest of the slaughter process in which the skin and intestines are removed happens inside the garage where school children between the ages of 10 and 14 are observing us. Some are crying. Their teacher has told them that kids need to understand that the meat they consume does not originate in a plastic container at the store. In the book *Live, Die, Buy, Eat*, Bjørkdahl and Lykke (2023, p. 3) is concerned with how ordinary people in Norway shy away from the fact that meat comes from dead animals. The authors refer to killing of animals as separated from any previous rituals and where moral responsibility is justified by laws and regulations. Killing in slaughterhouses happens on such a big scale with so many different and mechanised steps, that the burden of killing is not even clear within the slaughterhouse. There is a distance between the places where domesticated animals are kept and slaughtered and where most people live and work today. There is also an incapacity to explain, rationalise, and justify the animal killing that is necessary for meat production and consumption. Bjørkdahl and Lykke (2023, p. 11-12) refers to this change in relationships to meat as a product of spatial, social, and cultural alienation. By using legislation for animal welfare and mechanised large-scale slaughterhouses, the moral responsibility of killing is institutionalised in legal frameworks, resulting in an estrangement where nobody really knows who is responsible for the actual killing of the animal (Bjørkdahl & Lykke, 2023). This alienation occurs at the same time as meat is moved from the periphery to the centre of human diets (Bjørkdahl & Lykke, 2023), leading to a rising population of animals confined and suffering in industrial farming complexes, as well as environmental damages, such as soil erosion, salinization, water depletion and loss of biodiversity and ecosystem services (Weis, 2010). Weis (2010) therefore argues that efficiency gains are deceptive and covers the logic of externalities in the capitalist industrial agriculture. Bjørkedahl and Lykke (2023, p. 275) offer

countermeasures against alienation, including small-scale farming which can ensure animal welfare and the re-establishing of direct link between producers and consumer, and a return to eating ‘the whole animal’ (Bjørkdahl & Lykke, 2023, p. 276). As a part of the seasons, witnessing death can serve as an intimate reminder on the lives that sustain a community.

The Farmer tells me that their mother knows how to make all kinds of dishes from the intestines and the blood of the sheep. However, blood sausages are made in combination with pig blood that have not been available on the island for a generation, and the cattle Farmer does not slaughter themselves as the carcass is too massive for storage units and cannot be sold on the market. Bjørkdahl and Lykke (2023, p. 44) argue that the industrialization of meat production was enabled by the change from farm self-sufficiency to national self-sufficiency. Certain regions were to focus on grains and others on animal husbandry which led to the division of the two sectors and decreased circularity of farms. Another notable difference between killing for farm self-sufficiency and now, is that it mainly used to be a farmwife’s job and required many skills for the utilization of the material remains of the animal (Bjørkdahl & Lykke, 2023). This day the Farmer leaves aside the kidneys of the sheep and continues the labour of removing hooves and the head of the carcass before it is hung up to air dry. Putting my knuckles between the skin and the body during what’s called the shearing process, the warmth of the body felt surprisingly comfortable. Other than the meat itself, and the kidneys, the remaining carcass was not used and would be buried in the pastures.

The school children were accompanied by their teacher which was also a trained veterinary. We learn how a veterinary examines sheep intestines to say something about the overall health. We learn of the four stomachs of the sheep, and how the gut contains bacteria that help digest the grass. We watch the stomach grow bigger because the body no longer burps. After opening the intestines to see what it looks like, we all react to the stinky smell. I ask the kids if there are any future farmers in our group and 4-5 kids raise their hands. I am certain the one still crying will become an exceptional farmer.

Field notes: “I did not apologise because I don’t believe I was doing something wrong. I didn’t say ‘thank you’ because they certainly did not consent to this. Does that make me a bad person?”

The following day I visit the farmer for an interview about UKL, still processing the death I had so intimately taken part of. I was informed that those we slaughtered yesterday had

a slaughter weight of 10 kilos. Wild sheep weigh less and have fewer lambs and are therefore considered less cost-effective. To avoid overfilling storage space, the weight of sheep lamb is generally less now than a decade ago, 45 kilos for white sheep, and 15-18 kilos for wild sheep, indicating the effects of regulations to avoid the reoccurring problem of overproduction. All Farmers has emphasized the importance of animal welfare, ensuring, for instance, that all lamb have the opportunity to roam outside, even if they require extra follow-up. In addition, they share:

“My sheep do not mate until they are *jimrar* [over a year old]. It works out for me. Though, it's not economical to have 10-15 ‘empty’. [But] these small animals have heavy births and one can destroy them and [cause] a lot of unnecessary pain.” (Interlocutor 12). The farmer states that they consider farming a lifestyle and a rather expensive hobby. Another farmer has already informed me that they have the impression that the UKL grants cover their expenses according to normal agricultural rates, “but you must not expect more than 150 NOK an hour” (Interlocutor 2). They hope that the wages of those hired to work at the farm will rise in the future, implying a future gap in expenses. Instead of high income, these Farmers are motivated by the opportunity to use local resources in food production. Facilitating tourism and recreational activities is a positive side-effect of this labour. To survive as a full-time farmer, they need at least 200-300 winter-fed sheep, which means big investments in farm buildings and acquiring extra land for harvest and grazing. However, this Farmer is sceptical about whether bigger farms manage to keep high standards of animal welfare and emphasize the importance of relating to each animal individually to know their needs. To maintain household income this farmer works shifts as a *Los*: ship pilot. In addition to having two full-time jobs, the Farmer rely on paid and unpaid assistance from family. Elaborating on the conditions of a small-scale farmer in animal husbandry, the Farmer explain that income from meat production only arrives twice a year: when the subsidies arrive in February/March, and when the animals are sent to be slaughtered in July/August. The subsidies are used for fertilization, harvesting and general maintenance. Further, they share that the price of meat is generally low:

“... I guess it is okay, but you feel a little bit that they have stolen from you when you get around 60 NOK per kilogram of Norwegian white lambs. Then you see it [sold] at 150 NOK in the shop. [...] It should have been possible to give the farmers a little more and cut back on subsidies [instead].” (Interlocutor 12).

As the responses to the slaughter of two lamb is communicated in terms of weight and current economic conditions in agriculture, the Farmer share this ambivalence and find it important to

highlight that it is not the money that motivates them. If that was the case the farm would not exist. Rather, it is the near and smaller things related to maintaining an open landscape inherited by their ancestors and in return be self-sufficient on their family's meat consumption, while additionally being given the opportunity to communicate the practices of caring for animals in life and death. The symbolic meaning and the relationship around this care work provide an understanding of why some practices associated with managing the eckcommon outfields endure although the economic returns are at best marginal (Sandstrom et al., 2017). With this in mind, UKL is seen as a recognition of the hard labour with assisting grants, rather than the motivation. Instead, the PES framing of landscape maintenance as a burden that must be compensated for, risk taking the attention from the joyful and life-affirming aspects of environmental care labour (Singh, 2015).

To further increase their self-sufficiency, the Farmer reflect on their parents' previous potato fields and shares enthusiastically about a new project of turning a Sitka forest into a food forest.

“It will be interesting to see if we can create a fauna that animals and birds thrive in, because [...] the Sitka spruces (*Picea sitchensis*) have counted their last days on Sira. The ones that we got money to plant before, now we are sawing them down, it's unbelievable, but oh well.” (Interlocutor 12)

The farmer highlights the contradiction of past knowledge and subsidies compared to current knowledge and practice. The Sitka spruce, originally from the west coast of America, endures harsh coastal climates and grows more than three to five times faster than birch and twice as fast as the regular Norwegian spruce (Tjomsland & Dalen, 2015). During the post-World War II era, Norway aimed to rebuild the country by ensuring economic growth for the forestry industry. The plantation initiative started in the 1950s and planted 50,000 hectares of Sitka Forest over thirty years (Zimmermann, 2021). Sitka also binds more carbon than regular spruce and has been given a place in the Norwegian debate on afforestation as a possible climate measure. However, in 2012 the species was classified as a threat to Norwegian biodiversity due to its rapid growth and dense forest which reduces species diversity. Today you must apply to plant Sitka, but it is not illegal. At Utsira, the marshes and natural-pastures were prepared for plantation by digging ditches or using dynamite. Some ditches are still visible in the landscape and hold stories of past practice and knowledge. Today, we know that marshes are among the largest carbon storage we have, thus playing key roles in regulating CO₂ content in the atmosphere. The marshes or bogs store carbon in dead organic matter, if this is disturbed the

material breaks down and CO₂ is emitted from the decomposition. It is estimated that Norwegian peatlands contain 3.5 billion tonnes of CO₂, which corresponds to 66 years of Norwegian greenhouse gas emissions (Dybdal, 2016). The marsh area in Norway has been reduced by one-third over the past 80 years due to ditching, cultivation, afforestation, peat extraction, and development (NTB, 2024). As marshes grow one centimetre per decade, getting stuck in the marsh while herding sheep is a time-travelling experience.

Learning the partial stories that marks organizations of landscapes evokes relations to a myriad of past and present beings and politics. Restoring ecologies must start by restoring relationships to land (Kimmerer, 2020) and by pointing towards the contradictions of what was considered best practices in the past, like the Farmer we can formulate responses that aim to increase multispecies co-habitation. Although it is not given that biodiversity will increase in the dense forest cover, memories of past practices motivate wishes for biodiversity that do not conflict with human activities. By evoking notions of *Matauk*⁹, the concept of biodiversity is linked to food security, livelihood, and health (Elliot, 2020) in relation to socio-environmental well-being. As for now, for this to be implemented they depend on support in form of suggestions for co-plantation as well as the long-term funding of UKL subsidies that allows for the creative experimentation as it will not give short-term income.

Loss of neighbours and practices

I am catching my breath on a hilltop in the hay meadows in Engan together with local and visiting volunteers who showed up for the yearly *Engandagan*¹⁰. Through the local organization *Ungdomslaget Heim*, UKL grant have been used to restore hiking trails, buildings, and to organize the festivities in which we all participated in farm *Dugnad* – volunteer work for collective good. Under the warm July's sun, we are served bread with homemade jam or rolled ham and enjoy the selection of *Saft* made from local plants and berries. It is the end of July and the Farmer with their family and workers are in the middle of their 10-week-long harvest. This day, they receive help in the steep hills from around 25 volunteers for about 5-6 hours. The volunteers plan their vacations according to this *Slåttedag* (Harvesting Day). The farmer refers to the season of harvesting as a *slåttonn*, and explains that it gives the opportunity

⁹ *Matauk*, refers to foraging. In the context of Utsira the term was used with the proposed food forest and when a fisherman tossed a bag of newly captured fish in my bike basket.

¹⁰ In English; 'the days of Engan'. Is a yearly festivity that occurs the last week of July and have received UKL grants since 2010 to cover our dinner. During the three days, the community collect money for the village through lotteries and food. This year they also celebrated the opening of an outdoor toilet at one of the viewpoints on which a trail leads through overgrown pastures and summer cowshed.

of teaching people how to make use of the land, which they consider a societal mission important for national preparedness.

A farmer shares that when they took over the farm in 1979, fifty people were harvesting the areas of Engan-Ørnes.

“My parents were going to let go of the animals. They had 15 winter-fed sheep and a horse, that was the animal I took over. At the same time, there were sheep [and cows] in every barn you see here [...] there was no basis for any large-scale farming here then. But some had stepped down a lot. [...] The first autumn I put in 30 sheep, the year after 40, and the year after 50. I was able to use more land as my neighbours shut down. And in 1988, we expanded the barn, one length at a time.” (Interlocutor 3)

As surrounding farms shut down, land became available for others who could expand and potentially make a living off farming. The terrain makes it hard to access with machinery and most of the hay meadows have therefore not been ploughed and some can only be mown with scythe (*ljå*). As neighbouring land became available it is rather special that the meadow fields and edges were still maintained. With the UKL grants abandoned areas were taken into use again.

Interlocutor 2: “When [UKL] came here [in 2009], I guess we had concluded that there was enough access to land that we could harvest [what we needed]. [...]

Interlocutor 3: “Yes, we had started to abandon some of those [steepest] hills.”

Interlocutor 2: “Yes, on this farm you can’t make the harvest in a week. It is not possible to do this easily. [We need] at least two months... We felt we had found a harvest we could live with. So, we had started to skip some [of the steepest] areas. And take some time off, too. But fortunately, we didn't get very far, and we've recovered these areas. But I've been thinking about this, the fact that we got that grant made it easier to hire work assistance. Because it's labour intensive. This here is not [done with] machine[ry], you have seen this with your own eyes you know this.”

Interlocutor 3: [...] It must be of interest to see how [the meadows] has recovered. Some fields had overgrown, and then came the Meadowsweet [*Filipendula ulmaria*] and Fireweed [*Chamaenerion angustifolium*] [...] It was interesting to see that after 3-4 years they came back to their old condition.

Interlocutor 2: ...with mowing and grazing.

Interlocutor 3 are referring to plant species that come when meadows enter successional stages. Once made aware of these names and colours, their vast presence around the roads, and houses bear witness to the missing hands, sheep, cows, scythes and neighbours in the region.

During break time I chat with the visiting botanist who oversees the land management plan between the farmer and the municipality as a basis for the UKL grants. By signing the voluntary contract, the farmer agrees to not add seeds or fertilizer as the species that reside in the hay meadows are nitrogen sensitive. The plan also specifies that the meadows must be mown after the flowers enter the seeding stage (mid-June), which allows for the seeds to be spread across the field when we rake the grass. The grass is to be left to dry in the sun in long 'sausages' or shaken and folded on strings in the act of *hesjing* (haymaking). To ensure that the grass dries without rotting on the ground it must be freshly cut, and the 'sausages' must be turned every day. The *hesjer*¹¹, (haystacks) are rows of poles with 6-8 strings connecting them, allows for more grass to be dried. The strings are made of soft steel, but an elder informs that hemp, wool, and cotton were used in the past. The hills in the villages are marked by several lines of these *hesjer*. The volunteers are directed on how to embrace, separate, and shake the grass, so the straws are more or less in the same direction, allowing some air to fill the heap yet keeping enough weight so the grass remains on the strings in changing weather. In every embrace, the seeds are dispersed. It is important to weave out pieces of soil as the microbes can start a rotting process. A tractor is harvesting surrounding areas that can be accessed with machinery and drives the hay to the barn. There another team is ready with pitchforks to tip the hay into the silo, followed by a swaying movement in which your knees eventually senses whether the heaps and dips are evened out into a horizontal level. Lactic acid bacteria are added to preserve the grass until it is used for winter feed. The activities on the farm this day require strong presence as all your senses are mobilised to determine dampness, balance, weight, and long-term thinking.

