

**The Relationship Between Humans and Elks
(*Alces alces*) in Northern Europe
c. 12 000–1200 calBC**

Ville Mantere

KARHUNHAMMAS 21





**UNIVERSITY
OF TURKU**

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Department of Archaeology
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Dedicated to my beloved mother (1953-2023)

UNIVERSITY OF TURKU

Faculty of Humanities

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Archaeology

MANTERE, VILLE: The Relationship Between Humans and Elks (*Alces alces*) in Northern Europe

c. 12 000–1200 calBC

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ABSTRACT

The subject of this dissertation is the relationship between humans and elks in Northern Europe during the period 12 000–1200 calBC. The elk (*Alces alces*) was of extraordinary importance to northern populations for several millennia, being not only the most important game animal in the boreal forest zone, but also an animal of notable symbolic significance. By bringing together different sources of evidence, and taking a long-term perspective, this study aims to develop a comprehensive understanding of the elk's significance to prehistoric human populations. The study explores the rise and decline of elk symbolism, its various manifestations in the boreal forest zone, as well as the qualities of prehistoric beliefs and activities related to the elk. The study material consists of osteological remains of elk, elk-related depictions in hunter-gatherer rock art, as well as elk-related portable artefacts. The main research methodology used is based on relational analogies deduced from widespread general notions that stem from societies where elks have been hunted. Additional research methods include a comprehensive study of earlier literature, fieldwork at rock art sites, museums and archaeological collections, as well as consultations with elk hunters and biologists.

The study shows that the key reasons for the elk's multimillennial special significance, and the birth of elk symbolism, were the elk's solitary behaviour, the high efficacy and prestige status of elk hunting, as well as the versatility and unpredictability of the elk as a resource. A central argument in the study is that there were two fundamental reasons for producing elk representations in rock art and on artefacts: to gain success in hunting and to guarantee the reproduction of elks for hunting. Another central argument is that the elk cow embodied the "game ruler" or "animal master spirit" of elks, which had ultimate control over not only rebirth and fertility, but also hunting success. The focus on the elk cow as a life-giver seems to have been a key theme that persisted for several millennia in Northern Europe. It is also argued that elk figures in rock art represent elks as individuals. Figures depicted at ordinary rock art sites signalled the presence of humans in the landscape and their relationship to the local elks, whereas those found at large rock art concentrations were linked to meetings between hunter-gatherer groups. Elk-related artefacts, it is argued, were used by different kinds of individuals and in different settings but were still related to various stages of the elk hunting process.

The study suggests that all hunters had a personal relationship with the elk and/or its game ruler, but differences existed in the degree of its closeness, and these differences were reflected in human societies. Consequently, the most skilful elk-hunters became the most respected authorities in elk hunting groups. In time, these individuals came to be regarded as mythical forefathers that were also depicted in rock art. The decline of elk symbolism in the region of study is explained as resulting from multiple factors, including changes in climate, the introduction of a new set of beliefs related to pastoralism, as well as an increased focus on other animal species.

Keywords: *Alces alces*, animal art, elk, elk-head boats, elk-head staffs, elk hunting, ethology, human-animal relations, hunter-gatherers, hunting, Northern Europe, portable art, prehistoric art, rock art, Stone Age, zoomorphic art

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TIIVISTELMÄ

Väitöskirjan aiheena on ihmisen ja hirven välinen suhde Pohjois-Euroopassa aikakaudella 12 000–1200 eKr. Hirvi (*Alces alces*) oli poikkeuksellisen tärkeä eläin pohjoisille kansoille vuosituhansien ajan. Se oli paitsi pohjoisen havumetsävyöhykkeen tärkein saaliseläin myös huomattavia symbolisia merkityksiä kantanut eläin. Tutkimus pyrkii eri aineistoja yhdistämällä antamaan kokonaisvaltaisen käsityksen hirven merkityksestä esihistoriallisille väestöryhmille pitkällä aikavälillä. Se käsittelee hirvisymboliikan syntyä, hiipumista ja erilaisia ilmentymiä pohjoisella havumetsävyöhykkeellä sekä hirveen esihistoriallisena aikana kytkeytyneitä uskomuksia ja käytäntöjä. Tutkimusaineisto koostuu hirven osteologisista jäänteistä ja hirven kuvauksista pyyntikulttuurien kalliotaitteessa ja esinelöydöissä. Pääasiallisena tutkimusmenetelmänä toimii hirvenpyyntiä harjoittavien yhteisöjen parista johdettujen relationaalisten analogioiden käyttö. Muita tutkimuksessa hyödynnettyjä menetelmiä ovat kattava kirjallisuuskatsaus, kalliotaidekohteilla, museoissa ja arkeologisissa kokoelmissa suoritettu kenttätyö sekä hirvenmetsästäjien ja biologisten konsultaatio.

Tutkimus osoittaa hirven monituhatuotisen erityisaseman ja hirvisymboliikan syntymisen selittyvän useilla taustatekijöillä, joista päällimmäisiä olivat hirvenpyynnin tehokkuus ja arvostus sekä hirven monipuolisuus ja ennustamattomuus resurssina. Työn keskeinen argumentti on, että hirvien kuvaamiselle esihistoriallisessa taitteessa oli kaksi perustavanlaatuaista syytä: pyyntionnen saavuttaminen sekä metsästettäväksi soveltuvien hirvien lisääntymisen turvaaminen. Tutkimuksen valossa naarashirvi ilmensi hirvien ns. lajinhaltijaa, jonka vastuulla oli paitsi jälleensyntyminen ja hedelmällisyys myös saalistuksen onnistuminen. Hirvilehmän asema elämänantajana vaikuttaa olleen merkittävä teema, joka säilyi Pohjois-Euroopassa keskeisenä vuosituhansien ajan. Pohjoisessa kalliotaitteessa hirvenkuvia esiintyy runsaasti, ja ne ovat parhaiten ymmärrettävissä yksilöllisiä eläimiä esittävinä. Tavanomaisille kalliotaidekohteille tehdyt hirvenkuvat selittyvät niin vieraille väestöryhmille kuin hirville itselleen osoitetuina ilmaisuina alueen ihmisten ja hirvien välillä vallinneesta suhteesta. Suurille kalliopiirroskeskityksille tehdyt hirvenkuvat kytkeytyvät sen sijaan ensisijaisesti eri alueiden pyyntiyhteisöjen välisiin tapaamisiin. Erilaisille hirveä esittäville esineille on vuorostaan yhteistä niiden kuuluminen hirvenmetsästysprosessin eri vaiheisiin.

Tutkimuksen perusteella on oletettavaa, että jokaisella hirvenmetsästäjällä oli henkilökohtainen suhde hirveen ja/tai tämän lajinhaltijaan, mutta suhteiden laadussa oli eroavaisuuksia, jotka heijastuivat pyyntiyhteisöissä. Taitavimmat hirvenmetsästäjät kohosivat yhteisöjensä arvostetuimmiksi ja arvovaltaisimmiksi jäseniksi. Ajan saatossa tällaisia henkilöitä alettiin pitää myyttisinä esi-isinä, joita kuvattiin myös kalliotaitteessa. Hirvisymboliikan hiipuminen tutkimusalueella selittyy tutkimuksen valossa lukuisten tekijöiden yhteisvaikutuksella, ja näihin lukeutuvat ilmaston muuttuminen, maanviljelykseen kytkeytyvien uskomusten leviäminen sekä muiden eläinlajien merkityksen kasvaminen.

Avainsanat: *Alces alces*, eläintaide, eräkulttuuri, esihistoriallinen taide, esinelöydöt, etologia, hirvenmetsästys, hirvenpääsauva, hirvenpäävene, hirvi, ihmis-eläinsuhteet, kalliotaide, kivikausi, metsästys, metsästäjä-keräilijät, Pohjois-Eurooppa, pyyntikulttuuri

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It might be a worn-out cliché to compare the writing of a doctoral dissertation to a journey, but I can think of no better allegory for my personal PhD process. As any good journey, the one now reaching its end has offered me both ups and downs, unforgettable memories, as well as lots of new insights. It has introduced me to wonderful people, taken me to spectacular places, allowed me to study exceptional artefacts and challenged me to ponder countless enigmatic and stimulating questions. It is not only with relief but also with a good deal of nostalgia that I look back on this journey.

When my journey began in 2015, the world was in many ways a different place. Fortunately, in hindsight, it was the right decision to start with assembling and personally studying the elk-related artefacts from Northern Europe. In pre-pandemic and pre-conflict Europe, this task was eminently possible to carry out, even if the process still turned out to be more demanding and time-consuming than initially expected. While I was from the outset aware that my journey would not be swift to accomplish, I could indeed not have guessed that it would take me eight years to finish it. Unexpected calamities in my personal life during the writing process forced me to pause the dissertation work for long periods of time. Struggling to learn new software skills such as image processing and map programs was likewise tedious and time-consuming, not to mention the process of finalizing the document, which proved to be many times longer than initially planned. The main reason for the prolonged journey, however, was undoubtedly the scope of my study, which necessitated acquisition of knowledge from several different fields of research that were virtually unknown to me.

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Turku, October 2023

*“No I don’t want to live in the past
But it is a nice place to visit”*

CHIC feat. Nile Rodgers – “I’ll be there” (2015)

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Abbreviations

AD	anno Domini
AMS	accelerator mass spectrometry
B	Belarus
BOO	Bolshoy Oleniy Ostrov (Kola Oleneostrovskiy) burial ground, Russia
BP	before present
C.	County
calBC	calendar years before Christ
D	Denmark
D.	District
E	Estonia
F	Finland
G	Germany
GIM	Gosudarstvennyi Istoricheskii Muzei (Moscow, Russia)
KGM	The National Museum of the Republic of Karelia (Petrozavodsk, Russia)
KM	Archaeological Collections of the Finnish Heritage Agency (Helsinki, Finland)
LGM	Last Glacial Maximum
Lt	Lithuania
Lv	Latvia
M.	Municipality
masl	metres above sea level
N	Norway
NML	National Museum of Latvia (Riga, Latvia)
O.	Oblast
P	Poland
P.	Parish
R	Russia
R.	Republic
r.	raion
RAS	Russian Academy of Sciences
S	Sweden
U	uncertain elk-related artefact (Appendix 2)
U.O.	Urban Okrug
YOO	Yuzhniy Oleniy Ostrov burial ground (Lake Onega), Russia

1 Introduction

The elk (*Alces alces*) is a species of animal that has been of extraordinary significance to northern populations for several millennia. The elk was the most important game animal in the boreal forest zone, providing not only large quantities of meat but also various precious materials such as hides, bones, antlers, and sinews. However, as the prehistoric art of this region shows, the elk's significance extended far beyond its role as a prey animal. Elks are depicted more frequently than any other animal in northern hunter-gatherer rock art, which also comprises other elk-related motifs, such as elk-headed staffs and boats. Together, these are witnesses to the prestige that this animal once enjoyed in Europe's northern regions. Furthermore, elks and elk-heads have been sculpted on a large variety of artefacts, ranging from miniature clay figurines to stone clubs and from wooden ladles to staffs made of antler.

The above evidence, along with other findings, confirm that the elk was an animal of notable symbolic significance to prehistoric hunter-gatherers in these regions. However, the various indications of the elk's overwhelming economic and cultural importance have traditionally been studied separately from one another, without deeper consideration of their common denominator: the elk. For this reason, *the essential aim of this thesis is to study the relationship between humans and elks in Northern Europe during the period 12 000–1200 calBC comprehensively, bringing together different sources of evidence.*

I begin this study by shortly discussing previous research and by outlining the research questions and the detailed aims of this study. I will thereafter define the scope of the study in terms of geography, chronology, and study material, and then discuss the research methods utilized. I will end this chapter by outlining the structure of the thesis.

1.1 Earlier research

In a sense, there is no scarcity in the amount of literature that has been written over the past century about different archaeological phe-

nomena that in some way or other are related to the elk, such as northern rock art, or pitfalls used for elk-hunting. At the same time, however, there are surprisingly few detailed studies, in which the elk itself is the main subject of study. This fact, that the elk's exceptional and multifaceted role as a common link, uniting different archaeological and osteological manifestations, has often been neglected in earlier research, is noted by Sjöstrand (2011: 15–16).¹

To date, therefore, the elk's importance in prehistory – even if widely recognized and often referred to in passing by scholars – has for some reason not been the subject of in-depth studies on an international level. Research articles have assessed the elk's wide-ranging importance sporadically, but such studies have tended to focus on smaller, specific regions (e.g. Taavitsainen 1980; Pulliainen 1987; Bolin 2000; Ashihmina 2002; Sjöstrand 2011; Larsson et al. 2012). The fact that Carpelan's (1974; 1977) articles on the elk- and bear-head shaped artefacts from Northern Europe, written almost half a century ago, still provide today the main references for this topic highlights the state of research in this field of study.² Reasons for the lack of studies focusing on the elk are undoubtedly multiple, but a major cause is probably the fact that a study focusing on human-elk relationships beyond present-day national borders has been regarded as too extensive a task. Moreover,

¹ It must, however, be noted that a few larger research projects connected to the elk have been carried out in the recent years. For instance, a project entitled "Moose and man in the North - a multi-millennial relationship" ("Älgen och människan i norr - en mångtusenårig relation") was undertaken in collaboration with Umeå University, the Swedish University of Agricultural Sciences and Västerbottens museum during 2008–2011. The project aimed at studying the relationship between archaeological material and modern GPS-data with regard to elk behaviour patterns and migration routes, as well as the genetic relationship between modern and Late Neolithic elks in Norrland (see Larsson 2010: 1–3). However, it seems that the final results of this project, with the exception of some short popular articles and reports, resulted only in a single research article (Larsson et al. 2012).

² As regards the elk-shaped artefacts, one explaining factor for the lack of comparative and interpretative studies is, as Carpelan (1974: 30) has pointed out, that traditionally, the zoomorphic items are published in the literature one by one, as new finds are discovered.

despite the rise of ethnoarchaeological studies and the growing amount of research within the field of archaeology of religion, it seems that many archaeologists still consider the intangible aspects of prehistory in general as a fringe and/or unapproachable subject of enquiry.

In Günther's (2010: 100) view, one reason for the scarcity of studies focusing on the relationship between humans and elks (as well as other animals, for that matter) is that there have been two divergent research traditions in archaeology that have usually remained separate; a processual or a functional, and a post-processual. Advocates of the former have regarded animals mainly in terms of food and resources, and there has been little room for reflecting aspects other than the economic. Supporters of the latter approach, in turn, have been more interested in the symbolic role of animals for abstract human thought than in the actual relationship between humans and animals (Günther 2010: 100; see also Skandfer 2020: 113; Pasarić 2023: 2–3).

Only recently have archaeologists started to pay considered attention to the myriad ways in which animals and humans affect each other (e.g. Armstrong Oma 2010; Brittain & Overton 2013; Hill 2013; Nyysönen & Salmi 2013; Boyd 2017; Pasarić & Warren 2019; Armstrong Oma & Goldhahn 2020; Mansrud & Berg-Hansen 2021). The present study is also an effort to contribute to this development, which essentially relates to the so-called "animal turn"; a novel interest in animals and human-animal relations in (post)humanities and social sciences in general (e.g. Ritvo 2007; Weil 2010; Wolfe 2011; Anderson Cederholm et al. 2014; Salzani 2017).

The present study, meanwhile, takes a more pioneering approach by tracking the relationship between humans and elks over a large geographical region throughout several millennia. Thus, relating it to earlier research is not a straightforward task. While similar large-scale studies have not been conducted before, lengthy research traditions exist with regard to all the various materials discussed in this dissertation. Addressing these all in depth would, however, not have been a practical solution, as it would have inevitably made this dissertation excessively lengthy and overly intricate. For example, this study takes a holistic approach to the growing fields of social zooarchaeology and ethnozoo-

archaeology, which increasingly recognize the multivalent role of animals in past societies (see e.g. Marciniak 2005; Albarella & Trentacoste 2011; Russell 2012; Overton & Hamilakis 2013; Broderick 2016). Nevertheless, I have decided not to devote greater attention to these sub-disciplines, as animal (elk) remains – the primary source for zooarchaeology – constitute only one component among others in this thesis.

Consequently, instead of giving overviews of their separate histories, my decision has been to address relevant earlier research throughout the text when discussing different forms of material evidence. A more conventional, general discussion of earlier theories applied in the study of prehistoric art and religion will, however, be presented in the following chapter. The reason for this is because these are most closely related to the broader theoretical framework of the present study, in spite of its originality.

1.2 Research questions and aims

The fundamental aim of this thesis is to *study the relationship between humans and elks in Northern Europe during the period 12 000–1200 calBC*. To do this, I will examine various prehistoric aspects related to this animal, which in my view cannot be separated from each other. In the following chapters, I will focus on the elk's role as a prey in the light of osteological material and archaeological remains connected to elk hunting, as well as consider past elk-hunting methods and activities in view of ethnohistorical sources. Moreover, I will study depictions of elks and other elk-related motifs in northern hunter-gatherer rock art, and thoroughly examine the various portable artefact categories in which elks have been depicted. In the final part of this study, I will combine these different materials and look at how the various economic and cultural manifestations of the elk relate to each other.

By means of this study, I will try to understand *why the elk came to be the most significant species* both economically and culturally in the region of study, and *how and when the symbolism around this species evolved*. Equally, I will address the question of *what kinds of manifestations the elk's significance gave rise to* in different regions and eras, and *which factors contributed to the*

disappearance of elk symbolism. More specific research questions that I will address in this study are concerned with the *qualities of prehistoric beliefs and activities related to the elk.* These include, for instance, the *notably high proportion of antlerless elks in prehistoric art* and the *function of elk-headed staffs and boats.*

In addition to answering the abovementioned questions, a further aim of this study is to *provide scholars with an all-inclusive, up-to-date overview of the various materials related to the elk's significance.*³ As far as I am aware, the present study is the first in which virtually all elk-shaped artefacts from Northern Europe have been systematically presented (Chapter 7 and Appendix 1). Likewise, I have meticulously assembled depictions of elk-headed boats and staffs that appear in the rock art of the region of Fennoscandia. These are, for the first time, presented categorically in Chapter 6. Moreover, this study offers a comprehensive and rather unique survey of osteological remains of elk from Northern Europe from a long-term perspective (Chapter 3). It is my sincere wish that these resources will be of use to fellow scholars, and that the assembled materials will inspire future research relating to past human-animal relationships.

1.3 The scope of the study

One of my most difficult tasks has been to produce a strict definition of what is to be included and what is to be left out of this study, both in terms of geographical and temporal aspects. The vast geographical extent of the region of study, the multimillennial timespan, the enormous bulk of material, and the fact that relevant literature has been published in multiple languages all affect the scope of this research. Below, I will briefly outline the geographical and chronological setting of this study, as well as the study materials.

³ As Günther (2013: 138–141) importantly points out, archaeologists have tended to understand significance primarily in its semantic or semiotic sense, whereas significance as the fulfilment of needs (whether material or immaterial) has been largely ignored (see also Sjöstrand 2011: 155). In this study, I refer to significance in its all-inclusive meaning, that is, just as much on an economic/practical as on a ritual/symbolical level. As I will emphasize throughout this study, however, these outwardly different levels of significance are anything but separable, and the economic, cultural, and religious significances related to the elk in prehistoric Northern Europe have all been closely linked to one another.

1.3.1 The geographical setting

It goes without saying that people have always had a special relationship to the animals they hunt in every area where these two have co-existed. The elk is by no means exceptional in this regard. Across the Northern Hemisphere, people held beliefs and followed customs relating to this majestic animal. The elk is moreover a recurrent motif in rock art across the Eurasian continent, all the way to the Bering Strait. In addition, elks (*moose*) have also been depicted in the rock art of North America. Undoubtedly, it would be of great interest to study and compare the relations to the elk exhibited by the different peoples inhabiting this wider area. However, it would not be possible to satisfactorily accomplish a study of such magnitude within the frames of a doctoral dissertation.

In this thesis, I have decided to limit my study to the area covered by the present-day countries of Denmark, Norway, Sweden, Finland, Estonia, Latvia, Lithuania and Belarus, the northern parts of Poland and Germany, as well as northwestern and central Russia with the Trans-Urals region marking an eastern border (Figure 1). For the sake of simplicity, I will refer to this wide-ranging area broadly as “Northern Europe”. I am aware that the definition of this term is anything but clear-cut, and some of the materials that I will discuss stem from outside the region that is commonly regarded as Europe. That said, for the purpose of the present study, I find “Northern Europe” to be the most suitable of the established designations available. For the same reason, by the “Baltic region” or the “Baltic area” I will in this study not refer to the Baltic Sea region but instead to the area consisting of the Baltic states, that is, the present-day countries of Estonia, Latvia, and Lithuania.

The selection of the aforementioned region of study is motivated by several factors. First of all, the area basically covers the entire region within Europe where elks have been present (albeit not persistently) during the period of study. Secondly, aside from Russia, depictions of elks – in rock art as on portable artefacts – are predominantly limited to this area. Sporadic portrayals of elks in European rock art exist outside this region, such as in Luine in Val Camonica, northern Italy (Anati 1982: 101; Sigari & Fossati 2021: 27–31), but such figures are so uncommon that their exclusion certainly does not affect the general findings of this study.



Figure 1. A present-day satellite view of the area of study. Map: NatGeo MapMaker.

It should be noted, however, that there are notable geographical differences within the region of study, which account for certain deviations in the representativeness of the study materials. As is widely known, organic materials have been preserved in the acidic northern soils only under exceptional circumstances. Thus, the fact that elk-related artefacts made of antler, for instance, are predominantly found in the southern parts of the region of study (see e.g. Figure 125) does not imply that similar items would not have been in use in northern areas as well. Likewise, the fact that elk depictions in rock art are mainly limited to Fennoscandia is largely due to geological factors, as suitable bedrocks for making petroglyphs are not found in the southern and eastern parts of the region of study. A notable exception is the Ural region, where prehistoric rock paintings, also including depictions of elks, are found (see e.g. Viktorova et al. 2004). However, due to the limited space available, I will in this study address the hunter-gatherer rock art of the region of study namely through a consideration of the Fennoscandian material.

To a certain degree, delimiting the region of study for this thesis has resulted in some artificial demarcation, namely with regard to Russia. For, as mentioned above, numerous elk depictions (as well as figures of elk-head boats) exist in the rock art of Siberia, and various elk-shaped artefact categories are likewise known from this region (see e.g. Nenakhova 2019; Ponomareva & Taçon 2019). However, since the vast majority of research pertaining to Siberian archaeology has been published only in Russian, it has from the outset been obvious that this material must fall outside the study. Even if a Russian-speaking collaborator had been available with expertise in this extensive area, the magnitude of the Siberian material is moreover so vast that taking it all into consideration would have been impossible. Nevertheless, I hope that more attention will in the future be paid to the similarities between North European and Siberian manifestations of the human-elk relationship, as it is evident that highly comparable attitudes towards the elk must have existed in these regions.

Even if the Siberian material must thus remain beyond the scope of this study, I have con-

sidered it important nevertheless to address the material from northwestern and central Russia. It is evident that both in terms of rock art and portable artefacts, the elk depictions in this region are closely linked to those encountered in (the rest of) Northern Europe. It must be noted, however, that the language barrier has constituted a certain hindrance when assembling the material from northwestern and central Russia. It is hence possible that some sporadic finds (or studies relating to them) may have escaped my notice. For the most part, however, I believe that I have managed – with the aid of Russian colleagues and language translation software – to encapsulate the material also from this region in an appropriate manner.

While I fully agree with Lahelma (2007a: 121–122) that there is often a close link between language and cosmological or mythical beliefs (as well as other cultural features), I will not speculate upon whether some traits associated with the elk's importance were connected to specific language groups, such as Finno-Ugric populations. Correspondingly, I am well aware that recent aDNA studies have revealed that large-scale migrations have taken place in the region of study during prehistory (see e.g. Mitnik et al. 2018; Manninen et al. 2021). For instance, during the Early Neolithic, the population in southern and central parts of Europe, as well as in southern Scandinavia, seems to have been replaced by new agricultural groups. In the same regions, new populations have probably also been responsible for the spread of the Corded Ware and, in the eastern Baltic and Finland, Comb Ware cultures (see e.g. Lang 2018; 2020).⁴ It goes without saying that such migrations had an effect not only on the utilization of elk populations but also on the various cultural manifestations related to this animal. However, with only a few specific exceptions, I will not address these questions in greater depth in this thesis. This is partly because the subject is vast and far from being unproblematic (see e.g. Lahelma 2008d: 109), and partly because aDNA research is a field that is constantly developing. Without doubt, it would for these reasons not be possible to address the aforesaid issues within the limits of this work satisfactorily. That said, linking the

various manifestations of past human-elk relationships to specific cultural and/or linguistic groups is certainly an area of research that needs to be discussed further.

Similarly, as the focus of the present study is on the *human-elk* relationship, palaeoclimatological considerations will not occupy a major role. Undeniably, environmental factors have always affected the distribution and prevalence of elks and are thus also indirectly related to human encounters with this species. Moreover, several notable changes in the climate, which have had drastic effects on elk populations in different parts of the region of study, have taken place during the extensive timespan of this study (see e.g. Ljungqvist 2017: 56–79, 99–110; Magnell 2017; Schulting et al. 2022: 157 and cited references). These will to some extent be addressed in Chapter 3, in relation to the osteological material, but inescapably, an exhaustive examination of the impact of palaeoclimatology with regard to elk populations – in an area encompassing millions of square kilometres and over a timespan of more than ten millennia – would necessitate a separate study.

As noted, the material basis for this study is limited to Northern Europe. There is, however, a lack of ethnographic data pertaining to the elk deriving directly from this region. For this reason, the ethnographic accounts related to the elk used in this study stem more broadly from the entire area where this animal has occurred naturally, and where it has played a role in human life. In biogeographical terms, this area can be defined as the *boreal forest zone*, also known as *taiga*. This large biome consists predominantly of coniferous forests in the Northern Hemisphere that cover large areas of North America, Northern Europe, and Asia. The boreal forest zone is situated between the arctic tundra and the temperate deciduous forests and corresponds mainly with the subarctic climate zone.

Another concept that is sometimes used of the area from which the ethnographic sources utilized in this study originate is the *circumpolar* region. This term was made famous by Gjessing (1944), who paid attention to the uniformity observed within various cultural manifestations among hunter-gatherer peoples living in arctic and subarctic regions. In his view, this homogeneity indicated a common Stone Age origin

⁴ Valter Lang (Academician, Professor of Archaeology, University of Tartu), email correspondence 3.1.2018.

for these peoples (for a fuller examination of the circumpolar term, see Fitzhugh 1975: 1–18). The circumpolar concept has gained a foothold in scholarship and constitutes an established term that some archaeologists still utilize today in broad geographical studies (see e.g. Westerdahl 2010; Lahelma 2017: 153). This circumpolar concept remains useful, as is much of the theoretical discussion concerning human-animal relations among northern hunter-gatherers on a general level. In this study, however, I will speak primarily in terms of the boreal forest zone or the taiga region instead of the circumpolar area when referring to the area where elks are, and have been, hunted. This is simply because elks are generally not encountered in the Arctic itself, which is often associated in literature with the circumpolar region.

1.3.2 The chronological timeframe

The practice of depicting elks on rocks and on portable items has roots that go far back into prehistory. The rock art of Northern Europe can be seen as a continuation of the Palaeolithic cave painting tradition. Portable, zoomorphic artefacts, too, have their paragons in the Upper Palaeolithic period, if not in earlier eras (see e.g. Pettitt 2014: 293–294). Undeniably, it would be of great interest to consider the elk symbolism of Northern Europe from this wider perspective. In this thesis, however, I have decided not to address in any greater detail the possible links between elk symbolism as manifested in Northern Europe and the animal art of earlier periods. Instead, I have simply taken the earliest known indications of the human-elk relationship in the region of study as the starting point for my research. In calendar years, this approximately equals with 12 000 calBC.

Correspondingly, I am fully aware that the relationship between humans and elks does not come to a definite end at around 1200 calBC, which marks the end of the period of study. As a game animal, the elk continued to have at least some importance in all areas that it inhabited, long into historical times. Moreover, while the practice of depicting elks on rocks and portable items generally ceased during the Early Bronze Age, the elk continued to possess symbolical significance in some areas (see e.g. Ashihmina

2002).⁵ It would certainly be interesting to expand the current study to include, for example, human-elk relations among Scythian populations. Similarly, it would be worth studying the disappearance of elk symbolism in Bronze Age Scandinavia more thoroughly. This is especially because the decline in elk symbolism seems to take place more or less concurrently with the growing mythological significance of the horse and the axe, which are both depicted in similar ways as certain elk-related motifs from earlier periods (cf. Hallström 1960: 298; 313–314).

Nevertheless, such outlooks have for the most part been consciously left out of this study due to space limitations. Instead, I have chosen to focus on the period 12 000–1200 calBC, as it is namely during this period that the economic importance of the elk, as well as the various cultural manifestations related to this animal, were most prominent. This enormous timespan covers the Mesolithic and the Neolithic periods in their entirety, but also the end of the Upper Palaeolithic period on the one hand, and the Early Bronze Age (or the Early Metal period) on the other. However, due to differences in national chronologies, the periodization of archaeological epochs within the region of study is not completely straightforward. For example, the Early Neolithic period in Russia corresponds mainly with the Late Mesolithic period in Scandinavia, and the Middle Neolithic period in the Baltic region is equivalent with the Late Neolithic or even the Eneolithic period in Russia.⁶ To cope with these differing terminologies, I have decided to restrict myself to the conventional periodizations used at national level instead of forcing the material under a single common chronology. To make the general picture easier for the reader to understand, however, I have assembled a directional chronological scheme that encapsulates the central climatic periods and archaeological cultures mentioned in the text (Figure 2).

⁵ The so-called spindle whorls from the Ural region, interpreted as possessing calendrical symbolism, provide an example of an interesting artefact type connected to the elk that falls beyond the scope of our study (see e.g. Ashihmina 2002: 14; Serikov 2014: 99, 230 and cited references). These discs are sometimes ornamented with elks or elk-heads and belong to later periods than the Early Bronze (Metal) Age. They will therefore not be discussed in this study.

⁶ It should be noted that the Neolithic period is in this context linked first and foremost to the use of ceramics, and the subdivision of Neolithic cultures in Figure 2 is based solely on ceramic traditions.

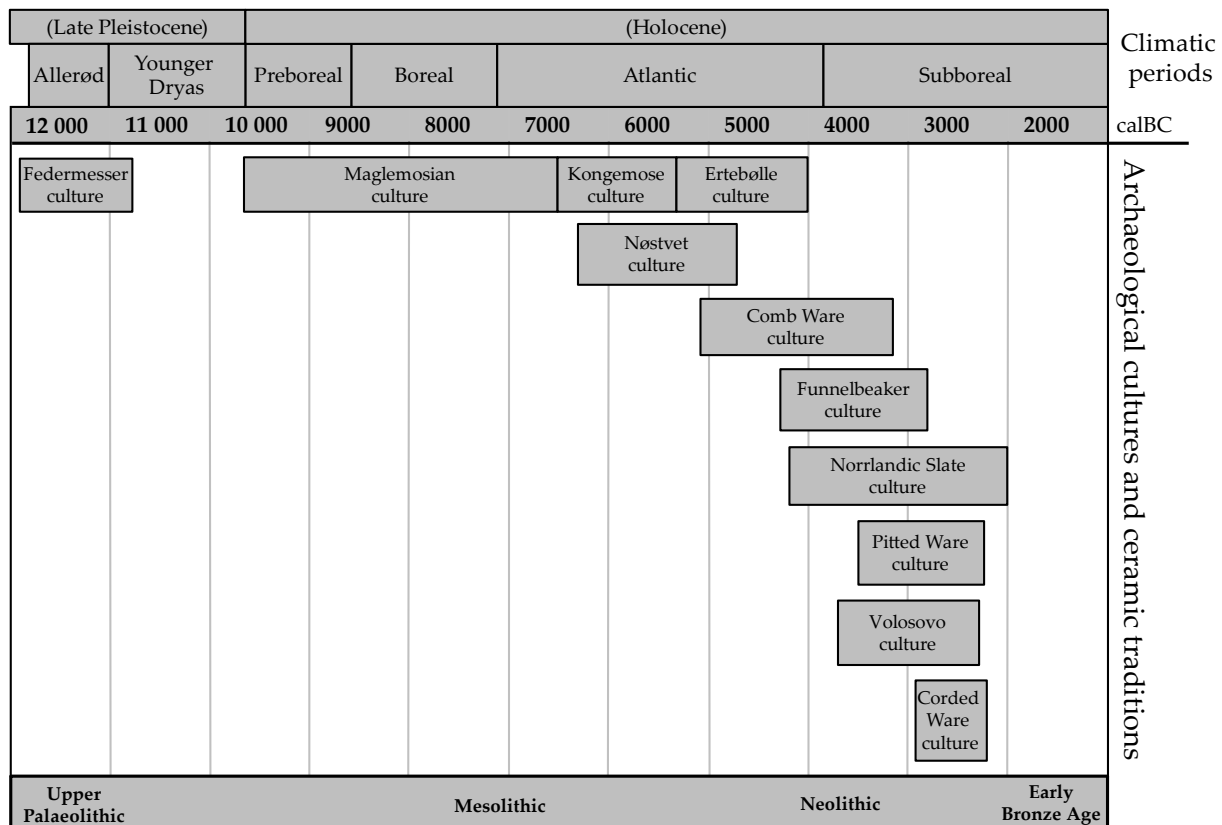


Figure 2. Chronological scheme illustrating the central climatic periods and archaeological cultures mentioned in the text. Figure: Ville Mantere.

Needless to say, a study of this breadth has its advantages but also its downsides. The broad timespan enables the distinction and understanding of large-scale developments relating to the elk, but these inevitably occur at the expense of some smaller phenomena, which can be discussed only superficially. Archaeological studies in Northern Europe have traditionally focused on shorter timespans, but urgently require not only broader geographical perspectives, but also longer timeframes. A goal of this study, therefore, is to encourage scholars to embrace broader perspectives also with regard to chronology.

1.3.3 The study material

The material that this study is based upon is diverse and has been gathered in different ways. In short, the three key resources for this dissertation are: 1) osteological material; 2) hunter-gatherer rock art; and 3) elk-related artefacts. Even though various aspects pertaining to the quality and use of these materials will be discussed in detail later in this thesis, a few general notions regarding these should be noted here.

First of all, while I have attempted to take account of all known elk-shaped artefacts from the region of study, it has not been possible to carry out a similar task with reference to elk depictions in northern rock art.⁷ It has, from the outset, been evident that it would be totally impossible to discuss all rock art sites with depictions of elks, as the number of such sites in Fennoscandia certainly exceeds 100, perhaps even 200 locations (cf. Gjerde 2010: 176). Moreover, such a survey would not be comprehensive since new rock art sites are being discovered annually. For this reason, it has been my decision to study the significance of the elk motif in northern rock art by using six, carefully selected regions as case studies (Chapter 5). Among these are three exceptionally large rock art sites: Alta (Norway), Nämforsen (Sweden) and Kanozero (Russia). I am fully aware of that these renowned sites cannot be used to characterize northern hunter-gatherer rock art, or the elk's position within it.

⁷ However, as regards the elk-headed boats and the elk-headed staffs in rock art (Chapter 6), it has been my aim to include all the sites where these motifs occur. The reason for this is that neither of these two motif categories has been systematically presented before.

By contrast, I concur with Lahelma's (2007a: 115) view that scholars, by concentrating on the largest rock art sites, have in some way "distorted our understanding of North European rock art". Indeed, this study's focus on large rock art sites can also thus be criticized for providing a "distorted" perspective – even though I have tried to compensate for this by equally examining several smaller rock art sites from different regions. I am still of the opinion, however, that within this context, the inclusion of large rock art sites offers more pros than cons for chronological reasons. The material from Alta, in particular, but also that from Nämforsen, has enabled me to study changes in the elk motif over time in a way that would not have been possible by focusing on small rock art sites alone, which admittedly are more representative of the elk's position in hunter-gatherer rock art in general.

Secondly, even though I have tried to study the osteological remains of elks as comprehensively as possible, I will mainly concentrate on material that originates in settlement layers and thereby illuminates the elk's significance as an economic resource in different regions. By contrast, I will not address elk remains from burials in detail – even if it is clear that this topic would add another important dimension to the discussion (see e.g. Macāne 2022: 168–184). For instance, from the Late Mesolithic Yuzhniy Oleniy Ostrov burial ground (hereafter YOO), more than 4300 elk incisor pendants stemming from at least 700 elks have been unearthed (Gurina 1956: 162, 421–422; O'Shea & Zvelebil 1984: 31, tab. 7; Mannermaa et al. 2021; Rainio et al. 2021). Obviously, grave goods of this kind are indicative of the relationship that existed between humans and elks in the past, but for space limitations, I will only address burial finds in this study where these consist of artefacts shaped in the form of elks.

Thirdly, a notable category that likewise falls outside this study is constituted by all tools and artefacts made of elk bone or antler, which do not represent elks in physical appearance. In many regions, elk bone and antler have served as key raw materials (see e.g. Taavitsainen 1980: 8–9; Lõugas 2017: 60), and it is evident that such items, too, are illustrative of past human-elk relationships. In addition, sometimes the special

importance of finds made of elk antler and bone is reflected in their unusual shape and/or ornamentation (Figure 3), reminding us that such items did not merely serve as simple working tools. It is thus evident that in this study an important dimension of the elk's multifaceted significance as a raw material will not receive the attention that it may deserve. Instead, I will refer to nonrepresentational artefacts made of elk bone and antler only incidentally. Again, the reason for this is pragmatic, because the study material would simply have grown too large if all such items had been systematically examined. My decision has thus been to focus on portable artefacts that are either shaped as elks (or elk-heads), or on which depictions thereof have been engraved. For this reason, I will in Chapter 7 refer to such materials as *elk-related* artefacts.

As will be seen, however, the task of distinguishing elk portrayals from artefacts that do not represent elks is often far from clear-cut. Initially, my aim was to define specific objective criteria for identifying elk portrayals in portable art, but it soon turned out that the variation between elk depictions is so large that the resulting standards would be far too vague to serve any purpose. To cope with this issue, I have decided to apply a tripartite classification of elk-related items, consisting of evident (1), likely (2) and possible (3) artefacts. In this way, I have ensured that all potential items are taken into account, while at the same avoiding equating unambiguous elk representations with items that may, or may not, depict this animal. By artefacts that are evidently elk-related (1), I refer to items which have unanimously been interpreted as elk representations in earlier studies, or which otherwise leave very little, if any, doubt that they should be understood as such on the basis of morphological similarities to real-life elks (see section 3.1.2). The second category (2), in turn, refers to items, which in my opinion are most likely depicting elks, even if this cannot be confidently asserted due to the abstract and/or fragmentary character of the items in question. Subsequently, the third group (3) consists of items, the appearance of which may possibly relate to elk, but are nevertheless sufficiently ambiguous that they may just as easily be given a different interpretation.



Figure 3. Decorated elk antler pick from Ubberup, Denmark. A39224. National Museum of Denmark. Photo: Ville Mantere. Not to scale.

Needless to say, this tripartite categorization can be debated, and as the identification of zomorphic items is a highly subjective matter, another scholar would doubtless group some items differently. Moreover, the third category in particular inevitably contains items that were never meant to represent elks in the first place. Therefore, I have decided to present elk-related artefacts individually in two appendixes. In Appendix 1, I will present the evident and probable items with photographs and detailed information. I will also address these items categorically in Chapter 7. In Appendix 2, in turn, I will list the artefacts that are possibly elk-related in a more concise table format with references.

It goes without saying, meanwhile, that it would not be possible to take account of all the items that scholars, throughout the course of history, have variously understood as depictions of elks. I have therefore limited myself to artefacts that I, too, am willing to understand as such. Thus, for example, while Serikov (2014) in his monograph on the early art of the Urals takes up several items that he understands to be elk representations, but which I find far too abstract to be interpreted as such with any certainty, these are not listed in Appendix 2. Furthermore, some (mainly lost) items have been omitted from the catalogue due to a lack of proper details concerning these finds. Despite its obvious shortcomings, however, I have found the said method of categorization to be more convenient and accurate for organizing the prehistoric elk-

related artefacts of Northern Europe than any alternatives presently available.

As regards rock art depictions, Günther (2022: 62) has recently – with reference to a single rock art concentration (Alta) – argued that “it would be a mistake to force objective, watertight criteria for identifying species and behaviour applicable onto all sites and panels”. Indeed, the identification of species is sometimes impossible simply on the basis of morphological traits, and sometimes the relationship between figures in rock art panels provides a better tool for interpretation than the individual animal depictions themselves. These notions are even more relevant as concerns the present study since it includes images from several different rock art sites. Thus, just as with elk-related artefacts, I have not tried to define any objective criteria for determining what characterizes an elk depiction in northern rock art. Instead, when dealing with the elk motif and other elk-related motifs in rock art, I will rely on a careful personal evaluation of the images at each of the studied sites, considering elk morphology and behaviour (see section 3.1) as well as earlier interpretations.

1.4 Methodological considerations

Due to the multivalence of materials, my choice has been to take advantage of several research methods in this study. Firstly, it should be

noted that I am not a qualified osteologist and have not undertaken any bone analyses myself but have instead relied exclusively on pre-existing osteological studies. However, as this data is highly scattered, my task and contribution to the field has been to collect and bring together information relating to different regions and periods. Consequently, in Chapter 3, I present a broad summary of the elk's economic significance in Northern Europe, applying a long-term perspective based on numerous earlier studies.

With reference to rock art and portable artefacts, my primary focus has likewise been on existing finds, and a comprehensive scrutiny of earlier literature has therefore been the main research method used. However, as a secondary method, I have also personally visited and documented most of the rock art sites discussed in this thesis, making numerous field trips in Finland, Sweden, and Norway. I have equally studied most of the elk-related artefacts first-hand during visits to museums and archaeological collections in Finland, Sweden, Norway, Denmark, Russia, Estonia, Latvia, and Lithuania. These visits have proven to be highly advantageous and resulting in many observations and ideas that would not have seen light had I limited myself solely to a review of existing scholarship. While the personal inspections that I have made have also resulted in the sporadic discovery of some items that have not been previously understood to resemble the shape of an elk, the study materials have for the most part been published formerly. Several museums have provided invaluable assistance in assembling the corpus of elk-related artefacts used in this thesis, for which I am most grateful.

Besides wide-ranging literature studies and fieldwork in museums and archaeological collections, a third method that I have occasionally utilized has been to consult elk hunters and biologists in questions mainly relating to the elk's ethology (natural behaviour). This has not been carried out systematically, but only when it has been particularly necessary to test the validity of certain theoretical assumptions. I have greatly appreciated the aid of these specialists, whose first-hand practical experience of the elk is superior compared to my own. I also hope

that academic research will in future rely more regularly on the potential of hunters and others with direct experience of animal behaviour to contribute the study of human-animal relations (cf. Skandfer 2020). In addition to personal queries, I have also acquainted myself with biological research on the elk. As will be seen, this has opened some new viewpoints for understanding prehistoric attitudes towards this animal, which in my view appear to carry more weight than many of the assumptions that have been proposed in earlier research.

The most important research method utilized in this study, however, has been the examination of numerous ethnographic accounts describing beliefs and activities related to the elk among indigenous populations in northern Eurasia and North America, and to utilize these for interpreting the archaeological (and osteological) evidence. Below, I will discuss in detail this research method and its use within this thesis.

1.4.1 The use of ethnographic analogies

As stated above, the ethnographic accounts utilized in this study stem first and foremost from areas geographically remote from the region of study. As Helskog (2010: 175, 182), for instance, has pointed out, the elk has a prominent role in Siberian ethnographic material, but in Scandinavian (as well as in Saami and Finnish) ethnography it occurs rarely. Indeed, in ethnographic sources from Northern Europe, the elk is, on the whole, an animal with a status that is greatly inferior to that of the bear, which in turn has a significant position in myths, stories and rituals across the Northern Hemisphere (e.g. Hallowell 1926). However, this does not mean that the elk would not have been a significant animal in this region previously. Rather, I completely agree with Helskog (2010: 175) that the elk's position in rock art, for instance, shows that "the elk once had an equally strong if not stronger position than the bear, but in contrast to the bear did not maintain its position into the recent past". Reuterskiöld (1911: 170) was similarly of the opinion that the preservation of accounts de-

scribing various ritual actions associated with the bear does not imply that this animal would in the past have been more sacred than any other large animal.

The reasons for which the elk did not remain a significant animal up until historic times in North European sources are probably multifaceted. As Lundberg (1997: 148) has observed, there are little if any ethnohistorical sources from Sweden from the 18th and 19th centuries that discuss elk-hunting, simply because the species was very rare during this period. In Finland, the situation was much the same; during the mid-19th century, the elk was close to extinction across the entire country (see e.g. Nygrén 1987: 49–51), which surely serves to explain the scarcity of available literature on the subject of elk. Indeed, I find it conceivable that not only accounts describing elk hunting, but also the myths and beliefs associated with the elk died out as the species became increasingly rare over time.

Moreover, as will be seen, largely similar connotations have often been ascribed in Siberian ethnography to both the elk and the deer, to the extent that these two species sometimes appear interchangeable. Therefore, I believe, some of the conceptions originally related to the elk may in the course of time have been integrated into beliefs and actions associated with other animals. I even find it possible that some of the conceptions linked to the bear may originally have been related to the elk. To be sure, even if bear symbolism is without doubt a noticeably widespread element among northern peoples, I do not concur with Herva and Lahelma (2019: 80, 83) that this would necessarily mean that the bear cult is of “extreme antiquity”, or that the “shift in emphasis” as regards the contrast between the elk-dominated prehistoric art and the bear-dominated ethnographic accounts must be of significant antiquity (see also Rydving 2010: 43). Rather, as I will argue in this study, I actually find it probable that the bear took over, at least partly, the role that the elk had previously occupied for several millennia as the most symbolically-important animal within the boreal forest zone.

