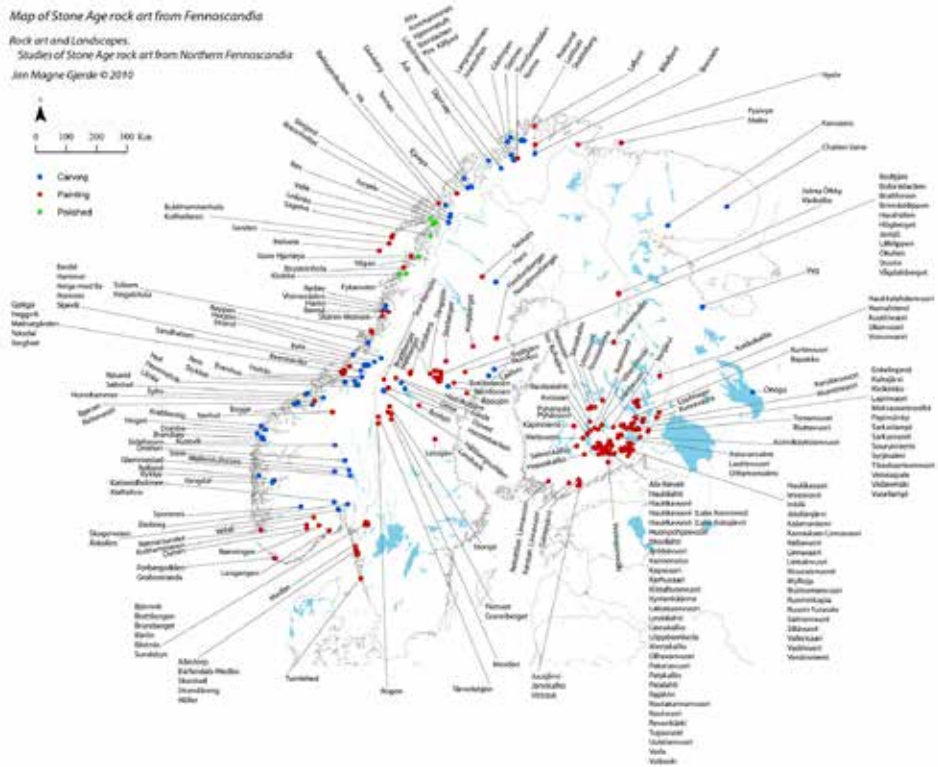
Ville Mantere

The elk
in Northern European rock art

Introduction

The hunter-gatherer rock art of Northern Europe is heavily focused on animal depictions. Of all the animal species represented in the imagery, the single most important is undoubtedly the Eurasian elk *(Alces alces)*. This animal was depicted in rock art across the Fennoscandian Peninsula at widely different locations throughout the Stone Age. According to a "careful estimate" by Gjerde (2010:176), the hunter-gatherer rock art of northern Fennoscandia consists of more than 300 individual sites (Fig. 1).

Figure 1. Map of hunter-gatherer rock art sites in Northern Europe. Further sites, both with and without elk figures, have been discovered in recent years. Map from Gjerde 2010, p. 178.



At least half of these sites are likely to comprise depictions of elk. Even if other animals are in some places more common, the overall number, and the geographical distribution of rock art sites with elk depictions in Northern Europe is striking (Gjerde 2018:213).

Elk figures are numerous and clearly significant at most of the largest concentrations of rock art in Northern Europe: Alta (Helskog 1988) in Norway, Nämforsen (Hallström 1960) in Sweden, and Onega (Ravdonikas 1936), Vyg (Ravdonikas 1938), and Kanozero (Kolpakov & Shumkin 2012) in northwestern Russia. In addition, the elk is a remarkably common and widespread motif at myriad smaller rock art sites in Norway (Lødøen & Mandt 2010), Sweden (Bolin 2000), and Finland (Luukkonen 2021). It should be noted, however, that notable differences exist within this vast region as regards the number and prevalence of elk depictions rendered at individual sites. While some rock art sites consist of elk figures only, at other sites the depictions of elk merely represent a small proportion of all figures and motifs (e.g. Mantere 2023, table 4). In total, there probably exists around 3000 elk depictions in the rock art of Northern Europe. These consist of ground (polished), carved (pecked), and painted figures, and thus represent all the three main techniques of rock art encountered within this area (Hesjedal 1994:1; Gjerde 2010:13).

The purpose of this article is to give a brief general overview of elk figures in Northern European rock art by means of some illustrative examples of rock art sites with depictions of elk. In order to present an overview as comprehensive as possible, I have chosen sites that not only derive from different geographical and topographical regions, but also represent different time periods, techniques, and various-sized rock art locations. I will begin by examining elk figures in rock art from a chronological perspective and end by shortly discussing the overall meaning and function of elk figures in Northern European rock art.

Early Mesolithic elk figures

Even though a handful of Upper Palaeolithic elk depictions are known from the cave art of Western Europe (Braun 2020) and the open-air rock art of northern Italy (Sigari & Fossati 2023), the elk motif in prehistoric rock art is first and foremost linked to the northern parts of Europe. In this area, the earliest elk depictions, and the very oldest signs of rock art also more generally, are found in the Ofoten region in Northern Norway. Here, the oldest rock art tradition consists of images made by polishing (e.g. Hallström 1909:140-148; Gjessing 1932:11–24; Hesjedal 1996:30–32; Gjerde 2010:183–197). While it is impossible to determine the exact age of these images, it has been estimated, based on shoreline chronology, that they date roughly to around 9250–7500 BC, that is, the Early Mesolithic period (see Hesjedal 1992:31; Gjerde 2010:196).

