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Sheep bound for mountain pastures in Lyngsalpan ['The Lyngen Alps'] in Northern Norway 2014. Photo: Tor Arne Lillevoll.

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Contents / Sommaire / Inhalt

Articles / Aufsätze

Miscellanea: Notes / Notizen

Reviews /Comptes rendus / Besprechungen

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Sheep Farmers in the Realm of Læstadius

Science and Religion as Motivating Forces in the Community of Practice in Northern Norway

ABSTRACT The article discusses some aspects of a successful development in a village in Northern Norway, where agriculture is an important industry. The author examines family-based farms with sheep, upbringing, socialization and learning in communities of practice, and integrated academic and sociocultural forces in development. Sheep farming in the studied village is integrated into a sophisticated field of knowledge rooted in the local culture. An important aspect is the bi-directional support and knowledge exchange between experience-based and science-based knowledge centres (i.e. there is a two-way transfer): the farmers supply external agricultural experts with data on breeding and fattening, and subsequently input their derived knowledge for further use in development. Another important part of this field of practice is financial support from the state. The author argues that the interaction between culture and the business environment is important and provides synergy. As a consequence, an extraordinary momentum resulting from sheep farming is created in the mapping between the organized business community on the one hand, and local culture and religious communities with strong historical roots on the other hand. The findings indicate that these conditions could be of general interest

for innovation and development also in other industries and other types of societies.

KEYWORDS childhood, communities of practice, Læstadianism, motivating forces, Northern Norway, practical "enskilment," sheep farming, situated learning, social capital, tacit knowledge

Introduction

Background

This study concerns a rural population in the county of Troms in Northern Norway, who live next to a fjord where they are surrounded by an alpine landscape. In particular, the article focuses on the changes in their way of life, which is based on natural resources. Earlier it was common for members of the community to combine fishing with self-sufficiency agriculture, but this practice changed with the advent of structural rationalization in the primary industries from the 1950s.[1] From then on there was a rapid decline in seasonal fisheries in many coastal communities. At the same time there was a growth in agriculture, largely combined with other sources of income (combined strategies). Nevertheless, farm numbers fell nationwide, and since 1960 three out of four farms have closed down (Rognstad & Steinset 2012). In addition, populations have declined in many rural areas, especially the percentages of young people. However, variations in the local natural and cultural conditions have resulted in geographical variations in the responses to the new developments.

In recent decades I have studied coastal Sami[2] and a Læstadian[3] fjord community in Lyngen Municipality. Compared to other rural areas in Norway,[4] the studied community represents a deviation, not only culturally in terms of its mix of traditional and urban values, but also in the sense that the population has remained more or less stable; the proportion of children has remained relatively high and the gender balance has remained even. The community is regarded as geographically marginal with regard to agriculture,[5] yet in terms of harvested hectares, meat quantity, and value creation the levels of production have long been characterized by positive development. In addition, the area has become renowned nationwide for its high quality lamb and brand development. This departure from the norm cannot be explained by general organizational frameworks applicable elsewhere in Norway and therefore my analysis focuses on the local conditions and is limited to the sheep farming and the related culture. The analysis builds on the results of on an earlier study conducted in the same area (Lillevoll

1982). On the basis of both that study and more recent research (Bleie & Lillevoll 2010), including one unpublished survey,[6] I pre-sent a follow-up socio-cultural and institutional analysis of reasons for the developments and innovations in the studied area. Important concepts in the present analysis are culture, social context, situated learning, communities of practice, and motivational forces in socialization and learning. In an earlier article, published in the *Journal of Northern Studies*, and with reference to Arbo (2009), Bleie and I argue that

> In recent years, the actual and potential innovations in Norwegian arctic agriculture have been studied through a focus on entrepreneurship [...] community entrepreneurship and the mobilization processes behind collective innovative projects headed by local enthusiasts. The rural community [...] has been analysed as framed in globalised and regional space with the main concepts being regional and national innovation systems, value chains and clusters [....]. However, these processes have mainly been analysed only in the short term and with inadequate attention paid to the role of religion, work ethics and social capital. (Bleie & Lillevoll 2010: 12)

Some of the factors that Arbo (2009) has highlighted as missing from research, such as social capital, religion, and work ethics, are discussed in the analysis in the present paper. However, although the developments in Lyngen have had significant links at a higher level than local knowledge networks and public bodies, my objective is to highlight the sheep farmers' interactions in horizontal networks of local cultural, social and economic spheres of activity, as well as the importance of knowledge production and incremental innovations (Spilling 2005: 21; Spilling [ed.] 2006: 34, 112).

The Research Question

In this article I address the question of why farming in the studied area has been characterized by positive development, while thousands of farms elsewhere in Norway have closed down. For those who have continued in the industry, increased access to land that can be leased, various governmental incentive measures, and well-organized professional support for meat production have opened up opportunities for agriculture in rural districts with favourable natural conditions. In the studied area, there is a plentiful supply of land for cultivation and rich pastures for rough grazing in order to take advantage of such opportunities (Bjørklund *et al.* 2012). However, this in itself does not account for the development. My argument is that particular historical factors as well as local cultural and social factors have been decisive for the expansion of agriculture in general, and sheep farming since the 1970s in particular. Through organized activities, the farmers in

the studied community have become members of social and professional networks. In addition, knowledge and social capital investments have been essential factors in their coping strategies.

In this article I aim to demonstrate that the successful development in sheep farming in Lyngen has been a synergy effect of activities and driving forces in two very different spheres of activity, namely the socio-cultural relationships between combinations of agriculture-based economic activities and the religious community in this coastal Sami area, which were established relatively early (Lillevoll 1982). The development originated especially from a historical relationship in which the family, organized sheep farming, and the Læstadian community in Lyngen[7] were closely linked institutions. While the family and the Læstadian community had long been integrated institutions, sheep farming became organized on a professional basis later, and the farmers' different statuses and roles became interlinked through their religious beliefs and economic activities. As a result of their interactions over time, particular patterns of behaviour and conventions became established (i.e. they became partially institutionalized).[8] In addition, extensive interaction in sheep farming, with socialization and collective learning processes across generations, has strengthened the sheep farmers' motivations for commercial development. In the following, I present evidence in support of this claim in the context of the studied community.

Methodological Considerations

In this article I present the environment that I have "commuted" to and from during the course of several decades, when I adopted different social positions for the purpose of observations and research. My methodology consisted of distanced observation, participant observation, conversations in meetings and during practical work, and in-depth interviews (some of which were audio recorded). The more recent data emanate from participant observations, and interviews were used in conjunction with data from my earlier research conducted in the same area. The method included comparison with developments in a neighbouring community, but that comparison is not discussed here.

The research covered all farms on which sheep farming constituted an important part of the community's economic activities. In 2014, there were 35 farms with sheep in Lyngen Municipality, of which 25 were in my studied area. The number of farms in operation has declined sharply since the 1970s, but their size has increased significantly. All previously cultivated land is still in use, and a considerable amount of additional land is under cultivation. Moreover, the rate of economic growth has increased significantly.[9]

The sheep farming industry is organized, and the professional networks extend far beyond the limits of the local community.

Aase and Fossåskaret claim that "[r]esearchers with a rich repertoire of local statuses have special premises for understanding their study subjects in more developed contextual frameworks" (Aase & Fossåskaret 2007: 87, 94–95). My repertoire of such local social statuses has provided a good basis for understanding the sheep farmers' way of life and the driving forces behind them. If it is at all possible to gain access to other people's horizons of understanding,[10] it has to be through studies conducted with sensitivity and very close knowledge of the local conditions over a long period, the language, and the development history; I have aimed for this in my case study. Moreover, my research has partly been conducted with a colleague who did not have prior knowledge of the studied community (Bleie & Lillevoll 2010), which ensured a greater degree of academic distance.

In order to understand the basis of the motivational forces and the interaction that has arisen within the sheep farming in the studied community, I have taken as my starting point the farmers' proximity to nature in their everyday practices. This includes ecological and social interaction into the context of local actions, whereby farmers are included in lifelong learning and cultivation processes. In this regard, the collective cultural capital is central. Moreover, religion is incorporated in the context of the local actions. In order to shed light on the foundation for the sheep farmers' values and attitudes, teamwork, and choice of actions, it is necessary to understand the nuances of certain linguistic expressions. One approach to understanding the ties with nature and the local socio-cultural context of the farmers' daily labour can be found in central indicators and symbolic markers of what is implicitly and explicitly experienced as meaningful within their intersubjectively shared field of experience and horizons of understandings (Fossåskaret *et al.* [eds.] 2006: 169; Aase & Fossåskaret 2007: 163–171). Both concrete everyday practices and linguistic expressions are important for understanding the basis of the farmers' motivational forces and interactions.

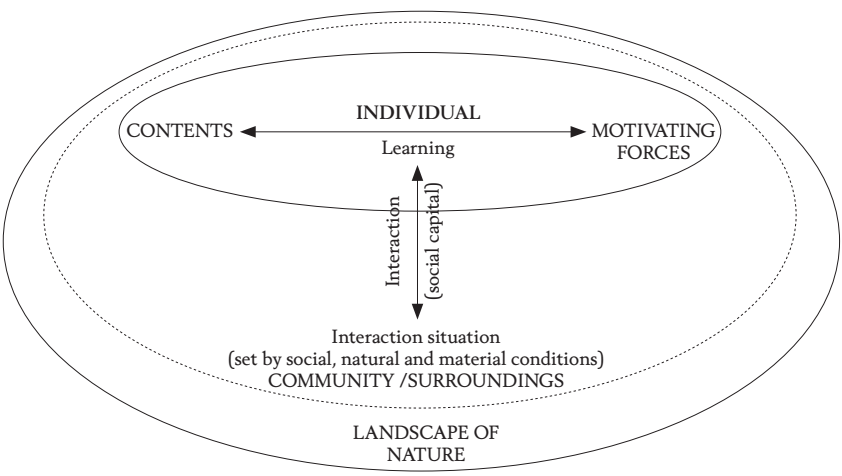
Knowledge Acquisition in Theory and in Sheep Farming

A Social and Evolutionary Learning Perspective

The Lyngen sheep farmers' interactions and productive working partnerships involve the development of knowledge. A social learning perspective (Illeris 2012: 39–47) that includes insights from recent brain research is relevant for discussing the development of knowledge that has occurred during the innovations in sheep farming practices in the studied community. In

such a perspective, learning consists of two fundamental processes (Fig. 1): *interaction* in activities that are fundamentally interpersonal and important for the acquisition of knowledge and skills, and the *mastery* of knowledge in which biologically evolved learning abilities are a factor. The two processes can be considered with regard to three learning dimensions: *content*, *motivational force*, and situations of *interaction*, which occur within the social, biological, and material environment and in the natural landscape. The *content* dimension concerns the cognitive, meaning, and mastery of knowledge and physical tools (i.e. cultural implements). Learning or the acquisition of skills concerns the dimension of "content," and learning ultimately occurs on individual and cognitive levels. However, their mastery is dependent on the existence of a motivational force, and is thus a relationship between that force and the content of their acquired knowledge and skills. The *motivational force* dimension can be characterized through the use of the concepts of motivation, emotion, and will (i.e. mental energy). Motivational force originates from individuals and their sense of identity, which in turn comes from human interaction. The *interaction* dimension concerns the relationship between individuals who interact over time and what they bring with them personally, and what they bring of a cultural, social, material, and financial nature from their environmental conditions. In sheep farming, interaction takes place primarily at a local level but is influenced by important guidelines established at a higher community level. The interaction can be characterized through the use of the concepts of action,

Fig. 1. A social perspective on learning—learning and interaction closely connected to nature. Source reference: The figure is a modified version of figure 1 in Illeris (2012: 41).



communication, and collaboration. Further, it relates to sociality and integration (Illeris 2012). In the following, my analysis focuses mainly on motivational forces and conditions for interaction and learning in sheep farming.

In Lyngen, the sheep farmers' identity and hence also their stable internal dispositions that affect their ways of thinking, their emotions, and their behaviour have been established and developed through processes of mastery and cooperation (Illeris 2012: 167–168). In this way they have each acquired individually rooted cultural capital that they bring with them to the interaction processes that take place in networks. There, the social capital is developed and recycled (Bø & Schiefloe 2009: 160–164), as I have observed in the studied development-oriented, sheep farming community. In such local networks solidarity and reciprocity are more important than power and domination (Putnam 1993: 173; Norges forskningsråd 2005). Accordingly, I understand learning and learning processes in sheep farming as both individual mental processes and interaction with collective learning within particular socio-cultural, institutional, and material conditions (Illeris 2012: 15, 259–281).

The Wealth of Experience and Learning Space, Identity, and Language

In the farmers' spaces of experience,[11] the farms, the community, and the large natural landscape include people, animals, and cultural tools (i.e. both knowledge and physical tools) (Säljö 2006: 33). The farmers' awareness and activities become rooted in these spaces in early childhood. On a practical level, their activities vary in nature and location according to the changing seasons of the year, and gradually the young members of the community have grown up accustomed to a system of interaction that is closely linked to nature. Metaphorically and analytically, the large space of experience in the Lyngen community can be understood as a learning space in which processes of interaction and learning have become integrated over generations and have influenced cultural reproduction and development.

Tim Ingold (2000: 5, 57) states that "it is through dwelling in a landscape, through the incorporation of its features into a pattern of everyday activities, that it becomes home to hunters and gatherers" and that "dwelling" concerns how "awareness and activity are rooted in the engagement between persons and environment." Through inhabiting and using their complex space of experience in this way, the sheep farmers in Lyngen have skilfully engaged in cultivation processes that include both ecological and social interactions. Moreover, in this learning and experience

space, in which they feel at home, they have developed relevant "practical enskilment" (Ingold 2000: 289–357). During their cultivation process their bodily-based experiences have transformed into culture in a cognitive and semiotic process, in which there have been conflicts between the older community members' knowledge and experience and younger members' reflections on those experiences in relation to their contemporary activities. Subsequently, their experience-based knowledge has gradually become enriched by science-based knowledge, and the young members of the community have formed new notions about ways of living (i.e. about their livelihoods) and about development opportunities. Individual cultural capital and identity have developed in the cultivation practices too. Moreover, the cultural capital has been collective because the process has happened within the community. However, individual cultural capital exists in slightly different forms and each person therefore participates in the interactions on their own terms. The capital regulates how the farmers perceive, assess, and interact in the physical and social world, and it provides a basis for the development of social capital, practical understanding, and ability to act. This includes context-related understandings, cultural (including religious) norms and values, classification schemes, and linguistic prototypes and concepts that each person masters, and that they can use as resources in social practice (Ingold 2000: 5, 57, 289; Aakvaag 2008: 76–94). This opens up possibilities for excitements, anticipation, exchanges of ideas, and creativity, and in the case of the studied community also for interaction and development.

Ingold's concepts form the basis for understanding the Lyngen sheep farmers' conscious and subconscious mentality, their religious philosophy, willingness to participate, and their practical dealings with nature, materials, animals, and other people. In general, it can be argued that such experiences of reality can be found in the relationship between the thinking individual and the objects in the outer world (Lakoff & Johnson 1999; Lakoff & Johnson 2003: 7–41). Thoughts and sense can be said to be conscious and bodily, yet at the same time thought processes are largely subconscious. Our system of concepts is predominantly metaphorically structured and defined, and metaphors are abstract concepts derived from concrete bodily experiences—both spatial and material-based experiences. In order to progress from my empiricism to my analysis and description of the Lyngen sheep farmers' livelihoods and dwelling (i.e. their life-world),[12] it is necessary also to understand the meaning of key concepts and symbols, metaphors, and metonymy, as well as denotations and connotations in language (Aase & Fossåskaret 2007: 53–57, 142–170; Aakvaag 2008: 160–162). Accordingly, in the following I use some linguistic expressions in my analysis and presentation of my understanding.

Interaction and Motivational Forces in Sheep Farming

Communities of Practice, Learning, and Professional Driving Forces

Thus far, I have referred to working communities as equivalent to communities of practice. Wenger (2004: 89–104) postulates three elements in a community of practice: the ability to establish relationships, mutually dependent relations in work-related activities, and shared repertoires of engagement. When combined, these factors can create positive social energy and meaningfulness, but also inherent failures (inbreeding) and oppression. When these elements interact, the development and spread of knowledge can be optimized in communities of practice. The local cooperative environment that I have studied comprises small and larger communities of workers that have been spontaneously and partially informally organized according to their needs. These groups constitute the basis of the local, formally organized sheep farming. From Wenger's definitions, small groups of workers can be understood as constituting a complex community of practice, one that can also function as "a management tool" for governance by higher organizational levels within the industry. Through the community of practice, different activities are given meaning, individuals develop their identity and knowledge, and the decentralized form of learning also involves collective learning processes.

Fig. 2. Childhood on a sheep farm in the 1980s. A little girl—posing with a premium ram born of her own sheep—at work with dad. Photo: Roar Berglund.

In the case of the sheep farmers, their community of practice will be maintained in different situations and through diverse everyday activities throughout the seasons of the year. Many of the activities are organized informally, such as sheep herding and monitoring the sheep when they are grazing. Other activities are organized strictly formally, such as the knowledge-intensive sheep breeding. However, in all these aspects, novices gradually become involved from relatively early on (Fig. 2), under the guidance of older farmers with a large repertoire of knowledge and skills. There is a natural acquisition and exchange of knowledge in informal learning relationships between the novices and the experienced farmers. This relationship can be illustrated through the concept of apprenticeship, in which "mastery resides not in the master but in the organization of the community of practice of which the master is part" (Lave & Wenger 1991: 94).

The concept of masters and apprentices (Lave & Wenger 1991) can have several meanings and, in order to understand the organized activities in sheep farming as learning and social practice, it can also be linked to the concept of communities of practice. In the case of the community in Lyngen, skills have been acquired early and naturally by the children and young people through both imitating and learning by observing their role models, namely their parents, experienced sheep farmers, and others in different local working groups, and in time they too have been able to participate in activities. Ingold's (2000: 261) concept of "skill" highlights such acquisition as "tacit, subjective, context-dependent, practical 'knowledge how,' typically acquired through observation and imitation rather than formal verbal instruction." According to Lave and Wenger (1991: 29), young people's gradually more central role in participation in the community of practice's activities can be conceptualized as "situated activity," in a learning process from "legitimate peripheral participation" to "full participation." According to Lave and Wenger (1991:34), young people gradually become full participants through social and situated activities that form the core of the learning process. Further, Lave and Wenger (1991: 57) state that "[l]earning, transformation, and change are always implicated in one another." Situation-specific activities thus figure prominently in the socialization process and contribute to learning, motivational forces, and development.

In the case of the community in Lyngen, the sheep farmers and the community's social practices have been inviting for young members of the community and open to their participation. However, their parents and masters have also been authoritative. One of the interviewees said: "It was not merely *optional* for us children to participate in adult work. Rather, we *had to* participate in accordance with our ability." Thus, the community

members were involved in the field of practice and acquired natural insights and skills from an early age.

Polanyi's concept "tacit knowledge" is relevant to my discussion (Polanyi 2000). Moreover, I understand Ingold's term *skill* as synonymous with Polanyi's concept (Ingold 2000). However, both concepts can be understood in different ways.[13] In the context of the present study I understand "tacit knowing" either as well-established empirical knowledge or as "practical knowledge" and "knowledgeable practice" created through a strong sense of commitment and sensitivity (i.e. what Polyani [2000] refers to as "indwelling"). The sheep farmers' knowledge has been acquired naturally through inhabiting and using the landscape around them (i.e. they have been dwelling in the landscape), and as a result they have developed embodied practical skills and knowledge (i.e. through "practical enskilment") (Ingold 2000: 291, 316). Their skills have been acquired through processes of social practice that mobilize the necessary mental energy. And the outcome has been collective learning.

In many situations Wenger's three postulates already referred to, are satisfied, and the Lyngen sheep farmers construct knowledge that is socially distributed and collective. In such development processes tacit knowledge can have a reciprocal interaction with specialist knowledge, and form the basis of competent farmers' skills when they practise everyday tasks (i.e. they are skilled practices) that include ecological and social interactions. Working with animals thus involves various cultural tools as an extension of the body. The complex interplay of sheepdogs, sheep, machines and other related equipment, mobile phones, and everyday language have enabled the farmers in Lyngen to inhabit and exploit effectively and with empathy a large landscape of resources. With different social positions, they have developed somewhat similar ways of living, interests, and knowledge, and, over time, also collective subjectivity. They are therefore also predisposed towards and competent in cooperation over the use of natural resources. With common history of experience in proximity with nature, the younger members of the community have accessed social resources in the form of cultural capital and professional identity. Herein lies the foundation for their development of social capital, which can be used in reflection and communication. Thus, their interaction has given direction to their choice of actions. In the 1970s and 1980s potential sheep farmers "reinvested" their knowledge and social capital in the local sheep farming industry, and shortly afterwards they operated their own farms.

In the following, I concretize the scholarly basis for the interaction in the sheep farmers' community of practice. The utilization of technology, particularly from the early 1980s, opened up for improved efficiency

in farming operations. Many technical aids and resources freed up a lot of man-hours. Especially, the technology for round balling has meant that the traditional, labour-intensive work has been consigned to history. The need for operational efficiency and cost-cutting mechanization has also resulted in hay making being run by small working partnerships between persons from two to three farms. Various electronic forms of communication technology have been in use since the 1970s. Today, web-based communications with the abattoirs and other higher-level professional communities are well established. Experiments with web-based monitoring of free-ranging sheep (with electronic ear tags) while they are grazing in the outfields are ongoing, and drone technology is gaining popularity. In the practical and experimental work of feeding and breeding, automated feeding machines and artificial insemination with frozen semen (i.e. for inseminating small livestock) are used. In addition, sheepdogs have long been valued in sheep farming, and their training is undertaken in the community of practice. Thus, there is a complex interplay between independent farmers, sheep, sheepdogs, and various technologies in the exploitation of the natural resources in the case community.

Import of knowledge, as through the textbook *Sauehald med framtid* ['Sheep farming in the future'] (Bergøy [ed.] 1976) and the magazine *Sau og Geit*,[14] was of early importance for the development of collective knowledge and helped to conceptualize experience-based knowledge. More recently, the textbook *Helse og velferd hos sau* ['Health and welfare of sheep'][15] (Vatn *et al.* 2009) and other publications such as manuals for sheep farming published by the Norwegian Association of Sheep and Goat Farmers (Norsk Sau og Geit [NSG]) have provided relevant new insights. In 1964, sheep farming in Lyngen was formally organized as a local branch of the NSG.[16] Later, ram breeders groups also came under the Norway's organization for livestock control and home of the sheep breeding programme, Sauekontrollen,[17] which is managed by the abattoirs and two national specialists in meat production: Nortura[18] and Animalia.[19] The ram breeders' groups are monitored in accordance with a national breeding programme for quality improvement in meat production.[20] The farmers are also important for the implementation of the sheep breeding programme, for example by collecting data relating to the production process. The data are supplied to specialists as raw material for analysis and the results of the analyses are sent to the farmers in the form of indexes and other quality targets for each animal. This is part of the community of practice's basis for assessment and its focus on the independent selection of rams, ewes, and lambs. Thus, it is apparent that the community of practice is specifically used as a management tool by the NSG and Sauekontrollen in their nationwide activities (Li *et al.* 2009).

At the same time, the farmers have duties in the sheep farming industry's higher level organizations, namely the NSG's committee for sheep breeding (*Avlsrådet for sau*), the NSG's county branches, and Nortura's nationwide cooperative organization). In this way they also export knowledge.

The farmers themselves have perceived this community of practice as a working community in which new experiences are continually acquired, not as a learning community. However, in analytical terms it can be argued that the environment has provided both young people and adults with the appropriate circumstances for assimilative learning, whereby impressions of the surrounding environment are adapted to established mental schema. In some cases learning is simultaneously accommodative; in other words, it is qualitative transgressive learning in communities that restructure mental schema and allow for adjustments in patterns of behaviour (Illeris 2012: 60–65). Especially when accommodative learning is combined with reflection, incremental innovations occur.

With regard to production and organization, the developments have taken place as a combination of imitation (e.g. the brand Lofotlam ['Lofoten lamb'] appeared before the brands Lyngenlam ['Lyngen lamb'] and Alpelam ['Lamb from the alps']) and incremental innovations (Spilling 2005; Spilling [ed.] 2006). One example of such combinations is the deliberate manipulation of the genetic material of sheep into a "maternal line" and a "meat line."[21] A second example is the practice of gaining insights from the interaction between genetic combinations and environmental factors.[22] A third example is the discovery and breeding of double-muscled sheep, which give higher meat yields and less fat as a result of genetic mutations.[23] However, the farmers experienced negative consequences, such as overgrown tongues and higher lamb mortality. Based on genetic research and decisions made by the NSG, the mutated gene has been systematically bred out. The end product, high quality arctic lamb, is marketed as a niche product directly to consumers, the food industry, and to tourism businesses.[24] A fourth example of the combination of imitation and incremental innovations concerns the fact that in the past farmers had part-time and full-time jobs off-farm, in offshore fish farming, the education system, industry, handicrafts, and defence. Today, there are experiments involving newer forms of farming combined with tourism services and social services for young people. Reflection, understanding, and dialogue in communities have provided the basis for the development of knowledge and new practices in which both individual and collective interests are well balanced.

In the farmers' communication community, specialist knowledge and social capital have been very important for reflecting on experiences and making use of new scientific insights acquired from external experts. They

have reached agreements on appropriate decisions in their experimentation with, for example, breeding, feeding, and disease prevention. Communication and interaction have taken place informally, formally, and symbolically in the tensions between individual and community interests. Informally, they have taken place either in the learning relationships of master and apprentice or in everyday practice, largely based on tacit knowledge. Formal communication and interaction has occurred in activities related to organized arenas for sheep farming, in which both verbal and written specialized and conceptualized knowledge has been central. The symbolic form of communication is found particularly in the Læstadian environment through preaching and spiritual conversations. The three different forms of communication and interaction seem to have been mutually enriching and have created positive mental energy that is of importance for both professional and social interaction. This has in turn had an impact on the professional driving force, the production of knowledge, and the coordination of the interests of individual farmers in relation to the interests of the wider community of practice.

Religious Communities and Emotional Driving Forces

The human behavioural and ecological dimension is relevant for understanding the interactions, coping strategies, and culture in sheep farming in Lyngen. With regard to individual and group strategies, Bongard and Røskaft (2010: 193) state: "The strategies are driven by emotions that were evolved in the past." Such evolved emotions apply also to religious emotions. Bongard and Røskaft (2010) further state that "[r]eligious strategies are also based on feelings of being on the winning team, cementing team spirit, and ensuring that the group is strengthened from within against 'the others'" (Bongard & Røskaft 2010: 223), and that "[m]an has evolved a strong sense of family, friendship and in-group alliances that govern cultures and behaviour" (Bongard & Røskaft 2010: 297). In the studied community, common religious experiences over generations have been important for the sense of in-group feelings.

General states of feeling (emotions) are important for thoughts, actions, and learning. Based on recent brain research, the psychologist Daniel Goleman (1997) has attempted to show what *emotional intelligence* means for the ability to cope and work things out (Illeris 2012: 111–112). According to Illeris, Goleman claims that human beings have two fundamental forms of consciousness that interact: the rational and the emotional (Illeris 2012: 111–112). This implies that emotional intelligence is more than intellectual ability and is important for the motivational forces in working and learning. In this regard, my point is that emotional intelligence in sheep farming is

influenced by a religious factor. Læstadianism has entered into the interaction between the rational and the emotional, and has provided emotional intelligence with religious-based motivations and additional driving force. This raises the question of how religious-based emotions are expressed in the interaction between farmers' rational and emotional awareness. In this regard, two main typifications are important: the secular and the spiritual. The secular, which is represented by the rational and practical, is about inhabiting farms and the surrounding landscape (i.e. dwelling in them), and persevering to maintain a means of survival (i.e. livelihood). The spiritual, which is represented by faith, ethics, religious feelings, and their practice, revolves around what is most important, which is to strive for "God's blessing" and "salvation." Together, the secular and spiritual constitute a meaningful whole, which implies a relationship involving tension because the spiritual is easily dominated by the secular. Other important typifications that express the same bonding in the farmers' life-world are "family," "congregation," "a calling" (Norwegian *kall*), and the "order of creation" (Norwegian *skaperordning*). In a semiotic perspective (Fossåskaret *et al.* [eds.] 2006: 169; Aase & Fossåskaret 2007: 163–170), these concepts can serve to understand the thinking and importance of religiosity in the context of the present study. I will therefore examine in more depth the sources of emotional forces in the family, the congregation, and the calling.

Of relevance for the family and congregations in Lyngen Læstadianism, Olsen (2008) states:

> Both are places where the world, the devil and sin will not stand a chance [...]. The congregations and the family are referred to in the same way and are equal in their opposition to the world. (Olsen 2008: 132)

A number of metaphoric and metonymic concepts emphasize the importance of family metaphors, such as "God's children," "the heavenly Father," "sisters in the faith," "spiritual fathers," "brothers" and "brothers at the table." The Læstadian congregation is regarded as a big patriarchal family, and the family metaphor shows how the congregation as a religious and social institution should be understood. This in turn strengthens the importance of the family as an institution. There is reason to assume that biologically evolved general preferences and feelings for those who are closest, such as family members and those in the in-group, are reinforced by the religiously conditioned preferences and feelings for the family and congregation as an in-group. I claim that this has had consequences for the subculture and the motivational forces for sheep farming in the studied community.

Læstadianism is a conservative and pietistic form of Christian lay preaching, a Lutheran and Protestant direction with some features of

Calvinism—such as Puritan conceptions. This influences the ethics and morals in daily strife, where the thinking behind the sense of a calling was an important motivational force. Today, the farmers in Lyngen identify with Læstadianism to varying degrees, and many are not likely to recognize claims about such a calling, since many traditional symbols (e.g. dress and hairstyles) of Læstadian identity have been toned down or lost from everyday life, and there is little trace of self-denial with respect to material consumption. However, my observations of religious practices and values indicate that Læstadian ethics are ingrained in their subconscious.

From a historical perspective, I consider that the connection between sheep farming and Læstadianism can be demonstrated with reference to Max Weber ([1920] 1972). He argued that the explanation of the historical relationship between Protestantism and capitalism must first and foremost be sought in Calvinist sects' attitudes toward life and social organization, such as in their expectations of hard work and a simple life. Further, Weber points out that "'called' (in the sense of a life position, a defined work area)" exists "among *all* predominantly Protestant peoples" (Weber [1920] 1972: 46; italics in original). The concept of calling applies to the notion of "the religious significance of mundane everyday work" or, expressed another way, "the assessment of duty fulfilment in worldly vocation as the highest content that an individual's moral activity could assume." According to Weber ([1920] 1972: 59, 67), this dogma dictates that religious faith and religious life practice imply the "tireless work of following a calling" in order to achieve certainty in the "selection for grace" (predestination).

In Calvinism, economic progress is interpreted as a sign of being chosen and hence for the believer in the calling there are strong "psychological driving forces" to achieve economic progress. Aadnanes (1986: 80) claimed that Lutheranism and a strong sense of calling are of central importance in Lyngen Læstadianism. This includes the core values of piety, hard work, patience, moderation, and self-denial. With regard to the sense of a calling, Olsen (2008: 11) states:

> The calling [...] is that which embraces the whole person in gatherings, congregations, and daily life. Closely connected to the notion of calling is the idea of God's order of creation.

Further, according to Olsen, in Lyngen Læstadianism's social arrangements such as the family are created by God in equality with nature (Olsen 2008). Ingold's (2000) concept of "dwelling" is insightful in this respect, as it highlights people's active roles in creating culture, in this case a religious-based and socially constructed notion that is both juxtaposed with and part of nature.

According to Lyngen Læstadian ethics it is particularly important for the calling to be followed through work, to manage and safeguarding the family. Hence, if the strivings are blessed, their family will be "saved." One of my interviewees referred to the text from Genesis that reads "in the sweat of thy face thou shalt eat bread," which can be understood as meaning that the work of following a calling is drudgery. In arduous situations, such as those in the coastal Sami's Læstadian environment, it is usual to ask the question "Do you manage?" (Norwegian *Berges du?*) (including the connotation 'to become saved'). In one Sami-Norwegian dictionary, the religious connotations of the word *manage* and *to be managed* (Sami *gádjut*, *gáddjot*) are explained as synonymous with *salvation*, *to be saved*, and *to become free* (Kåven *et al.* 2000). I interpret the expression "to manage" (Norwegian *å berges*) as a key integral metaphor or metonym in which both denotation and connotation are important. Denotation concerns people's mastery in tangible, practical and economic circumstances, in familial and social relationships, and in the utilization of land and natural resources in the countryside, that is rooted in *dwelling* and *skilled practice* (Ingold). By contrast, connotation is symbolic and concerns the struggle to create meaning and motivation on the basis of religious beliefs. The concept "to manage" is related to the secular and spiritual spaces of experience in a meaningful whole. Predestination means that it is important to tirelessly follow the calling, and success in the world is interpreted as a blessing. In cases where the farmers have invested heavily to ensure that sheep farming in Lyngen is successful and they manage, this may be interpreted as to be "saved," as a blessing and giving them hope of salvation, which in turn strengthens their motivation to increase their efforts.

Farmers, Organized Sheep Farming, and Religion in Interaction

The religious significance of the family in Lyngen Læstadianism represents an indirect link between farming operations and religion. In-group experiences and social networks in the Læstadian congregations evolved from the mid-1800s onwards, and farmers collectively reaped the benefits from this organizational and cultural element of Læstadianism from the 1950s onwards. Subsequently, the community of practice gradually developed with regard to sheep breeding. This raises the question of how I can concretely justify the claim that their religion might have been behind their motivational forces and interaction in sheep farming. Today, as in the past, the work carried out on the farms and in the Læstadian families can be interpreted within the context of a Protestant understanding of a calling. It has been customary among members of the studied community to refer to positive events in daily life as an expression of "God's blessing" and when

working to greet others with the shortened form "Blessed be the labour" (Norwegian *Signe strevet*). These are symbolic expressions of the community's secular struggles and the spiritual as a whole, in which there are hints of the calling as a mental motivation factor in their work. Although traces of this way of speaking can still be found, the expressions are founded in more than this. Hard-working people can also be found within the Protestant-inspired subculture in the community. Furthermore, the working environment is not without tensions, such as those over sheep breeding and the use of pasture resources. Despite such tensions, the sheep farming industry is a large collective project in which conditions for psychosocial motivation are embedded.

On the connection between everyday practice and religious symbols, Lakoff and Johnson (2003: 40) state: "Symbolic metonymies are critical links between everyday experience and the coherent metaphorical systems that characterize religions and cultures." In the local culture in Lyngen, the connection among religion, culture, and nature is evident in the language. With regard to the importance of the Læstadian environment for the vitality of the community's sheep farming industry, one of the older farmers with responsibility for apprentice farmers said:

> The importance of Læstadianism and the sense of community or the development of sheep farming can be likened to the purpose of ballast in a boat—to enable it to sail well and stay the course.

Using a metaphorical figure of speech, another farmer specified how job satisfaction, creativity, hard work, and self-denial are interwoven in a fundamentally religious context in proximity to nature:

> You can see that with words, you sow in order to bear fruit of various kinds, the way one *is* can bear fruit [...] But in agriculture one experiences in a much stronger way [...] the results of the work one does. Indeed, one can certainly say that when something is blessed it bears fruit: [...] you sow and you work on breeding the sheep, horses and dogs [...] and you cultivate the soil, fertilize it as well as you can, water it, and [...] then you see the result [...] many times over, depending to some extent on what you should have done [...] but I think the blessing has a little to do with faith.

The above quotation clearly represents the Læstadian show of faith as a framework of reference. It gives meaning and psychological motivation in the daily struggle to "be saved," and blessing is associated with good results from secular labour. The quotation also expresses a typical experience and learning process that contributes to the development of the local sheep

farming economy. It is also a clear expression of the sense of closeness to nature. Further, closeness to nature and religiosity are included in families' cultural practices that are passed on to future generations, as another farmer said:

> We grew up in a Christian home. Football was not in focus [...] We often spent time in the open [...] Went skiing, [and] up to the cabin. Congregation and church on Sundays. I want to teach my children the same.

