

Killing reindeer: A spatial analysis of Nordic states and nomadic forms of life in the Arctic

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Abstract: To conceptualize the violence of the Nordic states in the Arctic, this article provides a spatial analysis of relationships between Norway, Sweden, and Finland and the Sámi and reindeer inhabiting their northern parts. The analysis is informed by Deleuze and Guattari's concepts of smooth and striated space and examines how the Nordic states, through their striation activities, are perpetrating violence toward nomadic forms of life. Rather than casting the spatial relationships between states and reindeer herders as “land use conflicts,” the article shifts the focus from competing activities to violence toward one form of life perpetrated by another. Tracing state efforts of bordering, rationalization of reindeer herding as an industry, infrastructure developments, and cultivation of selected predatory lines of flight, the article illuminates an indirect violence that is slowly eliminating nomadic forms of life. This loss highlights that in the sixth great extinction, the world is losing not only distinct biological species but also different forms of life within species. Ultimately, the striation activities of the biopolitical Nordic states, in their narrow focus on Western knowledge regimes, security, profit, and geopolitical positioning for an impending Arctic resource boom, enact a violent and destructive homogenization of what constitutes life.

Nomads are not characterized by moving. They hold a smooth space and refuse to leave it. It is a mode of spatialization, a manner of being in space, of being for space.
(Deleuze and Guattari, 1987: 482).

Introduction

Crossing several reindeer herding districts, the 729-kilometer railway line Nordlandsbanen between Trondheim and Bodø in Norway has caused the deaths of over 3000 reindeer in the last five years. In April 2019, as reindeer herds were moving from winter to summer pastures, a train ran into a herd of reindeer and killed 37 at once. Following the calamity, the herder who owned the reindeer had to put down six severely injured reindeer set to give birth in the next few days, their dead fetuses spread along the track (Lysvold, 2019).

Sámi scholar Mikkel Nils Sara (2009: 172) describes reindeer as “a good governed by the wind,” and therefore beyond human control. Reindeer can run hundreds of kilometers every year in search of good pastures according to seasons. From the perspective of the modern

biopolitical state, reindeer are in the way, not just of railroads, but also of roads, wind farms, predators, mines, militaries, and logging, or to put it differently, they are in the way of ‘progress’, ‘sustainable development’, and geopolitical positioning for an impending Arctic resource boom.

This article stems from research on the geopolitics of the Nordic Arctic states in this current moment of melting ice.¹ Taking a spatial approach has led to a focus on the violence of these geopolitics, who this violence affects, and how it is carried out. There are forms of life in the Arctic that are characterized by conduct that is exterior to how the state territorializes space in order to secure its interests. These forms of life are being violated as the states pursue their Arctic agendas.²

In the vocabulary of Deleuze and Guattari, state space is sedentary, or what they call striated. The state occupies a space by controlling it in points. It builds railroads, roads, and recreational cabin areas, determines borders, digs mines and cuts down trees for logging. Smooth space, on the other hand, is nomadic space, made by assemblages of deterritorialization: A desert that starts blowing over a city, a slum area that has no connection to government, a forest that grows back, ice freezing over, flooding engulfing a city after a hurricane, and so on.³ Nomadic trajectories move in space multidirectionally, as vectors, not from point to point. Smooth space is amorphous and non-formal rather than homogenous, and it is infinite, open, and unlimited in every direction (D&G 1987: 476-77). Importantly, “the nomad” does not make smooth space, and is not a category of identity, but a relationship to space, a mode of being in space. Deleuze and Guattari also clarify that smooth and striated spaces do not exist as ontological entities but only arise in asymmetric and complex mixes and relationships between one another (1987: 474). Shifts from striated to smooth, and smooth to striated are two entirely different movements, and the spaces “do not communicate with each other in the same way” (1987: 475).

¹ More specifically, the research has focused on Norway, Sweden and Finland.

² In referring to forms of life rather than merely a way of life, I draw on Jairus Grove (2019: 2-3) who writes that a form of life is more than culture, less than race, and refers to “those ways of being in the world – always lived collectively – without which one would no longer be who or what one is” and Giorgio Agamben (2000), who defines a form of life as “a life that can never be separated from its form” and “a life for which what is at stake in its way of living is living itself.”

³ Striated and smooth spaces can be compared to James Scott’s concepts of “state space” as a “zone of governance and appropriation” (Scott, 2009: 40), and “nonstate spaces” as “locations where, owing largely to geographical obstacles, the state has particular difficulty in establishing and maintaining its authority” (Scott, 2009: 13).

In the Arctic, the striation activities, which is to say infrastructure development and resource extraction of the Nordic states, are a general onslaught towards biodiversity. Those forms of life that get in the way of the state, or rely on smooth space, suffer. The thing is that biodiversity is not only a matter of different species, it is also a matter of different forms of life within species. The spatial violence of the states affects reindeer, and it affects the Sámi people who have a certain relationship to space, for example Sámi reindeer herders, whose lives are adapted to the nomadism of the animals on which their livelihoods depend. This paper examines how the Nordic states, through their striation activities, are perpetrating violence towards nomadic forms of life. More specifically, this paper focuses on the spatial violence perpetrated towards Sámi forms of life as these are co-mingled with reindeer forms of life.

To conceptualize the violence of the Nordic states in the Arctic, the article provides a spatial analysis of the relationships between the states of Norway, Sweden and Finland, and the Sámi and reindeer who inhabit their northern parts - an analysis informed by Deleuze and Guattari's concepts of smooth and striated space.⁴ The analysis relies on written sources and does not stem from an ethnographic engagement with the Sámi. My goal with the article is not to represent or speak for the Sámi, but rather to understand the colonial logics of violence of the Nordic states. The analysis is based on historical and empirical examinations of striating state infrastructures, as well as Sámi articulations. Based on examinations of how striated state infrastructures encroach onto smooth, Arctic spaces bit by bit, the article analyzes how the spatial politics of the states are slowly eliminating nomadic forms of life. Ultimately, the striation activities of the liberal, biopolitical Nordic states, in their narrow focus on western knowledge regimes, equality, security, profit, and geopolitical positioning, enact a violent and destructive homogenization of what constitutes life.

As Sámi artist and author Nils-Aslak Valkeapää (Áillohaš in the Northern Sami language) (1983: 2) writes, "Really highly advanced states carry out genocide without blood, without physical violence. That's how it is." In terms of nomadic human forms of life, the settler-colonialism of a rich welfare state is genocidal not in terms of killing bodies, but in

⁴ Sápmi, the land of the Sámi, covers northern parts of Norway, Sweden, Finland, and the Kola Peninsula of Russia. In Norway and Sweden, only people of Sámi descent are allowed to herd reindeer. In Finland, both Sámi and non-Sámi Finns herd reindeer. The fact that the Sámi have similar socioeconomic status and health as the majority societies they live in (Sjølander, 2011; Norum and Nieder, 2012) (with the nuance that the health of reindeer herders is lower due to physical accidents and higher levels of anxiety and depression connected to work-related stress (Kaiser et al., 2010)) makes the settler-colonial context in Scandinavia distinct, while a history of traumatic assimilation policies and lack of political recognition and land rights is something the Sámi share with indigenous populations elsewhere.

eliminating differing forms of life by exclusion from homelands and assimilation into the majority society. In the case of the Sámi, part of this elimination however consists in physical violence towards reindeer. Blood and dead bodies are present in the non-human realm. The supreme court in Oslo ordering Sámi reindeer herder Jovsset Ante Sara to cull 41 of his 116 reindeer, rejecting his appeal that the government's herd reduction policy is an infringement of indigenous rights and that with a smaller herd, he would be unable to sustain his family, is one example of this (Henley, 2017). The killing of reindeer leads to an end to a Sámi form of life.⁵

Deleuze in the Arctic

Deleuzian thought is making in-ways into spatial theorizations (Bonta and Protevi, 2004; Buchanan and Lambert, 2005; Saldanha, 2017). This kind of thought rejects notions of space as either purely socially constructed, or as a flat, ontologically homogenous container for human politics. In Deleuzian thought, space is first of all real, never only metaphorical, and it is also heterogeneous, dynamic, turbulent and metamorphic (Saldanha, 2017). Space consists of continuous variation, becoming, and chance, rather than of constancy, being, and predictability (Doel, 1996).

The Arctic tundra as the site of ongoing struggles between interests in resource extraction and the continuance of traditional ways of subsistence mirrors broader contemporary geopolitics in the Arctic, where retreating ice due to climate change is opening up for new sea routes, resources, and potentials for conflict (see for example Mayer, 2012; Bruun and Medby, 2014; Breum, 2018b; Houg, 2013; Powell and Dodds, 2014; Borgerson 2013). Utilizing Deleuzian thought for spatial-political analysis in the Arctic answers to calls made to apply assemblage- and complexity theory in critical geopolitics scholarship (Dittmer, 2014), and for critical attunement to Arctic geopolitics that pays attention to embodiment, localities and the everyday (Dittmer et al. 2011).