The botanist has been monitoring our *hesjer* and writing down the variety of species hanging in them. The Farmer can be certain to receive their payments as the hills still show species-richness. In the steepest hills, two people are using a long scythe. With bent knees and curved arms, the humans guide the scythe in large half-circular movements leaving grass for us to prepare for the strings. The movement follows a beat and the sound of the sharpening

¹¹ *hes* if you come from Bømlo, or *hesjer*, a more common word across the country.

stone against the scythe blade invites for a dance. A dance that takes years to perfect, removes patches of skin from inexperienced hands, and unlocks muscles in your core and back that you did not know existed. This skill, of mowing with scythe, is a process of attuning and responding of great subtlety and complexity (Ingold, 2000; 2018). The body and mind respond to the changing terrain and vegetation as it leads what is essentially a half meter long curved knife at the end of a shaft through the fields. This requires great concentration, balance, and attunement as it gets easier when you accustomed to the rhythm and follow the blade instead of just leading it. Submission leads and mastery follows (Ingold, 2018). I wanted to know how to sharpen the blade but found that the correct rhythm and length of the circular movement of the stone on the blade is actually determined by ability to hear when the blade cracks.

The botanist share that they would prefer if all the hay meadows in the area were mown by scythes as that would be least harmful to the soil composition, as opposed to heavy machinery. A farmer that has been working since the start of the UKL land management plan in Engan-Ørnes, Kjelvik comments that the botanist that would oversee the plans “was pretty fundamentalist at first [...] demanding that everything was to be mowed by scythe, harvested late, and to hesjes” (Interlocutor 3). However, after some time the farmers received support in that what could be harvested by tractor or two-wheeled harvester must be allowed to be brought by machine, as otherwise it was not feasible. Another farmer adds in an interview that the skill is simply not available.

“[...] it’s not just anyone who can strike with a scythe [...] most people can rake in some way, but [...] clearly if I knew I could call a company and ask, “can you mow these hay meadows of mine in a week” I would certainly have considered it, but there isn't that kind of labour [...] available though.” (Interlocutor 1).

In contrast to what I thought before I arrived, instead of two farmers, there is only one left in Engan-Ørnes, Kjelvik, resulting in the number of sheep in the UKL location decreasing from 300 to 130. Referred to as the seed bank of the outfield by botanist Svalheim (2019), these sheep are now reduced in the task of transferring seeds with their wool during the summer to ensure diversity of species and genes between infields and outfields. The decreasing number of farmers not only impacts the sheep population and the ecosystem services provided by them, but also poses broader challenges for agricultural land management. Agricultural land that is either arable land or infield pasture are subjected to a duty of operation (*Driveplkten*). The obligation can be fulfilled by either the owner themselves, or through leasing the land for

agricultural operation. If there is a change of ownership, the owner must decide within one year whether to lease it or operate the land themselves. The remaining farmer in Engan-Ørnes, Kjelvik maintains the duty of operation on 16 properties and reflect the national predicament where 50% of agricultural land is leased (Forbord et al., 2014).

In a changing and increasingly fast-paced society, an administrative employee refers to technological and societal changes as opposed to economic conditions as the biggest contributor to the loss of farmers.

“It's relatively uninteresting to have a job 365 days a year, if you want to participate in society at large, participate in community building, and others have 4-5 days working weeks and can go with their kids on activities. [...] The farmer is the place-based one, and there is so much going on in the surrounding community. It is not so nice if suddenly there is no school for the children or a workplace for the spouse. [...] There is no quick fix.” (interlocutor 11).

With the decrease in active farmers and the need for skilled labour, the task of maintaining the hay meadows of Engan-Ørnes and Kjelvik rests upon few shoulders. With the implementation of the UKL land management plans, the harvesting season was extended by 7 weeks to its original 10-week plan. A farmer commented on the situation:

“So, this is really important because it's about how robust this scheme really is for the future. Because as long as it depends on a very, very few people who are going to work very, very much. Then it's very vulnerable. [...] I think you must think a little bit about what it takes to be able to continue [mowing and grazing] for the foreseeable future. That collaboration is important. If you make yourself dependent on a very few who are going to do a lot and pull the load alone, then I don't think that's the most robust solution.” (Interlocutor 1).

The concerns over the longevity of agriculture in the region, as well as the social, political, economic, and juridical position of farmers, are echoed in another situation at the Sørfold municipality, where the agricultural position has been vacant for over a year. Flø (2020; 2021) highlights that the social networks of farmers and grazers that must be strengthened if grazers are to continue managing landscapes. Reflecting on this vacancy, an administrative employee states that it will be challenging to implement UKL measures related to grazing pressure.

“Then it doesn't work. You need a professional, and good local person who is interested in the field, otherwise, things will go badly even if there are good people in the county governor.” (interlocutor 6)

Based on surveys conducted by the directorates on the status and plans for UKL locations, Hoel et al. (2020, p.11-12) reported that the past two years have been labour-intensive for management. This is partly because many new areas are still in the establishment phase, and the knowledge base and management plans are still being drawn up. This must be seen considering the transfer of responsibility from regional authorities to the municipalities in 2020 and the merging of local and regional authorities through the municipality reform in 2015. Administrative employees frequently referred to the need of farmers and landowners to take initiative, underscoring that the municipality capacity to follow-up on UKL planning is essential yet, in smaller municipalities staff can be changed and often holds several areas of responsibility. A regional administrative employee comments that it is important that landowners take responsibility for the development themselves to ensure continuity of measures.

“...it is more important that the locals have an attitude to the values in the landscape, [...] and that the status confers pride and identity than the means. Call it an idealistic mindset, but it's the idealists who achieve something.” (Interlocutor 7).

A visiting landscape photographer arrives at *Engandagan* to capture the *hesjer* for a comparative landscape photography project and to interview the last Farmer in the village. For 20 years Puschman, who calls themself a geo-photographer, has travelled Norway to document changes in the landscapes. They fear that the values embedded in cultural landscapes would disappear in a few decades, mostly because the older farmers who still maintained them would be gone. A Farmer echoes the photographer's worry and states that “When the last farmer closes down, the village is closed” (Interlocutor 3). They are referring to an ageing populating and decreasing numbers of schoolchildren, as more people move away from the villages and the network surrounding the farmer disappears. The aim of the comparative photo project is that people will be faced with the visual implications of the decline in farmers, which with the lack of grazing animals leads to reduced access to open landscapes. In a book aimed at politicians and governance bodies Puschman et al., (2019) communicate the loss of agricultural land in Norway with reflections on causes effects and countermeasures. Through the sequence of pictures, the book also showcases the construction of roads and houses on agricultural land. In

the picture sequence taken of Engan-Ørnes in 1929 and in 2013, the viewer can see the change in landscapes in the form of new constructions of roads and houses, and extra forest cover as a result. In the picture from 1929, the viewer gets a glimpse of how it looked like when all neighbours had some cows, sheep and/or horses as part of their household, labour and food security.



1 År: 1929 Foto: Lyder Kvantoland / Sørfold Historielag

2 År: 2013 Foto: Oskar Puschmann, NIBIO / Riksantikvaren

Figure 4 – Photographs of Engan-Ørnes taken in 1929 and 2013. Adapted from www.ukl.ra.no

To handle life-and-death situations or sudden weather changes agricultural practices are flexible, adaptive, and thoroughly tested. When farming practices stop, so does the transmission of wisdom, memory, and skill. The machine can work faster and more efficiently than any human, yet it possesses no skill as automation can never respond to unfamiliar

environments (as for now?). Skill is about going along with things – about responding to things and being responded to, in a word, it is a practice of *correspondence* (Ingold, 2018). By taking care of animals through life, birth, and death, mowing and harvesting, handling large machinery, knowing levels of nutrients in grass and acidic measures, a farmer is essentially a mechanic, mid-wife, chemist, organizer, researcher, and teacher. Measures of efficiency cannot capture these skills and appendix 5; “Rain dance and mu’u making” tells a short story of responding to sudden rain in which place-based knowledge was still available to us in our elder that led us to the hilltop to construct *mu’u*. The decrease of the number of small-scale farmers UKL locations is merely a symptom of broader challenges of rural communities.

As narratives of ecological modernization advances into households, barns, and outfields, generational knowledge and practices are at an alarming risk of becoming *functionally extinct* due to arbitrary notions of efficiency, for which movement and correspondence cannot be measured in point-to-point density of linear connections. The socio-environmental interactions performed by the commoning-community calls for strengthening networks of entangled fabrics, as the care of habitats and neighbours strengthen their growth.

Loss of habitat

During the selection of the initial UKL locations in 2009, all 22 counties at the time should agree on a location that would be representative of the entire county. At Engan-Ørnes, Kjelvik UKL, a farmer comments on the selection process:

“There weren't many villages as thoroughly maintained as ours. That was one thing. [But] when the municipality business manager came up with the idea to add Kjelvik, we got a Sami element into the application. The Sami Parliament was also involved in the selection, I believe.” (Interlocutor 3).

After the Sami homestead was abandoned in 1967, the Sørfold History Society and the Nordlandmuseum have been struggling to maintain the buildings and associated hay meadows on the homestead. Through grants of 25,000 NOK, the Farmer is subsidised to maintain the areas and during the summer, tourists are guided through the farmyard to observe theatre enactment of past livelihoods where the homestead is a ‘stage’ with props of firehouse, barn, kiln, scythe, farmhouse, fences, and earthen cellars. Accompanied on the stage are the sheep, farmer, and their workers where herding and *hesjing* become the new experience to observe and take part in through museum enactments of cultural heritage. The outfield has transformed

into an uncultivated land that has become a landscape for cultivating identities through experiences and social interactions (Flø & Flemsæter, 2021) and has altered the outfields, the local community, and the relationship between people (Flø, 2021).

Following the government report “Take the Land into Use” (LMD, 2007), the new commodity is the landscape, culture, aesthetics, and sentiment, and have the potential to secure employment and settlement in rural agricultural communities. The intention was not to diminish the value of outfields, as grazing pastures but rather a way to bring value creation back to the communities (LMD, 2007). As farm units had declined, the commoning-community redirected their attention to trail maintenance, designated resting spots and tour guiding as sites for socialization within the landscape.

In 2009, Utsira was suggested as a UKL location, but only two farm units were left, which likely caused them the status which was passed to Rennesøy. After much administrative facilitation, fences were funded by existing subsidies (SMIL and RMP), which made it possible for herds to roam in the outfields in the east and west (*Austremarka og Vestremarka*). In 2010 a grazing collective was established, and younger farmers were motivated to join. However, due to disagreements on how to share the workload and income, the cooperative dwindled, leading some to operate on their own, and some in pairs. Still, with the outfields in shape, the numbers of farmers have steadily increased and in 2023 eight farmers applied for production support. Both Farmers and the Administration wish to increase the grazing pressure further. While the Administration thinks of it as a problem of motivation, Farmers see it as an issue of available land and necessary investments in buildings.

As the wind is too strong during the winter at Utsira, the first forest to grow in modern ages is the Sitka spruce forest planted in 1954. Increasing shrub and forest cover was very evident when arriving with the ferry, which motivated actions to increase access to grazing pastures, hiking, and maintaining cultural heritage. Laying the groundwork for the use of the outfields at Utsira, an administrative employee shared the experience of creating a hiking trail in the heathen landscape in 1995. The Administration employee states that the *Calluna* shrubs were around 50 years old, and sheep could not enter certain areas. They started with an edge clipper to shape the path, which the sheep would later follow and improve. Information posters about the outfields and archaeological findings from 1930s excavations were also introduced in the trails, complemented with poetic reflection, including a poem about the stone fences

referred to as the ‘lines of love’ left by kind men. The trail was supposed to have the theme “*What did they use the outfields for?*”, to which the administrative employee adds:

“[The outfield] is a great resource, with a long tradition of peat extraction [...] It was part of the life cycle in the society: The fishermen were out fishing, and the children and wives harvested peat and did much of the agricultural work.” (Interlocutor 10).

The administrative employee comments on the assumed division of labour in farming activities performed by the community, including days of *dugnad* (collective work), referred to as *rue*-day and *vøle*-day. *Ruing* is to shear the sheep while *vøling*, is the collective labour of tending to the stone fences after a storm, putting the heavy rocks back in their place to resume both boundaries and relations of grazing herds and farming networks. The lines that twist through the landscape and mark properties, histories and boundaries between infields and outfields symbolize the processes of the commoning-community. The Administrative employee doubts that many of the inhabitants know these words as the people that practised these activities have passed away, and the modern fences are now demarcating boundaries and require less maintenance.

It does not mean, however, that *dugnad* tradition is completely lost. Many interlocutors stress that the spirit of volunteerism is quite deep in the *Sirabu* (inhabitant of Utsira) and understood as a duty - *å drive et samfunn* - to partake in ‘running the society’. “*Dugnad* [is something] that benefits society and the surroundings. It can be done alone or in a group. For example, picking up trash.” (Interlocutor 9). Through the lens of feminist political ecology, *dugnad* can be conceptualised as the acts of a commoning-community in which a community taking responsibility for a common is in a constant process of negotiating access, use, benefit, care, and responsibility (Sato & Alarcón, 2019; Mies, 2014). This commoning process is relevant to any form of property whether private, state-owned, or open-access, (Gibson-Graham et al. (2016, p. 193.) and involves setting agenda for work and showing up to the labour needed to ‘run the society’. In Haraway’s terms of making kin (2016; 2018), the need to reconceive ‘kinship’ is understood broadly as ways of relating which involve care, intimacy and capacity to respond. The common have community, and the community have the common, where cultivating response-ability towards each other occurs whether one likes it or not.

As an example of the *dugnad* sentiment, I was told the story of how the municipality bought a *naust* (boathouse or boatshed used for storing boats and fishing equipment), that was built in 1870 as a herring saltery, with the aim to accommodate tourism in the island. With the

policy changes in the early 2000s, farmers and inhabitants of Utsira were given the opportunity to increase profitability through agriculture-related tourism ‘based on food, culture, nature and activity-based experience’ (LMD, 2005, p. 31). The *naust* was bought by thirteen owners and renovation required big investments from the municipality and a lot of volunteer hours. In 1997 it opened as the first bar and restaurant on the island; *Dalanaustet*. Alike other investments and efforts to restore buildings on the island, this project was shaped by the ability of local actors to link their activities to wider authoritative discourses of local heritage and authenticity to promote tourism and local value creation. At *Dalanaustet*, you can still receive local fish, lobster, shrimps and meat harvested from surrounding shores and outfields, and if the group is big enough, the owner will present the history of the island referred to as ‘Utsira in 20 minutes. The farmer is now the performer, and the sheep is the backdrop in what is perceived as an authentic theatre of rural culture (Flø & Flemsæter, 2021). With a quick phone call, visitors will then be directed to the lighthouse where the museum host shows up and takes the group on a tour. At the top, 78 meters above the sea, you can step inside the big lighthouse lamp, which was created in Paris and watch the sunset in the West, before the backdrop of the future windmill farm Utsira Nord which we will return to later.