In this study, ethnographic information with reference to elk-hunting has been sought mainly

from North America and Siberia.⁸ I do not, however, consider the geographical distance between the ethnographic and archaeological materials to constitute a crucial problem (cf. Knutsson 2011: 144). Ethnographic accounts appear thousands of years after the osteological and archaeological materials being studied, and in my opinion, it is this gap, rather than the mere geographical remoteness of the two occurrences, that presents an important problem for the application of ethnographic analogies. In many regions, for instance, the transition to agriculture entailed drastic changes that must have affected all aspects of life (cf. Carpelan 2000: 9).⁹ For this reason, analogies should first and foremost be sought from societies that still practise hunting as their primary livelihood (cf. Jordan 2008: 229–233; Janik 2011: 128–130).

Lahelma (2007a: 120–121) has summarized the views of Zvelebil (1997) and Jordan (2004) regarding features that are characteristic to Siberian ethnography, and which seem to be generally applicable to the study of rock art in Fennoscandia. Such common aspects mainly include a similarly changing environment, hunter-gatherer lifestyle and cosmology, as well as a long cultural continuity among northern peoples.¹⁰ These premises are highly relevant to the present study as well, not only as regards

⁸ In particular, I have found a number of studies conducted among the Cree Indians (e.g. Tanner 1979; Feit 1987; Brightman 1993) to be highly useful for this study. As Günther (2022: 14, 30) rightly notes, Cree ethnography can be seen as highly relevant to the study of archaeological materials from prehistoric Northern Europe – not only because hunting occupied a key position within Cree societies until recent times, but also because ethnographers of the Cree have understood the cultural and communal importance of individual experience.

⁹ This is namely one of the reasons why Carpelan sharply criticized the use of Finnish and Karelian folk poetry and the national epic *Kalevala* for interpretations of rock art. In his view, these sources stem from a totally different (agri)cultural background than that of hunter-gatherer rock art, and even if Kalevaic poems might include some older elements, these are nonetheless so multilayered that explanatory models based on them are inevitably “delusional” (Carpelan 2000:9). While I do not in this study rely on Finnish folk poetry, it needs to be mentioned that there are nevertheless many who have utilized Kalevaic poems in their interpretations of Finnish and Karelian rock art (e.g. Laushkin 1962; Autio 1983; Valonen 1984; 1985; Kirkinen 1988; Lahelma 2007a; 2008b; Kortekangas 2008).

¹⁰ As Jacobson (1993: 242; cited in Helskog 2010: 182) has pointed out, ethnographical accounts regarding the elk’s significance, acquired from the Evenks and the Ket of Siberia, provide especially valuable analogies, since these can be traced back to the Bronze Age.

understanding the elk's position in rock art but also on a more general level. The ethnographic material obtained from North America likewise fulfils the aforementioned criteria, because in this region, too, people have hunted elks in an environment much similar to that of prehistoric Northern Europe. Indeed, I regard the entire boreal forest zone as an environment with such similar ecological conditions that it is reasonable to suppose its cultural aspects to be potentially comparable as well (cf. Siikala 1981: 83–84; Hultkrantz 1986: 59). Still, it goes without saying that extreme caution must be applied when drawing comparisons between ethnographic accounts and prehistoric materials.

Moreover, such ethnographical accounts as are available are rarely without problems. As Willerslev (2007: 146) has noted, for example, the principal interest of early ethnographers and anthropologists in Siberia was the utterances of shamans, whilst the perceptions of the ordinary population were largely ignored. At the same time, however, scholars have been keen to present the ideas of shamans as representative of those of the wider population – even if, in reality, these reconstructed conceptions may never have existed amongst the group members themselves. Moreover, as will be seen, the role of shamans is not necessarily significant in, or even at all related to, the majority of rituals and activities undertaken in a community. Thus, one may presume that a scholarly approach that focuses on religious specialists is not always representative of the worldview of entire groups, which must be taken into account when drawing analogies from ethnographic data. Likewise, Günther (2022: 14–15) points out that in Siberian ethnography, the evident focus on reindeer herding, on the one hand, and ritual bear hunting, on the other, has downplayed the role of other animals.

As Lahelma (2007a: 119–120) recounts, “direct historical analogies” that are centred on tracing “the histories of specific peoples backwards in time, from the ethnographical present into prehistory and archaeological remains”, have been widely used in recent decades by scholars working with Stone Age rock art (for ethnography and rock art, see e.g. Blundell et al. 2010; Whitley 2011b: 318–320). This has also

been the case in Northern Europe, where such methods have traditionally not been favoured by archaeologists.¹¹ As, among others, Pedersen and Brinch Petersen (2017: 237) have rightly stressed, however, one of the greatest problems related to the use of ethnographic analogies is that the material is so varied that “it is basically possible to ‘prove’ anything if you just find the right analogy”.¹² For this reason, the use of archaeological data to verify hypotheses based on ethnographic material is a more fruitful approach than the direct application of ethnographic analogies.

Hence, like Glørstad (2010: 213) in his research on the Late Mesolithic period in the Oslo Fjord area, I will not utilize a particular ethnography as a framework for understanding the elk's multifaceted role in the past but will rather adopt “a strategy where general social principles are discussed in direct relation to the archaeological source material”. As Glørstad (2010: 213–214) points out, such an approach is by no means exceptional but is in fact preferred by many modern scholars, who have taken a critical standpoint towards the use of a specific ethnographical record in archaeological research. In other words, I will consider wide-ranging features found in the ethnographic material from the boreal forest zone, paying special attention to human-elk and human-animal relationships among hunter-gatherers.

Over and above direct historical analogies, scholars usually make a distinction between formal and relational analogies (see e.g. Wylie 1985; Lahelma 2007a: 119). While the former simply focus on two similar occurrences, relational analogies are used to explore how such occurrences are related in culture or in nature. As Whitley (2011a: 132) points out, formal analogies tend to be weak and superficial, and the mere recognition that two phenomena resemble each other is not particularly useful from an archaeological perspective. Relational analogies, on the other hand, appear to be more beneficial, for their use necessitates some kind of a relationship between the ethnographical and archaeo-

¹¹ The main source for the analogies used has been Siberian ethnography, although some have also studied rock art in light of Finnish, Karelian and Saami ethnohistorical sources (e.g. Lahelma 2007a; 2008b; Joy 2018).

¹² A similar critique of rock art interpretations can be found in Carpelan (2000: 8–9).

logical materials compared (on the topic of ethnoarchaeology and analogical reasoning, see e.g. Cunningham 2003; Lane 2014: 105–123). In this study, this relation is epitomized by the central role of the elk, the similar environment of taiga biome, and the hunter-gatherer lifestyle. Together, these aspects have served as guiding principles in my search for the most relevant ethnographic literature possible with regard to the study of human-elk relationships in pre-historic Northern Europe. Thus, *my main method in interpreting the archaeological and osteological materials associated with the elk will be the use of relational analogies from elk-hunting hunter-gatherer populations.*

It is important to note, however, that a similar environment certainly does not always signify the existence of similar cultural traits. There are various examples of how people living in comparable environments have entirely different lifestyles despite possessing the same economic resources.¹³ Likewise, even if the cultural traits of two comparable societies may at first glance appear analogous, closer inspection may reveal significant differences (see e.g. Schjødt 1986: 184). Yet, applying relational analogies based on ethnographic material deriving from elk-hunting populations inhabiting a similar environment to prehistoric elk hunters is, in my view, the best available method for understanding the elk's significance in the past. This approach directs its focus on hunters, who have had to deal with an animal, whose behaviour has in all likelihood not changed since prehistoric times (see Pulliainen 1987: 45).¹⁴ There is thus at least a theoretical probability that the various responses to the elk's behaviour – something that could perhaps be called a “core universal” (see Cunningham

2003: 396–405) – have likewise remained more or less similar over time. In all areas where the elk has been an important game animal, people have had to come up with the most effective hunting methods possible. As will be seen, there are indeed striking similarities in how, when and where elks have been hunted throughout the taiga region. Moreover, I will argue that not only hunting practices but also the various beliefs and actions associated with the elk in modern times are therefore broadly comparable to those of the past.¹⁵

Indeed, as numerous scholars have stressed, religious beliefs in hunter-gatherer societies are by no means distinct components but fundamentally inseparable from other aspects of life (see e.g. Mikkelsen 1986: 127; Saavalainen 1999: 28; Ramqvist 2002a: 88). As Hultkrantz (1975: 366–377; 1986: 46–49) has demonstrated, religious beliefs and activities in arctic and subarctic hunter-gatherer societies, in particular, share certain recurring characteristics that appear to be explained first and foremost by ecological factors. In order to encapsulate the interplay between the environment and human life, and to justify the use of ethnographic parallels obtained from areas with similar ecological conditions, Hultkrantz (1975: 366–377) developed his so-called religio-ecological method. By means of this model, he distinguished certain types of religions that correspond to certain types of cultures, such as the cultural and religious type of (sub)arctic hunter-gatherers.

Like Siikala (1981: 85–86) and Saavalainen (1999: 28–30), I find the religio-ecological approach useful in the construction of past boreal forest hunter-gatherer societies. The environment, and especially the large animals that inhabited it, must always have been of utmost significance to the

¹³ For instance, Grøn (2012: 180–181) has noted that the locations of winter hunting sites among the Mistassini Cree and the Siberian Evenks are noticeably different. This is due to the fact that the Cree are not allowed to drink defrosted snow or ice, and for that reason their winter hunting sites are always located on riverbanks or lakesides. By contrast, the winter hunting sites of the Evenks, who have no taboos concerning the drinking of smelted snow or ice, are not determined by the presence of accessible freshwater but are instead dispersed across the landscape, apparently partly in order to avoid disturbing the territories used by elks (Tanner cited in Grøn 2012: 181).

¹⁴ I do not claim, however, that elk-hunting as documented in the ethnographic sources would necessarily have remained unchanged since prehistoric times (cf. Günther 2022: 31).

¹⁵ Günther (2022: 35) speaks of “contextualised knowledge” that “refers to embedded, pragmatic knowledge as opposed to external, decontextualised and objectifying ways of knowing. It covers both the capacity for registering and understanding complex relations within the ecological community and its potential capacity for long-term sustainable living. An important aspect for archaeology is that contextualised knowledge can, to some extent, be removed from the geographical and historic settings as in hunting for the same species...it is not only ecological but deals with social issues as well, which in hunting communities are closely intertwined and can hardly be separated.” Indeed, even if I do not make use of this concept as such in this study, I maintain that elk hunting in indigenous hunter-gatherer groups is, and has been, closely associated with contextualized knowledge.

people of the North, even if detailed aspects of prehistoric beliefs and activities are, of course, ultimately beyond our reach (Hultkrantz 1986: 61). Moreover, certain religious traits are so characteristic of arctic and subarctic hunters today – such as animal ceremonialism and the belief in animal keepers or master spirits (Hultkrantz 1975: 372–373) – that it is probable that these already existed in some form during prehistoric times. That said, I will not utilize Hultkrantz’ religio-ecological model as such in this study because of its rather general scope (see also Albarella 2011: 2). Since my focus is solely on the human-elk relationship, I will, for instance, largely bypass arctic ethnography, which is not of direct relevance to this study. My basic hypothesis nevertheless resembles the religio-ecological model because I postulate that *the elk as an ecological species has largely affected the beliefs and activities of the populations dependent on it*. Therefore, in discussing ethnographic accounts, I am just as much interested in elk-hunting strategies and carcass exploitation as in the rituals and mythological conceptions related to the elk. Fundamentally, it is my assumption that in the past all these aspects were intertwined. Before moving on to address the theoretical framework of this study in detail, however, I will next discuss some problems associated with the study of prehistoric art, which plays a central role in this study.

1.4.2 Problems related to the study of prehistoric art

A fundamental problem in the study of prehistoric art is the banal fact, as e.g. Ramqvist (1992: 32) has pointed out, that we do not know how representative the surviving material is of the societies that produced it. We can only assume that art was produced using different kinds of materials, such as wood and birch bark, and that only a fraction of the original corpus of artworks has survived up until the present: those made of the most durable materials, as well as organic artefacts that have been preserved due to favourable conditions. This problem also applies in northern rock art, especially as regards painted images. In Finland, for instance, rock paintings are often found in places not exposed to rain, and a protective layer of silica has formed over the

figures as a result of water pouring from fissures in the rock above them (Taavitsainen & Kinnunen 1979: 41). It is thus impossible to tell with certainty whether rock paintings were originally produced solely at these types of locations, or whether these are simply the only examples to survive to the present day.¹⁶

Ramqvist (1992: 50), importantly, noted that the number of sites where rock carvings survived ought to be “enormous” if the act of carving was a commonplace practice in the past. Since this is not the case, Ramqvist’s (1992: 51) interpretation is that the act of carving was mainly carried out during times of crisis, such as during conflicts between groups of humans, or at times when environmental conditions were particularly demanding. On the other hand, it is also reasonable to ask whether the resulting images were more meaningful than the act of producing them itself (Sjöstrand 2010a; Günther 2013: 155–156).

Another highly important aspect pertaining to rock art is its accumulative and continuative character. As Sjöstrand (2011: 105–106) stresses, scholars have tended to ignore this, even if it is, in many cases, a fundamental aspect of rock art (but see e.g. Sapwell & Janik 2015). To be sure, this characteristic is of key importance in this study, as many of the discussed rock art sites consist of large numbers of figures that have been produced successively over a vast time period. Thus, as Sjöstrand (2011: 105) stresses, it is important to bear in mind that rock art panels as we see them today only survive in the form that they happened to take at the moment that the rock art production ended at the site in question. It therefore follows that our perception of rock art is inevitably distinct from that of the rock art makers, who at times created new images upon earlier rock art panels. At Nämforsen, for example, it has been demonstrated that new carvings were made over pre-existing images during several phases, and that the appearance of these panels may have been entirely different at different periods (see e.g. Sjöstrand 2011: 106–109, fig. 3.1, 3.3; Sapwell & Janik 2015).

It is well known that Australian aboriginals constantly visited and repainted their rock art

¹⁶ A related question with no definite answers is whether rock paintings were exclusively made with red ochre or if other colourants, such as charcoal, were also used.

sites in order to conserve the images and thus maintain their significance (see e.g. Ingold 2000: 121). Likewise, Lundy (1974: 298; cited in Günther 2022: 122) recounts that rock engravings in Alaska were filled with red ochre at times when salmon did not show up as expected. It is fully possible that in prehistoric Northern Europe, also, rock art sites were actively visited. Thus, it can certainly not be taken for granted that all images at the same site would automatically have been made on a single occasion (cf. Simonsen 1986).

An implication that follows from the realization that at least some rock art compositions developed over time is that we cannot always be sure whether certain images maintained at least some aspects of their original appearance, or were completely modified over time.¹⁷ As Sjöstrand (2011: 108–109) rightly argues, a scene that has been interpreted as a shaman transforming into an elk, for example, might actually consist of two figures far apart each other in time and meaning. While I find Sjöstrand's remarks concerning accumulation insightful, I do not concur with her view (2011: 109) that rock art would have automatically been abandoned at the point from which new figures ceased to be added. Instead, in many areas, activity took place beside rock art figures much later than the supposed date for the rock art itself would suggest.

In fact, as Goldhahn (2020: 15–22) demonstrates, the majority of radiocarbon dates obtained at and around rock painting sites in Northern Europe are not from the Stone Age but stem from the Bronze Age and even later periods. This gives reason to believe that activities at rock art sites were not necessarily performed by the rock artists themselves. In other words, the rock art images were not only important for those who created them, but were equally significant for later populations, who – perhaps at times of crises – visited and undertook activities at locations where rock art existed. Sites featuring large concentrations of rock art, such as in

¹⁷ For the sake of simplicity, I use the terms “scene” and “composition” interchangeably in this study to denote sets of figures found on rock art panels (here defined as a restricted rock surface containing images) that can be understood as belonging together. However, I am aware of the many problems relating to these designations (for an in-depth discussion on scenes in rock art, see Davidson & Nowell 2021).

Alta, were visited repeatedly by numerous generations. However, as Bolin (2000: 170), for instance, has argued, it is equally possible that smaller rock art sites also had considerably long lifespans.

As a result of the above, it is important for scholars to specify what aspect or phase of rock art they are studying, since it may have a lifespan of several millennia; inevitably resulting in significant variations in how the art was perceived by different generations. Indeed, in this context it is also important to bear in mind, as Janik (2008: 101–102) has rightly pointed out, that “the mythological accounts which we know today were more likely influenced by the prehistoric images (especially paintings on the vertical surface of the rock), rather than vice versa”. In other words, rock art most probably served a different function and meaning for the people who initially produced it than it did for the later generations that viewed it (cf. Brandišauskas 2017: 220, 229).¹⁸ Moreover, as some scholars have argued, it is equally possible that rock art never served merely a single purpose but always encompassed several meanings (see Bolin 2000: 155 and cited references).

Since my primary interest concerns the reasons for which elks and other elk-related motifs were depicted on rock surfaces, I am rather sceptical as to the relevance of archaeological finds from rock art sites to the original meaning of that rock art. While a variety of highly in-

¹⁸ Brandišauskas (2017: 236), for instance, writes about the modern-day Siberian Orochen: “Hunters who acquire new hunting territories that they have never visited before leave offerings at any rock art site they spot in their new environment. Several hunters told me long stories of how they found a rock art site in a remote part of their hunting territory and started using it to generate luck in their subsistence activities... Today people's experiences at rock art sites legitimate their use of the environment for subsistence. Hence, rock art is a good example of how people strive for information, experience and empowerment in a changing sociopolitical environment. Through their interaction with master-spirits, the hunters become masters themselves, creating and maintaining their own living places (*bikit*). Rock art sites are by no means the window to the past imagined by Okladnikov. In a way they are a window to the past, present and future alike. Today Orochen reindeer herders and hunters believe in showing respect to and reciprocating with nonhuman beings by leaving offerings in return for taking something from the taiga. Ignoring this ethical imperative may lead to lost hunting luck, disease or even an encounter with a spirit, which is considered extremely dangerous. To sustain luck and well-being, it is imperative to interact and reciprocate properly with the master-spirits.”

interesting finds have been made at such sites, the chronological cohesiveness of these within the lifespan of the rock is almost always rather uncertain. Even if it could somehow be ascertained that, let us say, an arrowhead found in front of a rock painting is contemporary with the production of the latter, it is impossible to explain the meaning of the art simply through such a chronological connection.

By contrast, I find that approaches centred on landscape and topography provide a more fruitful starting point for understanding the primary meaning of rock art. This is because of the self-evident advantage rock art has over many other kinds of archaeological manifestations – we are able to study it at the location in which it was chosen to be made. Needless to say, the landscape around rock art locations has often undergone major changes over time. It is thus the difficult task of archaeologists to reconstruct these “lost relations” as accurately as possible (Gjerde 2010: 101–103). Still, I am disposed to argue that perhaps the greatest potential for understanding the initial meaning of rock art lies in the study of its geographical setting. Indeed, this may prove to be even more valuable than the study of motifs, which is certainly not without its problems. This is of course not to say that research into rock art should solely focus on aspects of the surrounding landscape. The best way to study rock art is undoubtedly to take a multidimensional approach, in which as many perspectives as possible are taken into account. While landscape undeniably plays a central role in my discussion of rock art sites, I will also examine various other characteristics related to hunter-gatherer rock art that illustrate the diversity of this phenomenon.

In this study, I am interested in how three elk-related motifs in rock art – the elk, the elk-headed staff, and the elk-headed boat – are represented over the long-term. I firmly believe that the elk has never been regarded as an animal of purely economic significance, nor has it been valued solely for its cosmological connotations (cf. Albarella 2011: 2). However, I also find it likely that attitudes towards the elk have not remained unchanged over the course of time. Undoubtedly, throughout the several millennia that provide the scope for this study, perceptions of elk most probably underwent

some form of change. However, this is not to say that the elk motif (as well as the elk-headed boats and staffs) would inevitably have referred to different things in different periods, as Sjöstrand (2011: 24) has argued. At the very least, I believe that societies have always recognized the elk motif for what it represents, just as we still today can, in most cases, determine which of the figures in a rock art composition depict elks and which do not. Indeed, in line with Günther (2013: 142), I believe that the representations in the prehistoric (rock) art would not be as repetitious and widespread as they are if they represented only local conventions.

That said, I do agree to some degree with Sjöstrand (2011: 24) and Jacobson (1993: 45, 90) that, in different geographical or chronological contexts, a certain sign does not necessarily always refer to the same thing (see also Siikala 1981: 83). Jacobson (1993: 45) takes the image of the bull in the Sumerian and Babylonian cultures as an example, as this theme has been associated with both male virility and a female goddess. Thus, I find it possible that some of the motifs discussed in this study, such as that of an elk without antlers or of an elk-headed boat, may have encompassed various meanings in different regions and/or eras, despite their apparent similarity in style. Nevertheless, I believe that at the core of such motifs lie more or less unequivocal beliefs, which over the course of time have resulted in multifaceted and locally distinct meanings. In this study, I am especially interested in the origins and the initial connotations of such meanings.

Sjöstrand (2011: 145) has criticized previous rock art research for not paying attention to her viewpoint, i.e. that the elk motif mediated various meanings and thereby referred to something other than what it depicts. I would disagree with her on this point. I would note, as for example Gjerde (2010: 9) and Olsen (2010: 86–87) have pointed out, that it has been almost a rule among modern scholars of rock art to interpret the images as something other than what they appear to depict (see also Tansem 2022). The common understanding of rock art images today, thus, is that they cannot simply be depictions of reality, and this especially holds true for depictions of elk in northern hunter-gatherer rock art (see Günther 2009: 17; Fuglestad 2010: 26).

An obvious problem related to the interpretation of rock art is the fact that while some scenes evidently represent actual events that once took (or at least could have taken) place in the real world, such as the famous elk-hunting scene at Zalavruga (Figure 14), others obviously do not. The question is not only why both kinds of scenes were depicted on rocks, but also how representational and fictional depictions in the rock art can be distinguished from one another. In many cases it is not possible to objectively ascertain what the scenes are depicting. As will be discussed below, it seems that the ancient artists did not understand the dichotomy between the “real” and the “fictional” in the same sense as Western Civilization does today. Moreover, instead of being representations or reconstructions of the world, “art” among totemic as well as animic groups is inseparable from “ecology” and is thus not really *art* in the sense that we as modern westerners tend to understand it (Ingold 2000: 130; Herva & Ikäheimo 2002: 95–96). However, regardless of their indisputable importance and interest, questions such as what makes art, or where its origins are to be found, will not be addressed in further detail here. These constitute a topic so vast that it would by no means be possible to discuss it satisfactorily within the scope of this study (on the topic of art and its evolution, see e.g. Davies 2012).

Finally, an important aspect related to the study of prehistoric art concerns the terms that are used in describing it. Although the concepts “naturalistic”, “stylized” and “schematic” will be used throughout this study for describing and separating between different kinds of representations in rock art and in portable art, I am aware of the problems related to these terms. As Helskog (1989: 89) points out, rock art scholars have tended to take these labels for granted due to an implicit idea that the concepts are universally understood. For this reason, discussion of these terms has been scant (for a general discussion on the concept of style in the archaeology of art, see e.g. Sanz & Fiore 2014; for style in rock art, see e.g. Steberglokken 2017). Yet, it almost goes without saying that distinctions between naturalistic and schematic/stylized representations are always highly subjective. Our individual cultural backgrounds affect the ways in which we comprehend images today, not to

speak of the difficulty of unravelling how people would have understood images in the past. In addition, the boundaries between the above-mentioned designations often overlap, since prehistoric elk figures are hardly ever entirely true-to-life, nor completely abstract in shape (cf. Helskog 1989; Fuglestedt 2018: 181–182).

Nevertheless, in line with Helskog (1989: 90) and Fuglestedt (2018: 180) I still regard these concepts useful to a certain degree, when speaking of individual figures or objects. Thus, I regard “naturalistic” elk depictions as representations that are life-like in appearance, that is to say, reminiscent of real elks as regards body proportions and the manner in which the various body parts have been depicted. As Helskog (1989: 90) illustrates, the degree of “naturalism” is, however, not necessarily dependent on the number of lines drawn to produce a (rock art) figure. On one hand, a heavily schematized figure may consist of only a few lines, which can barely be used to ascertain its subject. On the other hand, a figure consisting of abundant lines – such as the majority of the eastern Norwegian elk depictions with inner designs (see section 5.2) – can be less naturalistic in appearance than a figure consisting of only a few lines, such as several of the figures in the polished rock art of central Nordland (section 5.1).

By “stylized” and “schematic” representations, meanwhile, I mean elk depictions that are to be understood as opposites to naturalistic elk illustrations. In other words, such representations have been depicted, wholly or in part, in a manner that differs from the appearance of actual elks. For instance, this may be epitomized by the use of exaggerated or simplified body parts and disproportional dimensions. It should be noted that although the designations “stylized” and “schematic” are here used as synonyms, Helskog (1989: 90–91) ascribes slightly different connotations to these terms. In his view, “schematized” depictions are simplified versions of naturalistic representations, whereas “stylized” depictions may contain additions that do not have a “natural” origin, such as geometric patterns depicted inside elk bodies. The two concepts are thus not contradictory, but both categories comprise in Helskog’s view a great variety of images with different degrees of naturalism.

However, even if I mostly concur with Helskog's comprehension of the two concepts, I nevertheless use the terms "stylized" and "schematic" interchangeably within this study. This is due to the fact that I utilize the terms also with reference to portable art, in which the distinction between the two designations does not apply in the same way as in rock art. Importantly, however, I do not even attempt to address the question of whether ancient artists themselves saw elk depictions as "naturalistic", "stylized" or "schematic" – such terms, as used in this study, only refer to the art as I personally see it.

1.5 The structure of the thesis, terminology, and technical remarks

In the following chapter, I set out the theoretical framework for this study. In Chapter 3, I will present an overview of the elk as a species, including information about its population history and behaviour, and give a region-specific overview of the elk's representation within the osteological material. Chapter 4 subsequently centres on the elk's significance as prey. I will discuss different elk-hunting methods as well as general issues related to elk hunting and carcass processing. Chapters 5 and 6 concentrate on elk representations in northern hunter-gatherer rock art. In Chapter 5, I examine, by means of six case studies, the elk motif and its development over time in the rock art of Fennoscandia. In Chapter 6, I discuss two other significant themes in rock art that are related to elk; elk-headed staffs and elk-headed boats. Here I will also discuss the connection between elks and aquatic environments, and deliberate on the high proportion of antlerless elks in prehistoric art. In Chapter 7, I focus on elk representations in the portable art of Northern Europe by considering the variety of elk-related artefacts individually presented in Appendix 1. In Chapter 8, I eventually combine all the different find materials to examine the relationship between humans and elks in the region of study. I will do this by means of a chronological scheme that illustrates the elk's role in Northern Europe from a long-term perspective. Finally, I will conclude this thesis by setting out the main implications of the study,

also giving brief consideration to future research.

Before moving on to the theoretical framework, some terminological notes and remarks of a technical character should be mentioned concerning the text. First of all, the main focus of this study – the elk (*Alces alces*) – is paradoxically known by different names in the English-speaking world. In American English, the word *moose* is used of this animal, whereas *elk* refers to another species of the deer family that is also known as the wapiti (*Cervus canadensis*). In British English, on the contrary, *elk* (sometimes Eurasian elk) unequivocally designates *Alces alces*. As the latter term is more commonly used in Northern Europe, which is the geographical scope of this study, I have decided to utilize this term throughout. In some quotations, however, the word *moose* occurs. In both cases, the animal I refer to is exclusively *Alces alces*.

Secondly, I have already defined some expressions used in the study but there are a couple of further concepts that need to be clarified. When referring to "rock art" or "petroglyphs", I have followed the distinction between three types of rock art made by Gjerde (2010: 13). These include images painted in red ochre, pecked carvings and polished rock art figures. I will also make use of the term "elk symbolism", and by this designation, I simply refer to the tradition of making elk representations, namely, in the shape of artefacts and rock art. Equally, for the sake of simplicity, I will often only refer to "prehistoric" elk-hunters, "prehistoric" Northern Europe, and so forth. By so doing, I naturally refer to the period that is the scope of this study; roughly the period 12 000–1200 calBC. Perhaps needless to say, by "hunters" or "hunter-gatherers" I denote populations, whose primary subsistence is not based on agriculture or animal husbandry, but on hunting, gathering, fishing and/or trapping in fluctuating proportions.

Thirdly, when presenting the various elk-related artefacts in Appendix 1 and 2, I have provided approximate geographical coordinates to their find locations. These are given according to the WGS84 standard. The locations are also presented verbally with the site, area and region mentioned according to national (conventional) subdivisions. The find locations of Swedish and

Norwegian items, for example, are given as in the SHM (mis.historiska.se) and Unimus (www.unimus.no) databases. When the find year and the elevation (masl) are known, these are given in parenthesis after the find site and the coordinates, respectively. The number given at the bottom of the tables in Appendix 1, in turn, refers to the classification of each artefact (1 = evident; 2 = likely).

Finally, as regards calibration of radiocarbon dates, all dates that are mentioned in the text have, unless otherwise stated, been modelled in OxCal v. 4.4.2 (Bronk Ramsey 2020), based on the IntCal 20 atmospheric curve (Reimer et al. 2020), and given at 95.4% probability, rounded to the nearest tenth.

2 Theoretical framework

In this chapter, I will set forth the theoretical background for this study, with an emphasis on human-animal relationships in northern hunter-gatherer societies. I begin by addressing the most notable theoretical approaches that have dominated discussion regarding the art and religion of prehistoric hunter-gatherers in the boreal forest zone. I will then move on to address certain key aspects in indigenous thinking and in human-animal relationships among northern hunter-gatherer societies. I end the chapter with a summary, which encapsulates the key theoretical principles that I will apply in this study.

2.1 Earlier theories on prehistoric art and religion

A number of theories have been advanced by scholars with reference to the interpretation of prehistoric art and religion in Northern Europe. The history of research relating to northern rock art has been discussed at length, for instance by Gjerde (2010: 23–57), and there is no need to repeat it here.¹⁹ Zoomorphic depictions in portable art have not provoked similar interest among scholars, with the exception of certain artefacts such as elk-head staffs. It is fair to say, however, that the same theoretical interpretations that have been applied in rock art scholarship also pertain in general to the study of portable artefacts (see e.g. Herva & Ikäheimo 2002).

Prevalent models for interpretation have often echoed international trends and some of the theories advanced are clearly connected to specific periods and to broader developments within the field of archaeology. For instance, as Brück (1999: 325) and Günther (2009: 17; 2010: 100) have stressed, in post-processual archaeology, scholars have tended to neglect practical aspects in their search for symbolic and social metaphors in material culture. This, in turn, has resulted in unfounded dichotomies, such as

between the religious and the secular, between nature and culture, or between human and animal. I will address the fallacy of such oppositions more closely at the end of this chapter.

In particular, four general theories set forth by earlier scholars have dominated the discussion on prehistoric religion and art in (northern) hunter-gatherer societies. These are the models known as sympathetic (hunting) magic, totemism, shamanism, and animism. Below, I will discuss these central theories separately and examine their content and relation to one another. Needless to say, these theoretical concepts do not represent every perspective proposed over the more than 100 years in which prehistoric art and religion have been studied by academics. In recent years, for example, scholars have focused on non-visual, especially acoustic, aspects of rock art (e.g. Goldhahn 2002a; 2002b; Lahelma 2010; Rainio et al. 2014; Reznikoff 2014; Shpinitzskaya & Rainio 2021). Likewise, various aspects related to landscape and topography – on a macro level as well as from a micro perspective – have become increasingly popular among scholars of rock art during the past decades (see e.g. Gjerde 2010: 150–171; 2019b: 200–205).

As Günther (2013: 144) aptly points out, meanwhile, it is a pity that practical characteristics such as hunting spots or animal crossing places are nowadays hardly ever discussed in relation to the location of an artwork. This is apparently due to a belief that such aspects cannot shed light on its meaning. However, my own approach acknowledges the relevance of “practical” perspectives in studying the meaning and location of rock art. It is actually hard to think of any better starting point for understanding the meaning of rock art than the consideration of its geographical setting. As Günther (2013: 144–145) stresses, however, the scholarly focus on a vertical, three-tiered worldview and on various cosmological manifestations in the landscape has largely downplayed the plain fact that prehistoric people (as well as animals) lived their lives primarily in a concrete, horizontal world.

¹⁹ Gjerde's detailed overview is focused especially on the spatial aspects of rock art, but I find that his comprehensive discussion also provides an excellent illustration of the northern rock art research tradition in general.

I find the topic of landscape to be of utmost importance not only to rock art research but also for understanding prehistoric ways of life in general. This is especially the case for the boreal forest zone, where the importance of seasonality cannot be stressed enough.²⁰ I also concur with Filtchenko (2011: 195), who argues that “[t]he process of associating meaning with the landscape – forests, lakes and rivers – appears to be essentially grounded in the conduct of practical and ritual activities, including seasonal movements around the landscape, which were timed according to the different seasons and natural ecological patterns, such as fish and waterfowl migrations” (see also Pogorelov 2002: 152–153). Indeed, a close association seems to have existed between seasonality and ritual behaviour across the boreal zone. For instance, Tanner (1979: 110) has noted that among the Mistassini Cree, hunting rites were carried out primarily in the winter. I firmly believe that this reflects the particular importance of gaining luck in hunting during the harshest season of the year (see also Ramqvist 2005: 114–115). Let us next look more closely at the phenomenon of hunting magic, in which gaining luck also constitutes a key element.

2.1.1 Hunting luck or “sympathetic magic”

The history of sympathetic magic as a concept goes back to Frazer (1922 [1890]: 11–48). This theory, also known as the hunting magic hypothesis, has been one of the most popular ways to interpret prehistoric art. According to the model, depictions of animals were symbols made in order to gain success in hunting. The species depicted were interpreted as the most significant game animals, and their representation in art as an effort to control these animals. In rock art research, elk depictions would thus have been made because this animal was of key importance economically and because the rock

art makers wished for hunting of this animal in particular to be successful (see e.g. Bolin 2000: 155 and cited references; Fuglestedt 2010: 24).

As several scholars have pointed out, notions related to sympathetic magic predominated rock art scholarship up until the 1980s (see e.g. Fuglestedt 2010: 23; Gjerde 2010: 25; Günther 2013: 136). The theory was widely used by European rock art researchers for explaining Palaeolithic cave paintings. In Northern Europe, too, ideas related to hunting magic were proposed as motivations for rock art already from the mid-19th century onwards (see Günther 2009: 18; 2022: 21–22; Gjerde 2010: 25, 32; Walderhaug 2010: 224–227). Even if Scandinavian and Russian rock art was associated with totemistic, animistic, and shamanic activities, at the core of these explanations nevertheless lay the assumption that the art was made for the purposes of hunting magic (Gjerde 2010: 37–38, 47–50 and cited literature).

Over time however, as Günther (2013: 137; 2022: 22–23) recounts, the hunting magic approach would be cast aside by a new school of archaeologists, who regarded it as naïve and deterministic. These instead shifted the focus of their research towards the cognitive and symbolic aspects of art. The hunting magic hypothesis was also criticized for being too functionalistic and androcentric, and because it presented the prehistoric human as a victim of ecological conditions (Günther 2009: 19; 2022: 25–26). As Günther (2009: 20) points out, while such criticism is legitimate, totally discounting the hunting magic approach can equally lead to an overly deterministic understanding, which would suppose that Stone Age hunter-gatherers were driven by ritual behaviour.

According to Goldhahn (2008: 23) and Gjerde (2010: 61), a “revitalisation” of the hunting magic interpretation has taken place since 2000. However, it seems to me that instead of constituting a specific paradigm, aspects related to hunting magic and the control of animals have largely been amalgamated into studies that advocate animism as an explanatory model (see also Günther 2022: 21). Indeed, according to Fuglestedt (2010: 23), the concepts of animism and totemism can both be regarded as relating to sympathetic magic, and the boundaries of these designations are anything but clear-cut.

²⁰ In this study, I will for the sake of simplicity speak of seasons according to the conventional separation between winter, spring, summer, and autumn. However, I am well aware that this generalization of the yearly cycle is hardly found among northern hunter-gatherer populations, and I fully agree with Günther (2022: 97) that “a four-season organisation cannot do justice to the rhythm of life this far north”.

As Gjerde (2010: 61, 425) has pointed out, it is obvious that hunting – especially of the largest animals – was always of the utmost importance to prehistoric northern hunter-gatherers, even if scholars seem to have largely bypassed this fact when they abandoned the hunting magic theory. This also holds true in the case of the elk, an animal that seems to have been overlooked by many scholars. In Günther's view (2009: 17; 2010: 99), a reason that at least partly explains why elks have not received more attention is the shamanic framework: a dichotomy between the sacred and the profane. This concept replaced the earlier hunting magic theory, in which elk figures were seen as a means for gaining hunting luck. Günther (2010: 99–100) writes as follows:

Unfortunately, this travesty of hunting ritual came to act as a red rag for a new generation of researchers with their sights focused on the meaning-making, the communicative and the symbolical. The strong distancing from what was considered a functionalistic and deterministic idea regrettably led to that the eventual connection between rock art and subsistence was now entirely shied away. The indispensable became trivialized and "the great hunter" was replaced by "the great shaman". It is difficult to imagine something less trivial than success in the hunt for people who are dependent on animals for their existence. And there is of course neither any real opposition between hunting and shamanism, even if shamans as we know them from historical times were involved in far from all rites around subsistence.²¹

To be sure, ideas related to hunting magic should certainly not be ignored – even if these are not satisfactory enough for explaining all

²¹ My translation. Original text: "Tyvärr kom denna vrångbild av jaktrituel att fungera som ett rött skynke för en ny generation av forskare med siktet inställt på det menings-skapande, kommunikativa och symboliska. Det kraftiga avståndstagandet från vad som betraktades som en funktionalistisk och deterministisk idé ledde dessvärre till att man nu skyggade helt för hällkonstens eventuella samband med försörjningen. Det livsviktiga kom att trivialiserats och "den store jägaren" ersattes av "den store schamanen". Det är svårt att föreställa sig något mindre trivalt än framgång i jakten för människor som är beroende av djur för sin överlevnad. Och det finns naturligtvis inte heller någon verklig motsättning mellan jakt och schamanism, även om schamanerna som vi känner från historisk tid var inblandade i långt från alla riter kring försörjningen".

aspects of the lives of prehistoric populations. Günther (2009: 26) also makes an important point when she notes that the concept of "luck" (as well as coincidence, foresight, and fate) has been more or less ignored by scholars since the abandonment of the hunting magic theory. As she rightly notes, the "crucial emotional and existential aspect of human-animal, and human-environmental relations, grown out of the long experience of coping with uncertainty, is no longer treated as interesting for meaning-making in rock art research, perhaps because it brings associations with functionalism, material or psychological" (Günther 2022: 141). Yet, there can be no doubt that acquiring fortune in hunting must always have been of the most significance to people who lived off the land.

Consequently, it is certainly anticipated that prehistoric hunters conducted practices in order to gain luck in hunting elk. Moreover, obtaining luck in hunting also lies at the core of shamanic practice, as Hamayon (2013: 287, 290), for instance, has pointed out (see also Brandišauskas 2017: 83–94). Before addressing the concept of shamanism, however, let us next take a closer look at the model known as totemism.

2.1.2 Totemism

Totemism as a concept was made famous by Durkheim (1912), who regarded it as the foundation of religion, which he in turn understood as being rooted in social practice (see e.g. Fuglestedt 2008: 352; 2010: 26). In a nutshell, as Fuglestedt (2010: 26) puts it, Durkheim saw Stone Age societies (clans) as continually strengthening and maintaining unity by praising their common roots and by worshipping a totemic emblem. This emblem frequently had the shape of a symbolically significant animal that the clan members identified themselves with. The basic reading of totemism, however, was substantially developed by Lévi-Strauss (1962), who used the term to define how natural oppositions are categorized by humans.

As Fuglestedt (2008: 355; 2010: 27) notes, both Durkheim's and Lévi-Strauss' definitions share a focus on kinship and origin. Thus, ancestor-worship and a close affinity to the landscape are also key aspects in totemistic interpretations. In fact, totemism always seems for these reasons

to be particularly associated with lineage-based societies, in contrast to animistic beliefs, which are considered to be present in lineage-bonded as much as in cognatic-based groups (Descola 1996: 88; cited in Fuglestedt 2010: 28). However, as Goldhahn (2019: 64–65) notes, ancestors may be of significance to animistic peoples as well, and as will be noted below, differentiating totemism from animism is not a clear-cut process.

Among archaeologists, totemism has not gained the same level of popularity that hunting magic or shamanism have done. Archaeological studies that focus explicitly on totemism are mostly lacking, even if totemistic readings have been proposed for various archaeological phenomena, such as Upper Palaeolithic cave art (see Insoll 2011: 1009–1010). As for northern rock art research, probably the most influential totemistic interpretation in the tradition of Lévi-Strauss was put forth by Tilley (1991) in his study of the rock art of Nämforsen, which he likened to a text. Another somewhat similar reading of Scandinavian rock art was advocated by Hesjedal (1990; 1992; 1994) in his writings on the rock art of Nordland. A scholar that can likewise be mentioned in this context is Bolin (2000; 2010). He has argued that the wide distribution of rock art, as well as the occurrence of repeated motifs at large rock art sites, indicates that the figures were made in order to narrate stories that were related to creation myths. Most recently, totemic explanations for understanding (Late Mesolithic) rock art have been suggested by Fuglestedt (2008; 2010; 2011; 2018). She has argued that animal depictions with so-called inner designs represent totemic depictions that stand in contrast to animic figures lacking these designs.

As Herva and Lahelma (2019: 76) have pointed out, totem animals have commonly been associated with various bans and taboos that have prohibited the hunting or the eating of these species. For this reason, totem animal species have usually not been of critical economic significance. Grøn (2012: 180), for instance, writes that in order to circumvent the problem of not being allowed to kill the clan's totem bird, the bird species that have functioned as totem animals in Siberia are predominantly not significant in economic terms. Thus, even if

Fuglestedt (2010: 27) has argued that the elk was the totemic emblem “for groups over vast areas extending from today's eastern Norway, the mid and northern parts of Sweden as well as Finland”, this statement seems unlikely if one accepts the common viewpoint that it was prohibited to hunt the totem animals, since elks were surely of the utmost economic importance in the said areas.

Some ethnographical evidence nonetheless exists of northern peoples worshipping the elk as their totem animal, such as the Siberian Evenks and Mansi (Anisimov 1963b: 110; Järvinen 2000: 55). It has been argued that shamanism among the Evenks developed out of earlier totemic beliefs, in which the elk cow seems to have played a central role as an animal mother (Anisimov 1958, cited in Jacobson 1993: 192–194). Yet, the elk has been one of the economically significant animal species for the Evenks as well (see e.g. Grøn 2012; Grøn & Turov 2007). How, then, should one reconcile such contrasting viewpoints?

Lahelma (2008a: 62) expressed an explicit distrust towards ethnographic accounts obtained by Soviet anthropologists in general. He stressed that, under the Soviet regime, scholars were expected to find traces of totemism in their studies of modern populations, because totemism was regarded as a key phase in the evolution of culture. This is indeed an important observation and – to provide an example – according to Kosarev (2003: 101), ethnographers who studied bear festivals in Siberia markedly exaggerated the totemic role of the bear as well as its often alleged kinship to humans.²² However, even if some of the Soviet accounts were indeed affected by political trends, I do not regard Lahelma's claim to be applicable to Soviet ethnography in general. Rather, to quote Shimkin (1949: 625) – the scholar to whom Lahelma refers in his statement – “the basic competence and honesty of most Soviet anthropological works seems evident to me”. To be sure, I find it somewhat arrogant to dismiss any indications of totemism in the taiga region just because they happen to be observed by Soviet scholars. A more fruitful approach is to accept

²² Kosarev (2003: 101–102) argues that instead of being a totemic attribute, the bear (as well as the elk) was strongly linked in Siberia to cosmological beliefs.

the Soviet accounts of prehistoric totemic elements as accurate, but to likewise recognize the fact that early “totemism” was, in all likelihood, not manifested in the way Durkheim and others describe the phenomenon.

Indeed, another common point of criticism against the totemic explanation of prehistoric art in Northern Europe is the seeming scarcity of the animal species represented in the art (cf. Reuterskiöld 1911: 166; Lahelma 2008a: 62). In other words, according to the established view of totemism, totem animals were representative of particular groups, and thus the animal representations in art should be much more diverse if these were to represent the totem animals of different clans.²³ According to Pentikäinen (2012: 158), for instance, the totemistic clans in Siberia that are ascribed to certain animals are rather small in size, and whole populations never formed part of, for example, a common bear clan. However, according to Fuglestad (2010: 27), this aspect of totemism is mistaken by Durkheim (1912), as well as by Lévi-Strauss (1962). Instead of being restricted to a single group, Fuglestad writes, it is by no means uncommon that numerous clans have the same animal as their totem. Consequently, she finds it likely that several societies in Late Mesolithic Scandinavia shared the elk as their totem animal. What distinguished these groups from each other was in her view the differences in the so-called inner designs depicted in their rock art (Fuglestad 2008: 359–360; 2010: 27, 29; see section 5.2).