Resonances between Deleuzian theory and post-colonial and indigenous thought are also receiving attention (Burns and Kaiser, 2012; De Castro, 2014; Bignall, Hemming and Rigney, 2016). Drawing on Deleuze and Guattari, Hastrup (2009) has demonstrated the importance of movement in the nomadic Arctic landscapes of the Inuit in Northern Greenland, and how this movement is hampered by changing weather and ice conditions. Other analyses based on Deleuzian theory for example explore the resistance of indigenous grassroots groups

⁵ There is currently a gofundme campaign for Sara's reindeer, that pays for the fines he accrues for not slaughtering them. <https://wewhosupportjovssetante.org/adopt-a-reindeer/>

in New Caledonia described as a rhizomatic assemblage being coopted by an arborescent one (Horowitz, 2016), and the spatial politics of territorializations and deterritorialization of a conservation space in Honduras (Bonta, 2005).

This article fits into a larger effort to amplify indigenous and postcolonial perspectives in International Relations, in order to provide alternatives to dominant Western modes of thinking that inform security and policy efforts (see for example Nayak and Selbin, 2010; Shilliam, 2011; Mupiddi, 2012; Todd, 2016; Cornassel and Woons, 2018). While there is a very large body of Sámi scholarship and literature, Sámi perspectives are hardly present within International Relations scholarship (Greaves, 2016 being an exception).

Much research is engaged with strained relationships between Sámi reindeer herders and the Nordic states of Norway, Sweden and Finland. The detrimental effects of various state infrastructure developments to reindeer herding, often described under a rubric of “land use conflicts” between reindeer herders and other users of land figure prominently in this literature (see for example Syrjämäki and Mustonen, 2013: 96; Sarkki et al., 2016; Johnsen and Benjaminsen, 2017: 3; Greaves, 2016; 470). Another prominent focus is how the legal and managerial apparatuses of the Nordic states, informed by western notions of science or “rationality” hamper and sometimes criminalize traditional Sámi resource and herd management (Bjørklund, 2004), partly because the “traditional ecological knowledge” (TEK) of the Sámi is not acknowledged by state knowledge regimes (Turi, 2016; Johnsen, Mathiesen and Eira, 2017). That reindeer herders are often portrayed as misinformed and greedy, and how especially the Norwegian society is engrained by a myth that herders have too many reindeer that overgraze the tundra is also a focus (Bjørklund, 1990; Johnsen, Benjaminsen and Eira, 2015). By referring to such myths, the state can employ a discourse of sustainability in order to legitimize activities that harm the possibilities for continued reindeer herding (Beach, 2004; Nyssönen, 2012; Sarkki et al., 2018). Scholars have also focused on how maps made by the hegemonic state assist in gaining ever more control over Sámi lands and how the Sámi resist the state by drawing alternative maps (Mazzullo, 2013; Svalastog, 2015; Lundström, 2015), and how the state drawing borders has affected and continues to effect traditional reindeer herding practices (Koch, 2013).

Thus far, frameworks of Deleuze and Guattari have not been utilized to conceptualize Sámi relationships to state encroachments. In the edited volume *Nomadic and Indigenous Spaces* (Miggelbrink et al., 2013) with many contributions relating to the circumpolar North, the editors dismiss Deleuzian thought on the grounds that smooth and striated spaces are binary concepts, and that the nomad in Deleuzian thought is an ideal type. Such simplifications of

Deleuzian concepts foreclose the rich possibilities of Deleuzian thought expressed in the literature cited here. Mazzullo (2013: 109) briefly refers to smooth and striated space but frames it as parallel to Lefebvre's distinction between spatial practice, the representation of space, and the representational space, as well as Ingold's distinction between lived experience of space and abstract creation of space. These spatial concepts focus on how humans construct meanings about space, and therefore differ from Deleuze and Guattari who highlight material, non-metaphorical, and non-human aspects of space, which opens up for taking material characteristics of space itself into account, as well as lived experiences of for example reindeer, a perspective Ingold elsewhere (2004: x) argues for taking seriously, precisely because the Sámi take it seriously. In the epilogue to *Nomadic and Indigenous Spaces* Ingold writes that the distinction between smooth and striated space is problematic, because it is wrong to view a peasant as delineating a territory (2013: 260). However, as Deleuze and Guattari (1987: 481) write: "We cannot content ourselves with establishing an immediate opposition between the smooth ground of the nomadic animal raiser and the striated land of the sedentary cultivator. It is evident that the peasant, even the sedentary peasant, participates fully in the space of the wind, the space of tactile and sonorous qualities."

Rather than casting the spatial relationships between states and herders as conflicts over land use, this article shifts the focus from competing activities and goals to different forms of life. The spatial focus and Deleuzian framework of this article conceptualizes the relationships between the Nordic states and nomadic forms of life as different ways of *being* in space. The concept of land use rests on a presumption that the user is somehow somewhere else when not using the land, which does not encapsulate the nomadic relationship to space. The point is that the nomadic trajectory is not merely about *using* space, it is about *being* in space. Casting the political struggles of for example Sámi reindeer herders under the politically neutral rubric of land-use conflicts, or a discourse of "differences between national and local needs" or "coping with land-use change"⁶ succumbs to the logic of the state. Viewing the state and nomadic forms of life as isomorphic entities in questions of land-use sidesteps a significant power differential as well as a colonial relationship and reinforces the interests of the state over nomadic forms of life.

⁶ Discourses observed in presentations at the UArctic Congress, University of Oulu September 6, 2018. In the Finnish reindeer herding context, in which both Sámi and non-Sámi herd reindeer, such discourses help to articulate reindeer herders in Finland as a uniform group, which is sometimes necessary for certain research agendas.

Closing borders

The history of the Sámi is a history of different and changing nomadic forms of life. As Sámi historian Veli-Pekka Lehtola (2002: 20) writes, the Sámi are not a particularly uniform group genetically, and they were not isolated, but have always had rich interaction with other cultures. The Sámi became a distinct group during the Bronze Age, when a split occurred between hunters and agriculturalists (Lehtola, 2002: 20). The Forest Sámi and Sea Sámi lived in networks of small communities that migrated according to seasons, subsisting on hunting, gathering and fishing (Lehtola, 2002: 22). The nomadism of Forest Sámi communities shows up in the archeological record in how these peoples did not bother with ceramics and iron, which were too heavy to carry around (Lehtola, 2002: 22).

The Sámi are also characterized by striation, most prominently in the governance system of the *siida*, which is a territory as well as a social system that evolved from the adaptation of hunting culture to the land and its resources (Helander-Renvall, 2016: 25). The *siida* system is based on collective ownership and no social stratification; Odd Mathis Hætta calls it “a stateless local democracy, with a leader, the first among equals” (Hætta, 2008: 22). This village system governed community activities in which kin groups or families were granted usage rights (Lehtola, 2002: 23). However, Sámi striations were suppler than those of the state, as “Sami notions of place are not fixed in temporal and spatial terms” (Helander-Renvall, 2016: 14). The borders of a *siida* were defended against intervention, but were flexible: one *siida* could apply for permission to use resources of another, and hunting grounds were often located in the boundary area between two *siidas*:

The Sami notion of territory differs from the ‘western’ concept. For the Sami, the boundaries between different places are difficult to draw, because activities follow the shifting circumstances of nature, and areas within which they occur can be extended so that they overlap with other areas belonging to other people (Helander-Renvall, 2016: 28).

The forest Sámi *siida* system has gone through many changes as it has adapted to natural conditions, and also to the influence of states and colonization (Lehtola, 2002: 26). Long before reindeer were herded, reindeer were tamed to use as pack animals, for milk, and to bait other reindeer. In the late 1500s some Sámi were impelled, by hard years with pressures on food security and low numbers of wild animals due to overhunting, to domesticate their game in order to hold on to a livelihood provided by it. Herding whole reindeer herds meant a change from a hunter-gatherer migratory (albeit still nomadic in the Deleuzian sense) life, to a nomadic life determined by the continuous movement of the reindeer herd from pasture to pasture based on the season, weather, predators, and changing ecological factors (Lehtola, 2002: 26).

Expanding herds and looking over animals became a full-time occupation, and to keep the human family together, it came along.

Two hundred years later, vectors of nomadic movement were halted and fully nomadic reindeer herding effectively ended when the states closed the borders between them as part of their efforts to control flows and grid any unlimited space. The closure of the Norwegian-Finnish border in 1852, and the closure of the Finnish-Swedish border in 1889, cut off migration routes that had shaped Sámi life for two centuries (Lehtola, 2002: 36). Siidas were forced to pick a nation-state to belong in, and the Sámi were prohibited from crossing the borders freely. As a result, reindeer and pastures were lost, and reindeer herding became a secondary livelihood for many (Lehtola, 2002: 37). The border closures also affected fishing, cutting off access to the Arctic Ocean for Sámi from the Finnish side, and imposing regulations for example on fishing in Deatnu river which marked the border between Norway and Finland (Lehtola, 2002: 37).