In the Læstadian community, outdoor life during holy days was originally regarded as sinful, but eventually became acceptable, and today's farmers spend time in nature, which is symbolically expressed as "the work of creation" and "nature's cathedral." The use of nature for recreation is understood as a form of contemplation that also fits in with sheep farming when caring for sheep that are grazing in the outlying pastures. Thus, Læstadianism has stimulated proximity to nature in a way that is illuminated by Ingold's term "dwelling."

With regard to the concept "tacit knowledge" and Polanyi's concept "emergence," Mathisen (2007: 13) states: "The fact that two qualitatively different aspects or elements in the knowledge process come together in an overarching whole lays the foundation for something new to emerge,"[25] and that "the interaction of phenomena that are fundamentally different sets in motion the development on a new level." I thus maintain that the meeting between organized sheep farming and Læstadianism, which are fundamentally different phenomena, has contributed to development on a new level. Through meetings between people in differing social positions, various aspects of local culture have become intertwined and this in turn has provided an impetus for increased levels of interaction, communication, and reflection. The interaction has taken place in two different contexts in which individual thinking, collective subjectivity, and cultural and social capital have become interlinked.

In Læstadian meetings, institutionalized religious norms and values apply that are not subject to negotiation. In this regard, the rituals and the spoken words that are heard (i.e. the preaching) by members of the community inspire spiritual reflection, strengthen both the family as an institution and the sense of a calling, and instil mental and social energy. However, in the business arena, the subjects, debates, negotiations, and discussions based on individual differences are central. When the differences are bound together through social persons with a repertoire of different statuses and skills that are activated in different situations, this may create controversy but may also be mutually invigorating for members of the sheep farming pro-

fession and the application of their mental energy. The farmers' systematic observations, reflections, and experimentation in communities of practice (within biology, technology, economics, and new market strategies) have occurred in the field of tension between phenomena that are fundamentally different, namely sheep farming and Læstadianism. I consider that this has given rise and impetus to the development of the sheep farming.

Primary Socialization, Social Resources, Knowledge, and Driving Forces for Development

It is typical of the present generation of farmers that tradition-based knowledge is acquired with sensitivity and great insight at a very young age (cf. the concepts "livelihood," "skilled practice," and "dwelling" [Ingold 2000], and "indwelling" [Polanyi 2000]) through observation and imitation of role models and activities in daily life. One of the farmers said:

> Playing was not a matter of leaving the farm to go and buy a toy. One had to find things to do oneself. [...] We played with paper animals, as we called them [...]. Made models of the barn, stalls with paper sheep. We had names for the sheep, like our uncle who had names for his sheep [...]. Made small hay-drying racks [...]. When the silo came, we made a silo, using Gilde's large 2–3 kilogram sausage tins, which we buried in the ground. [...] It has always been like this for us as children.

As a child in a "peripheral position" and inspired by parents' ways of life, this farmer had through free play laid the foundation early on in his life to become an integral participant. Another farmer portrayed the learning conditions and sources of inspiration in early childhood as follows:

> My grandfather was my motivating force [...]. At grandfather's [farm] there was good topsoil for growing turnips [...] it was easy to weed. The basis for our motivation [...] has two separate sources. One is [...] the creative force. One experienced the thresholds [...]. One has the creative force from when one is young. The second thing is what ensures that one keeps going [...]. That is very interesting. The environment counts a lot when it comes to the sheep.

The above quotation clearly shows how the basis for motivation was released. Later, agricultural education was introduced and access to the sheep farming. Childhood experiences in farming in the community are clearly evident in other ways, as the quotation reveals that the older masters gave this particular novice the support that he needed. The same farmer continued:

> Neighbour [A] was a chap who got in touch with us. [...] he wanted to inspire us to engage in the ram breeding programmes [...]. And [B] and [C] had such a humorous and spirited way of leading meetings. They were the corner stone of the organization's business at the time. They had the ability to include others too. We joined the local ram breeders' group. [The capital letters represent names removed to preserve anonymity.]

Thus, this farmer's family gradually contributed to the community, and as a result of their interest in cultivating the soil, working with the animals, and their willingness to undertake hard work, they were rewarded:

> We had a ram that suddenly started to do very well. [...] He was fairly big [...]. Later, we had a ram that was ranked even higher. I can say we had the country's best ram, which was born in 1999. We were down in Bergen at some place, and received a large statuette. It was such a boost and it gave us a taste for more.

In the process, it was necessary for the farmer's family to have several different sources of income, but with creativity, good partnerships within the close family, and hard work, the farming operations eventually became profitable:

> We made use of a computer early on in order to gain an overview. [...] We were searching for more land to rent, and found it. We were able to build up the livestock more and more. We were able to buy a tractor with a harvester. We extended a barn. [...] It is only in recent years that the sheep farming side has contributed the most financially. [...] It was a tough time when we had to build up everything. [...] But we thought it would work out [...]. Now we are beginning to be sustainable.

The above-mentioned two farmers' learning pathways to successful adulthood are typical in the studied community. Another success story concerns a farmer in the same community, who for the second time was named by Nortura as Norway's best sheep farmer in 2014 (Nortura 2014). The inspirational environments in childhood, the farmers' self-interest, and their support in the local community have thus been of fundamental importance as a motivational force behind their development and success.

In an environment that encouraged early participation, all of the farmers had shifted from legitimate peripheral participation to full participation (Lave & Wenger 1991: 110–123). Context and meaning were created over time through their *situated learning activities* and the professional community. On the basis of the empirical data, I argue that the primary socialization whereby children and young people participate early on in experiential learning in a

variety of situations is an important foundation for identity development and for recruitment to and development of a local industry. In this way, cultural reproduction, knowledge production, and development can take place in a living community of practice. The knowledge is mainly implicit, but it is also explicit, conceptualized, and socially distributed, and these two forms of knowledge are mutually influenced in interaction and learning processes.

When practical enskilment or tacit knowledge is first acquired and later becomes conscious, this may reflect a shift from practice (observation and imitation) to the use of concepts (Ellström 1996; Ingold 2000: 316). In the studied community, awareness has occurred also when the younger members have encountered conceptualized specialist knowledge in their dialogues with the older practitioners and with experts. In such cases, the learning process has been characterized by a shift from specialist concepts to practice. Acquired specialist concepts can become so well established in the consciousness that they become implicit or tacit. As I have already mentioned, the farmers produce data that external experts have analysed and returned to the practice field as new knowledge, which the farmers have mastered with great sensitivity. This process concerns what Wahlgren (2009: 21–22) calls "transfer," and it has taken place readily because the specialist knowledge has been highly relevant for practical sheep farming (i.e. "job utility"); the professional and social "receiving climate" in this field of practice has been supportive and desired to learn, and the "rewards" have been in the form of higher quality rankings in sheep breeding indexes, high-quality meat, and prestige in environmental terms. Thus, young members of the community who have later become active farmers have acquired valuable insights that have been beneficial for sheep farming.

Earlier in this article I pointed out that free play in childhood is a key element of the foundation on which the young farmers' positioning as novices and later as fully valued participants is developed. Recent research, including brain research, has focused on the value of the "free play" in contributing to the development of mental, social and emotional health, creativity, problem-solving, and conflict resolution (Brown 2009; Harper 2010; Hewes 2010). Stimulation in childhood and gradual integration into the knowledge-oriented community of practice has thus contributed to farmers' later pioneering new practices, to their creativity, and to their motivation in business developments. Trend-setting older farmers have conveyed a vision in which close links to nature and a sense of calling are central, and consequently their form of management with a clear vision in the sheep farming community of practice regarding the environment and sheep has contributed to the development of collective commitment and advanced methods of sheep farming in the area.

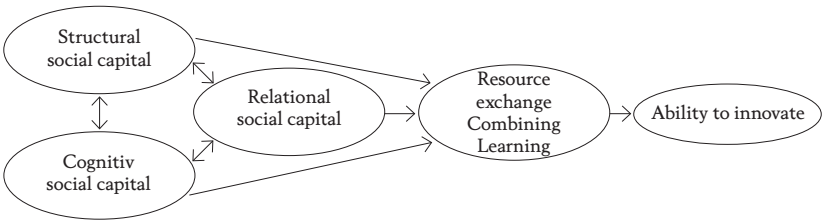
A lot of the dynamics in the sheep farming community and the community's driving force have largely arisen from the two conditions: the ability to combine individual qualities of the old masters and the youngest people within the subcultural sphere, and the ability to combine experience-based and science-based knowledge (to overcome the problem of *transfer* of knowledge). In open communities all knowledge is in change. The clear and general distinction between traditional or tacit knowledge and scientific knowledge is as a sterile dichotomy not suitable in my analysis. Therefore I have gone beyond the dichotomies to demonstrate a productive dialogue between these forms of knowledge, as Agrawal (1995: 433) encourages. I have shown that this may occur—and how—in a concrete practice. By words of Agrawal (1995: 422, 2004:9) I show that there evidently have been "contact, diversity, exchange, communication, learning and transformation among different systems of knowledge." All this has contributed dynamics of both cooperation and clash of interest that have been of value for the collective good.

Interaction, Motivational Forces, Social Capital, and Development

The dynamics I have described in the section above concerns the connection between circumstances in childhood, a culture dominated by religion, and economic activities. In this regard, interaction with social capital as a collective resource has been important in local social and professional networks. However, the sheep farming network does not only consist of local relationships between like-minded farmers, but also of the "bridges built" to various centres of expertise within, for example, sheep farming, commercial trade, tourism, and public administration.

In order to highlight the connection between social capital and development (with imitation and innovation), I refer to Bø and Schiefloe (2009: 227), who differentiate between three main dimensions in the concept of "social capital" in relations between social actors (Fig. 3): The first dimension concerns the pattern of relations, namely which actors are accessible to other actors through either direct or indirect ties (*structural dimension*). The second encompasses the qualities of the actors' relationships, such as recognition and friendship, sense of obligations, and trust (*relational dimension)*. And the third dimension concerns the cognitive capacities of the community, such as common interpretation models, shared perceptions of reality, common codes, and agreed norms of behaviour (*cognitive dimensio*n). According to Bø and Schiefloe (2009), this concerns how innovation in organizations should mainly be understood as collective processes in which

Fig. 3. Social capital and innovativeness of an organization. Source reference: Tsai & Ghoshal (1998: 466).



information and ideas are exchanged and combined, and in which new products and processes are generated in the interactions between actors. In the absence of a plentiful supply of social capital of these three main types, such processes function poorly. Innovative businesses are thus most often characterized by well-developed internal networks that connect various disciplines and functional areas.

The types of social capital in the model that Bø and Schiefloe (2009) refer to, can also serve to illustrate the importance of social capital for the social interaction dimension in the sheep farming development-oriented community of practice as well as for the industry's innovation and development capability. *Interaction processes* (see Fig. 1) between the farmers and their surrounding environment are founded in both structural and relational social capital. The *acquisition process* is primarily individual and a relationship between what should be taught (content) and the motivation behind it (driving force). This process is cognitive when knowledge is created individually as well as in social practices when the relational social capital and knowledge are applied and created in interaction and become socially distributed. The motivating force arises from all three dimensions (i.e. the structural, the cognitive, and the relational). This generates resource exchange and the combining of knowledge in the community of practice. In this context, learning based on both experience and research is central and creates favourable conditions for the development of imitation and innovation. My empiricism indicates that the development is not based merely on harmonious interaction. The processes of acquisition and interaction are also driven forward by professional disputes in fields of tension that arise in meetings between actors in various social positions in different cultural fields. Such tensions exist between material and economic interests involved in sheep farming and the ethics anchored in religion and local culture. However, the tensions vary at the individual level because the farmers are differently positioned with respect to Læstadianism and because

their emphasis on the religious ethics varies. Ethnic marginalization often impedes development (Hansen 2012), but can also constitute a source of opposition and the driving force, processes and acquisition when in-group alliances are strong, such as in the studied community, in which the ethnic dimension is expressed both directly and indirectly through Læstadianism.

I have argued the case for the importance of social capital for development in a particular cultural context. In my earlier studies (Lillevoll 1982) I have used the neighbouring industrial community of building contractors as a reference in my analysis of the studied rural community. Both were fisher-farmer communities in the 1950s. The industrial community had poor natural conditions for modern farming, but the culture of both communities was the same: coastal Sami and Læstadian. The natural conditions in the two communities provided different opportunities for development, and when modernization began in the 1960s, their industrial development took different directions. Nevertheless, it is possible to find parallels with regard to local culture, motivational forces, and the dynamics in their innovative development.[26] There are indications that the same culture-based dynamics has been operational in the two communities. If this proves to be the case, it would strengthen my argument that there is something universally interesting in the dynamics I have described for the analysed rural community.

Summary and Final Remarks

I have studied the development in a community in Lyngen Municipality in which, through combined strategies, the farmers have adapted to extensive global and national processes of change. There have been cultural changes and changes in the community's economy, yet at the same time there has also been continuity over the generations in these respects. My starting point has been that the particular combination of natural conditions and cultural conditions has placed constraints on the development of agriculture in the area, and I have attempted to address these constraints and have summarized three main points. The *first* point concerns the way the children have grown up in proximity to nature in a socio-cultural context with large spaces for free play and with early access to the development-oriented community's field of practice. And the interested beginners have received support from experienced adults during the gradual transition from their position on the periphery to full participation. The *second* point concerns the situated activities involving learning, the development of identity, and cultural and social capital. These activities have taken place in the context of the meeting between two cultural fields: practices rooted in both experience-based and science-based knowledge, and a spiritual way of life based on beliefs in which Læstadian ethics have guided life and work. The *third*

point concerns the early integration of sheep farming into a complex and sophisticated field of knowledge. Empirical knowledge was developed in local communities of practice with roots in local institutions and horizontal social networks. These local communities of practice also became formally connected vertically to external knowledge networks and public administrative authorities. Over time, the farmers have thus become successful in developing sheep farming.

However, the farmers' prospects are not unambiguously positive. A historical and contemporary innovative environment does not necessarily remain innovative. In the studied farming community, situations characterized by apprenticeships may become history. In addition, the driving force in the community might be reduced if the institutionalized community thinking weakens and gives way to individual initiatives with greater economic ambitions. In common with other industries, the farming industry is expected to reduce greenhouse gas emissions. There are also good opportunities for "green industries" specializing in food production and products for adventure holidays and tourism. If the farming industry is unable to adjust to criteria for sustainable development, this may lead to declining recruitment.

In line with Almås *et al.* (eds.) (2008: 441), it can be argued that the farmers need to act in accordance with the space for manoeuvre in agriculture, which includes making changes in the user structure and formulating a new policy for how and where farming will be practised in Norway. It may therefore be the case that in order to remain innovative the farmers will have to change their ideas about development, possibly reduce their ambitions for growth, and invest in more flexible combined adjustments, on a more moderate scale, and in niche products. Nevertheless, I believe that the strategies of mastery used over generations in the studied community are of wider interest. The socio-cultural context implies that at the actors' level the industrial activities are linked to important local institutions and organized activities in civil society, and at the same time the efforts that have been made have received extensive support from external experts and government agencies. In this respect, there may be elements that are transferable to other types of communities and industries.

Norwegian innovation research has largely focused on enthusiasts and entrepreneurs, clustering, and regional and national innovation systems. However, the motivation for development in the communities I have discussed can be explained primarily from the local socio-cultural context and incremental development over generations. I would argue that the likelihood of knowledge with innovative effects in a business environment would increase if (1) there exists a social structure and cultural context in which

actors generate re-investable social capital, and (2) there are driving forces with emotional motivation for interaction in communities of practice. If this claim has any substance, this study could contribute to innovation research and also to the solution of the well-known problem of "transfer" in the field of education or vocational education, namely the problem of transference and the practical application of new knowledge and experiences between theory and practice, in both directions.

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NOTES

[1] For an authoritative account of the effect of post-war national decentralization policies in Northern Norway, see Brox 2006. For a more recent study focusing on local transformations due to globalization and changed relations between the Norwegian state and rural communities of the High North (i.e. the circumpolar Arctic), see Bærenholdt & Aarsæther 2001.

[2] My use of the term *coastal Sami* applies to a population with predominantly Sami history, language and culture, who became influenced to larger or lesser degrees by the cultural practices of Kven immigrants. According to data from the 1801 census held in Norway's national digital archives (Arkivverket-Digitalarkivet), of the registered ethnic populations, 71 % were Lapps, 28 % were Kven, and 1 % were Danish or Swedish (http://arkivverket.no/Digitalarkivet; access date 10 November 2016).

[3] Lars Levi Læstadius (b. 1800) was the originator of the Læstadian movement that existed in the late 1840s, also in Lyngen. Læstadius, a naturalist, botanist and clergyman, was from a Sami family and worked in Lapland. Læstadianism had a great impact on Kven and Sami cultures throughout Lapland as well as in coastal Sami areas (Boreman 1953; Aadnanes 1986; Kristiansen 2001; Kristiansen 2005; Olsen 2013).

[4] In this article, I follow Haugen and Stræte's understanding of a rural area: "a territorial area characterized by scattered settlements, distant from major population concentrations and where natural resources are of considerable importance as a basis for business and leisure activities" (Haugen & Stræte [eds.] 2011: 13).

[5] Between 1969 and 2014, the total agriculture area in Troms County decreased from 34,450 ha to 33,600 ha, the number of agricultural holdings reduced from 8,858 to 975, and the size of the remaining holdings increased from 3.9 ha to 24.2 ha (Rognstad & Steinset 2012). Furthermore, the total number of adult sheep in Norway has decreased: in Troms County, the numbers fell by 16 % in the period 2003–2013, but in Lyngen they increased by 45 % in the same period (Stornes 2014).

[6] Tor Arne Lillevoll, "Læringsmiljø og sosio-romlige mestringsstrategier for 'å berges' på bygda" ['Learning environment and socio-spatial strategies for 'surviving' in rural communities'], an unpublished paper written in 2009.

[7] Lyngen Læstadianism mainly started as a Sami and Kven movement with a geographical and historical centre in the Lyngen area (Olsen 2013). Aadnanes (1986: 80) states that "the Lyngen fraction is actually more Lutheran than Læstadian."

[8] An institutional approach to communities means that there are fixed arrangements associated with living in a local community and that institutions define certain rights and duties that are levied with a certain degree of "local community strength" (Aarsæther 1997: 84).

[9] The added value of sheep farming industry increased by more than 40 % in the 10-year period 2003–2013. The numbers of sheep increased by 45 % in the same period, and farms in my study area accounted for the majority of that increase. On average, each farm has 400 sheep on a winter feeding system. In Lyngen Municipality as a whole, c. 10,000 animals are fed over winter, of which c. 8,000 are in my study area. The farms have an average of barely 20 ha of cultivated land (rented and owned) (Stornes 2014).

[10] On the term *horizon of understanding*, Henriette Højberg states, with reference to Gadamer: "The horizon of understanding represents the personal approach to the world, all that is made up of private experiences, but it is also a collective approach since each person is part of a linguistic community and a part of a historical and cultural community" (Højberg 2005: 323).

[11] My use of the term *spaces of experience* and the importance of the spatial for reproduction is inspired by the work of Ingrid Rudie (2008: 82).

[12] The concept "life world" overlaps Ingold's (2000) concepts of "livelihood" and "dwelling." On the life world, Jacob Dahl Rendtorff (2005: 284) states: "It is the basis for the immediate experience of the world. It is the immediate and bodily perception of the world that is central. Each actor is central in his or her life world with their physical and spatial presence. However, individual life worlds in the same culture overlap, and therefore the concept is also intersubjective—and the basis for the collective."

[13] Tacit knowledge cannot be explained in simplified terms. It can, for example, be understood as skills, as knowing how to do something (know-how), and as practical knowledge (Åsvoll 2009: 81).

[14] The members' magazine *Sau og Geit* ['Sheep and goats'] provides a permanent link between the organization of the same name and its members. The magazine is an important source of information of both livestock-related and industrial policy. It is published by Norsk Sau og Geit (NSG) at Ås.

[15] The textbook has been published jointly by Animalia and NSG and contains course-related instructions for users.

[16] Norsk Sau og Geit (NSG) was founded in 1947 and is a professional membership organization for sheep and goat keepers in Norway. A local branch was established in Lyngen in 1964. The NSG is responsible for the organization and implementation of sheep breeding programmes. The board of the NSG has appointed a professional advisory body—Avlsrådet for sau ['The sheep breeding committee']—which has responsibility for sheep breeding and ensuring that the breeding programme is conducted in accordance with the breeding plan.

[17] In addition to its nationwide responsibility for livestock control of sheep, Sauekontrollen can be accessed by all sheep farmers and has responsibility for the operation and development of the central database for sheep and for the development of a web-based

registration and reporting scheme for members and advisers. The scheme provides an overview and facilitates the management of sheep and sheep shearing. In addition, it is possible to analyse developments in husbandry and the results of breeding over time. Recent introductions have included "apps" for smart phones and registration services, such as message options.

[18] Nortura AS, an abattoir, is responsible for the operations. Nortura's core activities include slaughtering, cutting, processing, egg packing, sales, marketing, sales of hatching eggs/hatchlings, livestock sales, and wool sales, and they also provide an advisory service. Nortura is organized as a cooperative and is owned by egg and meat producers who supply their raw materials and are active owners with rights.

[19] Animalia is one of Norway's leading specialists and developers in meat and egg production. It covers the whole value chain from farm to table and aims to strengthen confidence in meat and egg producers. Animalia's activities focus on high-quality products, increased value creation, and efficient production.

[20] Avlsplan for sau ['Breeding programme for sheep'] is managed by the NSG with input from, for example, the Department of Animal and Aquacultural Sciences at the Norwegian University of Life Sciences.

[21] The "maternal line" (Norwegian *morlinjen*) is directed towards developing some of the livestock consisting of ewes that produce lambs normally and take good care of their lambs, whereas the "meat line" (Norwegian *kjøttlinjen*) is oriented towards developing some of the livestock into good meat producers.

[22] An article by Grimstad shows that representatives of experience-based knowledge have a high level of academic awareness, they practise critical reflection, and they oppose the use of specialist and academic-based knowledge within the sheep farming industry (Grimstad 2010).

[23] See Bleie & Lillevoll (2010: 21–22), who refer to the genetic mutation in more detail.

[24] Branded products from the studied area are Lyngenlam and Alpelam. Both are well established in the market. Gourmet Lyngen AS (the firm is now bankrupt) supplies Lyngenlam products, whereas Eide Handel AS (near Tromsø) provides Alpelam products (http://www.eidehandel.no/lammekjott/; access date 10 November 2016). The tourism industry in Lyngen has links to sheep products through Lyngsalpeprodukter AS (Magic Mountain Lodge (see https://eidehandel.no/matbloggen/aktuelt/lam-pa-hoydetrening/; access date 19 December 2016).

[25] A. Mathisen, "Den 'tause' misforståelsen. Michael Polanyis kunnskapsteori i nytt lys" ['The "silent" misunderstanding. Michael Polanyi's theory of knowledge in a new light'], an unpublished paper written in 2007 at Rudolf Steiner høgskolen.

[26] T.A. Lillevoll, "Tre innovative bygder i Lyngen. En sammenligning" ['Three innovative communities in Lyngen. A comparison'], unpublished work written in 2014 and used as the basis for this article.

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Value Patterns in Four Dimensions among the Indigenous Sami Population in Norway

A Population-Based Survey

ABSTRACT *Background*: This is a population-based study that explores and describes a set of personal values in indigenous Sami and non-Sami adults in Norway. Norway ratified the ILO convention no. 169 concerning indigenous and tribal peoples in independent countries in 1990. In accordance with the convention the integrity of the indigenous culture and values shall be respected. Our aim is to describe and explore value patterns among Sami and Norwegian populations.

Method: Cross-sectional questionnaire. From 24 local authorities, a total of 12,623 subjects between the ages of 36 and 79 were included in the analysis. The survey instrument consisted of a 19-item questionnaire of personal values and the analysis was based on responses from 10,268 ethnic Norwegian (just 6 questions were asked to them) and 2,355 Sami participants (1,531 Sami and 824 mixed Sami/ethnic Norwegian participants).

Results: From the 19 values, Sami respondents held the following five personal values in the highest regard: being in touch with nature; harnessing nature through fishing, hunting and berry-picking; preserving ancestral and family traditions; preserving traditional Sami industries and preserving and developing the Sami language. On the other

hand, Sami respondents' least important values included modern Sami art and the Sami Parliament (Sametinget). The ethnic Norwegians also held being in touch with nature as a very important value. Sami reported significantly higher scores for experience of ethnic discrimination and fear of losing their work/trade than ethnic Norwegians. The last 13 questions were just asked to Sami and mixed-Sami respondents. According to those questions four dimensions associated with personal values were identified among the indigenous Sami population: "Traditional Sami Values," "Modern Sami Values," "Contact with Nature" and "Feeling of Marginalisation." Traditional and modern Sami values were both characterised by significantly higher scores among females, the lowest age bracket and those who considered themselves Sami. Within the Traditional Sami Values dimension, higher scores were also recorded in participants who were married or cohabiting, living in majority Sami areas, satisfied with "way of life" and members of the Læstadian Church. The Modern Sami Values dimension showed higher scores among participants with high household incomes. The Contact with Nature dimension had significantly higher proportions of Sami, married or cohabitants, and participants content with their way of life; age, geographical area and household income were found to be insignificant variables within this dimension. Feeling of Marginalisation was characterised by significantly greater proportions of males, individuals of working age, residence in Norwegian-dominated areas, self-perceived Sami ethnicity, low household income, poorer self-reported health and dissatisfaction with way of life.

Conclusion: Four distinct value patterns and relationships to well-being and self-reported health were identified in the indigenous Sami population. The four dimensions reflect important aspects of present-day Sami society.

KEYWORDS value patterns, ethnicity, indigenous, health, Sami, SAMINOR

Introduction

The international community now recognises the importance of preserving the traditional knowledge and social values of indigenous peoples, such as those of the Sami in Europe's far north. This is particularly valid in a globalised world where scientific advances and fundamental values dominate a majority of social arenas (Bergstrøm 2001). Høgmo (1989) defines "culture" as the common opinion people in a group ascribe to themselves and their surroundings:

> Culture can be understood as a group of people's common ideas of values, thinking and ways of solving life tasks. In other words, the term refers to a system of interpersonal understanding mechanisms. (Høgmo cited in Fyhn 2013)

Høgmo (1989) says that Sami culture is described as shared Sami values, mind-sets and ways of solving life tasks. And therefore values are key elements of people's cultural repertoire (Lindholm 1997). The Sami are an indigenous ethnic group which differs in many respects from the general majority population (ethnic Norwegians) in areas such as social structure, language and culture (Eriksen 2003). Thus the use of the term *Sami values* refers to the collective Sami preferences of a cultural and immaterial nature. These values are sometimes difficult to identify in certain social arenas, partly because Sami values are not subject to formal and institutional change. Balto (1997) emphasises that the distinction between traditional and modern Sami knowledge and fundamental values lies in the contrast between informal socialisation and knowledge acquisition in the home environment in the traditional context, and, in the modern context, socialisation and education in formal educational institutions. In this regard such notions are used to stress that traditional Sami knowledge is developed in daily routines with a low level of socially imposed functional differentiation and specialisation, whereas modern Sami knowledge is largely associated with functional differentiation through requirements of formal education from modern educational institutions, for example to gain access to the labour market. In the early years of modernisation, consequently, the Sami were left behind. This was one of the causes of the development of stigma (Eidheim 1977), leaving Sami individuals in a latent position (Høgmo 1986). The Sami share a history of colonisation, occupation (during the Second World War) and nation-state assimilation (Hansen *et al.* 2008), the latter resulting in partial destruction of Sami cultural heritage and identity through systematic denial and stigmatisation of Sami values and norms. The political debate on Sami issues throughout

the twentieth century has pointed out that the greatest act of injustice committed against the Sami was the Norwegian Government's unwillingness to accept the fact that the Sami have their own values, norms, culture and identity (Eriksen 2003).

However, the circumstances have since changed and the situation may now be considered to be characterised by mobility and innovation rather than latency (Paine 2003). In 1980 two public committees were appointed to consider Sami cultural, linguistic, political and material rights, resulting in the Norwegian Parliament (Stortinget) passing the Sami Act in 1987 and the formation of the Sami Parliament (Sametinget) in 1989. Further, an amendment to the Norwegian Constitution (§108) was passed in 1988, obliging the Government to accommodate the Sami people in securing their language, culture and role in society, including the preservation of Sami social values. The International Labour Organisation (ILO) Indigenous and Tribal Peoples Convention (C169) of 1989 was ratified by Stortinget in 1990. Through these affirmative actions, Norwegian authorities took the initiative in including the Sami people by increasing their rights to participate in "official" society (Josefsen 2008).

Today the challenge faced by the Sami population consists of conserving traditional knowledge, values and cultural traits, whilst both the local community and the world continue to change (Flemmen & Kramvig 2008). Many Sami people find themselves in a transitional state where it is important to adapt to a new world without losing sight of (or forgetting) the values of the traditional world (Young 2008). Considering the processes of revolution and upheaval that the Sami have experienced (due to Norwegianisation, the building of nation-states, and, in recent times, the revitalisation and integration of Sami culture and identity in the modern nation-state and the international community), the Sami have progressed from being strongly stigmatised to being generally treated as equals (Pedersen, Høgmo & Solbakk 2012).

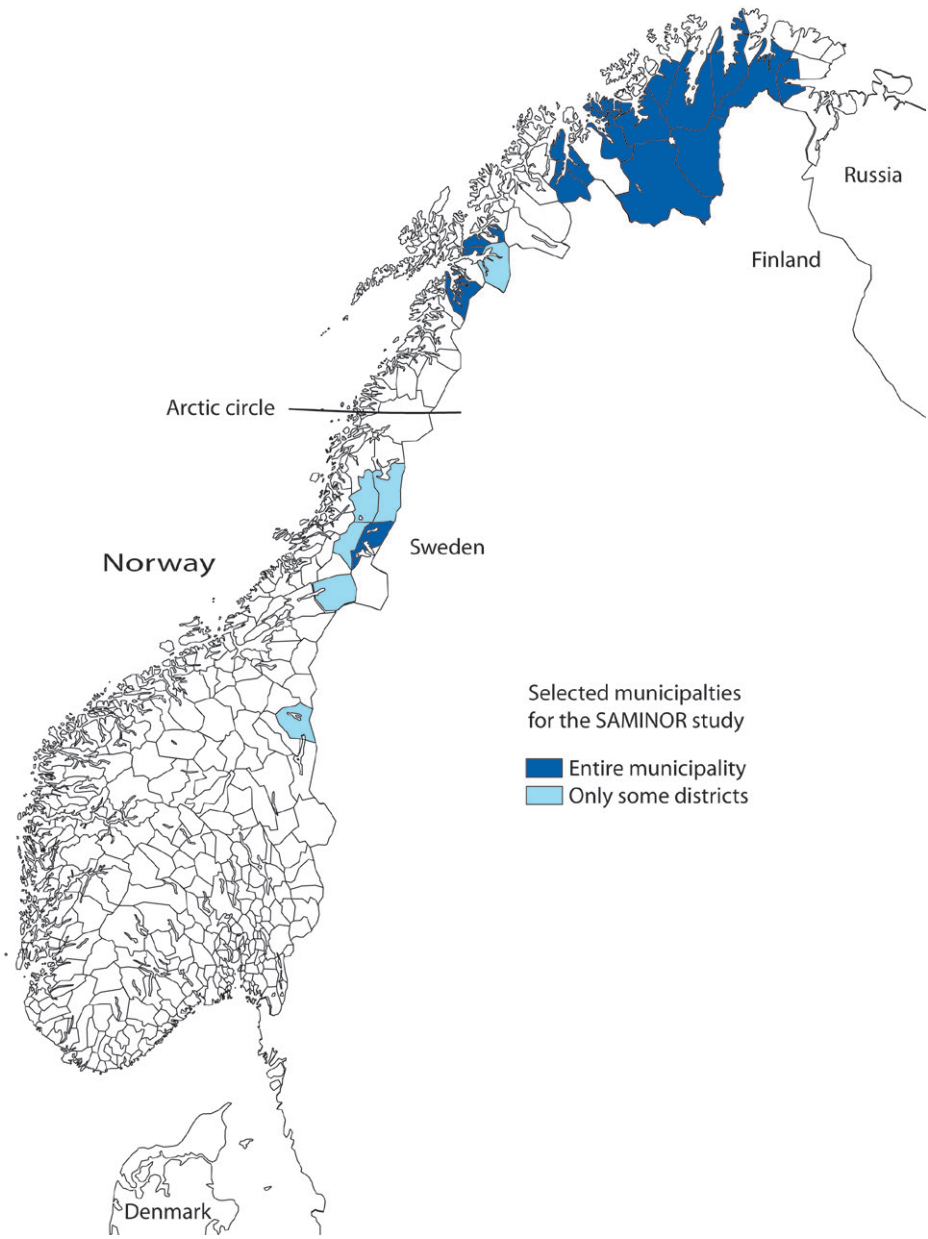
Values may be defined as an individual's understanding of what is considered to be fundamental goals for one's own existence and social development (target values, or terminal values) and perceived correct approaches to reaching these goals (median values, or instrumental values). This approach to determining values is *descriptive* because it paints a picture of what the members of the population themselves perceive as *the desirable* (Hellevik 2008). A *normative* approach, on the other hand, implies studying what religious, philosophical or other doctrines say about what one should desire; what is desirable. It is also possible to consider the expectations placed upon the individual by its surroundings, from informal expectations and norms to formal legislation and regulations (Hellevik 2008). The term *value*

is also used in everyday language in a more literal sense about that which is sought after (i.e., a desirable object).

Values have been granted pride of place in many analyses of social conditions. Researchers sometimes use *social background variables* or *characteristics* (such as sex, age, ethnicity, place of residence, level of education, profession and income) to help explain behaviour. Within the social sciences there is a high level of consensus regarding which specific variables are of interest in a survey. Specifically, within research into indigenous peoples, the ethnicity variable is often used to explain differences between the indigenous population and the general population; an example of which may be that Sami people are more concerned with the conservation of ancestral and family traditions than ethnic Norwegians. One of the questions that spring to mind, then, is what lies behind this ethnological difference? It is not immediately apparent why being Sami or ethnic Norwegian should be consequential for one's desire to conserve ancestral and family traditions. With such a substantial gap between the presumed cause (ethnicity) and effect (conservation of ancestral and family traditions) more information about intermediate mechanisms is required to understand what generates the correlation (Hellevik 2008).

Attitudes are explanatory variables that are often used to provide insights into such intermediate mechanisms. An attitude is a positive or negative emotional opinion that influences how people act given a certain phenomenon. For example, an individual's or a group's (i.e. the Sami) attitude towards harnessing the wild through fishing, hunting and berry-picking (i.e., whether one enjoys or dislikes fishing, hunting, berry-picking) can increase or decrease the probability of "being in touch with nature." Should such attitudes be used to explain the importance of "being in touch with nature" the distance between cause and effect would be so small that the explanation may be taken for granted and the result therefore seems too obvious to be of interest.

However, using attitudes to justify certain phenomena may be difficult because there are so many possible attitudes; perhaps just as many as there are phenomena. Therefore, it would be impossible to create a standardised set of attitude questions in a survey such as the SAMINOR study; on the other hand, social characteristics, which, using a few standard questions and variations may be used in almost any survey. This is where values become important. As predictor of individuals' behaviour, values are located between social characteristics and attitudes on the influence chain. Values arise from and are influenced by social background and group membership (Sami, Norwegian). They guide and (may) affect attitudes towards certain given phenomena. Thus, by using values as explanatory variables, some



Map 1. Study areas of the SAMINOR study.

issues relating to social characteristics and attitudes can be avoided. The distance between cause and effect is neither too great to make the findings difficult to understand, nor too small to make them uninspiring. Values, then, can provide meaningful predictions of health and well-being, in our case: Self-reported health and content with way of life.

Goal (Purpose of the Study)

The purpose of this study is to highlight indigenous values among the Sami population in Norway. We want to test (1) how important different values are for the Sami population and the ethnic Norwegians (such as contact with nature, family, traditional values, modern values, feeling of marginalisation etc.); (2) identify and describe potential value patterns; and (3) potential explanation of how these factors interact with demographic characteristics (gender, age, marital status, living areas, income, religion) and predictors for well-being (content with way of life).