However, if the dogmas of totemism mentioned above – the taboo of killing the totem animal and its close association to a particular group – are both erroneous, an inevitable question that arises is whether we are still dealing with totemism in the strict sense. Herein lies the problem, I would contend, for the weakness of concepts such as totemism or animism is that these seem not only to be impossible to define but also to be largely overlapping and even co-existing (cf. Fuglestad 2010: 28).²⁴ As I see it, a

constant broadening of the definitions of such “isms” correspondingly diminishes their usefulness. What is more, the phenomenon of shamanism further bewilders the discussion. Northern shamanism is, as a rule, practised amongst animist peoples, but may as well exist in totemistic societies, even though the totem animals typically differ from those serving as the shaman’s spirit helpers (see Fuglestad 2010: 27 and cited references; see, however, Ingold 2000: 115; Insoll 2011: 1008). As Jones and Díaz-Guardamino (2018: 487) thus rightfully question, are there any ways in fact to differentiate shamanism from animism or totemism?

The answer to this question seems to be yes, for as Insoll (2011: 1008–1009) notes, shamanism fundamentally refers to the role of the shaman, whereas the concept of totemism (as well as that of animism) denotes a more general phenomenon. The basic difference between totemism and animism, in turn, seems to be that adherents of the former apprehend the world as fixed whereas the latter conceive it as ever changing. To put it differently, according to a totemic understanding, all life is generated by an ancestral power that is omnipresent in the landscape. For animists, on the other hand, life is a constant flow, manifested in soulful beings of different kinds that generate life reciprocally by continuously taking altered forms (Ingold 2000: 111–112). As to archaeological material, however, distinguishing “animistic” manifestations from “totemistic” is anything but straightforward.

In Ingold’s (2000: 119) view, animal depictions created by totemic groups have some recurring characteristics. For example, these are often static in character and – with the exception of paired figures that seem to symbolize “formal balance” – seldom relate to other figures in a manner that would enable their interpretation as narrative portrayals of any kind. Another common feature, Ingold argues, is the focus on the space within animal depictions. However, while I find his notions thought-provoking, I still do not think that these generalizations, based on Australian aboriginal ethnography, can as such be utilized to explain the prehistoric art of Northern Europe. Undeniably, Finnish rock art, for example, is characterized by its lack of narrative scenes, and boat figures – often reminiscent of elk antlers – are moreover at times depicted in

²³ In this context it should also be noted that another common misconception seems to be that the totemic emblems are restricted to animals. However, as Insoll (2011: 1007) recounts, not only animals, insects and plants but various items, natural features or parts thereof – or even diseases – could serve this function.

²⁴ In fact, Goldhahn (2019: 66) even goes on to argue that animism is not only always present in, but also a prerequisite for, totemism.

pairs. Nevertheless, it would be ill-founded to interpret the Finnish rock art as totemic merely because of these similarities.

Ingold (2000: 127–128) has also argued that zoomorphic depictions in animistic circumpolar societies are predominantly produced as carved animal figurines and not as painted images, whereas in totemic groups – at least in Australia – the opposite is the case. With regard to pre-historic Northern Europe, however, this division does not seem to hold true (see Fuglestedt 2010: 30). Indeed, animal depictions – especially those of elk – are widespread in the rock art of the boreal forest zone. This is an area that Ingold (2000: 113) seems to generally associate with animist peoples.²⁵ It should also be mentioned that not all animist peoples depict animals in their art (Bird-David 2006).

Jacobson (1993: 179) noted a number of reasons to suggest that Siberian shamanism evolved out of a “considerably older” set of communal pre-shamanic cults when, some time after the early Iron Age, these older collective beliefs became associated with the figure of the shaman in particular. In Jacobson’s (1993: 175–176) view, the pre-shamanic tradition was totemic in essence, and traces of it can be discerned for instance in the clothing of the shaman. She notes that the shaman’s robe was made of the hide of an elk or a deer, representing the predecessor of the shaman as well as of the community in general. As plausible as such a scenario might be, however, verifying it is a highly difficult task, not to speak of the difficulty of dating it with any accuracy. As is the case with “shamanic” evidence, so too is it largely impossible to detect unmistakable evidence of totemism in the archaeological record. I therefore concur with Insoll (2011: 1008) that, when speaking of pre-historic archaeological evidence, it is at best possible to claim that something resembles, rather than indicates, totemism.

²⁵ To be precise, Ingold (2000: 113) speaks namely of “the native peoples of the circumpolar North”. However, central in his discussion are the Ojibwa, which can be regarded as a boreal forest people and which Ingold (2000: 90–112) describes as animic. Yet, the Ojibwa are themselves well known for their rock paintings (see e.g. Ruuska 2018), which seems to contradict Ingold’s statement.

2.1.3 Shamanism

Originally, the concept of shamanism derives from the Tungus (Evenk) word *šaman* (or *xaman*), which has been most commonly used for describing a “social functionary who, with the help of guardian spirits, attains ecstasy in order to create a rapport with the supernatural world on behalf of his group members” (Hultkrantz 1973: 34). In his superb examination of the metaphor of shamanism, Znamenski (2004: xix) writes that, in the 1700s, the term initially denoted a certain set of beliefs in Siberia, which later came to be applied universally:

Eventually, in the second half of the twentieth century, this word entered popular western usage, where it substituted or replaced such words as ‘medicine man’, ‘medicine woman’, ‘sorcerer’, and ‘magician’. In short, the expression became a convenient metaphor for all kinds of spiritual experiences involving direct contact with spiritual forces both in non-Western and Western cultures...

Today, shamanism constitutes a deeply problematic term. It is used for referring to beliefs and activities associated with a wide spectrum of ritual specialists. While most scholars seem to share the opinion that shamanism does not represent an actual religion, differing outlooks abound as to what actually constitutes shamanism and whether the concept should be used at all (for general studies on shamanism, see for example Pentikäinen 2001; Znamenski 2004; 2007; DuBois 2009; Price 2011). To be sure, one notices enormous diversity in the beliefs, traditions and practices categorized as “shamanic” (or “shamanistic”), and the problem of defining shamanism pertains to any society in which “traditional” shamans exist or have existed, not only within its *locus classicus* in Siberia, but also in other regions.

For instance, the Siberian Yukaghir society has a history of shamanism, even though these shamans do not appear to have formed an institution as such, and their role and power has not noticeably distinguished them from other members of their society. Instead, Yukaghirs contend that, even if some are considered better at shamanic activities than others, everyone can still be a shaman and there is thus no such thing as a

shamanic religious elite (Willerslev 2007: 124; see also Hamayon 2013: 289; cf. Whitley 2014: 1232). For this reason, Willerslev (2007: 120) is of the opinion that, in this context, shamanism “should be understood as a broad-based activity practiced to varying degrees by common hunters rather than as a form of ‘mysticism’ under the control of a religious elite”. However, even if this definition may be based on correct observations to a certain degree, I find it to be utterly problematic because it broadens even further the explanation of shamanism, which was already highly problematic from the outset. Concepts such as “shamanhood” (Pentikäinen 2001: vii) and “shamanship” (Atkinson 1989: 17) have been introduced to better encapsulate the essence of shamanic activities, but instead of bringing clarity to the discussion, such designations have rather made the subject even more diffuse.

In the case of the Yukaghirs, Willerslev (2007: 125–133) has noticed that the activities of what he calls “family shamans” (*a'lma*) are more or less the same as those undertaken by any Yukaghir hunter, albeit taking an intensive form.²⁶ They both perceive the world in a similar way, and like the *a'lma*, ordinary hunters also have faith in helping spirits, which are thought to be responsible for hunting luck. I do not doubt Willerslev’s observations and find it obvious that skilful elk-hunters – who were certainly respected individuals in prehistoric times also – might to a certain extent be compared with the *a'lma*. However, the problem in Willerslev’s rather unorthodox interpretation of shamanism (or shamanship, as he prefers to call it) is that he seems to discern this within a setting, which, according to the established definition of the term, cannot be labelled as shamanic. To be sure, even if I concur with Willerslev’s (2007: 139) notion that shamanic practices may in some cases be described as “a system of techniques for manipulating the environment”, I do not agree with his claim that shamanism would exist without the shamans themselves.

It is evident from the outset, meanwhile, that Yukaghir hunters cannot be termed shamans in the strict sense of the word. As Willerslev (2007: 133) notes, hunters develop their expert skills and prestigious status over the course of a life-

time, whereas the *a'lma* acquires these capabilities at once during initiation, and while hunters adopt different identities for the duration of the hunt, the *a'lma* is transformed permanently by their initiation. In addition, the *a'lma* cannot be straightforwardly interpreted as a shaman *stricto sensu*. As Willerslev points out, “professional” shamans have in fact existed in Yukaghir society before the 1930s. However, their function has differed noticeably from that of the *a'lma*, who took part in daily activities like hunting just like everybody else and usually did not even own drums or distinct costumes. Moreover, the activities of the *a'lma* have mainly been limited to the performance of hunting magic with the aim of helping their kinsmen in times of famine. By contrast, the professional shamans were specialists that worked for the good of the entire society and principally concerned themselves with the curing of diseases, like the shamans of the Evenk (Tungus) and Yakut peoples (Willerslev 2007: 120–132; see also Jochelson 1926: 163–169).²⁷

Thus, even if I concur with Willerslev (2007: 124) and Humphrey (1996: 30) that individuals formally identified as shamans have not necessarily been the only members of a society to have expressed a belief in, or claimed contact with, spirits, I would have serious reservations about labelling “ordinary” members of these societies as shamans simply because of this notion. Whereas Willerslev’s view that Yukaghir hunters cannot be clearly distinguished from *a'lma* requires that both categories be considered as existing within a shamanic framework, in my view neither of them should be understood as such. To be sure, as Jordan (2008: 233) notes, “[a]cceptance of the existence of spiritual beings cannot be confined to the realm of religion, nor even the shamanistic tradition, as both are built on a deeper conception of the nature of reality that underlines the whole worldview”. Thus, it seems to me that what Willerslev is actually discussing is not shamanism (or shamanship, for that matter) but something fundamentally different. The best designation for the Yukaghir conception of the world is probably that of animism, although even this term has its short-

²⁶ According to Willerslev (2007: 125), the word *a'lma* can be translated as “to do”.

²⁷ Willerslev (2007: 134–135) goes on to argue that the position of the shaman would be more egalitarian and less institutionalized in bilateral band societies than in patrilineal groups, although in my opinion this division appears too simplistic.

comings, as will be described below. In addition, the constant broadening of the original definition of shamanism has led to a situation in which the boundaries between shamanism and animism have become increasingly blurred. Drury (1989: 5), for example, has described shamanism “applied animism”. Yet, I contend that there is a major difference between the two concepts – shamanism can be applied animism only in societies where shamans exist.

Here it must be stressed that the Yukaghirs certainly do not constitute the only example of a society in which the borders between shamanism and other spiritual activities are blurred. Among the Vas Yugan Khanty, for instance, various “rituals, ceremonies, verbal addresses, sacrifices and requests were typically performed by the hunters themselves without involvement of the shaman” (Filtchenko 2011: 190). Jordan (2008: 236) similarly pays attention to the “deep respect” for individual skill and experience among the Khanty, while Brandišauskas (2017: 255–257) highlights their importance within the Orochen society. Likewise, even though shamans exist among the Mistassini Cree, Tanner (1979: 108) stresses that “the aboriginal Cree religious tradition places particular emphasis on the development of religious competence by the individual. Thus most techniques of hunting magic...are constitutionally suited for use in the context of the two or three family hunting group”. As a consequence, even in societies where shamans exist, they may not necessarily play a part in the majority of ritual activities, and there is every reason to believe that this has always been the case (see also Günther 2009: 24).

I believe that the above considerations are essential to this study, for even if shamans would have existed in prehistoric times, this by no means implies that they did produce rock art or portable art. Indeed, Günther (2009: 26; 2010: 99) maintains that even if some of the northern rock art sites do possess attributes that seem to point towards shamanism, the majority of sites do not. As she aptly points out, the popularity of shamanism as an explanatory model has resulted in what she calls an “archaeology shaman” – a stereotypical figure whose character is centred on the trance, which has become an end in itself (Günther 2009: 18; 2010: 99). The rock art figures – or rather, a certain set of rock art figures, such as geometrical

motifs and human figures – are then understood as products of the shaman’s trance experiences. Consequently, the elk depictions, which are significantly more numerous than the said motifs, have become rather a problem or moot point among scholars. Usually, the elk figures have been explained as the shaman’s guiding spirits or as the shaman’s *alter ego*. However, as will be pointed out later on, elk representations in rock art are characterized by their great variety and to interpret all of these as being related to shamanism seems not convincing.

I also concur with Günther’s critique that advocates of shamanic interpretations have mainly focused on the trance journey and rarely been interested in the question of *why* shamans would have created such images (Günther 2009: 23; 2013: 139).²⁸ Yet it is this question of *why*, rather than *by whom*, these images were created that is of critical importance here. This has also been my primary motivation in pursuing this study. I moreover assert that shamanism as an explanatory model cannot provide the tools for answering this question adequately. Rather, as Jacobson (1993: 46) has put it, “[s]hamanism is a way of saying that we are unable to recapture the early, primitive belief in a journey to the land of the dead and in life in the hereafter. The modern perspective has erected “shamanism” as a barrier between “us” and “them”, a sign of unity between humans and the natural world which can be known only by primitive societies”.

The two fundamental reasons for why archaeological interpretations having become so fixated upon the gestalt of the shaman are, in Günther’s (2009: 24) view, the success of Eliade’s (1964) renowned work on shamanism, as well as the confident attitude towards the applicability of Siberian accounts on shamans in the study of peoples that are far removed not only geographically but also temporally. To these one could add the so-called neuropsychological model (Lewis-Williams & Dowson 1988), which has been applied in numerous contexts (see e.g. Lewis-Williams 2002; Lewis-Williams & Pearce 2005) and which has had a notable impact espe-

²⁸ Even though Wallis (2013a: 22) has argued that a recent trend among archaeologists has been to shift the focus from the shaman’s trance to the purpose of this trance, it seems to me that the change is actually better understandable as a shift from shamanism to animism rather than a development of the shamanism model itself.

cially in the field of rock art research (e.g. Lahelma 2008a: 13–14; Wallis 2013b: 311–313; for criticism, see for example Bahn 2001; McCall 2007; Janik 2015). Although animistic explanations have gained popularity among scholars in recent years, it is still fair to say that during the past three decades shamanism has been the single most important model for interpreting prehistoric religion and art.

The antiquity of shamanistic practices has been hotly debated by scholars (see e.g. Price 2001; 2010; Rozwadowski 2008; Whitley 2014: 1235–1236). Whereas some have regarded shamanism as a primeval religion, others have argued that the phenomenon is significantly more recent. Without going into finer detail, it seems that there is rather credible evidence to suggest that shamanism, as we know it, was practised in southern China in the later 1st century calBC, and in Central Asia in the middle of the 1st millennium AD (Jacobson 1993: 205–206; Rozwadowski 2008: 106–107). In Europe, the first written accounts that seem to describe shamanic practices date back to the 12th century AD (DuBois 2009: 13). However, according to Jacobson (1993: 46), there is no evidence whatsoever from southern Siberia to indicate the presence of shamanism prior to the Turkic period. Rozwadowski (2008: 112) likewise states that “classic Siberian shamanism” – including the use of drums – “was a late rather than a truly archaic phenomenon”. However, on the basis of Altaic rock art, he goes on to argue that “shamanic elements” seem to have emerged as early as in the third or second millennium calBC; “found among and potentially originating in pastoralist, metal-using cultures” (Rozwadowski 2008: 115). As Jacobson (1993: 45) has suggested, a prerequisite for a shamanic system is that spiritual control lies in the hands of a small segment of the society, which in turn necessitates “that the society had evolved to the point where access to spiritual powers was indirect, and had to be facilitated through a small and select group.” Overall, I therefore remain sceptical about interpreting prehistoric hunter-gatherer societies in Northern Europe as shamanic.

The relatively late age of indisputable evidence for shamanism has, however, not restricted scholars from searching for such clues among different kinds of archaeological finds. Ap-

parently due to “its visibility and theatricality”, shamanism has become the common explanation for archaeological material – even if the age of the institution of shamanism itself is largely unknown and evidence of “modern” shamanism are conspicuous by their absence (Jacobson 1993: 206–207). I completely agree with Jacobson (1993: 46) that “mask-like petroglyphs, mirrors, animal images, and sacrificed horses do not make shamanism, or at least not shamanism as we know it. The challenge facing the scholar who should use ethnography to tease out the meaning of images from South Siberian prehistory is allowing the possibility that shamanism as we know it may only be a late expression of a tradition which at that time had a vastly different form”. Jacobson (1993: 204) states that anomalous burials, for example, cannot be automatically understood as shaman’s graves, nor can depictions of horned anthropomorphs in rock art be confidently regarded as shamans (see also Günther 2009: 25).²⁹ Indeed, I concur with Jacobson that the actual archaeological evidence of shamanism is dubious, to say the least.

It is also certainly justified to ask, as Günther (2009: 26) does, why “shamanic” traits are so rare in northern rock art if the images really were associated with shamanism. Even more bewildering is that the alleged shamanic rock art, with its focus on animal figures, seems to have ceased by the emergence of the Bronze Age (Günther 2010: 109–110).³⁰ This surely casts doubt on the supposed antiquity and long continuity of shamanism as documented in historical times. Moreover, it is important to bear in mind that shamanism most certainly did not emerge all of a sudden, but slowly developed over the course of centuries, during which it likely went through various modifications (Jacobson 1993: 208; Janik 2015: 139).

²⁹ There are numerous examples that could be cited here. As regards burials, for instance, inhumations with plentiful grave goods at the YOO cemetery have often been comprehended as shaman graves (see e.g. Aldhouse-Green & Aldhouse-Green 2005: 73–74). Likewise, in the Finnish rock art, for example, “horned” anthropomorphs have generally been understood as depictions of shamans (Autio 1995: 13). Yet, as Jacobson (1993: 204–205) implicitly points out, such unfounded readings are essentially based on the naïve thought that features that we today associate with shamanism would have remained unchanged for millennia.

³⁰ Tilley (1991: 129), however, argues that the end of the northern rock art tradition is represented by a shift from totemism to shamanism.

In this context it is also worth mentioning the notion put forth by Janik (2015: 139, 145) that since rock art depictions predate the first concrete evidence of shamanism by several millennia, these may well have played a significant role in the evolution of shamanic practices. In other words, instead of being reflections of ancient shamanic activities, the rock art depictions may themselves have influenced later generations to include some of their content in their shamanic practices. Even if such a development is hard to verify by any means, I nevertheless think that it is an important viewpoint, for there can hardly be any doubt that the northern petroglyphs were observed by numerous generations after their initial production.

To sum up, there are evident difficulties in interpreting northern hunter-gatherer rock art as shamanic, not only because of its considerable age, but also due to its imagery, which for the most part does not point to a shamanic belief system. The same pertains to prehistoric hunter-gatherer art in Northern Europe in general. As a matter of fact, some scholars, who have previously advocated shamanic readings of rock art evidence, have in recent years started to shift their interpretations towards an animistic reading instead (e.g. Lahelma 2019: 225). To me, this development seems a positive one, drawing attention away from the alleged role of religious specialists, and towards prehistoric peoples and their art more generally (cf. Fowler 2004: 78–79). It also encourages scholarship to take a more nuanced attitude towards the dominance of elks in the hunter-gatherer rock art in prehistoric Northern Europe.

2.1.4 Animism

As Willerslev (2007: 2) recounts, the concept of animism was coined by Tylor as early as 1871 and represents one of the oldest theories in anthropology, although the term is hardly used by anthropologists today. The reason for this, Willerslev (2007: 2–3, 8) argues, is because of its deviation from modern western thought, according to which humans and animals (or inanimate beings) cannot actually be compared, and also because the term “animism” has been used rather freely over the years. Another explanation is the initial evolutionary connotation of the

concept, because as Fuglestedt (2010: 24) notes, for Tylor, animism represented a primordial religion that formed a basis for all later religions. Understandably, such a reductionist view has not gained popularity among modern scholars (see also discussion in Insoll 2011: 1004–1005; for Tylor and animism, see Segal 2013).

However, archaeology has, in the recent decades, seen a resurgence of the concept of animism in more refined forms. Today, advocates of animism emphasize the role of animals as “social persons”, with whom humans must maintain good relations through ritual activities in order to be able to hunt them (see e.g. Fuglestedt 2010: 25; Hill 2013: 120–122; Wallis 2013a: 22; Boyd 2017: 302–303; Günther 2022: 33–34). Modern scholars seem to agree that animism cannot be used for describing a specific type of religion, stressing instead the manifold and dynamic aspects of animistic beliefs (see Insoll 2011: 1005). Yet, animistic activities can never be unequivocally identified in archaeological contexts. This is because animistic beliefs are more or less omnipresent, implying that all kinds of material, as well as other natural phenomena, are potentially “animistic” (Insoll 2011: 1005–1006). In this study, I take Insoll’s position in that if the term “animism” is to be used in the first place, it is more appropriate to speak of “animistic” qualities than to use “animism” as a general concept.³¹

In a nutshell, animism refers to a belief system, according to which everything in the universe has a soul (see e.g. Brück 1999: 319). To put it differently, animism represents the view that human qualities, such as emotions and intelligence, are not restricted to humans but are also present in animals, objects, and spirits (Willerslev 2007: 2). Thus, “the basic principle of animism is the transfer of properties from one being to another” (Melheim & Ling 2017: 64). As Brightman (1993: 159) notes, North American Indians commonly attribute specific human characteristics to various animals. For example, animals are regarded as capable of thinking and speaking, having emotions, and encompassing a soul, and they are believed to live and reside in the manner of human beings. It is moreover a common conception that humans and animals

³¹ In this study, “animistic” and “animic” are used as synonyms. I am, however, aware of that some scholars such as Bird-David (2006: 47) make a distinction between the two terms.

were even more alike in primordial times, and that animals eventually lost many of their human capabilities over the course of time (see Brightman 1993: 159–160, 176–177, including references; Whitley 2014: 1222–1223; Goldhahn 2019: 65).³² In brief, (game) animals are commonly seen as persons, with whom one can have personal relations (Tanner 1979: 130, 136–140; see also Ingold 2000: 90–92). Such ideas are not only found among North American indigenous peoples but seem instead to be more or less universal and potentially of considerable antiquity.

“Animists” believe that, in order to communicate with animals, the normal boundaries between humans and animals must be overcome. Thus, a human being must alienate himself from his ordinary point of view and instead adopt that of an animal (Ingold 2000: 114). As both Ingold (2000: 123) and Willerslev (2007: 89–94; 2013a: 149) have noted, this can be dangerous, for the human may lose his human character and actually turn into an animal permanently. The crossing of the human-animal boundaries is therefore often carried out by shamans, who are thought to be the most qualified to carry out this task in a controlled manner (Ingold 2000: 114, 123; Wallis 2013a: 22). However, ordinary hunters in animist societies may likewise participate in overcoming these boundaries during hunting, as part of mimetic practices (see below). The common use of masks, for instance, is understandable in this light. As Ingold (2000: 122–126) stresses, instead of being disguises that would camouflage the hunter, circumpolar peoples use masks with the aim of getting an animal to reveal its “true” face to the hunter (see also Conneller 2004: 50).

The understanding of humans being capable of interacting with animals is closely associated with the concept of “perspectivism”. To put it simply, this concept considers that all beings in the world perceive reality from their own distinct perspectives, but which are nevertheless “humanlike” in essence (Viveiros de Castro 1998: 469–470). In other words, as Goldhahn (2019: 66) points out, “[b]y shifting costume,

humans can...perceive other humans as animals and animals as humans, which also admit them to intra-act with other-than-human beings. And *vice versa*, when other-than-human beings take on human clothing they can intra-act with humans...Whether you see one or the other depends on your perspectivism” (see also Ingold 2000: 94; Willerslev 2013c: 278, 282).

While the notion of perspectivism was originally coined to describe the conceptions of Amerindian peoples, Willerslev (2007: 87, 110) argues that it similarly encapsulates the Yukaghir conception of the world, which entails the absorbing of different points of views (see, however, Hamayon 2013: 289). Moreover, the term has been adopted by various disciplines and in relation to various cultures, both past and present (see Halbmayer 2012: 9).³³ Recently, perspectivism has also been proposed as a means to explain various archaeological manifestations in Northern Europe (see e.g. Herva & Lahelma 2019: 72, 74; Lahelma 2019: 228).

Despite the belief in all beings encompassing a soul, animist people may still make distinctions between beings that are more alive or conscious than others. An important observation made by Ingold (1986: 247, cited in Willerslev 2007: 74) is that among northern hunters, animals are indeed personified, but not to the same degree as humans. While humans are considered as unique individuals, animals are thought more of as representations of their species (cf. Paulson 1968: 454). Thus, while an elk encountered by a hunter can be regarded as a conscious being with individual (emotional as well as physical) traits, at the same time it may also be perceived namely as an *elk*, exhibiting the behaviour that is characteristic of elks in general.

Willerslev (2007: 8, 21, 75, 116–117) has made the observation that “animistic” beliefs are not necessarily continuously present in a society, but may only be epitomized on certain occasions, such as during hunting. The Yukaghirs, for instance, definitely distinguish between humans and animals (or things) in their “everyday” life, even if animistic beliefs are clearly present in

³² The Cree, for instance, claim that humans acquired many of their cultural traits, such as language, fire and tools, namely from animals (Scott 2013: 163). In addition, animals are commonly referred to, for instance, as “grandmothers” or “grandfathers” (Brightman 1993: 187).

³³ Perspectivism can, for instance, be applied to describe human-animal relations among the Cree (cf. Tanner 1979: 136–140; see Viveiros de Castro 1998: 471, footnote 3), whose beliefs and practices I refer to in this chapter.

certain contexts.³⁴ Consequently, Willerslev (2007: 9–11) is of the opinion that animism should first and foremost be comprehended as a practice rather than as a philosophy (see, however, Willerslev 2013c: 276, 282–283). In particular, he argues that animism is expressed through mimesis, that is, by imitating or mimicking something in the world in order to acquire the power of the subject that is mirrored.³⁵ For instance, when a Yukaghir hunter wants to take control of an elk, he imitates its movements and thus becomes similar to the elk. It is important to note that such imitations, aimed at taking control of an animal, are understood by Willerslev (2007: 125–126) as “shamanic practices”, although I do not regard them as such.

According to Willerslev (2007: 24), a “fundamental animist principle...is one of *analogous identification*”. By this he means that – contrary to the view of Ingold (2000: 169) – even in animistic societies, people are always self-reflexive and self-aware, notwithstanding the inseparability of the self and the world (cf. Scott 2013: 161). This implies an ambiguous perception of the world, in which people are simultaneously similar and dissimilar to the world. Everything in the world can be transformed into something else, instead of preserving a fixed role. In practice, such an outlook means that the self is at the same time material and immaterial, human and animal, hunter and prey, and the like. The essential means by which this is epitomized in animist societies is through mimetic practice, which allows individuals to relate themselves to other beings in the world while at the same time self-reflexively separating themselves from them (Willerslev 2007: 25–26, 188–191; see also Hamayon 2013: 287). For example, a Yukaghir hunter is at the same time a hunter and the animal he is about to kill, and he must constantly balance between the two roles. If his role as a hunter becomes exposed, he will not succeed in hunting, but neither will he succeed if his mime-

sis causes him to forget his role as a hunter (Willerslev 2007: 95–99, 105).

In his commendable overview, Willerslev (2007: 13–26) shows how anthropologists have from the beginning referred to animism as an erroneous reading of the world, found among “primitive” peoples. The central point that Willerslev makes is that dichotomies or dualisms familiar to western thinking do not exist in indigenous cultures. Instead, the animistic worldview entails the diffusing of clear dichotomies, such as between body and soul, mind and world, material and immaterial, dead and living, human and animal, the actual and the metaphor, and so on. Instead of advocating for such firm oppositions, Willerslev (2007: 12–13) argues that animistic thinking is by nature fundamentally different; represented by liminality and adaptable boundaries that do not prevent people, animals, and spirits from taking several roles simultaneously.

No wonder, then, that western anthropology rooted in Cartesian philosophy has met with severe difficulties when trying to understand animistic belief from its own perspective, which is largely regarded as superior to, and exclusive of, other ways of comprehending the world (Willerslev 2007: 12–13; see also Wallis 2013b: 313–316). Willerslev argues that as long as anthropologists do not “take animism seriously” (i.e. allow for the fact that indigenous peoples themselves have a firm belief that animals are truly like persons and that spirits and souls are actually real, and not the kind of abstracted metaphors that western scholars regularly wish to interpret them as), they will not be able to adequately understand how the world works according to animistic peoples (Willerslev 2007: 180–186; 2013c: 279–280; see also Ingold 2000: 89–110; Wallis 2013b: 323).

I find the aforementioned notions essential for the study of hunter-gatherer societies, and I also take a positive stand concerning the usefulness of these ideas in the study of prehistoric foraging groups and their material culture. For instance, early expressions of art often seem to differ, in one way or another, from the factual animals which they represent. In the light of the said understanding, it can be argued that such representations are not “lifelike” for a reason, as their function was not necessarily to be fully analogous to living beings in the first place.

³⁴ For instance, even if the Yukaghirs perceive elks as seducible females (Willerslev 2007: 74–76), I am inclined to believe that the hunters are at the same time definitely aware of that elk individuals in reality represent both sexes (cf. section 8.1.5).

³⁵ The concept of mimesis was coined by Frazer (1922), who utilized the term in his idea of sympathetic magic (see Willerslev 2007: 10). This, too, shows how the “animistic” and “hunting magic” models of interpretation broadly overlap.

Similarly, there can be no doubt that hunting – especially of large solitary species such as the elk – has always required insights into the animal’s behaviour for the hunt to be successful. The mimetic practice as witnessed among the Yukaghirs serves this function. It is above all understandable as a method of trying to “think” like an elk with the intention of understanding its behaviour. I can see no reason why such a method could not have been practised similarly already in prehistoric times by northern hunter-gatherers, whose survival strongly depended on successfully hunting elk. In fact, Willerslev himself (2007: 191) proposes that “mimesis is and must be a prerequisite for animistic symbolic world making”, and it is consequently mimetic practice that constitutes the basis (and perhaps also the origin) of animism.

2.1.5 The (in)adequacy of earlier theories

Of the different theories presented above, I find the “animist” model to hold the largest potential for illuminating the elk’s wide-ranging significance in prehistoric hunter-gatherer societies. On the whole, as a label, it appears to be more suitable, when used of prehistoric hunter-gatherers, than hunting magic, shamanism or totemism. This is because it manages better to encapsulate the nuanced human-animal relationship in general terms without focusing too heavily on “magic” activities, “religious” specialists or on ancestral power, respectively. Above all, despite its inevitable shortcomings, the “animist” model best takes into account the inseparability of religion and economy, as well as the absence of any other comparable dichotomies in hunter-gatherer societies.

Although unequivocal archaeological evidence of animism is lacking, the understanding that all things encompass a soul is so widely documented among northern hunters that it is justified to assume that a similar belief existed already in prehistoric times (cf. Siikala 1981: 87). That is, however, not to say that I regard animism as the optimal way of approaching prehistoric beliefs, activities, and art, or that I would find other theories worthless. I concur with Insoll (2011: 1010, 1014) that totemistic and

shamanic explanations may in certain contexts be equally meaningful. For instance, I do not find it inconceivable that prehistoric people would on certain occasions have reached “altered states of consciousness” or consulted “religious specialists”. Nor do I claim that ancestors could not have been celebrated figures within past societies. Yet, generally speaking, the evidence is far from satisfactory for labelling prehistoric hunter-gatherers as “shamanic” or “totemistic”. Even if certain elements commonly connected to these designations probably had counterparts in prehistory, I contend that prehistoric ways of life and cultural manifestations cannot be adequately explained by shamanism or totemism as we know them from ethnographically-documented accounts.

I am especially critical towards shamanism as an explanatory model because of its overt focus on religious specialists (cf. Fowler 2004: 78). Ethnographic examples show that, even if shamans existed within a society, individual hunters may still have undertaken the majority of ritual actions. On the other hand, this is not to say that all members of the group would have been considered as equally efficient in ritual activities. Rather, it seems to be the case that experienced hunters were in general highly respected individuals within a society and were also ascribed with spiritual power (cf. Whitley 2014: 1222–1224; Günther 2022: 31). Tanner (1979: 110–111) writes about the Mistassini Cree:

...in hunting magic there is no sharp division between specialists and others; the important factors which characterize the most active users of magic and divination are age, past hunting ability, and leadership in a hunting group. These kinds of prestigious individuals are the ones who have some control over the sacred material...rather than a sharp division between specialists, who employ hunting magic and divination, and non-specialists, who do not, there is a range both in the level of activity between individuals, and in the amount of skill or power which an individual is recognized as having.

Of particular interest is Tanner’s (1979: 134–135, 151) notion that the experience and skill of old individuals may be highly appreciated, even though they would no longer be actively involved in the actual hunting process. Furthermore, the

profound understanding of animals and the environment that the oldest men in the Cree society possess is synonymous to having spiritual power. The old individuals give advice to middle-aged men and, even if the latter partake in hunting much more actively than their elders, their success is thus at least partly accredited to the former. Equally, young unmarried men are of even lower status, not because of their physical capabilities in hunting but because of their general inexperience in this process compared to older individuals. Thus, practical and spiritual knowledge go hand in hand, and high social status is not acquired simply through high material productivity but by long experience, which involves not only insightful knowledge but spiritual power as well (Tanner 1979: 134–135, 139). In short, “old men have, by their past hunting activities, established permanent positive relations with animals, and this gives them divinatory and magical power to bring success to others in the group” (Tanner 1979: 177).³⁶

Correspondingly, Willerslev (2007: 133) argues that the more experienced a Yukaghir hunter becomes over time, the more he bears resemblance to an *a'lma* [family shaman] pertaining to “social status, skills and spiritual powers”, and “the two become almost indistinguishable” (cf. Hamayon 2013: 289–290). However, as must have become clear by now, I do not consider the Yukaghir or Cree hunters as shamans, nor do I regard their societies as “shamanic”. Instead, utilizing the established designations at hand, the most appropriate way of understanding the Cree and the Yukaghir conceptions is to perceive these as animistic. Yet, just as is the case with shamanism, the actual usefulness of this deeply problematical concept remains questionable (Insoll 2011: 1005).

Indeed, I recognize that there is a true risk of animism becoming exoticized and romanticized into a kind of religion that could be uncritically applied to hunter-gatherers universally (cf. Günther 2022: 32). After all, animism is not synonymous with traditional ecological knowledge or indigenous ecological knowledge in hunter-gatherer societies (see Günther 2022: 34–35 and cited references). Other designations

have been proposed by scholars for describing “animist” worldviews: Hill (2013: 120), for instance, speaks of “relational ontologies” when she refers to such outlooks within hunter-gatherer populations. In this study, however, I will for the sake of clarity speak of “animistic” beliefs, even though I do not assert that such beliefs would have been universally shared by prehistoric elk hunters in Northern Europe.

Gaining luck in hunting must always have been of vital importance for prehistoric elk hunters. In seeking to understand them, the hunting magic concept is thus not without value, although this model has not been particularly fashionable among modern academics. However, to use this explanation as a general theory by which to explain all elk-related material is not convincing (cf. Herva & Ikäheimo 2002: 100). Indeed, this material is so varied that it is highly questionable whether it is at all possible to elucidate it by means of a single theory. Meanwhile, I neither think that this should be seen as an end in itself. Rather, I concur with Jordan that “we don’t need to find general *answers* like ‘shamanism’ or ‘animism’...we require ways of understanding the relationships between the constitution of lives as lived, and the expression of a shared cosmological knowledge through repeated ritualized actions...” (Jordan 2008: 241). He moreover continues that “[r]esearch into the archaeology of the northern mind needs to move beyond the narrow quest to identify evidence for shamanism or animism, and should aim to develop greater understanding of how a worldview predicated on the ability to make direct ‘ecstatic’ contact with the spirit world is made possible through broader routines of inter-generational practice” (Jordan 2008: 243).

To be sure, sometimes scholars seem to have been so fixated on interpreting prehistoric art and beliefs in the light of a chosen theory (such as hunting luck, shamanism, totemism or alike) that the mere possibility that a different explanation could exist tends to be neglected automatically. Fuglestedt (2010: 24), for instance, more or less explicitly seems to assume that “Stone Age people all over the world could initially be categorized as either animic or totemic societies, or both”. In a somewhat similar manner, Lahelma (2008a: 63, fig. 35) has offered a simplistic scheme for understanding Finnish rock art in

³⁶ At times, a particular “animal friendship” is thought to exist between a certain species of animal and a hunter, who has been especially skilful in hunting these animals (Tanner 1979: 139–140; see also Scott 2013: 163). I will deliberate further on this topic later in this study.

which he “proves” the validity of shamanic and ethnographic interpretations as opposed to hunting magic and totemism – as if these were the only alternatives to choose from.³⁷

Elk-shaped artefacts, for instance, can easily be used for exemplifying almost any of these common theories, but it is equally possible that the majority of such artefacts never possessed any deeper meaning but were only of trivial importance for their makers (Herva & Ikäheimo 2002: 105). The same certainly pertains to the myriad of elk figures in northern rock art, the majority of which are found at small sites consisting only of a few figures. Understanding all northern hunter-gatherer petroglyphs within the frames of a single interpretation seems a dead end also because of the evident variation between individual rock art sites. For example, even though the elk is the most frequently depicted animal in northern hunter-gatherer rock art on the whole, its role varies greatly between different locations. At Lake Onega, for instance, depictions of waterfowl are the most prevalent, while reindeer figures outnumber elk depictions in Alta and beluga whales are plentiful at Vyg (see e.g. Gjerde 2018: 213). It therefore follows that the elks depicted at these locations clearly did not have the same role as, for instance, at Nämforsen, where almost all animal depictions represent elks (cf. Goldhahn 2018: 58–59).

Interpreting the most prevalent animals featuring in rock art at different sites as the shaman’s spirit-helpers or as totemic attributes is of course possible, but rather far-fetched. A more probable starting point for interpretation is that these animals reflect such species as were considered important locally, and whose interminable existence was essential for the people living in these areas. That is not to say that such figures did not simultaneously encompass deeper levels of meaning, but it seems likely that the reason why these animals were depicted in the first place was because people were dependant on those species. However, I do not claim that the species would necessarily have had importance throughout the year. Rather, the seasons during which certain species were hunted could be

considerably short, lasting only some days or weeks. Yet, these *were* important and desired resources every year.³⁸

Overall, the elk’s predominant role in rock art clearly indicates that prehistoric hunter-gatherers had a special relationship to this animal despite some local variances (cf. Coles 1991: 135). Here, too, I contend that the basic explanation is to be found in the extraordinary economic importance of this animal (see also Ramqvist 1992: 32; 2002a: 88). While Sjöstrand (2011: 17) takes distance from and criticizes the prevailing, sometimes implicit, assumption that it was the elk’s economic significance that gave rise to the animal’s role in cosmology (and accordingly in art as well), my stance is more positive towards interpreting the economic background as a basis for the elk’s additional roles (cf. Mikkelsen 1977: 194–197; Glørstad 2010: 216, 228). In addition, I strongly disagree with Sjöstrand’s (2011: 19) statement that if one takes the elk’s economic role as the basis for drawing one’s interpretation, then it inevitably follows that all material manifestations related to the elk must be seen strictly in this light. Certainly, this need not to be the case.

In the end, there are no ways of ascertaining the worldviews of prehistoric elk-hunters, and we can only put forward more and less probable “guesstimates” as to their possible nature. Even though the “animism” model seems to offer the best framework for taking human-animal relations into consideration comprehensively, it cannot be considered a one-size-fits-all explanation for prehistoric elk hunters, their beliefs, actions, and art. All of the four theories discussed above contain aspects that are potentially useful, and I will hence not exclude any of these theories when searching for answers to the questions that abound concerning the elk’s multifaceted role in the past.

2.2 Human-animal relations in hunter-gatherer societies

One of the basic premises in this study is that prehistoric elk hunters in Northern Europe had a

³⁷ Moreover, even if Lahelma (2008a: 62) acknowledges that totemism is not limited to its common Durkheimian definition, he does not take account of these other views in his study, and the same basically goes for his understanding of the “hunting magic” hypothesis.

³⁸ As Tanner (1979: 135) has stressed, for example, “the arrival of natural events, which signal the arrival of the time when certain animals can be hunted with minimum effort and maximum chance of success, are treated, by divination rites, as social events”.

profound understanding of this animal, which in turn set the foundations for their various activities and beliefs related to the elk. Such a supposition is easily understandable. Indeed, it is often considered self-evident that hunter-gatherers, whose lives have been dependent on the regeneration of certain plant and animal species, have in general had “an extremely close and intimate knowledge” of the local resources and of the landscape in which these occur (Ingold 2000: 111).

As a rule, perceptions of animals among indigenous hunter-gatherer populations are not purely “mythical” or “practical” but tend to encompass elements of both aspects. For instance, Willerslev (2007: 75) stresses that the Yukaghir conceptions regarding the elk are not merely imaginary but rooted in empirical observations regarding the elk’s natural behaviour. Obviously, prehistoric elk hunters must similarly have been highly aware of the elk’s ethology. Thus, not only does it seem evident that the comprehensions made regarding the elk’s behaviour were utilized in hunting, but most probably the mythological conceptions of the elk were equally grounded in these observations (cf. Günther 2013: 139).

As Günther (2010: 101) and Hill (2013: 120–121), for instance, have stressed, conceptions of a mutual relationship between animals and humans are widespread among hunter-gatherers universally, and there is reason to believe that such perceptions may be considerably old. Even though archaeological research has traditionally not left much room for such outlooks, it is important to recognize that the belief in a close connection between humans and animals has most probably been of essential significance not only in the hunt and the treatment of carcasses but also in art (Günther 2010: 101; Hill 2013: 117–119).

A characteristic feature in human-animal relationships amongst ethnographically documented hunter-gatherer populations in general is the belief that people can manipulate animals by means of their actions. As for instance Äikäs et al. (2009: 119) have pointed out, this all-embracing attitude towards animals and the environment is just as much reflected in what could be called “religious” thinking as it is in the outwardly “practical” actions related to

subsistence strategies (cf. the mimetic practice discussed above). The two aspects are far from separable, and not only discernible in the actual hunting process but likewise in the various pre- and post-kill activities carried out by hunter-gatherers. In fact, the role of ritual beliefs and activities during the actual kill is often rather insignificant compared to the variety of pre- and post-kill actions. According to Tanner (1979: 148), this may be explained by the fact that whereas the latter are more or less communal, the actual killing is usually carried out individually.

As Tanner (1979: 90) notes, “hunting rites” among the Mistassini Cree can be classified into three groups: 1) divination rites aimed at gathering information for hunting; 2) acts of hunting magic performed when game animals are encountered; and 3) appropriate actions taken towards the remains of game animals after they have been killed. This tripartite scheme is moreover seen as a sequential cycle, in which all killed animals take part (Tanner 1979: 109; see also Fuglestedt 2018: 117–118). For the hunters, all three stages seem to have been highly essential. Tanner comprehends the divination rites as a means of “gathering information about the hidden state of affairs existing between men and game animals, a state of affairs which becomes fully revealed, and may be controlled, during the actual hunt” (Tanner 1979: 109–110). Divinatory rites were, in other words, conducted in order to affect the outcome of a hunt, and among the Cree there existed “a belief that wishes are themselves sources of power in bringing about the desired outcome” (Tanner 1979: 116). As Tanner (1979: 133) points out, the information gathering about game animals’ movements that always precedes the hunting process may start some days, weeks or even years before the actual kill.

An important aspect is that while the animal in the divination phase is seen as being superior in relation to the hunter, in the actual hunting process the two are considered as equal “persons”. In the post-kill rituals, in turn, the hunter is obliged to show respect towards the animal by obeying various rules and customs as regards the treatment of the carcass (Tanner 1979: 153, 173; see also Martin 1978: 79). As Günther (2009: 27–28) has pointed out, hunting rituals are thus not

synonymous with achieving control or power over animals by means of magical efforts – even if scholars have often tended to see them in this way. Instead, animal ceremonial rites become understandable only if the animals are seen as active agents and not as mere controllable objects in the reciprocal process of hunting (Günther 2009: 27; see also Martin 1978: 115–117).

The notion of respect is for the Cree, as Scott (2013: 162) puts it, “the ethical standard for all relationship, with direct entailments for practical knowledge in managing livelihood in the world”. He continues that

[r]espect, accordingly, has a plethora of meanings and practical applications. There is respect for animal masters, sacred condensations of esteemed partnership in the life-giving reciprocities of hunting and consuming. There is respect for the autonomy and intentionality of the animal, including its capacity to evade or bestow itself upon hunters. It is disrespectful to state with certainty a definite future outcome based on one’s own plans and intentions, because what happens will be the product of multiple actor’s intentions and choices; indeed such a statement is regarded as a kind of “lie” that invites punitive reaction on the part of the animal or other persons of the world. The animal is always a gift, and respected as such; for no matter how impeccably a hunter may prepare and execute a hunt, success will not occur without the animal’s cooperation.

In general, “animistic” views of animals as persons are first and foremost associated with hunter-gatherer populations, whereas pastoralists or agriculturalists tend to perceive animals in a different light (see Hill 2013: 120 and cited literature). Yet, it goes without saying that not all individuals in prehistoric hunter-gatherer groups engaged with animals in the same way. As Hill (2013: 120) rightly reminds us, in addition to regional differences, it is most likely that, in the past, there were notable variations in how individuals of different sex, age and status related to animals within a given society. That said, there are some recurring characteristics among elk-hunting societies in general that I believe are of considerable antiquity. I will therefore in the next section look more closely at some recurrent conceptions associated with the process of hunting.