The 1751 Lapp Codicil in Norway stated that the Sámi were allowed to migrate freely across the newly established border between Norway and Sweden due to their ancient custom of reindeer husbandry (Bull, 2015). This respect was gone a century later, when the border closures coincided with the height of colonialism. At this time the Nordic states began decades of harsh assimilation policies towards the Sámi, first applying an ethos of orientalism and civilizational inferiority to what was earlier equal neighbors and trading partners to the North, later through Christian missionizing and state assimilation policies following WWII. In Norway, the policies were simply called “Norwegization” and included sending Sámi children to boarding schools away from their families (again halting nomadic movement), beating them for speaking their language, and labeling everything Sámi as shameful. Today, small numbers of Sámi persist as reindeer herders, many of them with reindeer herding as a secondary occupation.⁷

⁷ Even though reindeer herding is highly valued as an integral part of a Sámi form of life across different Sámi communities, it is important to note that there are different ways of being Sámi. As the Finnish Sámi parliament write on their website: “The traditional Sámi livelihoods are fishing, gathering, handicrafts, hunting and reindeer herding and the modern ways of practising them. Out of the traditional Sámi livelihoods, reindeer herding still functions as one of the important cornerstones of the Sámi culture by offering both language arena as well as material for, among others, clothing, other Sámi handicrafts and food culture. Ever since the development of reindeer herding, reindeer has been an important form of transportation.” The image of the reindeer herder as the “most authentic” or “emblematic” Sámi can be exclusive to other ways of being Sámi (see Olsen, 2004 and Ahvenjärvi, 2015). At the same time, the notion that “Without the reindeer, the Sámi people wouldn’t be” (Jussa Seurujärvi quoted in Wall, 2019), is expressed by different Sámi actors.

Counting reindeer

Due to a paternalistic worry that the Sámi were overstocking reindeer and overgrazing the tundra, the Norwegian state implemented the 1978 Reindeer Herding Act in order to transform Sámi reindeer husbandry into a more “economically efficient” and “environmentally sustainable” industry. The migration of the whole family with the herd, which continued to take place in West Finnmark until approximately 1960, was seen as “out of date,” and the prevailing conviction was that pastoralists had to alter their nomadic lifestyle and become more “modern” and “rational” if their source of livelihood was not to be lost (Johnsen and Benjaminsen, 2017).

According to Tyler et al., traditional Sámi herders view pasture-space as a non-equilibrium-system, where reindeer fluctuate randomly according to a vast array of external influences. Herders adjust the relationship between pasture and herd throughout the year in relation to a complex range of objectives (climate, ecology, herd biology) (Tyler et al., 2007). Because the environment is unpredictable and ever changing, flexibility is paramount. Herders seek diversity in landscape types, so they have alternatives with which to meet different situations, and they seek diversity in herd composition (age, sex, strength, personality etc.) as a strategy for reducing vulnerability to unpredictable and harmful conditions. The ability to move the herd accordingly is of course essential here (Tyler et al., 2007).

This way of being in space stands in contrast to the mode of operation of the state that assumes that maximizing meat production should be the primary objective of pastoralism (Benjaminsen et al., 2015). To achieve this, the state calculates “carrying capacities” of herding districts based on assumptions of static and predictable environments, i.e. an equilibrium system, and translates lessons of herd composition and slaughter from husbandry in controlled environments to herding in uncontrolled environments (Benjaminsen et al., 2015; Johnsen and Benjaminsen, 2017).⁸ For example, Section 2 of the 1978 Act includes rules for the designation of husbandry areas, the duration of grazing seasons within them, the size of the herds, and the body mass of the animals in them (Tyler et al., 2007). It goes without saying that flexibility is wrecked when a herd of a certain composition has to be moved between certain pastures on certain days.

⁸ The distinction between the state’s perspective of the tundra as an equilibrium system, and the herders’ perspectives of a non-equilibrium system mirrors Deleuze and Guattari’s (1987: 361) distinction between “imperial science” and the epistemology they call “nomad science.” The latter views flux as the consistency of reality itself; it is a model of becoming and heterogeneity, “as opposed to the stable, the eternal, the identical, the constant.”

The 1978 Reindeer Herding Act ignored the siida's systems of reindeer ownership and pasture access, as well as Sámi knowledge of animals and pastures (Bjørklund, 2004; Labba, 2015). Motivated by the state's policies, for example subsidies for infrastructure investments (e.g. fences and vehicles), herders embraced technology such as snowmobiles, and were motivated to grow their herds while diminishing the flexibility and diversity of them. As a result, Sámi traditional knowledge and cultural practices decreased. For example, the amount of Sámi terms describing different animals in the herd declined (Bjørklund, 2004).

More specifically, the Act encouraged a higher ratio of 'productive' female reindeer in the herds in order to facilitate the 'production' of more calves, as well as increased slaughter of calves (Johnsen and Benjaminsen, 2017). To 'optimize' meat amounts of the whole herd, the Act mandated slaughtering of calves in the fall rather than letting them tax their mothers through winter (Johnsen and Benjaminsen, 2017). In response to this, the herders interviewed by Johnsen and Benjaminsen (2017: 10) described that a higher proportion of female reindeer changes the herd's patterns of behavior and grazing. Male reindeer are more tolerant of human disturbance, can graze in areas females and calves avoid, and often have more strength to crack a crusted snow cover to reach lichen underneath. This means that an "optimized" herd is not able to utilize the full variety of pastures within a herding district. Herders view the age of a year and a half, in the fall before their second winter, as the best time to slaughter calves. To them, separating calves from their mothers before they are independent is cruel. The separation causes stress to the herd when females, who have a strong connection with their young, will search for their calves and sometimes get lost (Johnsen and Benjaminsen, 2017: 10).

Deleuze and Guattari (1987: 385-86) write that one of the fundamental tasks of the state is to striate the space over which it reigns. It is, they write, of vital concern to every state to annihilate nomadism, control migration, and capture flows of all kinds. The state needs fixed paths in well-defined directions that regulate circulation and measure in detail the relative movements of subjects and objects. The state demands that movement ceases to be nomadic bodies occupying a smooth space, and instead are "moved bodies" going from one point to another in a striated space (Deleuze and Guattari, 1987: 386). With the 1978 Act, the Norwegian state sought to regulate, enclose, and enumerate its way to full control of the flows of reindeer and herders. This impetus to control reindeer runs contrary to the way Nils Oskal describes a Sámi reindeer herding society:

In reindeer herding society you should not deny the world by fleeing from it or by trying to dominate or control it. You should not conquer the world but try to get along with it and come to an understanding with it (Oskal, 1999: 179).

Similarly, Hætta writes that “a culture based on hunting and gathering requires that people work with nature, rather than attempting to change or master it” and that “nomadism and semi-nomadism exploits nature’s resources in a different way than a permanent settlement pattern” (Hætta, 2008: 20 and 26). According to Benjaminsen et al. (2015) the concept of carrying capacity has no ecologically sound meaning in Sámi cosmology: In this mode of thought it does not make sense that contingencies such as pasture quality or animal welfare can be determined numerically. The Sámi herders interviewed by Johnsen, Mathiesen and Eira (2017) base animal-welfare on constant observation of the reindeer rather than on the weight of their carcasses (as does the state), and according to them one should always have more reindeer than needed, because loss of reindeer is a part of reindeer herding. Further, “you shouldn’t challenge your reindeer luck with accounting” (Oskal, 1999: 177). Rather than counting your animals you should be able to recognize and remember each reindeer as an individual, and in that way be able to notice if some are missing (Oskal, 1999: 177).

Johnsen and Benjaminsen (2017) describe how herders have resisted the state by maintaining traditional governance structures in the shadow of it, for example producing public plans for pasture use according to state requirements and more detailed plans for operations within the *siida* that were not shared with authorities. Herders have also hidden reindeer to mislead the state’s efforts to count them. Swedish Sámi herders would routinely let the reindeer scatter extensively throughout the pastures to prevent counting – taking advantage of the nomadic qualities of reindeer and their conduct in smooth, “ungovernable” space. In one example told to Johnsen and Benjaminsen (2017: 15), the authorities used aerial photos to count the reindeer on the tundra. To trick the enumerators, the herders “gathered half the herd and moved it to the neighboring valley.” Smooth space, Deleuze and Guattari write, is “occupied without being counted,” and striated space “is counted in order to be occupied (Deleuze and Guattari, 1987: 362). Refusing counting is a deterritorializing practice that runs directly against the grain of the state’s striation efforts. Insofar as these activities are spatially in the way of or against the conduct of the state apparatus, simply continuing reindeer herding, and subsistence activities such as hunting, fishing, and gathering, deterritorializes state space (for more on Sámi resistance strategies, see Lehtola, 2019). As Sámi scholar Elina Helander-Renvall (2016: 28) writes:

All kinds of external authorities have governed and controlled Sami people since the days of the old *siida* system. Sami people living a local everyday life rarely have the opportunity to influence their own lives politically and administratively. But subsistence activities are

oppositional to the extent that they are conducted contrary to the rules and administration of Norwegian society (Helander-Renvall, 2016: 28).