Materials and Methods

The SAMINOR Study

In 2003–2004 the Centre for Sami Health Research at UiT The Arctic University of Norway, in collaboration with the Norwegian Institute of Public Health, carried out a population-based survey (SAMINOR) in areas with mixed ethnic Sami and ethnic Norwegian populations. The SAMINOR study is a cross-sectional epidemiological study of adults in the five northernmost counties of Norway: Finnmark, Troms, Nordland, Nord-Trøndelag and Sør-Trøndelag (Map 1). The study has been described in detail elsewhere (Lund *et al*. 2007). Data was collected using a questionnaire on values, ethnicity, and social conditions. The questionnaire was self-administered and machine-readable.

Sample

All inhabitants of the areas defined in the SAMINOR study between 36 and 79 years of age were invited to participate in the study. Of the 27,151 individuals who were invited to participate, 16,538 (60.6 %) participated and gave informed consent to the research. Of those attending the screening, 13,366 completed an additional questionnaire, which contained the questions on values (86 % of respondents to the initial questionnaire). Kvens (Finnish immigrants) (n=497) and participants who did not disclose ethnicity (n=246) were excluded from analysis. After these exclusions, the sample consisted of 12,623 individuals (46.5 % of those invited). The ethnic distribution was found to be 18.7 % indigenous Sami and 81.3 % ethnic Norwegian.

Table 1. The 19 value items

The 19 value items **Item no.**	
To be answered by all:	
V1	Is it important to you to have contact with nature?
V2	Is harnessing of nature through fishing, hunting and berry-picking important to you?
V3	Is maintenance of family traditions important to you?
V4	Have you experienced bullying/discrimination due to your ethnic background?
V5	Do you think discrimination of ethnic minorities can have negative impact on health?
V6	Do you feel you are being forced from your work/trade?
Questions to those with Sami background:	
S1	Are Sami clothing traditions important to you?
S2	How important is *duodji* to you?
S3	What does maintenance and development of Sami language mean to you?
S4	Is it important to you to live in a community where you can meet other Sami on daily basis?
S5	Do you think maintenance of typical Sami industries is important?
S6	Is development of the modern Sami school system important to you?
S7	Is it important with modern work places in Sami communities?
S8	What does Sami media (radio, TV, newspapers, books) mean to you?
S9	What does modern Sami art mean to you?
S10	What do you think of the stronger international contact the Sami society and culture have obtained?
S11	What does the Sami Parliament mean to you?
S12	Do you consider pollution/interference with nature a threat to the Sami way of life?
S13	Do you feel that modern developments displace Sami culture?

For value items V1 even V3 and S1 even S11 the respondents were given the option to range the experiences from: "Insignificant" (coded to the value "0" in the analysis), "Less important" (coded "1"), "Important" (coded "2") or "Very important" (coded "3").

For value items V5, V6, S12 and S13 the respondents were given the option to range experiences as "Absolutely not" (coded "0"), "To some extent" (coded "1"), "To a small extent" (coded "2") and "To a large extent" (coded "3").

For value item V4 the respondents were given the option to range the experiences from "Never" ("0"), "Rarely" ("1"), "Sometimes" ("2") or "Very often" ("3").

Study Variables

Value questions: There were 19 different questions about values (see Table 1). The questions on values reflect important aspects of Sami culture and identity. However, the six first questions (V1–V6) were also relevant to the non-Sami population living in Norway, whereas the next thirteen questions (S1–S13) were mainly relevant for the Sami population, and were therefore only asked to those with a Sami background.

Ethnicity: Ethnic classification was based on the question: "What do you consider yourself to be?" The available responses were: "Sami," "Kven," "ethnic Norwegian" or "Other." Participants were allowed to provide more than one answer. Three categories were then created based on the responses: (1) Sami, (2) Sami/ethnic Norwegian (mixed background), and (3) ethnic Norwegian. The mixed Sami/ethnic Norwegian group had many similarities with the ethnic Norwegians, for example a strong Norwegian sense of belonging (Lund *et al*. 2007).

Sami language AdminArea: In 1990 the Norwegian Government amended the Sami Act (1987) to make the Sami language an official language in the local authorities of Kautokeino, Karasjok, Kåfjord, Nesseby, Porsanger and Tana. This area is referred to as the "Administrative Area of the Sami Language" (The Sami Act 1987).The Sami Act aims to safeguard and develop the language, culture and way of life of the Sami people in general, and within the Sami language AdminArea, the Sami population has the right to receive official correspondence in Sami and to use the language in official contexts and in schools (Jernsletten 1994).

Gross household income: The incomes of survey participants in 2003/2004 were categorised according to annual gross household income in Norwegian kroner (NOK). "Low income" was defined to be less than NOK 150,000, "Low-to-medium income" as NOK 151,000–450,000, "Medium-to-high income" as NOK 451,000–600,000 and "High income" as more than NOK 600,000.

Religion: Religion was assessed by membership in the Læstadian Church. Sami people differ as to religious upbringing. A special type of the Lutheran Church, Læstadianism, is widespread among the Sami in the Northern regions of Norway. The Læstadian religion was reported by 12.6 % of participants considering themselves Sami, 9.4 % of mixed Sami/ethnic Norwegian participants and 4.7 % of ethnic Norwegian participants.

Self-reported satisfaction with way of life: The respondents were asked: "On the whole, are you satisfied with your way of life?" with the available responses of "Very dissatisfied," "Dissatisfied," "Rather satisfied" or "Very satisfied."

Self-reported health: This was measured using the following questions: "What is your current state of health?" Available responses were "Poor,"

"Not very good," "Good" and "Very good." During analysis, the variable was dichotomised into "Poor/Not very good" or "Good/Very good."

Statistical Analyses

Chi-square tests were applied to compare study variables in Sami, Sami/ethnic Norwegian and ethnic Norwegian adults. Value indices are presented in two bar charts. The first chart includes the five value items (one item was excluded as it had been presented previously (Hansen *et al*. 2008; Hansen, Melhus & Lund 2010) to Sami, Sami/ethnic Norwegian and ethnic Norwegian populations, while the second chart shows the 13 value items that apply only to participants of Sami background. Factor analysis of the 19 values was performed using SPSS v. 20, applying the principal component extraction of four factors with eigenvalues above 1.2 and Varimax with Kaiser Normalisation rotation method. To obtain factors that were straightforward to interpret, the specifications of the model were chosen by studying the screen plot. The four factors explained 61.1 % of the total variation in the data. Four factor-based scales were created by summarising the items with high loadings on each factor. To identify characteristics of each factor-based scale, univariate and multiple regression analysis were conducted separately for each of the four scales. The following variables were entered in the adjusted analyses: gender, age, marital status, the Sami language Admin Area, ethnicity, household income, religion, and satisfaction with way of life.

Ethics Approval

The Regional Committees for Medical and Health Research Ethics (REK-Nord) approved the study. Participants included in the study provided signed written consent.

Results

Demographics

The study included a total of 12,623 participants: 6,009 males and 6,614 females. The mean age was 54.7 years (SD 11.0, range 36–79). Table 2 shows the characteristics of the sample divided into three ethnic groups: Sami (n=1,531), Sami/ethnic Norwegian (n=824), and ethnic Norwegian (n=10,268). We note that Sami and Sami/ethnic Norwegians are more likely to be single than ethnic Norwegians and have poorer self-reported health (poorest among the mixed Sami/Norwegians). Most of the Sami population live within the Sami Langauge AdminArea. The household income is somewhat lower for the Sami, however, this may be explained by internal trade and greater reliance on subsistence farming and husbandry. More Sami than

Table 2. Distribution of characteristics in the sample (n=12,623)[1]

	Sami (n = 1531) %	Mixed background (Sami/ethnic Norwegian) (n = 824) %	Ethnic Norwegian (n = 10268) %	Effect of ethnicity (p-value[2])
Gender				
Male	48.1	48.7	47.4	
Female	51.9	51.3	52.6	0.72
Age				
36–49	38.4	39.7	34.6	
50–64	40.2	41.0	43.3	
65–79	21.4	19.3	22.1	0.002
Marital status				
Married/Cohabiting	71.3	69.0	78.2	
Single	28.7	31.0	21.8	<0.001
The Administrative Area				
Within	79.8	54.9	15.9	
Outside	20.2	45.1	84.1	<0.001
Household income (NOK)				
Low	15.3	13.6	9.6	
Medium low	56.1	55.7	56.0	
Medium high	25.9	28.1	30.7	
High	2.7	2.5	3.7	<0.001
Religiousness: Laestadianism				
Yes	12.6	9.4	4.7	
No	87.4	90.6	95.3	<0.001
Content with your way of life				
Very content	32.4	29.2	32.4	
Quite content	55.4	59.5	59.0	
Discontent	10.3	9.8	7.6	
Very discontent	2.0	1.5	1.0	<0.001
Self-reported health (SRH)				
Very good/good	67.2	63.3	68.3	
Poor/not very good	32.8	36.7	31.7	<0.005

[1] Subgroups might not total 12,623 due to missing values.

[2] Chi-square test.

Fig. 1a. Values indices I (0–100%) SAMINOR study (2002–2004)

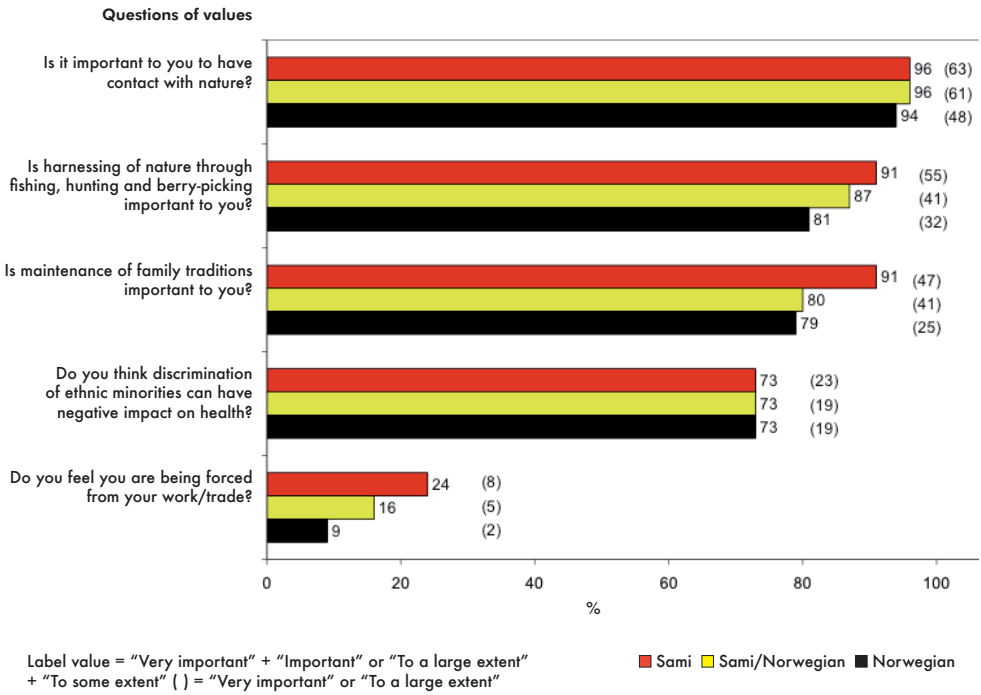
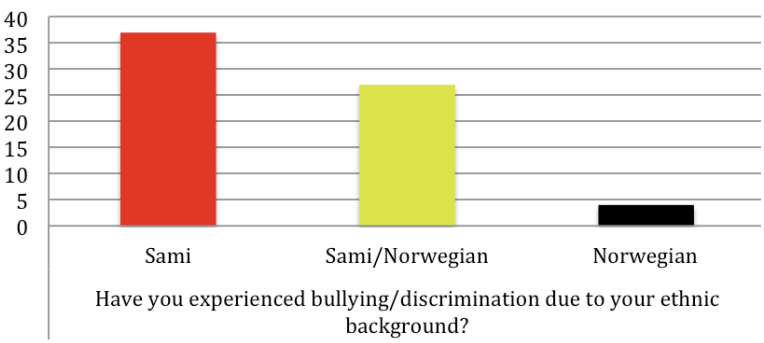


Fig. 1b. Experience of ethnic discrimination



ethnic Norwegians were members of the Læstadian Church. Satisfaction with "way of life" is practically independent of ethnicity. As 13 of the 19 value statements applied only to participants with Sami background, several of the analyses in this article concern specifically the 2,355 Sami participants in the sample.

Questions on Values for Participants with Sami and Ethnic Norwegian Background

We can see that the desire to stay in touch with nature stands firm in both the Sami and the ethnic Norwegian populations. Sami participants, however, are more likely than ethnic Norwegians to respond that this value is "very important" (63 % versus 48 %). Utilising natural resources through fishing, hunting and berry-picking is more important to the Sami than to the ethnic Norwegians (91 % versus 81 %). The desire to conserve family and ancestral traditions is also more important to the Sami compared to ethnic Norwegians (91 % versus 79 %); however, on this particular question, those with mixed Sami and ethnic Norwegian backgrounds are more similar to ethnic Norwegians. On the question of whether discrimination of ethnic minorities may have negative health implications, the various ethnic groups seem to have similar views. However, 37 % of the Sami reported ethnic discrimination, 27 % among the mixed Sami/ethnic Norwegians, and only 4 % among the ethnic Norwegians (Fig. 1b). Last, but not least, we found that 24 % of the Sami population felt compelled to leave (or coerced out of) their line of work; this was a significant number compared to 16 % of those with mixed (Sami/ethnic Norwegian) background and 9 % of ethnic Norwegians (Fig. 1a).

Questions on Values for Participants with Sami Background

Fig. 2 shows the 13 questions on values only relevant to the Sami population, listed according to support levels recorded in the survey. The strongest values within the Sami population (after contact with nature, use of nature and family traditions) were found to be the desire to preserve traditional Sami industries (89 %), closely followed by preservation and development of the Sami language (84 %), the importance of modern employment opportunities (80 %), the international contacts gained by the Sami community (78 %), living in a local community in which one may encounter other Sami people on a daily basis (74 %), and the development of the modern Sami education system (73 %). At the same time, many Sami people felt that modern developments had displaced the Sami culture (71 %). Further, a significant majority of those who consider themselves to be of Sami descent are interested in Sami media (71 %), Sami clothing traditions (70 %) and believe

Fig. 2. Value indices II (0–100%) SAMINOR Study (2002–2004)

Questions of values

Do you think maintenance of typical Sami industries is important?

What does maintenance and development of the Sami language mean to you?

Is it important with more modern work places in Sami communities?

What do you think of the stronger international contact the Sami society and culture have obtained?

Is it important to you to live in a community where you can meet other Sami on a daily basis?

Is development of the modern Sami school system important to you?

Do you feel that modern development displaces Sami culture?

What does Sami media (radio, TV, newspapers, books) mean to you?

Are Sami clothing traditions important to you?

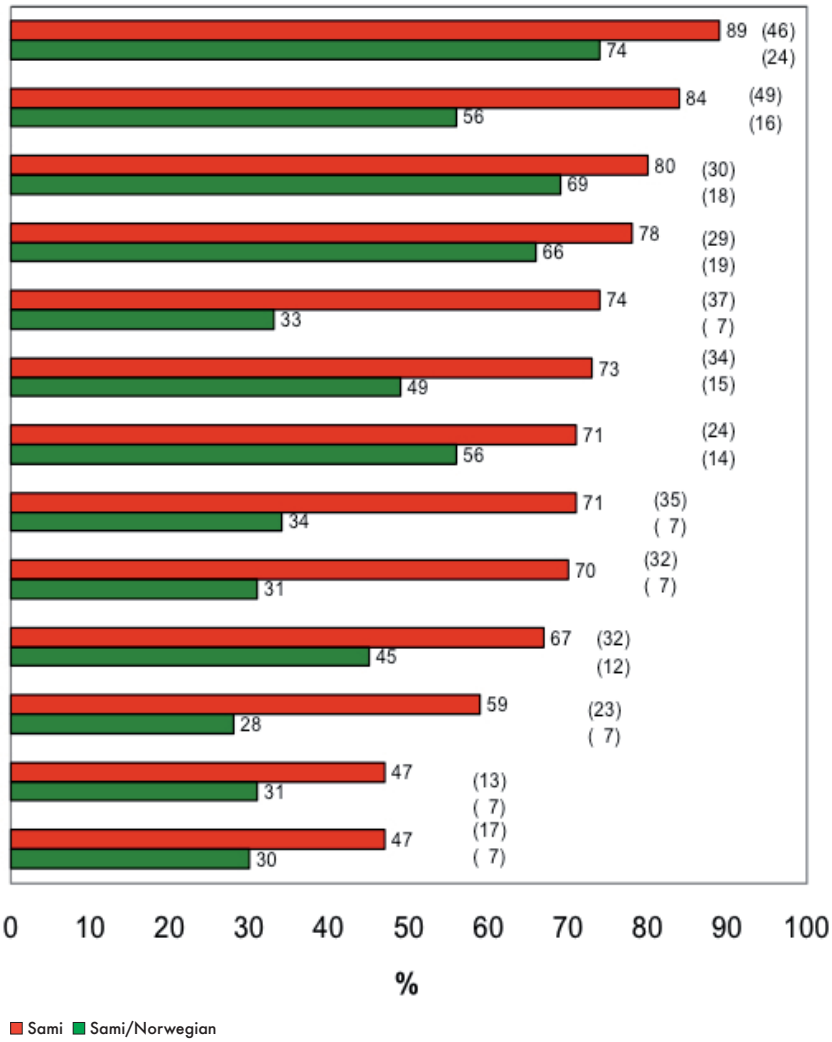
Do you consider pollution/interference in nature a threat to your Sami way of life?

How important is *duodji* to you?

What does modern Sami art mean to you?

What does the Sami Parliament mean to you?

Label value = "Very important" + "Important" or "To a large extent" + "To some extent" ( ) = "Very important" or "To a large extent."


89 (46)
74 (24)
84 (49)
56 (16)
80 (30)
69 (18)
78 (29)
66 (19)
74 (37)
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73 (34)
49 (15)
71 (24)
56 (14)
71 (35)
34 (7)
70 (32)
31 (7)
67 (32)
45 (12)
59 (23)
28 (7)
47 (13)
31 (7)
47 (17)
30 (7)
0 10 20 30 40 50 60 70 80 90 100
%
Sami
Sami/Norwegian

Table 3. Summary of exploratory factor analysis for 19 value items (n=2.355)[1]

	Rotated Factor Loadings[2]			
Item	Traditional Sami Values	Modern Sami Values	Contact with Nature	Feeling of Marginalization
Are Sami clothing traditions important to you?	0.82			
Is it important to you to live in a community where you can meet other Sami on a daily basis?	0.79			
How important is *duodji* to you?	0.77			
What does maintenance and development of the Sami language mean to you?	0.74			
What does Sami media (radio, TV, newspapers, books) mean to you?	0.70	0.45		
Do you think maintenance of typical Sami industries is important?	0.55	0.44		
Is maintenance of family traditions important to you?	0.53		0.44	
Do you consider pollution/interference in nature a threat to your Sami way of life?	0.47			
What do you think of the stronger international contact the Sami society and culture have obtained?		0.79		
What does modern Sami art mean to you?		0.70		
What does the Sami Parliament mean to you?		0.69		
Is development of the modern Sami school system important to you?	0.52	0.66		
Is it important to have additional modern work places in Sami communities?		0.57		
Do you think discrimination of ethnic minorities can have negative impact on health?		0.52		
Is it important to you to be in contact with nature?			0.88	
Is exploitation of nature through fishing, hunting and berry-picking important to you?			0.86	
Do you feel you are being forced from you work/trade?				0.74
Have you experienced bullying/discrimination due to your ethnical background?				0.63
Do you feel that modern development displaces Sami culture?				0.42
Eigenvalues	7.47	1.73	1.22	1.19
% of varians	39.3	9.1	6.4	6.3
α	1.34	1.52	0.96	1.27

[1] n=Sami+Sami/ethnic Norwegian

[2] Rotation Method: Varimax with Kasier Normalization
Note: Factor loading over 50 appear in bold.

pollution or interfering with nature represents a threat to Sami existence (67 %). The two least important Sami values are Sami art (visual art, music, film and theatre) and the importance of Sametinget. However, the *duodji* (Sami handicrafts) gained higher scores than modern Sami art. Sami and mixed Sami/ethnic Norwegians have differing fundamental values, where the latter attach much less importance to Sami values.

Value Patterns and Characteristics

Table 3 shows the factor loadings after rotation. The value items that cluster around the same components suggest that Component 1 captured all *the traditional Sami value variables*, with very high loadings (0.47–0.82). *Modern Sami values* were covered by Component 2, while Component 3 covered the *contact with nature* (and family traditions) variables. Finally, Component 4 accounted for the *feeling of marginalisation*.

Four linear regression analyses were performed to test for associations among the four factor-based value scale variables and selected characteristics. Table 4 presents the univariate and multivariate linear regression results. The Traditional and Modern Sami Values scales showed significantly higher scores in women, young respondents and those who consider themselves Sami (excluding participants of mixed Sami/ethnic Norwegian backgrounds). Within the Traditional Sami Value scale, higher scores were recorded in married and cohabiting participants, those living in Sami majority areas, those who were satisfied with their way of life, and members of the Læstadian Church. Also, within the Modern Sami Value pattern, respondents with the greatest household income scored higher. The Contact with Nature pattern scale was characterised by significantly higher proportions of married or cohabiting subjects and those who considered themselves as Sami and not Sami/ethnic Norwegian and were also more content with their way of life. Finally, participants with high scores on the Feeling of Marginalisation scale were significantly more likely to be male, of working age, living in Norwegian dominated areas, Sami (not Sami/ethnic Norwegian), low household income, and more dissatisfied with "way of life."

Fig. 3 presents self-reported health (SRH) by the four factor-based value scales (in percentiles). Unadjusted estimates show that Sami respondents who score high for Traditional and Modern Sami Values have better SRH, and respondents who score high for Feeling of Marginalisation have poorer SRH. However, after adjusting for age, gender, marital status and geographical area, only Feeling of Marginalisation was significant ($p<0.001$).

Table 4. Regression models of variables associated with factor-based value patterns in Sami adult. Variables are mutually adjusted for each other.

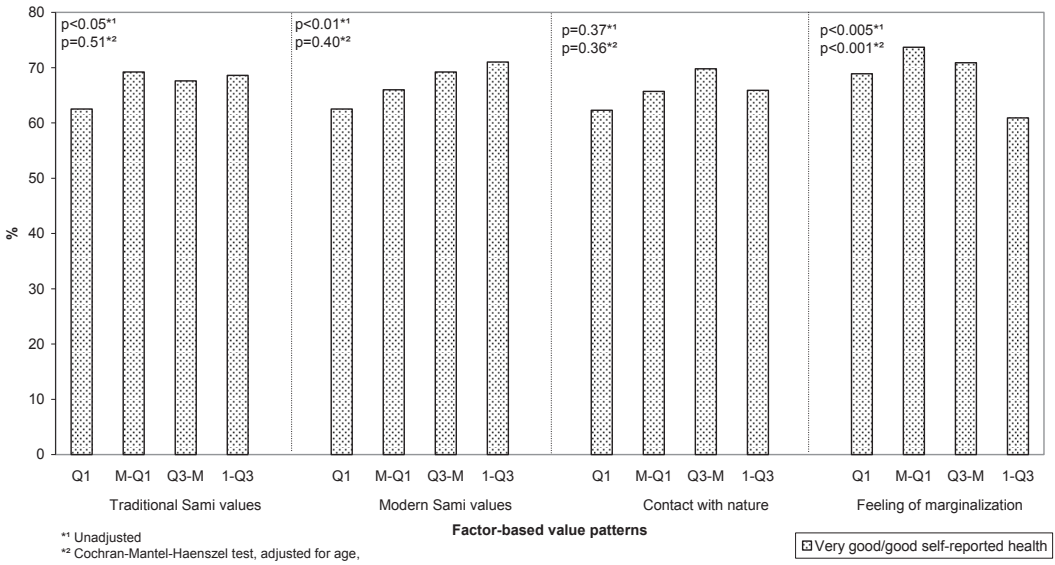
Models	Unadjusted β	Adjusted[1] B (SE B)	β	R^2
Regression 1: Traditional Sami Values				
Intercept		23.89 (1.13)		
Gender	0.13***	1.11 (0.23)	0.10***	0.24
Age	-0.13***	-0.09 (0.01)	-0.16***	
Marital status	-0.07**	-0.61 (0.28)	-0.05*	
The Administrative Area	0.18***	0.99 (0.27)	0.08***	
Ethnicity	-0.43***	-4.80 (0.25)	-0.41***	
Household income	0.05*	-0.07 (0.21)	-0.01	
Religiousness	0.10***	1.82 (0.39)	0.10***	
Content with way of life	0.04	-0.44 (0.17)	-0.05*	
Regression 2: Modern Sami Values				
Intercept		14.52 (0.85)		
Gender	0.06**	0.41 (0.17)	0.05*	0.13
Age	-0.26***	-0.07 (0.01)	-0.20***	
Marital status	-0.06**	0.13 (0.21)	-0.02	
The Administrative Area	0.04	-0.07 (0.20)	-0.01	
Ethnicity	-0.21***	-1.86 (0.19)	-0.23***	
Household income	0.20***	0.81 (0.16)	0.13***	
Religiousness	-0.02	-0.21 (0.30)	-0.02	
Content with way of life	-0.02	-0.14 (0.13)	-0.02	
Regression 3: Contact with Nature				
Intercept		5.37 (0.25)		
Gender	-0.02	-0.10 (0.05)	-0.04	0.03
Age	0.03	0.01 (0.003)	0.04	
Marital status	-0.09***	-0.23 (0.06)	-0.09***	
The Administrative Area	0.04*	0.05 (0.06)	0.02	
Ethnicity	-0.08***	-0.14 (0.06)	-0.06*	
Household income	0.03	-0.04 (0.05)	-0.02	
Religiousness	-0.04*	-0.15 (0.09)	0.04	
Content with way of life	-0.12***	-0.21 (0.04)	-0.12***	
Regression 4: Feeling of Marginalization				
Intercept		6.64 (0.45)		
Gender	-0.08***	-0.34 (0.09)	-0.09***	0.10
Age	-0.10***	-0.03 (0.01)	-0.13***	
Marital status	0.02	-0.09 (0.11)	-0.02	
The Administrative Area	-0.04	-0.34 (0.11)	-0.08***	
Ethnicity	-0.18***	-0.83 (0.10)	-0.20***	
Household income	-0.03	-0.20 (0.08)	-0.07**	
Religiousness	0.02	0.33 (0.15)	0.05*	
Content with way of life	0.21***	0.52 (0.07)	0.18***	

* p< .05, ** p < .01, *** p < .001.

[1] B(SE B): Unstandardised coefficients and β: standardised coefficients.

[2] Gender: male = 1, female = 2; marital status: 0 = married or cohabiting 1 = single; The Administrative Area: outside = 0, within = 1; Ethnicity: Sami = 1, Sami/Norwegian = 2; Religiousness (member of the Læstadian community): no = 0, yes = 1; Content with way of life: very satisfied = 0, quite satisfied = 1, a little dissatisfied = 2, very dissatisfied = 3.

Fig. 3. Self-reported health by the 4 factor-based value scales (in percentiles)



Discussion

We have investigated and described 19 value items and four factor-based value patterns in indigenous Sami and non-Sami subjects in Norway. Each pattern was characterised by demographic variables, socio-economic variables, self-reported health and satisfaction with way of life.

The analysis of factors (rather than single value items) focused our attention on understanding the structure of our set of value variables. Thus we reduced the data set to four meaningful factors, each of which makes a comprehensive statement on the anchoring or basis of values within the Sami world. Each of the 19 variables provided meaningful and important information on which values are critical to the Sami. However, by reducing the data set from variables to factors, the common variance within variables provides a minimal number of explanatory concepts. In our case, we found that the 19 variables encompassed the social dimensions Traditional Sami Values, Modern Sami Values, Contact with Nature and Feeling of Marginalisation. The four patterns represent important aspects of Sami culture, fundamental values and identity. Now let us take a closer look at these dimensions and their characteristics in a theoretical and practical approach, whilst emphasising the most prominent personal values revealed to be categorizable under each dimension. Let us start with the first and most prominent dimension, namely Contact with Nature.

Contact with Nature

To stay in touch with nature stands firm in both Sami and ethnic Norwegian populations. We know from the World Values Survey 5 that Norway was the country among all countries surveyed that had the highest rate for importance of the environmental. And nature is important for the Norwegian people. According to Lehtola (2013) nature has always been the basis for the material as well as for the spiritual aspects of Sami culture and identity. The Sami life is based on balance with nature, and people treated the nature with gentleness (Fyhn 2013). Sami industries, use of natural resources and way of life as a whole are based on traditional knowledge (in Sami *árbediehtu*) based on the experience of generations through the use of nature and interaction with nature. Proximity to nature is still a fundamental part of Sami identity and understanding of self. Despite going through extensive modernisation, the Sami way of life has been maintained by later generations in traditional, nature-based industries. To most Sami people, the harvesting of natural resources for self-sustenance remains an important part of their lifestyle.

Despite going through extensive modernisation, the Sami way of life has been maintained by later generations as traditional, nature-based industries. To most Sami people, the harvesting of natural resources for self-sustenance remains an important part of the lifestyle. The Sami place "contact with nature" and "exploitation of nature through fishing, hunting and berry-picking" as the top two values (out of 19). Particularly important are these values within the Sami language AdminArea. Further corroborated by the fourth most important value ("maintenance of typical Sami industries") the Sami culture undoubtedly displays continuity regarding the utilisation of the natural landscape and environmental resources.

Traditional Sami Values

In Sami communities, knowledge pertaining to different areas of life has been developed, utilised, adapted and passed on from generation to generation without formal schooling. The notions of "traditional Sami knowledge" or "indigenous knowledge" allude to everyday or experience-based knowledge normally not systematised or made available through written media. Traditional Sami values, in this sense, exist not only in areas relating to the importance of typical Sami industries, family traditions, being in touch with other Sami people on a daily basis, production of *duodji*, Sami clothing traditions, the importance of Sami media, preservation and development of the Sami language, and fear of destruction of natural habitats (which may threaten the Sami existence). Rather, as the analyses presented in this article proclaim, traditional knowledge and fundamental values

relate to other areas as well, such as spirituality, preventive medicine and psychological concerns.

The traditional Sami values comprise practical and theoretical knowledge regarding the use of nature, understandings of an "inner nature" (i.e., regarding psychological matters), social relations, cultural and social institutions, and modes of expression (Bergstrøm 2001).

The Sami generally value family traditions more highly than ethnic Norwegians, and within Traditional Sami Values, "maintenance of family traditions" is the singularly most important value. This finding is supported by Somby who states: "Compared with the individualistic, Western Norwegian culture, Sami tradition more strongly emphasizes a familial self and more interdependent and hierarchical modes of relationship" (Somby cited in Bergstrøm 2001). To comprehend why family and heritage have such a central importance in Sami society, one must first understand the composition and function of early Sami societies. Whilst early Norwegian society was constructed with strong vertical connections (i.e., "masters" and "servants") Sami society had a horizontal structure in which individuals were connected through the fact that *maadtoe* (the "ego's" or the individual's connection to relatives and friends) was juxtaposed with *sijte* (the communal fellowship; work/labour). These institutions complemented and completed each other; they were the building blocks of Sami society (Kappfjell in Eriksen 2003). The fact that ancestry is important, also in modern-day society, is confirmed through the first question newcomers to a Sami environment are asked: Whose son/daughter are you? After this point of contention has been resolved (regularly after a fairly long discussion), trust is considered established between the newcomer and the Sami individual, and conversation may progress to other matters.

Furthermore, children raised in a Sami community are surrounded by an extended family network; there are more words in Sami than in Norwegian and English to explain relations outside the "core" family. Sami children have more godparents when baptised than ethnic Norwegians. Thus, adolescents' networks are enriched, and they develop both feelings of belonging and duty towards the community. Traditionally, the extended family network has shown its strength in being responsible for children, the sick and the elderly. Sami individuals with smaller family networks were considered "poorer" than those from larger families.

"Maintenance of typical Sami industries" is another value that ranks highly within Traditional Sami Values. This value may be regarded in relation to the value: "Pollution represents a threat to Sami existence." The Sami are faced with great challenges with respect to creating diverse industries; in a time of man-made climate change and continued, global environ-

mental pollution, the traditional trades remain important, but so are new industries. The explosion at the nuclear power plant near Chernobyl in the Soviet Union in 1986 affected the traditional Sami way of life as reindeer meat was perceived to be unfit for human consumption due to radioactivity; in Norway, the South Sami were particularly affected. Traditional industries must exist within a globalised world in which industrial output and the requirement for economic growth are predominant, with their associated risks of environmental disasters. An important task for Sami society and the Norwegian Government thus becomes to preserve the traditional Sami industries, with a particular focus on fishing, farming, reindeer herding and environmental protection, as well as *duodji* to create a strong and thriving Sami society for the future. This is precisely what has been made clear by the Sami Parliament (Sametinget) in its inaugural decree:

> Consequently, we understand that traditional Sami values [such as the existence of Sami culture and identity] are important, but we also remember that cultures [i.e., the Sami] are not static or living in a vacuum; they change in response to general societal developments.

On that note, let us take a closer look at Modern Sami Values.

Modern Sami Values

Several important processes may be observed within the modern Sami society. First, international contacts established by the Sami have given the Sami culture new dimensions. The development has manifested itself through a step-by-step expansion of rights, one of which being the development and incorporation of indigenous peoples into a global network. This development has given the Sami people a feeling of belonging to a larger community and has strengthened the position of the Sami as an ethnic minority in relation to local communities and the world (Hernes & Oskal [eds.] 2008). While the mass media have helped launch the Sami people onto the global arena, Sami-language radio, TV, newspapers and books are introduced. Hylland Eriksen argues that communication with the outside world has made us more attentive to our internal differences (Eriksen & Eraker 2010). This is supported by Fredrik Barth's theory (Barth 1998), which states that we come to know ourselves through interacting with others. The greatest Sami project in modern times has been to become "one people, one nation" within four nation-states. Asle Høgmo maintains that an important premise for being presented as one nation is that: "The identity of a people may be perceived [...] as a great 'us,' a great community." In this process, the establishment of the Norwegian Sami Parliament has been an important event,

particularly for the Norwegian Sami. However, forming a shared, collective identity is a complicated and encompassing project regarding the Sami and modern societies as there are many "others" within the presumption of "us;" there are many ways to "be Sami" within different areas and social contexts. Partially, this is a result of early Norwegian assimilation policy whereby the Sami, in one way or another, *became* "Norwegian" *as well as* Sami (Paine 2003). Additionally, in today's society, the individual has gained greater powers of self-determination, especially relating to forming one's own identity; self-realisation may be considered an important characteristic of modernity. Combined with the former cultural postulations of equality and fraternity the perception of individual uniqueness grows, not merely collective uniqueness (Paine 2003).

We found that Sametinget is reported to be of little or no importance to 53 % of those who consider themselves Sami and to 70 % of those who consider themselves of mixed ethnic Norwegian/Sami background. The finding is consistent with other studies (conducted a few years before the collection of data for the SAMINOR study), which point to findings such as the fact that 60 % of the Sami population think Sametinget fails to focus on issues important to the Sami (Hauglin 2002). The perceived pessimism may be due to Sametinget representing a threat to what the Sami have accepted as their lives (their identity), whether they are their Sami or Sami/Norwegian lives (identities). In the words of Bjerkli and Thuen (1999):

> the particularities of local values may lead Sami individuals [including subjects who regard themselves as Sami] to oppose political agendas intended to strengthen the position of the Sami in relation to the larger world.