Through rural sociologist studies of the use of outfields in Norway, Flø (2021) draws on Guy Debord’s *Society of the Spectacle* (1977) and calls this commodification the art of selling the countryside. Envisioned as a strategy to secure employment and settlement in rural agricultural communities “the commodity reduces everything to quantitative equivalence” (Debord, 2014, p. 14), in which statistics of tourists and generated income determine the quality of rural life. Life is presented as an immense accumulation of spectacles in which the social relation between people is mediated by images (Debord, 2014, p. 2).

Based on the *Allemannsrett*, the public has the right to freedom of movement, residence and harvesting in outfields such as forests, mountains, and coastal areas (Thorseth, 2021). With the commodification of lands, comes the categorization of identities (Flø & Flemsæter, 2021). Applied to the UKL landscapes, we see categories of users emerging, such as recreation homeowners, hikers, paddlers, recreational fishers, researchers, and the like. All defining user groups based on how they utilize 'things' in the outfields. This categorization also establishes the foundation for the development of a distinct 'identity,' which forms the basis for organization within more specialized groups of outfield users and, subsequently, the basis for collective action within each group (ibid). Under the umbrella organization *Norsk Friluftsliv*, outdoor recreation and leisure interests have gained a more distinct political voice in the

formulation of outfield policies (Flø & Flemsæter, 2021). Leisure interests, and especially interests that seek to create a livelihood out of leisure use, have gained a more central place in politics and administration (Flø, 2021). Some interests are not commensurable, and conflicts tend to arise between hikers, farmers, herders, and recreational homeowners regarding boundaries and the responsibility of establishing and maintaining outfields.

The landscape previously understood as an extension of the farm with use-value in focus, is now searched for recreation by most users. As local stores, farms and fish processing facilities have closed, it is now the trail and the designated resting spots that the local community *vøler* to make more accessible for hikers. The community taking care of and responsibility for the common outfields, the commoning-community (Gibson Graham et al., 2016), consists of new interest groups, spatially separated relationships, and divergent norms associated with the production-landscape or the experience-landscape that they value and relate to (Flø & Flemsæther, 2021; Flø, 2021). The stone fence remains a material and symbolic expression of this conflict and a symbol of dialogue.

The opportunities of different groups to respond to the change outfield resources evaluation and management practices are different. Thus, processes of commodification and alienation do not only entail reorienting the land through markets and policies, but also creating flux in previously stabilised practices and identities that link people, land, and animals (Brown et al., 2019). If multispecies justice is the means and not just the end to flourishing in this world (Haraway, 2018), then Brown et al. (2019) suggest greater attention to how procedural justice is performed in more-than-human ways, starting by paying attention to how animals articulate preferences and our capacities as humans to attune and respond appropriately. In the continuous struggle for justice, we must make visible other ways of knowing, forms of politics, and modes of environmental governance (Massarella et al., 2021).

Flø (2015) refers to knowledge norms in agriculture as an ‘epistemic community’, in which the experts and policymakers who argued for the commodification of the outfields have power through being able to define both problems and solutions and what knowledge is relevant. This power is also dependent on the knowledge gaining political influence and rule-making power through bureaucratic control (Arias-Arévalo et al., 2023). Therefore, boundaries in agricultural landscapes are not only about rights but involve considerations of epistemic and procedural justice. As ecosystems shade gradually into one another, categorization schemes are imposed from outside and every type contains considerable internal variability (Rowher &

Marris, 2021). Relying on Western scientific knowledge tends to reinforce a separation of humans and nature that facilitates the commodification of non-human life (Buscher & Bram, 2020; Massarella et al., 2022).

A unique situation for Utsira is that the UKL status encompasses the whole municipality. The aim of maintaining landscape qualities will inevitably conflict with the ongoing development project Utsira North. Utsira North refers to a projected area for offshore renewable energy production spanning 1,010 km², which will host 180-250 windmills, with an average depth of 260 meters, in a pilot project testing floating windmill park (Meld.St. 36 (2020-2021)). Located 7 km from the island's west coast, it is expected to produce 7 TWh energy yearly (ibid). It will require certain fixed places on the seabed, and the size of the project is uncertain as the concessions round has been postponed repeatedly. The Energy Act is not applicable to Norwegian territorial waters (Energy Act, 1990 § 1-1.), and the municipality can only offer feedback or input during a consultation period rather than making decisions or taking other actions. To ensure tax revenue and potential job opportunities the municipality is aiming to host a transformation station on the island, in an area in the heathen landscape in which two windmills are already located. This will require infrastructure in the UKL landscape. An administrative employee explains:

“If there is a transformer here, there will be physical intervention. It must be lowered as much as possible into the terrain. There will be loss of grazing land and biodiversity from all the interventions. [...] The east is an industrial area with perhaps the least conflicts due to the wind turbines that are already standing there.” (interlocutor 10).

There is uncertainty on how to protect nesting and fledging locations on the island and nearby nature reserve, and how it would impact tourism through the international ornithologist community. An administrative employee shares that sea birds tend to glide close to the ocean surface so they might avoid the fans, but no one can be certain of the minimum impact the windmill park will have on the celebrated birdlife. In collaboration with different energy companies, there are three ongoing research projects on birds:

“...common guillemot [*Uria Aalge*] tagging, is in the second year [of monitoring]. [With] GPS tracker, [and] receiver on the island we can map where they get food for their young. [The trackers] lasts for 3-4 weeks before they fall off. We [also] track in the winter if they come back again. They stay around Spanholmen [...] We're really

stressing the companies on birds. I was quoted in *Stavanger Aftenblad* saying "*Me kan ikkje drida oss ud på fugl*"¹²." (Interlocutor 10)

In relation to the development projects, it is considered urgent to map the biological and cultural values on the island and the outfields. In the appendix 6. "Category of interest @ Vestremarka" there is a short story of my encounters with a botanist and two archaeologists in the outfield, *Vestremarka*, where mapping and registering occurred. The cultural heritage management and nature conservationist describes and registers the inventory of the landscape's morphology before making recommendations concerning which landscape forms are desirable and should be preserved (Jones & Stenseke, 2011, p. 6-7.). These values, within the representatively *selected* cultural landscape of UKL, are defined and referred to as ecological and cultural *heritage*.

Heritage is a slippery term. The Association of Critical Heritage Studies (ACHS, 2012), states in their manifesto that the study of heritage has historically been dominated by Western experts in archaeology, history, architecture, and art history. Critical heritage studies occurred as a response to 'authorised heritage discourse' (AHD) defined by Smith (2006), as a professional discourse that validates and defines what is or is not heritage and in effect frames and constrains heritage practices. While AHD emphasises the authority of expertise to act as stewards for the past and its heritage, it also defines heritage as innately material, if not "monumental, aesthetically pleasing and as inevitably contributing to all that is 'good' in the construction of national or group identity" (Waterson & Smith, 2010). Most of these activities in which experts map, assess, define, evaluate, appraise, and promote landscape values are mediated and supported, with the aim of applicability to planning processes, through laws, policies, and practices that resemble strategies that police, restrict, and control (Jones & Stenseke, 2011; Baird, 2017). Therefore, critical heritage studies investigate the sociopolitical contexts of heritage and power relationships (ACHS, 2012; Baird, 2017).

Following, to understand the culture of heritage, one should ask *How is heritage as a conceptual category, doctrine, or professional practice, also a site of political struggles?* (Baird, 2017, p.8). Baird (2017, p. 63) bases their thinking on Foucault's conceptions of governmentality and biopower, and Latour's investigations of scientific facts, to examine how expertise, in a broad sense, manifests in technology, science, medicine, energy and security. Power and knowledge claims of technical and aesthetic experts are institutionalized in the state

¹² The interlocutor suggested this translation: «We cannot 'get screwed out' on birds.»

cultural agencies, and this “institutionalization of heritage expertise occludes how discourses are historically situated and mediated within relations of power” (Baird, 2017, p. 63). Cultures of experts and epistemologies have caused abstract ideas of ‘communities’ as universality, heritage processes dominated by national and aesthetic values, and misrepresentations of heterogeneous groups (Waterton & Smith, 2010). Groups affixed to the term ‘community’ are defined and judged by standards of ‘authenticity’ set by the heritage that has been preserved for them and are subjected to management and preservation by heritage agencies and their experts (Waterton & Smith, 2010). Baird (2017, p. 10) uses the term heritage to refer to both the practices of heritage (management, interpretation, conservation) and its position as a global phenomenon and site of contestation. As such, examining the logic of heritage, how it is deployed and transgressed, as well as the narratives that underpin its claims, creates room for webs of intersectional relations (Baird, 2017, p. 9), including non-human agencies in manifestations of heritage.

With the desire to move away from object-centred preservation practices and a commitment to critical constructivism which views heritage as political processes, how can the ecological and cultural heritage be a contact zone for transformative research and politics? The ethic of care has increasingly been given attention in feminist thinking. Puig de la Bellacasa (2012), underscore that care as a form of relating is the vital affective state that with ethical obligations and practical labour is a collective disseminated force that sustain more-than-human worlds. Coupled with Rose's (2012) and Van Dooren's (2012) formulations of processes of inheritance, this text emphasizes the inseparability of biological and cultural modes of transmission across genes, ideas, and practices within and between multispecies generations. Sequential and synchronous relationships and inheritances (Rose, 2012) evoke an understanding of species as evolving ways of life (Van Dooren, 2012). In this context, as diverse heritages break down or are otherwise transformed, “extinction takes the form of an unravelling of co-formed and forming ways of life that begin long before the last individual's death and continues to ripple out long afterwards” (Van Dooren, 2012).

Returning to Utsira, while on a walk with administrative representatives and visiting farmers and landowners for the two-day gathering, an Administrative employee wanted to show us a newly documented site for dwarf glin (*Radiola linoides*) and got a group of 16 people to kneel in the mud and take pictures. Some in ecstasy and others trying to find out what it was really about. This is a tiny annual plant, growing up to 2 centimetres tall, which The Norwegian Biodiversity Information Centre (Solstad et al. 2021) considers highly endangered, due to its

significantly fragmented distribution. The seeds have no specific dispersal adaptation and are only spread over short distances. The species is associated with animal tracks, paths and erosion in moist sedimentation, thus making it an important example to bring to our attention how important the practices of transferring herds between infields and outfields are to ensure the annual reproduction of the tiny plant. The presence of the dwarf glin was first registered on the island in 1917, and only again in 2006, this location registered in 2023, was found in between the roubles of the construction of the dam providing the island with clean water. In a news article on the municipality's website, thanksgiving is directed to the surveyor who found the location, contractors who returned the roubles and masses after the construction of the dam, and the island farmers who have animals in the outfields (Utsira kommune, 2023) and acknowledge the assemblages of species and interference that have ensured the annual plant's survival another year. This illustrates forms of *becomings* in which an entanglement of species relates in continuous biosocial configurations, where *critters* – plants, animals, organisms, pathogens –, are becoming *with* each other in processes of reproductive relationships. Life emerges within the edges of construction and deconstruction work, and the interference of time and practices are entangled in the inheritance of ethics (Rose, 2012; Van Dooren, 2012) in which who is in the world is at stake (Haraway, 2008; 2018), or who will flower again next year.

Part 2 – Inheriting responsibilities.

Though the commoning-communities in the UKL locations have lost neighbours to urban realities and practices to capital and mechanisation, responses are growing, literally and figuratively, as ethics of care mobilises for *dugnad* and collective witnessing. Overlapping processes of temporalities and organization convey partial details and textures (Mathews, 2018), in which the autumn season become an obligatory meeting with death across generations, slow-growing trees becomes rapid “invasive” species indicative of a failed nation-building project, and values are negotiated in between present and future needs and development projects.

These multiple *throughscapes* are indicating cultural preferences of “native” species (Rowher & Marris, 2021), alienated meat-cultures (Bjørkdhal & Lykke, 2023), commodification of both landscapes and its multispecies inhabitants (Flø, 2015;2021; Brown et al., 2021), and discourses on metrics and procedures for preserving ecological and cultural heritage (Baird,

2017; Waterson & Smith, 2010). The struggles over defining practices for preservation and management of landscape meet in private and public, lived and practiced notions of heritage. Always changing, relative and situated in different contexts, cultural heritage is the traces of the past that people choose to treasure for the future (Fageraas, 2021).

The visual impact of the loss of community and habitats motivate responses that, in this context, are facilitated through UKL. I have already mentioned the multiple *dugnad*, indicative of the caring commoning-community by restoration of trails, buildings, fences and outfields. This section now turns to the landscape management of farmers and creative spaces where this is challenged and expanded on as agricultural and environmental policies fail to acknowledge the heterogeneity of the commoning-community.

Farming the Heritage

“Of course, it's tufts and some old houses and stuff like that, I don't know everything, but I know that there have been Bronze Age findings in the area. So that's fun! But for me, it's kind of the immaterial [values], with craftsmanship and ways of doing things, and ways of thinking, especially, that I feel maybe is most under pressure right now, the idea that you're just part of a cycle for as long as you're here, and that cycle [...] have an eternal perspective. And it will continue, hopefully, in a better condition after one has been there. I think that this has been an obvious part of the culture up until now, but that may be on the wane.” (Interlocutor 1)

Responding to my question about cultural heritage, one Farmer illustrates that cultural heritage is about *doing* with implications of future practices, rather than a matter of preserving. In the article which inspired the name of this section, Setten (2005) demonstrate the importance of a dialectic between ‘landscape knowing’ and ‘landscape seeing’ in debates about cultural and ecological heritage. The Farmer’s notion of heritage is based on their everyday interactions within the landscape caring for soil, plants, animals, and community relationships which in turn shape how the landscape is perceived.

“I've lived here for 20 years and have grown stuck. I've, after all, worked to live here. You get a relationship with the fields and the mountains. The farmer's everyday life is a lot of work.” (Interlocutor 4)

Grounded in the most available way of knowing, the everyday interactions also illustrate a relational way of remembering. The Farmer can point towards fields and mountains and share stories of implications of measures, such as the UKL impact on practices and the restoration of abandoned areas. As well as the long-term memory of mountain trails and outfield usage referring to food production of both the living and dead – a memory based on stories in which have passed down through parents, neighbours, books and *stev*¹³ concerning the place.