Infrastructure

The problem is land grabbing. The government expropriates land for roads and tunnels, wind farms and mines. Our land is being eroded by development. Almost half of our winter lands have gone. I fear that in future there will be nowhere left for the reindeer (Aslak Eira, quoted in Vidal, 2016).

According to Deleuze and Guattari, the state seeks to striate and control flows until no smooth space is left. This endeavor by the state is an indirect, slow (Nixon, 2011) type of violence to nomadic forms of life, which squeezes them bit by bit, making the cumulative effects at once discreet and deadly. In the spatial politics of the Nordic states, the state's infrastructure is the main perpetrator of this violence. Mundane objects such as roads, railroads, mines, and leisure cabins, benign and necessary as they may seem, are committing a cumulative atrocity, bolstered by lofty legitimizations related to renewable energy, jobs, or progress.

Environmental impact assessment reports attending specifically to how different infrastructure projects will affect and have affected reindeer herding practices are a display of how this violence takes place. For example, a 2017 report on the estimated effects on reindeer herding of building a new road (E8) from the South into Tromsø, Norway, is a showcase of the detrimental effects of state striation for reindeer nomadism (Riseth, Johansen, Danielsen, 2017). Based on research by Sámi professor Nils Mikkel Sara (1999), the report describes the movement of reindeer for each season – how the reindeer in early summer move down in the terrain for new sprouts that emerge first in lower lands. In mid-summer, the reindeer shed their fur and become very sensitive to sun, cold, rain, and especially insects (see also Sara, 2009). Mosquitoes can drive the reindeer up on high plateaus, and during the summer, the reindeer migrate up and down depending on heat and rain. In late summer and early fall when insects and heat have subsided, the reindeer seek towards forested areas with ample pasture, and will also travel far and wide in the forest to find mushrooms. As the first snow falls in the fells, the reindeer seek even further down, into marshes to find their food. In the winter, the reindeer depend on lichen that they can dig out from under the snow, or that hangs on trees.

The E8 report describes how gradual state striation of reindeer space results in fragmentation of reindeer pasturelands through direct effects when pastureland is simply lost, through indirect effects when reindeer shy far away from disturbances and consequently abandon some pastures and also loose energy and body weight, and finally through cumulative effects, which are the sum of past and present disturbances. Different infrastructure projects

with small individual effects can in conjunction have catastrophic effects, because they undermine the aforementioned flexibility that is essential to reindeer herding (see also Johnsen, Mathiesen and Eira, 2017).

The reindeer-herding district which will be affected by the new E8 road is already under severe pressure, most notably on its winter pastures, which are overlapped by the Mauken-Blåfjell military training area. The E8 will affect the summer pastures, harming the adaptability that came from compensating for pressure on winter-pastures. Also an expanding area with recreational cottages puts pressure on pastures, as does the general expansion of Tromsø city. The report concludes that E8 will effectively close off corridors for passing reindeer herds between different summer pastures and will cause the loss of marsh and forest pastures (Riseth, Johansen and Danielsen, 2017: 39). The report therefore recommends heavy investments in fencing, noise-reduction, and infrastructure that allows reindeer to cross over and under the road in critical locations. In essence, the environmental impact assessment recommends that the territorialization of the road should come equipped with its own partial deterritorialization.

A 2017 report on the railway line Nordlandsbanen mentioned in the introduction, describes how the railway strips away large areas of pasture land, and herders spend a lot of energy driving their herds away from areas close to the railroad, which are then areas that due to limited pasture activity become extra appetizing to the reindeer. According to the report, it is difficult to directly compare the costs of putting up and maintaining fencing along the railway to keep reindeer off it, and the cost of compensating herders for lost animals (Rolandsen et al., 2017). For such a comparison to be difficult, one must be blind to any value of reindeer life that cannot be calculated vis-a-vis the value of reindeer meat.

The Finnish state is pursuing a proposed railway line from Rovaniemi to Kirkenes – dubbed “The Arctic Corridor,” which would enable Chinese and Russian goods shipped via the Northern Passage to Kirkenes to make their way to Europe via a tunnel from Helsinki to Tallinn, establishing Finland as a geopolitical node ready to reap advantages of the Chinese Belt and Road initiative, untapped oil and gas in the Barents sea, and mining potentials in Lapland (Breum, 2018a; Wall, 2019). The proposed railway line would cut through traditional Sámi reindeer herding lands:

Everybody would lose their jobs if the railway comes. Our land would be divided – it would be like a new border [...] Reindeer follow migration paths through forests. If they can't, there will not be enough food to feed them all (Jussa Seurujärvi quoted in Wall, 2019)

Tiina Sanila-Aikio, President of the Finnish Sámi Parliament, views the process of dividing lands by a railroad, and then handing them over to foreign investors, as a slow colonization (quoted in Wall, 2019). As she says:

This means the end of the Sami people, because there are no possibilities to practice traditional livelihoods. Then the Sami are extinct (quoted in Wall, 2019).

Despite such statements from Sámi representatives, the Regional Council of Lapland in 2019 added the railway to an updated regional land use plan, enabling its construction. The council's vice-chair, Heikki Autto, maintained that the rail project is too important for any single interested party to have a veto over it, and pointed out that the Sámi do not have a veto on "land use planning" (Yle News, 2019).

Each new infrastructure project tends to grow in scale over time, encroaching further into smooth spaces. As reindeer herder Mikkel Isak Sara says about yet another proposed infrastructure project in his reindeer district, this time a "small" hydro-electric plant which would build a dam in a fell water system which provides cooling for reindeer on hot summer days:

The plans will probably become larger than they say. In the beginning they just want a little bit, and then later the plans are expanded. [...] We see that there has previously been given concessions to building small hydroelectric plants in our herding district. These have grown and grown over time. Even small gravel pits are still growing in scale. [Even one leisure hut poses a threat, because] After that there will often be an application for one more. And another one. Another. And finally, you have a huge hut field that needs a road. This again increases traffic (quoted in Larsen, 2018. Translated from Norwegian by author).

Different striation activities slowly chip away at smooth space, territorializing it bit by bit. First, the extra pasture – the one for difficult times, or the one allowing the other to rest – is taken away. Then the Sámi can be blamed for reindeer overgrazing on the remaining land (Forbes, 2006; Benjaminsen et al., 2015).⁹

Smooth space takes up a lot of space, in the eyes of the state, whose goal is to striate until nothing is left. Each new infrastructure project is proposed in the name of "jobs", "progress", "renewable energy", "the interest of the majority", or even in the name of

⁹ It goes without saying that reindeer that have been squeezed into an area that is too small for them will be more likely to "overgraze". The solution of the state is to mandate culling of reindeer, but the solution should be to give the reindeer more space. In Norway, it is the state's own policies on reindeer herding that have made the herders unable to mediate the carrying capacity of a given area (Bjørklund, 2004: 131). In my opinion, the idea that reindeer are damaging to the environment forms part of the state's violence towards nomadic forms of life.

opportunities for the Sámi so they won't disappear in a modern world, followed by obligatory rounds of environmental impact assessments and coercive “dialogues” in which herders are given small but nonessential concessions and are assured that nothing will be put up unless agreed to, except everything ends up being put up without being agreed to, or the impacts are much more severe than initially outlined. To seize its space, the state engages in bureaucratic feints in which it, keeping everything within its own administrative systems and logics, play-acts due diligence and claims itself to be legitimate according to itself.¹⁰ Examples abound of this bureaucratic dance in which the state slowly seizes its space while ignoring Sámi concerns about an end to a form of life.

Predatory cultivation

As mentioned, the Mauken-Blåtind military training area in Troms Norway overlaps a winter pasture for reindeer. A new road connecting the Mauken and Blåtind areas, and a subsequent expansion of the Blåtind area was completed in 2011 after intense protests and legal struggles between the Norwegian military and the reindeer herders. In 2014, a plan for “shared use” of the area was implemented.