Sametinget is hence faced with the enormous task of creating a shared Sami identity in a society in which individual "Saminess" takes a number of forms. The contemporary Sami school is another important institution in this regard. To build a community with shared values, educational institutions have had, and still have, a central place (i.e., the efforts of nation-building). During the "Norwegianisation process" the Norwegian Government attempted the assimilation of an entire Sami population through the application of ideas centred on nationalism and social Darwinism and using national security policy as pretext. In today's society, education still plays an important role in socialising adolescents, perhaps simply because coming generations spend a great amount of time within the four walls of schools. Many people believe that the responsibility for the socialisation process has shifted from families to educational institutions over the past few decades. If we assume that such beliefs constitute accurate depictions

of reality, schools have gained greater responsibility in the dissemination of Sami identity and culture. This is not without complications as many Sami adults hold negative memories of their own education; to create an educational system in and for the Sami society would be time-consuming (Nergård 2006). Parents are concerned with their children gaining competencies within both the Norwegian (nation-state) and Sami societies. In many ways, one has realised that when interest in—and shared values between—schools and homes are strengthened, both desired socialisation and adolescents' learning improve (Balto 1986). This is not a new idea, however; the demand for a Sami educational system was first outlined by the schoolman Per Fokstad in 1924. According to Fokstad's vision of a "Sami school," tuition would be conducted in the Sami language, and teachers would be Sami. The Sami language as subject would not be elective but mandatory in the same manner Norwegian was compulsory for ethnic Norwegian pupils in Norwegian schools.

Fokstad thought the Sami themselves should formulate primary objectives and define regulations and instructions for such a system. A Sami school was to have a council of elected Sami representatives who would ensure that the school matured according to Sami political ambitions (Myklevoll 1995). Now, almost 90 years later, the Sami educational system is still a work in progress; the implementation in 1997 of the Sami curriculum for *grunnskolen* (the 10-year obligatory primary and secondary school) and *Kunnskapsløftet* (educational reform of 2006) represent steps in the general direction of a Sami school. However, from the point-of-view of the Sami, such measures are primarily amendments to what remains a "fundamentally Norwegian" system.

Feeling of Marginalisation

Hansen and colleagues found that a large proportion of Norwegian Sami individuals experience discrimination based on their background (Hansen 2011; Hansen *et al*. 2008), with affirming findings from studies into the Sami youth populations in the Nordic countries (Omma 2013; Turi 2011). Furthermore, the results demonstrate that ethnic discrimination is associated with inferior self-perceived health and psychological distress (Hansen *et al*. 2010; Hansen & Sørlie 2012), which is supported by several other studies across multiple population groups in a wide range of cultural and national contexts (Williams & Mohammed 2009), including indigenous communities in the circumpolar north (Young & Bjerregaard 2008). These findings suggest that perceived discrimination is an important emerging risk factor for negative health outcomes.

As our article reveals, it is predominantly young Sami males living

in Norwegian-dominated areas who experience marginalisation, poorer self-reported health and dissatisfaction with way of life. In previous articles, we have shown that Sami people, experience ten times more discrimination than ethnic Norwegians (Hansen 2011), and that those Sami men were more than twice as likely as non-marginalised Sami from Sami majority areas to report lifelong cardiovascular disease (Eliassen 2012) and they also had higher stress levels and poorer SRH (Hansen *et al*. 2010: 111; Hansen 2012: 26).

Furthermore, this may be seen in light of the fact that Sami males are somewhat less educated than Sami females, who are on par with the ethnic Norwegian population, and for whom statistics reveal that the rate of employment in primary industries such as reindeer herding, farming and fishing within Sami areas has declined in the past few decades (Lund *et al*. 2007; Hansen 2011).

Strengths

The large sample size makes the study representative for the 36–79 year old Sami and ethnic Norwegians living in semi-rural areas of northern Norway. The findings add new empirical knowledge to the understanding of the relationship between ethnicity and personal values, a topic that has scarcely been investigated in Norway. However, one limitation needs to be noted. The study has a cross-sectional design; causality must be handled with caution.

Conclusion

In this article we have investigated 19 different values among Sami and ethnic Norwegians.

Among the Sami the most highly regarded values are: being in touch with nature; harnessing nature through fishing, hunting and berry-picking; preserving ancestral and family traditions; preserving traditional Sami industries and preserving and developing the Sami language. In contrast, Sami respondents' least important values included Sami art and the Sami Parliament (Sametinget). Sami experience more discrimination and fear of losing their work/trade than ethnic Norwegians.

In addition, we applied the methods of factor analysis to place values in relation to one another (common variance) and we discover that our questions on values describe four "value dimensions" within Sami society: Traditional Sami Values, Modern Sami Values, Contact with Nature and Feeling of Marginalisation.

CONFLICT OF INTEREST AND FUNDING

The authors declare no conflict of interest. The study was funded by the University Hospital of North Norway.

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Climate Change Adaptation and Vulnerability Planning within the Municipal and Regional System

Examples from Northern Sweden

ABSTRACT The integration or mainstreaming of adaptation to climate change, while highly emphasized in the literature, is often operationally both very complex and places high requirements on resources for coordination in organizational units. This study reviews the development of integration of adaptation in the regional and local risk and vulnerability analysis processes, in the cases of the counties of Norrbotten and Västerbotten in Northern Sweden. The study concludes that adaptation as a non-binding and not specifically resourced policy area risks limited integration with existing measures. The Swedish distribution of authority and resourcing on adaptation, focusing on integrating adaptation within the municipal authority without specific funding, will thus constitute a limitation to integration and mainstreaming in particular in sparsely populated municipalities that despite limited tax bases are required to maintain the same municipal services as a larger municipality.

KEYWORDS adaptation to climate change, risk and vulnerability analyses, Sweden, Norrbotten, Västerbotten

Introduction and Aim

Adaptation to climate change challenges established policy and planning systems, since it demands action in several policy sectors and across governance levels. Policy integration is potentially a productive response, since it: "concerns the management of cross-cutting issues in policy making that transcend the boundaries of established policy fields, and that do not correspond to the institutional responsibilities of individual departments" (Stead & Meijers 2009: 321). However, to integrate adaptation within an existing structure is highly complex. Regularly discussed in the climate change literature in terms of "mainstreaming," studies show that mainstreaming/integration of one area into pre-existing policies and practices is dependent on political prioritizing, prerequisites for integration, and resources for integration (Ayers *et al.* 2014; Rauken *et al.* 2014).

National policies on adaptation range from formal adaptation strategies with certain elements made mandatory through legislation to no formal national-level adaptation policy. Many countries have, however, in some way investigated the impacts and potential adaptations that could concern different sectors (Keskitalo [ed.] 2010). Where little development has taken place, coping strategies developed in policy or legislation may be able to support future adaptation. This may be for instance in cases of crisis response facilities, which have traditionally related to natural accidents or events, but could also be expected to be placed increasingly in focus with climate change (Groven *et al.* 2012).

Northern Sweden is vulnerable in relation to natural events, often through cold and snowy weather conditions. Due to climate changes weather-related events can be expected to increase in intensity and frequency in the region (SMHI, Climate Indicators; SMHI, Regional Climate Analyses), resulting in increased stresses on societal functions such as increased precipitation and flooding affecting infrastructure, housing, water and sewage systems. Consequences of such extraordinary events are local, hence provoking municipal responses. However, municipalities in Northern Sweden are often sparsely populated with a larger proportion of elderly inhabitants and cover larger territories than other municipalities. As a consequence, their municipal income tax revenues are smaller, with municipal administration budgets being smaller, with potential negative impacts on possibilities for integrating climate change adaptation (Keskitalo [ed.] 2010).

Adding to a study reviewing the role of Risk and Vulnerability Analyses (RVA) in relation to extraordinary events in three municipalities in Sweden (Mossberg Sonnek *et al.* 2013), this paper reviews the ways in which adaptation to climate change is treated in RVA documents in 29 municipalities in

the counties of Norrbotten and Västerbotten, Sweden. Further, preconditions for local-regional policy integration is analysed through mainly interview data. Based on an assumption that increased and more manifest consequences of climate change through extraordinary events may put societies increasingly at risk and provoke vulnerabilities, the study reviews:

- How and to what extent are issues of climate change adaptation and risk and vulnerability management coordinated at local and regional levels in the two counties?
- What are the identified limitations to higher integration between the two policy domains in these cases?

Theoretical Framework

Vulnerability to climate change has often been conceived of as a result of exposure-sensitivity minus the adaptive capacity (Smit & Wandel 2006; Hovelsrud *et al.* [eds.] 2010). Exposure sensitivity is defined as the sum of the exposure to climate change and sensitivity to this exposure, that is the total impact. Adaptive capacity is defined as the capacity of the societal, organizational or other unit to adapt to this impact. Adaptive capacity is thus situated and determined by institutional, economic and technological factors, infrastructure and knowledge/information access and structure (Smit & Pilifosova 2001; Keskitalo *et al.* 2011). Within the delimitations set by adaptive capacity, different adaptations can be undertaken (Smit & Wandel 2006). In order to understand which adaptations can be developed, we need to understand which parts of societal structures delimit and determine adaptations. For instance, may adaptations differ largely among more and less economically wealthy municipalities, even if impacts may be the same (Naess *et al.* 2005). It is also an accepted perspective in social vulnerability research that climate change as a stress needs to be understood within a broader perspective of how adaptations are developed and prioritized in relation to the full scope of stresses to which they need to respond. Double or multiple stress perspectives emphasize that different units form their adaptive strategies not only in response to climate change, but also in response to globalization and other stresses (O'Brien & Leichenko 2000).

Within the municipal and regional structure, these concepts of vulnerability and adaptive capacity highlight both the role of the existing structure of these units (within which adaptation is to be integrated) and political prioritizing. Adaptation concerns will be negotiated and balanced against other aspects, such as return on investments or more efficient but potentially more vulnerable investments. Resources are more likely to be allocated to prevention of events in the near future. Some level of prioritizing is therefore needed in terms of what events are more likely to occur,

where they will take place, what groups of people and functions will be most severely affected and so on (Henstra 2010). Hence, there is an element of strategic planning involved in understanding that a longer-term perspective is needed, even though the extraordinary event might occur tomorrow. If there exists an acceptance of (climate-related) extraordinary events, it should ideally influence land use planning—the municipal consideration of where to place constructions such as housing, industries, waste processing, sewage and infrastructure (Bulkeley & Betsill 2013). Extraordinary events are also subject to contingency planning and frameworks for emergency management. In total, planning is thereby essential to adaptation (Bulkeley & Betsill 2013).

The Government distributes responsibility for specific policy and planning sectors through binding legislation in some cases, appoints responsibilities for revision and implementation to regional level actors, and appoints certain requirements or openness to choose approaches (including whether implementation is necessary) to municipalities. The implementation of policy thus regularly utilizes a number of instruments (Appelstrand 2007; Bergling *et al.* 2016). Binding regulations often encase and make mandatory certain institutional instruments through laws or decrees, and can be seen as instruments traditionally emphasized in government steering. Economic instruments are often used to develop funds (for example through taxes) or incentives for specific ways of acting, for instance through grants systems. However, informational instruments ("soft governance") have also been emphasized, relying on common understandings and voluntary agreements among groups. Informational instruments can substantiate mandatory requirements and may improve efficiency, through actors' aspirations to be involved, participate and deliberate in policy and planning systems (Lebel *et al.* 2005; Appelstrand 2007).

However, the use of informational or other non-binding instruments also risk that implementation varies highly among municipalities depending on the need for implementation due to variations in vulnerability, and on differences in budgets between smaller and larger municipalities. In particular, it has been discussed in the adaptation literature that many of the measures suggested are potential or recommendations rather than planned or undertaken (Keskitalo [ed.] 2010; Keskitalo 2011). There is thus a need to review the possibilities for integrating climate change adaptation requirements within planning (Kidd 2007). Integrated planning can be understood as coordination and cooperation of different public policy domains and their associated actors within a territory—vertical integration. Ambitions to harmonize or cooperate within policy sectors but across territories are often termed horizontal integration (Collinge *et al.* 2013; Kidd 2007; Stead

& Meijers 2009). However, resources in terms of funding or time may quite simply be too limited, or existing requirements too large, for non-binding targets to attract the resources necessary for mainstreaming or integration (Smit & Wandel 2006; Keskitalo *et al.* 2011).

Case Study and Method

The specific analysis in this paper targets policy sector integration—climate change adaptation and risk and vulnerability planning—within two given territories: Norrbotten and Västerbotten (see Fig. 1). The Swedish politico-administrative system consists of a unitary state governed by the national parliament. The parliament has a national legislative monopoly. On the regional level, the County Administrative Boards (CAB) constitute the implementing and controlling arm of the state. These state agencies have no elected governors. Among many other functions CABs have responsibilities related to climate change and risk and vulnerability planning.[1] At the local level the municipalities provide a range of welfare services and other societal functions. They are self-governing to a large extent, for example in land-use planning where they are in charge of the so-called "planning monopoly." Consequently, the Swedish system is built on coordination between state and municipal duties, as well as coordination with the regional level CABs. Despite its status as a unitary state, Sweden constitutes a complex case of decentralisation with regard to the local government level (Bergling *et al.* 2016).

In comparison with Mossberg Sonnek *et al.* (2013) who reviewed RVA development in relation to adaptation in Stockholm and two other southern Swedish municipalities that had strong leadership on adaptation, this study reviews a large number of municipalities without specific focus on selection for leadership in adaptation or integration of RVA and adaptation policies. Rather, it targets the northern part of the country where the geographical area covered by each municipality is larger, while population numbers are regularly relatively low—resulting in sparsely populated areas with low tax income to cover municipal services. As municipalities hold responsibility for a large number of functions, this will result in relatively few municipal staffs needing to cover the same scope of services as in larger municipalities. Northern and sparsely populated areas of the country could thus be seen as particularly challenged in integrating new, especially non-mandatory, planning tasks.

Methodologically, the paper is based on literature reviews and semi-structured interviews in the two northernmost counties in Sweden. The literature reviews encompass adaptation policy literature with relevance for the two counties Norrbotten and Västerbotten, as well as local (municipal)

Fig. 1. The study area, Norrbotten and Västerbotten Counties, Sweden.

RVAs in the same counties, in total including RVAs in 29 municipalities. RVAs should be produced once every fourth year, after a new political term has started (MSB 2010). This analysis is based on the first set of municipal RVAs produced in 2011 for the political term 2010–2014.[2] Further, each CAB is mandated to collect and analyse municipal RVAs on an annual basis. The analyses are reported to the Government, and each annual report from 2006–2015 in the two counties is included in this analysis.

In addition, the study draws on semi-structured interviews with those responsible for the CAB's work with adaptation as well as with analysing and reporting the RVAs; in total four interviews conducted in late 2012. Questions in the interview guide focused on the establishment of CAB processes on adaptation and RVA, integration among these sectors and other means of potential integration, and the role and strength of different measures in the documents for adaptation, with coding focused on these same features. Interviews were recorded and fully transcribed, with quotations in this paper translated from the original Swedish by the authors.

Results

Municipal Planning for Extraordinary Events

Swedish municipalities have far-reaching responsibilities and authority with regard to emergency management. The Municipality Executive Boards are responsible for all crisis management at the local level, according to "The Law on Protection Against Accidents" (SFS 2003:778). It was revised and extended in 2003 to include consideration of natural accidents, not only fire and other "man-made" accidents. According to this legislation, every municipality should have an action programme for prevention, including evaluations of risks for accidents where rescue operations might be needed (SFS 2003:778). This was added to in 2006 by a "Law on Municipalities' and County Councils' Measures Before and During Extraordinary Events in Peace Time and Increased Preparedness" (SFS 2006:544), and further in the 2010 *Regulations on Municipalities and County Council's Risk and Vulnerability Analyses* (MSB 2010):

> Municipalities and county councils shall adjust risk and vulnerability processes to their own needs and to other preconditions. These activities should be coordinated and integrated with risk analysis processes that take place in line with other legislation. (MSB 2010: 4§)

Municipalities and CABs are assigned territorial responsibilities in relation to risk and vulnerabilities, effectively being in charge of coordination among actors within each territory.

Preparations shall rest on RVAs—Risk and Vulnerability Analyses—in each territory, where potentially damaging risks and vulnerabilities are analysed and evaluated. From these RVA action plans shall be established. On an annual basis changes in risk evaluations, organisational or capacity development related to municipal RVAs shall be reported from Municipality Executive Boards to the CABs (MSB 2010). These reports are used to identify county level preparedness, and presented in annual reports to the

Government. The CABs are also mandated to evaluate the municipal RVA processes in relation to state funding that follows from the establishment of the extraordinary events legislation (SFS 2006:544; Länsstyrelsen Norrbotten Årsredovisningar 2012; Länsstyrelsen Västerbotten Årsredovisningar 2012). The CABs and a selected number of other stated agencies adhere also to the "Ordinance on Crisis Preparedness and Alerted Preparedness" (SFS 2006:942) where all public authorities are mandated to perform RVAs related to their own sector of responsibility.

While the development of municipal RVAs are mandated by law, implementation may have been hampered by the lack of guiding principles other than the Act itself. In 2011 the Swedish Civil Contingencies Agency published a guidance document for how to prepare, conduct and report RVAs (MSB 2011). Thus, the RVAs shall include for instance risk assessments and municipal coping mechanisms for severe disorders regarding functions of high societal importance. The guidance provided an impetus in actually developing municipal RVAs and improving their quality (Länsstyrelsen Norrbotten Årsredovisningar 2006–2015; Länsstyrelsen Västerbotten Årsredovisningar 2006–2015).

Adaptation Planning

Political and policy awareness of adaptation to climate change in Sweden was developed through the Governmental Commission on Climate and Vulnerability (Governmental Offices of Sweden). Its concluding report was published in 2007 with some of the suggestions in the commission's report brought forward in the "Bill on an Integrated Climate and Energy Policy" in 2009 (Government Offices of Sweden 2009). The non-binding responsibility for adaptation was largely seen as resting on the municipal level and to be undertaken within existing means. It was seen as falling under the municipal planning monopoly and general competence by municipalities to determine the need for adaptation in each particular case. The state rejected municipal requests for increased funding for natural hazard preparation in the face of climate change, which were presented by many municipalities in replies to consultation to the Bill. As a result, adaptation is required to be assessed, integrated and funded within the regular municipal system, with the exception of large-scale issues that are beyond the municipal mandate (Government Offices of Sweden 2009).

With regard to adaptation planning, the municipalities receive adaptation support from the CABs. They produce reports on climate change, land use planning and regional climate scenarios, they organize conferences and seminars, and they monitor and report on adaptation activities to the Government. They also participate in, comment on and influence various

planning processes—regional drinking water plans, municipal land use plans and environment impact assessments to mention a few (Interviews Adaptation Norrbotten, Adaptation Västerbotten). However, adaptation measures that are at the time of the study planned or implemented are relatively few (Nordström 2007; Keskitalo 2010; Keskitalo *et al.* 2013), although a number of supporting documents exist, developed to spread knowledge about what the consequences might be of a changing climate, and how these can be managed at the local level. Some examples are publications on how to develop a municipal Climate Adaptation Plan, on climate adaptation in spatial planning, and on climatic factors important to take into account in planning (Lövkvist Andersen 2010*a*; Lövkvist Andersen 2010*b*; Lövkvist Andersen 2010*c*). In a paper on climate adaptation in spatial planning, all CABs collaborated to provide practical advice on climate adaptation work at the municipal level (Westlin 2012). In Norrbotten and Västerbotten reports have been published on communications and communications' infrastructure, technical supply systems, built-up areas and buildings, land-based industries and tourism, natural environment, and health (*Översvämningsrisker i fysisk planering* 2006; Nordström 2007; Bredefeldt 2009; Lövkvist Andersen 2010*a*; Westlin 2012). The examples provided include taking greater account of the impacts in land use planning, in planning for energy supply, roads and railways, and accounting for natural disasters in preventive action plans. In addition, the municipalities are recommended to develop more detailed investigations of areas at risk of flooding, landslides or mudslides, and to deepen and update flood mapping and stability maps (Nordström 2007).

To summarize, planning and preparing for extraordinary events and for adaptation to climate change are separate processes. The former is structured and implemented through legislative measures, the latter through non-binding, information based incentives (Table 1). However, policies and regulations in each field state that integration with other planning processes and coordination between actors is essential.

Table 1. Institutional setup for risk and vulnerability planning and adaptation planning in Sweden.

Policy actor	Risk and Vulnerability Planning		Adaptation Planning	
	Politics	Administration	Politics	Administration
National level: • National Parliament • Swedish Civil Contingencies Agency (MSB) • Swedish Meteorological and Hydrological Inst. (SMHI) • Sectoral bodies	Law on protection against accidents (SFS 2003:228); law on municipalities' and county councils' measures before and during extraordinary events... (SFS 2006:544)	MSB provides RVA Guidance in 2011	Commission on Climate and Vulbility (2007); Bill on Climate and Energy (Government Offices of Sweden 2009)	General guidance and information documents developed e.g. by SMHI or Klimatanpassningsportalen (web portal for coordination of adaptation information)
Regional level: • County Administrative Boards (CAB)	SFS 2006:544; Annual Appropriation Instructions (*regleringsbrev*)	Annual Reports; county level RVA	Regional coordinating responsibility	Documents developed in coordination between CABs
Local level: • Municipal Councils	SFS 2006:544 (SFS 2003:778)	Risk and Vulnerability Analyses (RVA); Action Plans	No legislative requirements	No administrative requirements

Integration of RVA and Adaptation at Regional and Municipal Level

The regulations concerning preparedness for extraordinary events and policies for climate change adaptation indicate the need for integration and coordination. The law on extraordinary events states that:

> municipalities shall within their geographical area concerning extraordinary events in peace time promote 1. that actors within the municipality cooperate and achieve coordination in planning and preparations, 2. that crisis management measures that are undertaken by different actors in such an event are coordinated, and 3. that information to the public under such circumstances is coordinated. (SFS 2006:544, 2 Ch. §7)

Further, national regulation also states that RVA activities "should be coordinated and integrated with risk analyses that are conducted as a result of other legislation" (MSB 2010: 2). CABs are assigned responsibilities within

both policy domains. The CABs are mandated to produce their own RVA as a state authority (SFS 2006:942), but also to support the municipalities in their production of RVAs. In doing so they provide topical information, they offer courses and seminars, and they visit the municipalities for dialogue and process promotion. Further, they are mandated to report annually to the Government on RVA progress in the counties (MSB 2010). As for adaptation to climate change, no binding requirements exist at the municipal level and for the CABs only a temporary mandate in climate change adaptation is provided so far (Interview Adaptation Norrbotten). Internally it is evident that the respective functions at the CABs are aware of each other; RVA administrators know and meet with adaptation administrators. They are sometimes informed through internal unit meetings, sometimes they share expertise on specific matters and sometimes they are aware of working documents in the other policy domain. However, there is no evidence of shared approaches or routines (Interviews Adaptation Norrbotten; RVA Norrbotten; Adaptation Västerbotten; RVA Västerbotten). Examples mentioned by the interviewees of possible further collaboration are assessment of climate change impacts on each municipality and scenarios for heat waves and precipitation (Interviews Adaptation Norrbotten; Adaptation Västerbotten).

From the CABs perspective risks and vulnerabilities related to extraordinary events and adaptation are clearly connected and ought to be coordinated (Interviews Adaptation Norrbotten; RVA Norrbotten; RVA Västerbotten). One example where the connection is evident is in land-use planning. Swedish municipalities have a strong mandate in land-use planning, stated as a planning monopoly. Its comprehensiveness allows for a greater number of perspectives to be included, two of which are risks of extraordinary events and climate change. One suggested planning measure could be to avoid developments and constructions in potential flood risk areas. That would simultaneously cater for immediate risk management and long-term adaptation to climate related changes. Regional water supply plans, as a second example, can secure and regulate the long term management of drinking water resources, thereby making climate change issues crucial. Other processes where adaptation can be integrated are strategic planning through regional development strategies, detailed municipal planning and environmental impact assessments (Interviews Adaptation Västerbotten; RVA Västerbotten; Adaptation Norrbotten; RVA Norrbotten). As several of these planning processes include CABs as mandatory actors, they have the possibility to stress adaptation measures in several policy domains (Interview Adaptation Norrbotten).

However, an analysis on the municipal level of the present RVAs pre-

sents a picture where integration of adaptation and extraordinary events measures was at this point in time rather limited. In order to assess risks different techniques were used by the municipalities, often selected from the methods presented in the RVA guidance (MSB 2011). Of 29 municipalities in Norrbotten and Västerbotten, 14 use the Preliminary Risk Analysis Approach. It is an approach that allows for mapping of systemic risks and identifying potential risk scenarios. The Risk and Vulnerability Approach[3] can be used to identify vulnerabilities in risk management processes in the municipalities. This approach can then be followed by more risk-oriented approaches (MSB 2011). Six more municipalities used this approach. Altogether, these initial RVA methods were used by 20 out of 29 municipalities, which indicates that the municipalities are in the early stages of risk and vulnerability management. The three municipalities with the largest populations are exceptions using more complex analytical methods. Depending on choice of method each municipality has used different sources of information, such as public data, Government reports, municipal and other expertise, and panels of municipal managers.

There are 298 risks mentioned in total in the 29 municipal RVAs, either as a risk only or as a risk developed into a scenario.[4] On average ten different risks are presented in the RVAs. However, the top ten most frequently mentioned risks account for 225 out of 298 risks mentioned (some 75 %), which indicates that there is a fairly strong structural similarity in how risks are perceived and how vulnerabilities are manifested in northern municipalities. Further, these ten plus six more risks (less frequently stated) are ubiquitous, which means that they can take place anywhere in Sweden (and in many other countries). Another eight risks are more localised in their character; they can only become manifest in specific places where for instance harbours, certain industries or mountains are located (see Table 2). Neither ubiquitous nor localised risks are specific to the northern context.

It should be noted that, even though each municipality performs its own risk identification processes, most likely they are influenced by the MSB guidance where 25 different risks are listed (MSB 2011). It contains a wide range of risks, from multi-resistant bacteria to extreme weather to social unrest, which makes it difficult for the municipalities to acquire and process relevant information on all these risks, at least initially (Interviews RVA Norrbotten; RVA Västerbotten).

The CABs are assigned the task to monitor RVA progress at the municipal level. They conclude that the municipalities are at the early stages of adherence to the law on extraordinary events (SFS 2006:544), which partly explains the varying quality of the RVAs (Interviews RVA Norrbotten; RVA Västerbotten; Länsstyrelsen Norrbotten Årsredovisningar 2006–2015; Läns-

Table 2. Prioritised risks in RVAs for Norrbotten and Västerbotten Counties, Sweden

	Norrbotten: number of RVAs including the risk (N=14)	Västerbotten: number of RVAs including the risk (N=15)	Total (N=29)
Ubiquitous risks			
Electricity failure, esp. in combination with cold weather	14	15	29
Pandemics, epidemics	13	14	27
Drinking water failure—accident, contamination	13	12	25
IT—accident, sabotage	13	12	25
Fire accident (large)—schools, elderly homes, forest etc.	13	11	24
Large accident—bus, airplane, traffic, industry	12	10	22
Extreme weather conditions, snow storms, cold, rain etc.	7	13	20
Accident dangerous goods	7	12	19
Central district heating failure	11	8	19
Threats and violence—school massacre, general, other	6	9	15
Social unrest	2	4	6
Unfit or disrupted food supplies	1	4	5
Lack of fuels	3	2	5
Telephone failure—wire, mobile	3	2	5
External catastrophes affecting municipal citizens	1	3	4
Epizooty/zoonosis	2	2	4
Localised risks			
High water flows, ice stopple	7	5	12
Hydropower dam failure	5	6	11
Harmful emissions—chlorine gas, radio activity, ammoniac	6	4	10
Landslides, erosion	2	2	4
Oil spill in Baltic Sea, harbour		2	2
Major strike, closure/move of industrial activity	2		2
Avalanches, earth quakes	2		2
Explosive goods		1	1
Total number of risks in RVAs	**145**	**153**	**298**

styrelsen Västerbotten Årsredovisningar 2006–2015). Consequences for the municipal organisation in case of an extraordinary event are weakly analysed. Management of the identified risks, how disruptions can be avoided in functions of high societal importance and proposed measures are also weakly developed. Since developing the RVAs contains dealing with many complexities, the CAB interviewees note that municipal RVA processes can be facilitated through provision of general risk and vulnerability information by the CABs. All municipalities could then more effectively map local risks rather than starting from compiling basic facts and describing general conditions. The CABs´ concrete measures to reduce vulnerability and increase capacity to cope with extreme events therefore include knowledge building measures like advice and lectures on relevant topics, such as how to identify critical dependencies in drinking water supply (Interviews RVA Norrbotten; RVA Västerbotten).

According to CAB interviewees, the municipalities mainly use the RVAs for crisis management, for example in structuring plans for managing extraordinary events and identifying improvements within the crisis management organization. They are not used very much for risk reducing measures (Interview RVA Västerbotten). The practical use of the RVAs seems to vary among the municipalities due to available resources. Most likely some of the smaller municipalities will not be able to fulfil mandatory obligations on their own, which means that cooperation is needed. Also, municipal cutbacks in resourcing emergency organisations have been reported, altogether indicating a diminishing capacity for planning and action (Interviews RVA Norrbotten; Adaptation Norrbotten; RVA Västerbotten).

As for integration of climate change adaptation into RVA processes and planning, only limited coordination exists (Interviews RVA Norrbotten; RVA Västerbotten). *Climate change* is mentioned in twelve of the 29 RVAs analysed. It is considered a potentially risk changing factor through changing the preconditions for risks such as flooding and spread of diseases. A few RVAs mention other aspects of climate change, common to which is the understanding that climate change will change the world in many ways (Boden 2011). Boden RVA develops that insight into an RVA context:

> [...] since the world is changing incredibly fast probabilities change at the same pace. It means that if a risk can happen once in 100 years today the probability can be completely different in 20 years. Examples of this are heavy rains that change frequencies due to climate change or nuclear accidents that have been considered extremely unlikely to happen but still have happened several times during half a decade. (Boden 2011: 23)

Even though climate change is identified and accepted as a fact, actual climate change consequences are still limited and therefore not integrated in analyses and risk scenarios. Only three RVAs utilise a more integrated approach (Robertsfors 2012; Umeå 2012; Vindeln 2012), which due to municipal cooperation is produced by one and the same municipal employee.

The most common reference made to climate change in RVAs is the expected changes in weather conditions in Northern Sweden. In Vindeln's RVA (Vindeln 2011) it is concluded that the weather will be milder, wetter and windier, mainly due to larger differences and variations in atmospheric pressure during winters in the Atlantic region. Temperatures will most likely rise and thereby increase the proportion of rainfalls and prolong precipitation periods. Other anticipated consequences are more frequent and intense storms, and changes in ground frost conditions. Changed weather circumstances will most likely trigger other changes. According to the Arjeplog RVA (Arjeplog 2011) higher water flows can be expected, and the Boden RVA (Boden 2011) adds increased occurrence of erosion and landslides. These events are relevant in a northern context due to the many rivers in the region (Lycksele 2010). Changes in the parasite fauna and flora, bacteria and viruses will most likely follow too (Boden 2011). A specific case is the situation in Gällivare where the city of Malmberget is being relocated due to mining activities. Since new houses and buildings are being built and since a new city structure will be put in place, it provides possibilities for planning to include adaptation to climate change and a greater emphasis on risk considerations.

CAB support to climate change adaptation in municipal RVAs is mostly about providing the municipalities with planning material. Dissemination of adaptation policy documents has been prioritized. While this has caused some response among the municipalities, it is noted that the practical use of the adaptation documents for the municipalities is difficult to evaluate (Interview Adaptation Norrbotten). The need for municipalities to work with adaptation varies, as municipalities are affected differently by climate changes and have different capabilities to cope with the changes (Interview Adaptation Norrbotten). Three areas in the counties—Älvsbyn, Haparanda and Vännäsby—are identified as among the most flood sensitive areas in Sweden under the EU Floods Directive, indicating the different needs within the counties. However, municipalities do not necessarily consider—as one example—flood prevention measures as adaptation measures; the connection to climate change is not always obvious. Because of that, measures are not always implemented with a long-term perspective, but focus rather on managing the next flood (Interview Adaptation Norrbotten).

Besides providing municipalities with information and administrative

support in planning processes, the CABs in Västerbotten and Norrbotten have produced a regional water provision plan. They have also provided studies and statements on how climate change can be integrated in municipal comprehensive planning (Interviews Adaptation Norrbotten; Adaptation Västerbotten) and digitization of existing ground stability mapping (Interview Adaptation Norrbotten).

Adaptation and planning for extraordinary events are thus often treated separately in the municipalities (Interviews Adaptation Norrbotten; Adaptation Västerbotten). Hence, the vertical integration is weak, whereas there exist some examples of horizontal integration mainly as municipal cooperation in the production of RVAs. However, there is a perceived connection between the two fields within the municipalities, and an expected added value in connecting them since both of them treat vulnerabilities. This rarely happens, potentially as a result of the division of labour among risk management, adaptation to climate change and those who work with safety and rescue services (Interview RVA Norrbotten).

Limitations to Integration

On the municipal level then, policy integration between RVA and climate change adaptation can be traced in some respects. Measures in preparation for extraordinary events bring positive impacts on adaptation, but rather as unintended consequences than as part of coherent planning approaches. The CABs are instrumental in providing adaptation-related information and provide impetus to and steps towards integration at the municipal level. However, amongst the number of factors limiting integration or mainstreaming are national legislation and local resources. RVA planning is mandated by legislation, and the CABs and municipalities need to adhere to that assignment. One strong municipal incentive is that Government funding can be withdrawn if the CABs find the municipalities' work insufficient (Interview RVA Västerbotten). Adaptation is not mandated by legislation and no added funding is assigned to the municipalities, only temporary funding is provided to the CABs. The legislative and resource rationales therefore imply that RVA planning is prioritized rather than adaptation. These rationales are further enhanced in the northern context reviewed here. The northern Swedish municipalities are generally sparsely populated, but large territorially. Their populations tend to have a higher proportion of elderly people than the national average, imposing lower levels of income tax revenues and extra costs for elderly care. In a situation of resource restraints legal and economic issues are top priorities. Since integration of planning for extraordinary events and adaptation processes are not mutually mandated by law or supported through funding, the overall integrating incentive is weak.

Another aspect is that the level of ambition varies considerably among the municipalities (Interviews Adaptation Norrbotten; Adaptation Västerbotten). Vulnerabilities, related either to RVA or climate change, are complex to analyse and manage even without restraining economic resources. The largest municipalities are using more complex analytical methods for RVAs (Luleå 2011; Skellefteå 2011; Umeå 2012), indicating that available resources matter. However, judging from the three RVAs where climate change and its consequences are most prominent—Robertsfors, Umeå and Vindeln—political and individual ambition affects integration too, as these three RVAs were co-funded and produced by the same municipal employee.

The issue of what time context to take into account in policy integration was also raised by the interviewees. As an example, increased precipitation implies higher water levels and more floods in areas close to water. In the short term it can cause crises that can be foreseen and managed through RVA processes; in the long term these RVA actions can help municipalities to adapt to climate change (Interviews Adaptation Norrbotten; RVA Västerbotten). Climate change effects on drinking water supply are another example where the RVA focuses on sudden or unexpected extraordinary events while adaptation employs a long-term perspective (Interviews RVA Norrbotten; RVA Västerbotten). These examples show that further integration can be a useful response to vulnerabilities also where economic resources are lacking.

Conclusion and Discussion

Planning and preparing for extraordinary events has a stronger policy position than climate change adaptation in Sweden. The case of 29 northern municipalities shows that legislation and resourcing are essential to establish changes in management of planning processes. Adaptation objectives and policies are subject to "soft governance," mainly relying on provision of information to be used on a needs and voluntary basis. Consequently, integration of adaptation policies into RVA processes is fairly weak. There are examples of RVA planning that might bring positive consequences also for climate change adaptation, but most often as an unintended result—not as part of a coherent and integrated planning process. Without CABs providing information and support, the level of municipal adaptation would most likely have been lower. The Government's adaptation policy mandate to the CABs—especially the lack of funding and a permanent mission—does not allow for stronger governance and input in municipal planning processes.

In other sectors, it has been shown that this focus on information and voluntary measures is not enough (Appelstrand 2007). Without additional funding of adaptation in terms of development of preparedness for extraor-

dinary events, there is a risk that adaptation is added to the list of expectations on planning that is not sufficiently developed. Integration of adaptation is thus limited despite a large potential within several concurrent processes, including comprehensive planning and emergency management RVA processes (Lafferty *et al.* 2004). The study indicates that the level of coordination that would mainstream adaptation in planning for extraordinary events is not present, nor does consensus exist on means by which to develop integration. This uncertainty is particularly challenging for the municipalities reviewed here, with limited operational capacities (see Dannevig *et al.* 2012) with regard to the consideration of municipality size and resources in Norway.