There are only seven known sites with polished rock art, all located within a relatively restricted area along the coast of central Nordland (Lødøen 2010a:69–70). Five of these sites contain images depicting elk (Mantere 2023, fig. 27). This indicates that the elk was an important animal already for the first rock artists in the north, who settled the area shortly after the withdrawal of the ice sheet (cf. Gjerde 2010:189). Altogether, the polished rock art sites include around one hundred distinguishable figures. However, the figures are often considerable in size, badly preserved, incomplete and/or superimposed, making the calculation and interpretation of single images difficult (Hesjedal 1992:41–43).

In total, the polished rock art of central Nordland comprises 17 more or less recognizable elk depictions (Mantere 2023:117). Apart from elks, the rock art motifs consist of other large-sized animals, such as reindeer, whales, and bears (Hesjedal 1992:41). The figures are characterized by their relative naturalism and their outline style of depiction, only displaying the contours of these animals (Fig. 2).

Figure 2. The polished elk figure at Vågan (Skjerstafjord) in central Nordland, northern Norway, measures more than three metres in length. Photo: Ville Mantere.

Until recently, animal images were believed to constitute the only motifs in polished rock art (Lødøen 2010a:69). However, two newly discovered boat figures at the rock art site of Valle by Efjord challenge this view. These probably also represent the oldest boat depictions in the world (Gjerde 2021). Together with the shorebound location of the polished rock art sites, and the notable size of polished figures, the boat depictions support the idea presented earlier by Gjerde (2010:189,198) that the polished rock art was made to be seen from a distance, by people traveling at sea (see also Lødøen 2010a:69,83).

In one way or another, the polished rock art obviously relates to the human-animal relationships of the hunter-fisher-gatherer groups that created these images. For communities that lived off the land, gaining success in the hunt, and maintaining favourable relationships with the local prey animals, must always have been crucial tasks (cf. Gjerde 2010:425; Günther 2010:99–100). It is hence reasonable to assume that, already in prehistoric times, these factors were sought to be protected by all possible means. While the production of eye-catching animal figures on coastal rocks could, in theory, have been a way to make the landscape more familiar to the own community (cf. Gjerde 2010:198), it seems more probable to me that the images were primarily addressed to other hunter-gatherer groups, as suggested by the large size and the shorebound location of the figures (Mantere 2023:120). By means of the polished images, the rock artists were able to inform foreign groups from afar that these had entered an occupied area (cf. Hood 1988:77; Sognnes 2002:202; Norder 2003). The large figures are thus, I would argue, understandable as territorial markers. Essentially, they conveyed the message that the inhabitants in the area had developed a functioning relationship to its key local resources that they wanted to protect.

However, since the polished rock art motifs predominantly consist of depictions of elks and other animals, it seems conceivable that these were, at least to some degree, also aimed at the depicted animals themselves (cf. Günther 2022:127–135). Ultimately, the animal figures were expressions of respect towards the local animals and, especially, the special relationship that was believed to exist between them and the rock art makers (Mantere 2023:120–121). The overall absence of human figures and hunting scenes from the polished rock art imagery strongly indicates that elks, as well

Figure 3. Polished rock art figures depicting elks and other animals at Leiknes (Tysfjord) in central Nordland, northern Norway. The figures must have stood clearly out from the dark rock when they were produced. In addition, the sea level was around 40–50 metres higher when the figures were made, and so the images must have been well visible from the sea (Gjerde 2010:191–196). Photo: Ville Mantere.

as other animals, were valued, and not considered subordinate to humans.

Mid-Mesolithic elk figures – do they exist?

As intriguing as the polished elk figures are, it is impossible to draw any far-reaching conclusions based on these Early Mesolithic images, since they stem from a few individual sites only. Furthermore, in the chronology of northern hunter-gatherer rock art there exists a considerable gap of approximately 1500 years, between circa 7500 and 6000 BC, without any certain depictions of elk whatsoever (cf. Fuglestvedt 2018:44). As Sognnes (2003:195–200) and Gjerde (2010:386–391) have noted, however, the Norwegian rock carving sites of Bardal 3 (Gjessing 1936) and Skavberget 1–2 (Simonsen 1958), and the rock paintings at Mølnargården (Sognnes 2003) and Gjølga (Gjessing 1936), could potentially date to this period based on their elevation. All of these sites include depictions of elk, but since it is unclear whether the locations were originally shorebound, their dating remains uncertain. Likewise, while the elk carvings at Gärde in Sweden (Hallström 1960) cannot be reliably dated on the basis of their elevation, they have been thought to stem from the Mesolithic period because of their similarities in style and size to the polished rock art figures (see Forsberg 2000:68–69). Consequently, for the time being, it is not possible to uninterruptedly follow the elk motif in northern rock art in a chronological manner. That said, the lack of confirmed Mid-Mesolithic sites is likely to be mostly explicable by preservation causes, and it seems probable that elk figures were produced during this period also.

Late Mesolithic elk figures

During the 6th millennium BC, elk figures re-emerge in northern rock art, but they now consist of pecked carvings in particular (e.g. Mikkelsen 1977; Glørstad 2010). The Late Mesolithic elk depictions differ from the earlier polished figures not only in their technique, but also in their size, style, and location (e.g. Mikkelsen 1977). The carved elk figures are – with a few notable exceptions (Fig. 4) – smaller than the polished images, often more or less stylized depictions, and made both at coastal and inland locations (e.g. Lødøen 2010b). Perhaps most importantly, a new distinctive trait that separates the Late Mesolithic carved (elk) figures from those made by polishing is the manner of depicting the elk bodies with different kinds of inner designs (Fig. 4, 5).