2.2.1 Native conceptions related to hunting

A basic conception among several indigenous hunter populations is that prey animals are amenable in the hunting process, and that the hunters’ actions have a large impact on the success of hunting (see e.g. Günther 2009: 27; 2013: 149 and cited literature). The Cree, for instance, believe that “rational decisions” are made not only by human sorcerers but by the prey animals themselves, their game rulers (master spirits) and the dream guardian.³⁹ These all have an effect on the number of animals in the landscape, as well as on their approachability (Brightman 1993: 186; Scott 2013: 163). In this sense, notions of coincidental or accidental occurrences are uncommon, and all actions are instead basically believed to be caused by someone’s will. “In the case of hunting”, Brightman (1993: 186–187) writes, “the will is typically that of an animal or another being with control over animals”. The reason why an animal is ready to give its life to the hunter is because the animal’s soul will be reborn, and death is thus not something for the animal to be afraid of.

Highly similar perceptions have been observed, for example, by Jordan (2003: 106–107) among the Khanty, and by Willerslev (2007: 34–35) among the Yukaghirs (see also Hamayon 2013: 286). In the Yukaghir society, hunters consider the killing of animals as a necessity for their regeneration. This is because animals, it is believed, would not be reproduced if hunters would not kill them and thereby “release” their souls. The Yukaghirs moreover believe that an obligation of sharing meat is not restricted to humans, but that the animal spirits, too, have an unconditional responsibility to act as “parents” and provide game animals to humans. Contrary to what one would initially assume, the Yukaghir hunters do therefore not thank the animal spirits after successful hunts, even if they are preoccupied with conducting various rituals before the hunt. In

³⁹ As Günther (2022: 36–37) stresses, it is often impossible to make a clear distinction between an animal and its master spirit, for instead of being personifications of the animals, the game rulers, and the animals they guard over, are not necessarily separable from one another but only epitomize different ontological dimensions of the animal species in question. Moreover, animals can for the same reason be simultaneously regarded as individual and collective, or spiritual and physical.

Willerslev's (2007: 43) view, this is namely because the hunters do not think that there is anything to give thanks for. Rather, it is a natural duty of the spirits to give the hunters what they need.

Importantly, however, the roles of the animal spirit as a donor and of the hunter as a receiver may switch under certain circumstances, implying that the spirit may demand the hunter that he must share his resources. This, in turn, can lead to the sickness or even to the death of a hunter. For this reason, the Yukaghirs have a highly ambivalent attitude towards the animal spirits, who can be "generous parents" on one hand but "selfish predators" on the other (Willerslev 2007: 45–47). Thus, as Willerslev stresses, the hunters are always uncertain as to whether the animals they kill have been sent as unconditional gifts, or as disguised tricks that may lead to bad luck. To avoid being punished for killing elks, the Yukaghirs have developed various strategies with the aim of scapegoating others for the killed animals. One such procedure is that, as soon as an elk has been killed, a wooden figure is carved and painted with the elk's blood and left at the kill site. It is said that this figure represents the "murderer" that the angry spirits will attack, thus enabling the hunters to butcher the killed animal and to transport it back to the campsite (Willerslev 2013a: 153). Another Yukaghir response is to rely on a concept known as *pákostit*, that is, "to play dirty tricks" (Willerslev 2007: 48):

*In short, the hunter seeks to induce in the animal master-spirits an illusion of lustful play. As a result, the spirits come to believe that what is going on is not a premeditated kill but a "love affair" with the hunter. After killing his prey, the hunter will cover up the fact that he was the one responsible for its death by blaming others for the violent slaughter. As a result, the hunter will not appear to have taken anything from the animal master spirits, at least not formally, and no sharing of relationship was therefore ever established between the two. This in turn rules out the spirit's right to demand the hunter's ayibii [soul]. In other words, *pákostit* involves the hunter seeking to maximize utility at the spirits' expense while avoiding the risk of falling into the position of potential donor.*

What is striking in the example above is its explicit sexual connotation. As a matter of fact,

Willerslev (2007: 102–104, 128) stresses that a trait that is often misunderstood by anthropologists is namely the willingness of animals "giving themselves up" for hunters (cf. Martin 1978: 115–116; Tanner 1979: 60, 136; Filtchenko 2011: 188–189; Hamayon 2013: 286–287). Instead of referring to killing, he argues that the indigenous hunters are in fact speaking of sexual willingness. Thus, even if the successful hunt results in the animal being killed, this is in fact not because of the animal's willingness. Instead, what the animal is actually willing of is the revealing of itself to the manipulative hunter out of sexual interest towards him, which eventually allows the hunter to kill the animal.

In fact, as has been pointed out by several scholars (see e.g. Willerslev 2007: 110; Russell 2012: 160; Herva & Lahelma 2019: 74), human-animal relations are more or less universally associated with sexual symbolism. This especially seems to hold for the relationship between the hunter and the prey. Willerslev (2007: 76; 2013a: 148) has more specifically paid attention to the fact that Yukaghir hunters perceive elks as "women, who 'give themselves up' to male hunters out of sexual desire for them".⁴⁰ Moreover, the hunting process is in general considered as an extensive procedure of sexual seduction, which is culminated in the hunter's mimicking of the elk. According to Willerslev (2007: 100–102), however, there are actually two interrelated hunts taking place. Besides the said physical hunt, the hunters will on the preceding evening also try to seduce the master spirit of the animal by offering various goods such as tobacco and alcohol upon a fire.

Hamayon (2013: 286–289) has made similar notions concerning sexual connotations among Siberian, especially Tungusic, societies, where all shamans have an animal master spirit as their female "spouse", and where the consumption of animals can be paralleled to a sexual act. Hamayon stresses that a prerequisite for having a relationship with an animal species is to communicate with its owner or master spirit, which is in control of all the individual animals of this species. To be able to hunt these animals, it is necessary for the members of the society to have a good relation

⁴⁰ As Günther (2022: 150 and cited references) notes, it is in fact not uncommon that cervids are regarded in feminine terms "within the context of big game hunting as a male occupation talked about in sexual metaphor".

to this master spirit. During a special ritual, the shaman “marries” this spirit, which is said to have the shape of a female elk (or reindeer), and which represents the entire animal species in question. It is namely because of the “matrimonial alliance” that exists between the shaman and this particular spirit that the former is able to obtain the luck that can be further passed on to the hunters in the group (Hamayon 2013: 287).

As Hamayon (2013: 289) points out, in this matrimonial alliance, the animal always represents the female party and the human the male. In the ritual, the shaman imitates a dominant male elk (or deer) during the mating season. However, it is important to note that the said actions are not restricted to a religious elite consisting of shamans. Indeed, everyone can be a shaman, and all boys in the society are moreover practicing the imitation of animal voices and gestures. The skills of “seducing” and “tricking” animals are of key importance here as well (Hamayon 2013: 289).

Just as in the above examples, the Cree, too, perceive hunting through a sexual framework, in which the (male) hunters succeed in pleasing the animals so that they are willing to let themselves to be killed. The animals in this process are seen as females, who ultimately regenerate human life (Brightman 1993: 131–132). Sexual relationships between men and women are considered analogous to the relationship between hunter and the prey, so that sex is metaphorically equated with hunting and animals with women (Tanner 1979: 138, Brightman 1993: 124–127). The animals may even be considered as the hunter’s lovers and the hunt is sometimes likened with a sexual or romantic “game” that both the hunter and the prey are enjoying (Tanner 1979: 138, 151; Brightman 1993: 194–196).

As Tanner puts forth, sexual connotations are not only discernible in myths, dreams, jokes and hunting terminology, but also in attitudes towards successful hunters, who return from their hunting trips to their camps and can then continue their ordinary life, including sexual relations and reproduction.⁴¹ This is also the case

with young men who have succeeded in their first kill, and who are henceforth regarded as “marriageable” members of the society (Tanner 1979: 178–180). Thus, as Tanner (1979: 180) stresses, completing the hunting cycle by proper post-kill behaviour not only assures the reproduction of animals, but also that of humans (cf. Hamayon 2013: 286; Scott 2013: 164).

Another topic of interest in this context is that, in the Cree society, there exists a “primordial antagonism between female fertility and animals and between female sexuality and the male-*pawakan* [spirit guardian] relationship but not between sexuality and hunting” (Brightman 1993: 127). For women – especially when menstruating – it is strictly forbidden to be in contact with hunting equipment or animal remains, because both encounters are believed to cause infertility and illness as well as bad luck in future hunting. It is, however, highly interesting to note that amongst the Cree, women are allowed to hunt elks and thus to encounter living elks, but not to be in contact with the remains of dead animals. Brightman (1993: 128) writes:

...the two metonymic series – killing-hunting-eating and menstruation-sex-conception-birth – are the constituents of a fundamental metaphor likening the provisioning of society to its reproduction. The explicit sex [women] and hunting [animals] likenesses in dreams and verbal polysemy are the patent expressions of this metaphor. Menstrual blood possesses multiple values in this scheme...Women biologically reproduce the human community, their ability to do so evidenced by the flow of blood that, however, in the event of conception, they begin to retain within their bodies. Human life is also visibly reproduced by killing and eating animals. Hunting and trapping are paradigmatically male occupations through which men enact a reproductive role complementing that of women. The animal blood spilled at kill sites and trap sets corresponds to menstrual blood, which is the precondition of female fertility. These series subsume the opposition between male life-taking (in war and hunting) and female life-giving (cf. Rosaldo and Atkinson 1975), because hunting and female fertility both create life...In both conception and hunting, human life is reproduced through the flow of blood, but in the second case, the reproducers are male, and the flow simultaneously

⁴¹ Sexual abstinence is a prerequisite for hunting in the Yukaghir society as well. According to Willerslev (2013a: 151–152), this is “partly because the hunter’s sexual attention should be directed toward the prey animal and its associated spiritual being, but also because sexual intercourse leaves an unmistakable human odour”.

entails the death of animals. This metaphor explains the seeming paradox that women in their reproductive aspect are verbally likened to the animals with whose remains their contact is interdicted.

In other words, as Brightman stresses, a woman may be involved in the transforming of a living animal into a dead one, but not in the transformation of the dead animal to a living. This is essentially because in the latter case the woman's fertility would be threatened. This ambivalence is in the same way epitomized in the conceptions linked to blood. Inside a woman's (or an animal's) body blood is considered a life-giving substance, but outside the body it is seen as poisonous and life-taking (Brightman 1993: 130–131).⁴² Similar taboos related to women and prey animals are widely spread in northern hunter-gatherer cultures (e.g. Siikala 1981: 94; Russell 2012: 161). Indeed, I am inclined to believe that these kinds of conceptions, ultimately related to reproduction, might be of significant antiquity. More generally, the above accounts also give reason to assume that for prehistoric elk hunters, the theme of reproduction must have been of key importance.

Eventually, the Cree perception concerning the relationship between the hunter and its prey is highly complicated. On one hand, it is comprehended within a framework of constant gift exchange. The animals will give themselves as prey for the love, interest, and pity that they feel for hunters, who in turn please the animals by conducting rituals in proper ways (Tanner 1979: 60, 136, 148; Brightman 1993: 187–188; Scott 2013: 163). If, on the contrary, rituals are not respected, the animals will not offer themselves for the humans (Tanner 1979: 106, 122). Importantly, the animal is also thought to benefit from being killed, because its soul is then believed to take part in feasts and be offered various gifts. In this way, the hunter and the prey both form active parts of a cycle in which they give life to each other. This perspective has been labelled as the "benefactive model". In addition to this ideology, however, Brightman (1993: 187–188) has also recognized an "adversarial model" that is more

exploitative and controlling in character and sometimes epitomized in Cree myths and conceptions. Similar opposed models among the Mistassini Cree are recognized by Tanner (1979: 148), who has named these as the *friendship* and the *coercion* approaches, respectively (see also Scott 2013: 162–163).

The two models are contradictory and "provide different solutions to the question of whether hunter or prey determines the outcomes of hunts" (Brightman 1993: 196; see also Tanner 1979: 148). There is also some overlapping between the models, and it seems that the Cree hunters do not strictly follow either one of the two ideologies but, in their actions, make use of them both. Brightman (1993: 199–200) speculates that the adversarial model, in which the prey is seen as an opponent that must be overcome, might have been more common during periods of food crises (see also Tanner 1979: 138–139). Ultimately, however, it seems that the two contrasting models have evolved partly because of the fluctuating character of animals, and partly because no single model has been sufficiently satisfactory to deal with the unsolvable paradox that the life of humans is dependent on the killing and eating of animals, which in turn are in many ways human-like in character (cf. Brightman 1993: 204, 286; see also Brandišauskas (2017: 246–249).

On the basis of myths, it has been argued that among North American Indians, animals were earlier seen in more antagonistic terms than in the ethnographic accounts obtained during the 19th and 20th centuries (see Brightman 1993: 193–194 and cited references). Yet, generally speaking, it seems that benefactive ideologies are more prevalent among "archaic economies" and I, too, find it probable that such perceptions were more common among prehistoric hunter-gatherers than conceptions centred on antagonism and exploitation, which are more familiar in Western thinking (Bourdieu 1977: 171–197; cited in Brightman 1993: 209–212; see also Martin 1978: 121).⁴³

⁴² As Günther (2022: 142 and cited references) points out, it is a widespread practice among Siberian and North American native hunters to cover up blood after a hunt or slaughter.

⁴³ As Martin (1978: 144–148) has noted, one feasible explanation for the adversarial attitudes toward wildlife that were documented among several Native tribes during the early Contact Period was the fact that many Indians in several ways suffered from unseen European-derived diseases. It seems that animals were widely blamed for these diseases, and the hostile approach towards the game animals was thus a revenge for their alleged conspiracy against humans (on American Indians and disease, see Martin 1978: 129–146).

Benefactive models that resemble the Cree model to a great degree have also been documented among Siberian peoples. The Vas Yugan Khanty, for instance, believe that the game animals they encounter are sent out by special master spirits, for whom the Khanty are “expected to address gifts and prayers” in return (Filtchenko 2011: 188). Moreover, the Khanty follow rules and customs that are related to certain places in the landscape, in which game animals abound and in which local spirits are thought to reside. Moving and hunting in such areas always requires offerings, and gifts are therefore often given to the local spirits as well as to the master spirits and to the elks themselves (Jordan 2008: 234–240; Filtchenko 2011: 188 and cited references). Similarly, Brandišauskas (2017: 244) notes with regard to the Orochen: “[B]y giving hunting luck, the master-spirit follows an ethic based on reciprocity, while hunters must be able to ‘catch’ the luck and prove themselves worthy of it. An Orochen hunter who establishes cooperation with a master-spirit as part of ‘awareness of such moral responsibilities’...may kill a type of animal for a certain period without risking her or his well-being. That hunter’s hunting luck is acquired...because of the generosity of a master-spirit, as well as through the hunter’s ability to ‘take an opportunity’ by successfully employing knowledge and skills in a contest with an individual animal”.

The moral paradox of hunting is, moreover, not unique to the Cree. Willerslev (2007: 75, 78–79), for instance, has observed highly similar attitudes towards killing among the Yukaghirs, who hunt elks, but at the same time regard these animals as most humanlike of all animals, and at times feel sorry and guilt for killing and eating them. He moreover points out that the “moral dilemma” is present in all hunting-related activities and the Yukaghirs therefore try to intentionally alienate themselves from elks. Likewise, among the Vas Yugan Khanty, rituals were carried out namely for two reasons: for securing luck in hunting and for diminishing any threat that the killed animals might cause (Filtchenko 2011: 184). As Paulson (1968: 453) has equally recounted, bone preservation rites in general “not only aim at future luck in hunting, but also wish to avert any danger that might threaten the hunter from other animals of the same species” (see also discussion in

Serpell 1986: 143–149). To be sure, among indigenous hunter-gatherer peoples overall, some form of compensation for the killed animals is a recurring characteristic, and the boreal forest zone makes no exception on this point.

As Herva and Lahelma (2019: 72–73), among others, have pointed out, a common feature among northern hunter populations is the so-called “animal ceremonialism, which entails the belief that if a killed animal is ritually sent to its ‘spirit-owner’ it will be reassembled and resurrected. Because there are a limited number of animal souls in the universe, the continuity of the hunted species crucially rests on the proper treatment of the cadaver by the hunters, often, for example, including the ritual burial of the bones that must all be present” (cf. Paulson 1968: 454–456; Günther 2009: 27).⁴⁴ Importantly, these kinds of ceremonial practices seem to have been first and foremost associated with large animals such as the elk and, especially, the bear, which are not gregarious species that could be hunted in large numbers (Hultkrantz 1975: 373; Siikala 1981: 92; 2013: 369; Herva & Lahelma 2019: 73). As Siikala (2013: 369) has emphasized, the practice of returning animal bones to the master of the animal species in order to assure the revival differs, however, from sacrificial rites, even though the two phenomena may outwardly appear largely similar. She has also, referring to Hultkrantz (1975: 374), noted that, at least in Siberia, sacrificial rites were initially preceded by hunting rites (Siikala 1981: 92).⁴⁵

I regard the notion of “animal ceremonialism” to be of utmost importance for understanding the elk’s extraordinary and multifaceted significance in prehistoric societies. Fundamentally, I argue that this practice of “compensating” for the killed animals was deeply rooted in

⁴⁴ As Tanner (1979: 124, 130, 132) rightly points out, animal bones seem to have encompassed a special meaning for indigenous hunters, for these are commonly manipulated not only in numerous post-kill activities, but also in various pre-kill rites, such as divination.

⁴⁵ Even if hunting in totemic societies has been regarded as a rather “mundane” action (Descola 1996: 95; cited in Ingold 2000: 113–114) – and might well appear as such when contrasted to hunting practised in animistic groups – I do seriously doubt whether such a description is completely correct. Even if the hunt and the proper treatment of killed animals is not a necessity for the generation of new life, as it is for animist peoples, I find it likely that hunting among totemic groups was nevertheless associated with ritual behaviour (cf. Tokarev 1966: 187–188).

a serious concern of the continuity of those species that were essential for the prehistoric hunter-gatherers (cf. Hultkrantz 1975: 372; Martin 1978: 35–39, 82; Hamayon 2013: 286). As I will point out, it seems probable that “animal ceremonialism” was moreover closely associated with refined strategies of hunting management, with the intention of ensuring the rebirth of the most vital animal species.

It has indeed been argued that the practice of ritually preserving the remains of killed animals is so widespread that it must be of considerable antiquity (Mills 1994: 20; cited in Günther 2013: 149). In particular, there are numerous examples of ethnographical accounts describing rituals that were connected to the killing of a bear and to the treatment of its remains in order for the animal to become reborn (see e.g. Jacobson 1993: 182–183; Herva & Lahelma 2019: 73 and cited references).⁴⁶ Similar practices have also been documented pertaining to the treatment of elk remains (see e.g. Paulson 1968: 451; Martin 1978: 36; Kulemzin 1984: 86–87; Grøn & Kuznetsov 2003: 220; Jordan 2008: 239; Filtchenko 2011: 185, 187), even if such accounts are not as common as those related to the bear (for a general overview on bone preservation rites among northern peoples, see Paulson 1968).

Having now discussed human-animal relations and common conceptions related to hunting among northern hunter-gatherers, there is one further dimension related to these topics that I wish to address. This is the subject of overhunting, and its peculiar connection to the respectful attitude of indigenous societies towards game animals.

2.2.2 Overhunting

The overkilling and mass slaughtering of animals constitutes a topic which, at least at first glance, seems to be in sharp contrast to the notions of communities displaying the utmost respect towards the animals they kill. Yet, among the Cree, for instance, overhunting of beaver, bison and caribou led to severe depletions in the 18th and 19th centuries (Brightman

1993: 254–257 and cited references). Importantly, as Brightman (1993: 245) notes, “there is evidence that Algonquian spiritual conceptions did indeed play a formative role in the shortages but not as specified in the existing literature on Indians as aboriginal conservators”.

The romanticizing view of “ecologist” Indians living in harmony with the environment was, according to Brightman (1993: 281–282), first coined by Speck (1915). He was of the opinion that Algonquian Indians had since pre-Columbian times regulated their hunting so that game animals would always be available also in the following year. As Brightman (1993: 282–283) recounts, this viewpoint was later advocated by scholars such as Martin (1978) and Vecsey (1980), who both argued that North American Indians in general have utilized religiously motivated hunting management practices since prehistoric times (see also Notzke 1994: 146–147).

Brightman (1993: 283) himself, however, takes a critical standpoint towards the view that management practices among Indians existed before the Contact Period. In his opinion, activities related to regulation have evolved in modern times, and earlier it was moreover a common conception among Algonquians that if animals were killed in numbers, then the number of animals that would be killed in the future would likewise be great. The fundamental reason behind this peculiar reasoning was, according to Brightman (1993: 280–281), that the animals (elk, caribou, and beaver) were regarded as “renewable sources whose numbers could neither be reduced by overkilling nor managed by selective hunting”. The Cree did not, in other words, see a connection between the oversized killing of the animals and their rebirth. This perception came to have fatal and unseen results during the North American fur trade. The increased demand of killed animals and the introduction of firearms were key factors in this case. However, Brightman (1993: 280–281) argues that the ideology that allowed for the depletion of game animals was by no means a novel attitude but rather deeply rooted in Algonquian thought and most probably of prehistoric origin.

Brightman (1993: 288–289) maintains that “waste” and “overkill” were ultimately unfamiliar concepts to the Indians, who saw the game animals as infinite and ever renewable resources.

⁴⁶ Jacobson (1993: 182–183) is of the opinion that the Siberian bear cult, too, with its multifaceted sexual connotations – especially between the bear and the woman – has totemic roots that precede shamanism.

Only if rituals were not followed properly, these concepts could become actual, but even in such cases, the number of animals in the cosmos was not seen as something that humans could affect. It was only the animal's soul that could be misused, not the physical animal. In turn, it was thought that – as long as respect was shown to the killed animals and rituals ensuring their rebirth were adhered to – hunters were entitled to kill as many elks as they could. It was likewise acceptable to use only some parts of the animal instead of consuming the carcass entirely.

Interestingly, Willerslev (2007: 30–32) has observed highly comparable perceptions among the Yukaghirs as those described by Brightman concerning the Cree. Like the Cree, Yukaghir hunters believe that all souls in the universe are parts of an endless cycle of rebirth, to which they will always belong. It is thought that new souls cannot enter this cycle, and neither can any souls vanish from it. It therefore follows that the entire concept of overhunting is more or less inconceivable, as it is considered logically impossible that souls (or animals) could be lost forever.

As regards the Cree, Brightman (1993: 290) argues that, in the benefactive model, it was seen as a failure or ingratitude not to kill all the animals that one was able to when given the chance. The hunter was in other words obliged to kill all the animals he encountered, and in this way the Indian ideology was actually catalysing the depletion of game animals during the fur trade. In a similar manner, Filtchenko (2011: 188) writes that when a Vas Yugan Khanty hunter saw an elk (or a bear), “the appropriate response was to kill it”. The very same concept was, again, noted by Willerslev (2007: 35) in the case of the Yukaghir hunters, who claim that “if a hunter is offered much, he must take much”. Moreover, if a hunter does not kill the animals he is given, it may affect his future hunting negatively. And just like the Cree, the Yukaghirs do not find it problematic to make use only of the best parts of a killed animal and let most of the meat to go wasted (Willerslev 2007: 34).

The reason why the Cree did not invest more extensively in food storage was likewise related to their belief in the concept of the animal benefactor. Namely, it was thought that animals would give themselves to humans only if they were really needed. Storing food would have

meant that the humans were not truly in need of animals and thus not respecting the animal gifts that they were offered (Brightman 1993: 367–368). Once again, an analogous perception exists among the Yukaghirs, who “claim that to store meat brings bad luck in hunting, because it discourages the generosity of the animal spirits, which is best secured by actually needing meat to eat” (Willerslev 2007: 40). It is also important to note that waste and overkilling were morally even less problematic within the adversarial ideology, because as Brightman (1993: 289) states, such concepts are wholly indifferent if the animals are seen as enemies.

Beside the Cree and the Yukaghirs, similar concepts, relating to the infinite renewal of animals, have been documented among the Koyukons, Chipewyan and Ojibwan Indians (Brightman 1993: 291 and cited references). As Willerslev (2007: 32–33) notes, a shared belief regarding the imperishable character of life is, as a matter of fact, found across the circumpolar region, and mass slaughtering of animals has likewise been documented throughout this zone (see also Krupnik 1993: 231–240).

However, a central question in this discussion is whether similar game depletions as those documented in the 18th and 19th centuries actually took place in prehistoric times. In line with Brightman (1993: 292), I believe that, as a rule, this was not the case. The introduction of firearms implied a drastic change in hunting efficacy – as well as a probable change in the beliefs related to animals – and this was a key factor in the decline of several animal species during the Contact Period. However, prior to this, hunting was less efficient. The killing of large, non-gregarious animal species in particular, such as elk, must have been notably harder using traditional hunting equipment. Neither was there a particular need to hunt more animals than it was necessary to nourish the population, as became the case as a result of the fur trade (Brightman 1993: 296; see also Martin 1978: 9–21, 33, 128).

A somewhat different viewpoint has been presented by Krupnik (1993: 234–240). He has argued that mass slaughtering of animals indeed took place already in prehistoric times, but not so much in the boreal forest region as in the arctic zone, where natural resources were more unstable and unreliable. In the taiga region,

however, more harmonious hunting and game management techniques could be practised. Willerslev (2007: 33, 48–49), however, is critical towards such a division. He instead suggests that rather than being “overkillers” or “conservationists”, it seems that northern hunters exist somewhere in between, maintaining a balance between overhunting and refraining from hunting. This ambivalence is epitomized in the abovementioned perception of animal spirits among the Yukaghirs, who see the spirits as caretaking benefactors and as dangerous slayers all at once. In practice, this has led to a situation in which Yukaghir hunters tend to kill the animals they see, but if their number grows too large, they will cease hunting. This is because they will then become afraid of being attacked by the animal spirits (Willerslev 2007: 49). Due to this fear, the Yukaghirs are likewise reluctant to kill and eat animals that have been attracted by means of “shamanic” or “magical” practices. In such cases, it is believed that the animals have been caught forcibly against their free will, which may result in very dramatic outcomes for the hunters and their families (Willerslev 2007: 127–128; for similar notions concerning the Orochen, see Brandišauskas 2017: 246).

It can be thus argued that Yukaghirs appear to have an implicit system of hunting management, which causes them to refrain from hunting in situations that would not be considered normal, that is, when elks would be hunted beyond ordinary needs or methods. I find this notion to be of uttermost importance, for it illustrates that hunting management – if the term can be used in this context – is practised also among groups that do not view their own actions through western perspectives of causality. In fact, I find it rather irrelevant to problematize whether the Yukaghirs are knowingly securing the renewal of elk populations by their actions. What is of importance is that this has, all the same, been the outcome of their strategy.⁴⁷ No more do I think that this notion pertains only to the Yukaghirs. Indeed, as regards North American Indians, Martin (1978: 18) writes that the “single most important deterrent to excessive hunting, in the Eastern Algonkian’s mind

at any rate, was the fear of spiritual reprisal for indiscreet slaughter”. Much similar observations have also been made by Hallowell (1955: 144–145) and Feit (1973: 117). Moreover, as Ingold (2000: 122) has stressed, a ubiquitous trait among circumpolar animic peoples is the “feeling that one should not kill an animal that does not consent to be taken”, and that killing “without the animal’s active connivance would be an act of violence, carrying the threat of equally violent retribution in the future” (see also Günther 2022: 144 and cited references).

What I am arguing is that northern hunters have, in some way or another, always been concerned about the regeneration of animals, even if these would have been regarded as ever-renewable resources. For the hunters themselves, the question of whether game animals should be understood as finite or infinite resources is secondary – what really matters is how to gain enduring access to these animals. I do not claim that prehistoric elk hunters in general would necessarily have shared the same beliefs as the Yukaghir. My point is rather that, in all probability, some sort of strategy to secure the presence of elks has been developed in all places where this species is of vital importance.

This is not to say that prehistoric hunter-gatherers in the taiga region would never have encountered situations in which elk populations declined. The fact that the elk was a significant species for thousands of years is *ipso facto* indicative that prehistoric populations were able to hunt this species sustainably in the long term. Still, local and temporary declines in elk populations most certainly did take place. On such occasions, responses were needed.

Brightman (1993: 293–296) has suggested four possible reactions that may have taken place when the number of animals in a region declined notably. First, humans most probably did not hesitate to migrate to areas in which resources were more abundant. Secondly, it is conceivable that some kind of hunting management strategies were used, and also that new resources were sought in circumstances where the normal subsistence system had been altered. Thirdly, assuming that people in the north never relied exclusively on one single resource, a rather self-evident response was to increase the use of other animal species available within a region. Lastly, based on the aforementioned overhunting documented among

⁴⁷ It should be mentioned that according to Willerslev (2007: 30), elk populations have declined noticeably in the Nelemnoye region due to overhunting “over the past decade”. Here, however, I am referring to a long-term perspective on a more general level.

the Cree, Brightman (1993: 296) argues that a fourth response was to continue to hunt the species in question as before, increasing the labour required in order to kill the number of animals necessary.

While all of the responses outlined by Brightman seem feasible with respect to prehistoric elk-hunters, I find the first three to be the most probable. In turn, and as Brightman (1993: 296–297) himself recognizes, hunting in prehistoric times required more labour from the outset, and it is thus highly dubious that increasing this further would actually have functioned as a valid strategy. A further point that I wish to emphasize is that elk-hunting has in all probability always required more effort than the hunting of more gregarious animal species (cf. Jarvenpa & Brumbach 1983: 183). The ethnographic accounts from North America describing the attitudes that enabled overhunting mostly pertain to beaver trapping. It is fully possible that elks were perceived differently due to their individualistic behaviour, which made them a considerably challenging resource. Thus, even if depletions of bison or whale populations may be explained by the fact that these were considered to be infinite resources, this does not necessarily mean that the elk was seen in the same way. In any case, the regeneration of animals has generally been of central importance to northern hunters, and there is no reason to believe that this would not have been the case in prehistoric times. Undoubtedly, the elk as a resource has been so important that it would rather be surprising if human populations did not always show concern for its regeneration.

Before ending this chapter with a summary of the above, I will examine certain dichotomies that are heavily rooted in western thinking, and which have often affected scholarly interpretations of the hunter-gatherers of the past – even though such oppositions are rarely encountered within indigenous societies themselves.

2.3 Dismantling modern western dichotomies

One of the premises of this work is that it is not possible to make a clear distinction between the religious and the secular when discussing aspects of past beliefs and activities. As Brück (1999: 319) recounts, the universality of this dichotomy was

first proposed by Durkheim (1912), who regarded it as a distinctive feature of religion. However, even if the separation of the sacred from the profane has had an enormous impact in the west, it is today widely recognized that such a division is not universal in character (see e.g. Brück 1999: 319 and cited references). As is reflected in the ethnographic examples presented above, and as, for instance, Äikäs et al. (2009: 111, 119) have argued, human-animal relationships are not merely religious, nor are subsistence strategies purely secular (cf. Tanner 1979: 207). Rather, as Mikkelsen (1986: 127) has stressed, “there is generally no...distinction between religion and ecology in hunting societies” (cf. Ingold 1986: 140–141).

The inseparability of religion and ecology applies also to the role of the elk, and to its position within the prehistoric art. As Sjöstrand (2010b: 14) writes, it is not contradictory to regard elk figures in rock art as prey, mythological actors and discursive thinking tools, all at the same time. Equally, Günther (2013: 154) rightly questions whether the various meanings ascribed to animals could ever be ignored when portraying them in art. As Günther (2013: 158) notes, in reference to Sjöstrand (2011: 16), even if the economic significance of animals does not automatically imply their mythological or cosmological importance, it is nevertheless a truism that the most significant animals are always associated with ritual and religious *practice*.

In a thought-provoking article, Brück (1999) examines the roots of the concept of ritual. She argues that the prevailing dichotomy between the ritual and the secular, in anthropology as well as in archaeology, is fundamentally the result of western post-Enlightenment rationality. This, however, does not often find correspondence in non-western societies. Brück (1999: 317) points out that in their definitions of ritual, scholars have commonly regarded this as the opposite of functional and secular activity. In addition, archaeologists frequently tend to label sites and artefacts as “ritual”, if ever these seem to have no practical explanations. However, as Brück (1999: 318–322) importantly stresses, even if ritual actions seem not to fulfil the *western* criteria for utilitarian functionality, this does not make rituals irrational or purely symbolic on a universal level.

To be sure, for those practising rituals, such actions are not fundamentally different or sepa-

rate from everyday activities (Whitley 2014: 1222–1223). Even more importantly – they are regarded as everything but irrational or non-functional. Instead, rituals are commonly conducted in order to have an impact on things, and they indeed appear “perfectly logical” to the people performing them (Brück 1999: 321; see also Äikäs et al. 2009: 119; Günther 2022: 35). By the same token, Willerslev (2007: 150–151) writes that among the Yukaghirs, as well as other indigenous groups, rituals are “instrumental objects for practical use” and “employed to get something done”. It is, first and foremost, at times of crisis, or when everyday circumstances have somehow been altered – such as when elk populations suddenly decline – that individuals may start to pay attention to the rituals that they are, and have been, performing (Willerslev 2007: 153–154, 157).

As Brück (1999: 326) rightly points out, archaeologists should consequently question whether ritual activities can at all be distinguished from other actions if the surviving material was produced by societies that did not differentiate ritual or symbolic activities from utilitarian actions. Indeed, given that ritual is essentially a “product of post-Enlightenment rationalism” (Brück 1999: 336), it is in fact no wonder that western scholars have encountered severe difficulties when trying to define and distinguish rituals within other cultures.

Drawing on Ingold’s (2000: 172–189) concept of a “dwelling perspective”, Willerslev argues that that “people’s practical engagement with things is the crucial foundation upon which ‘intellectual culture’, that is, abstract cognition and conceptual representation, is necessarily premised” (Willerslev 2007: 148). By a similar token, Siikala (1981: 87) stresses that “primitive religiosity is by nature practical, permeable, and the prevailing concept of the supranormal provides an explanation for the problems of everyday life”. I am entirely of the same opinion, and as regards prehistoric attitudes towards the elk, I firmly maintain that it was the elk’s primary position as an economically significant prey animal that led to the animal’s additional roles, and certainly not the other way around. This is also precisely the reason, I contend, for which certain animal species are almost completely absent from the prehistoric art of Northern Europe. The red fox (*Vulpes vulpes*) and the

Eurasian lynx (*Lynx lynx*), for example, are seldom portrayed in rock art or on portable artefacts, and I believe that the underlying reason for this is simply that people, as a rule, did not ordinarily engage with these animals.⁴⁸

Besides the opposition between the religious on the one hand and the secular and economic on the other, the dichotomy between nature and culture is deeply rooted in western thinking. Yet, also this dualism is essentially a product of the Enlightenment, based on a Cartesian worldview (Brück 1999: 318; see also Willerslev 2007: 19). For “animistic” hunter-gatherer groups, on the other hand, nature-culture dichotomies do not exist. As Brück (1999: 319) notes, for these peoples, the world is not dualistic but monistic; nature is not perceived as being separated from culture, nor is the sacred separated from the profane nor organic matter from inorganic. To be sure, among the Cree and the Yukaghirs, for instance, no words even exist to refer to the concepts of nature and culture (Scott 1989: 195; 2013: 160; Willerslev 2007: 85–86).

Fuglestedt (2008: 356, footnote), however, has argued that the opposition between nature and culture is – and has been – present in totemic societies. A central notion in her work on Scandinavian Mesolithic art is that it “represents mediations between nature and mind” (Fuglestedt 2018: 182). In other words, (prehistoric) art can, in her view, be regarded mediating between nature and culture. One example of art that possesses such a function, Fuglestedt (2018: 195–196) claims, is a rock carving depicting an elk at Åskollen in eastern Norway (Figure 4). According to her understanding, this elk image contains both natural and cultural (unnatural) designs side by side, resulting in an ambiguous amalgamation of nature and culture, in which the two reflect and follow each other.

⁴⁸ On the other hand, it is a well-known fact that prehistoric expressions of zoomorphic art do not merely reflect animals significant to human subsistence (e.g. Russell 2012: 14). Beavers, for instance, were of utmost importance to the subsistence of northern populations, although they are hardly ever depicted in (rock) art. The same goes for fish (and for plants of any kind), which would certainly be more numerous represented in art if their illustrations were simply an indication of their economic importance (see also section 8.1.6). In fact, according to an argument still used today, it is because certain economically significant animals are lacking from prehistoric art that the animals portrayed in it can hence neither be related to real animals nor to the livelihood of prehistoric populations (see Günther 2009: 26; 2013: 137). I strongly disagree with this viewpoint.



Figure 4. Elk depiction at the Åskollen rock art site, eastern Norway. Retouched photo: Ville Mantere.

I will discuss Fuglestad's reading more closely in relation to the examination of the elk motif in eastern Norwegian rock art (section 5.2). Here it can be noted, however, that as imaginative as her theory might be, there is basically no factual evidence to support it. Even if nature-culture oppositions may exist in totemic societies (Lévi-Strauss 1962; but see Descola 2013 for a contrasting opinion), there are hardly any actual indications that totemic groups (at least not according to the common definition of the term) ever existed in prehistoric Northern Europe.

2.4 Summary

On the basis of the available literature, it seems evident that prehistoric hunter-gatherer populations perceived the world in a rather different way than does our modern western society. There is reason to believe that no sharp dichotomies existed in the same way as in our present-day thinking. In particular, it is important to realize that "mundane" and "sacred" actions and beliefs were inseparable. A central implica-

tion is therefore that *not only the activities but also the beliefs of past hunter-gatherer societies were closely related to the livelihood* of these groups.

Of the earlier theories examined at the beginning of this chapter, animism has proven to be the most suitable model for taking the entangled relationship between beliefs and actions into account. I have shown that animism – despite being a highly problematic concept as such – is in fact itself understandable as a practice. In particular, the so-called mimetic activities in animistic societies serve as an illustration of how, in hunter-gatherer societies, beliefs and activities are intertwined. In short, mimesis is used for taking the perspective of the game animal (the elk) in order to lure it. This is done by imitating the movements of this animal, and the imitation is, in turn, profoundly based on observations of the animal's natural behaviour.

In general, in northern indigenous hunter-gatherer cultures there seems to have existed a highly ambivalent attitude towards animals. This is reflected in an ongoing balancing act between desire and hope on one hand, and fear and anxiety on the other. This is discernible, for

instance, in the fluctuating connotations ascribed to animals, both in myths and in everyday situations. The ambivalent relationship with animals is also epitomized by the contrasting manners in which animals are viewed in different situations. Whereas animals are usually perceived as friendly, they may occasionally be considered enemies. At the core of such ambivalent attitudes is most likely the unpredictability of animals and the omnipresent worry concerning their availability.⁴⁹

Ultimately, it seems to me that the fundamental reason for conducting various rituals involving game animals was to assure their rebirth, and thus to make them accessible in future. These underlying aspirations seem to be reflected in all aspects of the hunting process, and they can also be observed in the sexual connotations that are often closely associated with human-animal relationships in hunter-gatherer cultures. Without a doubt, prehistoric hunter-gatherers who lived off the land must have been dependent on the renewal of the relatively few resources available in the boreal forest zone. Seasonality must have been of utmost importance, and certain animal species were clearly more important than others. On a general level, the single most significant animal species in the boreal forest zone was the elk. In consequence, it is reasonable to claim that the *regeneration of elks was a matter of great importance* for the hunter-gatherers of the past in the taiga region.

Moreover, it is probably fair to say that the regeneration of elks made the regeneration of humans possible also. In one way or another, human reproduction has often been paralleled with, and considered dependent on, hunting success. Likewise, it is evident that the widespread taboos and regulations concerning (menstruating) women and their relation to animals (and animal remains in particular) are equally related to the concept of reproduction. Rites connected to animal ceremonialism, too, I argue, are carried out namely because of the basic intention to assure reproduction – not only that of elks (and other animals), but of humans also. Thus, it is important to note that rituals were,

above all, intended to have an effect on things, and so seemed perfectly sensible to those who undertook them.

Reproduction also seems to have been the fundamental reason for game management practices, irrespective of whether animals were seen as a finite or renewable resource. Indeed, based on ethnographic accounts from northern regions, it seems probable that people in the past believed that by undertaking certain actions they could manipulate their environment. Along these lines, I argue that *prehistoric hunter-gatherers in the boreal forest zone conducted activities in order to assure the renewal of their most significant resource: the elk*. The precise content of such activities is, of course, long-forgotten, as is the case with other details related to them, such as which individuals were entitled to undertake these actions. Ultimately, however, I regard such questions to be of secondary importance. That is not to say that they are entirely irrelevant, but in my opinion, it is more significant to look past such problems and focus on *why* activities were performed, rather than try to address when, where, by whom, or how often, they were conducted.

I have contended that hunting magic and animistic explanations prove their usefulness over “totemism” and “shamanism” models, which to my mind are too narrow to explain the nature of human-animal relationships and the process of hunting as a whole. In addition to the notion of mimesis, widespread accounts describing animal ceremonialism suggest that people generally believed that interaction with animals was possible. In other words, that human-animal relationships were not just about being a prey or a predator. The animals were probably ascribed with agency and personhood similar to that of humans and, at times, the ordinary roles of humans and animals could change. Indeed, in the light of ethnographic data, it seems justified to conclude that game animals were not perceived in the past merely as controllable objects, but as deserving of being treated with respect. Thus, it seems logical to assume that *a reciprocal relationship existed between humans and elks, and various activities were most probably undertaken with the aim of communicating with elks*.

It is important to stress that the actual procedures of the hunt and the kill were only small parts within a much greater process related to

⁴⁹ As Günther (2022: 142–143) recounts, Riesebrodt (2010) has even argued that one of the fundamental and universal cores of religious practice is to form contact with supra-human forces in order to cope with the uncertain.

hunting. Certainly, not only were “religious beliefs” inseparable from “practical actions”, but, moreover, these were both manifested before, during, and after the actual hunt. There is every reason to believe that *elk-hunting expressed a variety of pre-held beliefs and was also preceded by practices that could start long before the hunt*. The wide distribution of animal ceremonialism likewise suggests that *the hunting process did not come to an end when an elk was killed*. Post-kill activities were in all probability of key importance, and their uniformity in ethnographic literature gives reason to assume that they were carried out namely for two reasons. Firstly, to gain good fortune in hunting, and secondly, to avoid danger and punishment instigated by slain animals or their spirit masters for not showing appropriate respect towards them.

Finally, even if the existence of prehistoric religious experts cannot be excluded, the ethnographic data suggests that *ritual activities were performed by the hunters themselves*. Importantly,

this seems to have been the case even in societies where ritual specialists are known to have been present. The ethnographic material also points to the fact that – instead of obedience to religious authorities – individual experience and skill were the most highly respected qualities in hunter-gatherer societies. In addition, it seems that experienced hunters were thought to possess spiritual power and seem in general to have been highly respected within hunter-gatherer societies. There is every reason to believe that this was also the case in prehistoric Northern Europe. This is especially probable in the case of elk hunters, for whom the knowledge of the elk and its behaviour must have been of paramount importance.

I have now outlined the premises that determine the theoretical framework for this study. The most central principles are summarized in Table 1. With these in mind, let us now turn to the osteological and archaeological material.

Table 1. A summary of the theoretical premises concerning perceptions and activities among prehistoric elk hunters in Northern Europe based on ethnographic analogies.

1)	Sacred and profane were inseparable, as were nature and culture
➤	Both actions and beliefs were related to livelihood and functionality
2)	Renewal and regeneration of natural resources was essential
➤	The regeneration of elks (and humans) was of special importance
3)	A belief that people could manipulate their environment
➤	Activities were carried out in order to assure the rebirth of elks
4)	A belief that humans were able to interact with animals
➤	Activities were carried out in order to communicate with elks
5)	The actual hunt and kill were only small parts of the hunting process
➤	Activities were performed before, during and after the hunt
6)	Individual skills and experiences were highly appreciated
➤	Activities were performed by the elk hunters themselves

3 The economic significance of the elk in prehistoric Northern Europe

In this chapter, I will deliberate on the human-elk relationship in prehistoric Northern Europe on the basis of osteological data. Even if one of the key premises of this study is that economic aspects in hunter-gatherer societies are inseparable from other spheres of life, I will here focus namely on the elk's tangible significance in the past. In lack of better designations, I speak in this context of the elk's *economic* significance. By

this, I refer to the concrete role of the elk for prehistoric populations in terms of subsistence and livelihood – not only as a central food source but also as an important resource for various valuable materials such as bones, antlers, and hides. Before presenting a region-specific discussion of the elk's role in the light of osteological data, however, I will present a short general overview of the elk as a species.



Figure 5. The elk (*Alces alces*). Photo: Ville Mantere.

3.1 General information about the elk

In order to better comprehend the multifaceted significance of the elk in prehistory, it is necessary to take a look at some general facts concerning this species. I will first discuss the origin and the initial dispersal of the elk and give a basic description of the elk's physical appearance. I

will also briefly address the elk's habitat, behaviour, and lifecycle.

3.1.1 Origin and early population history of the elk

According to some researchers, the modern elk *Alces alces* originated from the deer species

Cervalces latifrons sometime during the Upper Pleistocene, with *Alces brevirostris* being a possible intermediate form between the two species.⁵⁰ This outlook has, however, been contested by other scholars, who have argued that *Alces alces* may have emerged already during the end of the Middle Pleistocene, and that *Cervalces latifrons* may not have been the predecessor of *Alces alces*.⁵¹ There is also some disagreement regarding the place of birth, although it seems that *Alces alces* originated either in Asia or, perhaps less probably, in Europe (see Sher 1987: 71–90; Hundertmark et al. 2002: 375–376, 382–383 and cited references; Schmöcke & Zachos 2005: 329–330 and cited references; Stefaniak 2007: 87–88 and cited references; Niedziałkowska et al. 2014: 2179–2180 and cited references; Dussex et al. 2020: 2 and cited references).