Such a development adds to the discrepancy between large (high-populated) and small (low-populated) municipalities in terms of potential for future planning. Other comprehensive requirements may also result in similar inequalities being dependent on possibilities for responding rather than on vulnerability. For instance, Keskitalo *et al.* (2013) noted that in the municipality of Haparanda, situated in the Swedish-Finnish Torne River Valley and rated as one of Sweden's 18 flood risk areas under the EU Floods Directive, adaptation to climate change was not a driving factor in the development of responses. Instead EU projects related to EU directives were conceived of as driving developments, adding resources to otherwise relatively limited emergency response structures, but largely omitting the adaptation context.

This study thus highlights the potential role of a number of existing mechanisms at the municipal level, mirroring the results of Baard *et al.* (2012) who noted that sustainability analyses could constitute a relevant form of developing adaptation at the municipal level; Mossberg Sonnek (2013; see also Mossberg Sonnek *et al.* 2011) who noted that RVA in the cases of three municipalities could support adaptation; and Groven *et al.* (2012) that noted the possibilities for integrating adaptation in civil protection planning. However, all of these cases also identified large problems with existing approaches, mainly in terms of time and resources for development. This study supports this argument by highlighting the development in relatively sparsely populated municipalities where RVA processes may result in requirements that present difficulties in providing operational integration at the level of the municipality (see also Aall *et al.* 2007 on coordination difficulties in Norway). As Dannevig *et al.* note on Norwegian cases of using this type of tool: "an RVA is merely an assessment and will not necessarily lead to concrete actions or proactive attempts at adaptation" (Dannevig *et al.* 2012: 598).

While Sweden has chosen not to lend economic support to the develop-

ment of adaptation at the municipal level, it is relevant to ask whether it is possible to expect integration based on vulnerability in cases with small resources, and without binding or funded requirements (see Juhola *et al.* 2012; comparisons can also be made with earlier lessons with regard to Agenda 21 sustainability processes, see Aall 2000; Aall 2012). Given the aging population and the large geographical distances in Northern Sweden, more efficient solutions in almost any municipal activity are needed, and prevention and preparations for protection against accidents and extraordinary events are no exceptions.

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NOTES

[1] County Councils are political actors at the regional level. They have municipal status, but with the main function to provide health care. They are also obliged to produce risk and vulnerability analyses (RVA) for their own organisation, but lack legislative and land use planning capacities as well as any implementing and controlling functions within the planning system.

[2] During 2015 a new set of RVAs was supposed to be reported to the CABs. However, due to the unexpected high inflows of immigrants to the municipalities—itself an extraordinary event—they were allowed to prioritize immigration matters rather than produce and report updated RVAs.

[3] This is a specific method, to be potentially used within the wider RVA planning processes.

[4] The categories are not mutually excluding. One example is the distinctions made between Threats and Violence in relation to the category Social Unrest, where the former indicate aspects of individual and the latter of collective insecurity. The same goes for the categories Extreme weather conditions versus High water flows, where the latter potentially being a consequence of the former. The categories are aggregates from RVA lists in order to present a relatively straight forward overview.

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Miscellanea: Notes / Notizen

Anna-Leena Siikala (1943–2016)

Photo: Lotte Tarkka.

Academician of Science Anna-Leena Siikala died on 27 February 2016. She was born on 1 January 1943. Anna-Leena defended her doctoral thesis at the University of Helsinki in 1978, and worked during her career as a professor at the Universities of Turku, Joensuu and Helsinki. In 1999–2004 she worked as an academy professor at the University of Helsinki. Anna-Leena was appointed as an academician of science in 2009. In addition to being an eminent scholar and much-loved teacher, Anna-Leena served the academic community through several scientific societies and journals, such as the Finnish Literature Society and Folklore Fellows Communications. She was also a member of the editorial board of the *Journal of Northern Studies*.

Anna-Leena was, above all, a scholar of oral tradition and vernacular religion. From the beginning of her career, she was interested in shamanism, in particular in Siberian shamanism, which she studied as early as her doctoral dissertation. The themes of the dissertation, namely the interaction of ritual texts and techniques of ecstasy as well as their variation, fascinated Anna-Leena throughout her career: she returned to the themes in her studies on the Finno-Karelian *tietäjä* institution, as well as in her lectures, which filled lecture halls in the 1990s.

Anna-Leena was linked to the chain of scholars studying Finno-Ugric mythologies and oral traditions through her own teachers. However, she was not able to conduct fieldwork among these peoples during her early career, but had to make do with archive materials. Nonetheless, Anna-Leena's work was characterised by ethnography even before her fieldwork in the Cook Islands with Jukka and Harri Siikala and among Finnish narrators. Consequently, her interpretations of archival materials were always close to the local meanings, emphasising the performers' and community's points of view.

When the Soviet Union collapsed, Anna-Leena began to travel among the Finno-Ugric peoples in Russia: the sacred groves and ethnic festivals of Udmurts, features of the oral and written heritage of Komi and private and

public Khanty rituals soon found their interpretations in her texts. Fieldwork in Russia became a way of life that marked Anna-Leena's last years at the university. Many of her important encounters and her fervent desire to defend Russian minorities, and also major scientific projects, such as the Encyclopaedia of Uralic Mythologies, were related to this fieldwork in Russia.

Mythology, myths, and the incantations related to them define Anna-Leena's career. Her interpretations on Kalevala metre poetry brought new perspectives, concepts and methods not only into the Finnish, but also the international research field, breaking old conceptions of poetry, its vernacular images and ways of using it. Later, Anna-Leena combined performative points of view with comparative aspects in ways that opened up new interpretations and possibilities.

Openness and the courage to work and think with new methodologies, such as cognitive perspectives on narration, were repeated features of Anna-Leena's career. In her teaching and writings, she also stressed the importance of considering the long lines and continuities in scientific discussions. In her own work, the old archival materials and academic discussions always went alongside new fieldwork materials and perspectives. The researcher should consciously link herself into academic chains, both textual and social, which for Anna-Leena Siikala was not only an academic but also an ethical choice for sensible interpretation and comprehensive knowledge.

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Reviews

Kajsa Andersson (ed.), *L'Image du Sápmi. Études comparées*, vol. 1–3 (Humanistica Oerebroensia, Artes et linguae 15–17), Örebro: Örebro University 2009–2013, ISBN 9789176686188, 9789176689431, 9789176689448, 648 pp., 523 pp., 582 pp.

Introduction

Des *peuples indigènes*, ou des *peuples premiers*, font aujourd'hui, à côté d'autres minorités nationales, religieuses ou sexuelles, l'objet d'un débat animé. Les valeurs traditionnelles de l'Occident sont souvent la cible d'une critique sévère qui exige des réévaluations. Cette critique reprend les arguments de l'ancien débat sur le colonialisme et « l'orientalisme » en les approfondissant. Ceux qui prennent part à ce débat emploient souvent la notion de *l'autre* et se réfèrent à un contexte conflictuel entre *le centre* (où se trouvent ceux qui détiennent le pouvoir) et *la périphérie* (où se trouvent les oppressés, victimes du pouvoir central). La relation entre centre et périphérie est complexe et – comme Michel Foucault a souligné – c'est en définissant *l'autre* (l'ennemi, le barbare, le déviant, le païen, la femme, etc.) que le centre se définit lui-même. L'effet de ce regard dirigé à la fois à l'extérieur, vers *l'autre*, et à l'intérieur, vers *nous-mêmes*, si nous appartenons au centre, peut être d'autant plus enrichissant quand *l'autre* se trouve proche de nous (par exemple quand il se trouve dans le même pays) et alors peut être considéré comme une sorte de *voisin*. Le sort de minorités sames, vivant dans l'extrême nord de l'Europe et à l'intérieur de pays où les pouvoirs centraux représentent et dans certains cas – au moins historiquement – donnent priorité à une autre culture, est dans cette perspective hautement intéressant.

Pour ne parler ici que de l'attitude suédoise, telle que nous la comprenons, on peut constater que beaucoup de Suédois s'intéressent à la situation déplorable des Indiens aux États-Unis ou des tribus indigènes dans la forêt amazonienne, par exemple, mais peu de Suédois, au moins dans le sud de la Suède, prêtent beaucoup d'attention à la « question same » et à la marginalisation d'un peuple qui pourtant vit à l'intérieur des frontières suédoises. La raison pour ce manque d'intérêt est, selon nous, due au double effet d'une perte de connaissance historique et de la conviction que la Suède est un pays non-raciste. Il faut aussi rappeler que l'image du Same dans son costume caractéristique et à côte de ses rennes est entrée dans la conscience collective suédoise comme symbole pour la Suède au même titre, ou presque, que le mât fleuri de Saint-Jean (*midsommarstången*), la course de ski de Vasa (*Vasaloppet*) et le cheval de

Dalécarlie *(dalahästen*, une sorte de figurine en bois peinte). Il est donc à parier que le mauvais traitement dont les Sames sont victimes – dans le passé ainsi que aujourd'hui – est source d'étonnement et cause de honte de la part de beaucoup des Suédois.

Vues ces considérations, et sans nier l'importance de nombreux textes savants antérieurs, la nouvelle étude sur la civilisation same, *L'Image du Sápmi* – presque 1.700 pages sur un tas de sujets historiques, sociales et culturels – devrait susciter l'intérêt d'un public scandinave et européen. L'initiative d'une telle publication ambitieuse est venue de l'infatigable Kajsa Andersson, ancien maître de conférence à l'université d'Örebro (Suède) où elle a enseigné la langue et la littérature française. Après avoir terminé entre 2004 et 2007 la rédaction de l'anthologie *L'Image du Nord chez Stendhal et les Romantiques* (1.700 pages) elle récidive avec des projets gigantesques en nous donnant les trois volumes qui composent l'anthologie *L'Image du Sápmi*.

Soixante-neuf experts – dont vingt pour cent de Sames (ou d'origine same), cinquante pour cent de Scandinaves et trente pour cent d'autres nationalités – ont ensemble écrit en français (quarante pour cent) ou en anglais (soixante pour cent) quatre-vingt-quatre articles couvrant les aspects les plus importants de la civilisation same. Parmi ces articles, peu sont ceux qui ne sont pas d'une très haute qualité. Des notes érudites, pleines de références et d'informations supplémentaires avec de riches bibliographies, garantissent le niveau scientifique. En plus, une iconographie en noir et blanc ainsi qu'en couleur rehausse beaucoup le plaisir de la lecture.

Le but de l'anthologie est selon Andersson d'informer sur « des aspects du paysage same, de son histoire, des usages, des mœurs, des réalisations artistiques d'un peuple aguerri aux froids extrêmes et familier du silence des solitudes enneigées ».

Le lecteur visé est, bien entendu, celui qui s'intéresse aux questions sames mais les textes devraient également intéresser tous ceux qui étudient des groupes minoritaires, bien que les contributions en français réduisent le nombre de lecteurs qui puissent apprécier l'anthologie dans sa totalité. Le public primaire au début du projet semble avoir été un public francophone parce que les articles en anglais dans le premier tome (mais pas dans les suivants) sont suivis de résumés en français.

La richesse de cette somme est, à vrai dire, étourdissante : à côté d'articles sur l'histoire, le récit de voyage, la littérature, la musique et la langue, on trouvera des thèmes inattendus comme, par exemple, l'image du Same dans des livres pour des enfants. Il est impossible de résumer ici le contenu d'une anthologie de cette taille ou de mentionner, si

bref que soit-il, tous les auteurs et tous les sujets abordés. Nous sommes donc, à notre grand regret, obligés de passer sous silence maintes contributions fort intéressantes. (Pour rendre nos propos plus compréhensifs dans ce qui suit, nous distinguerons les « Sames » des « Suédois », des « Norvégiens », etc., bien qu'un Same aujourd'hui soit citoyen d'un État scandinave (ou russe). Les Sames eux-mêmes semblent vouloir être reconnus comme un peuple à part (c'est-à-dire : un Same en Suède n'est pas en premier lieu un « Suédois » mais un « Same »). Nous emploierons la désignation *Lapon* (aujourd'hui considérée comme péjorative) pour un Same uniquement dans un contexte historique. Nous regarderons la question same surtout du point de vue suédois.)

L'Histoire same

Plutôt que par des traits ethniques, les Sames se singularisent par une culture fortement liée à l'élevage de rennes, à la chasse et à la pêche. Le territoire same, *le Sápmi* en langue same, s'étend sur la partie nord de la péninsule scandinave et de la presqu'île russe de Kola. *Le Sápmi* dénote également la société same vue dans sa totalité. Aujourd'hui, le nombre de Sames s'élève approximativement à 70.000 individus (la plus grande concentration, 25.000 individus, se trouve dans le Finnmark norvégien). Cependant, les Sames ne sont pas un group homogène et parmi eux seulement 30.000–35.000 individus parlent au moins une variante same. La vie en symbiose avec la nature rude et l'élevage de rennes d'un côté, et l'interaction avec les États envahisseurs de l'autre côté, sont les deux principaux facteurs qui déterminent la civilisation same et ils sont directement ou indirectement commentés dans presque tous les articles de l'anthologie.

L'histoire des Sames n'a pas progressé d'une façon linaire sur l'axe temporel (allant toujours vers une meilleure situation) et leur l'indépendance relative initiale fut successivement réduite à partir du dix-neuvième siècle. Arrêtons-nous d'abord un instant sur le Sápmi du Moyen Âge jusqu'au dix-huitième siècle et constatons que les Sames suédois à cette époque jouissaient d'une situation presque privilégiée. Même sous contrôle administratif de l'État suédois, les Sames étaient traités avec une bienveillance qui, parmi autres mesures, se traduisait par une législation plutôt favorable : ils avaient droit à la chasse au même titre que les paysans, ils avaient même, chose étonnante, leur propre représentant dans le parlement. Ils étaient propriétaires et pouvaient librement vendre leurs produits. Le fait que la production agricole et artisanale des Sames constituait une source bienvenue d'impôt (souvent sous forme de fourrures) pour le gouvernement, ne réduit que marginalement l'importance de cette constatation. Avant 1750, il n'y avait pas de fron-

tières nationales dans le nord de la Scandinavie et les Sames allaient et venaient sans contraintes dans toute la zone où ils vivaient au rythme de leurs troupeaux de rennes qui, par instinct, changent le pâturage quand le climat change, de manière qu'ils traversent régulièrement une vaste étendue sans se soucier de régulations. L'attitude accueillante de la part du pouvoir central suédois n'était pas tout à fait gratuite. Les frontières entre la Suède, la Norvège et la Russie ne pas encore fixés, il était dans l'intérêt des autorités suédoises que les Sames pouvaient être considérés comme leurs citoyens, ce qui donnerait poids aux exigences territoriales de la Suède dans le Grand Nord. En 1750 un traité régla finalement les questions frontières dans l'extrême Nord entre le Danemark (et sa province la Norvège) et la Suède-Finlande. Les frontières une fois établies, la situation détériorait d'une manière sensible pour les Sames et plusieurs articles dans l'anthologie portent sur ce changement et ses conséquences à long terme pour les Sames.

Le statut particulier de Sames était formulé dans *Lappekodisillen* (« le codicille lapon ») – toujours en vigueur mais dont l'application demeure assez flottante – selon lequel les Sames avaient droit au sol, à l'eau, à leur culture et à leur façon de vivre y compris le droit de se déplacer à l'intérieur de leurs terres traditionnelles, bien que ces droits fussent systématiquement violés ; Lars Norberg dit même qu'« en Suède la confiscation des territoires sames se faisaient lentement et d'une manière traitresse » par l'État dans l'intention de les distribuer aux Suédois qui s'établissaient là ou de les garder pour l'État lui-même. Les Sames considéraient leur territoires comme *une possession collective*, tandis que pour les autorités la terre n'était à personne et donc à approprier. La Same Sofia Jannok nous le rappelle : « s'approprier le sol, comment est-ce possible ? ». À la suite de cette prise de possession « intérieure » par voie administrative – la seule solution viable pour le gouvernement de résoudre le problème du manque de territoires libres dans le sud de la Suède pour une population de plus en plus nombreuse – les anciens pâturages sames cédaient la place aux nouvelles terres cultivées.

La situation pour les Sames s'empirait au cours du dix-neuvième siècle ; en outre des considérations politiques moins pressantes après le traité de 1750, l'industrialisme rendait la participation des Sames dans le commerce moins nécessaire. Avec l'intégration il était impossible d'éviter un face-à-face plus conflictuel entre l'intérêt politique du centre et la façon de vivre de la périphérie. La justification du contrôle territorial de la part des États scandinaves se basait alors sur des préjugés racistes. Les Sames étaient en effet considérés comme un peuple barbare et inculte par les autorités – un thème récurrent dans l'anthologie.

La nouvelle politique fut connue sous la devise « Le Lapon doit être Lapon », c'est-à-dire que le Lapon devrait vivre en conformité avec une mode de vie traditionnelle, protégée de la modernité. Au darwinisme social pratiqué s'ajoutait l'évangélisation intensifiée au début du dix-huitième siècle. Elle se déroula dans la plupart des cas dans le calme mais, comme écrit Isabelle Guissard, les missionnaires fonctionnaient aussi comme des policiers et ils confisquaient des objets sacrés du culte same, tel quel le tambour, et ils tentaient de détruire tous les restes de la religion same. Les conséquences furent, comme on peut deviner, désastreuses pour l'ancienne culture same.

De la même façon, d'autres aspects de la vie et de la culture sames étaient combattus et une image du Lapon comme simple éleveur de rennes fut imposée par les autorités. Cette image n'est certes pas tout à fait incorrecte mais elle est incomplète et pour cette raison réductive. Signalons Elsa Laula parmi ceux qui s'opposaient à l'image du « Lapon éleveur de rennes » et à l'idée que le territoire lapon était « prêté » aux Sames. Connue aujourd'hui comme la première femme écrivain same et « la femme la plus libérée du Grand Nord », elle voulait rassembler les Sames et au même temps sensibiliser les autorités pour leur cause. En 1917 elle dit : « Nous n'avons pas encore travaillé ensemble, nous n'avons jamais agit comme un seul peuple ». Son point de vue (bien résumé par Anne Woulab et Patrik Lantto) était que la terre avait toujours été dans le domaine same et que les autorités avaient sanctionné ce droit par des accords anciens. Quelques articles traitent du résultat auquel aboutit la ferme volonté de Laula et d'autres fortes personnalités sames. On peut ici, au titre d'exemple, mentionner l'organisation suédoise des Sames, *Svenska Samernas Riksförbund* (SSR), fondée en 1950. Le parlement same (1993) a aussi été un événement important en Suède.

On peut être d'avis que le dernier accord entre la Suède et la Norvège en 1972, fut un coup fatal pour les Sames suédois qui d'un jour à l'autre perdirent l'accès à soixante-dix pour cent de leur superficie utilisée pour le pâturage et cela sans compensation et sans respect ni pour la loi suédoise ni pour les conventions internationales. Récemment, c'est-à-dire à partir du début du vingt-et-unième siècle, on peut noter, comme l'explique Eva Silvén, le commencement d'une nouvelle politique visant à renforcer le statut de la communauté same et à soutenir leur langue, culture et identité.

Récits de voyage

En ce qui concerne des récits de voyage, ou d'autres types de témoignages (soit des textes littéraires, soit des textes politiques), il faut distingu-

er trois catégories d'auteurs : (1) auteurs non-Sames qui ont ramassé et amalgamé leurs informations dans d'autres sources ; (2) auteurs non-Sames qui communiquent leurs propres expériences acquises sur le terrain ; (3) auteurs sames qui partagent leurs expériences et leurs opinions en tant que Sames. L'intention, l'ambition, la connaissance et la véracité ne sont pas les mêmes chez ces trois catégories d'auteurs et on doit toujours, en abordant un texte sur le Sápmi, faire attention à *qui* parle et *pourquoi*.

L'histoire des Sames peut être vue comme l'évolution des relations entre un peuple autochtone et des peuples envahisseurs, une évolution qui se reflète dans les récits de voyages – au même temps que ces récits ont fortement influencé l'image du Sápmi chez le lecteur du centre. Les récits de voyage par des représentants du pouvoir central, des missionnaires, des aventuriers ou des ethnologues furent écrits dans le but de satisfaire la curiosité du lecteur scandinave ou européen et ils donnent des impressions plus ou moins favorables des Sames et de leur environnement. Étant donné l'importance de récits de voyage pour le développement de l'image du Sápmi, on comprend le très grand nombre d'articles dans l'anthologie qui portent sur ce sujet.

Deux sortes d'images peuvent sortir de textes écrits par ceux qui cherchent leurs informations chez d'autres auteurs : (1) Dans le premier groupe les auteurs insistent sur l'absence d'une culture impressionnante, ce qui peut, par le même coup, signifier l'absence d'une culture artificielle. L'oscillation évaluative peut se produire chez un seul et même auteur partagé entre des opinions favorables et défavorables. On trouve par exemple cette différence chez Tacite dans son *De origine et situ Germanorum* (98 ap. J.-C.) où l'auteur souligne le contraste entre un monde same barbare mais naturel et un monde romain développé mais décadent. (2) Dans le deuxième groupe le Same est devenu une sorte de *homo sylvaticus*, à mi-chemin entre bête et humain et à peine mieux que les ours et les loups qu'il chasse. Les écrits islandais du Moyen Âge, par exemple, peignent une contrée habitée par des monstres et des sorcières. Dans son article consacré à ce sujet, Troy Storfjell décrit comment les auteurs islandais s'étonnaient de l'habilité avec laquelle les Sames commandaient aux vents, et cela à un tel point qu'ils vendaient le vent favorable aux voyageurs qui passaient sur les mers nordiques. Selon le philosophe Jean Bodin, on trouvait en Norvège plus de sorcières que dans d'aucun autre pays.

En commentant les récits de voyage en Sápmi nous devons nous arrêter un instant sur un suédois célèbre, à savoir Olaus Magnus. Storfjell et Elena Balzamo racontent comment Magnus, catholique intransigeant

et exilé par le roi réformateur Gustave Ier Vasa, consacra une petite mais importante section à la Laponie dans son *Historia de gentibus septentrionalibus*, publié à Rome en 1555. Balzamo écrit à ce sujet que Magnus, désireux de frapper l'imagination, peint un véritable Pays des merveilles, peuplé de phénomènes exotiques et insolites, de magiciens et d'animaux fabuleux – mais sans les géants et les nains que les sagas islandais y ajoutaient. Là, les femmes sont belles, aussi habiles skieuses et chasseuses que les hommes. Magnus fit aussi une carte : la *Carta marina*, la première représentation de l'Europe du Nord à l'époque moderne. Cette carte aux dimensions imposantes (1,25 m x 1,70 m) est ornée de textes, de cryptogrammes et d'images d'un monde païen. De cette façon, les Lapons sont, et nous citons encore une fois Balzamo « retirés de l'univers fantastique pour être intégrés dans un autre schéma explicatif, celui de la nordicité parfaitement humaine et même humaniste [avec] la notion du noble sauvage vivant en symbiose avec la nature ».

La distance entre le Same regardé et auteur regardant augmente quand celui-ci est un étranger venu du continent et, par définition, déconnecté du contexte scandinave. Un tel voyageur était le français De La Martinière qui en 1670 effectua une visite ethnographique en Laponie. Son texte se trouve suspendu entre monde réel et monde fictif et l'authenticité a été contestée. De la même façon, *Lapponia*, de Johannes Scheffer, publié en 1673 et par la suite traduit en anglais, français, néerlandais et allemand, donne au lecteur l'image d'un Same travailleur et en accord avec la nature mais, quoique noble, en même temps *un autre* appartenant à la périphérie.

Voyage de Laponie – un livre parfois appelé « le premier voyage touristique ayant jamais eu lieu en Laponie » – est un autre exemple d'un texte écrit par un étranger, dans le cas échéant Jean-François Regnard, qui décrit ses rencontres avec la culture same vers la fin du dix-septième siècle lors d'un voyage « au bout du monde » là « où finit l'univers ». À l'époque un succès de librairie, le récit de Regnard est, selon Margareta Björnberg Diot, un résumé fort divertissant et pittoresque des mœurs, bien que l'auteur ait aussi pêché dans d'autres récits (et cela à un tel point qu'il fut accusé de plagiat). Regnard avait lieu de s'étonner : à part des remarques sur la vie matérielle et sociale, comme l'habitation dans des tentes lapones, il observe que les Lapones sont « extrêmement laids » mais sains et d'une étonnante longévité. Le ski (avec, comme aujourd'hui, un seul bâton) et la luge l'émerveillent ainsi que le sauna mixte et les mœurs sexuelles libres. Voilà des thèmes à éveiller la curiosité du lecteur, des thèmes qui par la suite furent répétés par d'autres auteurs aux cours des siècles à venir. On les trouve, par exemple, chez Léonie

d'Aunet, qui fait le sujet d'un article de Christian Mériot. d'Aunet trouvait les habitants barbares et laids, une impression à peine modérée par ses idées rousseauistes du bon sauvage.

Deux images du Same sortent donc de ces récits : le noble sauvage et le sauvage barbare, deux images parfois concurrentielles, parfois complémentaires qui n'excluent ni l'exotique ni le séduisant.

La culture same

En dehors de constituer un fond incontournable de tout discours sur la vie et la civilisation same, *la nature* de l'extrême nord ainsi que l'élevage de rennes, l'agriculture et la pêche, n'intéressent guères les auteurs de l'anthologie. Une exception est Anna Järpe qui nous informe sur les animaux domestiques et les prédateurs (comme le loup ou le carcajou). Dans son article fort intéressant mais, hélas, trop court elle nous rappelle aussi que l'élevage de rennes même de nos jours est une façon de vivre plutôt qu'un travail.

Par contre, comme on peut le deviner, *la culture* same occupe une place privilégiée dans *L'Image du Sápmi*. Sur le plan musical – une manifestation importante de la culture – le monde same est fortement associé au *yoik*, ce chant traditionnel très particulier au caractère répétitif et monotone (au moins pour un non-initié). Le yoik est un art d'évocation et de mémoire (Håkan Rydving en fait une analyse succincte et instructive) et aussi une façon de fixer les pensées et les sentiments du chanteur sur les personnes, les animaux ou la nature. La description du yoik et de l'hiérarchie qui régit la relation entre rythme, mélodie et paroles (la partie la moins importante) qu'Ildikó Tamás fait est tout à fait passionnante. Deux yoiks furent inclus dans *Laponia* de Scheffer et, après, publiés dans *Spectator* en 1712. Aujourd'hui le yoik est devenu une façon de revendiquer la culture same et il s'affirme sur la scène internationale comme *World Music*.

Plusieurs voyageurs du dix-neuvième siècle ont fait des observations sur une caractéristique typique de la culture traditionnelle de Sames, mais depuis complètement tombé dans la désuétude, à savoir *le chamanisme*. Selon Maija Lehtonen le chamanisme se pratique quand l'âme du *chaman* est capable de se séparer de son corps et de « voyager vers le monde des esprits pour y chercher des connaissances surnaturelles ». Immobile sur le sol, le chaman tombé en extase prononce des paroles de divination dont il ne se souvient pas toujours après s'être réveillé. L'instrument dont il se sert est le tambour sur lequel sont attachés un certain nombre d'objets. Le tambour est manié à l'aide d'un marteau et sur la peau du tambour il fait sauter un petit objet (sous forme, par exemple,

d'une grenouille). L'article instructif de Rolf Christoffersson nous enseigne qu'il y a peu de tambours conservés mais pas mal d'illustrations (par exemple chez Scheffer) et que les interprétations auxquelles aboutissent les analyses sont très hypothétiques.

La littérature, marque hautement symbolique du niveau culturel d'une société occidentale, est sur le plan historique moins dominante que d'autres expressions artistiques sames étant donné le fait que les Sames furent un peuple nomade et alors, comme l'importance du yoik l'atteste, l'expression littéraire fut en premier lieu orale. Chose paradoxale, au moment où les Sames étaient subjugués par les États nordiques, la montée romantique en Europe s'intéressa passionnément aux expressions artistiques du « Volk » (par exemple les poèmes d'Ossian). Chez les Sames on découvrit un monde aussi inconnu qu'étonnamment fascinant. Thomas A. DuBois nous rappelle que les poèmes de Sirmá Ovllá, les premiers poèmes en same – et présentés dans *Laponia* de Scheffer en 1673 (la traduction française date de 1678) – furent accueillis en Europe continentale comme des témoignages d'un peuple vivant en harmonie avec la nature.

« Je suis un Lapon qui me suis occupé de tous les travaux des Lapons, et je connais tout de la vie des Lapons ». Voilà la toute première phrase du premier livre jamais écrit en same. Il s'agit de *Muitalus sámiid birra* (« Récit sur la vie des Lapons »), publié en 1910 et écrit par l'éleveur de rennes et le chasseur de loups Johan Turi. Parce que la publication du livre est à considérer comme « un événement dont l'importance continuera à grandir à la lumière de l'histoire » (Lennart Unga) et qu'« aucune mention de la littérature samie ne se fait sans qu'il soit nommé » (Coppélie Cocq), beaucoup d'auteurs dans l'anthologie commentent ce livre fondamentale. Pour Turi, selon DuBois, « tous les éléments de son monde changeaient, et le seul espoir pour la survie de la culture same dépendait alors de la dissémination de renseignements corrects et sympathiques de la mode de vie des Sames et de la beauté essentielle de leur culture ». Turin créa un genre particulier dans lequel conter et écrire s'unissaient. Le livre était destiné aux Suédois, aux Norvégiens et aux Européens pour qui la culture same était méconnue. Dans son entreprise, Turi était fortement soutenu par l'ethnographe danoise Émilie Demant Hatt qui rédigea le livre et en fit la première traduction, en danois. Deux ans après la publication de *Muitalus sámiid birra*, Anders Larsen publia le premier roman écrit en same : *Beaive-álgu* (« l'Aube »), un roman qui traite de la politique d'assimilation pratiquée par les autorités norvégiennes et du déclin culturel et linguistique same. Pourtant, la littérature de fiction ne prit son essor qu'à partir des années soixante-dix. Parmi les auteurs

modernes et relativement connus, on note surtout Nils-Aslak Valkeapää qui détient une position unique dans la littérature same.

On se réjouit de trouver dans l'anthologie six poèmes inspirés par le monde same de Jesper Svenbro, poète et membre de l'Académie suédoise. Initialement publiés dans un recueil de poésie, *Samisk Apollon* (1993), ils sont ici pour la première fois présentés dans une traduction française de l'auteur lui-même.

Aujourd'hui, quand la maison d'édition suédoise Opal publie dans une deuxième impression onze livres pour enfants du troll lapon *Plupp*, premièrement sortis dans les années cinquante, on peut constater que c'est par H. C. Andersen, Zacharias Topelius et, un peu plus tard, Selma Lagerlöf que le monde du Sápmi a été introduit dans la littérature enfantine. Dans *Le merveilleux voyage de Nils Holgersson à travers la Suède* (1906-1907) de Lagerlöf, les Sames sont caractérisés comme « le peuple le plus heureux du monde » et Åsa constate après presque une année chez les Sames : « Votre manière de vivre est meilleure que la nôtre ». Nils lui-même est de l'avis que les colons suédois « devraient laisser ce pays tranquille et l'abandonner aux ours, aux loups, aux rennes [et] aux Lapons qui, eux, avaient été créés pour y vivre ».

Exemple de la réception de la culture same dans l'art suédois : deux tableaux du connu Einar Jolin (qui souvent choisissait des motifs exotiques) peints en 1961 et qui tous les deux représentent, en se référant aux tableaux « La Maya vestida » et « La Maya desnuda » de Goya, la Same Anna-Maria Blind, qui fut la première Same à être admise à l'École dramatique à Stockholm (Dramatens scenskola) (coll. privée).

La peinture aux motifs sames peut soit être vue comme représentation (plus ou moins exotique) des artistes non-sames, soit être vue comme manifestation artistique des sames eux-mêmes. Nils Nilsson Skum, aussi l'auteur d'un livre important *Same sita* (« Le Village lapon »), est aujourd'hui surtout connu comme artiste. Ses œuvres figurent assez souvent aux ventes aux enchères en Suède et elles ont été exposées à Paris et à New York.

La photographie est peut-être d'un impact encore plus important que l'image peinte, voilà pourquoi les articles consacrés à ce sujet sont particulièrement intéressants. Mentionnons en premier lieu Borg Mesch (1869–1956) dont les photos de Sames en vêtements traditionnels et de leurs activités quotidiennes influencèrent considérablement la perception suédoise et internationale des Sames au début du vingtième siècle. DuBois a raison quand il écrit que « le caractère humain et la beauté de ses photos les rendent plus élégantes et plus immédiates » que maintes descriptions dans des livres et qu'elles restent encore captivantes. Mentionnons aussi le livre charmant pour enfants *Elle Kari* (les aventures d'une jeune fille same et de son chien) avec des photographies d'Anna Riwkin. Ce livre obtint un grand succès en 1951 et a été traduit dans une quinzaine de langues.

Conclusions

Les récits de voyage ainsi que d'autres descriptions façonnent *l'image du Sápmi*. La question importante, évoquée par Eva Silvén, est alors quel point de vue on doit employer : soit voir les Sames de distance dans un contexte historique et plutôt folklorique, soit les voir de proximité dans un contexte contemporain et plutôt social. On est d'accord avec Elsa Laula et d'autres porte-parole sames en ceci que le peuple same doit être compris comme « peuple indigène » avec une culture qui leur est propre. Cette approche est aussi celle choisie par les auteurs de l'anthologie. Elle est – cela va sans dire – louable, et l'on peut comprendre la soucie de vouloir soutenir une minorité dont la culture est menacée, mais il ne faut pas nier non plus le risque, aussi menu qu'il soit, de (re)tomber dans un exotisme nouveau parce que trop insister sur les particularités *des autres*, même pour en montrer la valeur, peut confirmer des préjugés et augmenter la distance entre *eux* (dans la périphérie) et *nous* (dans le centre) au lieu de la réduire. Il est, à vrai dire, difficile aujourd'hui de mettre les accents sur les mêmes phénomènes culturels qui autrefois constituaient des preuves de différence et d'infériorité. Trouver le bon ton et l'équilibre dans une telle évaluation en Suède peut être d'autant plus difficile parce que les Suédois ne s'identifient normalement pas à

une culture précise. Donc, il n'y a pas une base commune – où la valeur d'une culture nationale est mise en avant et appréciée – sur laquelle un exchange valable peut se produire entre deux cultures différentes mais existant côte à côte. La perspective dans l'anthologie est presque toujours celle d'un drame entre une culture menacée et une culture menaçante. Elle est probablement due à une ambition – tout à fait méritoire d'ailleurs – de vouloir remédier à un manque de connaissance et d'enlever les barrières culturelles entre nous et *les autres*, mais à la longue, l'effet accumulatif de cette insistance fatigue le lecteur qui est déjà du même avis.

Parce que les mots dirigent les pensées, il faut aussi dans ce contexte s'arrêter sur la notion de *colonisation*, une notion employée dans nombre d'articles. Par comparaison avec d'autres peuples indigènes dont les terres étaient prises lors de campagnes militaires et transformées en colonies à proprement parler, la situation des Sames était un peu différente car leurs territoires furent *incorporés* sans confrontations armées. On peut comparer la situation same avec celle des provinces du Sud de la Suède actuelle qui après le traité de Roskilde en 1658, brutalement et avec une grande efficacité, furent complètement incorporées dans la Suède centrale. *Colonie*, telle que nous comprenons la notion, exclue (au moins en ce qui concerne les pays européens) le voisinage territorial, voilà pourquoi le mot dans l'anthologie connote parfois un sens pas toujours très correct. Une fois sous la domination suédoise, le double sort tragique des Sames fut qu'ils ne pouvaient pas profiter de leur citoyenneté et que le pouvoir central suédois ne respecta ni leur indépendance ni les traités signés avec eux.

On aurait souhaité trouver dans une publication de cette taille et de cette ambition une introduction qui plus en détail explique le but envisagé et comment il faut regarder les contributions de l'anthologie à la lumière de recherches actuelles et anciennes. Un aperçu de la situation bibliographique aurait aussi été souhaitable. La sélection de sujets est bien équilibrée, bien que le nombre de pages sur l'image du Same dans la littérature pour enfants peut étonner. Si certains sujets sont abordés par plus d'un auteur, d'autres sujets sont moins bien représentés, comme la religion same et la situation actuelle pour les Sames (une exception est l'article de Mikkel Berg-Nordlie). La vie same est adaptée à la nature sévère et à l'élevage de rennes, voilà pourquoi ces sujets auraient mérités plus de commentaires au lieu de servir de repoussoir auquel d'autres thèmes sont développés. Cette constatation va aussi pour une aide précieuse pour les Sames, à savoir le chien lapon (suéd. *lapphund*). Il est intéressant de noter que deux des rares articles sur la société same contemporaine et quotidienne sont écrits par deux jeunes femmes sames :

Ann-Helén Laestadius et Sofia Jannok, chanteuse same (et aujourd'hui peut-être la Same la plus connue auprès des Suédois).