The origins and meanings of inner designs have been discussed by several scholars, but it is obvious that the markings only partially correspond to the internal structure and organs of elk (see Fuglestvedt 2018:183–190). It is also noteworthy that the inner designs always seem to differ from each other. This could indicate that one of their purposes was to underline differences between elk individuals (cf. Skandfer 2020:119). Most probably, prehistoric hunters – like later elk hunters – paid close attention to, and kept track of, the individual elks that lived in their environment (cf. Feit 1973:120–122; Nelson 1973:90–92). It thus seems likely that the rock artists used inner designs for identifying and personalizing elks that they encountered in the wild, and which they wanted to reproduce and exist within their landscape (Mantere 2023:133,246).

What further speaks in favour of the close link between elk depictions and the local elk populations is the fact that many rock carving sites are located at places, which elks still today prefer as their habitats (Fig. 5, 6). In eastern Norway, for instance, where the elk is by far the most common motif in carved Late Mesolithic rock art, there exists plenty of information indicating that the carving sites are located along migration routes used by elks (see Mikkelsen 1977:190,193; 1986:128–133). Again, this appears fully logical, for places which elks favoured must have been highly significant locations for the rock artists themselves as well.

A key feature associated with the Late Mesolithic rock art in Northern Europe is the notable change that occurs around 5500–5000

Figure 4. The Åskollen elk figure in Drammen, eastern Norway, is dated to the 6th millennium BC (Glørstad 2010:221). It is of large size and located near the coast like the polished elk figures, but unlike the former, it exhibits various inner markings. Processed photo: Ville Mantere.

Figure 5. Late Mesolithic elk depictions at Møllerstufossen in Nordsinni, eastern Norway. The elk figures have various kinds of inner markings, which seem to underline differences between elk individuals. It is noteworthy that local elks prefer to reside by the carvings still today (Mikkelsen 1986:130). Processed photo: Ville Mantere.

Figure 6. The rock carvings at Drotten in Fåberg, eastern Norway, depict elks heading rightwards. The carvings are located by the Lågen River at a place where elks possibly were hunted (Gjessing 1944:104). Photos: Ville Mantere.

BC, and which Gjerde (2010) has called the "rock art explosion". This change is discernible in many ways. The first rock paintings appear, the rock art imagery becomes significantly more diverse in terms of motifs, there is a clear increase in the number of sites, and the first large concentrations of petroglyphs emerge (Gjerde 2010:394–401). As for the elk motif, the changes that take place around this time are likewise remarkable. Depictions of elk hunting, as well as other kinds of scenes illustrating interaction between elks and humans (and other motifs) begin to be portrayed on rocks as a result of the "rock art explosion" – especially at the large rock art centres (e.g. Helskog 2014:68–73; Kolpakov 2020). The special position of the elk is also manifested in two new kinds of motifs that relate to this animal: the elk-headed staffs and boats (e.g. Hallström 1960). These motifs both seem to have had physical paragons and are linked first and foremost to the large rock art concentrations (Mantere & Kashina 2020;

Figure 7. The largest concentration of elk depictions in northern rock art is found at Nämforsen in northern Sweden, where around 900 depictions of elk have been recognized (Gjerde 2015:75). Images of elk-headed boats and staffs are also depicted adjacent to elk figures at Nämforsen. Processed photo: Ville Mantere.

Figure 8. The largest concentration of northern hunter-gatherer rock art is found in Alta, northernmost Norway. Even if reindeer is the most common animal depicted in Alta, elks clearly had a special importance for the rock carvers as well (Helskog 2014). Narrative compositions involving elks, elk-head boats and elk-head staffs are found in many large rock art panels in Alta, such as Bergbukten 4B at Hjemmeluft. Processed photo: Ville Mantere.

Mantere 2023:234–236). At these sites, the elk-headed staffs and boats are found in various kinds of compositions that occasionally involve elk figures also (Fig. 7, 8).

The large rock carving concentrations with thousands of petroglyphs in all probability served a different purpose than the majority of rock art sites, which typically only include a handful of figures (cf. Sognnes 2002). Apart from being associated with a similar imagery, the large rock art centres display a long continuity of rock art production and are often connected to human (long-term) settlements (e.g. Gjerde 2010). Scholars have therefore long favoured the idea that people from different regions gathered at the large rock art sites (e.g. Hallström 1960:317; Meinander 1979:91; Hood 1988:79; Gjerde 2010:48). While I am disposed to associate the "ordinary" rock art sites and their elk figures with the local environment – and the aspiration of maintaining beneficious relationships with its key resources – it is also in my view probable that the large rock art concentrations, in turn, served primarily as meeting places for hunter-gatherer groups (Mantere 2023:179).

Whilst the underlying motivations for the meetings that conceivably took place at the rock art centres could have been manifold, it is reasonable to assume that these in some way involved the sharing of hunting knowledge (cf. Skandfer 2020:125). Moreover, for northern hunter-gatherer groups, the elk was generally a central quarry (Mantere 2023). Thus, the prevalence of elk figures at the large rock art sites is essentially understandable as a result of exchanging information concerning this particular animal and its hunting. This, of course, does not

exclude any additional connotations that may have been ascribed to the elk. After all, in indigenous hunter-gatherer societies, a separation between the ritual and the secular does in general not exist (Brück 1999).

Neolithic elk figures and the end of elk symbolism

The elk is a common motif in Mesolithic rock art, but most of the rock art sites in Northern Europe that include depictions of this animal are likely to stem from the Neolithic period. While elks continued to be portrayed in numbers at the large concentrations of rock art, the elk's key position during the Neolithic period is particularly manifest in the "ordinary" inland rock art sites, which now include pecked carvings and, especially, red ochre paintings (Fig. 9).

Figure 9. A painted elk figure at Uittamonsalmi in Ristiina (Mikkeli), southeastern Finland. Processed photo: Ville Mantere.