A 2015 report analyzing whether the actual effects of these changes were larger or smaller than projected in original impact assessments concluded that the effects have been much larger than anticipated for the reindeer herders (Riseth, 2015). Most problematic is the increased activity of the army: it simply uses the areas more intensively now that they are connected. This results in disturbances for the reindeer, who have to survive the winter with increasing noise from vehicles, helicopters, and gunshots. The new road – the corridor between the two areas – is kept snow-cleared by the military all winter. The snow-drifts that this clearing creates on both sides of the road make it impossible for the reindeer and their herders on their snow scooters to pass, making it hard for the reindeer to maintain flexibility in their pastures, and hard for the herders to bring food to their reindeer when this is needed (the report states that feeding is increasingly needed due to the general fragmentation of pasture-lands). The report also describes how reindeer sometimes scatter into rugged and unknown territory to escape

¹⁰ This play-act also takes place through the recognized Sámi parliaments which are advisory and contributory institutions with no veto or legislative power. Máret Anne Sara (quoted in Larsen, 2017) has said that these parliaments can be abused “to whitewash any initiatives by pointing to consultation and so-called dialogue.” The contradiction of “self-determination through a government agency (Lawrence and Mörkenstam, 2016) is noted as “an impossible task”, and the parliaments function to institutionalize “*non-territorial* indigenous self-determination” (Josefsen, Mörkenstam and Nilsson 2016: 6, emphasis added).

military noise and disturbance, and fall prey to predators as a result, and how especially foreign military personnel have little understanding of how destructive it is to drive small military vehicles on top of ridges rich in lichen. Nonetheless, the shared-use plan for the Mauken-blåtind military training area condemns reindeer herders and the military to co-existence, with no defined right of way.

Ideally, one is assuming that the two parties to a certain degree have to mutually adapt, and one can say that for both parties, a very challenging coexistence has been forced upon them. The challenge lies not merely in the differences in the size and strength of the parties, but that the activities are of such entirely different character. This is exemplified well through how the parties have to relate to time and space. The military has its trainings that have to be carried out with a certain amount of personnel during a year. This requires extensive and detailed planning, and also results in limited flexibility in execution. Reindeer herding has a yearly cycle that has to be flexible in time and space based on reactions of the reindeer and movements according to weather, and wind and local pasture conditions. The larger the intensity of the use of the area is, the larger the challenge will become for both parties (Riseth, 2015: 19. Translated from Norwegian by author).

One winter exercise in the area, which in a stark display of ignorance was called “Operation Joint Reindeer,” took place in March 2018. Over 5000 soldiers from Norway, Britain, the U.S. and the Netherlands trained operations under challenging winter conditions (forsvaret.no, 2018a). The exercise was a precursor to the high-visibility NATO-exercise Trident Juncture, which took place further south in Norway in the late fall of 2018, attracting 35.000 participants, 250 aircraft, 65 ships and 10.000 vehicles, with the primary goal of deterring Russia while practicing and showcasing a NATO article 5-scenario (known as one for all, all for one), and making sure that NATO allies are able to operate in Northern landscapes (Forsvaret.no, 2017). As colonel Thomassen, leader of an allied training center in Norway says:

It is important that allied soldiers are well educated in basic individual skills under winter conditions. They need this to be able to operate during the winter in Norway. Without this basic training, someone will be more focused on surviving than fighting [...] If you lose your glove in the cold, this will have immediate consequences because you risk frostbite in your hands, which will put you out of the game. Once soldiers master this, their fighting ability is maintained” (Forsvaret.no, 2018b. Translated from Norwegian by author).

As part of NATO co-operation, Dutch Marines have trained in Norway since 1972. They come to prepare for the challenges of combined cold with wet weather, navigation and movement in full winter gear, and to keep their weapons operative in Arctic climates. After completing winter training in Norway and Scotland, a Dutch Marine can add a badge to his or her uniform depicting a reindeer as a symbol of being an experienced soldier able to operate in an extreme climate (forsvaret.no, 2018b).

The choice of the reindeer as trope for soldiers mastering Arctic environments, with its suggestion that the soldier is like a reindeer, overlooks the differences between how a well-trained soldier versus a reindeer operate in Arctic space. When the point is to fight in the landscape, and only secondarily to be in it, a well-trained soldier with a reindeer badge does not hold a smooth space. The nomadic trajectory distributes people and animals in an open, indefinite space, while the sedentary road functions to parcel out a closed space for people (Deleuze and Guattari, 1987: 380). Soldiers are trained in how to continuously uphold a personal space of striation that often leaves behind it a wake of ecological destruction. An example of this destruction is the reindeer that in 2016 was found shot in one of the army's shooting areas (Ingvaldsen, 2016). Conduct that results in killing a reindeer should not earn you a reindeer badge.

As Deleuze and Guattari note, the state making a military is always a compromise, because the military is a destructive line of flight, it is in itself a deterritorialization that runs against what the state stands for (Deleuze 2006, 106). Accordingly, a military is an excessively disciplined and striated destructive force. It does not exist in accordance with the ecology it operates in, but barges in at its convenience, bending the ecology to its needs of destruction. In this way, the territorializations of the military become a deterritorializing force that destructs the supple, trans-species, and flexible territorializations of reindeer and their herders that are carried out much more in resonance with the surrounding ecology.

In the Mauken-Blåtind military training area, the state is behind its own striated forces of destruction, all in the name of security. The military keeps Norway and NATO safe, and it would also say that it is a necessary evil to local reindeer, because it keeps the reindeer herders safe from military invasion. The problem is that these particular reindeer and their herders have been deemed to survive in a perpetual military invasion, and in this way, their life is continuously sacrificed in the name of Norway's sovereignty.

As is the case with a military, the state sometimes has an interest in cultivating certain deterritorializing, destructive elements. The conservation of predators is another such example. Through institutions such as the EU and the Bern convention, predators, most controversially the wolf, are protected in Norway, Sweden and Finland (Russia on the other hand provides bounties for shooting wolves). Reindeer are the most important food source for several of these large carnivores, which means that currently, reindeer herding is essential for keeping predator populations afloat. Technically, the state compensates herders for lost animals and pays for its predators that way, but finding dead reindeer is a tricky business, so compensation and prey don't match up (Paliskunnat.fi, see also Beach, 2004; Tyler, 2007).

In a classical biopolitical sense, predator populations of wolf, lynx, bear, and wolverine are controlled via close monitoring and culling as necessary in order to maintain nationally mandated population goals. Predators can also be deemed “trouble animals”, for example if they enter human yards and kill dogs, and can then be hunted down and killed after permission has been granted by the state (Barkham, 2017; Castle, 2008). The Scandinavian wolf population is inbred, and it is therefore encouraged that new wolves be allowed to enter Finland from Russia and make it across to Sweden and Norway.

Wolves can kill reindeer by the hundreds, and semi-domesticated herds, especially those that come to feed in set places every day, are easy prey (Barkham, 2017; Castle, 2008 see also Heikkinen et al., 2011). In October 2018, a wolf in Finnmark killed 12 reindeer, some of which had to be put down due to severe injuries. As a distressed reindeer herder said: “It stays in the reindeer herd and kills, it is not eating to get full” (Varsi, Paulsen, Larsson, 2018. Translated from Norwegian by author). A wolf that finds a reindeer herd coming to a certain place every day to be fed will indeed kill many more reindeer than it can eat immediately. In zoology, this behavior is called “surplus killing”, and has been observed in many different predator species (Kruuk 1972). It is speculated that such killing frenzies “allow utilization of a kill at a later time, or allow other members of the same social unit or offspring to use the food” (Kruuk, 1972), or that they occur when the behavior of the prey is altered, for example in a herd of semi-domesticated reindeer that come to feed in the same place every day (Siler, 2016). Removing carcasses striates the deterritorialization caused by the predatory instincts of the wolf and motivates even more killing.

The question of predators is also a question of spatial encroachment. Pitting the issue as the conservation of biodiversity via apex predators against the continuance of reindeer herding (as some herders do, see for example Vidal, 2016 and Paliskunnat.fi) again sidesteps the main issue, which is a lack of smooth space due to state striation. Wolves have always been a threat to reindeer (see Sara, 2009). In its biopolitical management, the state fails to take the nomadism of predators into account. The predation is cultivated to take place in pockets of smooth space that are not large enough to host it, and what is made to give in this equation are the reindeer. The constriction of smooth space makes the predators more intense, and in this situation the conservation of predators becomes another cumulative effect that further destroys possibilities for reindeer herding.

The state’s interest in cultivating predation, be it via NATO soldiers or wolves, enacts a strange hybrid between striation and deterritorialization. The state wants access to just enough smooth space to cultivate predation that fits within its biopolitical regime: only so many

predators can live, and only if they behave a certain way (“trouble animals” are killed), and only so many soldiers, and only if they behave a certain way (35.000 and they are well trained and only kill “to make life live” (Dillon and Reid, 2009)). Smooth spaces are kept to a minimum for the state’s cultivation of just the right amount of predatory, deterritorializing lines of flight: Just enough to keep the wolf gene-pool renewing itself and just enough to deter Russia, but not so much smooth space that nomadic forms of life could become a threat to the state itself. In this way, infrastructure such as roads, railroads and borders help the state remain in control, also over the predatory cultivations it has deemed necessary.