À part quelques thèmes, comme la photographie et les Sames de la péninsule de Kola, la disposition et l'ordre entre les contributions sont malheureusement vagues. En plus, des articles abordant les mêmes personnes et les mêmes sujets sont très fréquents et parsemés un peu partout dans l'anthologie, ce qui rend pénible une lecture continue. Puisque plusieurs articles traitent de mêmes personnes et de mêmes faits historiques ou culturels, un index aurait été le bienvenu. Un autre problème récurrent dans le texte : il n'est pas rare que les noms de personnes, de lieux géographiques, d'instruments ou de titres d'ouvrages s'écrivent différemment.

Malgré ces quelques remarques, on ne peut que saluer la sortie de cette véritable corne d'abondance qu'est *L'Image du Sápmi* et savoir gré au travail assidu de Kajsa Andersson. L'anthologie mérite une diffusion beaucoup plus large qu'est le cas aujourd'hui, de préférence sur une maison d'édition universitaire renommée et internationale, peut-être Oxford University Press (qui vient de publier *The Oxford's Handbook of Indigenous American Literature*, 750 pages). Pourtant, pour le faire il sera nécessaire de refaire en partie la publication. D'abord, il faut réduire le nombre de pages (en faisant une rédaction plus stricte et concentrée) tout en gardant les illustrations. Il faut aussi traduire en anglais les articles en français.

Nous ne pouvons pas mieux achever notre parcours de cette anthologie aussi unique que passionnante qu'avec ces mots admirables avec lesquels Andersson résume l'ambition de la photographe Riwkin et qui également – pour nous – résument l'ambition directrice de l'anthologie, à savoir « paix sur terre entre les peuples, les générations, les hommes et les femmes indépendamment des religions et des couleurs de la peau ».

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Gerd Braune, *Die Arktis. Porträt einer Weltregion*, Berlin: Chr. Links Verlag 2016, ISBN 9783861538677, 248 pp.

Gerd Braune was born in Toronto, grew up in Germany and has since 1997 been living in Ottawa where he works as a freelance correspondent for daily newspapers in Germany, Austria, Luxemburg and Switzerland. From his vantage point in the Canadian capital he has for many years covered events in the Canadian Arctic and other Arctic-rim countries, a subject wherein he has accumulated a special expertise based on travels and on site interviews with individuals in various walks of life as well as a wide range of scientific and other documentation. His website Arctic report (www.artic-report.net) contains a mine of information about Arctic-related events and provides relevant links to both news sources and images as well as research institutions, scientific papers, government departments and agencies, and international bodies, including environmentalist NGOs and organizations of indigenous peoples of the North.

The present book is based on the author's many visits to the Canadian Arctic and elsewhere. A favourite haunt of his appears to be Iqaluit, the capital of the autonomous Canadian territory Nunavut, a three-hour flight from Ottawa. Once called *Frobisher Bay* after Martin Frobisher, the English explorer who sailed to the "New World" in the 1500s, the town there was in 1987 officially renamed *Iqaluit*, the name the Inuit population has always used. In 2001 it gained city status and now serves as the transportation hub and gateway for a booming natural resource industry in Canada's eastern Arctic region. Braune's book gives an insightful account of the history of this and other regions of the Canadian North, both the upsides and the downsides of rapid "development" and compares similar histories and events with other Arctic regions, particularly Greenland, Alaska and Russia, and to some extent northern Scandinavia.

Against the backdrop of earlier historical contexts the focus is particularly on the past twenty years with a recent periodization into three phases: I. 1991–2007 covering the end of the Cold War to the dramatic event of sea ice melting in the latter year; II. 2007–2013, marking the scramble for Artic resources, the renewed significance of the three Arctic sea routes, the North-Western Passage via Canada's archipelago, the Northern Sea Route following Russia's and Norway's coasts from the Pacific to the Atlantic, and the vision of an as yet elusive Transpolar Sea Route. The first two elicit concomitant expressions of sovereignty claims, while all three resonate with interests in continental shelf extensions, and related conflicts, tensions and posturing, with repercussions also in the life and prospects of the Arctic Council; III. 2013–2014 and

prospects of a possible spillover into the Arctic of recent geopolitical tensions like an expanding NATO and ongoing conflict in the Ukraine. Regarding the latter, in his brief final chapter of the book the author expresses cautious optimism. He finds that these most recent events will probably not seriously affect developments in the Arctic where the commonality of interests of Arctic rim states is stronger than mutual differences among several of them. The interest in cooperation is stronger than the tendency towards confrontation. Military investments in the region by several actors should not be interpreted as "militarization" of the Arctic—rather it is an expression of efforts to strengthen sovereignty on the part of the states involved. A further indication of the need to distinguish between military manoeuvring and deep-seated conflict in the region, the author indicates, is the fact that *security issues* are kept outside the realm of the Arctic Council, while infrastructural arrangements, some of them involving military resources, may also benefit the already agreed-upon need for upgrading search and rescue capabilities in the face of an increasing stream of maritime traffic and possible eco-disasters in the future.

The final chapter is forward-looking. It is entitled "The future of the circumpolar space" and picks up on various threads in the seven preceding chapters that taken together cover the many themes currently central to the debate about the "new" Arctic. The headings of these chapters are telling. (1) "On thin ice. Climate change and the Arctic;" (2) "Polar bears, walruses & Co. The Arctic nature;" (3) "'Our Land.' The indigenous peoples and the Arctic;" (4) "A new world region emerges. The Arctic as a geopolitical space;" (5); Grappling for the North Pole. Cooperation and conflict between Arctic states;" (6) "The icy treasure chest. The 'scramble' for natural resources in the Arctic;" and (7) "No Panama Canal. Old and new sea routes."

The narrative in each of these seven chapters nicely combines a review of factual details, information gained from interviews, research reports, and useful overviews that help place events and developments in perspective, highlighting different stakeholders' interests. Complicated conflicts and negotiations in the history of treaties and agreements like the one that led to the creation of Nunavut as a political entity are helpfully teased out for the unfamiliar reader. So are some of the events over the last decade relating to the pursuits of multinational corporations in the West and Russian state-owned enterprises in the East involved in the search for oil, gas and minerals plus pilot projects, some of which have floundered. Additionally we gain some insight into the entanglement of the geosciences in these ventures and the high-risk scenarios that spur

environmental NGOs to action. Consistently Gerd Braune explains how change in the Arctic may influence the rest of the world, but also how "the Ice is Part of the Life of the People" who live in the Arctic.

The book indeed affords an important contribution to one of the hot topics of our time. It has a useful appendix featuring about three hundred footnotes that cite a vast array of digital links to primary sources, the overwhelming number of them in English. Further there is a brief chronology of significant dates from early times up to April 2015, plus a black-and-white map of the "Arctic world" on which are shown the many places mentioned in the text.

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Anita G.J. Buma, Annette J.M. Scheepstra & Richard Bintanja (eds.), *Door de kou bevangen. Vijftig jaar Nederlands onderzoek in de poolgebieden*, Lelystad: MaRiSuDa Uitgeverij 2016, ISBN 9789081826426, 235 pp.

The Netherlands has a long history as a sea faring nation. Two names are emblematic in its early associations with the earth's Polar Regions, Willem Barentsz and Dirk Gerritsz. The former is now inscribed in the Willem Barentsz Polar Institute hosted by the Arctic Centre of the University of Groningen, whose researchers, including several doctoral and postdoctoral students as well as guest scholars, cover a range of disciplines such as polar archaeology, anthropology, polar marine biology, ecology, environmental studies and social impact assessments of climate change, geography history, polar tourism studies, as well as Arctic politics and governance, and a number of other specialisms in the natural and cultural sciences. The Barentsz Institute is concerned with research, education and the dissemination of knowledge pertaining to both Polar regions.

Dirck Gerritsz is the name of a sea captain who commanded the ship the *Blijde Boodschap* ['Annunciation'], one of five Dutch ships that set off for South America in 1598 to look for a trading route to Asia. Storm winds led to his ship being blown off course and far south to about 64° S, where he afterwards reported seeing high snow covered mountainous terrain that reminded him of Norway. Some early charts placed the location in the vicinity of the South Shetland Islands but due to a lack of information in relevant archives that might definitely verify Gerritsz' sighting as incorporated into the tales of early seafarers, the evidential base is flimsy. Still, in this day and age of branding, the symbolic value of the name is important and it is now inscribed on the Dutch marine laboratory that opened for business in January 2013 on Adelaide Island to the West of the Antarctic Peninsula on the premises of the British research base Rothera that is reachable both by ship and airplane.

Dutch scientists and scholars have been conducting research in the Arctic for a long time. Continual activity in the Antarctic is of a much later vintage, connected to the Netherland's adhesion to the Antarctic Treaty as a Consultative Party in November 1990. Even though there is a record of Dutch researchers participating in Antarctic research already in the 1960s, this prehistory was largely forgotten and even the accounts since 1990 are rather scattered and not very "visible." To remedy the situation, a number of scientists, encouraged by the high media visibility and public attention regarding the opening of the laboratory on Adelaide

Island a few years ago, set out to produce a comprehensive illustrated anniversary book, now entitled *Door de kou bevangen*. The project consisted in eliciting texts from many individuals plus coloured photographs from researchers' private collections. The outcome is a handsomely illustrated popular monograph on high quality glossy paper that serves both as a fine coffee table book and well documented reference work.

The title of the book calls for some explanation. It derives from an old popular expression used when someone is overcome by the cold, shivery and afflicted. Here it is used metaphorically in an oblique meaning, something like "frostbitten"—caught up in the grips of the cold, that is the polar cryosphere, mentally, physically and symbolically. It is something like being overcome or captivated by polar fever, analogous to late nineteenth century gold diggers who were struck by gold fever and drawn to the Klondike. Once you have been there on "the Polar Ice" as a scientist, technician, scholar or artist, its lure continues to attract. The jubilee volume affords a detailed account of Dutch involvements in the Polar Regions. The focus is particularly on the past fifty years. Altogether nearly forty authors provided the textual material that the three chief editors have pieced together to craft a result that is a seamless monograph of storylines, thematically arranged. Photographic inserts depict research sites, researchers at work, scientific equipment and means of transport etcetera; they appear on almost every page. Institutions that have supported the project are the Willem Barentsz Polar Institute, the University of Groningen (RUG), the Royal Netherlands Institute for Sea Research (NIOZ), the Netherlands Organization for Scientific Research (NWO) and the Royal Netherlands Academy of Arts and Sciences (KNAW); the latter hosted a stimulating symposium in Amsterdam 8 March 2016 on which occasion the book was also launched.

Of the editors, Anita Buma and Annette Scheepstra are affiliated with RUG and Richard Bintanja is a climate researcher at the Royal Netherlands Meteorological Institute (KNMI), De Bilt, near Utrecht; he was previously at IMAU (see below), where he studied ice/snow atmosphere interactions, and reconstructed past climate by means of ice sheet modelling. Anita Buma is professor at RUG, where she leads the interdisciplinary group devoted to marine biosphere, ecology of marine phytoplankton, the energetic and behavioural mechanics of marine animals, and potential of marine microalgae. Annette Scheepstra has a background in human sciences and pedagogy, has organized science shops and other public outreach events, and is a guide on polar expeditions and coordinates activities at the Barentsz Institute. The superb graphical layout and design of the book is the work of Nelleke Krijgsman of the NIOZ.

The ambition has been to get individual researchers, scientists as well as scholars in the humanities to relate their personal experiences of working under extreme conditions, to explain the substance and significance of their research and to situate it in an international perspective. Popularization of intricate fieldwork together with theoretical underpinnings pull the reader right along through illustrated pages from cover to cover; the thrust of research endeavours, their historical background, past and current contexts and wider significance are nicely explained without sacrificing stringency. One gets a good overview of the work that has been going on in recent decades, complemented by a brief history of earlier Dutch activities in the polar regions. We also learn about the institutional landscape of Dutch polar research and its disciplinary differentiation over the past fifty years, and particularly the last thirty marked by multi-disciplinarity.

After an introductory chapter entitled (in translation) "Dutch footprints in the Polar Regions" written by Scheepstra, the book is structured around five main interdisciplinary thematic areas, each comprising a chapter introduced by a lead author followed by several sections by multiple authors. The general areas covered are (1) geosciences; (2) climate and sea levels; (3) marine sciences; (4) terrestrial biology and the effect of climate change on polar vegetation and animal life, particularly wild geese in Svalbard; and (5) human sciences—history viewed through the lens of polar archaeology, anthropological research in the Arctic, and issues in the Antarctic related to an expanding polar tourism. Finally, there are three appendices with a digest of information for the inquisitive reader. First, there is a documentation of all relevant PhD dissertations in the Netherlands published in the aforementioned fields from 1962 to 1975, about 115 theses all told—recorded chronologically by year, author, thesis title, name of supervisor, and university affiliation. All but four are in English. By far the most frequently recurring home universities are those in Groningen and Utrecht. The former houses the Arctic Centre and has a leading faculty in several natural sciences departments—many readers of the present journal (*Journal of Northern Studies*) will be familiar with Louwrens Hacquebord who has written the introduction to the chapter on the human sciences and its section on historical-archaeological research in the polar regions.

Utrecht University (UU) is well known for its Institute for Marine and Atmospheric Research (IMAU) that was for a long time directed by Hans (Johannes) Oerlemans, internationally famous for his pioneering work in polar meteorology and paleoclimatology as well as climate modelling and participant in Working Group I of the IPCC. In the list of

theses he appears as supervisor in twenty-eight cases. Other frequently appearing senior scientists are R.H. Drent (supervisor of 8 theses—RUG, avian ecology and evolutionary studies), Hein J.W. de Baar (8x, NIOZ, oceanographic studies), L. Hacquebord (7x, RUG, historical, archaeological and policy studies), W.J. Wolff (5x, RUG, eco-systems).

A second appendix provides us with the name, institutional address and email address as well as website/Facebook coordinates of each of the 38 authors who have participated in composing the texts assembled in the book. Finally there is a separate listing of all the photo credits and sources for the images that appear throughout.

I shall not go into further detail regarding the storylines of the research that can be found in the different chapters. It is enough to highlight a few aspects. Within "Earth Sciences," research on the impact of climate warming on permafrost and its consequences has been conducted in Eastern Siberia within an international programme also involving Russian, Swedish and North American scientists. Field studies in Southwest Greenland and Northwest Alaska have been devoted to sedimentation and silt transport processes in earlier times in the formation of landforms around river deltas. Geological research on King George Island, Antarctica was an important part of the First Netherlands Antarctic Expedition 1990/1991; it is briefly described, while the results of participation in a two month multinational sea-bottom sediment drilling expedition January 2010 from New Zeeland to Antarctic with a return route to Hobart, Tasmania, are interpreted from a paleo-climatological perspective to get a more precise understanding of when the present-day Antarctic icecap first emerged approximately 33.5 million years ago. A better insight was also gained into how fast ecosystems adapt themselves to new climatic and environmental regimes.

In the second chapter, "Ice, climate and sea levels," I am glad to see the picture of the little Swedish summer station Svea (established 1988/1989)—the image rouses pleasant memories. Richard Brintanja (one of the editors of the present book) did some of his work there on the climate sensitivity of a blue ice area in the Sharffenbergbotnen valley that is surrounded by nunataks in the Heimefrontfjella of Dronning Maud Land. That was in the austral summer season 1992/1993 attached to a Swedish SWEDARP expedition; five years later, he was there again for a follow up. On that occasion, I was part of the Swedish group whose main mission was to conduct a pilot ice coring operations under the auspices of the European EPICA programme.[1] I remember our group stopped off and spent some time at the Svea station site on our eventful traverse along the 75°S latitude line up the Amundsen Ice sheet (and then back

again); someone on the Dutch team lent me a pair of speed skates for fun and I was able to make fairly good headway on a stretch of blue ice near Svea.

I have often wondered about the automated meteorological stations that were set up in the field near Svea station by the Dutch team 1997/1998. This story, together with Bintanje and his team's blue ice work, is nicely contextualized in the book from a scientific point of view. It also turns out that Richard Bintanja has written several novels, and in the book there is an excerpt from one of these entitled *Poolreizen* (2006), a fictional account spiced with humour and tensions noted by a keen observer of everyday human interactions partly based on his own personal experiences and metaphysical reflections "on the ice" during the two Antarctic expeditions with the Swedes.

Two more sections in the same chapter take us to the melting ice of the Arctic—Greenland, Iceland and Spitsbergen—and then, respectively, discuss more generally the recovery and interpretation of ice cores records in Greenland and the Antarctic. Some striking findings relating to climate fluctuations "deep" into the past are explained. A final section in this chapter summarizes some of the technological innovations that have revolutionized precision and continuity in meteorological measurement and the transmission of data that feeds into climate modelling; these are some of the fields in which the IMAU at Utrecht excels. Other areas where research in the Netherlands is strong are outlined in the chapter on "Marine polar science." Five sections are devoted to the subject, describing a diversity of specific programmes with international collaborations.

Likewise with the thematic chapter on "Terrestrial biology," an area where the Netherlands has a long tradition going back to the Second International Polar Year (1932–1933)—that was when Nikolaas (Nico) Tinbergen and his colleagues combined ecology and ethology (animal behaviour studies) in East Greenland. Since then, polar ecology, ornithology and evolutionary biology has been a frontline theme whose history is traced up to and through the Fourth International Polar Year (2007–2008). In one of the sections in that chapter there is an interesting account of life in the field and in the "research village" of Ny-Ålesund in Svalbard where over 180 persons of different nationalities affiliated with eleven research stations are busy during the Arctic summertime. A Dutch research specialism here is the behaviour, feeding habits and breeding ecology of migrant wild geese. In *Door de kou bevangen* we find many interesting stories about this type of research that Dutch scientists have also conducted at other sites in the Arctic. Furthermore, we

learn how political contingencies during the Cold War restricted and after Gorbachev's Murmansk speech facilitated conditions for international research programmes.

The final chapter, dealing with what we may call the polar humanities, leads off with an introductory section written by Louwrens Hacquebord. It notes how the relationship of the Netherlands to the northern Polar Region goes back to 1560, when trade routes to Cathay (China) were sought and how geographical discoveries changed the map and eventually spurred land-based whaling operations in north-western Spitsbergen and Jan Mayen Land. Dutch pursuit of whales continued until about 1850, whence with and after the advent of the First International Polar Year (in which Dutch geoscientists played a prominent role) scientific activities dominated. In a second section, the same author tells us how archival studies combined with archaeological excavations from 1979 onwards, concentrated first on Spitsbergen and in the early 1990s with the collapse of the Cold War also turned to Novaya Zemlya. Excavations and mapping were done at the site of the house "het Behouden Huys" built of planks and other driftwood found on the beach where, during his third expedition Willem Barentsz was stranded and overwintered, before dying at sea in the summer of 1597 on the return journey on a rescue vessel to Holland.[2] Results from this and later polar archaeological projects (including ones relating to whaling operations at South Georgia and Deception Island in the southern hemisphere) are outlined and illustrated with interesting images.[3]

In a third section of the chapter, Cunera Bijs and Barbara Miller review Dutch anthropological work on Inuit culture in Greenland and Northern Canada, focusing in part on indigenous peoples' coping strategies and multiple tensions in the face of modern day forces of globalization. The final section of the chapter, authored by Ricardo Roura and Kees Bastmeijer, describes a variety of Dutch projects investigating different kinds of commercial tourism in Antarctica. One of the critical points emerging from the results is that, contrary to what is sometimes held, namely that eco-tourism in the Antarctic has a positive influence on opinion building for a more responsible climate policy, there is no evidence that this is the case. Eco-tourists as ambassadors who may put pressure on their congressmen or home-country politician(s) have very little influence. On the other hand, the negative impact of greenhouse gas emissions from the airplane flights that take them back and forth across the globe to Antarctic gateway cities where they board and disembark from numerous cruise ships by far outweighs whatever positive role these tourists actually play in the larger picture of things. This is a so-

bering message, all the more so since the authors point out how both the international agency that is supposed to oversee self-regulation among commercial operators, and the national delegates of the Antarctic Treaty Consultative Meetings since the Madrid Protocol intended to regulate environmental impact, do much more talking about conditions under which tourism is permissible than anything in the way of actually making an effort to introduce some real teeth in order to limit the annual numbers of tourists.

NOTES

[1] EPICA stands for the European Project for Ice Coring in Antarctica, a multinational European project for deep ice core drilling in Antarctica. It ran from 1996 to 2005. The Swedish effort in the austral summer season 1997/1998 was only one of several pilot studies to find a suitable site for deep core drilling in Droning Maud Land. The site finally selected was where the German summer-only polar research station was erected, the Kohnen-Station named after the geophysicist Heinz Kohnen (1938–1997) who was for a long time the head of logistics at the Alfred Wegener Institute in Bremerhaven, Germany.

[2] Off the northern coast of the Netherlands on the island of Terschelling where Willem Barentsz was born there is a local museum where one can find a life-size replica construction of "het Behouden Huys."

[3] Some of these projects were part of the of the large international multidisciplinary LASHIPA project that ran during the Fourth International Polar Year (2007–2009) and included the Swedish researchers Dag Avango and Ulf Gustafsson who were affiliated with the Arctic Centre, RUG in Groningen. LASHIPA = Large Scale Historical exploitation of natural resources in Polar Areas.

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Cornelia Lüdecke, *Deutsche in der Antarktis. Expeditionen und Forschungen von Kaiserreich bis heute*, Berlin: Chr. Links Verlag 2015, ISBN 9783861538257 (hardcover), 224 pp. & 207 ill.

The author of the cited volume is a prolific scholar who has done much to draw attention to Germany's record as an actor in the early history of polar research and exploration, not least concerning Antarctica. In this richly illustrated coffee table-style book she takes a broad but expertly documented sweep in tracing the evolution of Germany's presence in Antarctica from the time of the Wilhelmine Empire to the present. The publication is the result of an outreach project to inform a broader public about Germany's Antarctic endeavours at a time, today, when issues such as the role of the poles in anthropogenic-driven climate change and the impact of Antarctic tourism have become highly topical. The author reminds us how knowledge of the history of human activities in the Polar Regions is relevant for understanding complexities behind current events and their multiple natural and social contexts. Brought together under her historical lens, science, high politics, personal drama and organized adventure in the icy sea- and landscapes of the globe's southern cryosphere are subjected to inquisitive analysis.

In the late 1980s, Cornelia Lüdecke analysed the influence of Georg von Neumayer's plan for an Antarctic expedition. That led her to peruse archival material relating to events in the late nineteenth century. Some of this work culminated in a dissertation (Lüdecke 1995) on German polar research at the turn of that century with particular reference to the role of the geographer and glaciologist Erich von Drygalski (1865–1949). He participated during the short period of international co-ordination and rivalry in the so-called heroic age manifested in the series of national expeditions associated with other well-known explorers such as de Gerlache, Scott, Bruce, Nordenskjöld, Shackleton, Amundsen, Filchner and others. Drygalski's *Gauss* was the first German ship specially designed as a platform for polar research; the design was inspired by the success of Fridtjof Nansen's *Fram* with its rounded hull.

Drygalski's own account of the German South Polar Expedition of 1901–1903 (as Germany's first Antarctic expedition was originally called) was published in German in 1904; it became available in English only in 1989, translated by M.M. Raraty, who also wrote an informative introduction that summarized salient events and placed them in context. Cornelia Lüdecke's dissertation when it appeared (in German) added much more depth and historical contextualization. In 2013 she edited and facilitated publication of a new German issue of Drygalski's book (Lüdecke [Hsg.] 2013).

The official account of the Second German Antarctic Expedition of 1911–1913, published in German by its leader Wilhelm Filchner (1877–1957) in collaboration with two fellow expedition-members, appeared in 1922, giving a sanitized version of an endeavour where much went wrong. It took over 60 years before one could learn about the full extent of all that had gone wrong and some of the causes underlying a complete deterioration of social relations between the ship's captain and the expedition leader and the formation of a large clique whose main mission was to isolate and make Filchner's life sour on the *Deutschland* (as the ship was called). This became publicly known only when Filchner a few years before his death compiled what he called his *Feststellungen* ['Exposé'] of the true story. The Exposé was posthumously published in 1985 thanks to efforts of the archivist at the Deutsche Geodätische Kommission, Dr Gottlob Kirschmer (Munich). When the historian of polar research and exploration William Barr translated and edited Filchner's official account of the expedition, he appended this document together with another revealing text to the English language volume that appeared in 1994. Thus, by the mid-1990s, Anglophone readers too had access to a fuller story of the second major German Antarctic enterprise.

Since then, Cornelia Lüdecke herself has been instrumental in piecing together the story of the Third German Antarctic Expedition (1938/1939) and making it available in English. In 2003 she wrote a key article in which she drew attention to the scientific significance of the Third German Antarctic Expedition that took place just before the Second World War led by the naval officer Alfred Ritscher; she thereby dispelled the popular myth that this was an expedition mostly geared to a Nazi propaganda effort and therefore not worthy of serious mention in the annals of Antarctic exploration and research. Delving further into archival documents, correspondence and the realities of economic and geopolitical history, as well as the history of whaling, our author later joined forces with the historically minded British marine geologist and oceanographer Colin Summerhayes as co-author to produce a comprehensive study in a book (Lüdecke & Summerhayes 2012), entitled *The Third Reich in Antarctica. The German Antarctic Expedition 1938–39*.[1] In this way the story of the third German Antarctic Expedition was for the first time told in a well-documented and nicely illustrated volume in English.

In the new book under review here, Cornelia Lüdecke draws upon her earlier research plus additional archival material to fill out the historical panorama, now also covering the episode of the Second German Antarctic Expedition led by Wilhelm Filchner. The reader is provided

with a full continual storyline (in German) of German contributions in Antarctica from the very beginnings right up to the present. The narrative is semi-popular in style but sacrifices neither historiographical depth nor stringency. Developments in German exploration and research in Antarctica are highlighted from the period of its gestation in the classical *fin de siècle* period to the time of Ritscher's *Schwabenland* expedition, and thereafter we learn about a phase of post-Second World War inactivity. Then comes a review of the advent of new activities that led to Germany's emergence in the 1980s and 1990s as a nation once more to be reckoned with, before the focus shifts beyond that period and into the first decade and more of the new millennium. The entire narrative, in chronological order, comprises four parts or chapters, flanked by a preface and an equally brief "outlook" into the future.

To my mind, the fourth chapter is the most interesting one since it presents the history of more recent but lesser known developments. What I miss, however, is a more detailed discussion of the reorientation of East German research and its integration into that of West Germany in the course of the re-unification process 1990/1991, something that is superbly outlined in an article in the journal *Polarforschung* (2010) written by Gotthilf Hempel, an article that Lüdecke for some reason has ignored.

I will say more about that particular episode below, since one of the author's ambitions has been to help us understand the relevance and impact of important geopolitical changes on the fabric of Antarctic research.

The first two chapters of the book concern the two overwintering expeditions that were made in the period driven by great power rivalry and a race to the South Pole but also the quest of filling in "white spots" on the geographic map of the Earth and increasing scientific knowledge of far-away places untouched by European civilization. The third chapter recapitulates the events and significance of the *Schwabenland* expedition that was motivated by (Nazi-)German economic and geopolitical interests linked to the need to secure independent access to much needed whale oil as a lubricant for military and other purposes in a growing economy oriented to immanent warfare. In what follows, I will briefly focus on some aspects in these three chapters and then come back to the fourth chapter.

Throughout, Lüdecke's presentation is informed by her careful studies of official reports from the expeditions covered, combined with a wealth of documentary material from government departments, the correspondence of administrators as well as private correspondence, di-

aries and other sources, some of them not consulted previously. This means that some gaps are also filled in when it comes to the picture that has been available to polar specialists amongst historians. Additionally, apart from reaching out to a broad German-speaking popular readership, the presentation provides a coherent overview along a very long historical timeline. For scholars in the field of polar history, this affords interesting comparisons, for example between differences in character of the first three major German expeditions, their distinctive research agendas, instruments available, new technologies for transportation and logistics, scientific results, modes of publication and subsequent reception, as well as enabling and debilitating historical backgrounds and contexts.

To illustrate, we can take the knotty classical problem also known to have plagued other polar expeditions, both in the Arctic and Antarctic. I am thinking of how the conditions of research may be strongly influenced by the mode of organization of an expedition and the division of authority between the expedition leader responsible for the science and that of the ship's captain responsible for everything concerning his vessel, its officers and crew. In some cases, struggles over power and authority have led to much grief, often to the detriment of good science.

Perhaps the best-known instance of this problem is that of Robert Falcon Scott's *Discovery* expedition (1901–1904) where Clements Markham insisted that the overall leader should be a naval officer, not a scientist, a principle that led to incorporation of an inexperienced scientific staff after the geologist, John Walter Gregory—who had been endorsed by the Royal Society as prospective scientific director of the enterprise—was rejected outright. This move was precipitated by Gregory's (and the Royal Society's) insistence that the organization and command of the land party should be in the chief scientist's hands, and that the captain's role was to give such assistance as required in dredging, tow-netting, etcetera, and to place boats where required at the disposal of the scientific staff. In the dispute that followed, Markham's and Scott's view prevailed, and Gregory resigned; thus, inevitable and serious antagonism between two chains of command was pre-empted.

Although the general problem of organization and dual leadership is by no means a prominent theme in the present book, I choose to highlight it because a comparison of the three German expeditions at hand illustrates the crucial importance of two different dimensions. The first comprises the formal or legal rules inscribed in the mandate of the expedition as an institution with a clear delineation of tasks and responsibilities that serve as the framework within which boundaries between

seamanship and science may legitimately be negotiated. The second concerns the more informal domain of social relations, personal attitudes and empowerment or the lack thereof involved in achieving common agreement, or not, on objectives and the best ways to achieve these. In the three cases one finds an interesting spectrum ranging from an extreme negative situation of catastrophic proportions (Filchner), to a middle realm of surmountable tensions (Drygalski), and, further, a situation of well-functioning teamwork (Ritscher) on the optimal end of the scale. My comments will follow the chronological order of the book's narrative, thus beginning with Drygalski's expedition.

Drygalski's expedition ship the *Gauss* got stuck, frozen in the ice 80 km off the continental shore of East Antarctica which at the time was a blank on the map. Attempts to reach the geographical South Pole were foiled, which led to some criticism from sponsors. The ship was used as a station for research in the vicinity and sledge trips to the actual continent. Outwardly in the official expedition report Drygalski gave the semblance of a harmonious time. A reading of his diaries, however, reveals numerous tensions and conflicts between the captain and the ships' officers, and that the captain underwent treatment for an advanced stage of syphilis that affected his personality. Fortunately, Drygalski had been given supreme powers invested in him as a leader at the highest level of the state administration, a standing far above the captain, and he had signed a secret clause that, if needed, would permit him to dismiss and replace the captain on the spot. Furthermore, Drygalski ranked as a naval man, and academically he was well respected. Ultimately, expedition results were, moreover, worked up and published over the years from 1905 to 1931 in 20 volumes covering geography (with maps documenting discoveries), geology, meteorology (plus weather maps), earth magnetism, botany and zoology as well as oceanographic findings. The total cost of this follow-up process to document an expedition originally sponsored by the German *Kaiserreich* was equal to that of the expedition itself.

The physical obstacles and tense social relations Drygalski encountered were nothing compared to those Wilhelm Filchner had to contend with during the Second German Antarctic Expedition. In his case, he lacked official sponsorship from the *Reich*, and had to scramble to obtain funding, among other things, by arranging a national lottery. He was not a naval man himself (but had trained as a cadet and became a junior officer in the infantry) and he lacked any sort of backing in the German naval hierarchy. On his own initiative, he had gained some experience as a dashingly adventurous 23-year old enthusiast travelling alone in Russia, China and crossing the Pamir Mountain range in Central Asia. He

published an account of his expedition in a book, *Ein Ritt über die Pamirs* (1903), that boasted a preface written by the well-known explorer Sven Hedin and was widely read. On a second expedition, this time to eastern Tibet (1904), he included in his party as companion a medical doctor who was only one year older and a budding geographer. Severe disagreement arose between the two, resulting in lifelong antagonism after his rival cast doubt on and launched malevolent attacks on Filchner's abilities as a geographer; his former companion's continual intrigues and slander generated rumours in various circles that in turn helped undermine Filchner's authority and role as prospective leader of an Antarctic expedition (Lüdecke's Introduction in Filchner 2013).[2]

The mode of organization of this new expedition was under the auspices of what we today would call an NGO, the Verein Deutsche Antarktische Expedition, which hired Filchner as the expedition leader. He in turn had his eye set on a very competent Norwegian as ship's captain, but the Navy saw this as an affront. Instead, a German captain was forced upon Filchner; he was a naval officer who had participated in Drygalski's expedition, and turned out to be a man who exploited his own superior status and the rules of maritime life and concerns for the ship's safety to fiercely and irrationally restrict Filchner's degrees of freedom to act. The fact that Filchner had on his own initiative gained some polar experience on Spitsbergen (1910) did not impress officers and crew, least of all when the ship, the *Deutschland*, got trapped in the ice in the Weddell Sea. The prospects of achieving the goals of the expedition with a station and traverses on the actual continent were thwarted. The root cause did not only derive from the obstacles Nature put in the way, but also in large measure from man-made obstruction on the part of the captain and several other men. In this case too, the captain suffered a personality change due to an advanced degree of syphilis that actually led to his death on board, only to be replaced by the younger and even more power-hungry First Officer.[3]

Once the ship finally did get clear of the ice after a taxing winter, the route back to civilization went via South Georgia where Captain Anton Larsen (known from Otto Nordenskjöld's Antarctic expedition 1901–1903) had set up his whaling industry in Grytviken. Larsen was partly successful in mediating and cooling the conflict that continued to fester, essentially preventing a public scandal. As far as Filchner was concerned, this was the end of the expedition. In his official account of the expedition, however, published in 1922, one can find none of these details; instead, he played the role of a cultured gentleman, providing a fairly smooth picture, a strategy no doubt also meant to enhance his

own image in contrast to those who were wont to slander him. Scientific results found their way into specialist journals, but the initial intention to produce a collective volume unfortunately never materialized, thus reducing the expedition's impact and legacy in that regard.[4]

In her conclusion regarding Filchner's achievements, Cornelia Lüdecke notes how, despite being a human catastrophe the outcome of the endeavour as an Antarctic expedition nevertheless brought many important results, among others in oceanography and meteorology. We can also count the discovery of the Luitpold Coast (German *Prinzregent-Luitpold-Land*) of western Coates Land, the Moltke Nunataks, and what is now called the Filchner Iceshelf. Like the Scottish naturalist and polar explorer William Spiers Bruce before him, Filchner wanted to undertake a transantarctic traverse in order to test the theory of a sub-glacial channel between the Ross Sea and the Weddell Sea (the hypothetical Ross-Weddell Graben), but neither men were able to fulfil this dream. Additionally for the Scandinavian reader, it may be noted how, when Filchner published his official expedition account, it was Otto Nordenskjöld who wrote a preface in which he congratulates the author because his report was finally completed after the loss of time and focus caused by the events of the world war. Nordenskjöld himself was keenly interested in the hypothesis of the Ross-Weddell Graben, and had in fact been present and very positive at the conference in Germany (5 March 1910) where Filchner first publicly outlined his expedition plan. Immediately after the First World War, during a difficult time when German scientists were being ostracized by former colleagues in countries on the winning side, Nordenskjöld, a scientific internationalist hailing from a neutral country, went against the trend of a "cold war in science" and made a point of encouraging and supporting his German friend and colleague.