In Finland, for example, the prehistoric rock art consists only of rock paintings, which are found at more than one hundred individual sites (Luukkonen 2021). Whilst the earliest figures probably date to the end of the

Figure 10. The rock painting site of Haukkavuori in Kotojärvi, Iitti, southern Finland, is a typical Finnish rock art site. The paintings (an anthropomorph, at least one elk figure, and horizontal lines) are found on an impressive cliff that rises from the water and produces a conspicuous echo. Elk bones from the Early Metal Period were found in the lake bottom in front of the painting cliff (see Lahelma 2020). Photo: Ville Mantere.

Mesolithic period, most of the Finnish rock art is attributed to the Neolithic period (e.g. Seitsonen 2005; Lahelma 2008). The 233 known depictions of cervids (mostly elk) in Finnish rock art make up 29 % of the imagery, being only slightly less prevalent than the anthropomorphic figures (267, or 33 %) that form the largest category (Luukkonen 2021:18–19). Just as the aforementioned rock art sites found in central Nordland and eastern Norway, the Finnish rock painting locations, too, have an evident connection to water (Fig. 10). However, the Finnish localities are not associated with coastal or fast-moving waters, but with lakesides, and important water routes in particular (e.g. Kivikäs 2010:165).

It is noteworthy that water routes in the north were not only important during the open water season but were crucial in wintertime as well (cf. Gjerde 2010:99,412). Thus, the fact that rock paintings were produced along such routes made them centrally located year-round. In addition, the Finnish rock paintings are frequently found on impressive cliffs that rise from the water, and which often have an anthropomorphic shape and/or special acoustic qualities (e.g. Lahelma 2008). In other words, the rock art locations were attention-grabbing, and this seems to provide a key for understanding their function (e.g. Poutiainen 2010:46). Indeed, whereas the polished figures caught the attention of the observer to the rock art by means of their exceptional size, in lakeside Finland the considered placement and the extraordinary surroundings of the painted figures served this purpose.

To put it differently, it seems that in central Nordland and Finland, rock art was produced first and foremost with the intention that it would be noticed by humans travelling by water. Myriads of rock art locations across Northern Europe give a similar impression, and it is hence reasonable to assume that elk figures and other motifs were frequently depicted on rocks with the aim of conveying information (cf. Lødøen 2010b:296). Had this not been their primary purpose, the sites would in all likelihood not be so repetitiously associated with water and visibility – though the water connection may well have been linked to spiritual beliefs as well (Bolin 2000). As for the detailed connotations that were communicated through rock art, we can only make assumptions, but as stated above, I am inclined to believe that, ultimately, petroglyph sites signalled human presence within a region. The natural question that then follows is why the rock artists considered it important to safeguard territories within the landscape in the first place? It is herein, I would contend, that the fundamental meaning of depicting elk figures lies, because the evident answer is that it was the natural resources within a region that made the area worth protecting.

To be sure, the elk hardly developed into a central rock art motif by chance. The concern for access to this significant and versatile, but at the same time challenging resource was probably more or less constant for hunting communities, and most likely also the factor that ultimately explains the supremacy of the elk motif in rock art (cf. Ramqvist 1992:32). Regardless of when, or by which group members, depictions of this animal were produced, we can be relatively certain that the rock artists wanted huntable elks to exist within their landscape. Securing hunting, on the one hand, and guaranteeing the regeneration of slain animals, on the other, are highly central themes for northern hunting communities at large (e.g. Paulson 1968; Günther 2010:99–100; Herva & Lahelma 2019:72–73). Most probably, these were hence regarded as tasks that required concrete actions also by the Stone Age hunters that stood for the elk-centred rock art.

In this light, however, the scarcity of actual elk hunting scenes in northern rock art may appear strange, since evident depictions of hunting or killing elks are mainly limited to the few large petroglyph centres (Fig. 11). Even at these locations, elk hunting scenes are quite rare (Kolpakov 2020:196). At Kanozero, for example, there are three times as many depictions of whaling as of

elk hunting (Kolpakov & Shumkin 2012:319–325; Likhachev 2021; 2023). However, based on human-animal relations in later hunter-gatherer communities, it seems reasonable to assume that prehistoric human-elk relationships were in general not based on control and domination but rather were deep and multidimensional in essence (cf. Günther 2009:26). Presumably, Stone Age hunters could even see elks not only as representatives of their species, but as independent individuals or "persons", with whom it was possible to communicate in a reciprocal manner (cf. Willerslev 2007). Furthermore, considering that feelings of guilt and grief associated with killing animals are, at least to some extent, universal elements among indigenous hunter-gatherer peoples (e.g. Serpell 1986:143–170), we can perhaps better understand why hunting and killing of elks was so rarely depicted on rocks.

Figure 11. Depiction of an anthropomorph aiming an elk with a bow at Ole Pedersen 9 in Alta, northernmost Norway. Photo: Ville Mantere.

Figure 12. The main rock painting panel at Astuvansalmi in Ristiina (Mikkeli), southeastern Finland, is one of the largest rock painting panels in Northern Europe. It consists of numerous human and elk figures that are seemingly related to each another. Processed photo: Ville Mantere.

Accordingly, the fact that human and elk figures were depicted together in rock art in other-than-hunting scenes does not imply that people would not have been interested in the elk as a quarry. Indeed, I would argue that the opposite was the case. Maintaining a beneficial relationship to this majestic animal was so important that – across a vast geographical region and throughout a multimillennial timespan – people considered it necessary to express their dependence of, and respect for, the elk by means of rock art (Fig. 12).