Conclusion: Elimination of nomadic forms of life

At the moment, the sixth mass extinction event – driven by human activity – is underway, resulting in “biological annihilation” (Ceballos, Ehrlich and Dirzo, 2017). Against this backdrop, the idea that the construction of a railroad is more important than the continuance of a Sámi form of life seems absurd. What is being lost in the sixth extinction is not only distinct biological species, but also forms of life, and such forms of life are more than just curiosities (Grove, 2017). The Arctic geopolitics of the Nordic states are impeding biodiversity in a large-scale spatial striation effort that expands a forceful homogenization of the western form of life based on consumption, profit and growth. Given how destructive this form of life is due to its fundamental misunderstanding of what kind of relationship it is possible to have to the surrounding ecology, this homogenization is not only genocidal towards other forms of life, it is ultimately self-destructive. As mentioned, Tyler et al., (2007) describe how a principle of strength in diversity is well known to Sámi reindeer herders, both in terms of pastures and animals. The Sámi ”concept of a ‘beautiful’ herd of reindeer (čappá eallu) is the antithesis of the homogeneity of a pure bred herd of livestock developed by selection for the requirements of modern, high-yielding agricultural production systems” (Tyler et al., 2007: 197). A herd is beautiful precisely because its diversity allows it to survive under changing or unfavorable conditions (Mazzullo, 2010):

The herd is beautiful if it is composed of many reindeer of different shapes and colours giving it a picturesque unity with contrasting black and white in different patterns. In addition, it should contain many adult bulls and animals of all ages (Oskal, 1999: 176).

The state is unable to acknowledge that homogeneity is not only violent, but also a path towards vulnerability, and it is unable to acknowledge the profound losses its focus on profit, security and geopolitical positioning entails. In its perverse focus on the calculable, measurable, and

profitable, the biopolitical state is blind to the richness of living itself. The number for calf weight is blind to the value of a reindeer mother's connection to her calf, the number for compensation for dead reindeer run over by a train is blind to the actual life and death of the reindeer, and the number for profit is blind to heterogeneous forms of life, cross-species empathy, and rich, wild living. Liberal biopolitics shrink what is important about living, and what kinds of lives are worth living.¹¹ If the logics of striation are taken to their fullest extreme, we end up with a scenario where the Sámi merely have the right to work in reindeer factories:

The brutal simplification of a complex and heterogeneous landscape goes hand in hand with an equally brutal simplification of the pastoral livelihood itself, a move that reduces the rich, adaptive complexity of pastoralism – as an assemblage of social forms, practices, traditions and ethical principles – to a sterile, dysfunctional caricature of a meat factory (Benjaminsen et al., 2015)

In essence, Sámi territorializations express a form of life that the liberal, biopolitical state, through its striation activities, refuses to accept. The colonialism of the Nordic states involves a spatial attempt to homogenize what constitutes living.

Forms of life that differ from the dominant western form of life, intimately wedded to the state apparatus, are under continuous attack in the Arctic. Perhaps the “friction of terrain” (Scott, 2009) of an icy ecology that prohibits agriculture is part of the reason why there is still some alterity left to attack in this part of the planet. As Holbraad, Pedersen and de Castro write:

To differ is itself a political act. This would require us to accept that such non-controversially “political” notions as power, domination, or authority are relative stances towards the possibility of difference and its control. To put it very directly (crudely, to be sure), domination is a matter of holding the capacity to differ under control—to place limits upon alterity (Holbraad et al, 2014).

The point is not that Sámi and reindeer forms of life should be protected because they can save the west from itself. Nothing can save the west from itself. Forms of life that embody

¹¹ Refusing to put forth a theory of the state as something with a universal essence, focusing instead on micro-politics and paying attention also to counter-conduct, milieu, and so forth, a Foucauldian approach does not directly foreclose an analysis such as the one undertaken in this article. However, Foucault tends to direct our attention to the state, the violence of counting, the carceral, or boundaries, in ways that don't give us an insight into how space can be organized differently, what is external to the state, or how violence also takes place in the homogenization of spatial terrain. In a similar vein, Lundborg and Vaughan-Williams (2011) utilize the Deleuzian concept of the molecular as a corrective to understandings of biopolitical systems as closed totalities. Pointing instead to instability, unpredictability and Deleuze's ontology of becoming, they stress that there is always an excess of life in biopolitics. Something always escapes, or is external to, the apparatus.

alterity deserve acknowledgement simply because they are different, lest we cater to the violence of the homogenizing alternative. Biodiversity and alterity resonate with anti-violence and decolonization. And alterity requires space, in the literal sense. Being exterior to, which is to say different from, the state, requires a space that is exterior to the state. A new road is not just a new road. There is spatial violence in resource extraction and infrastructure, and “land-use conflict” is a euphemism for genocide.

Of course, smooth spaces are not in themselves liberatory. But the struggle is changed or displaced in them, and life reconstitutes its stakes, confronts new obstacles, invents new paces, switches and adversaries. Never believe that a smooth space will suffice to save us (Deleuze and Guattari, 1987: 500).

Nomadic forms of life don't need to be saved or preserved. They need space for their continuous becoming, however rich, messy, and difficult it is.

References

- AGAMBEN, GIORGIO. 2000. *Means without end: Notes on politics*. Minneapolis: University of Minnesota Press.
- AHVENJÄRVI, KAISA. 2015. "Reindeer Revisited: Traditional Sámi features in contemporary Sámi poetry." In *Rethinking national literatures and the literary canon in Scandinavia*, edited by Ann-Sofie Lönngrén, Heidi Grönstrand, Dag Heede, and Anne Heith, 104-129. Newcastle upon Tyne: Cambridge Scholars Publishing.
- BARKHAM, PATRICK. 2017. "It's very scary in the forest': should Finland's wolves be culled?" *The Guardian*, February 25.
- BEACH, HUGH. 2004. "Political Ecology in Swedish Saamiland." In *Cultivating Arctic Landscapes: Knowing and Managing Animals in the Circumpolar North*, edited by David G. Anderson and Mark Nuttall, 110-123. New York: Berghahn Books.
- BENJAMINSEN, TOR A., HUGO REINERT, ESPEN SJAASTAD, AND MIKKEL NILS SARA. 2015. "Misreading the Arctic landscape: A political ecology of reindeer, carrying capacities, and overstocking in Finnmark, Norway." *Norsk Geografisk Tidsskrift-Norwegian Journal of Geography* 69 (4): 219-229.
- BIGNALL, SIMONE, STEVE HEMMING, AND DARYLE RIGNEY. 2016. "Three ecosophies for the Anthropocene: environmental governance, continental posthumanism and indigenous expressivism." *Deleuze Studies* 10 (4): 455-478.
- BJØRKLUND, IVAR. 1990. Sami reindeer pastoralism as an indigenous resource management system in northern Norway: a contribution to the common property debate. *Development and Change* 21 (1): 75-86.
- BJØRKLUND, IVAR. 2004. "Saami Pastoral Society in Northern Norway: The National Integration of an Indigenous Management System." In *Cultivating Arctic Landscapes: Knowing and Managing Animals in the Circumpolar North*, edited by David G. Anderson and Mark Nuttall, 124-135. New York: Berghahn Books.
- BONTA, MARK AND JOHN PROTEVI. 2004. *Deleuze and Geophilosophy: A Guide and Glossary*. Edinburgh University Press.
- BONTA, MARK. 2005. "Becoming-forest, becoming-local: transformations of a protected area in Honduras." *Geoforum* 36 (1): 95-112.
- BORGERSON SCOTT. 2013. "The Coming Arctic Boom: As the Ice Melts, the Region Heats Up." *Foreign Affairs* 92 (4): 76-89.
- BREUM, MARTIN. 2018a. "Riget i midten." *Weekendavisen*, March 9-15.
- BREUM, MARTIN. 2018b. *Cold Rush: The Astonishing True Story of the New Quest for the Polar North*. Montreal: McGill-Queens University Press.
- BRUUN, JOHANNE M. AND INGRID A. MEDBY. (2014) "Theorising the thaw: geopolitics in a changing arctic." *Geography Compass* 8 (12): 915-929.
- BUCHANAN IAN AND GREGG LAMBERT, editors. 2005. *Deleuze and space*. Edinburgh University Press.
- BULL, KIRSTI STRØM. 2015. "Sami Reindeer Herders' Herding Rights in Norway from the Nineteenth Century to the Present Day." In *Indigenous Rights in Scandinavia: Autonomous Sami Law*, edited by Christina Allard and Susann Funderud Skogvang, 79-94. London: Routledge.
- BULL, KIRSTI STRØM, NILS OSKAL AND MIKKEL NILS SARA. 2001. *Reindriften i Finnmark: rettshistorie 1852-1960*. Oslo: Cappelen akademisk.
- BURNS, LORNA AND BIRGIT M. KAISER, editors. 2012. *Postcolonial Literatures and Deleuze*. New York: Palgrave Macmillan.
- CASTLE, STEPHEN. 2008. "A Finnish Turf Battle Pits Wolf Against Reindeer Herder." *The New York Times*, January 21.

