The Appreciation of Reindeer: Rock Carvings and Sámi Reindeer Knowledge

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Abstract
On the Stone Age rock carving panels at Jiepmaluokta, Alta, Norway, more than one third of all the known figures, over one thousand, are classified as reindeer. A recent comparative study of Fennoscandian rock carvings suggests that variation in the amounts of different animals depicted at each site refers to differences in relations between people and the specific local environment, including local species (Gjerde 2010). Taking this as a starting point, it is suggested that the Jiepmaluokta panels refer to meetings between humans and animals, primarily reindeer. The depictions are interpreted as expressions of a hunter-gatherer ontology with close human-animal relations. This paper is based in part on a dialogue at the site regarding the reindeer figures between a Sámi reindeer owner and scholar of traditional reindeer knowledge, with summer grazing for his herd in the Alta region, and the author.

Keywords: human-animal relations, reindeer, ethno-taxonomy, Sámi language

Archaeological interpretations of human-animal relations traditionally focus either on the roles of the animals as material resources or on their symbolic and/or religious importance to human groups. In either case, animals are reduced to objects. Recently, however, a growing number of researchers within an array of disciplines, including archaeology, have undertaken a social approach in human-animal relation studies (e.g. Alberti and Brey 2009; Argent 2010; Fagan 2015; Oma 2010). It is acknowledged that animals are not only objects utilized by human societies but are also socially incorporated beings with sentience. While the discussion has been philosophy-driven as part of the 'ontological turn' in the academy, with strong references to phenomenology, the theoretical discussion could be seen as a way of legitimizing topics in hunter-gatherer archaeology that have been in the ethnographic literature for a long time (see Alberti and Bray 2009, 337). By necessity, studies of human – animal relations touch upon paradigmatic sets of opposing concepts, such as 'nature' vs. 'culture', 'wild' vs. 'domesticated','body' vs. 'mind', 'animality' vs. 'humanity', and so on. In

human – animal relation studies, the rich meanings embedded in these concepts must be critically explored. In this article, I use 'animal' as shorthand for non-human animals, but in line with cosmologies held in ethnographically-described hunting societies worldwide, I contend that humans do not form a logically-distinct category opposed to all other species, but are part of a larger "community of beings" within the ecological system (Berkes 2012, 97, 115).

In this article, I am concerned with how knowledge of animals is expressed in rock art. I focus on the dominant reindeer depictions at the Bergbukten I panels at the site of Jiepmaluokta. These are among the oldest rock carvings in Alta, Norway, dating to around 5000 BC (7000 calBP). To address reindeer knowledge, I have chosen to include reflections on the carvings from an experienced local Sámi reindeer owner. Perspectives from archaeology, anthropology, Sámi ethnography and practical Sámi reindeer-herding knowledge are brought together, to explore how the reindeer rock carvings can inform us of aspects of human – reindeer relations in a northern Stone Age hunting society. Such descriptions will necessarily have an anthropocentric angle, as found explicitly in notions of the 'appropriation' or 'domination' of nature or animals (cf. Ingold 1987; 2000; Oma 2010). However, I have chosen to use the term 'appreciation' to try to give some space to the other-than-human in the engagement. To 'appreciate' is described in Webster's Encyclopedic Unabridged Dictionary of the English Language (1996) as " (…) to exercise wise judgment, delicate perception, and keen insight in realizing the worth of something." Whereas the term 'value' is probably more commonly used in describing human – domesticated (farm) animal relations, attaching importance to animals because of their material worth, 'appreciation' suggests that a human-animal relation is not necessarily about how humans utilize animals for our own benefit. The term points to the human ability to be consciously aware of and regard highly the nature or qualities of animals and the environment on their own terms.