“Obviously, it's something special to me: to run a formal farm in the way that you sort of, yes, you stand on the shoulders of those who have been here for generations before. So, it feels meaningful as well. I think of it as a matter of doing food production of course, but also as a management of both land and natural values, [and] tradition and history. Culture.” (Interlocutor 1).

The Farmer gives value to the farm and heritage derived from their relationship and responsibility towards the landscape, as well as past and future inheritors of the landscape (Pascual et al., 2017). Furthermore, besides their relationship to the distinct farm and its flows of material features, as well as individual or collectively shared immaterial values, Farmers perception also illustrate a general relationship to the environment (Stenseke, 2018) in which what is ‘known’ shapes what is ‘seen’. The landscape reflects the knowledge based on its use generates opposition to modern notions of aesthetics:

“The fact that things look well-groomed doesn't have to be about lawns. It may well be about the hay mule and all the weeds and old grass. It reflects the surroundings.” (Interlocutor 12)

Once part of the Farmer’s knowledge is practice-based, it is also place bound (Setten, 2005). It exposes the idea of the public domain as politically governed and the private as domestic and anecdotal. The Farmer, having previously underscored scepticism toward large-scale farming, support for animal welfare and desire to reduce dependence of external input, judges the land and culture beyond understanding of modern progress:

“We sort of accept it as a premise, that it's always better that it goes faster. [...] I think maybe we should think a little bit more about the whole thing” - denotes with laughter

¹³ refers to a type of vocal music characterized by simple, repetitive melodies and lyrics. It is often associated with traditional folk music and is performed a cappella.

-, ” Both the reason we’re doing this and the importance of what we’re doing. Yes, dare to [...] make those assessments too then.” (Interlocutor 1)

The Farmer call for “more philosophy” in agricultural research and development and request public discussions about the importance of what a farm contributes to a landscape, a village, food production and national preparedness. By walking their talk, this Farmer have partaken in the creation of a documentary film called SAU that premiered on January 26th, 2024, and was taken up by 112 local cinemas across Norway. In addition, the movie was adapted into a twenty-minute version on The Guardians network, in which it is translated into Rowdy Flock (the Guardian Documentary, 2024). Although portraying the same sentiments in interviews and in the fields, I have chosen to quote the formulations they edited for an international audience in the referenced documentary. Two interlocutors share that allowing the community to learn to care for the land, soon might become the norm and not the exception:

“I think this is increasingly becoming a job for the future. There are limits for how long you can dismantle and destroy what is supposed to keep us alive.”

“I believe there’s future preparedness in people knowing how to work the soil. To carry out farming in a way that is connected to the local community.”

On the path towards empowering the connection between the community and the land, sharing intrinsic and instrumental values might be too narrow conceptually and not sufficient. The relational values, such as preferences, principles, and virtues about socio-environmental relationships, include what is perceived as crucial for the Farmers within a commoning-community. What matters for relational values and their impact of landscape perceptions, is that there is a space to express what matters to people in their own terms (Chan et al., 2018). According to Pascual et al., (2023) acknowledging nature's many values can help PES programs avoid eroding inherent motivations for conservation and enhance existing pro-environmental behaviours, improving outcomes for people and nature. For a short story about outfield supervision in Engan-Ørnes, Kjølvik, see in appendix 7. “Outfield supervision – The Farmers mapping of species interactions” in which the outfield rippled into the community as documentation of animals, insect attacks, and flourishing berries were shared, mourned, and celebrated.

The landscape photographer that arrived at *Engandagane* with the wish to interview the last farmer in the village. They brought news of the Governments official report (NOU 2023:25) with suggestions for climate policy toward 2050 handed to the Ministry of Climate

and Environment. To reduce CO₂ emissions from agriculture, the report suggests reducing the national dietary advice of red meat from 500 to 333 grams a week. The report states that this will reduce employment by 6,350 full-time equivalents, but that work within livestock production can be partially replaced by crop production. The farmer responds that they often feel misunderstood in the debates about red meat, climate, and nature, stating that maintaining the meadows is contributing positively to nature and climate issues.

“I believe that it's good for both nature and the climate to operate the way we do. Of course, we must stop using diesel. I believe that as much use and consumption of local resources as possible is the way to go. [...] I really believe that [...] we must live in the natural cycles, and that's what we're certainly trying to do. [...] Of course, you can debate to what extent I succeed, but then it's very frustrating with discussions like that we have to shut down 10,000 farms and stop eating red meat because that's what's killing the planet somehow. [...] It is hard to believe that the way we produce food [in Engan-Ørnes] is the reason why the climate and nature are unravelling. [...] There are quite a few professionals who think the same, who also believe that we need to utilize the resources we have [available] and that the traditional ways of doing [agriculture] are perhaps the best.” (Interlocutor 1)

The Farmer echoes a shared sentiment among the farmers in the study. I have yet to meet a Farmer that are not proud and enthusiastic about the work they do as food producers. When climate or environmental concerns related to the industry are addressed, most get uneasy and acknowledge that climate change will impact their farm in some way. The practical implications are uncertain, but Farmers emphasise the need to rely less on external input and utilize the local resources available to increase their preparedness. When reduction of meat is suggested as a climate measurement, they felt attacked for practices they believed were good for nature and society. In Flø's (2021) study of grazing collectives in the Central and Western regions of Norway, the political discussion about reducing red meat demotivates farmers in the outfields. The discussion adds to several layers of old and familiar issues: the persistently weak economy demanding continuous growth from farmers each year, coupled with tensions with neighbours neglecting their yards, hiking enthusiast leaving gates open, and challenges of irresponsible dog owners. Moreover, it intensifies the struggles in an increasingly isolated industry with weakened social and political stranding both locally and nationally (Fuglestad, 2023; Flø, 2021).

The way the Farmer is managing the semi-natural nature types is essential to its continued existence, and essential to Norway's preparedness and self-sufficiency. In a report on the nation's food security, the Preparedness Commission (NOU 2023:17, p. 260) states that imported food that Norway have the capacity to produce itself has increased significantly in recent years. The commission is pressing that it is both important for the nation's security, and an act of solidarity to produce as much food on own resources as possible. The Government have a goal of increasing self-sufficiency to 50% from the 36% in 2019 (NOU 2023: 17, p. 254). A tool for increased self-sufficiency is to reduce dependence on concentrated feed, by allowing more animals to graze. Calculations from NIBIO also illustrate that the use of outfield resources could be doubled (Schärer, 2016). However, Agricultural policy in Norway has been a deliberate strategy to stimulate the production of a lot of food on low farmers' incomes (Vik, 2020; Løkeland-Stai & Lie, 2012). Current subsidy schemes in Norway fail to adequately consider the operational challenges faced by farmers such as topography, altitude and soil type and payments that farmers receive are still largely dependent on the volume of their production (Haraldsen & Tufte, 2022; Berntsen & Tufte, 2018; Løkeland-Stai & Lie, 2012). Grants directed to environmental measures, such as SMIL and RMP are often associated with relatively smaller budgets and are not precise enough because the calculation of the subsidy rates is too general and closely tied to production volume (Berntsen & Tufte, 2018). According to reports from Agri Analyse (Berntsen & Tufte, 2018; Haraldsen & Tufte, 2022), developing more detailed maps that incorporate information about the topography and resource base of farms could result in a more precise and equitable system for compensating farmers for production constraints and operational variation on their land. The UKL program with its focus on active farming based on the opportunities and challenges of local resources, is a step in the right direction and should inspire a shift towards area-based financial support instead of volume-oriented support schemes. The reports from Agri Analyse (ibid) draw on examples from Austria and Switzerland to showcase how combination of the operational status of farm units with market revenues can sustain food production throughout the country. As described in the Appendix X, it illustrates incentives can directly increase the use of local resources, management of common environmental goods and landscapes while simultaneously increasing national self-sufficiency.

To insist on the value of pastures and outfields is the most important thing one can do today in regard to self-sufficiency and preparedness. The Agricultural Alliance aims to change agricultural politics by increasing awareness about current national and international market structures and emphasis alternative practices for food production that already exist or are under

development (Landbruksalliansen, 2023). The organisation underscore that ‘self-sufficiency’ is multifaceted and involve producing and harvesting food on the local resource base and including vegetables in garden plots, grains in the fields, animals in the outfields and foraging for i.e. berries and mushrooms (Landbruksalliansen, 2023, p. 4). To direct farming towards local resources, the price of external input must increase (Landbruksalliansen, 2023; Løkeland-Sati & Lie, 2012). This approach would place a stronger emphasis on how to produce food rather than how much food is produced. Since it will have implications on efficiency, in addition to changing the current organisation of the value chain from farm to table, these approaches must be coupled with initiative for changing consumption patterns towards relying on seasonal produce. The Agricultural Alliance emphasise that while limited arable land is often mentioned in public debates about Norwegian agriculture, Norway still has more arable land per person than the agricultural nation of the Netherlands and have ample rainfall, abundant sunlight for much of the year and cold winters that can reduce diseases (Landbruksalliansen, 2023).

Acknowledging the politico-economic constraints of the modern Farmer, an administrative employee believes that cultural landscape management can be efficient as it is created by *traditional* and less intensive farming practices. When asked to define traditional methods, the interlocutor refers to the local context,

“... all the types of cultural landscapes that we stop with a measure are a succession step. We have grazing animals that replace the big grass-eaters. [...] If you look at heathland, then you must have grazing pressure and burning. [...] What [is important] is grazing pressure: what gives the highest yield and botanical value in the pastures with as low input as possible, what is it and how are we going to achieve this? How do we motivate this? [...] But don't think [that] people agree on this! But I'm sure we can figure this out.”

Actions in landscapes with semi-natural habitats aim to prevent succession steps in which shrubs and trees would change the open landscape. Heathlands and other open-landscapes have been altered in their composition, balance, or function by human intervention (Løvschall, 2021; Svalheim, 2019). However, heathen landscapes existed long before the Stone Age farmer picked up their axe. Ecological research uses the term *semi-open* vegetation which dominated in the early- to mid-Holocene (11,700-6000 B.P.) (Pearce et al., 2023). The extent of vegetation openness in past European landscapes is debated but through pollen analysis, Pearce et al.

(2023) found that light woodland and open vegetation represented more than 50% cover during the last interglacial period (129,000-116,000 years ago). The degree of openness was only partially linked to climatic factors, indicating the importance of disturbance regimes, which in European systems consisted of large roaming herbivores (Pearce et al., 2023). Therefore, rather than comprising exclusively closed forests, Europe was potentially a heterogeneous landscape that featured a mixture of closed, open, and semi-open vegetation, such as grassland, scrub, and wooden-pasture–vegetation.

The term ‘traditional’ commonly refer to nostalgic views associated with rural landscapes (Stenseke, 2018; Flø, 2015), but with recognition of the temporal dynamics of the changing landscapes through deep time, human- environment relations can receive new meanings. The heathen landscape in Norway has undergone a series of fundamental changes and various forms of colonization (Løvschall & Fjalland, 2023). First the heaths colonization of the open, barren tundra, then came the forest cover and the displacement of the heath, followed by the introduction of domesticated animals in the Neolithic era and finally the Iron Age settlements in the heaths. The modern coastal settlement has also exposed the open heathen landscape for Sitka spruce cover and subjected it to new colonizers. As a partially human-created landscape the heath has been deeply connected to a range of stories and beliefs about life, death, gifts, and obligations between multispecies communities., The present heathen landscape also signifies the loss of larger herbivores due to hunting and expansion of settlements. The traditional methods defined through UKL aims is defined by a 3000-year time frame. If it was extended by couple of millennia, other critters would be invited to the landscape assemblage such as bison, boars, elk, and bears. Traditional methods in the context of cultural landscapes refers to food production based on local resources. Landscape as a perspective on heritage raises questions about the naturalisation of certain landscape practices in order to enhance a symbolic and aesthetic relationship between national identity and the rural landscape (Setten, 2005). What procedures, methods and knowledge base shapes ‘landscape’ and ‘heritage’ must be critically examined.

The Creative Creek - Showing Up

If food production is going to maintain the cultural and ecological values associated with (cultural) landscapes, this requires public reflections about what current conditions for

food production entails, what meanings are associated with landscape maintenance, and which landscape is used as reference point for heritage and proposed measures?

The European Landscape Convention (ELC) obliges parties to establish procedures for the participation of the general public, local and regional authorities, and other interested groups in landscape matters (Jones & Stenseke, 2011; Clemetsen et al., 2011). To what degree does UKL facilitate of local initiatives so that farmers and landowners can steer the progression of landscape and heritage maintenance. Reflecting with an Administrative employee about the UKL focus on participation in landscape planning, the interlocutor shares that participation remains somewhat superficial.

“...someone has been elected to be politician and make decisions. They can decide if they want to get input, but [participation] is mostly quality assurance. Sitting in meetings and allowing everyone to talk and say something is, at best, good information, mobilization, and idea creation. But participating in decision-making, we should be careful about that... Someone has been given the role in the system to determine this. There are real conflicts of interest, [and] that's why we have politicians.” (Interlocutor 6)”

They refer to the current design of democracy in which politicians represent the interests, concerns and preferences of their constituents and must be fit to handle the multiple conflicts of interest. As illustrated by the various approaches to heritage, despite a ‘community’ being small in terms of area and population they are never socially homogenous and are characterized by unequal constellations of power and influence (Cooke & Kothari, 2001, p. 6). In the sixth design principle for common-pool-resource management, Ostrom (2000) underscores that the community must have access to affordable arenas for conflict resolution in which access, use, care, and responsibility are addressed both internally and between right owners and the governmental management. The need for such institutions stems from case studies that highlights that common property regimes do not act in a vacuum but are in reality encroached upon by numerous external forces (Büscher & Fletcher, 2014; 2020) as illustrated by the stream of external ‘value creating opportunities’ posed by governance bodies and development projects such as Utsira Nord. Quests to find revenue that do not entail further commodification of the resources preserved involves taking responsibility for democratic arenas (Massarella et al., 2021) in which institutions and opportunities for participation must address the epistemic challenges when expert and technological knowledge meet empirical and experience-based

knowledge and memories. Further, value-articulating institutions must reach holistic solutions that current disciplines and governance sectors cannot obtain within their partial realities, language, structure, and measurements.

There are many challenges to participation in decision-making processes as highlighted by Kothari (2001), Hickey and Mohan (2004), Huntjens et al., (2015) and many other scholars. The relationships of power affect the language of valuation, metrics, and discursive imaginations. But the aim of such arenas must be to combat the short-term thinking in which current political systems in Norway suffers from, being dictated by election cycles and voter appeasement (Vatn, 2021). Place-based and collaborative approaches to value articulation have the potential to re-frame local communities as knowledge producers instead of just beneficiaries of conservation governance and funding schemes (Massarella et al., 2020). As highlighted by Hickey and Mohan (2005), participation is most likely to succeed where it is a part of a radical political project focusing on power relations and not just on technical solutions. This entails the engagement with underlying processes of development rather than being limited to specific interventions and a connection to broader social movements (Hickey & Mohan, 2005).