- CEBALLOS, GERARDO, PAUL R. EHRLICH, AND RODOLFO DIRZO. 2017. "Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines." *Proceedings of the National Academy of Sciences* 114 (30): E6089-E6096.
- CORNTASSEL, JEFF AND MARC WOONS. 2017. "Indigenous Perspectives" In *International Relations Theory*, edited by Stephen Mcglinchey, Rosie Walters & Christian Scheinpflug, 131-137. Bristol: E-International Relations Publishing.
- DE CASTRO, EDUARDO VIVEIROS. 2014. *Cannibal metaphysics*. Minneapolis: Univocal.
- DELEUZE, GILLES AND FÉLIX GUATTARI. 1987. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis: Minnesota University Press.
- DELEUZE, GILLES. 2006. *Dialogues II*. London: A&C Black.
- DILLON, MICHAEL AND JULIAN REID. 2009. *The liberal way of war: Killing to make life live*. London: Routledge.
- DITTMER, JASON, SAMI MOISIO, ALAN INGRAM AND KLAUS DODDS. 2011. "Have you heard the one about the disappearing ice? Recasting Arctic geopolitics." *Political Geography* 30 (4): 202-214.
- DITTMER JASON. 2014. "Geopolitical assemblages and complexity." *Progress in Human Geography* 38 (3): 385-401.
- DOEL, MARCUS A. 1996. "A hundred thousand lines of flight: a machinic introduction to the nomad thought and scrumpled geography of Gilles Deleuze and Félix Guattari." *Environment and planning D: society and space* 14 (4): 421-439.
- FORBES, BRUCE C. 2006. "The challenges of Modernity for Reindeer Management in Northernmost Europe." In *Reindeer management in northernmost Europe: linking practical and scientific knowledge in social-ecological systems*, edited by Bruce C. Forbes, Manfred Bölter, Ludger Müller-Wille, Janne Hukkinen, Felix Müller, Nicolas Gunsley and Yulian Konstantinov, 11-26. Springer Science & Business Media.
- FORSVARET.NO. 2017. "Øver på NATOs kjerneoppgave". October 3. Accessed March 21, 2018 <https://forsvaret.no/aktuelt/over-på-natos-kjerneoppgave>.
- FORSVARET.NO. 2018a. "Trener sammen, for å bli gode sammen." March 16. Accessed March 21, 2018 <https://forsvaret.no/aktuelt/trener-sammen-for-å-bli-gode-sammen>.
- FORSVARET.NO, 2018b. "I Norge for å trene i ekstreme klimaforhold." March 16. <https://forsvaret.no/i-norge-for-å-trene-i-ekstreme-klimaforhold>. Accessed March 21, 2018.
- GREAVES, WILFRED. 2016. "Arctic (in)security and Indigenous peoples: Comparing Inuit in Canada and Sámi in Norway." *Security Dialogue* 47 (6): 461-480.
- GROVE, JAIRUS VICTOR. 2017. "The geopolitics of extinction: From the Anthropocene to the Eurocene." In *Technology and World Politics: An Introduction*, edited by Daniel R. McCarthy, 204-223. London: Routledge.
- GROVE, JAIRUS VICTOR. 2019. *Savage Ecology: War and geopolitics at the end of the world*. Durham: Duke University Press.
- HASTRUP KIRSTEN. 2009. "The nomadic landscape: people in a changing Arctic environment." *Geografisk Tidsskrift-Danish Journal of Geography* 109 (2): 181-189.
- HEIKKINEN, HANNU I., OUTI MOILANEN, MARK NUTTALL, AND SIMO SARKKI. 2011. "Managing predators, managing reindeer: contested conceptions of predator policies in Finland's southeast reindeer herding area." *Polar Record* 47(3): 218-230.
- HELANDER-RENVALL, ELINA. 2016. *Sámi Society Matters*. Rovaniemi: Lapland University Press.
- HENLEY, JON. 2017. "Norwegian herder ordered to put down dozens of reindeer in controversial cull" *The Guardian*, December 22.

- HOLBRAAD, MARTIN, MORTEN AXEL PEDERSEN AND EDUARDO VIVEIROS DE CASTRO. 2014. "The politics of ontology: Anthropological positions." *Cultural Anthropology* 13.
- HOROWITZ, LEAH S. 2016. Rhizomic resistance meets arborescent assemblage: UNESCO World Heritage and the disempowerment of indigenous activism in New Caledonia. *Annals of the American Association of Geographers* 106 (1): 167-185.
- HOUGH PETER. 2013. *International Politics of the Arctic: Coming in from the Cold*. London: Routledge.
- HÆTTA, ODD MATHIS. 2008. *The Sami – An Arctic Indigenous People*. Karasjok: Davvi Girji.
- INGOLD, TIM. 2004. "Foreword." In *Cultivating Arctic Landscapes: Knowing and Managing Animals in the Circumpolar North*, edited by David G. Anderson and Mark Nuttall, viii-xiii. New York: Berghahn Books.
- INGOLD, TIM. 2013. "Epilogue." In *Nomadic and Indigenous Spaces: Productions and Cognitions*, edited by Judith Miggelbrink, Joachim Otto Habeck, Nuccio Mazzullo and Peter Koch, 259-264. Surrey: Ashgate.
- INGVALDSEN, TORIL F. 2016. "Rein funnet skutt i skytefelt," *Nye Troms*, April 12.
- JOHNSEN, KATHRINE IVSETT. AND TOR A. BENJAMINSEN. 2017. "The art of governing and everyday resistance: "rationalization" of Sámi reindeer husbandry in Norway since the 1970s." *Acta Borealia* 34 (1): 1-25.
- JOHNSEN, KATHRINE IVSETT, TOR A. BENJAMINSEN AND INGER MARIE GAUP EIRA. 2015. "Seeing Like the State or Like Pastoralists? Conflicting Narratives on the Governance of Sámi Reindeer Husbandry in Finnmark, Norway." *Norsk Geografisk Tidsskrift – Norwegian Journal of Geography* 69 (4): 230– 241.
- JOHNSEN, KATHRINE IVSETT, SVEIN MATHIESEN AND INGER MARIE GAUP EIRA. 2017. "Sámi reindeer governance in Norway as competing knowledge systems: a participatory study." *Ecology and Society* 22 (4).
- JOSEFSEN, EVA, ULF MÖRKENSTAM, AND RAGNHILD NILSSON. 2016. "The Nordic Sámediggi and the Limits of Indigenous Self-Determination." *Gáldu Čálá – Journal of Indigenous Peoples Rights* 1.
- KAISER, NICLAS, PER SJÖLANDER, ANNETTE EDIN LILJEGREN, LARS JACOBSSON, AND ELLINOR SALANDER RENBERG. 2010. "Depression and anxiety in the reindeer-herding Sami population of Sweden." *International Journal of Circumpolar Health* 69 (4): 383-393.
- KOCH, PETER. 2013. "Sámi-State Relations and its Impact on Reindeer Herding across the Norwegian-Swedish Border." In *Nomadic and Indigenous Spaces: Productions and Cognitions*, edited by Judith Miggelbrink, Joachim Otto Habeck, Nuccio Mazzullo and Peter Koch, 113-136. Surrey: Ashgate.
- KRUUK, HANS. 1972. "Surplus killing by carnivores." *Journal of Zoology* 166(2): 233-244
- LABBA, KRISTINA. 2015. "The Legal Organization of Sami Reindeer Herding and the Role of the *Siida*." In *Indigenous Rights in Scandinavia: Autonomous Sami Law*, edited by Christina Allard and Susann Funderud Skogvang, 141-154. London: Routledge.
- LARSEN, DAN ROBERT. 2018. "Mikkel Isak (67) er skeptisk til alle utbyggere." *NRK*, 15 September.
- LARSEN, HANNE. 2017. "Reindriften tolereres så lenge den ikke konkurrerer med andre interesser." *Altaposten*, 1 September.
- LAWRENCE, REBECCA AND ULF MÖRKENSTAM. 2016. "Indigenous Self-determination through a Government Agency? The Impossible Task of the Swedish Sámediggi." *International Journal on Minority and Group Rights* 23 (1): 105-127.