<1>Hunter – Wild Animal Relations

Most studies of human - animal relations in archaeology have focused on human – domestic animal relations. Depending upon the nature of the joint actions, relationships between humans and animals can develop over time, forming a strong sense of mutual trust and understanding. This is particularly true for humans and their pets and working-animals (Argent 2010; Fox 2006). A major difference between human – domestic and human – wild animal relations obviously lies in the duration and quality of direct contact situations (see Ingold 2000; Oma 2010; Orton 2010). Domestic animals are most commonly bred among humans, and are socialized and perhaps trained in particular skills over several years. (For a different notion of the concept of domestic animals, however, see Lien and Law 2011; Ween 2012, on farmed salmon.)

Relations between wild animals and humans are, in comparison, generally situational, fluctuating and not based on individual relationships. Instead, relations are often formed between humans and groups and types of animals. Moreover, hunter-gatherer societies live with the ambiguity of being part of a larger 'community of beings', including humans and other living and spirited beings, and at the same time killing and using animals for food and other products, as symbols of status, wealth or social belonging, or as objects of feasting and sacrifice. Still, the contrast between human relations to domesticated vs. un-domesticated animals need not be as fundamental as is often (pre-)supposed.

Our choice of concepts to address the issue of human – animal relations in prehistoric hunting societies influences our ability to appreciate variations and qualities in entanglements between humans and wild animals that are fundamentally different from our own. Reflecting on the matter through relational ontologies (Hill 2011; Ingold 2000; Watts 2013) can be a fruitful way to bring out some of these differences, albeit within a type of relation to which we as modern human beings can relate. My point of departure is that humans have always appreciated, esteemed and admired animals as companion species (Haraway 2003). This goes beyond valuing animals for their practical or nutritional value, and is not restricted to domesticated animals. Indeed, I believe that it relates particularly to non-domestic ('wild') animals, which are highly regarded for their nature and quality among hunter-gatherer societies. In prehistoric as well as ethnographically-described hunter-gatherer societies, considerate and respectful relations with the environment were, and are, vital to sustaining ties with the powers dwelling in the landscape and in the elements belonging to it, including animals and humans (e.g. Berkes 2012; Brown and Emery 2008; Fagan 2015, 8; Feit 1973; Ingold 2000; Tanner 1979; Vitebsky 2005; Viveiros 2004; 2012; Willerslev 2007). From ethnographical accounts, we know that the relationship between the hunter and the prey is, in many hunting societies, described as a situation in which the animal gives itself to the hunter, or alternatively seduces him or is itself seduced (e.g. Berkes 2012; Feit 1973, 115-119; Tanner 1979; Willerslev 2007; see however Nadasdy 2007, Footnotes 2, 5, 6, 12 for a variety of views).

Hunter-gatherer societies depend on an intimate knowledge of their prey in order to survive. In a prehistoric hunter-gatherer community depending on annually migrating species on land as well as in the sea, as was the situation in northern Norway, being able to trust the prey was particularly important. It was crucial to be able to predict that the animals would come back at the same time each year, following much the same migration routes and behaving according to what had previously been observed (see Feit 1973). Knowledge of the herds of reindeer, flocks of birds and schools of fish would have been crucial for hunting, fishing and gathering. Much must have been learned from the direct and careful observation of the different animals, both as groups and as individuals. Indeed, predatory animals and birds are praised in ethnographic accounts all over the world, and hunting techniques have been developed from observing predators attacking their prey. How herbivores reveal edible plants and even medicinal plants (Huffman 2016) is a different kind of knowledge, and is useful, for instance, to humans entering an unknown landscape. However, the most important learning is, and would have been, that of getting to know prey.

Learning through the observation of animals in their environment must have been the most valuable knowledge in prehistoric hunting societies. It would have enabled the hunters to anticipate where the animals could be found, and what state they would be in, throughout the year and over multi-year cycles. Each hunter would only have possessed a relatively small number of direct observations of possible settings, situations and changes. That number would have increased with the age and experience of the hunter, and with the transmitting of environmental and practical knowledge between generations and social groups. To hunter-gatherers, it is crucial to know how key animals move about in the landscape and how they react and respond to the environment. In prehistory, this would have been particularly important in areas where the main key resources were migratory, as in northern Fennoscandia.