According to Hundertmark et al. (2002: 382), the most probable scenario is that all existing lineages of elk, both in Europe and North America, derive from an Asian lineage. It has been estimated that the divergence between the European and Asian lineages and the expansion of the Eurasian elk took place approximately within the period 59 000–47 000 BP, and that the elk colonized North America as late as around 14 000–11 000 BP (Hundertmark et al. 2002: 381–382; Niedziałkowska et al. 2014: 2180). Recently, however, Dussex et al. (2020: 3) have demonstrated that the Asian/North American and European elk lineages may have diverged already around 71 000 BP (119 000–42 000 BP) and the Asian and North American lineages around 35 000 BP (60 000–20 000 BP), respectively.

As regards Europe, it has been shown that the elks there derive from two clades – an eastern and a central-western – that diverged before the Last Glacial Maximum (LGM) around 55 000–45 000 BP (Niedziałkowska 2017: 37–39;

see also Niedziałkowska et al. 2014). The two European clades can furthermore be divided into four sub-clades which seem to have diverged in around 25 000 BP (43 000–16 000 BP) (Dussex et al. 2020: 3). It is evident that elks survived the LGM in southern and central parts of the continent. This happened in refugial areas that existed at least in northern Italy, the Caucasus, the Balkans, and the Carpathians, but apparently not in the Iberian Peninsula or in the Dordogne region (Sommer & Nadachowski 2006: 254–255; Niedziałkowska 2017: 40–41). It seems, however, that elk populations during the LGM were more widespread than has traditionally been estimated, and that the species existed also outside the abovementioned areas (see e.g. Wilczyński et al. 2012: 145–146; Niedziałkowska 2017: 41–42; Dussex et al. 2020: 6). Recent palaeogeographical data moreover indicates that boreal forests – suitable environments for the elk – existed across Europe and the Russian Plain also during the LGM (see Niedziałkowska et al. 2014: 2180).

3.1.2 Physical description

The elk is today the largest of all living deer species. The size of modern Eurasian elks varies to a great degree, but the mean body weight of bulls is somewhere around 400 kilograms and the average weight of elk cows around 300 kg. At the most, elk bulls can reach a body weight of 600 kg and a length of three metres. It should be noted, though, that the weight of elks, especially that of bulls, decreases significantly during the winter period. According to Nygrén (1976: 3), the annual range in the weight of an elk bull can be as much as 80 kg. Approximately 52 to 57% of the elk's body weight consists of meat, depending slightly on the season and the individual (Nygrén 1976: 3; Nygrén & Wallén 2001: 104). On average, the amount of usable meat obtained from an elk bull, cow and a calf are today around 270, 180 and 80 kg, respectively (Hämäläinen et al. 2001: 133).

Elks living in northern areas are generally of larger size than their southern relatives. For example, the difference in the size of elks between those living in the mountainous regions of Lapland and those found in southernmost Sweden can be as much as 20 to 50% (Ericsson

⁵⁰ *Cervalces latifrons* is regarded as the largest of all known deer species. The species was, however, characterized by great variation in size, and it had several forms that were associated with different habitats. During its broadest distribution in the Middle Pleistocene, *Cervalces latifrons* was the first deer species to cross the Bering Strait. The species became extinct by the end of the Upper Pleistocene (Stefaniak 2007: 87 and cited references).

⁵¹ The earliest remains of *Cervalces latifrons* date to around 186 000 years ago, and the oldest elk remains (*Alces alces*) are dated to around 150 000 BP (Dussex et al. 2020: 5 and cited references).

et al. 2011: 12). In rare circumstances, dwarfed elk individuals or entire populations consisting of small-sized elks – sometimes only half of the normal size of an elk – have also been encountered (Geist 1987: 12; Nygrén & Wallén 2001: 66, 157). According to Kurtén (1968, cited in Geist 1987: 15), however, the elks during the late Pleistocene and early Holocene were generally larger than their present-day successors.

Elk calves are generally distinguishable from full-grown animals by their smaller size, a thinner neck, a denser ridge, as well as by their shorter and more triangular head. Even though the body size of a one-year-old calf can be almost that of an adult, the shape of the muzzle, the thin neck and the underdeveloped dewlap nevertheless differentiates it from a full-grown individual. Young bulls often have lightweight bodies, and the back of the head is in an upright position compared to older bulls (Figure 6). Full-grown males have large and almost rectangular bodies, large and thick antlers, a robust neck, and typically the head turned downwards (e.g. Wikström 2016a).

Elk bulls can be separated from cows by the shape of the thorax, which is broader and more robust than those of elk cows. The cow's skull is also somewhat more elongated, and the back is often saggier when compared to the respective body parts of the bull. In addition, elk cows can be distinguished by a light-coloured, wedge-shaped area between their back feet (Hämäläinen et al. 2001: 47). Both elk bulls and cows have dewlaps, also known as bells. It is, however, only the bells of male elks that develop into large organs. These become rounder and start to grow closer to the lower lip as the bull ages (Figure 6). Like the antlers, the bells are most prominent on prime-aged bulls (around five to ten years of age) and related to the elk's behaviour during the rutting season. The bells function as signals and are also used in the spreading of pheromones.

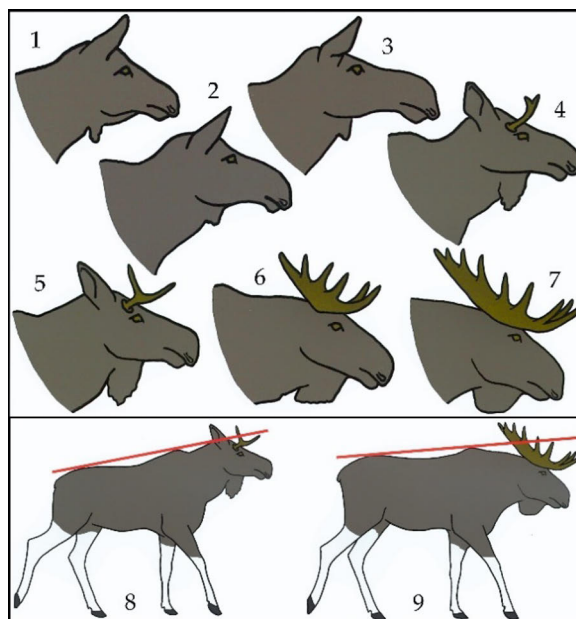


Figure 6. Elks of different ages. 1. Calf (6 months); 2. Female calf (18 months); 3. Full-grown elk cow; 4. Male calf (18 months); 5–6. Adult males (2½–5½ years); 7. Full-grown male (6½ years–); 8–9. Body shape and posture of a young and old elk bull. Illustrations from Wikström 2016a. Compilation: Ville Mantere.

Only elk bulls possess antlers.⁵² These consist of keratin and can grow as much as two centimetres per day. The antlers start to grow in late spring and are most conspicuous during the rutting season in the autumn. The antlers fall off during the winter, between December and March, with older elk bulls shedding their antlers earlier than younger individuals (see e.g. Ekman & Iregren 1984: 67; Nygrén & Wallén 2001: 134). The elk antlers can be divided into three groups as regards their shape: the so-called palmate, intermediate and cervina type antlers (Figure 7). The palmate antlers seem to be more common in open, northern regions. Apparently, also the size of elk antlers has a positive correlation to open landscapes in contrast to wooded areas (see Nygrén et al. 2007; Grøndahl et al. 2010: 11 and cited references).

The hide constitutes around five to seven per cent of the elk's body weight. The hide has good thermal insulation abilities but is seldom watertight. The winter moult occurs during early autumn and the hide is in best condition during the rutting season. The colour of the hide varies from reddish on elk calves to black-brownish on full-grown individuals. In rare cases, elks can also

⁵² To be fully precise, some rare, reported cases of antlered elk cows are known, but in such situations, the antlers are typically deformed.

be blonde in colour. Most often, however, a white or white-yellowish colour of an elk is caused by piebald pigmentation and not by actual albinism (see e.g. Nygrén & Wallén 2001: 8–9, 40, 55–56).

The tail of the elk is of the same colour as its hide and relatively small, measuring only 14 cm on bulls and being a couple centimetres shorter on cows (Nygrén & Wallén 2001: 38, 110–111).

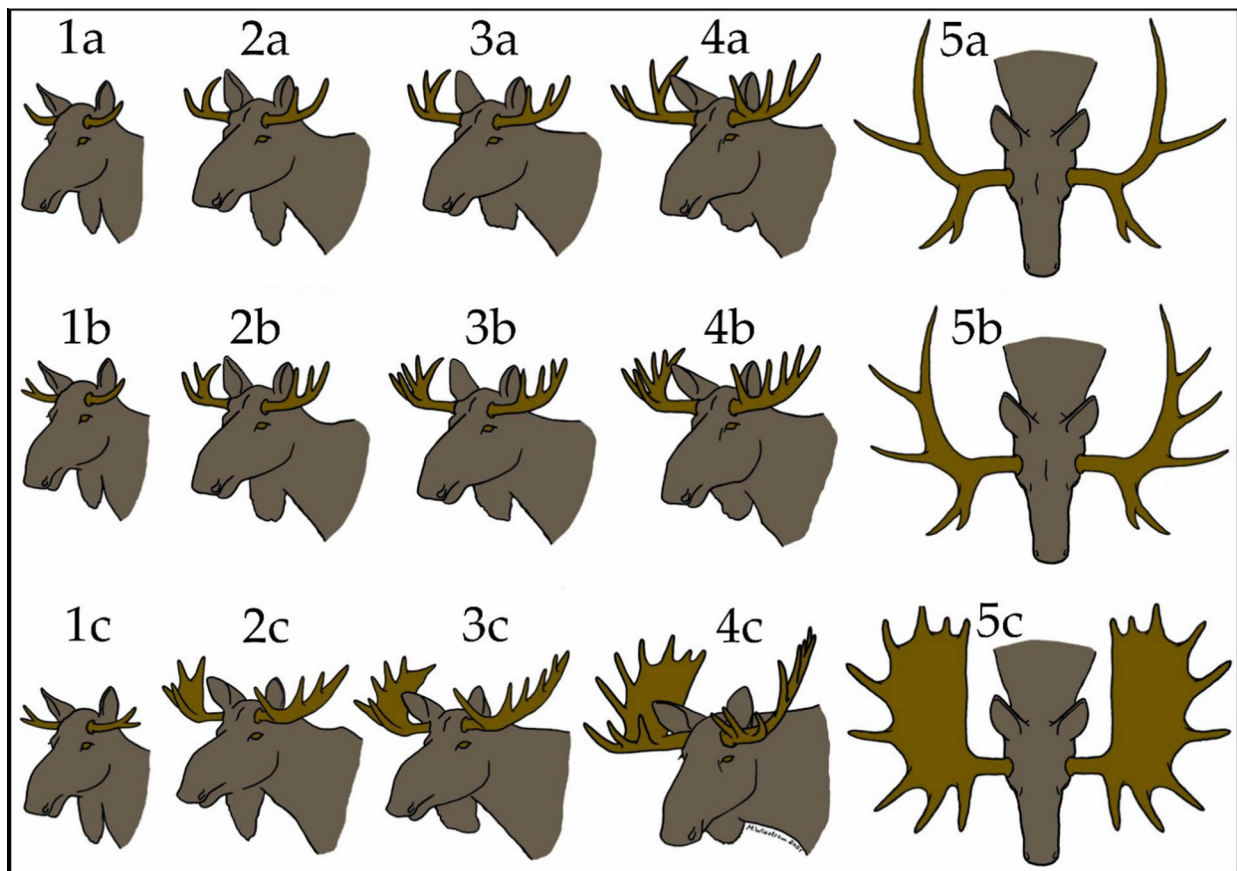


Figure 7. The development of cervina (top row), intermediate (centre row) and palmate (bottom row) elk antlers. 1a–c: bull 18 months; 2a–c: bull 2½–3½ years; 3a–c: bull 4½–5½ years; 4a–c: bull ≥6½ years; 5a–c: bull 6½–10½ years. Illustrations from Wikström 2016b. Compilation: Ville Mantere.

3.1.3 Habitat and range

The distribution of the elk has varied greatly over time. At its largest extent, during the early Holocene, the species inhabited large areas of Europe, while at their smallest level, in the 19th century, elk populations were present only in small parts of the continent. Today, the species' distribution in Europe covers Norway, Sweden, Finland, Russia, Belarus and the Baltic countries, as well as areas of Poland, Ukraine and the Czech Republic (see e.g. Niedział-

kowska et al. 2014: 2174, 2180–2181, fig. 1).⁵³ In North America, elks (moose) are found in Canada and Alaska, as well as in different parts of the United States. In Asia, the species' distribution covers Russia and parts of Mongolia and China.

In contrast to other ungulates, the density distribution of elk is low (Bridault 1992: 153 and cited references). It is strongly dependent on factors such as forest type and availability of nutritious food, but in present-day Sweden, for instance, a density of four to seven elks per 10

⁵³ Genetically, present-day European elks are divided into three or four different groups. The largest of these covers the European part of Russia, Finland, the Baltic region and Belarus, as well as parts of Poland and Ukraine, whereas the smallest population is found in central Poland. In Scandinavia, scholars identify either a single large population, or alternatively two smaller populations, of which one comprises southern and central Norway and the other central Scandinavia (Niedziałkowska et al. 2014: 2177, fig. 5).

km² is considered typical (Bergqvist 2009: 14–15). The area in which the elk resides during the year, including the winter and summer habitats and the migration routes between these, is known as the home range. It is known that the home range can remain the same throughout an elk's life, but in some cases, the elk can also change its home range to another region, located as far as several hundred kilometres away. Typically, the change in the elk's habitat occurs when an elk calf has been weaned from its mother. The size of the home range depends on various factors but can vary from less than 10 km² to as much as 2000 km² (see Nygrén & Wallén 2001: 19–20).

The elk is an adaptive, browsing herbivore species that is capable of living in various habitats and utilizing different forms of nourishment (Kangas 2015: 22 and cited references). Modern elks thrive mainly in the boreal forest (taiga) region, but due to its adaptability and mobility, the species can also live in both colder and warmer environments. That is, in the arctic tundra region on one hand, and in the deciduous forest areas and in the riverside forests of the steppe region, on the other (see e.g. Bergström & Hjeljord 1987: 214–215; Kuznetsov 1987:

201–202; Nygrén & Wallén 2001: 14). In general, elks prefer ecotones, that is, transition areas between different ecosystems, as their habitats. Young forests are especially favoured. Elks also often seek areas that have recently been burned (Lewis 1982: 28). Bogs are likewise important habitats for elks as these not only provide sustenance but also shelter from insects and heat (Nygrén & Wallén 2001: 138). Despite being an adaptive species, however, it also seems that the elk is rather sensitive to abrupt changes in climate and can withdraw from areas which are not favourable to it (Ericsson et al. 2011: 12; see also Günther 2022: 57 and cited references).

The elk's sustenance is strongly dependent on the seasons and a characteristic feature of the elk is its exact and strict selection of food sources. The elk prefers easily digestible nourishment and speeds up its metabolism when preferred food sources are available, especially in the early summer. In turn, when there are lesser alternatives for sustenance, the elk eats less and digests the food longer. Still, it is not uncommon for elks to die as a result of starvation during severe winters (Nygrén & Wallén 2001: 56, 58).



Figure 8. Elk bull feeding. Photo: Ville Mantere.

The most important plants in the elk's diet are different kinds of trees and shrubs that the elk consumes year-round, but exclusively in the winter. The key species in the European elk's diet are rowan (*Sorbus aucuparia*), aspen (*Populus tremula*) and willow (*Salix* sp.), as well as birch (*Betula* sp.), juniper (*Juniperus* sp.) and pine (*Pinus silvestris*) especially during the winter. In the summer, the elk eats leaves – mainly from the aforementioned trees – but different terrestrial and aquatic herbs are likewise important to the diet. Berries and mushrooms are also eaten, although on a smaller scale (see e.g. Ekman & Iregren 1984: 24–25, table 4.2; Bergström & Hjeljord 1987: 215–218; Kuznetsov 1987: 205; Nygrén & Wallén 2001: 107–108; 137).

As Pulliainen (1974: 381) has pointed out, solitary individuals or small groups of elk may undertake irregular movements throughout the year, but these differ essentially from the seasonal migrations that take place in the autumn and spring between the summer and winter habitats of elk (see also Nygrén & Wallén 2001: 42, 158). The seasonal migrations occur along fixed migration routes. The distance of these migrations is at least 15–20 kilometres but can be as much as 300 kilometres (see e.g. Pulliainen 1974: 381, 388–389; Kuznetsov 1987: 202–203). In Sweden and Norway, elk migrate from the mountainous highlands to the lowland valleys and to coastal areas, especially during winters with high snowfall (see e.g. Pulliainen 1974: 382; Selinge 1974: 27; Holm 1991: 96). In the mountainous regions of Russia, the situation is similar (see Kuznetsov 1987: 202–203 and cited references). It seems as if several factors, including availability of food, amount of snow, as well as population dynamics, can induce seasonal migrations. However, not all elk migrate – stationary and migratory individuals are normally found even within a single elk population (see Pulliainen 1974: 390–391). It seems evident that elk also undertook seasonal migrations in prehistory, because as Pulliainen (1987: 45) has stated, “there is no reason to believe that they [the elk] have changed their habits during the past millennia”.

Even if predators – mainly the wolf and the bear – are responsible for the deaths of elk, especially calves, and can sometimes restrict the growth of elk populations, these cannot

regulate elk populations in their natural state on any significant scale. Instead, environmental conditions and the quality of nourishment are more significant factors as regards elk population dynamics (Nygrén & Wallén 2001: 113).

3.1.4 Behaviour and life cycle

In contrast to the deer or the horse, for instance, the elk is essentially a solitary and individualistic species. There are, however, some occasions in which elk are found in various kinds of groupings, such as during the rutting season or when the elk cow has weaned her calves (see e.g. Nygrén 1976: 5). The most eye-catching exception is during the winter, especially in areas of thick snow, when elk can group themselves into large herds. Even within such herds, however, elk behave as independently as possible. The main reason for the formation of winter herds is to save energy by moving along treaded paths in the snow. At most, several hundred elk have been encountered walking in a row along such paths. The herds also give elk some shelter against predators, even though wolves are known to set themselves near winter habitats of elk in order to stalk individuals that become separated from the herd (Nygrén & Wallén 2001: 70, plate III).

Although some elk cows are able to produce offspring at the age of 18 months, the majority of elk cows reach fecundity at the age of 2½ years. Even though twin births are most common among elk, cows that reproduce for the first time normally give birth to one calf only. Twin births are also less common amongst elk cows that are older than ten years of age. The elk cow is in heat for only a day and as a rule this recurs only once; around three weeks after the first heat. In consequence, successful breeding necessitates an adequate number of elk bulls in the region. Today, a sex-ratio of three cows to two bulls is considered sufficient, although the natural sex-ratio within elk populations is one-to-one (see Nygrén 1976: 1; Nygrén & Wallén 2001: 71, 158–159). However, the social organization of the bull population within a region is likewise of key importance. As Nygrén (1976: 1) has underlined, an elk bull requires a certain amount of victorious rutting fights in order to reach a state

where breeding can successfully take place (for elk reproduction, see section 6.3).

The elk gestation period lasts roughly eight months, and the new-born elk calves normally weigh around nine to 13 kg. Calves suckle on their mothers for approximately four months, i.e. until the rutting season. The proportion of plant food in their diet, however, increases constantly and calves that were born in the spring can weigh up to 150 kg by autumn. The elk calves stay with the cow until the following spring, when the new calves are born. During this period, the weaned calves are often unafraid and act irrationally (Nygrén 1976: 2; Bergqvist 2009: 13–14). As female calves stay with their mothers longer than male calves, the estimated lifespan of female calves is somewhat longer than that of male calves (see e.g. Nygrén 1976: 4; Nygrén & Wallén 2001: 19, 98). Only in rare circumstances have elks been reported to exceed an age of 20 years.

The elk's movement is often unobtrusive and silent, and the elk moves very skilfully even on steep and rocky terrains. A running elk can reach a maximum speed of almost 60 km/h. The elk is also an excellent swimmer. In early summer, for instance, elks often feed on aquatic plants. It is known that elks are able to dive five metres below the surface and keep their breath almost a minute when searching for vegetation on the lake bottom. Moreover, elks have been reported to cross open waters of more than 20 kilometres in length (Nygrén & Wallén 2001: 91, 156).

A highly interesting feature as regards the elk's behaviour is its asymmetrical movement across terrain (see e.g. Nygrén & Wallén 2001: 23). According to the prominent elk expert, Nygrén, this can be observed when the elk is harassed but is especially evident when the animal is calm and searching for food. When the elk approaches an obstacle, it prefers to bypass it by leaving the obstacle on its right side. However, when the elk nears a favourable edible resource, it approaches it from the opposite side. This asymmetry is discernible also in the anatomy of the elk's skull and in the mandibular movement, as both are commonly slanted towards the right. In Nygrén's opinion, there is every reason to suppose that prehistoric elk hunters were aware of this feature and also

utilized it in their hunting of elks. For instance, ambushing elk hunters probably – just as some modern hunters – positioned themselves in the environment in relation to the supposed course of the elk.⁵⁴

Despite numerous efforts, attempts to tame and/or domesticate elks have not proven to be particularly successful or worthwhile. This is due to several factors, of which the difficulty to provide elks with appropriate nourishment year-round seems to be the most critical (see e.g. Baskin 1987: 741–743; Nygrén & Wallén 2001: 147). However, in Russia there has been some success in breeding free-grazing elks in captivity and to use these, castrated bulls in particular, as working animals in a similar manner to horses. Experiments have shown that elk calves that were imprinted to humans during their first three days become accustomed to their feeders and can be controlled to a certain degree (Bluzma 1987: 716–720). It is, however, highly dubious whether such elk taming attempts were undertaken in prehistory. Nevertheless, it can be mentioned that at least some rock art figures in southern Siberia, dated broadly from the Early Neolithic to the Iron Age, have been interpreted as representing tamed elks (Skalon & Khoroshikh 1958).

⁵⁴ Kaarlo Nygrén (PhD, elk biologist), email correspondence, 6.11.2013.

3.2 Osteological finds



Figure 9. A present-day satellite view of the area of study with the geographical regions discussed in the text marked out. Map: Ville Mantere/NatGeo Map Maker.

In this section, I will discuss the osteological data from prehistoric Northern Europe with reference to the elk. For the sake of simplicity, I will address the material from different countries in subsections based on geographical regions. These include the northern parts of Germany and Poland; southern Scandinavia (Denmark and southern parts of Sweden); central and northern parts of Scandinavia; Finland; the Baltic region and Belarus; and finally, northwestern and central Russia as well as the Ural region (Figure 9). This division is mainly intended to serve a pragmatic purpose and it should not be seen as a fixed categorization of how elks were dispersed in the past. As will be seen, elk populations have fluctuated noticeably even within small countries and it goes without saying that when studying a timespan of several millennia, it is impossible to draw definite lines between areas where elks did or did not exist during different periods. That said, the categorization used here enables a rather straightforward com-

prehension of how the elk's significance as a prey animal varied in Northern Europe during the period of study. I will also present a general summary of the region-specific data at the end of this chapter.

Before proceeding to the osteological material, however, there are several important notions concerning this body of evidence that must be taken into consideration. First of all, as regards the radiocarbon dating of elk remains, one needs to take account of the aforementioned fact that the elk feeds partly on aquatic vegetation, especially in the summertime. This may be reflected in a high freshwater reservoir effect in elk bones, and especially in elk antlers, as these are developed during the summer season (Philippsen 2015: 292; 2019: 1890–1891).

Secondly, a fact that can hardly be stressed enough is that burnt bones, elk bones in particular, are often so fragmented that these cannot be discerned in the bone material (see e.g. Seitsonen et al. 2017: 137). In areas where the refuse fauna

consists more or less solely of burnt bones, such as in Finland, the situation is particularly problematic. Here, the percentage of distinguished bones at sites can be as small as one to ten (Taavitsainen 1980: 5). In addition, many of the dwelling sites that have been analysed pertaining to the bone material have probably been of seasonal character, such as winter camps of seal-hunters. Thus the data obtained at such sites may mirror specialized hunting of certain species instead of reflecting the complete picture (Taavitsainen 1980: 7–8).

Another question worth considering is to what extent bones might have been used as fuel in prehistory. As Vaneekchout et al. (2013: 127–133) have argued, in areas where the refuse fauna consists primarily of burnt bones, there exists a possibility that the data is flawed due to differences in the preservation of bones of various species. For instance, although scholars have long regarded the high proportion of seal bones in the osteological material at coastal sites reflecting their prevalence in prehistory, Vaneekchout et al. (2013: 127) have argued that this is not necessarily the case. The higher mineral density of seal bones in contrast to, for instance, elk bones makes the burnt and fragmented seal bones to be more easily identifiable. This especially holds true if the bones are first intentionally broken in order to extract the marrow, which is often the case as regards elk bones. Moreover, seal bones are not as fragmented, nor as combustible as the bones of elks (or bears). In other words, as elk bones are better suited for burning as fuel, there remains a possibility, albeit theoretical, that it was namely elk (or bear) bones that were used as fuel and therefore became more fragmented than seal bones. Hence the refuse fauna in coastal regions might point towards a higher proportion of seal bones than was actually the case due to their better preservation and inferior burning qualities (Vaneekchout et al. 2013: 129–133).

Furthermore, as for instance Taavitsainen (1980: 8) has pointed out, elk bone was probably regarded as a precious raw material that was first and foremost used for making various tools. This especially pertains to the elk's largest and most easily distinguishable bones. Another significant topic that needs to be addressed especially with reference to large mammals such

as the elk is related to carcass exploitation. As Bridault (1992: 153) has pointed out, at Mesolithic sites where elk remains are found but where the elk is an uncommon species, the remains almost without exception consist of teeth, phalanges and, to a lesser extent, metapodials. A very similar observation has been made, for example, by Lundberg (1997: 148) regarding the elk remains found inside Neolithic hut grounds in the interior of Norrland. On these sites, the elk bones consist almost solely of extremities, as well as sporadic cranial bones.

Bridault (1992: 153–154) has presented a couple of possible explanations for bone assemblages consisting of selected body parts. One of them is that only certain parts of the hunted elks were transported to residential sites. Such “selective transport” of bones can be supported by ethnographic data. Sometimes this also seems to be identifiable in the osteological data, such as in the case of the elk remains discovered from the rich Late Mesolithic peat-bog site Zamostje 2 in Russia (see section 4.4). However, as Bridault (1992: 153) herself has pointed out, selective transport is not a logical explanation with reference to all assemblages. Indeed, often the surviving elk remains stem from weighty body parts, which are, moreover, low in nutrition. In such cases, the underlying reasons for the transportation of bones must have been something other than purely practical in nature.

As a consequence, another explanation that Bridault (1992: 153–154) offers is that elk remains in small assemblages stem from body parts that may not have been intended for nourishment in the first place. Instead, these may be representing bones with symbolic value that were imported to the site, perhaps in order to be used as material for adornments.⁵⁵ It can likewise be added that, in some contexts, elk bones may have been treated in a special manner, not reflected in the data discussed in this chapter. It is, for instance, known from ethnographical sources that elk bones have among some peoples been

⁵⁵ In general, it seems that in the past more or less all parts of the elk were used. It can thus be proposed that a possible explanation for the common use of elk incisors as pendants was simply because there was no other practical function for them. This is of course not to say that elk tooth pendants did not encompass further meanings and functions, but initially, these may have become raw material for pendants namely because they were leftovers that were considered too precious to be thrown away.

deposited in water (see section 4.4). It is fully possible that such deposits took place in prehistoric times, even though these are not discernible in the osteological material.⁵⁶

In sum, there are several aspects that have, or may have, caused discrepancies in the osteological record. The data from some regions enables a rather comprehensive and detailed analysis of the elk's economic significance in different periods. Meanwhile, the material and data from other areas is so scarce that it is virtually impossible to draw any far-reaching assumptions based on the available information. Hence, I will discuss areas with more abundant (or well-preserved) and/or better studied bone material at greater length. *The main aim of the following, region-specific presentation of elk remains in Northern Europe is to provide a directional overview of the earliest traces of the elk in a given region, on the one hand, and the elk's abundance and significance in relation to other species during the following millennia, on the other.* Undeniably, future studies will elucidate, alter, and refine our understanding of the elk's dispersal and abundance in different regions and periods. As regards the overall picture, however, I claim that the following presentation reflects rather accurately the elk's economic role in Northern Europe from a long-term perspective.

3.2.1 Northern Germany and Poland

The elk reappeared in Germany during the Allerød period (c. 11 800–11 000 calBC). The species was not particularly numerous except for in the northernmost parts of Germany, or the Northern Lowland, where elk was the most common ungulate during this period (Schmölke & Zachos 2005: 333–334; see also Terberger 2006: 34, 36). A number of elk remains from western Germany have also been dated to the end of the Pleistocene and the early Holocene, but it seems that during the Mesolithic and the Neolithic, the

elk was not a common species in the region and was thus of minor economic significance. In eastern Germany, the situation was somewhat similar (see Schmölke & Zachos 2005: 333–334). In northern Germany, however, elk populations were more abundant, and the species remained common throughout the Mesolithic period, as in Denmark. It is, however, not fully clear whether the elk was present in the area throughout the Younger Dryas period (c. 10 900–9700 calBC), even if this seems probable (see e.g. Terberger 2006: 29, fig. 7).

Despite the prevalence of elks in northern Germany during the Mesolithic, the osteological finds suggest that the density of the elk populations was rather low. The economic importance of the elk was clearly lesser than that of the red deer (*Cervus elaphus*), the roe deer (*Capreolus capreolus*) or the wild boar (*Sus scrofa*). Over time, elk populations became even scarcer. With the exception of some sites in Mecklenburg-Vorpommern, there are only a few locations of disputed age that indicate the presence of elks in northern Germany during the Neolithic era (Schmölke & Zachos 2005: 334–335).

The earliest known indication of the elk's presence in Poland during the Weichselian Lateglacial period is, in turn, an ornamented elk antler artefact from Rusinowo in northwestern Poland, radiocarbon dated to around 10 810–10 560 calBC⁵⁷ (Płonka et al. 2011: 728, 730). Prior to this find, the indications of the animal's existence in Poland are very scarce, even if the oldest known elk remains from this region are dated back to the transition between the Middle and the Upper Pleistocene (Stefaniak 2007: 88 and cited references; Płonka et al. 2011: 730). In Schmölke's and Zachos' (2005: 335–336) opinion, however, the scarceness of elk remains in Poland prior to the early Holocene is most likely an artificial situation that does not correspond with the data from neighbouring areas (see also Wilczyński et al. 2012: 148–152).

During the Allerød, the elk appears to have been the most significant ungulate between Oder and Elbe, and the species seems to have been present in the area also during the Younger Dryas (Płonka et al. 2011: 730). According to Płonka et al. (2011: 730), it was namely during the Allerød that the elk began to gain increasing

⁵⁶ It is also worth mentioning that there are notable differences between single sites as regards the link between osteological and artefactual evidence. For instance, Antanaitis (1998: 63) points out that at the sites located in the Lake Lubāns depression in Latvia, there is "absolutely no correlations between economic and ideological data". By contrast, at other sites, such as at Šventoji 3B and 23 in Lithuania, the percentage of elk/deer bones is more similar to the share of artefacts depicting these animals.

⁵⁷ 10 700±60 BP (Poz-14541).

symbolic significance in the North European Plain. The first elk-related artefacts in Northern Europe stem namely from this region and period.

According to the faunal material obtained from the peat bog site of Dudka in the Masurian Lake District in northeastern Poland, however, the elk's significance quickly declined over the course of the Late Mesolithic period. While the species had been one of the predominant forms of prey in earlier periods, from the Late Mesolithic onwards it no longer constituted more than a few percent of the bone material at Dudka, and this decline seems to be representative for the wider region (Gumiński 1998: 107, tab. 12.4). Apparently, however, the elk did not completely vanish from Poland but remained a part of this region's fauna up until the Middle Ages, with the majority of mid-Holocene elk remains being concentrated in the southern parts of the country (Schmölcke & Zachos 2005: 335–336).

Thus, the elk's place within the early fauna of northern Germany and that of northern Poland appears to have been much alike. In both areas, the elk seems to have been a key species during the Allerød period, but in the course of the Mesolithic, elk populations, as well as the general significance of this species, declined, and the elk was superseded by other species. This is also reflected in the tools made of elk antler, especially mattock heads. According to Pratsch (2011: 79, 90), these are characteristic for the Preboreal period in northern Germany and Poland but become replaced by tools made of red deer antler in later periods.

3.2.2 Southern Scandinavia

The oldest known remain of an elk from Denmark is an elk skeleton unearthed from the Vonsmose bog in Haderslev, Jutland, dating from the period 12 120–11 300 calBC⁵⁸ (Aaris-Sørensen 2009: 26). Another five elk remains are moreover dated to the period 11 650–10 550 calBC, but after this period, there is a gap until around 9450 calBC, during which no trace of elk remains survive. According to Aaris-Sørensen (2009: 27), this gap was probably caused by the

colder Younger Dryas period (see e.g. Ljungqvist 2017: 56–57). From the Preboreal onwards, however, the elk is uninterrupted present in the Danish material until the Middle Neolithic.

The elk seems to have been rather important to the economy of the Early Mesolithic Maglemosian culture (c. 9600–6500 calBC). Beside faunal remains, the material culture of this period is represented by various tools (Figure 10), pendants, daggers and points made of elk bone, teeth and antler (see Blankholm 2008: 112, 116–117, tab. 4.1). Among the finds from this period is the famous complete male elk skeleton that in 1922 was unearthed from a peat bog in Tåderup on the island of Falster, dated to around 7040–6460 calBC⁵⁹. A broken barbed point made of bone was discovered inside the elk's femur bone. Afterwards, a harpoon that was probably also related to the killing of the elk was found in the same bog (Ødum 1920; Sørensen 1980).

In the subsequent Kongemose (c. 6500–5300 calBC) and Ertebølle (c. 5300–4000 calBC) cultures, however, the elk's importance to the economy diminished. The youngest dated elk remains from Denmark are those from Kainsbakke, Jutland, with a Pitted Ware date of around 2860–2470 calBC⁶⁰ (Aaris-Sørensen 2009: 26).



Figure 10. Danish elk antler axes and chisels from the early Maglemosian culture. National Museum of Denmark. Photo: Ville Mantere.

In general, the population history of the elk in Denmark is thus largely analogous to that in northern Germany and northern Poland. The elk was the predominant species during the Allerød, but in the course of the following millennia, its importance decreased. The elk population densi-

⁵⁸ 11 770±190 BP (K-6124).

⁵⁹ 7810±120 BP (K-2227).

⁶⁰ 4060±50 BP (Ua-24709).

ties seem also to have been rather low; partly because of the Litorina transgression, which caused a sea-level rise that subsequently resulted in the isolation of elk populations (Schmölcke & Zachos 2005: 335).

From Arrie in Scania, southernmost Sweden, in turn, elk bones have been found that have been radiocarbon dated to the period 11 400–11 150 calBC⁶¹ (Aaris-Sørensen 2009: 27). Three other dates, one preceding the Younger Dryas and two from the Preboreal, respectively, have also been obtained from Scania (see Aaris-Sørensen 2009: 27 and cited references). It is still unclear whether the elk existed continuously in Sweden from the early Allerød onwards, or if there was a gap during the Younger Dryas as in Denmark (Lepiksaar 1986: 57, see also Aaris-Sørensen 2009: 27; Larsson 2015: 471). Apparently, however, the elks' migration northwards took place as soon as the natural surroundings made it possible (Grøndahl et al. 2010: 11).

The elk was a major species in southernmost Sweden during the Preboreal (c. 9600–8600 calBC) and at the start of the Boreal (c. 8600–7100 calBC) period. In addition to elk remains found from settlement layers, the elk's significance is reflected in elk bone deposits (see section 4.4), as well as in various artefacts made of elk antler, such as mattock head axes and leister points (Larsson 2015: 474–477).

However, the elk's key role in southernmost Sweden was not long-lasting. Just as in Denmark, elk populations in the area decreased in the course of the Mesolithic due to the changing climate. According to Magnell (2017: 127, fig. 7.3, tab. 7.5) the decline started around 7500–7000 calBC and accelerated towards the Holocene Thermal Maximum, i.e. 5500–3500 calBC. By this time, the elks in Scania had virtually disappeared from the fauna at coastal sites and were only scarcely represented in diet of human populations at inland sites. In Magnell's view (2017: 132), the difference in finds of elk remains between coastal and interior sites is probably not caused by different biotopes but is rather explainable by a more intense hunting pressure on the coastal sites. Regardless of the reason, the decline in elk populations was persistent. Elks were no longer significant to the population in southernmost Sweden from the Atlantic period

(c. 7100–3800 calBC) onwards. Instead, red deer, roe deer and wild boar now constituted the key species in the region (Welinder 1975: 23–24; Magnell 2017: 127–129).

3.2.3 Central and northern Scandinavia

The oldest elk remain that has been found from Norway is a large, shed antler from Fluberg, Søndre Land, eastern Norway, which has yielded a radiocarbon date of around 8530–8240 calBC⁶² (Grøndahl et al. 2010: 10). Assuming that the date is accurate and not deceptive because of the freshwater reservoir effect, it can be stated that the elk was among the first animal species to colonize southeastern Norway. The fact that the elk antler from Fluberg is very large in size and belonged to a “prime-aged bull in very good condition” indicates, together with pollen samples taken from adjacent regions, that the area was a highly suitable environment for the elk (Grøndahl et al. 2010: 11). Indeed, burnt elk bones discovered in Olstappen in Skåbu, likewise in eastern Norway, yielded a series of radiocarbon dates of which the oldest was approximately 8000 calBC. This find is regarded as the oldest evidence for elk hunting in Norway.⁶³

During the Mesolithic period the elk constituted, along with the beaver, the main quarry species in eastern Norway.⁶⁴ The bone remains of these species are predominant especially at inland sites but also at coastal sites within this region (see e.g. Mansrud 2009: 199 and cited references).⁶⁵ The elk was also common to the interior parts of southern Norway. Besides fau-

⁶² 9100±50 BP (Poz-22238).

⁶³ <https://www.gd.no/nyheter/arkeologer-har-gjort-sensasjonelle-funn/s/1-934610-7340423>, accessed on 30.11.2017.

⁶⁴ Before the radiocarbon dating of the Fluberg antler, the oldest known elk remains from Norway consisted of the elk antler from Hov in Løten, Innlandet, which yielded the radiocarbon dates 8060 ± 160 BP (T-513) and 8520 ± 140 BP (T-1824) and can thus be roughly dated to the period 7740–6770 calBC (Henningsmoen 1975; cited in Grøndahl et al. 2010: 9).

⁶⁵ In the southeastern part of Norway, however, elk remains from the Late Mesolithic Nøstvet phase (c. 6300–4700 calBC) seem to be concentrated at inland sites. From 11 coastal sites situated in the Oslo Fjord region, for instance, unambiguous elk remains have been found only at a single site, whereas elk and beaver bones are predominant at the interior sites of Svevollen and Rødsmoen (see Glørstad 2010: 57, 82, 85, 88, 166, fig. 2.1, tab. 3.4).

⁶¹ 11 345±70 BP (LuS-7685).

nal remains, the elk's key position in southern (as well as eastern) Norway during the Mesolithic is reflected in finds of artefacts made of elk bone/antler (especially pickaxes) and elk figures in rock art (see e.g. Mikkelsen 1977: 191 and cited references; Bang-Andersen 1996: 436; Mjærum 2018). In addition, several mid-Mesolithic sites have been associated with seasonal hunting of elks, which apparently constituted the key occupation in the interior regions up until the Late Mesolithic period. However, it looks as if elk hunting in these areas quickly declined after 6000 calBC (Bjerck 2008: 92 and cited references). During the Subboreal (from c. 3800 calBC onwards), the elk moved eastwards over the Scandinavian Mountains. It seems likely that elks were not present, at least not in numbers, during this period in most parts of Norway, with the exception of seemingly isolated populations in the counties of Vestland and Nordland, respectively (Lie, personal communication, cited in Holm 1991: 96).

In western Norway, the elk benefitted from the relatively cold and arid climate of the early Holocene. In contrast to later periods, the elk was a more common species here than the red deer, although not as common as the wild boar, which dominates the bone material at early Holocene sites (Rosvold et al. 2013: 1147). During the warmer and forested mid-Holocene, elks still existed in western Norway, but the species was clearly not as prevalent as before. In contrast, red deer populations spread out and flourished during this period. Despite the somewhat colder climate during the late Holocene, the elk was not a widespread species in western Norway during this period, according to the bone material. It is, however, possible that the scarcity of elk bones during the late Holocene can at least to some extent be explained by the introduction of agriculture. This resulted in a more sedentary lifestyle with a possibly reduced focus on elk hunting compared to earlier periods (Rosvold 2013: 35–36; Rosvold et al. 2013: 1148).

That elks existed in northern Norway already during the Mesolithic period is indicated by the numerous elk representations in rock art, for instance in Alta and central Nordland. The latter suggest that elks may have existed in the Nordland region as early as the 10th millennium calBC, that is to say, even before the afore-

mentioned find from Fluberg (see section 5.1.1). In the osteological data, however, prehistoric elk remains from northern Norway are very scarce. One exception is the Sirijorda cave in Nordland, where elk bones dated from around 7000–6000 BP onwards have been found. These prove that elks existed in the region at least in the early Atlantic period (Østbye et al. 2006: 155–156, tab. 1, 7, 9, fig. 5). Some Neolithic elk remains have also been found from the Varangerfjord region, but these are significantly inferior to the marine species that dominate the bone material. The prevalence of bone and antler tools nevertheless suggests that the reindeer (*Rangifer tarandus*), and perhaps also the elk, had significance along with marine resources (see e.g. Hodgets 2000: 24–26, tab. 1, 2). In Helskog's (2010: 182) view, the absence of elk (and bear) bones at Stone Age middens in the northern part of Norway is probably misleading and may indicate that these received a special treatment, such as a separate burial or deposition in water.

To sum up, elks have been continuously present in Norway from the Preboreal period onwards (cf. Lepiksaar 1986: 58, fig. 3.3). However, due to the topography of the country, there has been great variation in the distribution of elks during prehistory. This was reflected also in the economic significance of the elk in different areas. In mountainous regions, the elk was never as important as the reindeer, but in the forested zones of Norway, it was a significant species for several millennia (Barth 1981: 157). The scarcity in the osteological material from northern Norway does unfortunately not permit an analysis of the elk populations in the region, but the available data from the southern, eastern, central, and western parts of Norway suggest a rather similar pattern overall. In all of these areas, elks were among the most important game animals during the Mesolithic, but their significance diminished over time. Apart from local exceptions, the elk was generally no longer a particularly significant species in the Neolithic or the Early Bronze Age.

As regards central Sweden, the overall situation is rather obscure due to the scarcity of the bone material. Elk remains have been identified at sites in the region, but it is difficult to estimate their proportion from a wider perspective (Welinder 1975: 27–28). In a study of several

Mesolithic sites in eastern central Sweden, however, Carlsson (2017: 332, 337–340, tab. 1–4) reports that elk remains are found at all sites where faunal remains have been identifiable. Harpoons and points made of elk antler are likewise known from this region (Gummesson & Molin 2019: 267, 274). It thus seems likely that the elk was an important resource in the area in around 8000–6000 calBC, alongside red deer and beaver (*Castor fiber*).

By contrast, elk bones are conspicuous by their absence at Early Neolithic settlement sites in eastern central Sweden but become common by the emergence of the Middle Neolithic (Hallgren: 2010: 5–6). The absence of elk bones and elk symbolism during the Early Neolithic seems to be particularly noticeable in the Mälaren Valley and Bergslagen regions. Hallgren speculates that one possible explanation to this is that elk products might have been important goods in trade relations between southern Funnelbeaker (c. 4300–2800 calBC) and northern Slate Culture (c. 4200–2000 calBC) populations. Perhaps, elk meat and hides were exported southwards while domestic products were transported northwards (Hallgren 2008: 260; cf. Larsson et al. 2012: 25). Be that as it may, more studies are obviously needed before it is possible to elaborate further on the elk's significance in central Sweden during the Stone Age and the Early Bronze Age from a broader perspective.

In northern Sweden, on the contrary, the elk has evidently been a significant species for several millennia. Among the oldest evidence of the elk's presence in northern Sweden is a skeleton of an elk cow dated to the period 7950–7510 calBC⁶⁶, discovered in the 1940s in the town of Skellefteå (Westerlund 1945: 96; Håkansson 1986: 161). In the Mesolithic osteological material from Norrland, the elk is, together with the beaver, already the predominant species (Forsberg 2006: 95). The elk's prominent position in the osteological material is noticeable at settlement sites and in the so-called mounds of burnt stone (see below). Moreover, the elk's importance in the area is also reflected in the enormous quantity of pitfall traps used for elk hunting, as well as in the numerous rock art

sites, wherein elk images predominate (see e.g. Sjöstrand 2011).

In a wide-ranging study conducted by Ekman and Iregren (1984), the osteological data from 174 dwelling sites in Norrland was analysed. The sites are dated approximately to the period 6000–1 calBC, with most sites dating to the Neolithic period. Geographically, the studied sites stem from a region that covers almost 70% of the country's surface and the study can thus be considered to be of major importance when determining the prehistoric subsistence strategies in northern Sweden in general (Ekman & Iregren 1984: 9, 24).⁶⁷ Most of the analysed data consisted of fragmentary pieces of burnt bone. The unburnt elk bones containing bone marrow had, as a rule, been intentionally broken (Ekman & Iregren 1984: 13, 67, tab. 2.1).