Although political levels must be reached, relations to landscape and long-term thinking can be addressed in other arenas connected to the land and this is where UKL stands out. The UKL status primarily benefits landowners, yet it shows the potential to redirect revenue towards creative spaces where local initiatives seek long-term experimentation and communication of landscape meanings, values and stories of earthly survival. The documentary SAU is an exceptional example of what UKL grants can be directed to. With the background of ‘selected cultural landscapes’, the Farmer addresses an international audience in the midst of place-based generational transition and receives overwhelming response indicating a longing to the agenda: What values should food production be based on?

At Utsira, UKL grants have funded the start of an art and restoration project: *Bekkens bestandeler* - Constituents of the Creek. The project sought out to rehabilitate the movement of a stream which was closed, smelly, and frequently flooding the basement of a downhill house. Most of the stream have been covered or put in pipes but the final extension, before entering the ocean runs through a piece of municipality owned land where currently, Dorper sheep, a South African breed, are grazing. The intention was to create a low-threshold meeting place between nature, cultural landscape, and people where participants are invited to

experience the ‘wordless’ corresponding between the head, heart, and hands. “It started from a personal need and longing to connect with the earth or soil, and something beyond myself.” (Interlocutor 14).

By choosing to give value to the stream and elevate its rehabilitation as something important it became a political act and have been given the term *et aktivistisk håpsprosjekt* (An active project of hope) based on the belief that “to make something better for the next generation is perhaps something we all have in common” (Interlocutor 14). Through workshops on species composition for water filtration, dry-stone walling¹⁴, and several rounds of *dugnad*, participants are engaging in manual labour, in which they have to increase their capacity for responding starting with their own capabilities, needs and senses. By reopening the stream there is a lot of physical contact that have the potential to offer new perspectives and expand skills. Shovels are preferred over machines to dig up sections of the stream and in a pond named after the major, you can hear the creek prickling again. Senses attune to the salty leaves, bent bushes and moist feet as ideas of species composition are negotiated and boundaries such as the fences are pushed by multiple inhabitants that enters our sphere of obligations through the work in the Creek.

Engaging in thought experiments and requests to slow down, a facilitator asks me: “What if the creek is your sister?” In caring for something a new relationship appeared, and the project turned into a political project of inviting participants to be held accountable to their landscapes in combination with pursuing a slower pace to investigate what space appear. The goal was to interact in the stream without competition and create an arena where citizens with their differences can meet and wonder “how do we choose to take responsibility for our landscape?” (Interlocutor 13). As a site for complex and situated bodies the commoning-community are given the opportunity to stay with the trouble of salty soil and strong wind and be.

Exited to witness the joy of environmental care (Singh, 2015) and the efforts to start environmental restorations through focusing on restoring the relationships to landscape (Kimmerer, 2020), I finished up my thesis draft and called my interlocutors. I received the news of further reductions in the UKL funding which enforced strict prioritization of grants. At Utsira grants were directed towards finishing the biological mapping and to support active

¹⁴ *Tørrmuring*. A construction method that involves building structures without using mortar or other binding agents. Lack of mortar allows for better drainage. The method relies on careful arrangement of stones for stability and strength.

Farmers. The Constituents of the Creek face an uncertain future. A project facilitator raises the question “How can I care for the landscape when I do not own the land?” They support the need for active farming but presses that there is relevance in other ways of communicating landscape values. The project has intentions of publishing a book which will include the already received feedback and reflection notes from participants. A community have grown online in a Facebook forum called Friends of the Creek. “It is the municipality’s property, so we need to have their support. [...] We are also farmers in the form of leaseholders” (Interlocutor 14). Currently, they do not feel included in the steering committee of UKL Utsira in that their livelihood is valued and they wonders if perhaps it is because it takes a long time for the results of planting trees to be perceived.

If we are to take seriously epistemic and procedural injustices in landscape planning, and follow up on the ELC obligations, nurturing meaningful dialogue regarding common landscapes should be facilitated with the careful guidance of mediators with financial assistance from ‘expert’ communities. Because the number of Farmers is steadily decreasing, so are the neighbours they could go to for support. Recreational residents are increasing within the UKL locations, and the transfer of memories and practices happens less often. Agricultural development is at a crossroads where farmers and animals are pushed to the breaking point. Landscape management occurs within these complexities, however, environmental policies still operate as if the natural and cultural heritage management are shared and consensual (Setten, 2005; Smith, 2006; Jones & Stenseke, 2011). All these challenges are entangled in knots of ethical time, and there is no way to determine where connectivity and responsibility stop (Rose, 2012). They do not in a flourishing life system.

Literature list

- Aglen, T. S. (2024, January 8). *Det går alltid et fakkeltog*. NRK. <https://www.nrk.no/ytring/det-gar-alltid-et-fakkeltog-1.16704922>
- Almås, R., 2002. Norges Landbrukshistorie. Samlaget., Oslo.
- Andersen, F., Anjum, R. L., & Rocca, E. (2019). Philosophical bias is the one bias that science cannot avoid. *eLife*, 8. <https://doi.org/10.7554/elife.44929>
- Anderson, C. B., Athayde, S., Raymond, C. M., Vatn, A., Arias-Arévalo, P., Gould, R. K., Kenter, J. O., Muraca, B., Sachdeva, S., Samakov, A., Zent, E. L., Lenzi, D., Murali, R., Amin, A., & Cantú-Fernández, M. (2022). Chapter 2. Conceptualizing the diverse values of nature and their contributions to people. In *Zenodo (CERN European Organization for Nuclear Research)*. <https://doi.org/10.5281/zenodo.7701874>
- Artsdatabanken (2018). *T32 Semi-naturlig eng*. Retrieved January 5, 2024. https://www.artsdatabanken.no/Pages/171950/Semi-naturlig_eng
- Artsdatabanken (2018). *T34 Kystlynghei*. Retrieved January 5, 2024. <https://www.artsdatabanken.no/Pages/171952/Kystlynghei>
- Austrheim, J. (1995). *Utsira: gard og slekt*. Utsira kommune.
- Basso, K. H. (1996). *Wisdom Sits in Places: Landscape and Language Among the Western Apache*. University of New Mexico Press.
- Benjaminsen, T. A., & Svartstad, H. (2021). *Political Ecology: A critical engagement with global environmental issues*. Palgrave Macmillan.
- Benjaminsen, T. A., Reinert, H., Sjaastad, E., & Sara, M. N. (2015). Misreading the Arctic landscape: A political ecology of reindeer, carrying capacities, and overstocking in Finnmark, Norway. *Norwegian Journal of Geography*, 69(4), 219–229. <https://doi.org/10.1080/00291951.2015.1031274>
- Beredskapsdepartementet, J. O. (n.d.). *NOU 2023: 17*. Regjeringen.no. <https://www.regjeringen.no/no/dokumenter/nou-2023-17/id2982767/>
- Berntsen, C. & Tufte, T. (2018) *Sveitsisk jordbrukspolitikk. Matforsyning og fellesgoder likestilt* (Report no. 1). AgriAnalyse. <https://www.agrianalyse.no/getfile.php/132967-1522830811/Dokumenter/Dokumenter%25202018/Rapport%25201-2018%2520Sveitsisk%2520jordbrukspolitikk%2520%2528web%2529.pdf>
- Bjørlo, B. & Rognstad, O. (2019). *Nesten ikke til å kjenne igjen*. SSB. <https://www.ssb.no/jord-skog-jakt-og-fiskeri/artikler-og-publikasjoner/nesten-ikke-til-a-kjenne-igjen>
- Bowles, S. (2008). Policies Designed for Self-Interested Citizens May Undermine “The Moral Sentiments”: Evidence from Economic Experiments. *Science*, 320(5883), 1605–1609. <https://doi.org/10.1126/science.1152110>
- Kimmerer, R. W. (2020) *Brading Sweetgrass: indigenous wisdom, scientific knowledge and the teachings of plants*. Penguin Books.

- Bratli, H. (2010). *Naturbeitemark*. NINA – Norsk institutt for naturforskning. <https://www.nina.no/archive/nina/PppBasePdf/prosjektark/2010/Bratli%20Naturbeitemark%20ARKO-faktaark2010.pdf>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. <https://doi.org/10.1080/2159676x.2019.1628806>
- Brown, K., Flemsæter, F., & Rønningen, K. (2019). More-than-human geographies of property: Moving towards spatial justice with response-ability. *Geoforum*, 99, 54–62. <https://doi.org/10.1016/j.geoforum.2018.12.012>
- Bunger, A. & Tufte, T. (2016). *Den norske landbruksmodellen* (Report no. 5). AgriAnalyse. <https://www.agrianalyse.no/getfile.php/13653-1513245601/Dokumenter/Dokumenter%202016/Rapport%206%20Den%20norske%20landbruksmodellen%20%28web%29.pdf>
- Büscher, B. (2012). Payments for ecosystem services as neoliberal conservation: (Re)interpreting evidence from the Maloti-Drakensberg, South Africa. *Conservation and Society*, 10(1), 29. <https://doi.org/10.4103/0972-4923.92190>
- Büscher, B., & Fletcher, R. (2014). Accumulation by conservation. *New Political Economy*, 20(2), 273–298. <https://doi.org/10.1080/13563467.2014.923824>
- Büscher, B., & Fletcher, R. (2020) *The conservation revolution: radical ideas for saving nature beyond the Anthropocene*. Verso
- Bär, A. (2009). *Skjotselsplan for Engan/Ørnes og Kjelvik, Sørfold kommune* (Report Vol. 4 no. 169). Bioforsk Nord, Tjøtta. <https://img1.custompublish.com/getfile.php/3853727.2511.jpniqwtqjmsi7s/skjotselsplan.pdf?return=sorfold.custompublish.com>
- Câmpeanu, C. (2023). A Short Introduction to Multispecies Studies and Ethnography. *Anthroart*. <https://theanthro.art/a-short-introduction-to-multispecies-studies-and-ethnography/>
- Clark, T., Foster, L., Sloan, L., & Bryman, A. (2021). *Bryman's social research methods* (6th ed.). Oxford University Press.
- Cooke B, Kothari U (eds) (2001) *Participation: the new tyranny?* Zed Books, London
- Cortazzi, M. (2001). Narrative analysis in ethnography. In *Handbook of Ethnography* (pp. 384-394). SAGE Publications Ltd, <https://doi.org/10.4135/9781848608337>
- Council of Europe (2001). *European Landscape Convention* (Report T-FLOR 1 (2001) 8). AgriAnalyse. <https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=09000016806b06f8>

- Creswell, J. W., & David Creswell, J. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications.
- Debord, G. (2014). *The society of the spectacle* (K. Knabb, Ed. & Trans.). Bureau of Public Secrets.
- Directorate for Cultural Heritage. (2019). *Utvalgte Kulturlandskap - Natur, kulturarv og levebrød* [Pamphlet]. https://www.riksantikvaren.no/wp-content/uploads/2019/12/brosjyre_Natur-kulturarv-levetbrød_UKL.pdf
- Dybdal, S. E. (2016, August 1). *Restaurering av myr kan gi klimagevinst* [Press release]. <https://www.forskning.no/planteverden-klimateknikk/landbruk/restaurering-av-myr-kan-gi-klimateknikk/405266>
- Dybdal, S.E. (2023, February 2) Ten facts about soil and farmland preservation in Norway. <https://www.nibio.no/en/news/ten-facts-about-soil-and-farmland-preservation-in-norway>
- Eilertsen, M. & Danielsen, R. (2021). *Hva tenker Utsira om Vindkraft?* Byantropologene & Kystvær. https://static1.squarespace.com/static/5dce7f6005553c34b366c1d8/t/61dd6590e9c9d22d1967de57/1641899422895/Digital_Hva+tenker+Utsira+om+Vindkraft+BYA%2C+Kystv%C3%A6r%2C+Solvind%28%29.pdf
- Elliott Kevin C (2020) Framing conservation: ‘biodiversity’ and the values embedded in scientific language. *Environmental Conservation* 47:260–268. doi: 10.1017/S0376892920000302
- Energidepartementet, O. O. (n.d.). *Meld. St. 36 (2020–2021)*. Regjeringen.no. <https://www.regjeringen.no/no/dokumenter/meld.-st.-36-20202021/id2860081/>
- Fageraas, K. (2021). Har utmarka blitt historie? I F. Flemsæter & B. E. Flø (Red.), *Utmark i endring* (Kap. 10 s. 265–283). Cappelen Damm Akademisk. <https://doi.org/10.23865/noasp.151.ch10> Lisens: CC BY-NC-ND 4.0
- Fangen, K. (2010). *Deltagende observasjon. 2. Utgave*. Fagbokforlaget Vigmostad & Bjørke AS.
- Flø, B. E. & Flemsæter, F. (2021). Utmark i endring – når nye tider gir andre tilhøve. In Flemsæter, F. & Flø, B. E. (Eds.) *Utmark i endring* (pp. 9–27). Cappelen Damm Akademisk. <https://doi.org/10.23865/noasp.151.ch1>
- Flø, B. E. (2021). Mot ei framtid for utmarksbeite – om beiting, sjølvkjensle og forståing mellom folk. In Flemsæter, F. & Flø, B. E. (Eds.) *Utmark i endring* (pp. 67–92). Cappelen Damm Akademisk. <https://doi.org/10.23865/noasp.151.ch3>
- Flø, B.E. (2014). Klassestrukturane I landbruket. In Bråten, K. A. (Eds.) *Syn og Segn* (vol. 2, pp .20-29).
- Flø, B.E. (2015). *Bygda som vare - om bygda, elgen og folkeskikken*. [PhD Thesis, NTNU]. NTNU Open. <http://hdl.handle.net/11250/2360513>
- Forbord, M., & Vik, J. (2017). Food, farmers, and the future: Investigating prospects of increased food production within a national context. *Land Use Policy*, 67, 546–557. <https://doi.org/10.1016/j.landusepol.2017.06.031>

Forbord, M., Bjørkhaug, H., & Burton, R. J. (2014). Drivers of change in Norwegian agricultural land control and the emergence of rental farming. *Journal of Rural Studies*, 33, 9–19. <https://doi.org/10.1016/j.jrurstud.2013.10.009>

Frederici, S. (2020). *Feminism and the Politics of the Commons*. The Commoner. <https://thecommoner.org/wp-content/uploads/2020/06/federici-feminism-and-the-politics-of-commons.pdf>

Gibson-Graham, J. K., Cameron, J., & Healy, S. (2013). *Take back the economy: An Ethical Guide for Transforming Our Communities*. University of Minnesota Press.