When it comes to Ritscher's *Schwabenland* expedition, the mode of organization and division of responsibilities were again different. In this case, the expedition was mandated by the top authorities in the Third Reich; funding was ensured, and the plan was worked out in detail in consultation with the expedition leader together with scientific experts. Much of the focus was geared to photogrammetric mapping and aerial reconnaissance of the coast and a large interior region of Dronning Maud Land from the air by two Dornier-10-t-wal flying boats (named the *Boreas* and the *Passat*) that were catapulted into the air from a ship called the *Schwabenland*. After landing in the sea, the planes were brought back on board with a special crane. Previously used by Lufthansa in its transatlantic postal service, this technology functioned well on

a route from Europe via the Azores to Brazil, and the ship had been specially refitted as a research vessel to operate in polar waters. Alongside its captain, the ship had an ice pilot, while highly skilled pilots and cameramen were engaged to fly in the Dorniers on several sorties from the ship into the interior of the icy continent and back again. Upon their return to the ship, a team of competent mechanics took over to tune the seaplanes and get them back into shape in time for the next day's excursions. It was an ingenious setup. During the ship's route south and on the return journey back to Hamburg, moreover, many echo-soundings of the seabed were conducted and water temperatures were sampled at various depths at points along the way; meteorologists released balloon-borne radio-sondes to probe the upper atmosphere and gain new meteorological knowledge.

Although Alfred Ritscher was highly respected for his knowledge and efficiency as a naval officer with strong backing in his role as expedition leader, in practice he functioned more as the orchestrator in charge of seeing to it that the various tasks involved were expedited as well as possible. In other words, he had degrees of freedom of action, but only within the confines of the general script to be followed. The mix of personal chemistries between expedition leader and ship's captain as well as with other members of the expedition apparently worked well. Here we have an example of a new genre of expeditions that in miniature perhaps may in some of its aspects be compared to something like the Manhattan project in the US.

It may be added that later, during the Second World War, when some of the photogrammetric pictures revealing ice-free "oases" and substantial moraines among some Antarctic mountains had been published, the Swedish geographer and glaciologist Hans W:son Ahlmann got hold of these and was inspired to plan a post-war scientific expedition to the area to determine whether evidence could be found for climate change. When this plan materialized in preparations for what became the Norwegian British Swedish Antarctic Expedition (NBSX) 1949–1952, Ritscher helped the organizers during their visit to Hamburg in November 1948 by sharing with them his private experiences and further pictures that he still had in his possession.

The fourth chapter of the book, finally, as already indicated, covers the period after the Second World War. It is novel in that it provides a coherent account of the two separate trajectories of polar research that evolved independently of each other under two different German flags. On the one hand we learn how the German Democratic Republic (GDR), relying on Soviet logistical support, got into the act in 1960.

The GDR acceded to the Antarctic Treaty in 1974, established the Georg Foster station on the coast of Dronning Maud Land (DML) in 1976 and gained consultative status in the Antarctic Treaty System in 1987. This was three years before German re-unification; the Georg Foster facility was in operation until 1992 and thereafter closed and dismantled during two summer seasons (1994–1995).

On the other hand, we learn how West Germany's post-war entry on the Antarctic scene dated from 1975, acceding to the Treaty in 1979. Consultative status was gained in 1981 after establishing the Georg von Neumayer station on the Ekström Iceshelf/DML; the following year, the ship, the *Polarstern*, designed as a special platform for polar and marine research, was inaugurated, operating out of its home port Bremerhaven where the Alfred Wegener Institute for Polar and Marine Research (AWI) had been newly established in 1980. Re-unification brought the two different German Antarctic trajectories together. Significantly, the Potsdam Geophysical Institute previously associated with East Germany's geomagnetic and cosmic studies in the Antarctic, became a branch of the AWI. The description of the evolution of the two separate wings of Germany's post-war Antarctic research, their driving forces and substance and how they were finally brought together after the collapse of the Soviet Union is interesting. The coverage of some of the substance of the science that was done is also pertinent.

What I miss in this part of the story is how the re-unification process entailed first of all dissolving the Science Academy in East Berlin because of its politicized function and fundamental organizational incompatibility vis à vis the science system in West Germany. Secondly, there was the evaluation that led to terminating the contracts of some of the 50 polar researchers existing at the time in the GDR, and a relocation of others to other places and institutions, both in eastern and western Germany. For the scientists affected, new opportunities opened up, but for some the process was also painful. Gotthilf Hempel, the dynamic founding director of AWI who played a leading role in the evaluation and restructuring process describes several aspects in an important article in the journal *Polarforschung* (2010). His position as director of AWI with a polar station (running projects in meteorology and geophysics and later also atmospheric chemistry) on shelf-ice and a polar research vessel designed for oceanographic research probably influenced Hempel's perspective and arguments. Still, he must be credited for taking a holistic view in the interest of national science policy as a whole. While geological research was (and still is) carried out by the Federal Institute for Geosciences and Natural Resources (BGR) in Hannover

(starting in the 1970s), the GDR station established on rocks close to the Schirmacher Oasis offered a novel geosciences orientation and also research projects different from those conducted at the FRG's Neumayer station in Antarctica.

Hempel saw the complementary nature of East German polar expertise vis-à-vis that in West Germany as a boon that would strengthen Germany's prowess as a whole. West German polar research had been predominantly marine and biological in orientation, while the thrust of East German research mostly had a terrestrial orientation. Hempel states this observation clearly in his article in which he distinguishes four historical phases in the long-term evolution of German polar research, and provides a detailed picture of what he calls the fourth phase, the institutionalization of polar research in both parts of Germany. Focusing particularly on the strengths and weaknesses in the GDR, he clarifies how the re-unification through its combination with a reorientation of science policy in the new historical context led to an overall strengthening of German capacities in polar research.

This fourth chapter, like the previous ones, is amply illustrated with telling photographs, diagrams and maps. It is shown generally how the construction of the *Polarstern*, the establishment of AWI with its concentration of researchers at Bremerhaven and subsequently also in Potsdam, as well as Gotthilf Hempel's initiatives, were instrumental in the various developments, including Germany's leading role in the European Project for Ice Coring in Antarctica (EPICA) 1996–2005; taken together these developments have contributed to the country's present status as a major actor in Antarctic research. This is also the take-home message of the book as a whole.

As customary, the author supplies the reader with useful place-name and person indexes, an elaborate footnote apparatus and comprehensive bibliography that, together with a separate chronological table at the end, makes the work easy to consult for particular details.

NOTES

[1] For a review, see www.tandfonline.com/doi/abs/10.1080/2154896X.2013.846977 (*The Polar Journal*); access date 25 October 2016.

[2] This popular richly illustrated book, originally published in 1928, seems to have reached at least 27 editions. In it Filchner gives an account of his expedition 1926–1928 through China and Tibet.

[3] Cornelia Lüdecke discussed problems on Filchner's expedition (syphilis and mutiny) already in her dissertation of 1995.

[4] It should be added that, after his Antarctic expedition, Filchner, on the strength of his experience and the skills he had acquired, was signed up for a planned Arctic expedition to be led by Roald Amundsen but this fell through with the outbreak of the First World War (Cf. Lüdecke 2011; and my review in the *Journal of Northern Studies*, Elzinga 2012).

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Frédérique Rémy, *Le monde givré*, Paris: Éditions Hermann 2016, ISBN 9782705692766, 222 S.

Die vorliegende Geschichte der Erforschung der Pole im 18. und 19. Jahrhundert befasst sich im Kern mit der damals heftig umstrittenen Hypothese, wonach im Zentrum der Eislandschaften ein wärmeres, eisfreies Meer existiere. Dabei steht naturgemäß die Arktis im Vordergrund, da die Antarktis in noch stärkerem Maße eine *terra incognita* ist und entsprechend im untersuchten Schrifttum der Epoche nur am Rande begegnet. Dieses Faktum wird allerdings erst auf S. 169 explizit gemacht (s.u.), so dass die Publikation bis dahin den Eindruck erweckt, es gehe gleichermaßen um Nord- wie Südpol, was auch der Klappentext suggeriert.

Da sich die Autoren der Schriften, die das Pro und Contra dieser Auffassung diskutieren – Gelehrte, Geistliche, Seefahrer, Schriftsteller u.a.m. – in einem Bereich zwischen Wissenschaft (der entstehenden Glaziologie) und Phantasie (Mythos, Literatur, Folklore etc.) bewegen, ist der gewählte Buchtitel bewusst doppeldeutig gehalten: „givré" bedeutet sowohl „vereist" (von „givre" – Reif) als auch „verrückt" (umgangssprachlich). Mit diesem Buch setzt die Autorin, Forschungsdirektorin am Centre national de la recherche scientifique, die Reihe ihrer Publikationen zur Historie der Polarforschung fort, von denen hier nur drei genannt werden sollen: *Histoire de pôles. Mythes et réalités polaires aux XVII^e^ et XVIII^e^ siècles* (2009), *Histoire de la glaciologie* (2007) und *L'Antarctique. La mémoire de la Terre vue de l'espace* (2003).

Einleitend erläutert Rémy terminologische Fragen, die allerdings auf das Französische beschränkt bleiben („Avant-propos", S. 5–6). Der Begriff „glaciologie" begegne erst 1867 (die Fachgelehrten heißen zu der Zeit „glaciéristes"). „Glaçon" sei lange ein Sammelbegriff, der den Blick auf unterschiedliche Formen der Eisbildung über Jahrhunderte verstelle (siehe auch S. 20: „glaçons" in Zeitzeugnissen für Eisberge, Eisschollen, Lawinen ...). „Calotte" erlangt den heutigen Sinn von Polkappe erst Ende des 19. Jahrhunderts. Allein „banquise" habe von Beginn an die jetzige Bedeutung (laut Rémy aus dem englischen „pack-ice" gebildet, wobei das *Dictionnaire de l'Académie française* und das *Dictionnaire étymologique* von W. von Wartburg als eigentlichen Ursprung das skandinavische „pakis" verzeichnen, zusammengesetzt aus „pakke" – „Paket" und „is" – „Eis"). Doch wird auf S. 184 im Widerspruch dazu die sukzessive Bedeutungsveränderung des Begriffs beschrieben („iceberg", „glace de mer", „glaces continentales"): Erst Jules Verne verwende 1871 „banquise" im heutigen Sinn von Packeis. Das vermutete eisfreie Meer innerhalb der

vereisten Pollandschaften wird von der Mitte des 19. Jahrhunderts an als „polynie" bezeichnet (siehe auch S. 108; die russische Herkunft des Wortes wird erst S. 119–121 erläutert). Rémys Beobachtungen zum Wortgebrauch der Epoche sind dazu angetan, einschlägige Wörterbuch-Artikel zu ergänzen bzw. zu korrigieren. Insgesamt konstatiert sie jedoch, dass das entsprechende Vokabular (gemeint ist wohl das französische) „extrêmement pauvre" sei (S. 184), was womöglich damit zusammenhängt, dass in weiten Teilen die englische Fachterminologie übernommen wurde (siehe dazu S. 69).

Anschließend bietet eine kurze „Introduction" (S. 7–9) eine anschauliche Hinführung zum Thema: Die Diskussion um die Existenz eines eisfreien Binnenmeeres an den Polen (bzw. am Nordpol) kreist im Wesentlichen um das Problem des Gefrierens von bewegtem, salzhaltigem Wasser. Die beiden konträren Vorstellungen („certains affirment que la mer polaire ne peut pas geler" / „d'autres apportent la preuve du gel", S. 7) koexistieren in der europäischen Geistesgeschichte bereits seit der Antike und erleben Mitte des 19. Jahrhunderts eine Wiederbelebung. Zu diesem Zeitpunkt leisten die Vulgarisierung und die Literarisierung beider Auffassungen einer Debatte Vorschub, in der die wechselseitige Beeinflussung von Gelehrten, Dichtern und Seefahrern das Mythische oft zum Nachteil objektiver Erkenntnis verstärkt.

Ein erstes Kapitel (S. 11–26) resümiert antike Theorien, nach denen die Pole zwar eisbedeckt seien, aber in ihrer Mitte „feuriger" Natur, so dass das Meer dort nicht zufriere. Im Mittelalter und in der Renaissance setzt sich die Vorstellung eines „leuchtenden" Zentrums fort, so dass dort sogar das Paradies vermutet wird. Diese phantastischen Visionen werden durch Berichte von Seeleuten gestützt, die – wie etwa Barents – mit dem Golfstrom in Berührung kommen. Doch mit dem Einsetzen der „Kleinen Eiszeit" (ca. 1300–1860) werden Entdeckungsreisen wieder zunehmend durch Spekulationen ersetzt, so in den Abenteuerromanen der protestantischen Utopisten Gabriel de Foigny und Simon Tyssot de Patot. Die Gelehrten hingegen untersuchen jetzt zunehmend die Bedeutung von Eis und Schnee im Wasserkreislauf und konzipieren die Pole als gigantisches Wasserreservoir (Jacques Besson, Bernard Palissy, Jean François, Joshua Childrey). Von durchschlagendem Erfolg sind schließlich die Theorien Buffons, der seit 1749 von einer progressiven Erkaltung der Erde ausgeht, wobei die Pole nur „Vorboten" der Entwicklung seien. Gleichwohl propagiert auch Buffon die Existenz eines eisfreien Polarmeeres, da das Meer prinzipiell nicht gefrieren könne: Fast alle Gelehrten seiner Zeit werden dieser Theorie anhängen.

Unterdessen macht die hydrologische Forschung zwischen 1720 und

1780 Fortschritte (S. 27–46): In den extrem kalten Wintern 1709, 1724, 1747 usw. untersuchen u.a. Jacques Dortous de Mairan und Jean-Antoine Nollet den Prozess der Eisbildung in Flüssen, welche für die Ansammlung von Eis an den Polen verantwortlich gemacht werden. So wird klar, dass alle Binnengewässer von der Wasseroberfläche her gefrieren und dass auch salzhaltiges Wasser, wenngleich langsamer, gefrieren kann. Doch geraten diese Erkenntnisse durch den Erfolg der Thesen Buffons in Vergessenheit: D'Alembert (in den *Encyclopédie*-Artikeln), der Abbé Pluche, Samuel Engel, der Abbé Richard, Louis Cotte u.a.m. verfechten weiterhin die Überzeugung, „que la mer ne peut pas geler". An dieser Grundüberzeugung ändern auch die Experimente Théodore Manns nicht, der *in realiter* nachweist, dass salzhaltiges Meerwasser durchaus gefriert.

Die nächste Phase der Entwicklung (1784–1808, S. 47–64) stellt die Eismassen der Pole in einen Zusammenhang mit der Sintflut („déluge"), einem potentiell wiederkehrenden Ereignis, dessen ursprünglicher Einfluss auf die Neigung der Erdachse seit langem diskutiert wird (Thomas Burnet, Nicolas Malebranche, Antoine Arnauld, Montesquieu, Leibniz, Abbé Pluche, Rousseau). Die Debatte wird jetzt zunehmend durch Literaten geprägt. So geht Bernardin de Saint-Pierre in seinen *Études de la nature* (1784) von einer kontinuierlichen „effusion" (Schmelze) des Poleises aus, die die Gezeiten, die Meeresströmungen, das Klima, die Erddrehung, kurz: das gesamte Leben auf der Erde bestimme und letztlich zu einer neuen Sintflut führe. Dabei wendet er sich gegen die Theorien von einem eisfreien Binnenmeer der Pole und von der progressiven Erderkaltung. Bernardins kohärente Kosmogonie beeinflusst zahllose Autoren (z.B. Alfred de Vigny), die u.a. das einprägsame Motiv vom Eisbären aufgreifen, der auf seiner Eisscholle gen Afrika driftet (während die Elefanten nach Sibirien unterwegs sind). Auch Restif de la Bretonne lässt 1803 in seinen *Lettres de mon tombeau* die Pole schmelzen (und zwar durch einen Kometen), und der Sozialutopist Charles Fourier entwirft 1808 in seiner *Théorie de l'unité universelle* ein „Système général de la Nature", in dem die durch die Polschmelze ausgelöste Sintflut der gesamten Erde ein gemäßigtes Klima beschert.

In der ersten Hälfte des 19. Jahrhunderts (S. 65–80) betreten dann Wissenschaftler neuen Typs die Bühne, einflussreiche Persönlichkeiten wie François Arago und Alexander von Humboldt, die den oft abenteuerlichen Vorstellungen von den Polen – zumindest theoretisch – den Garaus machen. Das Interesse richtet sich jetzt auf kalte und warme Meeresströmungen, auf den Einfluss der Atmosphäre bzw. der Sonne auf die Temperaturen und auf die grundsätzliche Möglichkeit einer Klimaerwärmung. Bis heute gebräuchliche Begriffe werden geprägt wie „Treib-

hauseffekt" („effet de serre", Joseph Fourier), „Isothermen" (Humboldt) sowie im Englischen spezielle Termini für verschiedene Eisformen wie „field", „pancake", „studge", „hummock", „calf" (William Scoresby), die im Französischen dauerhaft übernommen werden (so Rémy S. 69, wobei diese Aussage den Ausführungen zur französischen Terminologie im „Avant-propos" des Buches zu widersprechen scheint). Dass auch salzhaltiges und bewegtes Meerwasser gefrieren kann, ist nunmehr unbestritten.

In der Folge gerät die Neigung der Erdachse als Faktor der „glaciation" der Pole in den Mittelpunkt (S. 81–100). Der Mathematiker Joseph Adhémar führt in *Révolutions de la mer, déluges périodiques* (1842) die unterschiedliche Vereisung der beiden Pole – die langfristig zu einer Erkaltung der nördlichen und einer Erwärmung der südlichen Hemisphäre führe – auf die Besonderheiten der Erdrotation zurück: Durch die differierende Dauer der Sonneneinstrahlung schmelze mal der eine, mal der andere Pol ab und ergieße sich sintflutartig über die jeweils andere Hemisphäre – ein Ereignis, das sich alle 10500 Jahre wiederhole. Die Thesen Adhémars haben viele Anhänger, u.a. Henri-Sébastien Le Hon und Paul de Jouvencel, die emsig nach weiteren Beweisen suchen (z.B. das Anwachsen der Alpengletscher auf der Nordhalbkugel vs. das erfolgreiche Erreichen der Antarktis durch Ross, Dumont d'Urville etc.). Doch schließlich rückt das Thema Sintflut in den Hintergrund und macht erneut dem Mythos vom eisfreien Polarmeer Platz.

Über diese alte Theorie wird von den 1850er bis in die 1870er Jahre noch einmal leidenschaftlich gestritten (S. 101–118). Nach dem Ende der Kleinen Eiszeit werden die Erkundungsreisen wieder aufgenommen und führen tatsächlich zur Entdeckung einer eisfreien Meereszone. Eine erste Welle von Expeditionen erfolgt in den 1850er Jahren und dient vordergründig der Suche nach den verschollenen Nordpol-Expeditionen des Franzosen Blosseville (1833) und des Engländers Franklin (1845). Durch eine patriotische Mediatisierung dieser Aktionen entsteht ein fiebriges Klima, in dem der Mythos vom eisfreien Meer wieder aktuell wird: Er wird in allen beteiligten Ländern quasi „neu erfunden" („réinventé", S. 106), zumal man schließlich Spuren der gescheiterten Franklin-Expedition findet und einen neuen Grund braucht, die schon geplanten Vorhaben weiterhin zu legitimieren (S. 107). Der deutsche Geograph August Petermann begründet jetzt die Existenz des „mer libre" mit dem Golfstrom und verantwortet damit etliche fatale Expeditionen mitten im Winter. Gleichwohl gelingt es den Amerikanern Kane (1853) und Hayes (1860), einen eisfreien Bereich zu sichten, der jetzt als „Polynja" bezeichnet wird (S. 108). Der Franzose Gustave Lambert, der als erster versteht, dass sich Eisberge auf dem Land und Packeis auf dem Wasser bilden,

kann dagegen seine großangelegte Expedition kriegsbedingt (1870/71) nicht ausführen und stirbt als verhinderter Held. Auch August Petermann, Georg Nares und Karl Weyprecht scheitern daran, das „mer libre" zu erreichen. Erst dem Schweden Adolf Erik Nordenskiöld [sic] gelingt es 1868 wieder, ein „weites offenes Polarmeer" zu befahren und 1878/79 [sic] sogar, die Nord-Ost-Passage zu durchqueren; 1883 definiert er Grönland als eine vollständig eisbedeckte Insel und wird allerorts gefeiert.

Während des gesamten Zeitraums (ca. 1850–ca. 1870) wird versucht, eine wissenschaftliche Erklärung für das Phänomen des „mer libre" zu finden (S. 119–133). Die neue Bezeichnung „polynie" verrät in ihrer Ambivalenz bereits die Probleme: Als praktischer Begriff der „hommes de terrain" in die Gelehrtensprache eingegangen, wird er mal im Singular („LA mer libre"), mal im Plural (als eisfreie Zonen innerhalb des Polarmeeres) gebraucht (S. 191–120). Die wichtigsten Argumente sind – neben der Beobachtung, dass der geographische Pol keineswegs dem kältesten Ort entspricht (was die Präsenz von Vögeln und Meerestieren bestätigt) – zunächst die Gesetze der Sonneneinstrahlung (Baron de Plana, Lambert, Pavy, Reclus, Gay), sodann die Bedeutung warmer Meeresströmungen, d.h. des Golfstroms, wodurch die These von der „insolation" abgelöst wird (Maury, Marié-Davy, Malte-Brun, Grad, Mangin, Margollé). Einige wenige Gegner, die z.T. gar erneut die Idee eines „mer libre" in Frage stellen (de Fonvielle, Hertz, Roussin), können der Verbreitung der neuen Erkenntnisse nicht mehr schaden: Der Pol (i.e. der Nordpol) ist definitiv keine geschlossene Kappe („Le pôle n'est donc pas une vaste calotte", S. 125).

Die letzten beiden Kapitel des Buches sind der „littérature polaire" in extensivem Sinne gewidmet. So beginnt das erste (S. 135–158) mit der großen Publikationswelle der Vulgarisierung von Wissen ab 1850: In etwa fünfzig populärwissenschaftlichen Zeitschriften wird ein breites Publikum über die Fortschritte der Polarforschung auf dem laufenden gehalten, wobei mal die „insolation"-These, mal die Golfstrom-These befürwortet werden. Gleichwohl sollte sich die „illusion" eines zusammenhängenden Binnenmeeres bis zu den Lexika der Jahrhundertwende halten. Auch die Kinder- und Jugendliteratur bemächtigt sich des Themas in Form des Abenteuerromans, und der entstehende Feuilletonroman greift seinerseits die Spannungsmomente der Expeditionsberichte auf. Bereits die wissenschaftliche Fachliteratur der Epoche erscheint in Teilen als „literarisch", etwa bei der metaphorischen Beschreibung von Eisbergen mittels architektonischer Begriffe und der Evozierung von optischen und akustischen Effekten, die herkömmliche Wahrnehmungsstrategien außer Kraft setzen.

Entsprechend schildern die Romane nicht nur erfolgreich bewältigte Abenteuer, sondern auch albtraumhafte Erfahrungen in einer Art „sublime horreur", wie Jules Verne es nennt. Verne als wichtigster der untersuchten Autoren (Boussenard, Clarétie, Dex, Figuier, Jacolliot, Maël, Causse, Noir, Robida: „corpus volontairement français", S. 150, mit Ausnahme von Salgari) widmet sieben seiner Romane der Polarthematik, in einer Zeit von 1855 bis 1897, so dass sich der wissenschaftliche Fortschritt gut nachvollziehen lässt, soweit er in den von Verne konsultierten „livres et revues de vulgarisation" kolportiert wird. Das Sujet erlaubt ihm eine Vielzahl von Exkursen zu verwandten Wissensbereichen (Klimatologie, Geodäsie, etc.). Dabei warnt Verne vor einer Ausbeutung der Pole durch den Menschen (Fellhandel, Rohstoffe) und mokiert sich über das patriotische Pathos der „course aux pôles". Die Darstellung des Überlebens in feindlicher Umgebung bietet Anlass zu zahllosen Ratschlägen (Wie reist man auf einem Eisberg? u.a.m.) und greift das anekdotische Moment der Expeditionsberichte auf, etwa die Erzählung von den gefrierenden Flüssigkeiten (Quecksilber, Alkohol) oder jene von dem im Eis eingeschlossenen Schiff, das sich völlig unbemerkt fortbewegt.

Das zweite Literatur-Kapitel (S. 159–182) untersucht, welche Position die Schriftsteller hinsichtlich der diskutierten wissenschaftlichen Thesen einnehmen. So hält sich die Auffassung von einem großen Binnenmeer auch in der fiktionalen Literatur noch bis zum Anfang des 20. Jahrhunderts. Im Vordergrund steht in den Romanen die Schilderung der gemäßigten Temperaturen inmitten eines eisigen Umfelds, „un printemps relatif enfermé" (Verne), als dessen Ursache meist der Golfstrom angegeben wird. Fast immer wird die Arktis in Szene gesetzt: Wie auch in der wissenschaftlichen Literatur ist die Antarktis „la grande absente" (S. 169). Auch Jules Verne widmet ihr nur einen Roman explizit: *Le Sphinx des glaces*, 1897, eine Fortsetzung des Romans *Arthur Gordon Pym* von Edgar Allan Poe (1838), der 1855 von Baudelaire übersetzt worden war. Für die Antarktis bestehen noch weit mehr Unsicherheiten: „Est-ce un continent? Est-ce un archipel? [...] On l'ignore" (Verne); entsprechend nimmt die „imagination" hier mehr Raum ein. Auch das alte Sintflut-Thema Bernardins und Adhémars wird in der Fiktion jetzt verstärkt aufgegriffen: Das bedrohliche Szenario einer Eisschmelze der Antarktis und einer Überflutung der nördlichen Hemisphäre durch eisige Wassermassen wird etwa von Le Hon und Chambon heraufbeschworen. Entsprechend entsteht eine ganze Serie von Romanen mit dem Titel *Les ruines de Paris*, in denen künftige Generationen die Spuren der untergegangenen europäischen Kultur besichtigen (auf den Türmen von Notre-Dame leben Pinguine). Umgekehrt entdecken zahllose Roman-

helden in den auftauenden Eismassen der Pole eine prähistorische Flora und gefrorene Kadaver von Mammuts und Auerochsen.

Die kurze „Conclusion" (S. 183–189) ist nicht wirklich eine Zusammenfassung: Rémy kommt auf terminologische Fragen zurück (s.o.) und erwähnt die erfolgreiche Arktis-Expedition des Norwegers Fridtjof Nansen 1893–1896 sowie den Nachvollzug seines Unternehmens durch eine europäische Forschergruppe im Jahre 2006, welche die Route in einem Drittel der Zeit absolviert, was mit der zunehmenden Eisschmelze zusammenhängt. Ein kurzer Ausblick diskutiert diese Auswirkungen des Klimawandels und den ernst zunehmenden Anstieg des Meeresspiegels, warnt aber vor überzogenen Sintflut-Szenarien, die eher an die Visionen Bernardins erinnern, wie das allgegenwärtige Bild vom Eisbären auf seiner Scholle beweist.

Die Publikation ist interdisziplinär angelegt und sichtet ein umfangreiches Schrifttum verschiedenster Gattungen, so dass eine Trennung zwischen Belletristik und Fachliteratur kaum praktizierbar ist (und für die untersuchte Epoche ohnehin anachronistisch wäre). Leider listet die Bibliographie (S. 191–203) die Primärliteratur und Forschungsarbeiten nicht getrennt auf. Zu wünschen wäre auch eine stärkere Einbeziehung literaturwissenschaftlicher Publikationen zu den untersuchten Autoren, welche Verfahren der Fiktionalisierung und rhetorisch-stilistische Aspekte in den Blick nehmen, die ja für die Langlebigkeit mancher Mythen verantwortlich sind. Dies gilt auch für mögliche Hinweise auf die umfangreiche „Science- and Literature"-Forschung (Gipper, Bertrand/Guyot, Klinkert, Castonguay-Bélanger; speziell für die „littérature polaire" Hussenet, der nirgends genannt wird). Entsprechend werden auch die Forschungsrichtung der Geokritik / Geopoetik sowie Arbeiten zur Geschichte der Landschaftskonzeption (Westphal, White, Collot, Reichler) nicht berücksichtigt. So entsteht leider zeitweise der Eindruck, die ästhetisch-fiktionalen Werke von Bernardin de Saint-Pierre bis Jules Verne würden allein als dokumentarische Quellen für den Wissensstand der Epoche gewürdigt. Dennoch zeugt die Studie zum einen von einer exzellenten Kenntnis eines beeindruckenden Textkorpus und zum anderen von dem dezidierten Willen, Fächergrenzen zu überschreiten und auch für die Belange von Literaturwissenschaftlern eine solide fachliche Basis zu entwerfen, auf der künftige Interpretationen der Werke aufbauen können.

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Nicolas Meylan, *Magic and Kingship in Medieval Iceland. The Construction of a Discourse of Political Resistance* (Studies in Viking and Medieval Scandinavia 3), Turnhout: Brepols 2014, ISBN 9782503551576 (hbk.), x + 223 pp.[1]

Nicolas Meylan defended his thesis "How to Deal with Kings When You Are a Suet-Lander: Discourses of 'Magic' between Norway and Iceland" at the University of Chicago in 2010. Some years ago (2014) he published a book on a topic similar to his thesis. It has the somewhat enigmatic title *Magic and Kingship in Medieval Iceland*. All familiar with ancient Scandinavian history know that Iceland did not have any kings as long as the so-called "Free State" existed, that is, up to 1262/1264 when Norwegian monarchy took control over all chieftainships on the island. When you read the first pages you get a clearer idea of what the book is about, however. It investigates how magic was used in political discourses in thirteenth- and fourteenth-century Icelandic texts, especially when Icelanders in a subordinated position had to deal with and oppose a superior and sometimes unjust Norwegian royal power. The narratives in these texts, however, take place in either previous historical periods or in legendary/mythical times.

The book covers six chapters: (1) "Theorizing Magic;" (2) "The Vocabulary of Old Norse Magic;" (3) "Magic, Discourse of Invective;" (4) "Magic, Discourse of Power;" (5) "Magic, Kings, and Poetry;" and (6) "Miracles, Saints, and Magic." In addition to these chapters there is a short conclusion (3–4 pages), a bibliography, and an index. In total, the book consists of 232 pages. In the first chapter Meylan stakes out his position in relation to previous studies on magic in Old Norse contexts, which mostly have been marked by their historical intentions, where synthetic descriptions of the nature of the phenomenon were sought, focusing on its rituals and beliefs (e.g., Dag Strömbäck, Folke Ström, and Clive Tolley). In more recent studies, the actual practice of magic in historical contexts has also been considered, whether in the pagan period or under Christianity (e.g., Neil Price, Catharina Raudvere, and François-Xavier Dillmann). In contrast to these previous attempts, Meylan applies discourse analysis to magic, where the thirteenth- and fourteenth-century Icelandic texts, including historical or mythical accounts, are read in the context of the contemporary political situation. Magic is thus not investigated in terms of its actual practice; only as a textual phenomenon:

> By shifting the focus from accusations of magic (for instance the well-known polemic discourse found throughout Christendom since at least the second century CE) to discourses of magic, one allows for the recognition that subaltern groups, such as medieval Icelanders, could consciously recuperate the dominant faction's (the Norwegian king's) discourse of magic and, at the cost of a number of modifications, turn it on its head in order to construct a subversive anti-royalist discourse. (p. 11)

The analytical category of magic is also discussed in chapter 1, as well as the criticism against previous theories of the concept. Despite this criticism and the awareness of the difficulties inherent in using such a contested term, Meylan applies a concept of magic more commonly found in older scholarship. His definition is inclusive and allows for a wide range of realizations in various Old Norse lexemes, for example, *gandr* and *seiðr* (see p. 18). In the last section of the chapter, the Old Norse sources for magic are presented, such as the Sagas of the Icelanders, Kings' sagas, *fornaldarsǫgur*, Skaldic and Eddic poetry, *Snorra Edda*, and legal texts.

In my opinion, Meylan's approach is here somewhat surprising. Since he intends to make a discourse analysis he could have chosen to apply only emic concepts, that is terms that could be found in the source materials, and thus avoided the problematic and loaded concept of magic. Several recent studies have focused on the problems impaired with this macro category when used in the history of religions (see e.g. Otto & Stausberg 2013). Meylan defends his terminological use in this way:

> "Magic" is a convenient and evocative word which has retained even to this day enough of the connotations found in medieval Scandinavia that there is some degree of agreement between Old Norse discourses of magic and modern-day uses of the term both in scholarly discourses and outside. (p. 18 f.)

Meylan's motivation and defence of the use of the concept of magic in this context is not completely convincing, in my opinion, and occasionally he is forced to extend the meaning of the term in order to include practices and actions, which usually are not related to this category, for instance skaldic poetry (see below).

Relying on his own, inclusive definition, Meylan identifies and discusses the native vocabulary of Old Norse magic in chapter 2 as it appears in the medieval texts. Most of the vernacular lexis of magic in the Sagas, for instance, was significantly influenced by Christian thought and literature, although the narratives in them were set in indigenous

situations in pre-Christian times. The more precise original denotations of the individual terms were often overlooked by the clerics who wrote these texts. These native concepts could also sometimes operate as glosses for Latin terms (e.g. *maleficium*) in Christian literature, such as *Stjórn*.[2] The traffic between Latin and vernacular languages and cultures thus had consequences.

Meylan discusses several indigenous concepts relevant to the study, such as *trolldómr*, 'magic;' *vitki*, 'wizard;' and the adjectives *fjǫlkunnigr* 'skilled in magic' (related to the noun *fjǫlkyngi*, 'witchcraft') and *margkunnigr*, literally, 'much-knowing' or 'skilled in magic.' The use of such terms in the medieval period was often to show that the persons related to them possessed extraordinary power. We rarely understand nuances of magic by means of this terminology, even if terms such as *galdr* and *seiðr* can give more information. Meylan concludes that beyond documenting the emic vocabulary of magic, his overview suggests

> that the lexis of magic as preserved in texts of the Christian era, in its interchangeability and somewhat vague semantics [...] was not centrally concerned with providing exact descriptions of actual techniques, representations, and agents. To fully make sense of the representations that these words convey requires the study of their connotations, which in turn presupposes a discursive context of use. (p. 47)

Consequently, his following chapters focus on the various ways these words were used in the context of the Icelandic relations with the kings of Norway.

Chapter 3 discusses accusation and condemnatory discourses, where magic is used as an explanation of different types of shortcomings, ignominious failures, and defeats on the royal side. These kinds of explanations were used by those who controlled the text production and apparently had vested interests in the Norwegian royal institution. The text producers were in this case viewed as religious individuals (i.e., Christians), while those who applied "magic" in order to do harm to royal power (i.e., the ones in a lesser position) were viewed as anti-religious, and their knowledge and practice were perceived as evil. To say that someone is a *seiðmaðr* in such discourses of magic was thus considered to be an insult and something very disgraceful. Examples of such discourses of magic are found in, for instance, the account about King Haraldr and his fiancé, the Finnish sorceress Snæfríðr, who completely bewitched him (see *Haralds saga hárfagra*, in *Heimskringla* I). Magic is in such contexts associated with disorder, chaos, female beings, illegal ac-

tions, paganism, and foreigners (e.g., *Finnar*, giants). It is thus something antisocial and used in order to produce chaos in a well-functioning and ordered society (sometimes represented by the king).

Chapter 4 presents the opposite discourses, namely, where magic is explained as a positive power and filled with efficacy, what the author calls "power-oriented discourses." In these discourses magic is explained as a powerful instrument, totally dissociated from any moral considerations and condemnation. One example of such a discourse of magic appears in *Rauðúlfs þáttr*, which is a short story that forms part of the fourteenth-century version of the *Greater Saga of St. Olaf*. A rich and powerful farmer (*bóndi*) called Rauðúlfr invites St. Óláfr to a banquet. During the evening the king finds out that the farmer is both knowledgeable and eloquent; he can even provide information of things that have not yet happened (a skill usually associated with Óðinn). Two solutions present themselves to the king; either the man is a prophet (*spámaðr*) or he practises magic and can be regarded as a *fjǫlkyngismaðr*. The king decides that it cannot be magic since the man is a good Christian. Rauðúlfr has a third option; he states that his knowledge comes from careful observation of natural phenomena, such as dreams and astrology. St. Óláfr's insistence on obtaining this extraordinary knowledge (later in the story) indicates that "magic" was, in this context, seen as something positive. This type of power-oriented discourses of magic is, however, usually related to *forn siðr*, "the old (heathen) custom," that is, something that took place in a temporal distance or in a pre-Christian (mythic) context. The temporal distance removes the actors from Christian condemnation (see p. 107). Examples of such discourses of magic may be found in *Eddic Poetry*, *Snorra Edda*, and *Ynglinga saga*, where magic is often linked to power, knowledge, and powerful characters such as Óðinn. Magic may thus be perceived as something good, and supportive of righteous kings, in certain contexts.