In the interior of northern Sweden, the dominance of the elk is easily discernible. Of the 17 different mammalian species represented in the material, three species – the elk, the beaver, and the reindeer – make out approximately 85% of the total amount of mammals hunted. Of these three species, elk bones are by far the most commonly represented in the osteological material, being found at more than 80% of all the studied inland sites. Moreover, when the abundance of the three species is compared to body weight, it becomes clear that *the elk constituted as much as 75% of the mammalian meat consumed in the inland region* (Ekman & Iregren 1984: 31–39, tab. 5.1). At the coastal dwelling sites in Norrland, seals are in turn the main species and represented at all of the 11 sites studied. Elk remains, however, are represented at five of these sites, showing that the species had at least some significance also in coastal areas (Ekman & Iregren 1984: 37–38, tab. 5.8).

The percentage of elk remains decreases towards the north, which is in accordance with the natural density of the species, but also correlates with an increasing proportion of reindeer remains. As Ekman and Iregren (1984: 32, fig. 5.1, 5.2, 5.3) point out, the pattern can be understood when one considers that reindeer hunting compensated for the reduced availability of elks in

⁶⁶ 8610±90 BP (Lu-2228).

⁶⁷ From the available elk remains it is difficult to draw any conclusions regarding the main hunting season, but the data indicates that elks were hunted in the inland region in summertime as well as in wintertime (Ekman & Iregren 1984: 36–37, tab. 5.10, tab. 5.11).

the northern parts of the country. Larsson et al. (2012: 24) also speculate that the increased reindeer hunting and the contiguous summer dwelling sites in the mountain foothill areas during the end of the Neolithic can be regarded as a response to the decline of elks in the forest zone. This, the authors argue, was a natural consequence of the change in climate that favoured reindeer to the detriment of elks (see Larsson et al. 2012: 24 and cited references). Especially, the climate change can, in the authors' view, be seen in the disappearance of an entire category of archaeological remains: the mounds of burnt stone, also called hut grounds (*skärstensvall*; *boplatsvall*). These, "semi-subterranean structures with a surrounding embankment...have been interpreted as walls surrounding houses, used mainly during the winter" (Larsson et al. 2012: 16). The mounds contain bone remains, of which as much as 90–98% derive from elks.

To sum up, the elk was an important animal in Sweden for thousands of years, but as in Norway, there were noticeable regional variations as to the distribution and significance of elks. For instance, in the Rana-Tärna Mountains region in the central Scandes, the reindeer constituted the main economic resource, and no evident signs of elk hunting are visible despite the elk's prominent role in the adjacent forest region (Holm 1991: 109). In the same way, at sites located along the coastline, the elk has in general been of lesser significance than the seal, which seems to have been the main quarry in these regions. The osteological data from central Sweden is still scarce, but in the northern parts of the country, the elk was by far the most important species from the Mesolithic onwards. In the transition period between the Neolithic and the Early Bronze Age, however, it seems that the elk's importance diminished significantly, apparently due to climatic factors.

3.2.4 Finland

The elk colonized Finland from two directions. The initial migration routes, apparently during the Younger Dryas, were from the east and from the southeast through the Karelian Isthmus (Ukkonen 1993: 258). Around 9300–9200 BP, another land route from Scandinavia to Lapland allowed elks to migrate from the northwest

(Kangas et al. 2015: 2205). These migration routes were long-standing and can also be discerned in the genetic data of present-day elks.⁶⁸

The refuse fauna in Finland consists almost solely of small burnt bone fragments that are difficult to identify and problematic to study quantitatively (see Ukkonen 1993: 251–252, 259). At any rate, it is evident that the elk is – together with the beaver, the hare, and the seal – the most common animal in Finland during the Stone Age. The species is discernible in the Finnish refuse fauna, at coastal and inland dwelling sites, throughout the Stone Age and the Early Bronze Age (Ukkonen & Mannermaa 2017: 60–61, 222). Moreover, various tools made of elk bone and antler also attest the importance of this species (Taavitsainen 1980: 8–9).

According to Ukkonen and Mannermaa (2017: 60), elk bones have been encountered roughly in half of the earliest settlements (dating to the period 11 200–8800 BP) in the southern, eastern, and northern parts of Finland. Apparently, the oldest known elk remains are those found from Rahakangas 1 in Eno, Northern Karelia, which is currently regarded as the oldest settlement site in Finland. The bones are dated approximately to the period 9160–8430 calBC⁶⁹ (Ukkonen & Mannermaa 2017: 54, 222). Only slightly younger are the two finds from Saarenoja 2 in Lappeenranta, southeastern Finland, with radiocarbon dates within the approximate period of 8810–8310 calBC⁷⁰ (see e.g. Manninen & Hertell 2011: 120, fig. 6). These, together with the elk remains from Juankoski in Savonia, Inari in Lapland and Hyrynsalmi in Kainuu – equally all more than 9000 years in age – show that the elk was widespread in Finland already during the Early Mesolithic (Ukkonen & Mannermaa 2017: 60, 222; see also Halinen 2005: 47).

Of special interest is the oldest known elk antler found in Finland, a shed antler that in 2008 was discovered in a peat layer at a depth of 3.5 metres during earthworks at a surface mine in Kittilä, northwestern Lapland. The antler has

⁶⁸ Haplotypes of elks from southern Finland and Karelia can be traced back to an eastern clade, while elks in northern Finland are genetically similar to those in Scandinavia and the Kola Peninsula and stem from a western clade (Kangas et al. 2015: 2205).

⁶⁹ 9533±56 BP (Hela- 2721) and 9405±80 BP (Hela-882).

⁷⁰ 9350±75 (Hela-758) and 9310±75 (Hela-728).

yielded a radiocarbon date of around 8280–7830 calBC⁷¹ (see Ukkonen & Mannermaa 2017: 60–61, 222). This date, if accurate, demonstrates, along with the abovementioned find from Inari, that elks were present also in the northern parts of Finland at a surprisingly early stage – even if this was the only region where elk and beaver were less prevalent than reindeer (see Hertell & Tallavaara 2011: 12–13, 18 and cited references).⁷² This notion gives support to the idea that the elk figures in central Nordland (approximately at the same latitude) could indeed stem from the 9th or even the 10th millennium calBC (see section 5.1).

During the Late Mesolithic and the Early Neolithic periods, the elk was together with the beaver the most important quarry in the forest zone. Both species were widespread and numerous across more or less all of Finland. The distribution of elk remains in the archaeological data seems to correspond rather well with the distribution of beaver remains, which is probably not a coincidence. As Ukkonen and Mannermaa (2017: 62) point out, the trees felled and the water systems dammed by the beaver were beneficial for the elk by way of providing food sources, especially during the winter season.

In the mid-Neolithic, however, the distribution of the elk seems to have declined, and the species was no longer present north of the Arctic Circle (c. 66° 33' northern latitude). Still, the elk continued to be an important quarry in the interior of Finland alongside the beaver (Ukkonen & Mannermaa 2017: 85, 118). During the Late Neolithic, the situation is somewhat similar; elk remains are found, but not as much as in earlier periods (Ukkonen 1993: 253–254, fig. 4; Ukkonen & Mannermaa 2017: 133, 222). In the Early Bronze Age, elks still seem to have had some significance, as elk remains are found in the osteological material at every fifth known site from this period. Amongst the few radiocarbon dated elk bones are those found in front of the rock painting site of Kotojärvi (Figure 24) in Iitti (Ukkonen & Mannermaa 2017: 144, 150).

⁷¹ 8915±60 BP (Hela-1850).

⁷² Here it should be borne in mind, though, that as mentioned earlier (3.2), the early radiocarbon dates obtained from elk bones and antlers might be flawed due to the freshwater reservoir effect. Therefore, a certain caution needs to be taken into account when interpreting such dates.

These have yielded two radiocarbon dates from the period 1880–1330 calBC⁷³ (Taavitsainen 2007: 140) and 1870–1620 calBC⁷⁴ (Lahelma 2012b: 95), respectively.

In a research article by Oinonen et al. (2014: 1423–1425), it was argued that a significant growth in elk populations in eastern Fennoscandia occurred around 6000 BP. This would subsequently have had an effect on the emergence of the Typical Comb Ware culture (c. 3950–3500 calBC). The study and its statistics have, however, been severely criticized by Mökkönen and Nordqvist (2014). As they point out, the osteological data utilized in the said study is highly misleading, as the alleged expansion in the elk population is predominantly based on bone material from a single deviant site in Kanava, Joroinen (Mökkönen & Nordqvist 2014: 49–50).⁷⁵ As Mökkönen and Nordqvist (2014: 49–50) conclude, there are thus no scientific grounds to support arguments for a growth in the elk population, or for the elk's role as a primary prey animal or as a key factor for cultural change during this period.

According to Ukkonen (1993: 261), however, it seems to be the case that “prehistoric man for one reason or another changed his preference from elk to seals in the Late Atlantic”. Whether or not this shift occurred as a result of a decline in elk populations, as suggested by Siiriäinen (1982), is open to discussion. In Siiriäinen's view (1982: 18), the main reasons for the decline in elk populations were “over-exploitation and/or changing environment (e.g. closing forests)”. He also proposed that forest fires, which evidently occurred in the Late Neolithic, were deliberately caused in order to keep the changing environment better suited to the elk (Siiriäinen 1982: 19; see also Welinder 1990: 362–366; cf. discussion in section 4.4). Moreover, Siiriäinen maintained that the change from elk hunting to seal hunting actually already started in the Late Mesolithic,

⁷³ 3300±100 BP (Su-775).

⁷⁴ 3420±30 BP (Beta-319257).

⁷⁵ Out of the 347 elk bone fragments considered in the study, 313 fragments, or 90%, stem from this anomalous site. Moreover, the minimum number of individuals for which the osteological material from this site provides evidence is as few as three elks (Mökkönen & Nordqvist (2014: 49 and cited references). Thus, the general view looks completely different if the anomalous material is excluded, and even if it is included, the proportion of elk bones is still not larger than that of beaver bones.

and that this was “reflected in the disappearance of the leaf-formed slate knives, which were probably implements used in skinning elks, and in the appearance of pottery, which was a prerequisite for effective seal fat processing and storage and thus for mass hunting of seal” (Siiriäinen 1982: 18).

In Ukkonen’s opinion (1993: 261), by contrast, a decline in elk populations seems unlikely as elks are commonly represented at the inland sites of the Late Atlantic period. Hiekkänen (1990: 28–30) has also criticized Siiriäinen’s arguments and pointed out that the alleged shift from terrestrial hunting to seal harvesting only holds true for the coast of the Gulf of Bothnia. On the coast of the Gulf of Finland, the situation seems in fact to have been the opposite; seal-hunting decreased in this region just as the hunting of elks and other terrestrial animals, alongside fishing, increased significantly. Thus, more studies are obviously needed concerning the link between elk and seal hunting in pre-historic Finland (see Ukkonen 1993: 257, 259, 261). What is obvious, however, is, as Larsson et al. (2012: 24) have pointed out, that a similar shift from elk hunting to reindeer hunting, which can be observed in the interior of northern Sweden in the Late Neolithic, is not evident in northern Finland. Apparently, this has to do with the fact that the reindeer has been continuously the primary form of prey in northern parts of Finland – more significant than the elk – from the Middle Mesolithic onwards (Halinen 2005: 79–80; Larsson et al. 2012: 24; Hertell & Tallavaara 2011: 12–13, 18).

3.2.5 The Baltic region and Belarus

It seems that the elk colonized the Baltic region during the Younger Dryas era. Over the course of the Preboreal, the elk turned out to become, alongside aurochs (*Bos primigenius*), the most common ungulate species in the Baltic area (Schmölke & Zachos 2005: 330; Lõugas 2017: 60; Zagorska 2019: 305; see also Leduc 2014: 211). Apparently, the earliest elk remains from the Baltic region are those from the Estonian site of Pulli near Pärnu, stemming from a layer where radiocarbon-dated charcoal has yielded a date of

around 9120–8330 calBC⁷⁶ (Poska & Veski 1999: 604, table 2; Lõugas 2017: 60).

In the Mesolithic period, the elk retained its prominent status. A study of bone materials from 12 Mesolithic sites stemming from various parts of the Baltic shows that elk bones are by far the most numerous, and that the elk was, together with the beaver, the main species to be hunted at the majority of sites (Lõugas 2017: 57–60, table 4.1). According to Kozłowski (1990: 427, see also fig. 4), “[o]n sites belonging to the tenth and ninth millennia BP elk bones comprise over 95% of large mammal bones, and in later periods the figure remains over 50%”. In Estonia, elk bones constitute around 40–60% of the animal remains at Mesolithic settlement sites (see Sher 1987: 91). In the osteological material obtained from several sites in the Lake Lubāns lowland in Latvia, the elk is equally the predominant herbivore species (Berdnikov 2002: 15).

In addition to the faunal remains found in refuse from early settlements, the economic significance of the elk in the Baltic region is also indicated by the numerous elk teeth found at Mesolithic and Early Neolithic burials. Large numbers of elk teeth have been unearthed at the cemeteries of Donkalnis in Lithuania and Zvejnieki in Latvia (Grünberg 2013: 234–235). Finds of elk tooth pendants from Estonia dating to the Late Mesolithic and the Early Neolithic are also numerous (Jonuks & Rannamäe 2018: 170). Moreover, during the Mesolithic, elk bone and antler were raw materials central to the production of various tools (Lõugas 2006: 75; 2017: 60; Zagorska 2019: 307–308).

During the Mesolithic period, however, the elk gradually became superseded by red deer and aurochs in the southern parts of the Baltic region. This was linked to environmental changes that resulted in warm and humid conditions, characterized by broad leaf forests. By the end of the Mesolithic, the elk was still the main species in the northern Baltic region, but in Latvia and Lithuania, it no longer had any special position, and the bone material is characterized by a great variety of species (Lõugas 2017: 62, 65). In Latvia, for instance, the percentage of elk remains decreased drastically from 92% in the Early Mesolithic to 21% in the Late Mesolithic

⁷⁶ 9385±105 BP (Ua-13351).

(Zagorska 1993; cited in Hertell & Tallavaara 2011: 19, fig. 4).

However, in the course of the Neolithic, the elk apparently regained its position as the most significant ungulate.⁷⁷ According to Antanaitis-Jacobs et al. (2009: 13), it is common for wild boar, elk, and beaver to jointly dominate finds of bone material from Latvian, Lithuanian and Estonian Neolithic sites (and apparently Early Bronze Age sites in Lithuania as well).⁷⁸ As Girininkas and Daugnora (2007: 69) note, for instance, in Late Neolithic Lithuania, the elk was more important than the red deer and a species of key significance even during the Early Bronze Age, despite the introduction of stockbreeding and agriculture. In Lithuania, elk remains are also found at coastal sites, and the elk seems to have had major significance on the coast alongside seals especially in the Middle Neolithic (Girininkas & Daugnora 2007: 68). Elk bone and antler were also in common use as raw materials for tool production throughout the Neolithic and the Bronze Age, including at coastal sites (e.g. Luik et al. 2011: 255, 258; Luik & Piličiauskienė 2016: 191). It thus seems that the elk was in general an animal of notable significance in the Baltic region until the Early Bronze Age, even if there were most probably rather marked local differences within this region (see Lepiksaar 1986: 58, fig. 3.3). For some reason, however, the making of elk tooth pendants completely ceased in Estonia during the Neolithic period, even though elks were widely hunted in, and also after, this period (Jonuks & Rannamäe 2018: 170–171).

⁷⁷ According to Paaver (1965; cited in Sher 1987: 91), however, the overall proportion of elk bones at Baltic sites decreased so that during the period 5500–4000 BP (mid- and Late Neolithic) it was no longer more than 20–35%. On the other hand, however, he has also pointed out that at least some Late Neolithic and Early Bronze Age sites in the Baltic region – where more than 40% of the bone material consists of elk remains – indicate an overall increase in the number of elks in the Baltic area. Paaver calculated that at 33 sites dated to the late Holocene, the percentage of elk bones is on average 28%. This suggests that the elk was rather well represented in the Baltic area during this time, too (Paaver 1965; cited in Sher 1987: 91).

⁷⁸ In Estonia, no faunal remains from Early Bronze Age settlement sites are known (Lõugas 2007: 29), although Antanaitis-Jacobs et al. (2009: 13) misleadingly state so. The misunderstanding may be caused by differences in national periodizations/terminologies (Lembi Lõugas, Associate Professor, Tallinn University Archaeological Research Collection, email correspondence via Eve Rannamäe, Associate Professor, University of Tartu, 23.10.2022).

In Belarus, the elk was the most common species throughout the Mesolithic period, except for in the southern parts of the country, where other terrestrial species such as reindeer were of primary importance (see e.g. Bridault 1992: 152; Dolukhanov 2008: 292–293). It also seems that the elk remained a rather significant species in Belarus during the Neolithic and the Early Bronze Age, despite the emergence of stockbreeding and agriculture (Kryvaltsevich et al. 2007: 90–91). According to Kozłowski (1990: 429), for instance, more than 50% of large mammal bones found at the site of Zatsenye in central Belarus, dated to around 4000–3000 calBC, belong to the elk. Meanwhile, the percentages for boar and red deer are around 30% and 20%, respectively. Kozłowski (1990: 429) interprets the faunal composition at Zatsenye as representative of the large valleys in the Polish lowlands. However, by and large, it seems that the elk's distribution and prevalence in Belarus resembled that in the Baltic region more closely than to that in Poland.

3.2.6 Northwestern and central Russia and the Urals

Even though elk fossils are known from Late Pleistocene sites in the Urals, western Siberia and the Altai region, they are in general poorly represented in the osteological material, compared to other species. The same holds true for the Upper Palaeolithic sites further west (see Sher 1987: 87–90). It therefore seems that the elk did not particularly thrive in the tundra and steppe landscapes that were characteristic for this era and was thus not a common species among the periglacial fauna of the Late Pleistocene. In the course of the Holocene, however, the climate became more favourable for the elk and the species came eventually to be a dominant form of quarry in the forest regions of Russia (Sher 1987: 90; Zhilin & Matiskainen 2003: 700).

In northwestern Russia, the elk is, together with the reindeer, the main species represented at Mesolithic settlements, and a species of major significance also at Neolithic settlements. The percentage of elk bones from the sites in this region varies from 20 to 55% of total bone

finds (Vereshchagin & Rusakov 1979: 41–43; see also Markova et al. 2003: 884, tab. 1; Lobanova 1995: 108; Zaliznyak 1998: 47, tab. 5.1; Dolukhanov 2008: 295). Elk bones and teeth are also found in burials and bone assemblages dated to the Stone Age, such as at the Mesolithic sites of Popovo and Peschanitsa (see e.g. Oshibkina 2008: 53–54, 58, fig. 5–8) and the YOO burial ground (Gurina 1956: 162, 421–422; Mannermaa et al. 2021; see also O’Shea & Zvelebil 1990: 31, tab. 7; Iršėnas 2000: 101, diagram 2; Grünberg 2013: 235).

Seitsonen et al. (2017) have examined the faunal material from the Lake Ladoga region – especially from sites on the Karelian Isthmus – from a long-term perspective; from around 8600 calBC until the Metal Period. Their wide-ranging study shows that the elk is the second most common mammal found in the faunal record throughout the Stone Age and the Early Bronze Age.⁷⁹ It is preceded only by the ringed seal (*Pusa hispida*), which is the main species at most of the sites studied. Besides these two species, bones of beaver, dog and wolf are also common, whereas remains of other mammals are considerably less prevalent in the region (Seitsonen et al. 2017: 135–138, fig. 5).⁸⁰ Even if the number of cervids gradually drops over time, the character of the faunal material from the Lake Ladoga region remains surprisingly static over the vast period of study despite the emergence of agriculture (Seitsonen et al. 2017: 142, fig. 8). Yet, according to Kangas et al. (2015: 2205), elk populations in Karelia expanded in around 3500 BP. This could perhaps indicate a shift from elk hunting to pastoralism, but more studies are

inevitably needed to ascertain the elk’s economic role in the Early Bronze Age.

In the Volga-Oka region in central Russia, elk replaced reindeer as the dominant species as forest habitats emerged during the Preboreal (Zhilin 2014: 92; see also Zhilin & Matiszkainen 2003: 695, 700–701; Dolukhanov 2008: 294). A study of the refuse fauna at 15 Early Mesolithic peat bog settlements in the region has revealed that the elk was, together with the beaver, the main species hunted at all of these sites. The number of elk and beaver remains exceeds by far that of other mammal bones, and it looks as if both species were hunted throughout the year. As no skeletal parts seem to be absent, it also appears that elk carcasses were transported to the settlements in order to be processed (Zhilin 2014: 93–94, table 1). The significance of the elk was, unsurprisingly, not limited to its nutritional parts. Elk incisors were, for instance, used for making pendants, while bone and antler were important raw materials for different types of tools (see e.g. Zhilin 2014: fig. 2, 4; Lozovskaya 2019: 344). It seems that the elk continued to be a significant species in central Russia throughout the Neolithic period (see e.g. Sher 1987: 91; Dolukhanov & Shukurov 2004: 42; Lozovski et al. 2013: 25).

In the Urals region, the general picture regarding the elk’s position in the fauna seems to have been much the same as that in central Russia. While reindeer had constituted the main quarry in the Upper Palaeolithic, the elk was the foremost species during the Holocene (see e.g. Borodin & Kosintsev 1997: 136, 140; Zhilin et al. 2014: 183; Savchenko 2019: 369). For populations in the Vychegda and Pechora River basins in the northwestern Urals, the main occupation throughout the Stone Age consisted of inland hunting. Despite the badly fragmented bone material from the region, elk remains have been observed at all Mesolithic and Neolithic dwelling sites at which the osteological material has been possible to analyse. On the basis of this data, it can be stated that the elk was, together with the beaver, the most significant quarry in the area during the entire Stone Age. The reindeer, on the other hand, is totally absent at the Mesolithic sites and the faunal remains of reindeer are clearly fewer than those of elk at the

⁷⁹ Elk remains have been found from the very oldest archaeological accumulations in this area, which is not surprising since the first elks immigrated to Finland via the Karelian Isthmus. The available data also suggests that in addition to base-camps, some of the elk bones stem from sites that functioned as hunting stations (Seitsonen et al. 2017: 137–142).

⁸⁰ It should be mentioned that in addition to the mammal bones that constitute around 22% of the material analysed, fish bones make up more than 75% of the material. Correspondingly, bird bones form only about three per cent of the total amount of bones from the Lake Ladoga region that have been studied (Seitsonen et al. 2017: 135–139). These percentages, however, are not necessarily accurate since several factors, such as differences in the recognizability and preservation of various bones, as well as the excavation methods applied, may affect their representativeness in the material (see Seitsonen et al. 2017: 132, 135).

Neolithic sites in this region also (Volokitin & Kosinskaya 2002: 127–129, tab. 1).

In the southern Urals, the elk has also been a central species during prehistory, and it apparently occupied a key position already during the Mesolithic period (Savchenko 2019: 368). In the Early Neolithic, the elk was the predominant species in the area together with the beaver and the horse (*Equus ferus*). Refuse fauna from Neolithic and Eneolithic sites in the southwestern Urals region indicates that the elk continued to be an important species despite the introduction of domestic animals. At Neolithic and Eneolithic sites located on the southeastern slopes of the Urals, elks are also present, but not as numerous as at sites situated on the southwestern slopes (Matyushin 1986: 138–139, 141–142, tab. 1, 2).

In conjunction with the changing climate during the Holocene, the elk thus came to be a widespread and predominant species across the Russian forest zone. In central Russia, where the landscape consisted of mixed forests, elk replaced reindeer as the primary prey already during the early Holocene. In northern areas, in turn, elks were hunted during the Mesolithic, but here reindeer, too, continued to be an important quarry alongside the elk; namely because of the “tundra-like landscapes” that still existed during the Holocene (Dolukhanov 2008: 295–296). In faunal assemblages from the region formed by the Komi Republic, the Nenets Autonomous District and the province of Perm, for instance, elk, beaver, and reindeer together remained the three foremost species from the Mesolithic period until the Bronze and Early Iron Ages (Karmanov et al. 2012: 336). Also in northwestern Russia and the Urals, the elk’s economic significance continued up to the Early Bronze Age, although its role seemingly decreased somewhat over time as other species grew in importance.

3.2.7 General overview of the osteological data in Northern Europe

In general, the osteological finds from different parts of Northern Europe presented above indicate that the elk was a pioneer species in many regions.

Its immigration into new areas would take place more or less at the same time as these emerged from the ice. This is not surprising as the elk is ethologically a dispersal species that easily moves between different types of terrain (see e.g. Grøndahl et al. 2010: 11; Dussex et al. 2020: 2). During the Allerød, the elk was the foremost species in northern Germany and Denmark, and probably of importance in present-day Poland as well, but apparently not yet a significant species in Russia. During the colder Younger Dryas, the elk populations in southern Scandinavia and northern Germany seem to have momentarily declined, while the first elks appear to have reached Finland and the Baltic region namely during this period. In the course of the Preboreal, the elk seems to have inhabited all of the regions dealt with in this chapter, and in many areas, the elk was moreover the, or one of the, foremost species in the fauna.

In some areas, however, the elk’s status declined rapidly. As shown by Bridault (1992: 152–153), there are evident dissimilarities between different regions regarding the prevalence of elk remains in faunal assemblages during the Mesolithic. Throughout this period, the elk appears to have been the central species in Belarus, the Baltic region and northwestern Russia, where more than half of the remains analysed in faunal assemblages belong to the elk (see also Zaliznyak 1998: 47, tab. 5.1). The area with the next largest occurrence of elk remains is that of Scandinavia and Finland, but in this region the percentage of elk bones seems to be somewhat smaller.

In general, the distribution of elk remains in Mesolithic Europe correlates in a rather straightforward manner with the environmental surroundings of this period. As the climate in Central and Western Europe gradually changed from open steppes to denser forests, elks migrated north-eastwards.⁸¹ Here, the climate change was slower, and the habitats were more suitable for the species to thrive (Bridault 1992: 153). However, the changing climate also affected the northern elk populations. A decline can be discerned in the number of elk remains found, first in the southern, and later in the northern parts of Scandinavia during the Mesolithic period (see Bridault 1992: 153 and cited

⁸¹ In Central Europe, faunal remains of elk are found only sporadically, mainly from the Early and Middle Mesolithic periods. In other parts of Europe, elks are virtually absent in the Mesolithic faunal material (Bridault 1992: 152–153).

references). It has also been suggested that a population growth in the forest zone of northern Europe during the Mesolithic would have caused a change in the refuse fauna, allegedly discernible as a decline in elk remains and a simultaneous increase in the remains of small-size mammals (Hertell & Tallavaara 2011: 18, fig. 4).

During the Neolithic period, the elk continued to be an important prey at least in the forest zone of Russia, Finland, northern Sweden, as well as in parts of Belarus and the Baltic region. However, in the majority of regions studied, the percentage of elk remains in the faunal data decreased over the course of the Neolithic period and the Early Bronze Age compared to the earlier periods. In most areas, the elk no longer had a special status in human diets, even if it was commonly hunted beside other species. In other regions, such as in the North European Plain, the economic signifi-

cance of the elk ceased completely. In many countries, a shift from elk hunting to seal harvesting appears to have taken place namely during the Neolithic period.

In summary, this simplified overview of the elk's distribution and prevalence in various parts of prehistoric Northern Europe has revealed interesting patterns at local level as well as on a general scale, both ultimately shaped by the changing climate. The history of the elk's presence in some areas has been short, lasting only a couple of millennia, whilst the species remained an important element in the fauna in other regions virtually throughout the period of study. I will return to these points in Chapter 8 when analysing the relationship between humans and elks in Northern Europe from a long-term perspective. Next, however, let us broaden the discussion of the elk's economic role by addressing topics associated with prehistoric elk hunting.

4 Elk hunting in prehistoric Northern Europe

In this chapter, I will discuss prehistoric elk hunting on the basis of archaeological and ethnographical data. In addition to addressing specific ways of hunting elks, I will consider topics such as carcass processing and the management of elk populations. A general presumption in the discussion is that prehistoric hunters followed the same basic principle of strategic hunting as northern hunters would in later times. In other words, elk hunting was most likely organized so that as much food as possible was obtained with as little energy output as possible (cf. Graburn & Strong 1973: 42, 65–66). For this reason, I will also pay special attention to the important topic of seasonality in elk hunting. I begin, however, by deliberating more generally on the elk's importance as a quarry.

4.1 The elk as a prey

As Larsson (2015: 471) points out, the elk has (just as the horse) probably provided a steadier resource in prehistory than for instance the reindeer, as the annual lifecycle of the elk is focused on a rather fixed area. Yet, ethnographic studies among the North American Cree have shown that, with reference to reliability, elk hunting is considerably more unreliable than fishing, waterfowl hunting or the hunting of small animals on a temporary scale (Winterhalder 1981; cited in Feit 1987: 31). Despite this, however, elk hunting constitutes the most secure way of obtaining food from a long-term perspective due to the enormous amount of meat that an elk provides. According to calculations made by Ekman and Iregren (1984: 39, tab. 6.1), an elk, with a mean body weight of 350 kg, offers approximately 26 times more food than a beaver, the respective average body weight of which is around 20 kg (see also Chaix 2009: 191, fig. 29.4).

Indeed, when the efficiency of elk hunts is set in relation to the energy input of the hunters and the energy obtained from a killed elk, it has been calculated that among the Waswanipi Cree in northern Quebec, for example, elk hunting is “three times more efficient than beaver harvest-

ing, six times more efficient than fishing, ten times more efficient than inland waterfowling, and fifteen times more efficient than small game hunting” (Feit 1987: 30). Undeniably, these types of ratios are likely to depend strongly on factors such as the local environment, season, and the size of elk populations. Still, it can be assumed that it is namely the *high efficiency of elk hunting* that has made the species the first and foremost quarry for prehistoric populations practically in every region where the elk is present (cf. Feit 1987: 31; see also Zaliznyak 1998: 45–48).

A glimpse of how central the elk's importance has been for northern hunter-gatherers can be gained from Nelson's observations among the Chalkyitsik Kutchin Indians in Alaska. He writes: “[M]eat’ is almost synonymous with moose. Whereas other animals may be considered delicacies or treats, moose is probably the one meat they could least think of doing without. During some years the volume of other foods, such as fish, may exceed the volume of moose, but the people still seem to consider it the most important” (Nelson 1973: 85). The Micmac similarly prefer elk meat above the other foods in their diet (Martin 1978: 31). Likewise, Willerslev (2007: 29–30) notes that among the Yukaghirs, elk meat is the most preferred food. The Yukaghir hunters also believe that eating elk meat gives hunters physical strength as the elks are powerful animals themselves.⁸² Among the Vas Yugan Khanty, in turn, fishing constituted the mainstay of the population's diet, but it was activities related not to fishing but to hunting – of elks in particular – that “had a much more important role in traditional Khant spirituality and belief. The practical and religious aspects of hunting fused into a general cultural tradition, which combined ethics of self-sufficiency, cosmological concepts and relations

⁸² In fact, Günther (2022: 30) argues that an essential but often overlooked reason for the importance and ritualized character of the hunting of large animals “is the tenacious belief in the spiritual powers of wild animals and in hunting and eating them as a means of participating with those powers...Therefore, while big game hunting was demanding in terms of skill, experience and physical endurance, when it succeeded it brought great satisfaction and delivery; materially, spiritually, socially and emotionally”.

with the world of spirit-masters and other deities who were associated with sacred shrines located in various parts of the landscape” (Filtchenko 2011: 184).

There can be no doubt that the elk was a highly sought-after food source also for the prehistoric populations of Northern Europe. Besides meat, however, the elk provided various other useful commodities, such as bones, antlers, tendons, and hides. The data obtained from various hunter-gatherer populations in North America suggests that virtually all parts of the elk were utilizable (see e.g. Martin 1978: 31). Elk bones have, for instance, been used for producing oil and lard, that could be conserved and used e.g. for sealing vessels or as a medicine. The stomach and the skin of an elk could in turn be made into cooking vessels or containers, whereas the hide could be used for making canoes or boats (on the importance of hides in northern hunter-gatherer societies, see Skandfer 2022).⁸³ The hide was naturally of indispensable value as clothing and coverings, and the bones and antlers could be shaped into various types of tools, weapons and utensils.⁸⁴ Thus, the *versatility of elk products* must have been another contributing factor to the elk’s primary position in prehistoric Northern Europe.

4.2 Seasonality and weather conditions in elk hunting

Based on the prehistoric osteological material, it is for the most part impossible to make any comparative analyses as regards the seasons in which elks were killed. Sporadic data from different contexts suggests, however, that elk hunting was not limited to a single season. Instead, elks seem to have been killed especially during the winter, and also during the autumn and in summertime, but apparently rarely in the spring (e.g. Møhl 1978: 11; Ekman & Iregren 1984: 36–37, tab. 5.10, tab. 5.11; Chaix 2009: 192). To further elaborate on the association between

seasonality and elk hunting, let us approach the subject in the light of ethnohistorical sources and the elk’s ethology.

Highly interesting ethnographic data concerning the role of seasonality in elk hunting can be obtained from Feit’s (1973; 1987) studies conducted amongst the Waswanipi Cree of northern Quebec. Among these hunters, there are three main periods for hunting elks over the course of the year. These are the rutting season in the autumn, the mid-winter period when the snow cover is thick, and the late winter period with its crusted snow cover (Feit 1973: 118–120; 1987: 26–27). At other times, elks are seldom hunted. Overall, this observation corresponds well with the traditional elk hunting seasons, for example, in Scandinavia (see e.g. Ekman 1910: 453–455; Selinge 1974: 21).

The data collected by Feit (1973; 1987) indicates that Cree elk hunting is strongly dependent on seasonal and ecological conditions and is therefore everything but haphazard. Feit’s studies also show that the climatic conditions described as favourable by the Cree generally corresponded to the days when successful elk hunts were actually undertaken. For instance, Feit (1987: 28) observed that in all cases in which elks were killed, the wind speed was at least eight km/h. As he points out, the close connection between successful hunting techniques and the biological knowledge of the local surroundings is obviously not a unique trait of the Cree Indian’s way of life but a widely recognized aspect among indigenous tribes (Feit 1987: 29). To be sure, despite some variances caused by environmental differences, the data concerning elk hunting among the Cree in northern Ontario and Manitoba, the Micmac in eastern Canada, or the Kutchin of interior Alaska clearly shows a similar link between hunting, the season of the year and certain weather conditions (Nelson 1973: 86–88, 100–109; Martin 1978: 30–31, 125–127; Feit 1987: 29–30; Brightman 1993: 8 and cited references). There is every reason to believe that these aspects were closely inter-related in prehistoric Eurasia as well. It is, moreover, rather likely that prehistoric hunter-gatherers made collective periodic movements to areas where elks were known to reside during particular seasons. Such movements have been

⁸³ <http://traditionalanimalfoods.org/mammals/hoofed/page.aspx?id=6132>, accessed on 20.12.2017.

⁸⁴ The elk hide is actually thick and not particularly suitable for clothing, but it can be used e.g. in shoe soles (Grøn & Turov 2007: 69). Likely, however, elk hides have at least occasionally been used also for clothing in areas where more applicable furs have not been available.

reported amongst several indigenous peoples in North America.⁸⁵

4.2.1 Autumn

As Blehr (2014: 238–239) stresses, contrary to the opinion of some scholars, there are a number of factors that make it probable that the autumn was the main elk hunting season for northern Stone Age hunter-gatherers – regardless of whether their prehistoric dwelling sites were occupied year-round or only seasonally. First and foremost, it was specifically during the autumn when the elk's meat, hide and antlers were of best quality. As Blehr (2014: 239) rightly points out, there must have been a need for high-quality hides for clothing and especially for shelter, and as these were in their best condition during the autumn, it was in this season that demand for elk hides was most probably highest. In other words, it was not only the fatty meat that dictated the elk hunting season – other aspects were of importance as well.

Secondly, the autumn was the season when elks migrated and when several types of elk hunting techniques could be utilized. The seasonal migration routes of elks are known to remain very static over time (see e.g. Pulliainen 1974: 385). According to Nygrén, elks commonly cross rivers at highly fixed places, and at some of these locations, elks have been hunted continuously since the Stone Age (Nygrén & Wallén 2001: 156). In addition to presumed elk hunting taking place from boats, hunting pits and different kinds of snares and traps were most likely used in the autumn, as these seem often to have been located along migration routes. Moreover, individual hunting techniques were useable and effective in the autumn. Importantly, elks could be lured and tricked especially during the autumn rut.

In the ethnographic material, the significance of the autumn elk hunt is well documented. For instance, among the Chalkyitsik Kutchin, the most important elk hunting season was during the rutting period. Nearly half of all the elks they hunted during the year were killed in the course of a three-week period (Nelson 1973: 86,

100). Amongst the Waswanipi and Mistassini Cree, the rutting period was also the main elk hunting season. The hunting focused on elk bulls, which were sought by the shorelines or lured on sight by calls (Tanner 1979: 59; Feit 1987: 27). The autumn rut was likewise the primary hunting season for the Manitoba Cree (Brightman 1993: 8). Equally, the Katanga Evenks in the northern Irkutsk province of Siberia hunt their elks primarily in September and October (Grøn & Turov 2007: 68).⁸⁶

4.2.2 Winter

Another season when elks most certainly were hunted was during the winter (see e.g. Holm 1991: 97). Elks at their winter habitats are concentrated in smaller areas than at other times of the year, which must have made their hunting more efficient. In suitable conditions, the snow drastically slowed down the elk's movement, while it simultaneously made it possible for the hunters to move rapidly by the means of skis or snowshoes. In Russia, for instance, elk hunting on encrusted snow – carried out especially in March – has been documented at least among the Ob Khanty and Ugrians, as well as the Nanai, Udmurts, Kets, Nenets and the Enets (see Kovtun & Marochkin 2014: 103). Even though the quality of the elk's hide and meat were no longer as good as in the autumn, hunting of elks must still have been of major importance during the harsh winter season due to the considerable amount of meat that a single elk could provide (cf. Martin 1978: 30–31).

In wintertime, hunters could also make use of favourable climatic conditions such as blizzards. On the other hand, the weather circumstances could equally be unsuitable for hunting (Martin 1978: 30; Blehr 2014: 238). As is reflected in ethnographic data collected among the Cree, proper climatic conditions seem to have been of special importance during the winter if elk hunting was ought to succeed. This was certainly the case in prehistoric Northern Europe as well.

In the mid-winter, Cree hunters search for signs of elks near hills, where elks tend to con-

⁸⁵ <http://traditionalanimalfoods.org/mammals/hoofed/page.aspx?id=6132>, accessed on 20.12.2017.

⁸⁶ In this region, reindeer are also hunted in the autumn, but only female individuals, as male reindeer are considered to taste bad during the rut (Grøn & Turov 2007: 68).

concentrate during thick snow cover. The hunters then pursue the elk(s) to exhaustion by means of snowshoes. However, the mid-winter hunt is rigorously limited to certain days when the weather conditions are favourable. Such days even have a special term in the Cree vocabulary and are known as “moose days”. These are characterized by wind, light snowfall and appropriate temperatures. As Feit (1987: 27) recounts: “[T]he light wind rustles trees and shrubs and makes it harder for the moose to hear the hunters approach. The light snow is an aid in judging the age of tracks, and reduces the range of vision of the moose. Mild weather makes travel easier and, as opposed to bitter cold, stalking is quieter as both snow and branches are less brittle. Waswanipi say that the comportment of moose is generally calmer on such days as well. When hunting under such conditions an extended pursuit can often be avoided.” During the late winter hunt, in turn, hunting activities concentrate on elks, which are more or less unable to move beyond beaten tracks due to the iced crust cover on the snow. During the late winter hunt, too, the Cree have their own term for days that are particularly suitable for this type of hunt, that is, warm days that are followed by cooler days (Feit 1987: 27).

The winter elk hunt among the Kutchin Indians was much alike that of the Cree and strongly dependent on suitable weather conditions. Amongst the Kutchin, it was generally thought that the elks were cleverer during the winter. Although tracking was easier, winter elk hunting was not an easy task – especially during cold temperatures when the hunters could not go unnoticed due to the squeaking snow (Nelson 1973: 100–101). Like the Cree, the Kutchin considered warm and windy days to be best suitable for elk hunting. However, instead of the light snowfall preferred by the Cree, the Kutchin thought that the best hunting settings were immediately after a new snow. Winter storms with moderate temperatures were also considered as optimal circumstances for elk hunting. This was partly due to the wind that caused trees and bushes to make a constant sound that covered the noise of the approaching hunter, and partly due to the warmer weather that enabled the hunter to walk on the soft snow more or less silently (Nelson 1973: 100–101).

The data obtained among the Cree and the Kutchin reflect a well-developed, sophisticated understanding and utilization of climatic conditions in elk hunting among indigenous hunters. The basic environmental and biological principles that enabled the winter elk hunt to be effective for these populations, such as the advantage of wind, moderate temperature, and the iced snow crust, are aspects that have remained unchanged over the course of millennia. For this reason, it seems highly probable that the prehistoric hunters in Northern Europe hunted elks in wintertime under largely similar conditions (Blehr 2022).

4.2.3 Spring and summer

Notwithstanding the late winter elk hunt, ethnographic data regarding elk hunting during spring seems in general to be conspicuous by its absence. At first glance, this might appear odd, given that elks migrate back from their winter habitats using the same routes as in the autumn. However, as the quality of the elk’s meat and hide are poorest after the winter, it is rather reasonable that the elk was presumably not a preferred prey during the spring. Moreover, several other resources such as fish and birds are available in large numbers during the spring. It can thus be speculated that prehistoric hunter-gatherers focused on other species during this season, while allowing the elks to bear their offspring in peace. Without doubt, elks were most likely also hunted during spring in times of need, but as a rule, it seems probable that elks did not constitute an ideal quarry during this season. For example, Willerslev (2007: 29–30, fig. 2) has shown that among the Upper Kolyma Yukaghirs, where “the elk is by far the most important” animal, the only period during the year when no elks whatsoever are hunted is between March and May.

Ethnographic data on the topic of elk hunting in summertime is likewise scarce compared to that describing the autumn and winter hunts. Still, in the past, summer was a more likely elk hunting season than spring, due to the above-mentioned notion that elks prefer to feed on aquatic vegetation in the summertime. As Ekman (1910: 40) pointed out, besides the rutting period in the autumn, the late summer,

when elks prefer to dwell on marshlands, has most likely been a period when elks were hunted by stalking, as people could have predicted the presence of elks within a given region. Perhaps, elks were also occasionally hunted from boats during the summer, when mosquitos are known to drive elks to water (cf. Nelson 1973: 87–88; see also Kairikko 1997: 12). In all probability, however, summer was not as significant an elk hunting season as the autumn or the winter.

We do not know for sure whether elk meat was stored in the past (cf. section 2.2.2). However, if this was the case, it is probable that elk meat was preserved at least by means of drying and smoking (cf. Jarvenpa & Brumbach 1983: 178–179). Drying in particular, then, most likely took place in the late winter and early spring when temperatures were low and humidity at its lowest. Presumably, various other ways and means for storing elk meat could also be used. Regardless of the methods, however, it is worth acknowledging that elk carcasses preserved significantly better in wintertime and in the autumn than during the warmer seasons. This also made their processing, transport, and storage a lot easier (cf. Jarvenpa & Brumbach 1983: 183). It is therefore possible that these aspects, too, were of relevance to prehistoric elk hunters – even if I am at the same time aware that past conceptions on meat quality probably differed from those of today. I will discuss the topics of carcass processing and hunting management more closely at the end of this chapter. Next, however, let us examine the variety of methods utilized in prehistoric elk hunting.

4.3 Elk hunting methods

There are several ways of differentiating various types of hunting, such as individual as opposed to collective forms, or active versus passive hunting techniques. It goes without saying that different hunting techniques are also reflected differently in the archaeological record. While some methods have left easily distinguishable traces in the landscape (e.g. pitfall traps), other ways of hunting elk (e.g. tracking or stalking) are hardly possible to verify by means of archaeological data. In addition, there are obvi-

ously regional and temporal differences between the elk hunting techniques applied over the course of prehistory. Below, I will discuss various alleged prehistoric elk hunting methods that can be assumed to have been utilized in the past on the basis of archaeological or ethnographic clues. The emphasis will be on hunting techniques that are expected to have been the most significant in terms of efficacy and prevalence.

4.3.1 Pitfall traps

Pitfall traps, or hunting pits, have been used for hunting large mammals virtually all over the world (see e.g. Hvarfner 1965: 319–320). Pitfall traps are often regarded as a passive hunting technique, but these have also been used actively by driving animals into pitfall systems. Moreover, pits were often equipped with different kinds of snares, and hence it is impossible to make a clear distinction between active and passive pitfall hunting (see e.g. Korteniemi 1991: 266).

In Norway, Sweden, Finland and Russia, pitfall traps were used occasionally up until the 19th century. As a consequence, the dating of pitfall traps is everything but straightforward. Old pits may have been reused for a long time, and pitfall traps seldom include any artefacts or structures that could be reliably dated (see e.g. Bergstøl 2015: 48). There are several pitfall traps that have been attributed to the Stone Age by means of radiocarbon dates, but dates from these are sometimes contradictory or ambiguous. Some scholars have therefore questioned whether Stone Age hunter-gatherers would actually have been able to dig, maintain and hunt by means of pitfall traps (Blehr 2014: 235 and cited references). As I will demonstrate below, however, there is enough evidence available today to state that pitfall traps were indeed used for elk hunting during the Stone Age.