Reindeer are fast-moving, long-distance migratory animals. They graze in herds, often in open landscapes where they are well visible. However, by communicating through sight, scent and sound, they can shape the herd into one 'organism', which is difficult for predators to approach

without being discovered (Bevanger and Jordhøy 204, 55-56). If frightened, the animals will seek higher ground, and can reach a speed of 60-80 km/hour. Wild reindeer are typically found in subgroups or bands of ten to 1000 animals. During summer, the bands seek higher altitudes or more open landscapes, following the fresh vegetation and keeping close to snow patches and other cool environments with few insects. Such landscapes are found along the northern Norwegian coast, including the Alta Fjord. Before the winter sets in, the reindeer migrate to lower altitudes or to climatically stable inland areas, where they can find shelter and accessible lichens.

Knowing the social structure of a reindeer community, and how it maps onto the landscape, would have been vital knowledge to the prehistoric hunter. In addition to the common competition for rank between ungulate individuals, promoting the animals with the largest antlers, the relative rank in a wild reindeer herd changes seasonally between the sexes. Reindeer are the only ungulate species in which both males and females grow antlers, but the antlers have different shapes, angles and sizes according to gender and age. Males and older animals of both sexes, and females without calves, generally grow larger antlers. The antlers are shed naturally every year, but at somewhat different times for males and females. Whereas the males shed their antlers during winter, the females keep theirs through the critical late winter-early spring period, which gives them an advantage in the competition for food in a critical period prior to calving. Reindeer are segregated by sex in the spring calving period and into summer. Females shed their antlers before calving, while the males grow their antlers during the summer, to have them fully developed for the October mating season.

Just as important for the successful hunting and maintenance of key animal resources is knowledge of the social behaviour of the animals. Wild animals, like humans, operate within learned norms of appropriate behaviour and correct actions, understood by members of the animal community. Reindeer are herd animals, which means they make up larger breeding populations. However, the herd is split up in into groups of specific animals – bands – that change throughout the year (see Burch 1991, 444 on the herd – band distinction for wild reindeer). Individual band members are adjusted to each other and behave according to common practices. They typically eat and rest synchronously (Bevanger and Jordhøy 2004, 57), and reindeer, as with elk (moose), practice hierarchy and cooperation to facilitate the survival of the band. Socio-biological studies of wild reindeer show that internal rank and status in a wild reindeer band is seasonal as well as situational, and is based on the animals' individual experiences (Bevanger and Jordhøy 2004, 57). Rank is based on multiple factors including age, sex, personal characteristics, temperament, individual life history, and association with other members of the group (see Vitebsky 2005, 175-176, on reindeer social norms and community punishment, and Nyyssönen and Salmi 2013, on reindeer consciousness). Tasks and responsibilities rotate within the band. Individual animals take turns to stand guard during eating and resting periods. A wild reindeer band often has several experienced female leaders, the leaders changing according to earlier individual life experiences associated with danger in specific situations or parts of the migration route, but probably also according to temperament and the ability to lead (Bevanger and Jordhøy 2004, 57).

<1>Appreciating Reindeer

From around 5500/4800 BC (around 7000 calBP), large numbers of figures began to appear on panels, the depicted animals varying between sites and regions. At this time, the first rock carvings were made in Alta, North Norway (Gjerde 2010; Helskog 2012a; 2012b), and here

reindeer were established as the most prominent animal. At the Stone Age rock carving panels at Jiepmaluokta (North-Sámi: Seal Pup Bay) more than one third of all known figures are classified as reindeer, totalling more than one thousand reindeer figures. The general predominance of reindeer over other figures sets the Alta panels apart from the other large rock carving sites in northern Fennoscandia. In his overview of all rock art sites in Fennoscandia, Jan Magne Gjerde (2010) suggests that the variety of animal figures and scenes between sites reflect actual and spatially-localized situations, which necessarily vary according to locally-available resources in local landscapes. At the same time, the depicted animals share a common status in Fennoscandian hunter-gatherer societies. Their status as prey is, according to Gjerde (2010, 115) influenced by their large size and the dangers associated with hunting them. However, compared to elk (moose) and bear, reindeer are neither particularly large nor particularly dangerous to address.