However, in the Late Neolithic–Early Bronze Age transition, around 1600–1400 BC, another significant "rock art boom" with far-reaching implications seemingly took place

in Northern Europe (Goldhahn 2018:60–63). This change is noticeable in a new type of rock art that was now linked to agricultural groups. Earlier motifs that for millennia had encompassed a key role in northern hunter-gatherer rock art – amongst them the elk – became replaced with a novel imagery that was related to cosmologies centred around the sun, as well as maritime and martial elements (Goldhahn 2018:63–64). By the emergence of the Early Bronze Age, the elk-headed staffs and boats, for instance, seem to have been substituted, at least partly, by images of axes and spears, and horse-headed boats, respectively (see e.g. Hallström 1960:313–314; Baudou 1992:88–91; Westerdahl 2011:296). The changes associated with the "rock art boom" were not only relatively rapid and fundamental, but also final, because it seems that, generally speaking, depictions of elk were no longer produced in the rock art of Northern Europe after the Early Bronze Age.

Discussion and concluding remarks

The elk was represented in Northern European rock art for several millennia. While there are notable differences in the appearance of elk figures even within single sites, such as in Alta (e.g. Helskog 2014; Günther 2022), regional styles of depicting the elk are also evident (Sognnes 2007). Some recurring features can still be observed across large areas. In northern rock art, the elk is, as a rule, depicted in profile, and with both ears clearly separated from each other (Fig. 13). Resemblances like these indicate that rock artists were influenced not only by each other, but also by the images made by previous generations (e.g. Sjöstrand 2011:105–109; Janik 2008:101–102). This naturally places restrictions on the use of stylistic features for determining the age of elk depictions in rock art (see Helskog 1989). For instance, the inner designs that were introduced during the Late Mesolithic period continued to be depicted on elk figures throughout the Stone Age. A Late Neolithic rock art site that exemplifies this is Norrfors in Sweden (Ramqvist et al. 1985), where the carvings can rather accurately be dated to the period 2100–2000 BC (Ramqvist 1988:46). The elks at Norrfors have lifelines and other inner designs that in many ways resemble those depicted on Late Mesolithic elk figures (Figure 14).

Figure 13. A pecked elk depiction at Bergbukten 4A in Alta, northernmost Norway. In northern rock art the hoofs of elks are occasionally depicted in an overstated manner, which could indicate that these were associated with a special meaning. Photo: Ville Mantere.

Figure 14. The rock carvings at Norrfors by the Ume River in northern Sweden have different kinds of inner designs. Processed photo: Ville Mantere.

Perhaps the clearest common denominator for the elk images in northern rock art is the fact that the vast majority of them depict antlerless elks in particular (e.g. Günther 2010). This trait is both chronologically and geographically widespread, and observable in polished, carved, as well as painted rep-

Figure 15. Elk bull with evident antlers portrayed at Bergheim 1 in Alta, northernmost Norway. Photo: Ville Mantere.

Figure 16. Elk cow and calf portrayed together at Nämforsen, northern Sweden. Processed photo: Ville Mantere.

resentations of the elk motif. To complicate matters, however, antlered elks are not completely lacking from the rock art imagery but are represented here and there, although in significantly lesser numbers (Fig. 15). Thus, the elks in Northern European rock art do not exclusively depict female elks or calves (Fig. 16), nor bulls, which shed their antlers in the winter. In addition, there is reason to believe that the depictions of elk bulls with antlers could, despite their scarcity, play an important role for the creators of rock art. For example, Mikkelsen (1986:137,140) noted that in eastern Norwegian rock art, male elks are usually the largest motifs, and they are often carved with deeper lines than other figures.

A feasible explanation for the disproportion between antlered and antlerless elk depictions may lie in the elk's natural reproductive strategy, in which only a small number of males account for the impregnation of elk cows (see Mantere 2023:242–248). Even this explanation has its weaknesses, however, because antlered elks are in some areas completely absent from the rock art (e.g. Kolpakov & Shumkin 2012:299). Yet, since the striking emphasis on antlerless elks is evident in Siberian rock art as well as in various elk-shaped artefacts from the boreal forest zone (e.g. Martynov 1991:30–32; Günther 2010; Mantere 2023), it seems most probable that such representations in most cases depict female elks rather than calves or bulls. This, again, appears perfectly sensible, for it was the elk cow that generated new life by giving birth to new elk individuals, and thereby, in a way, made life possible for human populations living off this animal (cf. Helskog 2014:136).

While it is impossible to give totally exhaustive explanations for the elk depictions in Northern European hunter-gatherer rock art, the best way to approach their meaning is undoubtedly to focus on the subject of these representations. The elk was of extraordinary importance as a quarry in large parts of the northern coniferous forest zone for thousands of years (e.g. Vereschagin & Rusakov 1979; Ekman & Iregren 1984; Ukkonen & Mannermaa 2017). It is hence not particularly far-fetched to regard this to be the decisive reason for why elks were depicted in numbers on rock surfaces also (cf. Ramqvist 1992:32). To be sure, since depictions of elk are so evidently linked to Stone Age hunter-gatherer groups, the elk-centred rock art of Northern Europe should first and foremost be associated with the livelihood of these societies, in which the elk played a crucial role (Mantere 2023).

Meanwhile, it is worth keeping in mind that hunting communities that stood for the rock art hardly conceived it as "art" in the established sense of the word, and we should not take its representative and purposive nature for granted either (cf. Herva & Ikäheimo 2002:97–98). For example, the act of producing an elk figure was perhaps

more important than the resulting composition it became a part of (e.g. Sjöstrand 2010), and the "incomplete" appearance of many elk figures in rock art may well be deliberate (cf. Hesjedal 1994:10). Moreover, the meanings associated with (elk-related) rock art likely underwent changes over time (cf. Brandišauskas 2017:229).

Overall, however, the location of Northern European hunter-gatherer rock art strongly suggests that the (elk) images were originally intended to be visible. It is therefore most probable that they possessed at least some degree of informative meaning. A more difficult question to answer is, however, for whom the elk figures were made for. As I have argued, rock art located at attention-grabbing places along central water routes conceivably reflects the effort of directing the images for (foreign) hunter-gatherer groups. Depictions of elk produced at places where elks resided, or where they bypassed during their yearly migrations, were plausibly also intended for the elks themselves, perhaps as signs of veneration and dependence.