Hunting pits are strikingly numerous especially in the interior forest zone of northern Sweden. The concentration of pitfall traps in this area seems to correlate with the distribution of elk populations during prehistory (Lundberg 1997: 150–151, fig. 6.13). Pitfall traps are known to a lesser extent also from the coastal and northernmost parts of the country, but it seems that hunting pits are totally absent from southern Sweden (see e.g. Spång 1981: 284). In Norr-

land alone, nearly 40 000 pitfall traps have been recorded, and the vast majority of these have been used specifically for elk hunting (Hansson 2009: 99–100).

The pitfall traps for elks are not randomly distributed across the landscape but were instead commonly placed at carefully considered locations where animals were expected to move; especially during late autumn and early winter, which were the main seasons used for hunting by means of pits (Selinge 1974: 21, 27; see also Lundberg 1997: 150–151; Hansson 2009: 102). The placement of hunting pits thus required significant insights into the elk's behaviour and its movements throughout the year. Many of the Swedish hunting pits are located at places in parts of the landscape that have been used as pathways, such as shores or the edges of bogs. Moreover, the pits were often situated near places that are even today considered as good elk hunting stands and/or paths used by elks

(Selinge 1974: 6, 27; Spång 1981: 284; Lundberg 1997: 151–152; Tjärnström 2010: 4–5, 11; Sjöstrand 2011: 84–85 and cited references).

In many cases, hunting pits have also been found near rock paintings or carvings (Selinge 2001: 175–176; Viklund 2004: 43). Of particular interest is a hunting pit located in front of a fragmented rock painting depicting an elk figure at Högberget 1 in Ramsele, Ångermanland (Figure 11). When the pit was excavated, a stockpile containing red ochre was found and dated to the Stone Age (see Sjöstrand 2011: 61). It can also be mentioned that some pitfall systems are closely connected to lakes near to which settlements have been found, such as Lake Hoting or Rörströmssjön, where elk-related artefacts have also been discovered (see Appendix 1). However, although many pitfall traps in Norrland are found near Stone Age settlement sites, some hunting pits are not located near settlements, and *vice versa* (Selinge 1974: 29; 2001: 175).



Figure 11. Hunting pits in front of the Högberget 1 rock painting in Ramsele, Ångermanland, Sweden. Photo: Ville Mantere.

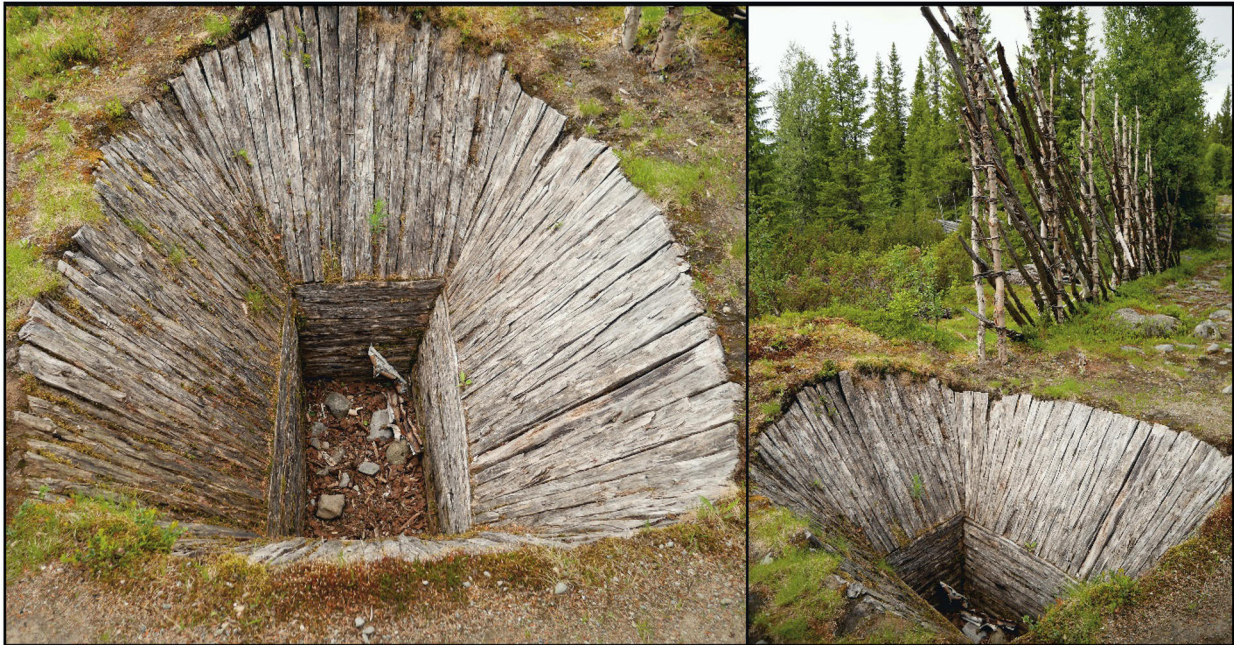


Figure 12. Reconstruction of a pitfall trap with an adjacent fence. Kittilbu Utmarksmuseum, Vestre Gausdal, eastern Norway. Photos and compilation: Ville Mantere.

The Swedish pitfall traps function occasionally as solitary pits, but often they are part of pitfall systems that usually consist of five to ten pits, and exceptionally of more than 100 pits (Selinge 1974: 8–10, 25; 2001: 169).⁸⁷ The size of pitfall systems thus varied considerably, and this is also the case regarding the distance between the pits within a system. Equally, the size of the pits differs to some extent, with smaller pits in stony or mountainous terrain and larger pits in forested areas. The diameter of pits varies approximately from two to five metres, with most being between three and four metres in width. The original depth of the pits was most likely around two metres. Most of the hunting pits are circular or oval and surrounded by a wall, which is sometimes asymmetrical in shape (Figure 12). The bottoms of the pits were usually rectangular or funnel-shaped, sometimes with identifiable wooden structures that prevented the trapped animal from escaping the pit, or even killed the elk (Selinge 1974: 14–20; 2001: 161–167; see also Ekman 1910: 44–45). According to ethnohistorical sources, sheaves of leaves were placed on top and around the pits, which were camouflaged with branches to lure the elks. Snow was also an important aid in covering up the hunting pits (Ekman 1910: 44; Spång 1981: 285). It seems that

it was namely the solitary hunting pits that were equipped with baits, whereas the hunting pits that belonged to a system were connected to each other by fences, with the aim of leading the animal into a pit (see Selinge 1974: 21–24).

Even if it cannot be ruled out that some pits would have been used for reindeer hunting, many factors, including historical accounts as well as the size and location of the hunting pits in Norrland, suggest that these were specifically used for elk hunting (Selinge 1974: 28). The radiocarbon dates that have been obtained from pitfall traps in Norrland indicate that hunting pits have been used in the region for more than 6000 years, from the end of the Late Mesolithic period onwards (see Hennius 2020). The dating of these is sporadic during the earliest period but become rather regular – albeit not particularly frequent – during the Neolithic and the Bronze Age. However, it is entirely possible that pitfalls were used more widely during the Neolithic period than what the currently available radiocarbon dates suggest (Selinge 2001: 179–183, tab. 7; see also Spång 1981: 283–284).⁸⁸

In Norway, hunting pits for elks are in some places very common, and the total number of

⁸⁷ As Selinge (2001: 159) points out, due to the terrain it is not always possible to make a clear distinction between solitary hunting pits and those found within a system.

⁸⁸ Despite falling outside the scope of this thesis, it can also be noted that around 1600 BP, there appears to occur a “boom” in the building of new pitfall traps in Northern Sweden. Apparently, this coincides with the climatic conditions of the period, which favoured significant growth in the elk populations (see Larsson et al. 2012: 24–25).

pitfall traps in the country is reckoned in the thousands (Barth 1981: 150). Ethnohistorical accounts from Norway also describe elk hunting by means of pitfall traps in wintertime (Mørkved 1962: 252, cited in Mikkelsen 1977: 194). Whereas the Norwegian pitfall traps, too, are often dated to later times, there are some from the Trøndelag and Innlandet regions that have been radiocarbon-dated to the Mesolithic and the Neolithic periods. It seems evident that at least some of these pits were used specifically for elk hunting (Barth 1994: 127, 135, tab. 1). From Almemoen north of Hønefoss, eastern Norway, five Mesolithic hunting pits have been found, which are also believed to be related to elk hunting. Radiocarbon samples taken from these pits have been dated approximately to the period 6370–5480 calBC⁸⁹ (Bergstøl 2015: 50–52). In Bergstøl's opinion (2015: 57–59), rock art sites depicting elks in the adjacent region (Figure 39) indicate that the hunting pits in Almemoen were namely used for elk hunting. It can also be mentioned that on the rock carving panel Bergbukten 4B in Alta, northernmost Norway, an elk has been depicted standing above an ambiguous construction (Figure 13). Both Helskog (1988: 45; 80) and Gjerde (2015: 82–83) have understood this scene as a depiction of an elk that has been trapped into a pitfall. While this explanation seems reasonable, it is equally possible that the abstract figure represents some other type of snare or trap.



Figure 13. A possible depiction of an elk trapped in a pitfall in Alta. Bergbukten 4B. Photo: Ville Mantere.

In Finland, pitfall traps have commonly been associated with deer or reindeer hunting. This especially regards the massive pitfall systems in

the eastern and northern parts of Finland that sometimes consist of more than 100, even of as much as 400 pits (e.g. Korteniemi 1991: 166; Leiviskä & Haataja 2010: 43–45; Ukkonen & Mannermaa 2017: 89). The oldest hunting pit that has been dated on Finnish soil is a pitfall trap in Nuoliharju in Hyrynsalmi, Kainuu region. Charcoal that was found in the bottom of the pit yielded two remarkably old radiocarbon dates. These – positioned approximately in the period 8450–7660 calBC⁹⁰ – are among the oldest radiocarbon dates related to human activity in Finland (Korteniemi & Suominen 1998: 54). While the palaeogeographical environment and the location of the pit suggest that it was perhaps used for hunting elks, the size of the pit is, on the other hand, more typical for hunting pits designed for deer hunting (Korteniemi & Suominen 1998: 63–65). There are also some other hunting pits in Finland that have been dated to the Mesolithic and the Neolithic periods, but most of the dated hunting pits stem from the Metal Period (see e.g. Korteniemi & Suominen 1998: 60; Leiviskä & Haataja 2010: 47).

Ethnographic data regarding elk hunting with pitfall traps indicates that these were used in Finland more or less as in Norrland. The pits were camouflaged, connected with fences, and located at places elks would pass through. The pitfall traps often had sharpened poles in the bottom, which killed the elks that fell into the pit. There are also many place names that reflect the hunting of elks with pitfall traps, especially in the district of Savonia in eastern Finland (see Voionmaa 1947: 331–333 and cited references).

In Russia, pitfall traps for elks seem to have been used until recent times in a similar fashion as in Sweden and Finland. Martenson (1903: 130–131, cited in Voionmaa 1947: 330–331), for instance, recounts that in the Perm region, rows of hunting pits were constructed in the landscape along river lowlands and gorges, which elks traversed twice a year during their migrations. The hunting pits were connected to each other by trees or fences, which forced the elks to step into a disguised pitfall trap. According to Martenson, a single hunter could utilize more than 70 hunting pits, which he checked only once a week or every two weeks.

⁸⁹ 7340±50 BP (TUa-6661) and 6715±80 BP (T-19014).

⁹⁰ 8960±120 BP (Hel-3924) and 8890±110 BP (Hel-4045).

4.3.2 Pursuit on skis

The most commonly described way of hunting elks in ethnohistorical sources is the pursuit of elks by means of skis. This hunting technique is often referred to in Finnish, Swedish, Norwegian, Russian, as well as in North American sources. It is also probable that the noticeably widespread myth of a cosmic elk hunt is related namely to such a hunting technique (see Kovtun & Marochkin 2014: 103–104 and cited references; see also Ernits 2010; on the cosmic hunt in general, see Berezkin 2005; d’Huy 2013).

Above all, the ski pursuit of elks took place when the snow cover was thick and coated by a crusted ice cover that bore the hunter on skis but not the elk. Thus, it was the late winter that provided the proper conditions for the hunt. According to Ekman (1910: 40), the hunting started with a skier searching for elk trails around the known winter habitats. Once the skier caught up with an elk, an exhausting chase began that could last up to several days. The sharp ice crust eventually caused bleeding wounds on the elk’s feet, and sooner or later the skier was able to kill the elk by means of a spear, club, or an arrow. The ski pole could also function as such a weapon. Often, several hunters on skis took part in the pursuit, and sometimes dogs, too, were utilized in the hunt (Ekman 1910: 40–43).

Some writers have explicitly expressed their disgust towards elk hunting on skis due to the brutal efficacy of this type of hunt (Martenson 1903: 132, cited in Voionmaa 1947: 329; Ekman 1910: 41–43). Indeed, it seems to be the case that the introduction of the ski constituted a preeminent advantage for ancient North European hunters as it enabled them to move with a speed that was enough to catch all quadrupeds, including the elk (see e.g. Ekman 1910: 281–285). According to Ekman (1910: 284), a special early ski type, which seems to have been used specifically in elk hunting, was made up by coating one ski with the skin of an elk’s or a deer’s leg. This ski, which was often attached to the right foot, was shorter than the other ski, and habitually made of spruce (*Picea abies*) in order to make it as lightweight as possible. The adhesive skin-coating made it possible to use the short ski for kicking and hence to glide on the longer ski. Moreover, in uneven terrain the short ski was very practical and easier to use than

regular skis. This was clearly a benefit when chasing elks (Ekman 1910: 284–285).

That elks were hunted on skis already during the Stone Age can be verified on the basis of a rock carving scene at Zalavruga in the Republic of Karelia. Here, a narrative composition depicts vividly how three elks – a cow with its two calves – are chased and caught up by three hunters on skis (Figure 14). Yet, while the carvings at Zalavruga can almost certainly be attributed to the Neolithic period (see section 6.1.5), it is impossible to tell exactly how long skis have been utilized in hunting.

Apparently, the oldest undisputed ski find in the world is the famous ski from Kalvträsk in Sweden, which has been dated to approximately 5200 BP, i.e. the mid-Neolithic (Berg 1933, see also Aronsson 2016: 417).⁹¹ Rock paintings representing skiers in the Dundebulake valley in Altay, northwestern China, however, have been estimated to date as early as 10 000 BP. These figures are thought to represent the oldest evidence of skiing (see e.g. Jianxin 2016: 137; Zhaojian 2016: 57–58). In Northern Europe skiing appears to have been introduced much later. For instance, although snowshoes are depicted already in the Late Mesolithic rock carving panels in Alta, no depictions of skis are found on these panels (see e.g. Helskog 2014: 55–57, 94; on skis and snowshoes in northern rock art, see Helskog 2018). In the prehistoric rock art of Sweden and Finland, there are no ski depictions either. In Norwegian rock art, there are some sporadic figures dated roughly to the Early Neolithic and the Late Mesolithic that possibly represent skiers (figures known as the “Rødøy man” and the “Böla man”, respectively). However, these figures are too abstract to be regarded as unequivocal proofs of skiing (Aronsson 2016: 417; see, however, Kulberg 2007: 34–37 for a different view). Thus, it appears that skiing was first introduced into Northern Europe during the Neolithic period. The elk pursuit scene at Zalavruga suggests, however, that skis were utilized in elk hunting soon after their introduction.

⁹¹ A wooden elk-headed fragment from the Mesolithic settlement of Vis 1 in the Komi Republic is sometimes referred to as the world’s oldest ski, but as I point out in section 7.6, the item more likely represents a sled runner.

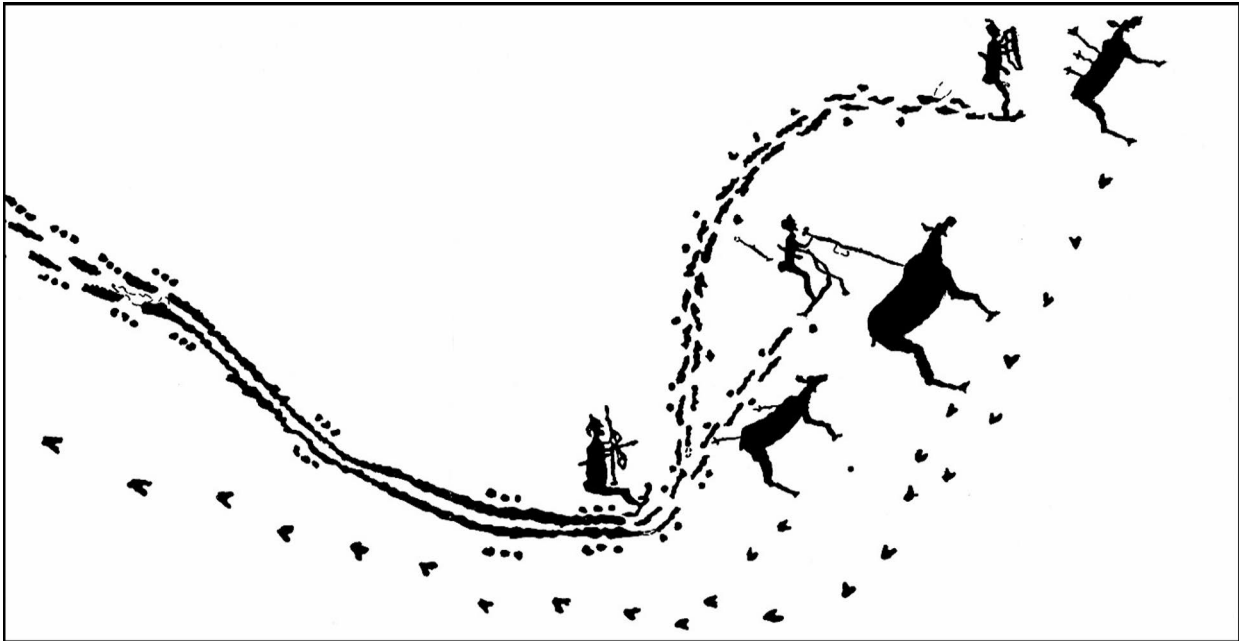


Figure 14. Scene from Zalavruga IV depicting the pursuit of elks by means of skis. Tracing from Savvateyev 1970, fig. 25. Not to scale.

4.3.3 Battue and communal elk drives

Battue, that is, the driving of elks towards hunters, is today the most common way of hunting elks in, for instance, Finland. In short, this hunting technique is performed by a group of hunters who organize themselves into a broad chain. Uniformly and vociferously, they move forward in order to drive the elks within a given region towards another group of hunters, who are quietly waiting for the animals at fixed shooting positions concealed in the landscape. If the weather is favourable and the hunting chain manages to get the elks moving in the desired direction, the hunt eventually ends when the elk(s) come into the view of the hunters lying in ambush, ready to kill the animal(s) (Kairikko et al. 1997: 169–175; Hämäläinen et al. 2001: 117–119, 124–129). Even though modern battues are always associated with the use of rifles, the basic principle of loudly driving elks towards ambushing hunters was presumably utilized also during the Stone Age. Instead of firearms, the ancient hunters may, for instance, have used nets, spears, axes, clubs, or bows and arrows as weapons for killing the fleeing elks. Drive hunting of elks has also been reported amongst several indigenous cultures in North America.⁹²

⁹² <http://traditionalanimalfoods.org/mammals/hoofed/page.aspx?id=6132>, accessed on 20.12.2017.

As Blehr (2014: 233, 236) recounts, it was once a widespread idea among scholars that elks were hunted in prehistory by driving them into water or over steep cliffs. This assumption was mainly based on the idea that rock art sites with numerous elk images were places where elk hunting was practised. In Sweden, for instance, Hallström interpreted both rock painting and rock carving sites as places where elks were hunted by means of communal drives (Hallström 1943; 1945; 1960). Similarly, Blehr himself (2014: 236) interprets elk images located near waterbodies as pictures that were made in order to lure elks towards a favoured location, where the animals could be successively hunted (cf. “sympathetic magic” in section 2.1.1). In a somewhat similar fashion, Martynov (1991: 32) understood parallel vertical lines depicted next to elk images in Siberian rock art as enclosures used for hunting elks. Here it can be mentioned that on the Kåfjord and Bergbukten panels in Alta, there are also depictions of corrals that could be interpreted in this light (Figure 15). However, most animals depicted inside these corrals evidently represent reindeer (see Helskog 2011; Fuglestad 2020: 126–131; Skandfer 2020: 119–122; Günther 2022: 70).

While elk drives most likely took place in the past, the question of whether elks were hunted by driving them over cliffs seems more difficult to answer. The possible connection between elk

drives and rock paintings made on steep cliffs has been speculated at least in Finland, Sweden and Norway (see e.g. Petersen 1929: 34; Sarvas 1975: 46; Taavitsainen 1976: 123; Lindgren 2002: 68–69; Blehr 2014: 236). In Finland, Voionmaa (1947: 335–337) has moreover interpreted place names that combine the designation of the elk with names denoting high places (such as “mountain”, “cliff” or “hill”) in this light, suggesting that elks were hunted at such locations.



Figure 15. Depictions of cervids and corrals on the Bergbukten 1 panel in Alta, northern Norway. Photo: Ville Mantere.

However, contradictory opinions about man’s success in driving elks over cliffs have also been put forth (e.g. Taavitsainen 1978: 194; Kairikko 1997: 11).⁹³ According to personal observations made by Nygrén, for example, elks will attempt to breach hunting chains by force rather than willingly let themselves to be driven over cliffs. Even when distressed, elks are able to very skilfully move and climb over cliffs. For the above reasons, Nygrén is of the opinion that the alleged hunting method cannot have been practised in the past – it would not only have been unsuccessful but also highly dangerous for the hunters. Essentially, this is due to the elk’s strongly individualistic nature in contrast to other ungulates.⁹⁴

In other words, although gregarious animals such as reindeer can be driven towards a desired direction, the same does not hold true for elks. This probably explains why elk depictions feature far less than those of reindeer within the abovementioned corrals depicted in Alta. For the same reason, it seems most unlikely that elks

would have been hunted by being driven over cliffs during prehistory. It can also be added that the drop needed to result in an elk’s death is considerable, perhaps as much as 20 metres. A fall from such a height will, in turn, at least partially damage the elk’s meat, which casts further doubts upon this alleged hunting technique (see also Blehr 2014: 237–238 and cited references).

It must be noted, though, that in Sweden there seems to be some evidence suggesting that pitfall systems could occasionally be constructed in conjunction with steep cliffs. Apparently, the elks were forced into passages consisting of several hunting pits that were attached to each other by fences. If the elks succeeded in avoiding falling into these pitfall traps, they eventually fell from the cliff (Granlund 1940: 7–8; see also discussion in Lindgren 2002: 68–69). Yet, even if elks were hunted in this manner in prehistoric times, it would not have been suitable in every region, simply due to the lack of appropriate cliffs in large parts of the region of study.

4.3.4 Elk hunting from boats

Elk drives ending in water constitute a more conceivable hunting method to have been utilized in the past than the chase of elks over steep cliffs. At least, there is some ethnographic evidence suggesting that hunting elks from boats was rather simple. In his travel account, Whymper (1868: 215–216) describes how the Athabaskan Indians used to kill elks from boats by the Yukon River: “[T]he natives do not always waste powder and shot over them, but get near the moose, manoeuvring round in their birch-bark canoes till the animal is fatigued, and then stealthily approach and stab it in the heart or loins” (see also Graburn & Strong 1973: 70).

While this description does, of course, not confirm the practice of elk hunting from boats in prehistoric Europe, it nevertheless illustrates that elks have been effectively and rather effortlessly hunted in this manner with equipment that was available during the Stone Age.⁹⁵ In fact, in the rock art panels at Kanozero on the

⁹³ Heikki Willamo (wildlife photographer), email correspondence, 25.11.2015.

⁹⁴ K. Nygrén, email correspondence, 6.11.2013.

⁹⁵ As Graburn and Strong (1973: 65) point out, elk hunting from boats serves as an example of a partly strategic hunting method. It has proven to be an efficient way of killing elks, as these are easier to catch in water than on land.

Kola Peninsula, there are four images in which an elk is connected to a boat by a line (Figure 16). In all probability, these carvings are representing elk hunting from boats (Kolpakov 2020a: 65–66). The dating of the Kanozero petroglyphs has turned out to be a complicated task, but it seems most probable that the carvings stem from the Neolithic period (Kolpakov & Shumkin 2012a: 322, 346, 350; see section 5.6.1). Consequently, the depictions at Kanozero seem to offer a concrete indication that elk hunting from boats took place already in the Stone Age.

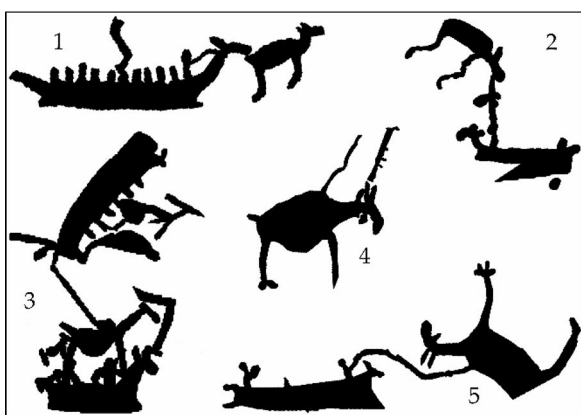


Figure 16. Depictions of elk hunting from boats at Kanozero. 1. Kamennyj-1; 2. Kamennyj-5; 3.–5. Kamennyj-7. Tracings from <https://web.archive.org/web/20070928180101/http://kae.rekvizit.ru/kan/kanintr.htm>. Compilation: Ville Mantere. Not to scale.

In Blehr's outlook (2014: 237), communal elk hunting that took place in water was the primary form of hunting in areas where lakes are numerous, such as in Finland. Moreover, he interprets the elk images in Finnish rock art – commonly situated in the vicinity of water – as a natural outcome of the fact that elk were hunted from lakesides in prehistoric Finland. A similar explanation for the placement of the Finnish rock paintings was previously proposed by Siikala (1980: 186; 1981: 91).⁹⁶ Here it can also be noted that according to Linevski (1939; 1940; cited in Autio 1981: 66), boats and large elk in the central scene at Staraya Zalavruga by the Vyg River are depicting elk hunting from boats that took place by the river in the autumn.

Indeed, elk hunting from boats most likely took place especially during the elk's seasonal

migrations in autumn, when the animals move in large numbers and can be found at shores and at predictable crossing places. According to Nelson's (1973: 92) observations among the Kutchin Indians, elk – especially bulls – were seemingly unafraid of boats during the autumn. Most of the elk hunted during this season were hunted namely from boats without any prior stalking. Often it was even possible to approach the elk bulls at a shooting distance while the animals would continue to stand still. Another time of the year when elk probably were hunted in the vicinity of waterbodies, and from boats, was in the summer, when elk sought the shoreline to escape the forest's numerous mosquitos (cf. Willerslev 2007: 34).

Once an elk had been killed in the water, it must have taken a large effort for prehistoric hunters to get the carcass onboard. Most probably, this was done more or less similarly as documented among the Kutchin. Here, the elk was first dragged to the shore, where parts of the animal were successively detached, so that the carcass could be loaded onto the boat(s). The Kutchin also tried to drive wounded animals towards the shoreline in order to save effort (Nelson 1973: 99). In general, it seems feasible to assume that prehistoric elk hunting was likewise concentrated near rivers and lakeshores, because the transportation of the prey must have been decisively easier by means of boats (or sledges during winter) than by foot.

4.3.5 Traps and snares

In addition to hunting pits, elk were probably hunted already during the Stone Age with different kinds of traps that were constructed along paths that they habitually used. In Finland, Norway and Sweden, for instance, ethnohistorical sources describe the use of cord snares and lever traps. The latter consisted of a spear, pole or point that was triggered when an elk crossed a tripwire (see e.g. Ekman 1910: 45–49; Voionmaa 1947: 333–335; Barth 1981: 157 and cited references). Lever traps were constructed (both as solitary traps as well as parts of trap systems) in similar places in the landscape as pitfall traps, such as in gorges. Apparently, traps were used mainly during the summer and in the

⁹⁶ In this context it is worth noting, however, that the places along the shoreline where elk feed in the summertime (and where animals thus probably were killed) are topographically different from the painting locations (H. Willamo, email correspondence, 25.11.2015).

autumn, because in wintertime these would have likely been frozen.

Among the Indians of North America, elks were also frequently caught by means of snares (see e.g. Graburn & Strong 1973: 73; Nelson 1973: 109; Martin 1978: 31).⁹⁷ However, in contrast to the supposed trapping season in prehistoric Northern Europe, the use of snares was the foremost method used for catching large mammals in Alaska specifically during the winter period (see Blehr 2014: 234 and cited references). According to Nelson (1973: 109), the proper location of the snare was of uttermost importance to the Kutchin Indians, who placed snares at places in the landscape where elk tracks were numerous, or at locations where elks were known to move annually. The most significant factor as regards elk snaring, according to Nelson (1973: 109), was “that the noose must be located in a narrow opening through the undergrowth, where the animals will walk into a set rather than around it”.

Amongst the Kutchin, there was great variation in how often snares were checked. At some places this was done only a couple of times during the winter, but at better locations the checking was more frequent. It was usual that the elk had died and frozen in the snare. Not only did this make the butchering of the animal difficult but the meat of the elk that had died in the snare was also mostly regarded as unsuitable for human consumption, even if it in theory would have been edible (Nelson 1973: 110–111). Thus, one would assume that elk traps and snares were checked on a rather regular basis by prehistoric hunters, whose livelihood was more or less dependent on the elk.

It seems that the use of traps and snares was rather widespread in Northern Europe prior to livestock herding, after which it became rarer as cattle could sometimes be caught in elk traps (see e.g. Ekman 1910: 48–50, 269; Voionmaa 1947: 334). As Blehr (2014: 234) points out, it is impossible to ascertain how long traps and snares for elk have been used for, or how widespread their use might have been. According to Volokitin and Kosinskaya (2002: 130), however, “gigantic self-shooting bows made of tree trunks” that supposedly were utilized in elk hunting have been discovered from the Mesolithic peat bog site Vis in the northwestern Urals.



Figure 17. Possible depictions of elk hunting by traps or snares in northern rock art. 1. Laxön, Nämforsen (northern Sweden); 2. Skogerveien, Drammen (eastern Norway) Photos and compilation: Ville Mantere. Not to scale.

In northern rock art, there also exist some depictions that scholars have interpreted as representations of traps. At the Late Mesolithic rock carving site Skogerveien in Drammen in eastern Norway, for instance, a number of enigmatic figures were understood by Engelstad

⁹⁷ <http://traditionalanimalfoods.org/mammals/hoofed/page.aspx?id=6132>, accessed on 20.12.2017.

(1934: 80) as traps made for catching elks (see also Mikkelsen 1973: 4–7; Gjerde 2010: 433–434). Unfortunately, these particular figures are today no longer visible, but there is another possible snare depiction discernible at the same site. Behind the front legs of an elk figure that is partly located under soil, a strange loop-like shape can be noticed. In addition, another loop is depicted on the elk's stomach (Figure 17.2). With a hint of imagination, these could depict snares used in elk hunting.

Another possible depiction of prehistoric elk trapping is found in Laxön at Nämforsen, northern Sweden. Here, Huggert (2002a: 186) argues, a rock carving portrays the hunting of elks by means of a self-triggering device (see also Hallström 1960: 306). In the composition that probably dates to the Neolithic period, an exceptionally large arrow spears an elk's chest (Figure 17.1). Despite making for captivating spectacles, however, it is not possible to confirm that these scenes represent snares or traps.

4.3.6 Tracking and stalking

An elementary method of hunting that most certainly was utilized in prehistoric Northern Europe is that of tracking down elks. Tracking has universally been a central hunting method from time immemorial, and it has even been argued that the very practice of tracking down animals would lie at the core of rock art production (Ijäs 2017).

Notwithstanding their pursuit on skis, elks were most probably also stalked by foot within their winter habitats. This would happen especially when there was deep snow and/or a hard ice crust, resulting in the elk's movement being so restricted that a hunter with snowshoes could reach the animal merely by following its tracks in the snow (see Blehr 2022). At least, elks are known to have been hunted in this strategic manner for instance among the Yukaghir people as well as the Kutchin and Anvik-Shageluk Ingalik Indians (see Graburn & Strong 1973: 43, 65–66, 70, 73; Nelson 1973: 102).

Besides tracking, elks were probably hunted during prehistory by stalking at places in the terrain where they were known to move, such as at narrow passages which the animals crossed by swimming (see e.g. Voionmaa 1947:

335). It seems likely that prehistoric elk hunters in Northern Europe acted similarly to the Kutchin huntsmen of Alaska, who carefully kept track of any signs of elk and also shared the acquired knowledge with others. Among the Kutchin, elks were, above all, hunted either at dawn or at dusk. The hunters not only located elks by means of their tracks but also by sound and smell if the weather conditions were advantageous. Speaking was not allowed, and the trackers even selected clothes that would enable them to be as silent as possible. Snowshoes were also used only when it was indispensable, due to their squeaking (Nelson 1973: 90–92, 104).

According to Nelson (1973: 92), especially the Tranjik Kutchin were extraordinarily skilled in tracking elks: “[T]hey are able to see the faintest sign and can read the age of a track and the sex, size, and condition of the animals that made it. Judging the age of tracks in mud or sand is more difficult than in snow, and it comes only with long experience”. Brandišauskas (2017: 150) comparably writes about the elk tracking skills of the Siberian Orochen: “[t]racks tell a moose's age preferences as well as the effect of mosquitoes on its movements. Hunters always approach animals with an awareness of the individual animal's personality, the wind direction and terrain conditions. They react to hearing, seeing and smelling the animal”. Similarly, Willerslev (2007: 80) notes that the Yukaghirs can detect elks only by smelling them, and the hunters are also highly skilful in determining the age, sex and condition of an animal on the basis of its droppings. Given the importance of the elk as a game animal, it is beyond doubt that prehistoric hunters in Northern Europe, too, must have been accustomed to interpreting the droppings and tracks of elks.

The Kutchin preferred to stalk elks when the animals were noisily feeding or sleeping and were hence easiest to approach. The Kutchin hunters were very aware of the elk's behaviour in the landscape: “[O]ne of the most important things a hunter knows is that when moose lie down or sleep they usually double back downwind from their own trail so that if any animal follows them its scent will drift to where they are resting” (Nelson 1973: 104; cf. Grøn & Turov 2007: 69). For the above cited reason, the

Kutchin hunters have utilized a special hunting technique known as semi-circular tracking, in which the tracker follows the elk's trails by making semi-circular loops downwind, instead of following its tracks straightforwardly. Semi-circular tracking has been commonly used by many indigenous cultures in North America, and it seems probable that the method was utilized in prehistoric Northern Europe as well.⁹⁸

Another method of tracking elks, equally utilized by the Kutchin, was undertaken communally. This "aboriginal technique" was practised at "islands, peninsulas, or other isolated stands of willow for moose tracks leading into them" (Nelson 1973: 107). Once the hunters had managed to locate one or more elks, they organized themselves into a ring and encircled the animal(s). One or two men functioned as trackers, while the other hunters were positioned at places where the surrounded elk was expected to emerge. This type of hunting was often practised among the Kutchin, and it was most effective when it took place on an island. Still, such hunts were often unsuccessful (Nelson 1973: 107–108).

An individual hunting technique that until rather recently was in common use especially in northern Lapland is known as *naakiminen* (Finnish) or *njaakkâd* (Skolt Saami). This method is a form of tracking, where one or two hunters follow the traces of an elk with the intention of reaching a shooting distance from downwind. The technique was demanding and could sometimes take weeks of stalking (Kairikko et al. 1997: 183; Nygrén & Wallén 2001: 88; Sikku 2009: 94). Saami hunters are also known to have disguised themselves in elk hides during their stalking of elks (Hämäläinen et al. 2001: 18). It seems rather probable that Stone Age elk hunters wore elk hides too, not only for camouflage but also for masking their scent, and perhaps for other reasons as well. Some hunters, such as the Cree, are known to have used coats made of elk hides during hunting for acquiring the power of this animal (Tanner 1979: 141). The Yukaghir hunters, in turn, wear elk hides in wintertime in order to look and move like animals (Willerslev 2013a: 152). Indeed, as was noted earlier, the primary cause for the use of such masking tech-

niques among hunter-gatherers seems not actually to be related to camouflaging but rather to the aim of manipulating the animal's behaviour and taking its perspective (Ingold 2000: 122–126; Conneller 2004). There are also some rock art figures in northern rock art that have been interpreted as hunters disguised as elks or deer (see e.g. Ravdonikas 1936: 157–158; 162). A possible depiction of a hunter camouflaged as an elk can, for example, be seen on the Lillforshällan panel (Figure 18) at Nämforsen (see Hallström 1960: 306).



Figure 18. A hunter disguised as an elk? Lillforshällan, Laxön, Nämforsen. Photo: Ville Mantere.

4.3.7 Attracting elks

Especially during the rutting period, elks can be attracted by different means. Just as with tracking, the practice of attracting elks requires long experience. It seems to have been widely used by northern hunters – most likely since ancient times.

Among the Yukaghirs, mimicking elks in order to get them within shooting range is a predominant hunting technique, which is preceded by many actions that are believed to make this method more effective (Willerslev 2007: 80, 83–85; 2013a: 151–152). For instance, a hunter will rub himself with birch whisks in a sauna on the evening before the hunt with the intention of covering his human smell with one that he believes the elk finds to be more attractive.⁹⁹ For the same reason, the Yukaghir hunters will abstain from sexual intercourse on the day(s) before hunting (cf. discussion in section 2.2.1). As Willerslev (2007: 84) notes, for the Yukaghirs, "the very nature of hunting requires that the

⁹⁸ <http://traditionalanimalfoods.org/mammals/hoofed/page.aspx?id=6132>, accessed on 20.12.2017.

⁹⁹ Tanner (1979: 116) likewise writes that Mistassini Cree hunters use a "Steam Tent" not only for curing sicknesses but also for gaining hunting luck and for removing human smell, which is of assistance in the stalking of animals.

hunter identify with his prey and attempt to ascertain its mode of perception and action by imitating its bodily movements and smell”.

The quality of being human is, in other words, downplayed during hunting and replaced by a thorough change of perception, in which the hunter attempts to be as “elk-like” as possible (cf. discussion on perspectivism in section 2.1.4). Seemingly, this method is advantageous, for as Willerslev (2007: 97, 101) notes, an elk will reveal himself to the hunter and even approach him if the mimicry is carried out delicately enough. The reason for this, the Yukaghirs believe, is that the elk mistakes the hunter for an elk and expects a sexual encounter. What occurs is, according to Willerslev (2007: 98–99), as follows:

While the elk sees its body through the hunter’s act of mimicry—that is, it sees its own species kind—the hunter sees the reflected image of his own body through the acts of the elk, mimicking his acts of mimicry. In other words, the hunter does not just see the elk walking toward him, but he also sees himself from the “outside,” as if he himself were the elk—that is, he adopts toward himself the kind of perspective that the other (as subject) has of him (as object).

Besides smell and movement, the Yukaghir hunters’ mimicking of elks also pertains to audible communication. Already on the days preceding the hunt the hunters start to use various euphemisms, not only of the elk but also when referring to its hunting and killing.¹⁰⁰ While in the forest, in turn, the Yukaghir hunters avoid talking and move either in silence or by imitating the sounds of animals in order to attract them (Willerslev 2007: 85–86, 100–101). For the same reason, the hunters wear skis that are covered with the skin of an elk leg, so that they sound like an elk moving on snow (Willerslev 2007: 97–98; see also Kovtun & Marochkin 2014: 105).

Mimicking the call of an elk cow, in particular, has been widely used by elk hunters across

the boreal forest zone. The method is still used today by hunters and wildlife photographers. This technique requires great skill, and all humans cannot produce the right sound. Calling is used especially during the rutting period, with the intention of making an elk bull reveal himself or attract an elk into a range suitable for killing (Nelson 1973: 94–95). However, a skilled mimicker is able to influence the elk’s behaviour also in various other ways by means of different voices. According to Kairikko et al. (1997: 183), it is, for instance, possible to cause a running elk to stop or to change its running direction, or to lure a wounded elk by making appropriate sounds. In North America, horns made of rolled birch bark or hollow bones have also been used in order to call elks.¹⁰¹ Martin (1978: 31) also writes that the Micmac Indians were skilled at luring elk bulls during the rut by imitating the sound of a urinating cow.

One way of attracting elks is by rubbing an elk scapula against trees in order to draw elk bulls within a region into a killing distance. For this purpose, a fresh or a dried scapula can be used, or the scapula may be modified to achieve a better resonance (see Nelson 1973: 93–94). The use of scapulae requires skill, and the Alaskan Kutchin, for instance, first listen carefully to an elk and then try to imitate the sounds that it makes as accurately as possible. Apparently, some elks are easier to reveal and attract by the use of scapulae than others. The Kutchin Indians mostly utilize the scapula when they have managed to track an elk but have not yet heard or seen the animal. The foremost period for the use of scapulae is during the rutting period, when its use seems to be particularly helpful in the hunt. In fact, the use of scapulae has been regarded by the Huslia Indians as overly effective, and their hunters avoid the use of scapulae because they fear that too many elk bulls would be attracted. Even after the rut, scapulae are sometimes used in stalking to manipulate the elk’s behaviour (Nelson 1973: 94–95).

Presumably, the above attraction techniques have occasionally been combined with different hunting methods, such as hunting from boats (cf. Nelson 1973: 94–95). It also seems rather evident that imitating the sound of elks and

¹⁰⁰ Elks have been called by various euphemisms in many languages. In Siberia, designations known to refer to elks include, for example, “long-ear”, “long feet” and “great beast”. It seems that such designations have served the same purpose as the various names that have been used of the bear, that is, to respect rules which forbid the uttering of the animal’s real name (see Hämäläinen et al. 2001: 33).

¹⁰¹ <http://traditionalanimalfoods.org/mammals/hoofed/page.aspx?id=6132>, accessed on 20.12.2017.

masking human scent are actions that were already utilized by the earliest elk hunters of Northern Europe, even if this cannot be verified by any means.¹⁰² The same holds true for the use of scapulae. In fact, although it is largely impossible to ascertain the various artefacts depicted in the hands of anthropomorphic figures found in rock art, it is not inconceivable that some of them would represent elk scapulae. To be sure, ambiguous artefacts depicted in the hands of anthropomorphs in northern rock art have often, quite uncritically, been taken to represent drums. However, I find it equally possible that some of these figures could represent elk scapulae (Figure 19).



Figure 19. Perforated elk scapula from Skottemarke, Denmark. National Museum of Denmark. Photo: Ville Mantere. Not to scale.

For instance, Herva and Lahelma (2019: 78, fig. 4.3) have interpreted a scene at Bergbukten 1B in Alta as illustrating a kind of séance in which two drummers take part (Figure 20). While such a reading cannot be excluded, let us, however, look briefly at the composition in light of what has been said above. First of all, the rightmost figure in the scene carries an item that in all likelihood represents a bow. As this bow is oriented towards the (likely) elk figure in the middle, it can be taken as a fairly obvious sign of that the scene in question is in some way related to (elk) hunting (cf. Günther 2022: 87, 89). Secondly, there are two anthropomorphic figures in the scene, which in their hands wield objects that probably represent antlerless elk-head staffs, known also as tangible artefacts

(see e.g. Mantere & Kashina 2020). As Herva and Lahelma (2019: 77) have suggested, these artefacts were probably used in the “seduction” of elks and therefore their occurrence in the scene becomes understandable. Thirdly, the animals in the scene are depicted with antlers. As Helskog (1995: 258) has noted, it seems as if more than 95% of the elk figures in Alta are depicted without antlers. In this particular scene, however, the alleged elks have (rather small) antlers. This, I argue, gives further credibility to the assumption that the scene really depicts the hunting and attracting of male elks during the autumn rut.

Now, it is of course possible that the two remaining anthropomorphs are “drumming figures” as Herva and Lahelma (2019: 78) have suggested. However, such an interpretation seems most illogical if the scene in question represents the attracting of an elk, as unnatural sounds are generally avoided during the hunt. A more probable explanation is therefore that the items carried by the anthropomorphs (or at least the larger of them) are not representing drums but rather some objects that serve the same purpose of attracting elks as the elk-head staffs – conceivably elk scapulae, which are not only quite comparable in shape but also known to have been widely used for this task.

¹⁰² It has also been proposed that Stone Age hunters may, during the rutting period, have captured living elk bulls, which would have been fastened to a tree so that they would attract other bulls and elk cows to them (Hämäläinen et al. 2001: 18).



Figure 20. A scene from Bergbukten 1B, Alta, possibly depicting elk hunting by means of attracting. Photo: Ville Mantere.

4.3.8 Tools and weapons used in elk hunting

That arrows and harpoons were used in elk hunting during the Mesolithic period is manifestly clear from the elk skeleton found from Tåderup in Denmark (see section 3.2.2). Zaliznyak (1998: 49) has suggested that harpoons were used especially in the hunting of swimming animals during their seasonal migrations, and it is conceivable that the Tåderup elk was killed in a similar setting.

However, despite the documented prevalence of bows and arrowheads in Northern Europe during the Stone Age, individual elk hunting by means of these was likely uncommon. As Blehr (2014: 234) stresses, the reach of arrows in all likelihood hardly exceeded 20 metres. Regardless of the season or the weather conditions, approaching an elk by foot to such a short killing distance without being noticed was certainly not an easy task, even for expert elk hunters. For instance, McKennan (1959: 48, cited in Nelson 1973: 109) has recounted that bows and arrows were hardly ever used by the Athapaskan peoples during very cold temperatures, as the sound from the bowstring would have frightened away the elk if it had not been killed

by the first arrow shot. Martin (1978: 31) likewise notes that the Micmac Indians used bows for killing elks mainly in summer and spring after they had been tracked and stalked.