Gibson-Graham, J. K., Cameron, J., & Healy, S. (2016). Commoning as a postcapitalist politics 1. In Amin, A., & Howell, P. (Eds.) *Releasing the Commons* (pp. 192-212). Routledge. <https://doi.org/10.4324/9781315673172-12>

Gómez-Baggethun, E., & Ruiz-Pérez, M. (2011). Economic valuation and the commodification of ecosystem services. *Progress in Physical Geography: Earth and Environment*, 35(5), 613–628. <https://doi.org/10.1177/0309133311421708>

Gómez-Baggethun, E., De Groot, R., Lomas, P. L., & Montes, C. (2010). The history of ecosystem services in economic theory and practice: From early notions to markets and payment schemes. *Ecological Economics*, 69(6), 1209–1218. <https://doi.org/10.1016/j.ecolecon.2009.11.007>

Government. (2022, July 14). *Utsira i Rogaland - nytt utvlagt kulturlandskap i 2022* [Press release]. <https://www.regjeringen.no/no/aktuelt/utsira-i-rogaland-nytt-utvalgt-kulturlandskap-i-2022/id2922143/>

Government. (2022, May 11). *Kraftfull satsing på havvind* [Press release]. <https://www.regjeringen.no/no/aktuelt/kraftfull-satsing-pa-havvind/id2912297/>

The Guardian Documentary. (2024, January 31). Rowdy Flock: A daughter, her dreams, and a sheep farm in Norway [Video]. The Guardian. <https://www.theguardian.com/environment/video/2024/jan/31/rowdy-flock-a-daughter-her-dreams-and-a-sheep-farm-in-norway>

Haraldsen, S. K., & Tufte, T. (2022) *Østerriksk jordbrukspolitik. Aktiv struktur- og miljøpolitikk kompenserer utfordrende produksjonsforhold* (Report no. 6). AgriAnalyse. <https://www.agrianalyse.no/getfile.php/137254-1665996073/Dokumenter/Dokumenter%202022/Rapport%206%20-%202022%20%28web%29.pdf>

Haraway, D. (1988). Situated Knowledges: the science question in feminism and the privilege of partial perspective. *Feminist Studies*, 14(3), 575–599. <https://doi.org/10.2307/3178066https://www.jstor.org/stable/3178066>

Haraway, D. (2010). When Species Meet: Staying with the Trouble. *Environment and Planning D: Society and Space*, 28(1), 53–55. <https://doi.org/10.1068/d2706wsh>

Haraway, D. (2018). Staying with the trouble for multispecies environmental justice. *Dialogues in Human Geography*, 8(1), 102–105. <https://doi.org/10.1177/2043820617739208>

- Haraway, D. J. (2008). *When Species Meet*. University of Minnesota Press.
- Haraway, D. J. (2016). *Staying with the Trouble: Making Kin in the Chthulucene*. Duke University Press.
- Harper, D. (2002). Talking about pictures: A case for photo elicitation. *Visual Studies*, 17(1), 13–26. <https://doi.org/10.1080/14725860220137345>
- Head, L. (2012). Conceptualising the human in cultural landscapes and resilience thinking. In T. Plieninger & C. Bieling (Eds.), *Resilience and the Cultural Landscape: Understanding and Managing Change in Human-Shaped Environments* (pp. 65–79). chapter, Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139107778.006>
- Hickey, S., & Mohan, G. (2005). Relocating Participation within a Radical Politics of Development. *Development and Change*, 36(2), 237–262. <https://doi.org/10.1111/j.0012-155x.2005.00410.x>
- Huntjens, P. M. J. M., Eshuis, J., Termeer, C. J. A. M., & van Buuren, A. (2015). Forms and foundations of action research. In A. van Buuren, J. Eshuis, & M. van Vliet (Eds.), *Action research for climate change adaptation : Developing and applying knowledge for governance* (pp. 19-34). Routledge advances in climate change research.
- Huntjens, P., Eshuis, J., Termeer, C. & van Buuren, A. (2015). Forms and foundations of action research. In Van Buuren, A., Eshuis, J., & Van Vliet, M. (Eds.), *Action Research for Climate Change Adaptation*. Routledge: London pp. 19-34.
- Ingold, T. (2000). *The Perception of the environment: Essays on Livelihood, Dwelling and Skill*. Routledge.
- Ingold, T. (2017). Five questions of skill. *Cultural Geographies*, 25(1), 159–163. <https://doi.org/10.1177/1474474017702514>
- Jakobsson, S. & Pedersen, B. (2020). *Naturindeks for Norge 2020. Tilstand og utvikling for biologisk mangfold* (Report no. 1886). Norsk institutt for naturforskning. https://www.miljodirektoratet.no/globalassets/publikasjoner/m1800/naturindeksfor norge2020_m1800.pdf
- Jordheim-Larsen, C. (2022, September 9). *Lønn for strevet?* Dag og tid. <https://www.dagogtid.no/samfunn/lon-for-strevet-6.121.26863.1fd616a9>
- Kaland, P. E. & Kvamme, M. (2013) *Kystlyngheiene i Norge – kunnskapsstatus og beskrivelse av 23 referanseområder* (Report no. M23). Miljødirektoratet. <https://www.miljodirektoratet.no/publikasjoner/2014/januar-2014/kystlyngheiene-i-norge--kunnskapsstatus-og-beskrivelse-av-23-referanseomrader/>
- Kirksey, E., & Helmreich, S. (2010). The Emergence of Multispecies Ethnography. *Cultural Anthropology*, 25(4), 545–576. <https://doi.org/10.1111/j.1548-1360.2010.01069.x>
- Kristian Bjørkdahl og Karen V. Lykke: *Live, Die, Buy, Eat. A Cultural History of Animals and Meat*. Published by Routledge, 2023 BOOK
- Kulturminnesøk. (n.d.). [Map for Cultural Heritage in Norway] [Map] <https://www.kulturminnesok.no/kart/?q=&am-county=&lokenk=location&am-lok=&am->

[lokdating=&am-lokconservation=&am-enk=&am-enkdating=&am-enkconservation=&bm-county=&bm-municipality=&cp=1&bounds=69.59589006237651,-5.2734375,57.064630273278574,28.30078125&zoom=5&id=](https://www.kystlynghei.no/index.html#about)

Kystlynghei. (2014). *Hva er kystlynghei?* Retrieved September 29, 2022. <http://kystlynghei.no/index.html#about>

Landbruks- og matdepartementet (1999, December 17). *St.meld. nr. 19 2 Om norsk landbruk og matproduksjon* (Report no. 19). <https://www.regjeringen.no/no/dokumenter/stmeld-nr-19-1999-2000-/id192695/>

Landbruks- og matdepartementet (2005). *Landbruk – mer enn landbruk. Landbruks- og matdepartementets strategi for næringsutvikling* (Report no. M-0729 B). https://www.regjeringen.no/globalassets/upload/kilde/lmd/rus/2005/0002/ddd/pdfv/236450-strategi_naeringsutvikl_jan_05.pdf

Landbruks- og matdepartementet (2007). *Ta landet i bruk! Landbruks- og matdepartementets strategi for næringsutvikling 2007-2009* (Report no. M-0734 B). https://www.regjeringen.no/globalassets/upload/lmd/vedlegg/brosjyrer_veiledere_rapport_er/ta_landet_i_bruk.pdf

Landbruksallianen. (2023). *Norsk mat på norske ressurser Hvordan øke selvforsyningsgraden i Norge?* http://landbruksalliansen.no/wp-content/uploads/2023/11/selvforsyningshefte_ferdig-.pdf

Lauritzen, P. R. (2019). *Utsira fyrstasjon*. Norsk Fyrforening. <https://fyr.no/fyr/utsira-fyrstasjon/>

Levins, R., & Cochrane, W. W. (1996). The treadmill revisited. *Land Economics*, 72(4), 550. <https://doi.org/10.2307/3146915>

Lindøe, R. (2003, June 14). Fant 7500 år gammel boplass. *Stavanger Aftenblad*. <https://www.aftenbladet.no/kultur/i/6lxq3/fant-7500-aar-gammel-boplass>

Log, T., Thuestad, G., Velle, L. G., Khattri, S. K., & Kleppe, G. (2017). Unmanaged heathland – A fire risk in subzero temperatures? *Fire Safety Journal*, 90, 62–71. <https://doi.org/10.1016/j.firesaf.2017.04.017>

Lov om produksjon, omforming, overføring, omsetning, fordeling og bruk av energi m.m. (energiloven) - Kap. 2. Saksbehandling. (1990, June 29). Lovdata. https://lovdata.no/dokument/NL/lov/1990-06-29-50/KAPITTEL_2#KAPITTEL_2

Lov om produksjon, omforming, overføring, omsetning, fordeling og bruk av energi m.m. (energiloven) - Kap. 2. Saksbehandling. (1990, June 29). Lovdata. https://lovdata.no/dokument/NL/lov/1990-06-29-50/KAPITTEL_2#KAPITTEL_2

Lønning, D. J., (2014) *Dialogbasert utvikling. Manual for lokalt mobiliseringsarbeid og demokratifornyng*. Jæren forlag.

Grimsby, A. (n.d.). *October 2023*. <https://www.utsirafuglestasjon.no/latest-sightings/latest-sightings-2023/october-2023>

Marshall, C., & Rossman, G. B. (1995). *Designing qualitative research*. SAGE Publications, Incorporated.

- Meld. St. 39 (2008–2009). Klimautfordringene: Landbruk – en del av løsningen. Oslo: Landbruks- og Matdepartementet.
- Melissa F. Baird. (2017) *Critical Theory and the Anthropology of Heritage Landscapes*. University Press of Florida
- Mies, M. (2014). No commons without a community. *Community Development Journal*, 49(suppl 1), i106–i117. <https://doi.org/10.1093/cdj/bsu007>
- Miljødepartementet, K. O. (n.d.). *NOU 2023: 25*. Regjeringen.no. <https://www.regjeringen.no/no/dokumenter/nou-2023-25/id3006059/>
- Nielsen IQ. (2022). *Dagligvarefasiten 2022*. <https://dagligvarehandelen.no/sites/default/files/2022-05/Dagligvarefasiten%202022final%20no%20bleed.pdf>
- Nightingale, A. J. (2006). The Nature of Gender: Work, Gender, and Environment. *Environment and Planning D: Society and Space*, 24(2), 165–185. <https://doi.org/10.1068/d01k>
- Nightingale, A. J. (2011). Beyond design principles: subjectivity, emotion, and the (IR)Rational Commons. *Society & Natural Resources*, 24(2), 119–132. <https://doi.org/10.1080/08941920903278160>
- Norderhaug, A., Austad, I., Hauge, L. & Kvamme, M. (1999). *Skjøtselsboka for kulturlandskap og gamle norske kulturmarker*. Landbruksforlaget.
- Norges Bondelag (2020, 6. april). Landbrukets Klimaplan. <https://www.bondelaget.no/bondelaget->
- Nyhus, H. (2024, January 9). *Regjeringa styrker bygdevekstvtalen: Vil ha fleire til å bu på bygda*. NRK. https://www.nrk.no/vestland/regjeringa-styrker-bygdevekstvtalen_-vil-ha-fleire-til-a-bu-pa-bygda-1.16706808
- Nyhus, H., Øystese, O., & Sæle, O. (2023, August 28). *Gulen og andre «dødsdømte kommunar» nektar å gje opp*. NRK. https://www.nrk.no/vestland/xl/gulen-og-andre-dodsdomte-kommunar_-nektar-a-gje-opp-1.16521154
- Nyseth, T. and Aarsæther N. (2015). Fra implisitt til eksplisitt komparasjon: komparativ metode i stedsforskning. In Førde, A., Kramvig, B., Berg, N., B., & Dale, B. (Eds.) *Å finne sted – Metodologiske perspektiver I stedsanalyser* (pp. 221-236). Fagbokforlaget Vigmostad & Bjørke AS.
- Nærøy, A. J. (2015). Utsira - en boplass fra slutten av den vest-norske pionertiden. In A. Mjærnum (Eds.), *Viking* (vol. 78, pp. 7-27). Norsk Arkeologisk Selskap.
- O'Brien, R. (2001). An Overview of the Methodological Approach of Action Research. In Richardson, R. (Eds.) *Theory and Practice of Action Research*. Universidade Federal da Paraíba
- Offshore Wind Design AS. (2023, April 19). *Utsira Nord Offshore Wind*. Retrieved 2024, January 06. <https://www.offshorewinddesign.com/utsira-nord/>
- Ostrom, E. (2000). Reformulating the Commons. *Swiss Political Science Review*, 6(1), 29–52. <https://doi.org/10.1002/j.1662-6370.2000.tb00285.x>