The Alta rock carving sites are today located in a summer grazing area for herds of 'domesticated' reindeer managed by Sámi, the indigenous population in the region. The Altafjord hinterland – the Finnmarksvidda plateau – is an important winter grazing area for the migrating herds. Humans regularly handle only a small number of the animals in these herds, as the fundamental principle in traditional reindeer herding is to intrude as little as possible, in order to retain the herd's autonomy and ability to sustain itself without human influence (Magga, Oskal and Sara 2001; Oskal 1995; Sara 2009). Monitoring the individual animals and herds from a distance and in a given environment has similarities to how prehistoric reindeer hunters must have approached wild ungulates. I will therefore point out some elements of reindeer herding and animal handling, which I believe are relevant to my discussion. I am not myself familiar with live reindeer, and therefore,in the autumn of 2012, I arranged to see the panels in Jiepmaluokta together with Mikkel Nils Sara, an experienced Sámi reindeer-owner who keeps his herd in the Alta area during the summer. In addition to being a reindeer-owner and herder, he is also an academic who has studied pre-war and pre-motorized reindeer-herding practices, and has specialized in traditional Sámi reindeer herding knowledge (Sara 2009, 2015).

Insert figure 1 about here

On the Bergbukten I rock carving panels at Jiepmaluokta, a herd or several smaller bands of what can be recognized as reindeer are depicted. The animal figures belong to larger scenes, which also include human-like figures and man-made objects. Humans carrying elk-headed sticks over their heads, humans holding spears and bows-and-arrows, and various geometrical figures and fence-like lines, probably corrals (Helskog 2011, 2012a), are among the motifs. At first glance, the reindeer figures seem to be simple generic profile figures, with single and rather straight lines outlining the different body-parts. In most figures, only one front-leg and back-leg and one antler are depicted. The animals relate to each other, and thus can be seen to be a herd. Upon closer examination, it becomes evident that the animals are depicted not only as parts of a herd, but also as individuals. They have individual patterns on their bodies, different body sizes, and different shapes and sizes of antlers, if antlers are present. Some of the animals have hooves, some have tails, some are smaller and others larger. Adults and calves both seem to be present. In addition to the profile lines, various body-parts have been pecked out in low relief, typically the neck, an area on the back, or several parallel vertical lines resembling ribs. The animals are clearly not depicted generically. Instead, variation between individuals is highlighted.

Knut Helskog (2012b) has suggested that the rock-carvings at Bergbukten I represent animals of different ages and gender, and that they could also represent different seasons. My companion and reindeer herd owner informant, Mikkel Nils Sara, pointed out that in addition to the differences in antlers and body sizes, the chipped body-patterns could be seen as specific fur-colour patterns, the carved-out elements being areas of darker fur. In the different Sámi languages, there is a detailed reindeer terminology describing, among other qualities, skin colour and patterning, antler size and shape, and age and gender (Eira 1984 in Skum 2013; Magga 2006; Omma 2017; Oskal 2000; Rensund 1982; Skum 2013, 54, Appendix 3; Turi 2012; Winsa 2005). I was informed that the particular fur patterns carved into the rock can be found in this terminology. Fur patterns can be indicative of individual characteristics. For instance, a dark area on the back-part of the animal is often found on young adult animals, and disappears when the animals grow older. From this, it is apparent that not only are generic reindeer, or even generic 'males', 'females' and 'calves', depicted, but that the hunter-gatherers producing the rock carvings made efforts to depict how the herds are made up of individual animals.