Undoubtedly, multifaceted meanings were associated with the elk motif, but most probably, these, too, were based on the importance of the elk as a prey. One way or another, depictions of elk in rock art convey the role of this animal as a prey, and that of man as its hunter. That said, in northern hunter-gatherer cultures, hunting is commonly conceived as a continuous and cyclic series of events, in which the actual killing only plays a minor part (e.g. Tanner 1979:90; Fuglestvedt 2018:117). Observing any signs of elk in the local landscape, stalking elks, imitating their behaviour, processing the elk carcass, sharing and eating the elk's meat, depositing the elk's remains, as well as other, more or less ritualistic activities, were an inseparable part of the elk hunting process (e.g. Feit 1973; Nelson 1973; Grøn & Kuznetsov 2003; Jordan 2003; Willerslev 2007; Pedersen & Brinch Petersen 2017). Ultimately, the elk depictions in Northern European rock art also belonged to this process.

Acknowledgements

I would like to thank Professor Knut Helskog for valuable comments that improved the text, and D.A. Ismo Luukkonen for accompanying me on fieldwork trips to many of the rock art sites mentioned in the article.

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References

Baudou, E. 1992. Norrlands forntid – ett historiskt perspektiv. *Kungl. Skytteanska samfundets handlingar* 45. Bjästa: CEWE-förlaget.
Bolin, H. 2000. Animal magic: the mythological significance of elks, boats and humans in north Swedish rock art. *Journal of Material Culture 5*(2): 153–176.
Brandišauskas, D. 2017. Leaving Footprints in the Taiga: Luck, Spirits and Ambivalence Among the Siberian Orochen Reindeer Herders and Hunters. *Studies in the Circumpolar North Vol. 1*. New York: Berghahn Books.
Braun, I. 2020. The elk/moose (*Alces alces*) in the Upper Palaeolithic Art of Western Europe. *PALEO* 30(2): 58–74.
Brück, J. 1999. Ritual and rationality: some problems of interpretation in European archaeology. *European Journal of Archaeology 2*(3): 313–344.
Ekman, J. & Iregren, E. 1984. Archaeo-zoological investigations in northern Sweden. *Early Norrland* 8 (Kungl. Vitterhets Historie och Antikvitets Akademien). Stockholm: Almqvist & Wiksell.
Feit, H. 1973. The ethno-ecology of the Waswanipi Cree: or how hunters can manage their resources. In: Cox, B. (ed.) *Cultural Ecology: Readings on the Canadian Indians and Eskimos:* 115–125. Toronto: McClelland and Stewart Limited.
Forsberg, L. 2000. The social context of rock art in middle Scandinavia during the

Neolithic. In: Kare, A. (ed.) *Myanndash – Rock Art in the Ancient Arctic:* 50–87. Rovaniemi: Arctic Centre Foundation.
Fuglestvedt, I. 2018. *Rock art and the wild mind: visual imagery in Mesolithic Northern Europe*. London & New York: Routledge.
Gjerde, J.M. 2010. Rock art and landscapes: studies of Stone Age rock art from northern Fennoscandia. PhD dissertation. University of Tromsø.
Gjerde, J.M. 2015. A Stone Age rock art map at Nämforsen, northern Sweden. *Adoranten* 2015: 74–91
Gjerde, J.M. 2018. An overview of Stone Age rock art in northernmost Europe – what, where and when? In: Janik, L. (ed.) *Rock Art of the White Sea*: 204–225. Ulsan: Ulsan Petroglyph Museum.
Gjerde, J.M. 2021. The earliest boat depictions in Northern Europe: newly discovered Early Mesolithic rock art at Valle, northern Norway. *Oxford Journal of Archaeology* 40(2): 136–152.
Gjessing, G. 1932. Arktiske helleristninger i Nord-Norge. Instituttet for sammenlignende kulturforskning. *Serie B: Skrifter* XXI. Oslo: H. Aschehoug & Co. (W. Nygaard).
Gjessing, G. 1936. Nordenfjelske ristninger og malinger av den arktiske gruppe: mit deutschem Resumé. *Serie B: Skrifter* XXX. Oslo: H. Aschehoug & Co. (W. Nygaard).
Gjessing, G. 1944. Veideristningen ved Drotten i Fåberg. *Universitetets Oldsaksamlings Årbok* 1941–1942: 103–108.
Glørstad, H. 2010. *The structure and history of the Late Mesolithic societies in the Oslo fjord area 6300–3800 BC*. Lindome: Bricoleur Press.
Goldhahn, J. 2018. North European rock art: a long-term perspective. In: David, B. & McNive, I. (eds.) *The Oxford Handbook of the Archaeology and Anthropology of Rock Art*: 51–72. Oxford: University Press.
Grøn, O. & Kuznetsov, O. 2003. Ethnoarchaeology among Evenkian forest hunters: preliminary results and a different approach to reality! In: Larsson, L., Kindgren, H., Knutsson, K., Loeffler, D. & Åkerlund, A. (eds.) *Mesolithic on the Move (Papers presented at the Sixth International Conference on the Mesolithic in Europe, Stockholm* 2000): 216–221. Exeter: Oxbow Books.
Günther, H. 2009. Problem med schamanistiska tolkningar av de nordfennoskandiska hällbilderna. *Fornvännen* 104: 17–32.
Günther, H. 2010. Älgkon i hällbildsforskningen – en förbigången historia. In: Tjärnström, M., Viklund, B.O. & Humlesjö, N.E. (eds.) *Rödockrarummet. Artiklar från 2008, 2009 och 2010 års arkeologihelger i Näsåker*: 97–114. Näsåker: Norrlands hällbildnings-sällskap.
Günther, H. 2022. The rhythm of rock art animals – picturing reindeer, elk and bear around the seasonal cycle in Stone Age Alta. PhD dissertation. *Stockholm Studies in Archaeology* 80. Stockholm University.
Hallström, G. 1909. Nordskandinaviska hällristningar. II. De norska ristningarna. *Fornvännen* 4: 126–159.
Hallström, G. 1960. *Monumental art of northern Sweden from the Stone Age: Nämforsen and other localities*. Stockholm: Almqvist & Wiksell.
Helskog, K. 1988. *Helleristningene i Alta – spor etter ritualer og dagliv i Finnmarks forhistorie*. Alta: Bjørkmanns Trykkeri.
Helskog, K. 1989. Naturalisme og skjematisme i nord-norske helleristninger, In: Bertelsen, R., Reymert, P.K. & Utne, A. (eds.) Framskritt for fortida i Nord i Povl Simonsens fotefar. *Tromsø museums skrifter* XXII: 87–103. Tromsø: Tromsprodukt A.S.
Helskog, K. 2014. *Communicating with the world of beings – the world heritage rock art sites in Alta, Arctic Norway*. Oxford & Philadelphia: Oxbow Books.
Herva, V.-P. & Ikäheimo, J. 2002. Defusing dualism: mind, materiality and prehistoric art. *Norwegian Archaeological Review* 35(2): 95–108.
Herva, V-P. & Lahelma, A. 2019. *Northern archaeology and cosmology – a relational view*. London: Routledge.
Hesjedal, A. 1992. Veideristninger i Nord-Norge, datering og tolkningsproblematikk. *Viking* 1992: 27–53.
Hesjedal, A. 1994. The hunter's rock art in northern Norway: problems of chronology and interpretation. *Norwegian Archaeological Review* 27(1): 1–28.