- Paschen, J., & Ison, R. (2014). Narrative research in climate change adaptation— Exploring a complementary paradigm for research and governance. *Research Policy*, 43(6), 1083–1092. <https://doi.org/10.1016/j.respol.2013.12.006>
- Pascual, U., Balvanera, P., Díaz, S., Pataki, G., Roth, E., Stenseke, M., Watson, R., Başak, E., Işlar, M., Kelemen, E., Maris, V., Quaas, M. F., Subramanian, S. M., Wittmer, H., Adlan, A., Ahn, S. E., Al-Hafedh, Y. S., Amankwah, E., Asah, S. T., . . . Yagi, N. (2017). Valuing nature’s contributions to people: the IPBES approach. *Current Opinion in Environmental Sustainability*, 26–27, 7–16. <https://doi.org/10.1016/j.cosust.2016.12.006>
- Pearce, E. A., Mazier, F., Normand, S., Fyfe, R., Andrieu, V., Bakels, C., Balwierz, Z., Bińka, K., Boreham, S., Borisova, O., Broström, A., De Beaulieu, J., Gao, C., González-Sampériz, P., Granoszewski, W., Hrynowiecka, A., Kołaczek, P., Kuneš, P., Magri, D., . . .
- Svenning, J. (2023). Substantial light woodland and open vegetation characterized the temperate forest biome before Homo sapiens. *Science Advances*, 9(45). <https://doi.org/10.1126/sciadv.adi9135>
- Plumwood, V. (2006). The Concept of a Cultural Landscape: Nature, Culture and Agency in the Land. *Ethics and the Environment* (vol. 11(2)), pp. 115–150. <http://www.jstor.org/stable/40339126>
- Puschman, O (2019) https://nibio.brage.unit.no/nibio-xmlui/bitstream/handle/11250/2617233/NIBIO_BOK_2019_5_7_A4.pdf?sequence=2&isAllowed=y (RAPPORT)
- Riksantikvaren. (2021). *Kulturhistoriske landskap av nasjonal interesse i Rogaland*. <https://hdl.handle.net/11250/2832006>
- Rohwer, Y., & Marris, E. (2021). Ecosystem integrity is neither real nor valuable. *Conservation Science and Practice*, 3(4). <https://doi.org/10.1111/csp2.411>
- Rohwer, Y., & Marris, E. (2021). Ecosystem integrity is neither real nor valuable. *Conservation Science and Practice*, 3(4). <https://doi.org/10.1111/csp2.411>
- Rønningen, K., Fuglestad, E.M., & Burton, R. (2021). Path dependencies in Norwegian dairy and beef farming communities: Implications for climate mitigation. *Norwegian Journal of Geography*, 75(2), 65-78. <https://doi.org/10.1080/00291951.2020.1865443>
- Sandström, E., Ekman, A., & Lindholm, K. (2017). Commoning in the periphery – The role of the commons for understanding rural continuities and change. *The International Journal of the Commons*, 11(1), 508. <https://doi.org/10.18352/ijc.729>
- Sato, C., & Alarcón, J. M. S. (2019). Toward a postcapitalist feminist political ecology’ approach to the commons and commoning. *The International Journal of the Commons*, 13(1), 36. <https://doi.org/10.18352/ijc.933>
- Schärer, J. (2016). *Norge – et utmarksland - Nibio*. (n.d.). Nibio. <https://www.nibio.no/nyheter/norge--et-utmarksland>
- Setten, G. (2005). Farming the heritage: on the production and construction of a personal and practised landscape heritage. *International Journal of Heritage Studies*, 11(1), 67–79. <https://doi.org/10.1080/13527250500037054>

Setten, G. (2015). Til fots- et metodeblikk på landskap og praksis. In Førde, A., Kramvig, B., Berg, N., B., & Dale, B. (Eds.) *Å finne sted – Metodologiske perspektiver I stedsanalyser* (pp. 93-105). Fagbokforlaget Vigmostad & Bjørke AS

Setten, G., Stenseke, M., & Moen, J. (2012). Ecosystem services and landscape management: three challenges and one plea. *International Journal of Biodiversity Science, Ecosystems Services & Management*, 8(4), 305–312.
<https://doi.org/10.1080/21513732.2012.722127>

Singh, N. M. (2015). Payments for ecosystem services and the gift paradigm: Sharing the burden and joy of environmental care. *Ecological Economics*, 117, 53–61.
<https://doi.org/10.1016/j.ecolecon.2015.06.011>

Smith, L., 2006. Uses of heritage. London: Routledge

Solstad H, Elven R, Arnesen G, Eidesen PB, Gaarder G, Hegre H, Høitomt T, Mjelde M og Pedersen O (24.11.2021). Karplanter: Vurdering av dverglin *Radiola linoides* for Norge. Rødlista for arter 2021. Artsdatabanken.
<http://www.artsdatabanken.no/lister/rodlisteforarter/2021/30035> (retrived 13.02.24)

Spatak. (2023). *Om Spatak*. Retrieved November 12, 2023. <https://spatak.no/om-spatak/>

SSB. (n.d). *Kommunefakta Sørfold (Nordland)*. Retrived 2024, January 05.
<https://www.ssb.no/kommunefakta/sorfold>

SSB. (n.d.). *Jordbruksareal*. Retrieved 2023, November 5. <https://www.ssb.no/jord-skog-jakt-og-fiskeri/faktaside/jordbruk>

SSB. (n.d.). *Kommunefakta Utsira, Rogaland*. Retrieved 2023, December 20.
<https://www.ssb.no/kommunefakta/utsira>

Statsforvalteren i Nordland. (2018, August 03). *Sørfold har et av landets utvalgte kulturlandskap* [Press release]. <https://www.statsforvalteren.no/Nordland/landbruk-og-reindrift/Miljotiltak/sorfold-har-et-av-landets-utvalgte-kulturlandskap/>

Statsforvalteren i Rogaland. (2021, December 16). *Utsira kommune valt som Utvalt kulturlandskap - gratulerer!* [Press release].
<https://www.statsforvalteren.no/nb/Rogaland/Landbruk-og-mat/Miljotiltak-i-jordbruken/utvalde-kulturlandskap-i-rogaland/utsira-kommune-valt-som-utvalt-kulturlandskap--gratulerer/>

Stokke BG, Dale S, Jacobsen KO, Lislevand T, Solvang R, Strøm H (2021). Species group description birds (Aves). Norwegian red list for species 2021. The species data bank. <https://www.artsdatabanken.no/rodlisteforarter2021/Artsgrubene/Fugler>
Downloaded 14/02/2024

Sultana, F. (2020). Political ecology 1: From margins to center. *Progress in Human Geography*, 45(1), 156–165. <https://doi.org/10.1177/0309132520936751>

Sunde, L. (2023, June 7). Totalberedskapskommisjonen: Det er nødvendig å sikre størst mulig produksjon av mat i Norge basert på norske ressurser. *Bondebladet*.
<https://www.bondebladet.no/totalberedskapskommisjonen-det-er-nodvendig-a-sikre-storst-mulig-produksjon-av-mat-i-norge-basert-pa-norske-ressurser/s/5-150-49753>

Svalheim, E. J. (2019). *Folka og landskapet: ei vandring i artsrike kulturmarker*. Fagbokforlaget Vigmostad & Bjørke AS..

- Svalheim, E. J. (2022). *Kunnskapsgrunnlag for slåttemark og lauveng for nasjonal handlingsplanperiode 2023-2037* (Report no. 138). Norsk institut for bioøkonomi. https://nibio.brage.unit.no/nibio-xmloi/bitstream/handle/11250/3031776/NIBIO_RAPPORT_2022_8_138.pdf?sequence=1
- Svarte, Y. (2013). *Faggrunnlag for kystlynghei - med sikte på utvelging til utvalgt naturtype* (Report). Direktoratet for Naturforvaltning. https://www.miljodirektoratet.no/globalassets/dokumenter/publikasjoner/rapporter/faggrunnlag_kystlynghei.pdf
- Sørfold municipality (2007, August 16). *Kraft og Kultur*. Retrieved 2023, November 5. <https://www.sorfold.kommune.no/kraft-og-kultur.404345.no.html>
- Sørfold municipality (2014). *Strategier for miljø- og næringstiltak i landbruket i Sørfold kommune 2014-2017*. Retrieved . 2023, November 5. <https://img1.custompublish.com/getfile.php/4511116.2511.lzqpjbsmmqit7u/Strategier+S MIL+og+NMSK+2014+-+2017.pdf?return=www.sorfold.kommune.no>
- The Society of the Spectacle Annotated Edition : Guy Debord : Free download, borrow, and streaming : Internet Archive*. (2014). Internet Archive. https://archive.org/details/TheSocietyOfTheSpectacle_20181112/page/n9/mode/2up
- The treadmill revisited on JSTOR. (n.d.). *www.jstor.org*. <https://www.jstor.org/stable/3146915>
- Tjomsland, A and Dalen, L. S. (2015) Sitka – lovprist og svartelista. NIBIO. <https://www.nibio.no/nyheter/sitka--lovprist-og-svartelista/>
- Tscharntke, T., Clough, Y., Wanger, T. C., Jackson, L. E., Motzke, I., Perfecto, I., Vandermeer, J., & Whitbread, A. (2012). Global food security, biodiversity conservation and the future of agricultural intensification. *Biological Conservation*, 151(1), 53–59. <https://doi.org/10.1016/j.biocon.2012.01.068>
- Tsing, A. L., Swanson, H. A., Gan, E., & Bubandt, N. (2017). *Arts of living on a damaged planet: Ghosts of the Anthropocene*. University of Minnesota Press.
- Tsing, Anna. “Unruly Edges: Mushrooms as Companion Species.” *Environmental Humanities*, vol. 1 (November 2012): 141–54.
- Utsira Municipality. (2021). *Rødlistearter i Utsira kommune*. Retrieved 2022, October 31. <https://www.utsira.kommune.no/tema/natur-og-miljo/naturforvaltning/biologisk-mangfold/rodlistearter-i-utsira-kommune-1/rodlistearter-i-utsira-kommune>
- Utsira Municipality. (2023). *Lang jakt på liten blomst!*. Retrieved 2023, November 3. <https://utsira.kommune.no/2023/lang-jakt-pa-liten-blomst/>
- Utsira Municipality. (2023, April 13). *Forvaltningsplan UKL Utsira 2023-2027*. https://utsira.kommune.no/wp-content/uploads/2023/11/22_00092-13-UKL-Forvaltningsplan-21032023-259247_7_1.pdf
- Van Dooren, T. (2014). *Life at the Edge of Extinction: Spectral crows, Haunted Landscapes and the Environmental Humanities*. Sydney. https://www.academia.edu/5472295/Life_at_the_Edge_of_Extinction_Spectral_crows_Haunted_Landscapes_and_the_Environmental_Humanities

Van Dooren, T. (2017). Making Worlds with Crows: Philosophy in the Field. *RCC Perspectives*, 1, 59–66. <https://www.jstor.org/stable/26241417>

Weis, T. (2010). The accelerating biophysical contradictions of industrial capitalist agriculture. *Journal of Agrarian Change*, 10(3), 315–341. <https://doi.org/10.1111/j.1471-0366.2010.00273.x>

Zimmermann, A. (2021). - *Plantet som en løsning, fjernet som et problem*. (2021). <https://www.duo.uio.no/handle/10852/87507>

Appendix:

1. UKL locations in Norway



Figure 4 UKL locations in Norway with arrows pointing to the two case study locations. Adapted from www.ukl.ra.no

2. Interview guide

Opening:

- About the project. Hand out information letter and consent sheet.
- About the interview: Voluntary with audio recording, discuss reservation rights and anonymity. Duration: approx. 1 hour.

(Start recorder) **Introduction,**

Can you share your role as a local decision-maker, local resident, or local commercial actor in connection to the UKL status? What motivated/inspired you to enter that role?

About farming:

Are farmers creating value in the local community, in what way?

What do you think is the farmer's role in the local community? What status do you experience, as a farmer, that you have in the local community?

What are your opinions about the conditions for being a farmer?

What do you think are the reasons for individual farmers to shut down their farms / What are the reasons why someone would establish farm operations?

Viewpoints and understanding of UKL:

Why, in your opinion, was your area selected for the UKL status? What was your initial reaction to the proposed status, have this attitude changed?

How does this status impact your use of the landscape? Does it motivate a change in practices?

How do you understand 'protection through use'? How do you suggest maintaining the 'values' in the cultural landscape?

Do you feel like you are involved in the plans for managing the landscape values? In what capacity? How do you participate?

Viewpoints and understanding of rural development, agriculture, and the green shift:

What do you think of when I say combination-agriculture, (kombinasjonsbruket/mangesysleri)?

What do you think of when I say 'rural development' and 'sustainable' rural development?

What is, in your opinion, needed to maintain agriculture across the whole country?

What is needed to adapt farm operations to changing weather (wetter and warmer)?

How will national climate ambitions to cut emissions and meat consumption, affect you?

How do you envision the future of this area and agriculture? What would agriculture look like in 2030? In light of potential developments?

Values, practices, world-making:

What is your relationship to the landscape and nature surrounding your home? What values do they bring to you?

How do you use the landscape? If you grew up here, are there any similarities to how your family used the natural surroundings in the past?

3. Posters

**KAN DU TA MEG
MED PÅ
TUR?**

Eg heiter Emma Rydningen og skriv masteroppgåve om utvalde kulturlandskap i jordbruket

Eg vil lære om

- Bruken av kulturlandskapet
- Relasjonar til naturen
- Og forteljngar frå Utsira

NÅR: SØN-MAN-TIR
 Periode: 15.Aug-11. Sep.2023

STED: Din tur / Ditt landskap

TID: Du bestemmer (lengde, hastighet og formål)

Ta meg med!

ein kopp kaffi med meg? Emma ☎ 48152189
 ein liten tur med meg? Emma ☎ 48152189
 la oss sjå på fuglane? Emma ☎ 48152189
 passe på savene? Emma ☎ 48152189
 kor er din plass i økosystemet? Emma ☎ 48152189
 vise meg favorittstaden ditt? Emma ☎ 48152189
 historier om landskapet? Emma ☎ 48152189
 kva fugler er på øya nå? Emma ☎ 48152189
 ein kopp kaffi med meg? Emma ☎ 48152189
 ein liten tur med meg? Emma ☎ 48152189
 la oss sjå på fuglane? Emma ☎ 48152189
 passe på savene? Emma ☎ 48152189
 kor er din plass i økosystemet? Emma ☎ 48152189
 vise meg favorittstaden ditt? Emma ☎ 48152189
 historier om landskapet? Emma ☎ 48152189

Norges miljø- og biovitenskapelige universitet

**KAN DU TA MEG
MED PÅ
TUR ?**

Eg heiter Emma Rydningen og skriv masteroppgåve om **utvalde kulturlandskap i jordbruket**

Eg vil lære om

- Bruken av kulturlandskapet
- Relasjonar til naturen
- Og forteljngar frå Utsira

NÅR: SØN-MAN-TIR
Periode: 15.Aug-11. Sep.2023

STED: Din tur / Ditt landskap

TID: Du bestemmer (lengde, hastighet og formål)

Ta meg med!

Norges miljø- og biovitenskapelige universitet

ein kopp kaffi med meg? Emma ☎ 48152189

ein liten tur med meg? Emma ☎ 48152189

la oss sjå på fuglane? Emma ☎ 48152189

passer på sauene? Emma ☎ 48152189

kor er din plass i økosystemet? Emma ☎ 48152189

vise meg favorittstaden ditt? Emma ☎ 48152189

historiar om landskapet? Emma ☎ 48152189

kva fugler er på øya nå? Emma ☎ 48152189

ein kopp kaffi med meg? Emma ☎ 48152189

ein liten tur med meg? Emma ☎ 48152189

la oss sjå på fuglane? Emma ☎ 48152189

passer på sauene? Emma ☎ 48152189

kor er din plass i økosystemet? Emma ☎ 48152189

vise meg favorittstaden ditt? Emma ☎ 48152189

historier om landskapet? Emma ☎ 48152189

4. Information letter and consent sheet

Vil du delta i forskningsprosjektet:

Fra plan til praksis - Lokalsamfunnets erfaringer fra å være et utvalgt kulturlandskap i jordbruket.