Insert figure 2 about here

Traditional Sámi reindeer-herding knowledge includes detailed knowledge of the individual animals, and a profound appreciation of the inherent variety within the herd. Varieties in fur colour and antler made it easy to recognize individual animals, and to keep track of which females had calves. In traditional Sámi reindeer herding, before the snowmobile and other motorized vehicles became common after WWII, and before the present reindeer-keeping of herds with several hundred animals, the close relationship between reindeer and humans made individual characteristics or 'personalities' relevant and important. Particular antler shapes were among the characteristics believed to indicate the personality of individual animals. A fine grid of reindeer taxonomic categories was crucial to the everyday life of the reindeer-herding society.

I can only provide a brief impression here of the variety of individual qualities sought after in traditional reindeer herding. Reindeer milking was practiced within Sámi reindeer-herding communities into the 1950s. A consideration within this practice was that older female animals were wiser and more valuable than younger ones, because they were able to keep the calves away from the milk. During migration periods, with weeks of traveling, experienced individual females who knew and led the way between the grazing areas were particularly appreciated by the herders. Castrated males, *herggit*, were used to pull the *gerresat* (short, low-slung sleds), which were the most common means of transport for people and bulk goods during winter. When the whole family or settlement moved, the *herggit* and *gerresat* would form a long line (*ráido*) behind a leading *heargi*. Only a few animals could be trusted to pull the front *geres* in the *geresráido* (Paine 1994, 25). These were selected specifically for the task when they were calves, were trained for years, and were extremely valuable as adults. Other *hearggit* were particularly good followers, keeping up the speed and direction of the *ráido*, while others had a mild temperament and were particularly well-suited for carrying the youngest children. The large strong free-runners among the male animals, which were hard to keep within the band during summer grazing, were incomparable during migration periods, acting as fearless guards against predators along the margins of the herd (Magga, Oskal and Sara 2001; Oskal 1995; 2000; Rensund 1982; Turi 2012). According to traditional reindeer-herding values, a herd of individual animals, which together possessed a variety of qualities, was considered to be not only a good herd but also a beautiful one. The ideal herd was differentiated visually, but more importantly in terms of personality, temperament, strength

and other qualities. Such a herd would have been self-supportive, and out of respect humans would not have pointed out or commented on specific individuals, but would have viewed each one as part of the larger social entity of the herd (Magga, Oskal and Sara 2001; Oskal 1995; 2000).

Insert figure 3 about here

<1>Hunting Reindeer

A sense of mutual trust, respect, understanding and obligation between humans and non-humans is commonly found among northern indigenous hunter-gatherer groups (Berkes 2012; Fagan 2015, 6-14; Feit 1973; Ingold 2000; Nadasdy 2007, 25), including in the ethics of Sámi human – animal relations (Magga, Oskal and Sara 2001). According to this worldview, humans are located in a larger social – as well as physical – environment. In this shared 'community of beings', a livelihood based on the killing of wild animals is rooted in a personal and profound affection and recognition of the animals, and a 'partnership' of mutual involvement between hunter and prey. Since animals observe and are aware of all hunting activities, it is the animals (or powerful spirits) who control the hunt (for variations in how this is seen, see Nadasdy 2007, Footnote 2, 5, 5, 12). Hunting success increases with the degree of respect for the prey. Thus, the relationship between hunter and prey is in many hunting societies described as a situation in which the animal gives itself to the hunter. This is a personal relationship. Animals have no obligations to nourish humans, but individual animals can be willing to give themselves to a hunter with the right spirit. A successful hunt, commonly understood as providing just enough food for the human community, is in this worldview thought of as proof of friendly relations between the hunter and the animal, which willingly allowed itself to be killed for the welfare of the larger 'community of beings'.