Hesjedal, A. 1996. Norges eldste helleristninger – de slipte helleristninger i Nordland. *Ottar* 212: 30–33.
Hood, B. 1988. Sacred pictures, sacred rocks – ideological and social space in the north Norwegian Stone Age. *Norwegian Archaeological Review* 21(2): 65–84.
Janik, L. 2008. Comments on Antti Lahelma (2007): 'On the back of the blue elk': recent ethnohistorical sources and 'ambiguous' Stone Age rock art at Pyhänpää, central Finland. *Norwegian Archaeological Review* 41(1): 101–104.
Jordan, P. 2003. *Material culture and sacred landscape – the anthropology of the Siberian Khanty*. Walnut Creek: AltaMira Press.
Kivikäs, P. 2010. Hällmålningar i Finland. In: Tjärnström, M., Viklund, B.O. & Humlesjö, N.E. (eds.) *Rödockrarummet. Artiklar från 2008, 2009 och 2010 års arkeologihelger i Näsåker*: 165–170. Näsåker: Norrlands hällbildnings-sällskap.
Kolpakov, E.M. 2020. Land hunting in the rock art of northern Fennoscandia. In: Gjerde, J.M. & Arntzen, M. (eds.) *Perspectives on Differences in Rock Art*: 193–201. Sheffield & Bristol: Equinox.
Kolpakov, E.M. & Shumkin, V.Ya. 2012. *Petroglify Kanozera – Rock carvings of Kanozero*. Saint Petersburg: Art of Russia.
Lahelma, A. 2008. A touch of red – archaeological and ethnographical approaches to interpreting Finnish rock paintings. PhD dissertation. *Iskos* 15. Helsinki: The Finnish Antiquarian Society.
Lahelma, A. 2020. Evidence for animal sacrifices in front of the rock painting of Kotojärvi, southeastern Finland. In: Gjerde, J.M. & Arntzen, M. (eds.) *Perspectives on Differences in Rock Art*: 175–192. Sheffield & Bristol: Equinox.
Likhachev, V. 2021. New motives and compositions of the Kanozero petroglyphs (On materials of new findings of 2016–2019). *Adoranten* 2021: 72–87.
Likhachev, V. 2023. "Bow elk hunt" composition of the Kanozero petroglyph complex. *Adoranten* 2022: 76–84.
Lødøen, T.K. 2010a. Polished rock art in Nordland. In: Lødøen, T. & Mandt, G. *The Rock Art of Norway*: 69–83. Hong Kong: Windgather Press.
Lødøen, T.K. 2010b. Rock art of the northern tradition in eastern Norway. In: Lødøen, T. & Mandt, G. *The Rock Art of Norway*: 279–296. Hong Kong: Windgather Press.
Lødøen, T. & Mandt, G. 2010. *The Rock Art of Norway*. Hong Kong: Windgather Press.
Luukkonen, I. 2021. *Suomen esihistorialliset kalliomaalaukset*. Keuruu: Sigillum.
Mantere, V. 2023. The Relationship Between Humans and Elks (Alces alces) in Northern Europe c. 12 000–1200 calBC. PhD Dissertation. *Karhunhammas* 21. University of Turku.
Mantere, V.N. & Kashina, E.A. 2020. Elk-head staffs in prehistoric Northern Europe and northwestern Russia – signs of power and prestige? *Oxford Journal of Archaeology* 39(1): 2–18.
Martynov, A.I. 1991. *The ancient art of northern Asia*. Urbana: University of Illinois Press.
Meinander, C.F. 1979. Innovation centres in the Arctic. *Fenno-ugrica suecana* (Tidskrift för finsk-ugrisk forskning i Sverige. Journal of Finno-Ugric Research in Sweden) 2/1979: 85–94.
Mikkelsen, E. 1977. Østnorske veideristninger – kronologi og øko-kulturelt miljø. *Viking* XL: 147–201.
Mikkelsen, E. 1986. Religion and ecology: motifs and location of hunters' rock carvings in eastern Norway. In: Steinsland, G. (ed.) Words and Objects: Towards a Dialogue between Archaeology and History of Religion. Instituttet for sammenlignende kulturforskning. *Serie B: Skrifter* LXXI: 127–141. Norwegian University Press.
Nelson, R.K. 1973. *Hunters of the northern forest – designs for survival among the Alaskan Kutchin*. Chicago & London: University of Chicago Press.
Norder, J.W. 2003. Marking place and creating space in northern Algonquian landscapes: The rock-art of the Lake of the Woods region, Ontario. PhD dissertation. The University of Michigan.
Paulson, I. 1968. The preservation of animal bones in the hunting rites of some North-Eurasian peoples. In: Diószegi, V. (ed.) Popular Beliefs and Folklore Tradition in Si-