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å evaluere effekten av tilskuddsordningen *Utvalgte kulturlandskap i jordbruket* (UKL) på Utsira og i Engan. Dette skrivet vil gi deg informasjon om målene for forskningsprosjektet og hva deltakelse innebærer.

Formål

UKL har som formål å ivareta biologiske og kulturhistoriske verdier knyttet til jordbruket, og baseres på frivillige avtaler mellom offentlig og private aktører. Jeg søker derfor en dypere forståelse av hva som motiverer ulike aktører, og hvordan tilskuddsordningen påvirker relasjoner til landskapet. Jeg vil invitere til befarung i landskapet eller samtaler rundt temaene: biologisk mangfold, kulturarv, jordbrukshistorie og visjoner for lokalsamfunnet.

Forskningsprosjektet er et masterprosjekt som fullfører graden i internasjonale miljøstudier ved Norges Miljø og Biovitenskaplige Universitet (NMBU). I masterarbeidet og dialog, har jeg som mål å innhente informasjon som er relevant for deg og alle andre som er berørt av UKL-satsningen. Ønsket er at mine funn vil bidra til å ivareta kulturlandskapsverdiene og opprettholde/utvikle landbruksdrift i Norge som ivaretar natur- og kulturverdier.

Hvorfor får du spørsmål om å delta?

Du får denne forespørselen fordi du er direkte eller indirekte knyttet til UKL ordningen på Utsira, i Rogaland, eller i Engan, i Nordland.

For forskningsformålet er du inkludert i ett av følgende utvalg:

- Utvalg 1: Bønder og aktive medlemmer i gårdsdriften
- Utvalg 2: Arbeider i forvaltningsorgan direkte knyttet til UKL ordningen
- Utvalg 3: Personer som er indirekte knyttet til UKL gjennom frivillige verv/roller i lokalsamfunnet

Din informasjon er hentet fra offentlige kart og kontaktopplysninger. Dersom noen har anbefalt meg å kontakte deg, vil jeg opplyse om dette.

Hva innebærer det for deg å delta

Hvis du velger å delta i prosjektet, vil jeg intervju deg, og/eller invitere til gruppesamtaler. Det vil være mulig å stille til enkeltdeler av prosjektet.

Dersom det er gjennomførbart, vil alle utvalg bli invitert til 'vandrende intervju' i områder som er kjent for deg f.eks. på eiendommen din, tursti i kulturlandskapet, eller tilsyn til husdyr. Jeg antar dette vil vare ca. 1-2 timer.

Utvalg 1 og 2 vil bli invitert til oppfølgingsintervju hvor jeg ønsker å dele eldre fotografier av landskap og gårdsdrift aktuelt for ditt område. Jeg antar samtalen vil vare ca. 45-60min. Jeg vil, i den grad du tillater, gjøre lydopptak av samtalen og/eller video hvor fokus rettes mot fotografiene.

Deler av intervjuene vil transkriberes. Alle dine opplysninger vil bli behandlet konfidensielt og opptakene vil bli lagret elektronisk på NMBU sin forskningsserver hvor kun jeg og min veileder har tilgang.

Intervjurunder med bønder, grunneiere, administrasjon og andre interesserte vil gi meg innsikt i bruken av, relasjoner til, og opplevelser i landskapet. Dette legger fundamentet for gruppesamtaler.

Utvalg 3 vil bli invitert til å delta i 1-3 gruppesamtaler bestående av ca. 5 deltakere. Samtalen(e) vil vare ca. 60-90 min. og jeg ønsker å ta lydopptak. I gruppesamtalene vil jeg legge føringer for samtalen basert på tema fra intervjurunder og jeg er særlig opptatt av meningsutveksling og forslag til tiltak. Sammensetning av grupper og tidsrom vil diskuteres nærmere i intervju.

Intervju og gruppesamtaler vil gjennomføres i tidsrommet:

- Engan: 20.-29. juli
- Utsira: 14.august til 11. september

Før jeg drar fra Utsira vil jeg holde ett offentlig foredrag (Max 20min.) om erfaringene jeg har gjort meg i de to UKL-områdene. Dette gir også mulighet til å korrigere min oppfattelse og innsikt som baseres på intervjurundene.

Jeg har avløyerbevis og bistår jeg gjerne i husdyrhold og arbeidsoppgaver i tilknytning til intervjuet som kompensasjon for din tid.

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

Hvem er ansvarlig for forskningsprosjektet?

NMBU er ansvarlig for personopplysningene som behandles i prosjektet. Esben Leifsen, sosialantropolog og førsteamansuensis ved fakultet for landskap og samfunn, veileder meg i prosjekt- og behandlingsansvaret.

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrevet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket.

- Dine opplysninger vil kun være tilgjengelig for meg (Emma Eide Rydningen) og min veileder Esben Leifsen.
- Jeg vil ikke bruke ditt navn i noen publikasjoner knyttet til informasjonen du gir.
- Jeg skal lagre sensitiv informasjon på en NMBU forskningsserver, som ikke er tilgjengelig for uvedkommende.
- Ikke-sensitiv intervjunotater vil oppbevares i låst rom/skap.
- Jeg vil erstatte ditt navn, kjønn, alder og kontakinformasjon med koder. Dette blir oppbevart separat fra resten av data samlingen.
- I publikasjon av masteroppgaven vil jeg dele meninger og erfaringer du har delt med meg. Jeg vil ikke dele ditt navn eller personlige detaljer.
- Av hensyn til å plassere uttalelsene i en kontekst vil jeg spørre om samtykke til å oppgi yrke og distrikt.
- Alle referanser til intervju vil bli sendt til deg for sitatsjekk før endelig innlevering.

Hva skjer med personopplysningene dine når forskningsprosjektet avsluttes? Prosjektet vil avsluttes når masteroppgaven godkjennes [forventet 15.01.2024]. Opplysningene vil anonymiseres og arkiveres. Lydfiler og andre dokumenter som ikke fullt ut kan anonymiseres vil bli slettet.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra *Norges Miljø- og Biovitenskaplige Universitet* har Sikt – Kunnskapssektorens tjenesteleverandør vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Dine rettigheter

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke opplysninger vi behandler om deg, og å få utlevert en kopi av opplysningene
- å få rettet opplysninger om deg som er feil eller misvisende
- å få slettet personopplysninger om deg
- å sende klage til Datatilsynet om behandlingen av dine personopplysninger

Hvis du har spørsmål til prosjektet, eller ønsker å vite mer om eller benytte deg av dine rettigheter, ta kontakt med:

- Norges miljø- og biovitenskaplige universitet gjennom:
 - Emma Eide Rydningen (Prosjektansvarlig):
emma.eide.rydningen@nmbu.no
tlf. +47 48152189
 - Esben Leifsen (Behandlingsansvarlig):
esben.leifsen@nmbu.no
+47 67231328
 - Vårt personvernombud ved:
Hanne Pernille Gulbrandsen,
personvernombud@nmbu.no
+47 402 81 558

Hvis du har spørsmål knyttet til vurderingen som er gjort av personverntjenestene fra Sikt, kan du ta kontakt via: Epost: personverntjenester@sikt.no eller telefon: 73 98 40 40.

Med vennlig hilsen
Emma Eide Rydningen

Esben Leifsen

(Forsker/Masterstudent)

(Forsker/Veileder)

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet «Fra plan til praksis – lokalsamfunnets erfaringer fra å være et utvalgt kulturlandskap i jordbruket» og har fått anledning til å stille spørsmål. Jeg samtykker til:

- å delta i intervju
- at lydfil opptas under intervjuet
- at opplysninger om meg publiseres slik at jeg kan gjenkjennes indirekte
- at opplysninger om meg anonymiseres så jeg ikke kan bli gjenkjent
- å delta i gruppesamtale

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

(Signert av prosjektdeltaker, dato)

5. Rain dance and mu'u making.

On a Friday 28th of July 2023, we were certain that we could close the silo and take a day off. Once the silo is open, you must add to it every day, to prevent rotting. We had been filling it for 2 weeks and for the past three days, we had thought it would be our last day. But every morning we found the weight of the hay had compressed the bottom layers, creating more space to be filled. This Friday, however, we are certain that it will be full and ready to be covered with a tarp which will be filled with water to compress the hay and preserve it. Some of us even cracked open a few beers in anticipation of a day off the following morning. When suddenly the farmer enters the barn in a tense posture. The weather forecast has changed, forecasting local rain, and the hills are full of 'sausages' still drying. There is a spontaneous council of the past and present farmers, and the eldest lead us into the field. We rake some hay into piles which are checked for moisture using touch and sound, some can be stored inside already. We head up the steepest hills and the elder teaches us how to make *mu* (term in Nordland, in plural: *mu'u*. *Såter*, or *høysåter* is a more common term in Norway). By layering the grass in opposite directions, left to right, then north to south, we create *mu* which leads the rain to trickle down on the sides, and keep most of the hay inside dry. Compared to the elder's *mu'u* mine are 'good enough for now'. After a couple of hours, we are finished saving dry hay and turning the last sausage into *mu*, and we watch the rainbow over the fjord, slowly

heading our way. The landscape photographer would have loved this picture. We have been guided in a practice that only our elder were familiar with. A solution we would not have found without the farmer's experience, a solution that requires seasons to perfect and will be needed in future situations for predicted and unpredicted rain. Partaking in this practice was humbling, and rolling down the hills and returning to our festivities I could not imagine what we would have done if this knowledge was not available to us. Speed and efficiency are measured by the time it takes to cover the distance from point to point. This implies a start and an end point. But the thing about life is that it does not begin here and stop there, but operates in a network of human and nonhuman relationships where the news of sudden rain makes room for movement and growth which cannot be measured in point-to-point density of linear connections.

6. Category of interest @ Vestremarka

Funded through SMIL and UKL grants a botanist and landscape geographer arrived for a second season to map the outfields, this time in the nature-pasture in the West. The work is considered urgent in relation to ongoing development projects on the island, and the UKL steering committee have chosen a prestigious botanist in Norway to conduct the work. Information about natural habitats through the NiN mapping (Nature in Norway) is used in impact assessments and constitutes knowledge base in planning processes.

Registering the topography and bedrock on the island provides great variation, and the scientist has brought a Tablet to fill panes onto the map. What is classified as 'nature-pasture' is actually full of variations, and as boundaries of nature types overlap. *Marsh*, *meadow marsh*, and *heather meadows* are drawn into the map in addition to species location to document biodiversity. Inviting the scientist to my campsite, sheltered from the north wind, I asked for a private lecture on botany and grazing pressure. The sun will soon set in the southwest. Three fishing vessels are fishing around the nature reserve for nesting birds at Spannholmene. An oil platform is visible through binoculars on this rare cloud-free evening and five lobster pots are visible by the doubles on wave surfaces, marking the start of the lobster season. The hilltop in which we are sitting is in an area called *Øygaarden*. The name reflects an era where farms were abandoned, *aude-gaarden* as residents died from the plague around 1350 CE. Plants are added to my vocabulary in addition to their usage. The botanist highlighted the rare experience of mapping nature-pasture of such "high class" referring to

the nature type as “intact” and well-managed. The experience would be different without the labour of sheep and farmers. Botanist thinks in terms of “30 year time lags” and therefore a higher grazing pressure most preferably with a combination of animals could be necessary to adapt to the potential effects of climate change. The botanist underscores that grazing pressure will always depend on who you ask.

In the nature-pasture there is another hiking trail called “Viking Løypa”. Joining an administrative employee and two visiting archaeologists from the County Municipality’s Cultural and Environmental Management delegated by the Directorate of Cultural Heritage, we reflect on the trail-name as slightly inaccurate for the findings on this side of the island. Viking remnants are so far only documented on the Eastern side. The purpose of the walk was to assess areas that require improvement since the last update in 1993. The posters that displayed information about the house tufts and excavation findings had faded with the weather. Surprisingly, most of the wooden crossings in wet areas were in good condition, possibly because they had been preserved by the marsh itself. This mission was financed by the Cultural Heritage Authorities. The archaeologists’ long-term goal was to increase the attention towards the monuments that have not yet been examined. On this walk, both the administration employee and I pointed out objects that were not yet recorded in the archaeological database: a seagull trap, and a possible tuft. The archaeologists shared updates from their previous day’s registrations. They referred to Utsira “as a Mecha for archaeologists” and highlighted the potential for connecting with educational purposes to test more recent archaeological excavation techniques. But this requires funding. The administrative employee shares a story from one of the elder residents on the island to the dismay of the archaeologists. During the 1940’s a Scottish archaeologist named Maxwell came to Utsira to gather and study flintstone. He paid the island kids an amount of money per piece of flint they handed over. The elder has shared that when they found bigger chunks of flint, they would crush them into smaller pieces to receive more payment.

7. Outfield supervision - the Farmer's mapping of species interactions

The land management plan defines what type of management is required to maintain the biological values, and following this plan is a premise for the economic support that the

farmers in Engan-Ørnes receive. Summarizing the scope and limitations of the land management plans, Interlocutor 1 states:

“[...] most concretely, it is the hay meadow that is the biological values, which are defined and covered by an isolated management plan and are therefore systematized in a way. But [...] the outfield areas are also very important. Although, in [the UKL] context, it's all about infields and cultivated land and cultivation method and stuff like that, but the whole thing here and the foundation [...] has always been the outfields and the pastures as the resource it is. I think it's very important, even though it's not as defined and registered in some way.”

The farm we are volunteering for has been in operation for four generations while the area has been divided from another farm back in the late 16th hundreds. The outfields referred to as the farming foundation are vast mountain areas where the sheep graze for 6-10 weeks during summer. During outfield supervision, we encounter moose (XX) and ravens (XX), and 3 sheep with their lambs. The supervision is conducted due to predators, mainly wolverine (*Gulo Gulo*). To receive compensation for killed sheep the farmer has 24 hours to find the carcass before other predators eat the remains. If the carcass is found in the vast area, it is brought home so the State Nature Inspectorate can confirm the attack and approve compensation. After walking for some hours in the outfields the farmer points to the lack of leaves on the birch trees. The news of the birch moth [*Epirrita spp*] attack is shared with the village and supplemented with observations in other areas. Something that usually happens every ten years is becoming more frequent with climate change. The farmers also inform of the success of finding cloudberry (*Rubus chamaemorus*) this year which is celebrated with delicious jam. From a tree, we carve out something that resembles burnt charcoal. Chaga (*Hymenochaetaceae*) is parasitic to birch trees and contains nutrients that boost the immune system. Chaga has been found in Otzi the Ice Man's pouch documenting its use back 5,300 years ago (X).



Norges miljø- og biovitenskapelige universitet
Noregs miljø- og biovitenskapelige universitet
Norwegian University of Life Sciences

Postboks 5003
NO-1432 Ås
Norway