The notion of a shared 'community of beings' including both humans and non-humans among hunter-gatherers challenges the restrictive understanding of 'hunting' as a violent act of subjugation of one member group by another. From ethnography we learn that 'to hunt' is defined differently according to cultural context, that it includes a number of other human – animal relation situations, and that it can be species-specific. Typically, however, a hunt begins with human involvement in animal behaviour, and, in return for the animal's willingness to give itself to the hunter, the hunter-gatherer society performs the killing, butchering, eating and sharing of the animal, and the disposition of bones and waste, respectfully and appropriately (often through ritualized behavior), to secure good relations with the animals and spirits (Berkes 2012, 111-117; Russell 2012, 169; Tanner 1979). While successful hunting seems to be a source of prestige cross-culturally, prime social status was not associated with strength or courage in the meeting with large prey, or with the ability to use violence and kill, but rather with the ability to bring home animal products and to share them with relatives and within larger social networks. Hunting, then, is made up of a set of social relations based on mutual involvement, trust and respect, in which reciprocity is fundamental (see, however, Willerslev 2004; 2007, who suggests that the hunt among the Yukaghirs in Siberia is not seen by the hunter as an exchange, but as a seduction of the animal).

An experienced hunter would be able to consider individual qualities for the well-being of the larger band, recognizing and perhaps sparing high-rank individuals and killing weaker animals, avoiding massive disturbances and treating both living and dead animals with respect.

At Bergbukten I, reindeer and humans are depicted interacting in the same scene, interpreted as a wild reindeer hunting scene. When visiting the rock carving panels, Sara pointed out how the reindeer are depicted approaching the hunters with their heads held low. This stance signals that the reindeer are relaxed. A few animals turn their backs on the hunters, and some raise their heads in curiosity or mild anxiety. The situation is shown as a relaxed meeting between humans/hunters and reindeer. Signs of close physical contact can also be found at Bergbukten I, as in the depiction of a wild reindeer herd moving into what looks like a corral with several openings. It is entirely possible that corral trapping (and releasing, having selected animals to keep/kill) was among the close contact situations between humans and reindeer around 5000 BC (Helskog 2011; 2012a). It could perhaps be claimed that these depictions are not about humans trying to control nature *per se*, but about them trying to control their relationships to it (Ridington 1982, 471), advocating a relationship based on mutual trust and appreciation.

<1>What was a Reindeer? Ethnotaxonomic Considerations Meet Rock Carvings

As previously noted, the majority of the carved animals on the Bergbukten I panels in Jiepmaluokta can easily be identified as reindeer according to modern taxonomy. Others are clearly depictions of elk (moose). The elk heads have characteristic beards and broad noses, and often also large ears, while the bodies have distinct long legs, short necks and high shoulder regions. In contrast to reindeer, elk are depicted with curving leg muscles, although the rest of the elk figures – as with the reindeer – consist mostly of simple contour lines, occasionally -with carved heads and necks. Only male elk grow the characteristic antlers, which are shed annually in the mid-winter. Since none of the Bergbukten I elk figures have the distinct antlers, they appear to be depictions of females, or else males during winter. At the same time, some figures are depicted with body elements from both reindeer and elk; typical reindeer-patterned bodies have elk heads, elk figures have reindeer antlers, and reindeer heads and bodies have elk legs. Thus, some animal depictions seem to cross the taxonomic border between elk and reindeer. I have advocated that reindeer depictions represent variation between individual animals, and that this variation was meaningful in Stone Age human – reindeer relations. However, a human – animal relational approach urges us to consider not only which depictions represent which species, but also the taxonomic cross-over between reindeer and elk, found on the same panels. This leads us to ask 'what is (was) a reindeer?'

Insert figure 4 about here

In recent cultural ecology and ethnobiology, it is acknowledged that classification of the environment is culture-specific, and is not necessarily paralleled in genetic similarities (Anderson et al. 2011; Berkes 2012; Ellen 2006). Ethno-taxonomic systems are based on close and long-term relations between humans and animals (and plants, rocks, and others), and describe culturally-relevant divisions between species. These could refer to both 'relations of kind', in the traditional sense of categorization, and to 'kinds of relations', which would be context-specific. In the North-Sámi language, a distinction is made between wild reindeer (*goddi*[1]) and tamed or domesticated reindeer (*boazu*). On the other hand, calves of both kinds of reindeer, as well as elk (*sárvva*), are all termed *miessi*. Furthermore, the term for male reindeer and elk is almost identical (*sárvis – sárvva*), and both terms are used for a star constellation that resembles, according to Sámi tradition, a large ungulate (Vars 2003). The