beria. *Uralic and Altaic Series* 56: 451–458. Bloomington: Indiana University Press.
Pedersen, K.B. & Brinch Petersen, E. 2017. Bringing home the elk: Preboreal elk deposits from southern Scandinavia. In: Sørensen, M. & Pedersen, K.B. (eds.) Problems in Palaeolithic and Mesolithic Research. *Arkæologiske studier*: 237–256. København: University of Copenhagen/Museum Southeast Denmark.
Poutiainen, H. 2010. Pyyntikulttuurien kalliomaalauksia Hämeessä. In: Poutiainen, H. (ed.) Hirviveneestä hullukaaliin – muinaisuskomukset arkeologisen aineiston tulkinnassa. *Päijät-Hämeen tutkimusseuran vuosikirja* 2008–2009: 34–59. Hämeenlinna: Karisto.
Ramqvist, P. 1988. Boplats och hällristningar i Norrfors, Umeälven. *Arkeologi i Norr* 1: 29–49.
Ramqvist, P. 1992. Hällbilder som utgångspunkt vid tolkningar av jägarsamhället. *Arkeologi i norr* 3: 31–54. Umeå.
Ramqvist, P., Forsberg, L. & Backe, M. 1985. ...and here was an elk too… A preliminary report of new petroglyphs at Stornorrfors, Ume River. In: Backe, M. (ed.) *Archaeology and Environment* 4 (In Honorem Evert Baudou): 313–337. Umeå: Department of Archaeology, Umeå University.
Ravdonikas, V.I. 1936. *Naskalnyie izobrazheniya Onezhskogo ozera*. Moscow & Leningrad: Akademiya Nauk SSSR.
Ravdonikas, V.I. 1938. *Naskalnyie izobrazheniya Belogo morya*. Moscow & Leningrad: Akademiya Nauk SSSR.
Seitsonen, O. 2005. Shoreline displacement chronology of rock paintings at Lake Saimaa, eastern Finland. *Before Farming* 2005/1: 1–21.
Serpell, J. 1986. *In the company of animals – a study of human-animal relationships*. New York: Basil Blackwell.
Sigari, D. & Fossati, A.E. 2023. Le figure incise del Pleistocene finale-inizio Olocene in Valcamonica. *Rivista di scienze preistoriche* LXXIII: 1–30.
Simonsen, P. 1958. *Arktiske helleristninger i Nord-Norge* II. Oslo: Aschehoug.
Sjöstrand, Y. 2010. Product or production: on the accumulative aspect of rock art at Nämforsen, northern Sweden. *Current Swedish Archaeology* 18: 251–269.
Sjöstrand, Y. 2011. Med älgen i huvudrollen – om fångstgropar, hällbilder och skärvstensvallar i mellersta Norrland. PhD dissertation. *Stockholm Studies in Archaeology* 55. Stockholm University.
Skandfer, M. 2020. The appreciation of reindeer: rock carvings and Sámi reindeer knowledge. In: Gjerde, J.M. & Arntzen, M.S. (eds.) *Perspectives on Differences in Rock Art*: 113–128. Sheffield & Bristol: Equinox.
Sognnes, K. 2002. Land of elks – sea of whales: landscapes of the Stone Age rock-art in central Scandinavia. In: Nash, G. & Chippindale, C. (eds.) *European Landscapes of Rock-Art*: 195–212. London & New York: Routledge.
Sognnes, K. 2003. On shoreline dating of rock art. *Acta Archaeologica* 74: 189–209.
Sognnes, K. 2007. Shaping the elk – animal drawings in Arctic rock-art of Scandinavia. In: Anati, E. & Mohen, J-P. (eds.) *Les Expressions Intellectuelles et Spirituelles des Peuples Sans Ecriture* (Actes du Colloque UISPP–CISENP, Paris 22–23 Oct. 2007): 109–122. Capo di Ponte.
Tanner, A. 1979. *Bringing home animals – religious ideology and mode of production of the Mistassini Cree hunters*. Institute of Social and Economic Research. St: John's Memorial University of Newfoundland. New York: St: Martin's Press.
Ukkonen, P. & Mannermaa, K. 2017. Jääkauden jälkeläiset – Suomen nisäkkäiden ja lintujen historia. *Museoviraston julkaisuja* 8. Helsinki: Museovirasto.
Vereshchagin, N.K. & Rusakov, O.S.1979. *Kopytnyye Severo-Zapada SSSR (Istoriya, obraz zhizni i khozyaystvennoye ispol'zovaniye)*. Leningrad: Nauka.
Westerdahl, C. 2011. The binary relationship of sea and land. In: Ford, B. (ed.) *The Archaeology of Maritime Landscapes*: 291–310. New York: Springer.
Willerslev, R. 2007. *Soul hunters – hunting, animism, and personhood among the Siberian Yukaghirs*. Berkeley, Los Angeles & London: University of California Press.