- LEHTOLA, VELI-PEKKA. 2002. *The Sami People: Traditions in Transition*. Aanaar – Inari: Kustannus-Puntsi.
- LEHTOLA, VELI-PEKKA. 2019. "Evasive strategies of defiance – everyday resistance histories among the Sámi" In *Knowing from the Indigenous North: Sámi approaches to history, politics and belonging*, edited by Eriksen, Thomas Hylland, Sanna Valkonen and Jarno Valkonen. London: Routledge.
- LUNDBORG, TOM, AND NICK VAUGHAN-WILLIAMS. 2011. "Resilience, Critical Infrastructure, and Molecular Security: The Excess of "Life" in Biopolitics." *International Political Sociology* 5(4): 367-383.
- LUNDSTROM, JAN-ERIK. 2015. "Reassemble, remap, recode: Some strategies among three contemporary (Sami) artists." In *Visions of Sápmi*, edited by Anna Lydia Svalastog and Gunlög Fur, 89-106. Røros: Arthub Publisher.
- LYSVOLD, SUSANNE SKJÅSTAD. 2019. "Toget kjørte inn i reinflokk – 37 rein drept i en smell." *NRK*, April 29.
- MAYER, MAXIMILIAN. 2012. "Chaotic Climate Change and Security." *International Political Sociology* 6 (2): 165-185.
- MAZZULLO, NUCCIO. 2010. "More than meat on the hoof? Social significance of reindeer among Finnish Saami in a rationalized pastoralist economy." In *Good to eat, good to live with: Nomads and animals in Northern Eurasia and Africa*, edited by Florian Stammler and Hiroki Takakura, 101-119. Sendai: Center for Northeast Asian Studies.
- MAZZULLO, NUCCIO. 2013. "The Nellim Forest Conflict in Finnish Lapland: Between State Forest Mapping and Local Forest Living." In *Nomadic and Indigenous Spaces: Productions and Cognitions*, edited by Judith Miggelbrink, Joachim Otto Habeck, Nuccio Mazzullo and Peter Koch, 91-112. Surrey: Ashgate.
- MIGGELBRINK, JUDITH, JOACHIM OTTO HABECK, NUCCIO MAZZULLO AND PETER KOCH. 2013. "Nomadic and Indigenous Spaces: Paths and Perspectives." In *Nomadic and Indigenous Spaces: Productions and Cognitions*, edited by Judith Miggelbrink, Joachim Otto Habeck, Nuccio Mazzullo and Peter Koch, 1-35. Surrey: Ashgate.
- MUPPIDI, HIMADEEP. 2012. *The colonial signs of International Relations*. New York: Columbia University Press.
- NAYAK, MEGHANA, AND ERIC SELBIN. 2010. *Decentering international relations*. London: Zed Books.
- NIXON, ROB. 2011. *Slow Violence and the Environmentalism of the Poor*. Harvard University Press.
- NORUM, JAN, AND CARSTEN NIEDER. 2012. "Socioeconomic characteristics and health outcomes in Sami speaking municipalities and a control group in northern Norway." *International journal of circumpolar health* 71(1): 19127.
- NYSSÖNEN, JUKKA. 2012. "Selective Integration and Maintenance of National Dignity." In *Rivers to cross: Sami land use and the human dimension*, edited by Peter Sköld and Krister Stoor, 15-29. Umeå: Vaartoe, Centrum för samisk forskning.
- OLSEN, KJELL. 2004. "The Touristic Construction of the "Emblematic" Sámi," In *Creating Diversities: Folklore, Religion and the Politics of Heritage* edited by Anna-Leena Siikala, Barbro Klein and Stein R. Mathisen, 292-305. Helsinki: Finnish Literature Society.
- OSKAL NILS. 1999. "On nature and reindeer luck." *Rangifer*, 20 (2-3): 175-180.
- POWELL, RICHARD C. AND KLAUS DODDS, editors. 2014. *Polar Geopolitics? Knowledges, Resources and Legal Regimes*. Cheltenham: Edward Elgar Publishing.

- RISETH, JAN ÅGE. 2015. *Etterprøvning av utvidelse av Blåtind og sammenbinding av Mauken og Blåtind skyte- og øvningsfelt: Tematisk etterundersøgelse reindrift*. Report, NORUT 22/2015.
- RISETH, JAN ÅGE, BERNT JOHANSEN AND INGE EVEN DANIELSEN. 2017. *Reindrifsfaglig utredning for E8 Sørbotn-Laukslett, Østre Trase*. Report, Norut 7/2017.
- ROLANDSEN, CHRISTER MOE, KNUT LANGELAND, HANS TØMMERVIK, ANDERS HESJEDAL, MORTEN KJØRSTAD, BRAM VAN MOORTER, INGE EVEN DANIELSEN, TORKILD TVERAA AND ERLING JOHAN SOLBERG. 2017. *Tamreinpåkjørsler på Nordlandsbanen: Ufordringer og tiltak i Nord-Trøndelag og Nordland*. Report: NINA Rapport 1326. Trondheim, March.
- SALDANHA, ARUN. 2017. *Space after Deleuze*. London: Bloomsbury.
- SARA, MIKKEL NILS. 1999. *Praktisk beitebruk-tradisjonelle kunnskaper*. Rangifer report 3/1999, 93-101.
- SARA, MIKKEL NILS. 2009. "Siida and traditional Sámi reindeer herding knowledge." *Northern Review*, (30): 153-178.
- SARKKI, SIMO, TERESA KOMU, HANNU HEIKKINEN, NICOLÁS ACOSTA GARCÍA, ÉLISE LÉPY, AND VESA-PEKKA HERVA. 2016. "Applying a synthetic approach to the resilience of Finnish reindeer herding as a changing livelihood." *Ecology and Society*, 21 (4).
- SARKKI, SIMO, HANNU I. HEIKKINEN, VESA-PEKKA HERVA, AND JARKKO SAARINEN. 2018. "Myths on local use of natural resources and social equity of land use governance: Reindeer herding in Finland." *Land use policy* 77: 322-331.
- SCOTT, JAMES C. 2009. *The art of not being governed: an anarchist history of upland Southeast Asia*. London: Yale University Press.
- SHILLIAM, ROBBIE, ed. 2011. *International relations and non-Western thought: Imperialism, colonialism and investigations of global modernity*. London: Routledge.
- SILER, WES. 2016. "The Truth About Wolf Surplus Killing: Survival, Not Sport." *Outside*, April 5.
- SJÖLANDER, PER. 2011. "What is known about the health and living conditions of the indigenous people of northern Scandinavia, the Sami?." *Global health action* 4(1): 8457.
- SVALASTOG, ANNA LYDIA. 2015. "Mapping Sami life and culture." In *Visions of Sápmi*, edited by Anna Lydia Svalastog and Gunlög Fur, 9-16. Røros: Arthub Publisher.
- SYRJÄMÄKI, EIJA AND TERO MUSTONEN. 2013. *It is the Sámi who own this land—Sacred Landscapes and Oral Histories of the Jokkmokk Sámi*. Vaasa: Snowchange Cooperative.
- TODD, ZOE. 2016. "An indigenous feminist's take on the ontological turn: 'Ontology' is just another word for colonialism." *Journal of historical sociology* 29(1): 4-22.
- TURI, ELLEN INGA. 2016. *State Steering and Traditional Ecological Knowledge in Reindeer-Herding Governance: Cases from western Finnmark, Norway and Yamal, Russia*. PhD Thesis, Umeå University, Sweden.
- TYLER, NICHOLAS, JOHAN M. TURI, MONICA ALTERSKJÆR SUNDSET, KIRSTI STRØM BULL, MIKKEL NILS SARA, ERIK REINERT, NILS OSKAL, CHRISTIAN NELLEMAN, JAMES J. MCCARTHY, SVEIN D. MATHIESEN, MARYBETH LONG MARTELLO, OLE HENRIK MAGGA, GRETE KAARE HOVELSRUD, INGER HANSSSEN-BAUER, N. I. EIRA, INGER MARIE GAUP EIRA AND ROBERT W. CORELL. 2007. "Saami reindeer pastoralism under climate change: applying a generalized framework for vulnerability studies to a sub-arctic social-ecological system." *Global Environmental Change*, 17 (2): 191-206.

- VALKEAPÄÄ, NILS-ASLAK (1983) *Greetings from Lapland: The Sami – Europe's Forgotten People*. London: Zed Press.
- VARSJ, LINE ALETTE BJØRNBACK, SIMON PIERA PAULSEN, CARL-GØRAN LARSSON. 2018. "Over 30 rein og sau drept: Jegere klare til å jakte ulv." *NRK*, 22. October
- VIDAL, JOHN. 2016. "Sami reindeer herders battle conservationists and miners to cling on to Arctic culture." *The Guardian*, February 21.
- WALL, TOM. 2019. "The battle to save Lapland: 'First, they took the religion. Now they want to build a railroad.'" *The Guardian*, February 23.
- YLE NEWS. 2019. Lapland authorities plan zones for controversial rail line. *The Barents Observer*, April 30.