Chapter 5 focuses on the subversive role of magic in thirteenth- and fourteenth-century texts about powerless Icelanders dealing with superior and unjust Norwegian rulers, especially in narratives where the Icelanders use a category close to magic as a weapon, namely, poetry. This discourse of magic is discussed mainly in three texts, namely, *Snorra Edda*, *Egils saga*, and *Þorleifs þáttr jarlaskálds*. This chapter also includes a historical account of Norway and Iceland in the early thirteenth century, when King Hákon Hákonarson became a real threat to the Free State, that is, the historical context of the Icelandic literary production. Much of the ideological dimensions of for example, *Egils saga* can be explained from this political situation. In this saga, magic and the skill

of poetry are attributed to the tenth-century Icelandic hero Egill and are used as powerful instruments in his dealing with the unjust Norwegian royal power, that is, King Eiríkr blóðøx and Queen Gunnhildr. Thirteenth-century Icelandic "readers" could probably equate the content of the saga with the contemporary political situation and feel encouraged in their struggle against the Norwegian royal power.

In chapter 6, the subversive discourse of magic is linked with Christian literature from the fourteenth century, especially in one manuscript of *Jóns saga Helga*. An intertextual reading of this saga and the Eddic texts suggests that St. Jón used a kind of magic, which usually is associated with Óðinn. This magic is presented in such a way that the Christian message could not be mistaken (Jón actually condemns magic). On a political level, the reader could recognize Jón as a powerless Icelander using "magic" against one of the most unjust and intractable kings Norway had ever known, King Magnús berfœtr.

Meylan's book is well-written and the argumentation is very clear. Besides the terminological problems (see above), there are only a few arguments that seem somewhat speculative, for example the idea that Snorri's mythic account in Gylfaginning, where Gefjun plows Zealand out of Sweden, should be read "as a trope for the foundation of Iceland out of Norway" (p. 143). According to Meylan, the frame narrative describes a royal expedition made by Gylfi to Ásgarðr, the home of Gefjun's people (i.e., the gods) and of those who hold poetic knowledge. For medieval readers, Meylan suggests, the Æsir and Ásgarðr represented the Icelanders and Iceland, while the mythical Gylfi was identified with King Hákon Hákonarson. The Æsir (i.e., the Icelanders) use visual illusions (sjónhverfingar), rhetoric, and poetry as a subaltern power to defeat King Gylfi (i.e., King Hákon) (pp. 143–144). Even if we cannot rule out this interpretation, it is, in my opinion, not completely convincing and even somewhat farfetched. There is nothing substantial in Snorri's text supporting this reading. Snorri states explicitly by quoting Bragi's skaldic stanza that it was in connection to the creation of Zealand in Denmark that this event took place. This action had nothing to do with Norway and Iceland. Neither does Meylan delve into the question whether the Gefjun episode was part of Snorri's original text. It does not appear in one branch of the manuscripts and may have been added by a later scribe (see Lindow 2001: 136). This is actually not a great problem, since the versions including this narrative, regardless of authorship, may have played the political role for the readers suggested by Meylan. However, I have some problems with Meylan's assumption that Egill's poetry should be seen as a magical weapon in his battle with the royal power.

Meylan's use of the concept "magic" is in this context too inclusive and does not lead to any analytic utility.

Anyhow, in my opinion, Meylan's book offers an important contribution to the history of religions and the study of magic in Norse contexts. Since few scholars working in this field of research discuss the nature of the medieval texts thoroughly, the focus on their ideological content and meaning for the thirteenth- and fourteenth-century readers is quite innovative. The method of using discourse analysis is also quite fruitful in this context, since, for instance, it unmasks the problems and limits of historical and essentialist interpretations. Meylan has no doubt provided new perspectives, thoughtful reflections, and insights into the topic of magic and kingship in medieval Icelandic literature.

NOTES

[1] Similar versions of this review have previously been published in *Numen* 63 (2016), pp. 355–358 and in *Chaos* 65 (2016), pp. 217–227.

[2] *Stjórn* is the Old Norse translation of the Bible, or, more correctly expressed, the medieval Icelandic paraphrase of the beginning of the Old Testament down to the end of the Second Book of the Kings.

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Johan Schimanski & Ulrike Spring, *Passagiere des Eises. Polarhelden und arktische Diskurse 1874*, Wien: Böhlau Verlag 2015, ISBN 9783205796060, 719 pp., 55 ill.

As the Arctic ice retreats, various aspects of the region are attracting increasing attention in science, politics and the media as well as in the arts, firing imaginations regarding future scenarios and generating greater interest in relevant events of the past. The book under review here fits into and contributes to this general trend. It is a product of research funded by the Norwegian Research Council under the auspices of a broad project entitled "Arctic Discourses." The project ran from 2005 to 2012, involving a collaborative network of 17 researchers (Ryall *et al*. [eds.] 2010; Schimanski *et al*. [eds.] 2011; for a review of the latter book see Heith 2012). Currently, a second project is being financed through the Research Council's polar programme (POLARPROG). It is entitled "Arctic Modernities" (2013–2016) and, like the previous one, is also situated at Tromsø University (UiT, now also calling itself the Arctic University of Norway). These two research projects constitute a cultural sciences prong of a much larger funding effort, most of which has gone to the natural sciences, to boost Norway's Arctic profile and identity.

The authors of the present book are, in other words, participants in an extensive network of researchers in what are nowadays called the Arctic humanities (Sörlin 2015). Ulrike Spring is a cultural historian, also specialized in *Germanistik*, and a onetime curator (2003–2004) at the Wien Museum in the Austrian capital. With research interests in museology, archival and critical cultural heritage studies, she is now affiliated with the University College of Sogn og Fjordane. Johan Schimanski originally hails from Sweden, but is now settled in Norway as a prominent scholar of comparative European literature. He is affiliated with both the University of Oslo and UiT, at the latter in the Department of Culture and Literature. The collaboration between the two authors breaks new ground and demonstrates the power and significance of the cultural turn in the historiography of Arctic science and exploration (Walsch 2015).

Before us we have a formidable monograph with a bread text of 550 pages that deal with the privately sponsored Austro-Hungarian *Tegetthoff* expedition of 1872–1874 to Franz Josef Land led by Karl Weyprecht (commander-at-sea) and Julius Payer (commander-on-land). Payer was a military officer, experienced alpinist and cartographer who had already gained Arctic experience as a member of the Second German North Polar Expedition on the *Germania* (1869–1870) to East

Greenland. Weyprecht was an officer in the Austro-Hungarian Navy. In 1871, he joined Payer on a preliminary expedition to Novaya Zemlya. The expedition that followed—led by the pair jointly—is more famous because it involved the first recorded discovery, mapping and naming of some places in a glaciated archipelago of 191 islands in the north-eastern Barents Sea. It was, in other words, the first expedition to introduce to the world Franz Josef Land, named in honour of Franz Josef I, the Emperor of Austria and King of Hungary, Croatia and Bohemia (Barr 1995; Capelotti [ed.] 2015). It was soon followed by annual hunting expeditions conducted by small Norwegian ships as well as expeditions headed by a number of legendary British and American explorers that also left varying legacies of both new discoveries, hardships and failures.

Today, the archipelago is inhabited almost solely by Russian military base personnel located in the Arctic Ocean, Barents Sea and Kara Sea. Additionally, there is a meteorological station with year-round postings and, during the summer season, scientists are active in the area. When weather conditions permit, there are occasional sorties by tourists on icebreakers or tourist cruise ships, the latter sometimes operating from Longyearbyen, Svalbard. Franz Josef Land's nearest large Arctic island neighbours are north-eastern Svalbard and the northern tip of Novaya Zemlya, situated respectively 260 kilometres to the west and 360 kilometres to the southeast.

The story of the dramatic events of the expedition of 24 men into the Arctic on the steam-aided three-masted schooner, the *Admiral Tegetthoff*, has been told many times. Its intent was to explore the northern coastal area of Siberia and possibly the then not yet traversed Northeast Passage, but that objective failed. A couple of months after its departure from Tromsø, where the Norwegian captain Elling Carlsen was taken on board as ice pilot and harpooner, the ship became firmly trapped in the grips of the pack ice north of Novaya Zemlya and drifted instead continuously for eleven months towards hitherto unknown polar regions. In his account of the expedition published in 1876, Payer remarks: "No longer were we explorers, but passengers of the ice against our own free will." Three of these winged words have found their way into the title of the present book—*Passagiere des Eises*. But, the two authors Johan Schimanski and Ulrike Spring also subsume a further meaning in their title, suggesting there were also other entities that travelled or circulated —metaphors, images, concepts and other cultural tags connecting the Arctic to Europe and vice versa.

When the human passengers, believed to be lost, surfaced again to re-enter the civilized world, a host of ideational "passengers" were

generated, and heroes culturally constructed. In the mass media of the day, both fictional and realistic phantasms circulated through Europe and were projected back onto the polar ice as "Arctic imaginaries." Schimanksi and Spring's take on their subject differs radically from the traditional approach of historians of polar science and exploration. The focus is not primarily on the conventional narrative of the expedition, its motives, the mapping and scientific achievements and their significance or connections with later expeditions. Nor do they foreground the plans and activities of the leading personalities, all the dramatic events, or how the men, finally using small boats, were able to reach Novaya Zemlya where they were by sheer chance picked up on 24 August 1874 by two Russian schooners who still happened to be there at the tail end of a fishing trip. All this information is there, but viewed through a different analytical lens.

The volume under review starts from the fact that, back in Europe, the members of the expedition were by most believed to be dead and lost until suddenly on 3 September 1874 telegrams sent off from Vardø in northern Norway told another story. A fuller picture emerged as more telegrams were sent soon afterwards from several other Norwegian towns to various European cities and towns destined for families, friends, sponsors and newspapers back home reporting that all but one of the members of the expedition were alive and well and that they would soon turn up in the capital of the Austro-Hungarian empire, Vienna. The book is concerned with the media coverage of "the return" of the expedition to civilization and all the celebrations that took place, first en route as the men were received in various places in Norway, Sweden and Germany. Secondly, the study discusses the narratives relating to the grandiose display of welcome by masses of people and many dignitaries when the expeditioners arrived on 25 September 1874 by rail at Vienna's *Nordbahnhof*. Thirdly, there is a perusal of the more diverse media coverage of an amazing wave of festivities and other events that followed for another month and, thereafter, subsequent echoes now and then in new contexts as time went on.

The focus is on cultural reception history based on discourse analysis of reports in newspapers, family weeklies, posters, exhibitions, Payer and Weyprecht's lectures and pictures of them posing as Artic explorers in photographic studios, as well as satirical sketches in magazines. The conceptual frame of performativity theory is used to interpret literary styles, tropes and the strategies journalists employed to portray banquets, public gatherings, meetings in scientific academies, beer-hall talks, theatre plays, poetry readings and other festive activities. Nar-

rative is viewed as both a making and a doing (Peterson & Langellier 2006).[1] With this in mind, Schimanski and Spring have read through several thousand newspaper articles written in several different languages. The book's bibliographic list of what they call primary sources in the changing "mediascapes" (short for media landscapes) includes, apart from expedition reports, the proceedings of learned societies and other books, about 150 different newspapers, weeklies and the like issued at the time with names linking them to 50 different cities, towns and even villages, not only in the Austrian-Hungarian empire but also some emanating from Britain, Germany, Norway and Sweden. In the case of the latter two countries one finds witnessing of celebrations and meetings reported in newsprint from, for example, Tromsø, Trondheim, Kristiania (Oslo), Bergen, Stockholm, Malmö, Örebro, Finspong (now Finspång), Linköping and Norrköping. The reason Finspång featured in all this was that Payer and a companion went there for an audience with Oscar II, the King of Sweden and Norway who happened to be there to open a subsidiary stretch (Pålsboda–Finspong) of railway connecting to the trunk line between Stockholm and Göteborg. There they also met the astronomer Hugo Gyldén and geologist Adolf Erik Nordenskiöld who both, like Oscar II, valued scientific exploration of the Arctic and expansion of the railway net equally as signs of progress and modernity.

In other words, we have here a study of celebratory practices and the constructions of polar heroes in a variety of different contexts, reflecting traces of micro-histories wherein one finds inscribed a range of different values, interests, ideologies and cultural traditions. It is these that are reconstructed with the discourse analyst's eye to detect what words and images tell us not only about the expedition and its men but also about the societies and locales in which the reporting was done. Each discursive fragment is regarded as an historical act of representation that was continuously integrated with other historical contexts over time as stories got retold, recycled and—in the process—transformed right up to present day. An inspirational precursor in Scandinavian literature appears to be Per Rydén's book on Salomon August Andrée's Arctic balloon expedition (1897) and its aftermath. Espen Ytreberg's paper on Roald Amundsen's South Pole expedition as a media event is also mentioned, as are Urban Wråkberg's studies of the embedding of Swedish polar exploration and research in culture, science and politics, and his important work on the history and politics of naming (Rydén 2003; Wråkberg 1999; Wråkberg 2002; Ytreberg 2014).

The human passengers of the *Admiral Tegetthoff* made up a multiethnic social mosaic with codes of class difference on board between

officers and sailors, the latter stemming from different parts of the Imperial and Royal Austro-Hungarian (double) monarchy (formed 1867) reaching to the shores of the Adriatic Sea. This afforded journalists another theme: media in retrospect handily depicted the ship as a microcosm of the Habsburg dynasty in the process of slowly cracking under the pressure of its recent defeat (1866) by the Prussian army and the subsequent advent (1873) of a rampant economic crisis—the speculative simile, albeit tacit, lay near to hand, the ship suffering a battering by the Arctic ice and finally having to be abandoned. Fictional and factual representations blended. Satirical journals even had graphic representations (reproduced in the book) of polar bears dressed in European clothes or adopting Viennese ways of café life. Images attached to the newfound land pictured it as desolate and forbidding, but also as a natural resource to be exploited; metaphors of purity and danger and a wilderness to be tamed mixed with a belief in science as a means to harness Nature.

Different representations of the Arctic, the authors demonstrate, were contingent on place, politics and national self-image. Production and recycling of reports and imaginations of "the Arctic" in Viennese journalism, in particular after the surprise return of the expedition, is foregrounded. Typical aspects of the Viennese reception are contrasted with the celebratory practices that overwhelmed the expeditioners en route in Norway. In Bergen, for example, celebrations tended to situate the expedition in a scientific discourse, but in a much more material way than was the case in Austria: in Norway the connection to practical economic interests such as sealing and new hunting grounds was foregrounded. This was also apparent in separate festivities later in Tromsø to celebrate the town's local son Elling Carlsen who stayed put at home, declining an invitation to join Payer and Weyprecht onward to enjoy greater limelight in the imperial capital of the Habsburg monarchy.

By contrast, in Vienna where over a hundred thousand people were reported to have attended various festivities, the focus was more on aesthetic and spectacular dimensions while scientific aspects were played up in an altruistic spirit, namely as symbolic of universal enlightenment values and new knowledge to contribute to the progress of the world in general (also see Spring & Schimanski 2015). The reason the authors give is that prospects of actual economic exploitation of Franz Josef Land were hardly conceived of as a feasible undertaking in the troubled double monarchy. A visible fault line, moreover, existed between the rising bourgeois society with its advocacy of modernity and the values of science, mercantilism and patriotism (both local and national) on the one hand, and on the other hand, backward-looking forces of a conservative

brand and the Catholic Church. The authors do an excellent job of probing and analysing the multiplicity of contexts, each one with its complex ideational, historical, political and socio-cultural contingencies, as well as contradictions, and what various actors within these scenes appeared to be signalling.

Concentration is on laudatory speeches, artistic events and academic lectures as well as popular talks and writing, plus other events refracted through the lens of the media during a few autumn months in 1874. However, as already indicated, the reception history does not end there, since integration of parts of the early discourses into later historical contexts followed intermittently over five or six historical periods right up to our own time. Thus, the book's narrative necessarily extends far beyond the events of 1874.

The entire work is structured around a number of different themes that form the respective thematic focal points successively clustered and elaborated in four overarching parts. Part I ("Reception," comprising Chapters 1–4) is by far the most extensive one, devoted as it is to the actual reception during a few months of 1874. It deals with what is called "Northern competence," that is, the motives and capacity to engage with the Arctic in economic terms and/or scientific terms, thus distinguishing between material and instrumental symbolic dimensions, with distinct differences appearing between Norway and the Austro-Hungarian empire. Thereupon follows an elaborate description of the "spectacle" in Vienna when the returning expeditioners are greeted and feasted. Gender differences are traced in the ways men and women, respectively, during welcoming events relate to and perceive the polar travellers, even in terms of body language (also see Schimanski & Spring 2009*a*). A third theme pertains to the "spectacle discourse" played out in the media, and a close reading of the same. A final section takes up the fanfare in the peripheries of the Central European empire as members of the ship's crew, the ordinary seamen come home to local communities where further celebrations and media coverage cast them in the roles of local heroes—a democratization of the epithet "hero."

Part II (Chapters 5–8) is entitled "Identities." It first traces the theme of the *Tegetthoff* as a microcosm of the troubled double monarchy. In a second section, the identity-construction of polar heroes and their features is found to follow the lines of social differentiation and ethnicity; first the officers, petty officers and a machinist in one category, thereafter in a third section discussion turns to the sailors, the multi-ethnic crew with their different tongues and affiliations as another distinct group, and recognition of some individuals who stood out. Here appear also

differences in modes of representing characters in the two worlds of the double monarchy, the Hungarian as opposed to the Germanic-Austrian, for example in the way the Hungarian born ship's surgeon, Dr Gyula Képes, was lauded in his homeland compared to some ironic caricatures of him featured in the German-language Viennese press. And, of course, there is the question of how the Norwegian ice pilot Elling Carlsen was occasionally mentioned with his first name changed to "Olaf," when oftentimes he was more or less invisible in journalistic discourses. Finally, the authors return to the issues of science, education, politics and their resonance in life and reason on the ship as a microcosm and in the desires and aspirations of the liberal bourgeoisie in a secular Austria where a dynamic interplay was simultaneously unfolding between state, people(s), and imperial power.

Part III ("The Arctic," Chapters 9–12) concerns the discursive appropriation of the Arctic. Different representations of the Arctic and its multiple facets are made visible—the Arctic in Vienna, *terra incognita*, *terra nullius*, myth(s) and mystique of the Arctic and efforts to domesticate or bring order into the imaginary assemblages by connecting to the known, for example to contemporary readers' own experience and knowledge of the European Alpine regions. A second focal point is "medialisation of the Arctic," visualizations and iconization, that is, construing certain entities as iconic in the printed and other media—polar bears, the Aurora Borealis. Furthermore, they note a process of commodification and branding, as the terms Arctic and North Pole—or associated images—were attached as hyphenated labels for a while to various products such as clothing articles, furniture, lanterns, etcetera to signal quality. There were also "Weyprecht socks," "Franz Josef-Land Bier," Northpole champagne, and photographs of the polar heroes became popular collector's items. Thirdly, there is the depiction of the Arctic as a scientific space, the concept of the North Pole, the question of whether or not it was reachable, its environs, the hypothesis (rejected by Payer) of a large interior open sea, and so on. The authors also provide a comprehensive discussion of the politics of mapping and naming practices, how these in the topography of the Franz Josef Land-cryosphere with its mountains, fjords, bays and capes replicate a hierarchy of social order and values back in the civilized world, with monarchs, sponsors and dignitaries at the top, names of hometown communities at the bottom and in between the names of leading explorers including those of the *Tegetthoff*. Cognitive order inscriptively replicates social order by other means.

We are reminded how naming and description of a prominent fea-

ture is itself a performative act and a manifestation of power expressed in rituals such as flag-hoisting and messages under cairns erected as evidence of first discovery, meant to be witnessed by members of later expeditions. In a final section, the case is made that the expedition and the discovery of Franz Josef Land was embedded in a contemporary colonial discourse, not in the sense of colonial expansion but through a cultural colonization of what was formerly unknown and mysterious (also see Schimanski & Spring 2009*b*). Recognizable moral values and images were projected into the new found land to cognitively and symbolically integrate it as a part of Austria. Some of the most effective rhetorical strategies in this respect are found to hinge on the use of metaphors, irony, humour and absurdity in written and visual dress.

Part IV (Chapters 13–18) is entitled "Literature." With the influence of narrative theory in the 1970s, the earlier relatively rigid and oftentimes essentialist notion of what constitutes literature was loosened up, and reflexivity was introduced (Widdowson 1991). Investigation of boundaries between factive and fictive draws our attention to how the realm of the latter may feed on that of the former. This in turn, the authors argue, calls for a rethinking of genre codes. Narratives of discovery written by early explorers were previously kept outside of, or at most marginalized, in standard histories of literature, but now there is good reason to bring them into that corpus. Journalism, essays, dramatic productions, satire and other writing flourishing in Vienna's 20 daily newspapers in 1874, particularly in the influential bourgeois liberal-leaning *Neue Freie Presse* (founded in 1864), displayed many literary qualities that also warrant adding them to the wider contextually contingent notion of literature. This is the argument advanced and evidenced in the introductory chapter of Part IV, where a number of classificatory criteria are discussed. We also meet two new key concepts: "literarisation," for example literary engagement with scientists' and explorers' own accounts (including those found in telegrams, letters, public lectures and scientific reports) that bring about a transformation of the factual expedition into the genre of literature; and "remediatising," the transposition of subject matter, style and literary strategy from one type of media to another.

During the celebratory and welcoming performances in the autumn of 1874, a mix of factual and literary (textual and visual) storytelling unfolded. In their investigation of the various genres, overlaps as well as crossovers between them, the authors invoke the concept of "discursive transfers." In their material, they identify a number of specific discursive styles which they characterize in the following keywords: laudatory rhetoric, arctic metaphor, reflexive irony, sensationalism, sublime/ele-

vated, emotional appeal (pathos), and scientifically descriptive. In the five chapters (14–18) that follow the analysis of the literary dimensions in what are mainly journalistic discourses, the different stylistic strategies are traced, their workings explained and illustrated by citing from the vast corpus of texts of different kinds that form the empirical source material for the book.

The in depth studies of laudatory rhetoric in different celebratory contexts and practices make for fascinating reading. A distinction is made between learned speeches and banquet speeches in terms of differences in structure and intonations, how those celebrated are addressed, and how they in return praise their sponsors and other institutions, or apostrophize absent dignitaries and scientific luminaries so as to tacitly construct and legitimate their own authority by referencing universals (learning and powers that be) while rhetorically diminishing their own personal stature or achievements. Also instructive for scholars interested in Arctic humanities are the authors' methods of situating and clarifying constitutive elements at work in discursive constructions of heroism and moral economies in the literary imagination relating to polar exploration and discovery.

We learn how journalists writing periodic serial articles or essays in newspapers and weeklies sometimes lacked sufficient factual information about the explorers' personalities, their biographies, or actions back on the ice, or about some unusual manners in the lecture hall. In such cases, gaps were filled with anecdotes and fictional associations plus fragmentary concretizations in order to enliven and heighten the dramaturgical thrust of journalistic narratives. This is referred to as "fictionalization." The role of anecdotes and allegories as anchor devices in this process is particularly interesting. Irony, a very prevalent style in literary journalistic essays in Vienna in the 1870s, was another genre that used such devices. It was used in feuilletons that distinguished themselves from pedestrian forms of news reporting in other sections of the same paper; in this case the journalist might employ commentary on "the expedition" as a vehicle for oblique cultural, political and social criticism of the Austro-Hungarian regime. In a sense, irony appears as the opposite of laudatory rhetoric, since it allows the writer to convey a double message, affirming the accomplishments of the explorers while at the same time distancing oneself from the self-congratulatory language of officialdom.

The early 1870s was also a time when Jules Verne's science fiction novels were widely read in both Budapest and Vienna. This partly explains why some journalists sought help there in their efforts to fictively

visualize what suffering and dangers their brave compatriots had experienced in the new found land named after their Kaiser. Allusions to classical Greek mythology, expeditions in Africa, and well-known images of shipwrecks were also drawn upon, resonating with more familiar images such as Caspar David Friedrich's oil painting *Das Eismeer* (1823–1824). Schimanski and Spring also discuss Julius Payer's feuilleton, "Eine Eispressung in der Polarnacht," a dramatic tone-setting account of the *Tegetthoff* beset by the ice, an essay published in a major Viennese newspaper already the week before the expedition party's arrival in Vienna. Payer's style in this episodic disaster narrative is characterized as subjective and romantic; it operates with strong contrasts and is spiced with metaphors, for example to describe the movement and sounds of the pack ice. This is contrasted with the objectifying prose of Payer's later book-length expedition narrative (Payer 1876).[2]

Weyprecht, born and growing up in Germany before he joined the Austro-Hungarian navy, was even more reserved when it came to mingling affective language into his presentations. This may be seen in his address a week before the grand arrival in Vienna. On 18 September 1875, he spoke at the 48th Meeting of German Scientists and Physicians in Graz, Austria, where he outlined the "basic principles of Arctic research" and emphasized the need for an inductive science principle for organizing a network of Arctic stations taking regular measurements of weather and ice conditions with identical devices and at pre-established intervals. It was the concept behind his proposal for what became the First International Polar Year (1882/83) that he worked hard at to promote but did not live to see translated into action (Elzinga 2009).

The final chapter (both of part IV and of the book as a whole) deals with journalism as situated between science and literature. Rydén in his book on the reception history of Andrée's expedition, similarly identifies three different genres, but in the present volume the scheme is made more dynamic, adding some critical depth, and introducing the notion of hybrid styles (compare above with the idea of "discursive transfers" and "transposition"). The investigation is based on a close reading of Payer's first extensive report on the expedition that appeared as a long article in the *Neue Freie Presse* on the very same day the expeditioners arrived in Vienna. The article, entitled simply "Die Nordpol-Expedition" is an interesting example of creative non-fiction, documentary and is solidly factual in content, but in style is adapted to the quasi-literary code and format of the feuilleton. It incorporates several literary elements such as (self)-irony, picturesque icescape descriptions mixed with dramatic recollections of emotional moments of danger and dramatic struggle

expressed in affective and metaphorical language—Nature portrayed both as sublime and austere. The compositional strategy shifts back and forth, tacking between the logics of descriptive scientific and refined literary narration similar to what can be found in some travel literature of the time. Schimanski and Spring argue that the feuilleton form served as an intellectual space for an "interdiscourse" between explanatory and romanticizing prose, and indicate that journalism accommodated several transitional forms between science and literature, and thus served as a kind of bridge between the arts and sciences. What remains unclear in their analysis is whether they see it simply as a blurring of genre boundaries or as a matter of a scientific narrative being adapted to the literary genre while maintaining its own generic integrity.[3]

Parts I–IV of the book are flanked by a substantial introduction and a short postscript. The latter recapitulates the purpose and some main themes of the study and summarizes the most important findings as well as their significance for the multidisciplinary field of Arctic humanities. The book is well structured, which makes it easy to follow the various threads of the discussion introduced at the outset and then reappearing again here and there as the text proceeds. There are also two helpful tables (covering 9 pages) with chronological overviews of the many receptions, audiences and celebrations (almost 50 events in all) that took place in Vienna and elsewhere in the course of one year (from September 1874 to October 1975), specifying who participated and the character of the activity. Thereafter come the endnotes (covering a little over 100 pages), a long list of primary and secondary sources consulted, and finally a useful index with names and thematic key words that allows the reader to trace particular points, concepts, arguments and factual information. In many of its chapters, the book raises meta-theoretical questions that have a bearing on the "cultural turn" in our field. Altogether, it is a significant contribution to the history and cultural studies of polar exploration and research, both as a reference work on the Austro-Hungarian expedition to Franz Josef Land and as an exemplar for similar studies—with cross-national comparative angles—dealing with celebratory practices and reception histories of other late nineteenth and early twentieth century polar expeditions. My hope is that the monograph will be translated into English to reach a broader readership.

NOTES

[1] Peterson and Langellier (2006) characterize the "performance turn" as one that emphasizes narrative embodied in communication practices, constrained by situational and material conditions, embedded in fields of discourse, and strategically distributed to reproduce and critique existing relations of power and knowledge.

[2] The text first appeared as a series of installments, between October 1875 and June 1876, in the *Neue Freie Presse*.

[3] Regarding genre theory cf. the visual semiotician Daniel Chandler's "Notes;" http://visual-memory.co.uk/daniel/Documents/intgenre/chandler_genre_theory.pdf; access date 19 December 2015.

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Anna Nilsén, *The Gothic Sculpture of Uppsala Cathedral. On Spiritual Guidance and Creative Joy*, Turnhout: Brepols 2014, ISBN 9782503551708, 102 pp.

Scholars outside Scandinavia often express surprise and delight when they discover the rich and varied heritage of medieval art and architecture from the northern periphery. Golden altars, panel paintings and architectural sculpture of medieval Scandinavia could easily claim to be Europe's best kept secrets. The reason for this is obvious; even in our present age of cheap and extensive travel art relies on international publications in order to be inscribed in curricula and canons. The present publication of *The Gothic Sculpture of Uppsala Cathedral* is therefore something to be celebrated.

Uppsala Cathedral is one of Scandinavia's largest and most important gothic cathedrals, and it is also one of the youngest. Building commenced in 1272 and continued in leaps and bounds interspersed with periods of inactivity until completion in 1435. The cathedral houses the shrine of St. Erik, patron saint of Sweden, as well as several other royal graves.

Several French master builders were employed in its construction, and it has been suggested that also the masons behind the decorative sculpture were French. However, because the Uppsala region lacked suitable building stone, the cathedral is made of red brick. This connects Uppsala to the North German Backsteingotik; the cities along the Baltic coast are dotted with impressive red brick cathedrals, parish churches and monastic complexes. The relatively late date of Uppsala is also something the cathedral shares with these brick cathedrals on the Baltic coast. Uppsala, then, is not a typically French cathedral transplanted to Swedish soil, but rather a composite structure with a multitude of Continental stylistic impulses. The present book discusses the French connection at some length, but passes more lightly over possible German influences. An examination of the various Continental connections over time would have been an interesting addition to the book, but falls outside its scope.

The Uppsala sculpture is carved from limestone freighted from the Baltic island Gotland. Previous scholarship has suggested that there is a close affinity between the Uppsala sculptures and the Gothic carved portals on Gotland's many parish churches. The author of the present volume, Anna Nilsén, firmly rejects the idea of a strong Uppsala–Gotland-connection, pointing to major differences in iconographic repertoire, narrative structure and what she perceives as characteristic psychological depth.

The book is divided into two parts, the first dealing with the corbel sculptures of the choir, the second with sculpture found in the rest of Uppsala Cathedral. It is apparent that the series of sculpted corbels in the choir, the first part, is the main focus of this publication. Here, the author argues, is a cohesive and carefully planned iconographic programme, leading the beholder through a catalogue of virtues and vices to salvation. The motifs are varied, showing for instance knights in battle, the martyrdom of St. Stephen, a pelican and an elephant. Some images are easy to identify but more difficult to interpret, such as the elephant. Others are difficult to identify, let alone interpret, such as an enigmatic woman carrying a bucket and wielding a whisk of twigs. Nilsén suggests that the woman should be identified as a witch and the scene interpreted as paganism, heathen worship. The general appearance and body language of the figure indeed indicates that it is intended to represent something negative. However, Nilsén cannot point to iconographic parallels or textual evidence to support her identification or interpretation. Without such support, it is difficult to be persuaded.

There is no doubt regarding the identification of most infamous of the corbel reliefs, the *Judensau*. This sculpture shows a pig, or sow, being suckled by two men wearing the pointed hats that characterise Jews in medieval art. A third man, ostensibly the High Priest, is shown holding the tail of the animal. The Judensau image emerged in German-speaking areas in the thirteenth century, and gained popularity in the later Middle Ages, particularly the fifteenth and sixteenth centuries. Although known outside Germany in other media, such as wall painting and printed pamphlets, the sculpted Judensau is only known from German-speaking areas—the Uppsala sow being the only exception in a corpus of around 30 known sculptures.

In Jewish belief, the pig is an unclean animal, and the image of Jews suckling a sow is obviously degrading and anti-Jewish. Anna Nilsén argues forcefully that since we know of no Jewish communities in Sweden in the Middle Ages, the imagery should not be interpreted as anti-Jewish, or anti-Semitic, as she perhaps anachronistically labels the term. Here I believe the author goes too far in an unnecessary attempt at whitewashing the past. Anti-Jewish imagery was popular in Scandinavian art in the Middle Ages; one could argue that it was part of the medieval belief system. Of course Medieval Swedes could have harboured anti-Jewish feelings even though they had never met or spoken to a Jew, just as nineteenth-century Swedes could have very clear ideas about "Negroes" or "Chinamen."

Nilsén interprets the Judensau as a more or less neutral representation of Judaism as the antithesis to Christianity, in the same way that

the witch is interpreted as a representation of paganism. These images are, according to Nilsén, part of a carefully constructed iconographic programme describing mankind's way from Damnation to Salvation. This overall interpretation of the programme seems plausible. However, I am not convinced by the interpretation of some individual reliefs, such as the Judensau. In the German-speaking regions where the Judensau imagery originated, early versions of the motif occurred in series of images showing virtues and vices. The Judensau may in these cases be interpreted as a representation of the sin of *gula*, or gluttony. This makes particularly good sense in the Uppsala chancel, where the Judensau, representing *gula*, is shown very close to a semi-nude woman riding on a goat, which Nilsén interprets as a representation of the vice *luxuria*, lust.

The second part of the book deals with architectural sculpture on the capitals, vault bosses and portals of the cathedral. In contrast to the corbel sculptures, these have been carved in several periods of the cathedral's long building history. It therefore lacks the cohesive structure of the previous chapter, and there are fewer interpretations and discussions of the meaning of these sculptures. The imagery is rich and extremely varied, from classic marginalia in the form of confronted dragons, via camels and small dogs to full-length monumental statues of St. Olaf of Norway and an elegant fifteenth-century tympanon relief. A bit more contextualization and discussion of these motifs would have been a welcome addition to the book.

The book in question is a relatively slim volume, where the wonderful photos take centre stage. Despite being richly illustrated regarding architectural details (i.e. the sculptures), this reader misses overall photos of the exterior and particularly the interior of Uppsala Cathedral. It would have been very helpful to see the spatial context where these images belong. It would also have been interesting, especially to a Nordic readership, to read a discussion of the Uppsala sculpture in relation to other cathedrals and arch-sees in Scandinavia, and to the artistic impact of the Uppsala sculptures on parish churches in the region.

An explanation for the somewhat narrow scope of the book is that it was originally written in Swedish and published as part of an eight-volume publication on Uppsala Cathedral in the series Sveriges kyrkor ['Churches of Sweden']. The English translation is competent and unobtrusive, with a few key exceptions; it seems odd that medieval people should perceive life as a choice between eternal death and eternal bliss instead of damnation and salvation. Similarly, the subtitle of the book itself, *On Spiritual Guidance and Creative Joy*, brings associations

of New Age and Personal Growth literature, surely not intended! The publisher should also have advised against the use of terms such as *High Middle Ages*, which are applied so differently throughout Europe that they make very little sense in international scholarly literature.

The Gothic Sculpture of Uppsala Cathedral is a beautiful and interesting book that brings a medieval Scandinavian treasure to the world's attention. Let us hope that many more such publications will follow.

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Use indentation instead of a skipped line to mark the beginning of a new paragraph.

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3. References

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Paasi, A. (1996). *Territories, Boundaries and Consciousness. The Changing Geographies of the Finnish-Russian Border*, Chichester: John Wiley & Sons.

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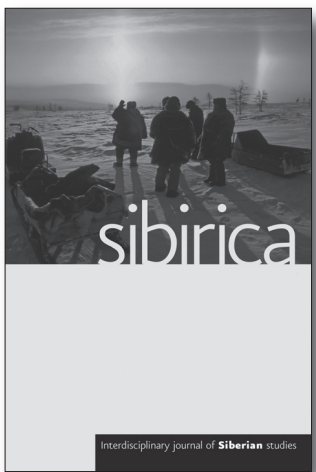

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