1 According to Aikio (2006, 16), a semantic development has taken place for *goddi,* from originally meaning a group of people, 'hunters', via 'the catch of the hunters', to denoting 'wild reindeer'.

terms suggest a close ethno-taxonomic relation between reindeer and elk, perhaps particularly between young animals and males. Could it be that to the Stone Age hunter-gatherer society producing the rock-carvings at Bergbukten I, reindeer-elk animals were regarded as a third (or more) taxonomic group of large ungulate?

Since a hunter is more likely to experience a successful hunt if the petitioned animal acts according to expectations, northern prehistoric hunters, totally dependent on wild animals for their survival, probably classified animals to a greater taxonomic depth than modern non-hunters, and not only according to generic species. We are likely to find several levels of taxonomy among experienced hunters, possibly even down to individual characteristics in given cultural settings. Such classifications would have been based on general as well as specific knowledge of the relevant animal types and characteristics, and of variation therein, accumulated through long-term observation, but also to a large degree through culturally transmitted learning. I suggest that the taxonomic crossovers between reindeer and elk in the early rock carvings in Alta can be understood as expressions both of an (or several) essential type(s) of ungulate, as well as the underlying premise that animals were appreciated as individuals, contributing to a larger whole.

<1>Conclusion

The biggest challenge in addressing human – animal relations in prehistoric hunter-gatherer societies is, of course, the lack of first-hand observations of how things were actually done and understood within the communities. Based on ethnography, and on rock carvings depicting animals, it can be inferred that prehistoric northern Fennoscandian hunter-gatherer societies engaged intimately and personally with their environment, and that wild animals were esteemed and appreciated as companion species with species-specific behaviours expressing intelligence, emotions, morality and agency. Reindeer were appreciated as individuals, being members of smaller bands and making up larger herds. The rock carvings dating from around 5000 BC (7000 BP) suggest that, as in traditional Sámi reindeer-herding knowledge, inherent individuality and differentiation was acknowledged as key to a well-composed herd. Depictions of corral-like structures at several of the oldest rock carving panels in Alta suggest that even the intimate handling of reindeer bands and live individuals took place. The apparent appreciation and profound knowledge of reindeer indicates that a fundamental division between the categories 'wild' and 'domestic' is not necessarily meaningful when considering human – animal relations in prehistoric hunter-gatherer societies.

The observation of the various animals in their environments must have provided the most valuable knowledge in northern Stone Age hunting societies. Therefore, 'hunting' in prehistoric societies should not be understood only as the act of tracking, killing and providing food. Instead, it should be seen as a spectrum of different types and degrees of human – animal interactions, all based on the observation of animal behavior. Successful hunting would have been based on knowledge of, experience with, and respect for, the animals and the local environment. Hunting knowledge must have been shared within communities and between generations, probably through “(...) stories, songs, physical participation in activities, and other methods that engage[d] the emotional, aesthetic, and physical as well as the cognitive portions of experience” (Anderson 2011, 9). Making and using rock carvings could have been one of those activities, rooted in the observation of, learning from and appreciation of animals.

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<1> Figure captions

Figure 1: A carved reindeer herd at Bergbukten I, Alta, North Norway. Note the variation in individual characteristics between the animals, and the presence of human figures. Photo: Marianne Skandfer.

Figure 2: Curious herded reindeer in their winter grazing area in interior Finnmark. Note the variety in fur colors and antler shapes. Photo: Ann Kristin Balto.

Figure 3: A boy riding a reindeer (*heargi*), indicating a close relation based on trust. Photo: Ernst Manker – Tromsø Museum – The University Museum, UIT – The Arctic University of Norway.

Figure 4: Symbolic species ambiguity or a different taxonomy? Reindeer-elk figures at Bergbukten I, Alta, North Norway. Photo: Marianne Skandfer. --------