As Blehr (2014: 235) points out, the aforesaid ski pursuit scene at Zalavruga (Figure 14) illustrates well how limited the use of bow and arrow must have been when hunting elks. Despite the short distance, the calves are depicted with two and three arrows, respectively, in their backs, whereas the elk cow is being killed with a long spear. In other words, although the bow and arrow were certainly utilized in elk hunting (see e.g. Likhachev 2022; 2023), their use was probably limited to situations where the hunter had the possibility to shoot several arrows from a short distance.

Other weapons that were used for hunting in the Mesolithic period were spears, javelins, and daggers (see Zhilin 2014: 96–99).¹⁰³ According to Ekman (1910: 43–44), elks were in the past also caught with a type of lasso, which is commonly used by the Saami for catching reindeer. Although

¹⁰³ According to Zhilin (2014: 96–99), however, their use was, in the Volga-Oka region, less common than hunting with a bow and several types of arrowheads. Moreover, in central Russia it equally looks as if collective and/or more complex hunting techniques were not yet used during the Mesolithic period. Apparently, hunting was rather stationary and not as seasonally organized as in later periods (Zhilin 2014: 103).

apparently never having constituted a common practice, it has been reported that if the lasso is thrown into the elk's antlers and the other end of the rope quickly attached to a tree, the fleeing elk will fall to ground due to the abrupt backward force this produces. At that moment, if the hunter was quick enough, it was possible to kill the elk with a spear. In fact, on the large rock art panel V at Tomskaya Pisanitsa in western Siberia, a skier with a loop in their right hand and a spear in their left (Figure 21) is depicted behind a group of elks, as if chasing the animals (Okladnikov & Martynov 1972: 53). This depiction most likely represents hunting – perhaps in the aforescribed manner. It seems likewise conceivable that strong nets were used for trapping elks in suitable places. At least, such a reading has been proposed for some Scandinavian rock art panels (Nash 2002: 185–187), and it could indeed explain why nets are often depicted in northern rock art in settings that are better understandable as terrestrial than aquatic (cf. Korteniemi 2008: 37).

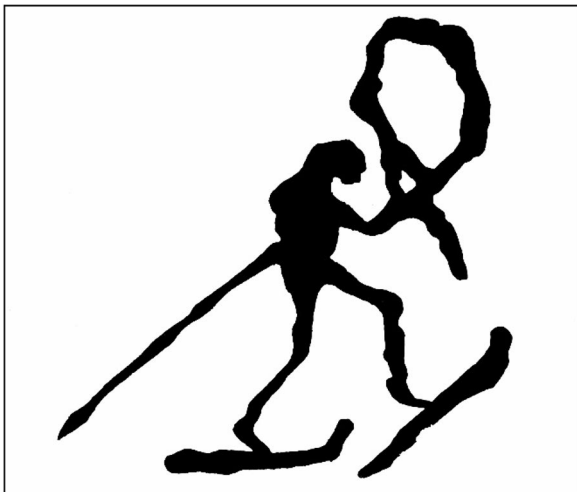


Figure 21. Elk-hunter depicted with lasso-shaped item at Tomskaya Pisanitsa (western Siberia). Tracing from Okladnikov & Martynov 1972, p. 60, fig. 71. Not to scale.

4.3.9 Indeterminate elk hunting techniques

In Larsson's view (2015: 471), Preboreal elk deposits found from Denmark (see below) may suggest that before the early Holocene, elks were hunted "using small lakes or ponds as traps". Later, as these waterbodies became overgrown, such a hunting technique would have become obsolete. It is difficult to prove the existence of this type of hunting method, but as Larsson points out

(2015: 471), it would explain the presence of humans on wetlands. It has also been assumed that Stone Age hunters drove elks into bogs, where the animals could be easily killed by means of clubs, axes or spears (Hämäläinen et al. 2001: 18).

One of the most common natural causes of elk deaths is drowning, as the animals occasionally fall through ice, especially during autumn and spring (Hämäläinen et al. 2001: 49). Without elaborating more thoroughly on the thought-provoking topic of scavenging (see e.g. Russell 2012: 144–155), it can be presumed that prehistoric hunters perhaps took advantage of elks that had fallen through ice, as such animals must have been encountered every now and then. It is also possible that elks were driven intentionally towards waterways where the ice cover was known to be so thin that it would not support the elk's weight.

While Järvinen (cited in Hämäläinen et al. 2001: 18) proposes that elks were hunted in the north by means of falcons and eagles that attacked the elk's eyes, it seems highly unlikely that falconry would have been used in Northern Europe as early as the Stone Age or the Early Bronze Age (on falconry, see Grimm 2020). On the contrary, dogs may well have been used in elk hunting already during the Stone Age (Kairikko 1997: 12). In the Volga-Oka region, for instance, dog remains have been found at Mesolithic settlements, and in Zhilin's opinion (2014: 96), it seems probable that dogs were used in this area primarily for hunting.

As Ekman (1910: 38–40) has recounted, there are basically two ways of hunting elks with dogs. The first technique is to have a free-moving dog chase after an elk quietly, until it reaches it and starts to bark constantly. In this way, the elk is held at bay, and the hunter is able to approach it. Another method of tracking elks is to use a dog that is fastened to a leash during the whole hunt. The idea is to let a dog that has tracked down an elk lead the hunter up to the animal in silence, so that it can be ambushed. The use of free-moving dogs is more common in denser forests, whereas fastened dogs are mainly employed in open landscapes with clear lines of sight. However, as Ekman (1910: 40) points out, it is also possible to combine these two methods, with a dog let loose if an elk is about to escape. In theory, both of the aforementioned hunting methods could have been used in the course of the Stone Age.



Figure 22. Elk depictions on the Bergheim 1 panel in Alta. Photo: Ville Mantere.

In the rock art of Alta there are a couple of scenes in which elks seem to be chased by dogs or wolves (Helskog 2014: 72; Günther 2022: 87; Tansem 2022: 164, fig. 4). Of particular interest is a depiction found on the Bergheim 1 panel (Figure 22). Here, one elk is apparently attacked by dogs or wolves, while a spear seems to be stuck into the forequarter of another elk, situated immediately below the first one. Assuming that the two elk images are related and that the alleged spear really is a spear, it is probable that the dogs or wolves in the composition are in some way under human control. While this is merely a hypothesis, it is also conceivable that prehistoric hunting groups followed wolfpacks and contested for elk individuals that had been killed or surrounded by wolves.

4.4 Treatment of killed elks

For the most part, the osteological material presented in the previous chapter does not offer any detailed insights into how the butchering and treatment of elk carcasses took place in

prehistoric times. There are, however, a couple of noteworthy exceptions, which I want to pay separate attention here.

Firstly, three thought-provoking elk bone assemblages from the Preboreal are known from eastern Denmark.¹⁰⁴ The oldest of them was found in 1999 in a kettle hole at the bog site of Lundby Mose in southern Zealand and is the earliest representation of the Maglemosian culture in Northern Europe (Pedersen & Brinch Petersen 2017: 245–247).¹⁰⁵ Bones of 14 different-aged elk individuals of both sexes were encountered at this site, laid haphazardly in six separate deposits (Hansen & Pedersen 2006: 101–102; Leduc 2014: 203; Pedersen & Brinch

¹⁰⁴ Besides the assemblages addressed in this section, some smaller deposits are also known from Denmark and Scania. These consist of small-scale finds, such as single elk jaws that apparently are the result of meals taken in this terrain, or sporadic elk antler pieces that probably indicate tool caches or tool waste (Pedersen & Brinch Petersen 2017: 243–245). These accumulations, however, are fundamentally different from the elk bone assemblages discussed here and will thus not be dealt with more thoroughly.

¹⁰⁵ 10 127±33 BP (AAR-15630) (elk mattock head) and 10 119±30 BP (AAR-15632) (elk bone).

Petersen 2017: 239–241).¹⁰⁶ Radiocarbon dates obtained from Lundby indicate that the elk bones were deposited on at least three different occasions within the period 9980–8790 calBC.¹⁰⁷ The assemblages did not consist of whole animals, and most of the largest bones in particular, including the majority of the metapodials, were absent. The bones had been cloven with the intention of accessing their marrow, and numerous cut marks indicated the removal of meat and hides. It also seems that the antlers and the front teeth, as well as the spine, were intentionally removed from the carcasses (Leduc 2014: 204–210).

Another assemblage of elk bones, belonging to six individuals, was discovered in 1902 in connection with the Preboreal settlement find of Bagmose in Skottemark, Lolland (Møhl 1978: 5–9).¹⁰⁸ The elk bones have been radiocarbon dated to the approximate period 9150–8310 calBC¹⁰⁹ (Sørensen 1980: 33). At this site, too, bones containing marrow had been cloven, and interestingly, all the metacarpal and metatarsal bones were again absent (Figure 23). Apparently, this was due to the special quality of these bones as preferable working material, particularly for making projectile points (see Møhl 1978: 26; Leduc 2014: 207–208).

The third Danish assemblage of elk bones was discovered in 1920 in a peat bog called Krudtmosen in Favrbø, northwestern Zealand (Møhl 1978: 9–11). Here, the bones of a young elk bull and a female calf of around 18 months were unearthed. Both animals had likely been killed in the winter. The first branches of the bull's antlers had also been cut off and, again, the bone marrow had been consumed, including from the metapodials, which were present in this case (Møhl 1978: 11; Leduc 2014: 209). The radiocarbon dates obtained from the elk bones

are dated approximately to the period 9660–8230 calBC (Sørensen 1980: 33; Pedersen & Brinch Petersen 2017: 248).¹¹⁰

The Danish elk bone assemblages are mutually so similar that it seems likely, as Leduc (2014: 211) writes, that highly standardized ways of hunting and exploiting elks existed in the Preboreal. It is, for instance, interesting to note, that many of the elk scapulae in these three assemblages have been pierced (Figure 19), and the spines had been removed for no obvious reason (Leduc 2014: 209–210).

Late Preboreal assemblages of elk bones are known also from the Swedish sites of Ringsjölm and Östra Greve in Scania, approximately dated to the period 8540–7970 calBC (see Sjöström 1998: 11–12; Larsson 2015: 472–473). At Ringsjöholm, three metatarsal elk bones were discovered and the bone marrow had been consumed from all bones. The Östra Greve site, in turn, contained four elk limb bones, one of which showed signs of cutting. As Larsson (2015: 473) points out, both said finds consist specifically of bones such as are missing from the Danish deposits and show signs of slaughtering, but not of any further use (cf. Leduc 2014: 208). In Larsson's (2015: 473) opinion, a possible explanation for these accumulations is that they served as waterlogged storages for bones that were intended to be used as raw materials in the future.

Besides the Preboreal elk bone assemblages from southern Scandinavia, the exceptionally well-preserved elk bones from the Late Mesolithic site of Zamostje 2 in the Volga-Oka region provide valuable insights into practices related to carcass treatment and hunting preferences. The uniformity of the data from this site indicates that generalized ways of exploiting elks existed in central Russia, and the data from Zamostje 2 can at least partially be regarded as representative for Late Mesolithic hunter-gatherers in Northern Europe (Moubarak-Nahra et al. 2014: 171, 185).

¹⁰⁶ In addition to the concentrations of elk bones, a couple of smaller concentrations of bones belonging to aurochs, wild boar and red deer have also been found from the Lundby site (LM 5, LM 15, LM 29) (see e.g. Hansen & Pedersen 2006: 100–103; Pedersen & Brinch Petersen 2017: 240–241).

¹⁰⁷ 9950±75 BP (AAR-5469), 9930±70 BP (AAR-5470), 9860±70 BP (AAR-5471) and 9585±50 BP (AAR-15635) (elk bones).

¹⁰⁸ The bones belonged to four cows, one bull and one calf. The age of the calf indicates that it was killed between December and February, and it seems possible that the other elks, too, were killed during this period (Pedersen & Brinch Petersen 2017: 242).

¹⁰⁹ 9400±140 BP (K-2075).

¹¹⁰ 9670±170 BP (K-2070) and 9420±220 BP (K-2071).



Figure 23. Elk bones from the Skottemarken assemblage and harpoons made of elk/red deer bone from the Maglemosian culture. National Museum of Denmark. Photo: Ville Mantere.

At Zamostje 2, the remains of 35 elk individuals were unearthed in two layers, which both date to the 7th millennium calBC (Lozovskaya & Lozovski 2016: 63). The majority of the elks were male individuals. Most of the elks in the lower layer had been killed at the age of two or three, while the elks in the upper layer were either calves or full-grown elks between three and four years of age (Chaix 2009: 190–192). The ages of the killed individuals indicate that elks were hunted during autumn, winter, and summer, but seldom during the spring (Chaix 2009: 192).

A later study conducted on Late Mesolithic elk remains originating from a supposed waste area at Zamostje 2 showed a somewhat similar pattern. In the study made by Moubarak-Nahra et al. (2014: 172–173, fig. 2, 3), the bone remains of at least 18 elk individuals were analysed, and the results revealed that most of the elks had been killed at the age of three or younger. The elks had been killed in winter, but contrary to the earlier study, male elk remains were no longer predominant. Instead, most of the elks were cows or calves of unspecified sex. In sum, the two studies suggest that it was namely the elk's age that was of importance to the hunters at Zamostje 2, not its sex. A similar pattern seems to be discernible in the Preboreal elk bone

assemblages from southern Scandinavia.¹¹¹ Perhaps the reason for preferring young elks was simply because their meat was considered more tender than that of older individuals (Chaix 2009: 192). Another probable explanation is that young elks were easier targets than older and more experienced individuals.

At Zamostje 2, the initial stages after the killing of an elk – as reflected in the cut marks on bones – were evisceration, skinning, and the removal of tendons. In all probability, these actions were carried out at the kill site. Next, the carcass was cut into portable sections. This included the disarticulation of the head, but the exact manner of cutting used is not known. Most likely, however, attention was focused on the meaty parts of the carcass, as well as on parts containing useful bone material. In contrast, the unnecessary parts were not brought to the camp site (Moubarak-Nahra et al. 2014: 181–182).

The secondary stages of carcass processing at Zamostje 2 were likely carried out at the camp site. These included the dismemberment of limbs into smaller pieces, the careful cleaning of bones, and the filleting of meats. Most of the vertebrae and many of the scapulae were intentionally broken (Chaix 2009: 193). The spinal cord was probably exploited as a food source or in the processing of hides and tendons. The

¹¹¹ Red deer hunting in this area also seems to have focused on young animals, aged two to five (Magnell et al. 2020).

marrow-containing bones were systematically broken, and it seems likely that this was not linked to famine, but the marrow was instead sought after for its taste, or for some culturally motivated reason (Moubarak-Nahra et al. 2014: 177, 183–185). The fact that the elk bones from southern Scandinavia have all been habitually broken to access their marrow suggests that the breaking of elk bones may have been a widespread custom in prehistoric times (cf. Lane 2014: 126–127).

At least some of the perforated scapulae in the Danish assemblages have evidently resulted from hunting shots and thus seem to have a purely rational explanation (see Leduc 2014: 204, 209). It can nevertheless be noted that it was apparently a convention among the Saami in historical times to break the shoulder blade of a reindeer after finishing a meal. This could perhaps hint at the possibility of some ideological reason for the broken elk scapulae at Preboreal deposits also (see Møhl 1978: 24–25). It can also be noted that among the Mistassini Cree, one of the most important and common divination rites is *scapulimancy*, that is, the act of interpreting fractures and fissures on heated animal scapulae in order to foretell future events (Tanner 1979: 117–124; on scapulimancy in general, see Russell 2012: 130–133). The elk (moose) and caribou scapulae are said to be especially powerful and more difficult and dangerous to read than the scapulae of birds and smaller animals.¹¹² The special importance of elk and caribou scapulae among the Mistassini Cree is likewise reflected in their treatment. Whereas other bones of these species are placed on special platforms, the scapulae are usually hung up on a tree for display (Tanner 1979: 123, 171).

As noted above, the treatment of carcasses is associated with ritual practices among many indigenous peoples and undertaken in order to secure the rebirth of the prey species (see e.g. Russell 2012: 53–58). Among the Vas Yugan Khanty, for example, the proper treatment of the elk carcass was related to the rebirth of the elk as well as to the future success of the huntsman

(Kulemzin 1984: 86; quoted in Zvelebil 2008: 47).¹¹³ In addition to the special treatment of bones, the butchering, food preparation and consumption of the animal are likewise all believed, among the Cree, to affect its renewal (Brightman 1993: 120 and cited references). One of the key assumptions that lie at the core of this study is that these kinds of beliefs and actions existed already among prehistoric elk hunters in Northern Europe. This is a logical presumption, for as Ingold (1986: 246–247) writes, “the hunter lives by killing and eating animals, which inevitably involves their dismemberment. Much of the ritual surrounding the treatment of slaughtered beasts, particularly concerning the preservation of bones and other inedible parts, and their deposition...is designed to assist the reconstitution of the animals...thus ensuring the regeneration of that on which human life depends”.

As Grøn and Kuznetsov (2003: 220) point out, however, there are surprisingly few accounts describing beliefs and practices regarding the revival of species other than the bear, even though the former have been much more significant in the diet. Yet, sporadic ethnographic accounts tell us that elk bones have at least among some indigenous groups been treated somewhat differently to bear bones. For instance, whereas the Khanty deposit bear bones in lakes, elk bones are placed at a special, “clean” location in the forest (Jordan 2003: 107). Among the Evenks, in turn, the bones of bears and wild hoofed animals were deposited on special platforms, but the bones of elks and musk deer were not allowed to be put on these platforms. Instead, elk bones could be deposited in water (Grøn & Kuznetsov 2003: 220). Among the Voguls (Mansi), elk bones were likewise placed in water (Kannisto et al. 1958; cited in Helskog 2010: 182).¹¹⁴ The Rock Cree, in turn, suspend carcasses and bones of various animals in trees at lakesides and riverbanks. Especially the antlers, the skull

¹¹² The use of elk and caribou scapulae for divination seems to have been rather common in the past, although Tanner (1979: 123) recounts that these were not used except for at times of particular need, and even then, only by a few individuals that are considered to be spiritually powerful enough to use them.

¹¹³ Here, elk carvings were made in order to restore animals that were lost due to the trading of elk hides outside the local region (perceived as vital to the revival of the elk). White stones were, in turn, shaped to resemble elks in order to bring luck to hunters (Kulemzin 1984: 87; quoted in Zvelebil 2008: 48).

¹¹⁴ As Günther notes, descriptions of water deposits made in order to restore slain animals are plentiful in northern ethnographical accounts (Günther 2022: 132 and cited references).

and skin from the head of the elk are, according to Brightman (1993: 117–119), a common sight in the Churchill River region (see also Jarvenpa & Brumbach 1983: 183).

As Pedersen and Brinch Petersen (2017: 237–238) note, not only have the remains of eaten animals received a ritual treatment, but it has also been a widespread custom that some parts of the prey's body must be deposited ritually before the rest of the carcass can be brought to the campsite.¹¹⁵ The authors go on to argue that the Preboreal accumulations of elk bones in southern Scandinavia epitomize both kinds of ritual deposits, made in order to guarantee the rebirth of elks (Pedersen & Brinch Petersen 2017: 249–250).¹¹⁶ Similar readings have been proposed by other scholars as well (see e.g. Møhl 1978: 9, 24; Jessen et al. 2015: 85), but it should equally be noted that some scholars have understood at least the Skottemarke and Lundby sites as mere killing or butchering locations (see e.g. Blankholm 2008: 119; Leduc 2014: 211–212; Larsson 2015: 473).

Regardless of their interpretation, and even though they display evidence of similarities in carcass processing, the notable differences between the Preboreal assemblages suggest that the ideas and actions underlying these deposits must have been diverse rather than fixed (cf. Pedersen & Brinch Petersen 2017: 249–250). Moreover, as Pedersen and Brinch Petersen (2017: 250) point out, the fact that the accumulations stem from waterlogged contexts may be misleading. It is indeed fully possible that elk bones were originally deposited also on dry land – perhaps even in significant numbers – but evidence thereof has not been preserved in the archaeological record. Alternatively, the waterlogged contexts may be related to the perception

of the elk being an aquatic animal, which, as will be seen in relation to elk-head boats in rock art, seems to have been a rather common conception within the taiga region.

Another possible indication that elk bones were ritually deposited within an aquatic setting is provided by an example found on the lake bottom in front of the Kotojärvi rock painting in Iitti, southern Finland (Figure 24). These have been interpreted by several scholars as representing an offering (e.g. Ojonen 1974: 43; Siikala 1981: 92; Taavitsainen 1978: 188; 2007: 140; Lahelma 2012b: 90–99; Lahelma 2020). Indeed, it is certainly thought-provoking that at least one elk figure can be discerned in the Kotojärvi painting, and that bones of at least one, or perhaps two elk individuals were found immediately in front of the cliff.¹¹⁷

In addition to carcass treatment and the post-kill rituals described above, meat sharing amongst the group members is in many hunter-gatherer societies characterized by strict conventions (see e.g. Russell 2012: 360–377; Günther 2022: 29–30 and cited references; on sharing in hunter-gatherer societies, see Schulting 2014: 1271–1275). As Günther (2022: 121–122) remarks, this seems particularly to hold true for animals such as elks, that is to say, large, limited and unreliable food sources that require individual skill to be caught. Among the Yukaghirs, for instance, the hunter is obliged to share his catch with the group, and this is carried out on several occasions: between the hunters in the forest; between the kinsmen in the village; and between the household when the meat is cooked (see Willerslev 2007: 36–40; cf. Brandišauskas 2017: 6). I find it most probable that some kind of rules and customs associated with the sharing of meat existed also in prehistoric times. I will therefore return to this theme in relation to the so-called inner designs depicted on elk figures in eastern Norwegian rock art. Next, however, let us take a look at how elk hunting might have been organized and regulated in the past.

¹¹⁵ Among the Mistassini Cree, for example, rituals are linked to three different stages after a successful hunt: when the carcass is taken to the campsite; when the animal is eaten, and when the gnawed bones are deposited. A common conception is that the inedible remains of an animal contain the animal's power, and the fundamental reason for treating them according to established rites is to show respect and gratitude towards the killed animals (Tanner 1979: 131–32, 153).

¹¹⁶ If this understanding holds true, the elk bones could perhaps have been regarded as “seeds” that were “planted” in the ground in order to restore elks to life (Peter Vang Petersen, archaeologist, National Museum of Denmark, personal communication, 1.11.2021). This allegory should perhaps merit consideration also when discussing the origins of agriculture.

¹¹⁷ According to Lahelma (2012b: 91), elk bones found in the initial excavation conducted in the 1970s belonged to two individuals aged 18 to 30 months, respectively. However, relying on the osteological analysis made by Björn Kurtén, Ojonen (1974: 43) speaks only of one individual about one year of age that would have been killed in August or September. A later excavation in 2011 resulted in the discovery of seven elk bones belonging to at least one full-grown elk (see Lahelma 2012b: 95; 2020: 185).



Figure 24. The Kotojärvi (Haukkavuori) rock painting site in Iitti, Finland. Elk bones were found on the lake bottom in front of the painting. Photo: Ville Mantere.

4.5 Regulation of hunting and management of elk populations

It goes without saying that some kind of regulation was a basic prerequisite for elk hunting to function as a long-term subsistence strategy. While there are little, if any, ways of studying regulative methods applied in the course of prehistory, the ethnographic data from indigenous hunting societies can at least give some clues as to how elk hunting may have been organized in the past. The Cree Indians, for instance, are known to spend only a small amount of time hunting elks in contrast to the time spent on fishing or hunting of other species – despite the fact that elk hunting would be a more efficient way of obtaining food. Studies undertaken by Feit (1973: 118–122; 1987: 31–32) have shown that the reason behind this choice is essentially a highly sophisticated way of regulating elk populations within the Cree’s territory.

All hunters in the Cree community actively pay attention to different kinds of signs from their surroundings that suggest the presence of elks. Cree hunters not only keep track of the elks that are seen in the real world throughout the year, but also of those encountered in dreams. These signs are thought to stem from animals and spirits, and they serve as estimations of the number of elks that a hunter will kill during the year. The signs, which are interpreted within a spiritual framework, are also discussed with other hunters, and so they eventually result in a detailed overall picture of the elk population in the region.¹¹⁸ The hunters take notice of the number of elks, the sex and age of the observed animals, the number of calves, the size of groups, and so forth. In other words, assessing the very same parametres used by modern re-

¹¹⁸ The animals killed are regarded as gifts, and in order for the hunt to become successful, the animals themselves, as well as God and His spirit helpers, should be willing to let the elks be killed. If these types of beliefs are not respected and the signs are not heeded, the Cree believe that the animals and spirits will take revenge, eventually leading to fewer elks being caught in future (Feit 1973: 121–122; 1987: 33).

search (Feit 1973: 120–122; 1987: 32–33; see also Tanner 1979: 51, 125, 133).

In practice, Cree hunters organize their observations – as well as their hunting – around territories in the landscape, which are supervised by so-called “owners”. The owners regulate the number of hunters within a territory, and, in the form of suggestions, they also control how, when, where, and how many elk are killed. In this way, the owners are able to build up a detailed picture of the elk populations in their territories, and to use this information in upcoming hunts. For instance, entire territories, as well as sections within territories, are used rotationally so that the same areas are not hunted continuously. Such a practice not only ensures the recovery of the elk populations in the region but has also proven to yield more elk kills compared to territories that are hunted in successive years. However, in spite of this management system, overhunting of elk sometimes does occur – most often within territories where the human population is denser than elsewhere. Nevertheless, even in such cases the Cree respond quickly by continuing the fallow period until the elk population in the region has recovered (Feit 1987: 34–36; see also Tanner 1979: 182–202).

As Feit (1987: 37) has pointed out, the Cree are by no means an exception among indigenous hunters when it comes to managing elk populations. Rather, it seems to be the case that similar types of management and regulation practices are undertaken by many northern hunter groups across North America (see e.g. Brightman 1993: 306, 316; Notzke 1994: 145–150).¹¹⁹ Moreover, native groups are widely known to have used selective burning as a means of modifying their environment. In northern Alberta, for instance, burning was done annually, where it not only affected the elk populations positively but also made the terrain easier for seeing and hunting elk (Lewis 1982: 16, 28; cited in Feit 1987: 37). It is fully possible that forest fires were deliberately lit for similar reasons already during the Stone Age (Siiriäinen 1982: 19; Welinder 1990: 362–366; Grøn 2012: 182–185).

In Siberia, the Katanga Evenks have likewise utilized a refined strategy for managing local elk

populations. The Evenks set apart certain areas in the vicinity of large rivers, where wolves were systematically killed and elk hunting restricted, eventually resulting in an overpopulation of elk in the region. This, in turn, forced some elk – young bulls in particular – to move outside this area. Consequently, during the hunting season the Evenks could focus their hunt primarily on young inexperienced bulls, which were much easier targets than the older elk (Grøn & Turov 2007: 69).

Notions that connect the management and regulation of elk populations with spiritual beliefs seem also to be very widespread (see e.g. Martin 1978: 35; Feit 1987: 37–38 and cited references). Whereas elk are regarded as gifts by the Cree, so, too, do the Evenks perceive elk as having been sent by their “grandfather”, or the shaman. It is he who, in practice, pays attention to the environment and, based on his own knowledge, plans and organizes the elk hunting in the region (Grøn 2012: 177). Both the Rock Cree and the Waswanipi Cree believe that elk and other animal species (except for the bear) are under the control of a specific spirit ruler that is personified as an enormous manifestation of the species in question. For instance, the ruler of the elk is called the “great moose” or “master of the moose” (Brightman 1993: 91–92 and cited references). This being is believed to regulate the elk in several respects. It decides how many elk are born each year, and it is also held to be responsible for the rebirth of slaughtered elk. Moreover, this entity allows elk to be killed by hunters. Therefore, gratitude is shown to this spirit being and rites are conducted in its honor when elk have been killed. If the rites are not performed properly, the spirit ruler is said to punish the hunters by not providing them with prey (Brightman 1993: 92–93 and cited references).

While it is obviously impossible to draw any far-reaching comparisons between ethnographic data obtained from North America or Siberia and the archaeological record of prehistoric Northern Europe, it is in any case conceivable that some kind of management of elk populations was practised already during the prehistoric period (e.g. Martin 1978: 176; Vecsey 1980). As Grøn and Turov (2007: 71–72; see also Grøn 2012: 182–185) point out, this also challenges the traditional view of associating resource

¹¹⁹ <http://traditionalanimalfoods.org/mammals/hoofed/page.aspx?id=6132>, accessed on 20.12.2017.

management with agricultural populations (Damm & Forsberg 2014: 838; see also Nash 2002: 187; Nash & Chippindale 2002: 13).¹²⁰ Indeed, I find it likely that resource management was of key importance to hunter-gatherers already before the introduction of agriculture. The very fact that the elk remained the main prey in many regions over the course of several millennia itself points to this conclusion.

Most likely, however, the degree of regulation and selective hunting was closely related to the size of the elk population present. Among the Chalkyitsik Kutchin, for example, the number of available elks is insufficient to permit the selection of specific animals for slaughter by hunters. Even if the Kutchin have a refined vocabulary to distinguish different-aged and sexed elks, and hunters mostly prefer to kill two-year-old elks, all available elks are eagerly hunted (Nelson 1973: 97). Amongst the Kouyukuk Athapaskans, on the other hand, there is a much more selective hunting of elks, as these occur in greater numbers. As Nelson (1973: 98) writes, “[D]uring the summer they prefer a young bull. In the fall they usually shoot a barren cow or a two-year-old bull. In early fall before the rut they will also kill large bulls. In winter an adult cow, preferably without a calf, is best; and during the late winter they may also shoot a young bull”.

It goes without saying that if the size of an elk population is to remain in its natural state, animals of both sexes and of all ages must be killed in an equal manner. According to Nygrén (1976: 10), approximately ten per cent of the elk calves and 22% of the full-grown animals in an area can be killed yearly for the elk population to remain constant in size. However, besides hunting, predators, diseases, and harsh winters provide examples of factors that have all had an effect on the size of elk populations in the past. At times, prehistoric hunters without doubt encountered situations in which the local elk populations were, for some reason or another, distorted (cf. Martin 1978: 18; Brightman 1993: 285). Under such circumstances, elk hunting must either have been interrupted totally, or

alternatively been limited to the hunting of elk cows, bulls, or calves specifically (see also sections 2.2.2 and 6.3). Hence, it is easy to see that the regulation of elk populations has necessitated a continuous, elaborate reflection with reference to the animals that were, and were not, to be killed by the hunters.

4.6 Prehistoric elk hunting in Northern Europe – a summary

The concrete evidence as regards prehistoric elk hunting methods utilized in Northern Europe is considerably scarce. Notwithstanding different types of tools and weapons, pitfall traps constitute basically the only direct archaeological evidence of how elk hunting actually took place. Moreover, in a few instances, northern rock art provides some clues. The illustrative ski pursuit scene at Zalavruga as well as the petroglyphs depicting elk hunting from boats at Kanozero can rather reliably be interpreted as indicative of elk hunting techniques that were used during the Stone Age – especially because both methods are described in later ethnographic sources. The depictions of alleged snares and traps in the rock art of Nämforsen and Alta, on the other hand, are more difficult to interpret, even if there is ethnographic data to support the existence of such hunting constructions also.

Fortunately, various ethnohistorical sources can supplement our archaeological data on elk hunting – not only regarding specific hunting methods, but also with reference to the elk’s economic significance from a wider perspective. In short, I claim that it was *the high efficiency of elk hunting* and *the versatility of the elk as a prey animal* that constituted the two most important reasons for the elk becoming the foremost prey virtually all over the boreal forest zone. In spite of obvious limitations, the uniformity of the data obtained from indigenous hunter-gatherers shows that *elk hunting is strongly dependent on seasons and weather conditions*, and there is every reason to believe that this was the case already in prehistoric times.

On the topic of specific hunting techniques, the ethnohistorical sources suggest that elks were hunted using a variety of methods. These most likely varied between regions due to dif-

¹²⁰ Brightman (1993: 246), for instance, rather straightforwardly states that “[n]o intentional management of resources through selective harvesting was practiced” among the Cree in prehistoric times, even if he admits that this view is only an assumption with no actual evidence.

ferences in topography and geography, as well as in the size of elk populations. Both individual and collective techniques were most probably used, and it seems rather evident that passive elk hunting methods were commonplace alongside many active hunting techniques. Various types of snares and traps were probably used widely, even if these have not left identifiable traces in the landscape. Tracking and stalking elk was surely a widespread practice, and early elk hunters likely mastered various ways of attracting elk. Different implements, such as boats, skis and snowshoes, must also have been important. It is also probable that dogs were used in elk hunting already during the Stone Age. While some elk hunting methods were naturally more suitable and/or popular in certain regions, it nonetheless seems as if prehistoric elk hunters commonly utilized a range of techniques for hunting elk instead of resorting to a single hunting strategy.

The scant osteological data indicates that prehistoric elk hunters were skilful and efficient also in exploiting the elk they killed. Apparent-

ly, carcass exploitation took place in accordance with widespread customs already during the Mesolithic period. It also seems likely that actions of a ritual character were associated with the treatment of the killed elk at an early stage. This was probably the case also for hunting regulations. Even if there are no ways to confirm the existence of prehistoric practices for the management of hunting, it seems most likely that there were ways of controlling and securing the regeneration of elk populations in the Stone Age.

Above, I have presented the osteological data pertaining to the elk and reflected on the elk's key economic role in prehistoric Northern Europe. The time has now come to add another dimension to the discussion by looking more closely at cultural manifestations of the relationship between humans and elk in this extensive region. In the following two chapters, I will focus on the elk's significance in northern hunter-gatherer rock art.

5 The elk motif in the rock art of Northern Europe

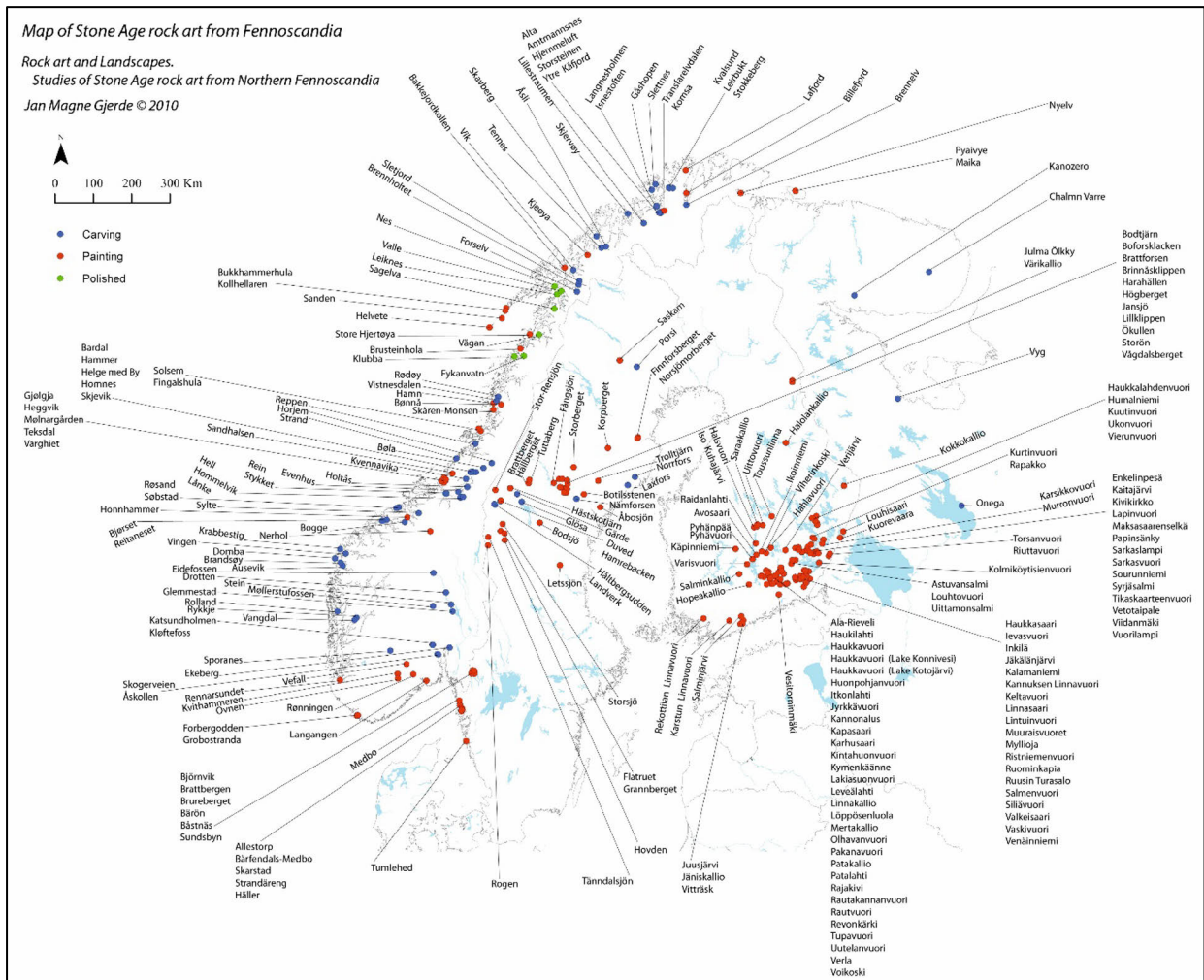


Figure 25. Map of Stone Age rock art sites in Fennoscandia, of which the majority include depictions of elks. Additional sites with elk figures have been found in Norway, Sweden and Finland since the initial publication of this illustration. Map from Gjerde 2010, p. 178, fig. 90.

As stated in the introduction, it would be impossible to address all elk depictions in the hunter-gatherer rock art of Northern Europe. According to a “careful estimate” by Gjerde (2010: 176), there are more than 300 rock art sites dated to the Stone Age in Fennoscandia, which together encompass at least 20 000 figures (Figure 25). The portion of elk depictions in this material numbers in the thousands. For this reason, I have decided to examine the elk motif in northern rock art by means of six case studies. The samples chosen for this scrutiny consist of the rock carving sites of Alta, Námforsen and Kanozero, the clusters of rock art from eastern Norway (carvings) and Finland (paintings), as well as the concentration of polished rock art

from central Nordland. Together, these six examples provide sufficient material to form a wider understanding of the elk motif in northern rock art over the longer term. Despite some uncertainties regarding the chronology of the sites, the elk figures depicted at these locations range from the Early Mesolithic to the Late Neolithic, and possibly even into the Early Bronze Age and beyond. Such a length of time makes possible a meaningful study of changes in the elk motif during prehistory.

The reasons for choosing these dissimilar examples to illustrate the elk’s position in northern rock art are manifold. In addition to the value of their extended overall chronology, the chosen sites represent geographically distinct areas: the

coast of northern Norway; eastern Norway; central Sweden; the Kola Peninsula; and south-eastern Finland (Figure 26). As such, these sites are more or less representative of the wider

distribution of hunter-gatherer rock art sites in Fennoscandia. At a local level, these examples also include both coastal and inland sites, and thus represent different topographical contexts.

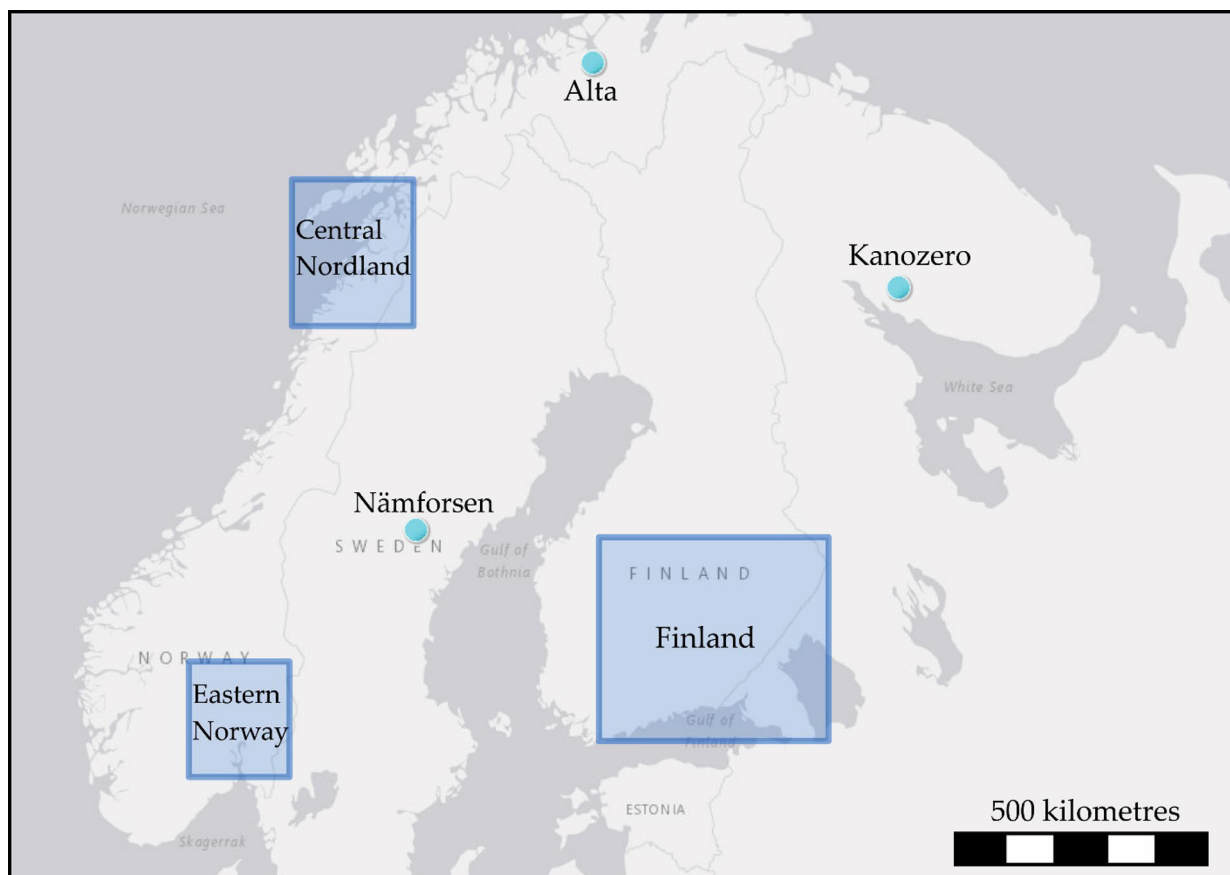


Figure 26. Map showing the case study sites discussed in this chapter. Circles indicate large rock art sites; boxes signify rock art areas consisting of several smaller sites. Map: Ville Mantere/NatGeo MapMaker.

Another important factor is that this selection of sites includes all three forms of northern rock art, that is to say, carved, painted and polished rock art images (see e.g. Gjerde 2010: 13–14). The number of images depicted at these sites varies significantly, an aspect that is also characteristic for northern rock art sites. At some rock art locations, such as Alta and Nämforsen, several thousand images have been carved, whereas at other sites, for example in Finland, only single images are found. Through this selection of case studies, it is therefore my intention to *offer a broad and representative cross-section of the elk motif in northern rock art, taking into account the chronological, spatial, stylistic and quantitative diversity of the rock art phenomenon*. A further factor that has influenced the selection of these case study sites is the availability of existing literature and proper documentation. This enables thorough scrutiny and in-depth

comparison of the elk motif at these different sites.

Without doubt, more information could have been obtained by taking further rock art sites with elk figures into discussion. Despite their many similarities, all rock art sites are to some extent unique and the same holds true for the depictions of elk in rock art. That said, even though the examination of additional sites would have broadened our understanding of the rock art and provided details that will not necessarily be evident from the examples below, it would not affect the general picture produced by the analysis of the chosen sites. Indeed, I would claim that a particular strength of this selection is that it provides a framework through which all known hunter-gatherer rock art sites in Northern Europe with depictions of elks can be interpreted. This is because it includes within its scope wide variations not only in the temporal

and the spatial, but also in the range of technique and dimensions used to depict the elk motif in northern rock art.

Below, I will address in depth the presence of the elk motif at these sites, in addition to a general examination of their location, dating and overall appearance. In addition, I will in each case focus on a particular aspect of rock art, in order to illustrate the diversity of the phenomenon. With reference to central Nordland, I discuss the function of rock art for northern hunter-gatherers with regard to *communication and the marking of territory*. In relation to eastern Norway, in turn, I will concentrate on the so-called *inner designs* frequently made on animal figures in rock art. When discussing the rock art of Alta, I address the unique *periodization* of the petroglyphs in this area, which provides evidence of changes in the elk motif, especially its relation to human figures, over the longer term. As regards Nämforsen, I am equally interested in the changes that take place over time, but here I will focus on another aspect characteristic of large rock art sites; namely that of *accumulation*. On the subject of Finnish rock paintings, I stress the importance of *landscape and topographical features* in the understanding of rock art. Finally, in relation to Kanozero, I discuss the role of large rock art sites as *meeting places and innovation centres* within the taiga region.

I will discuss these examples of rock art in chronological order, starting with the polished rock art of central Nordland, which is broadly understood to represent the oldest rock art in Fennoscandia.

5.1 The polished rock art of central Nordland, Norway



Figure 27. Locations with polished rock art in central Nordland. Blue circles indicate locations comprising elk depictions. Map: Ville Mantere/NatGeo MapMaker.

The polished rock art of central Nordland in northwestern Norway is exceptional in several ways. The style, age and size of the figures, as well as the selection of motifs, are rather unique in northern rock art (Hesjedal 1996: 30). Of the more than 300 hunter-gatherer rock art sites in Fennoscandia, polished rock art is known only at seven sites – even if it seems likely that more images and locations will be discovered in the future (Løvdøen 2010a: 83). The known sites – Nes (Kanstadfjord), Valle (Ballangen), Leiknes (Tysfjord), Sagelva (Hamarøy), Vågan (Skjerstafjord), Klubba (Åmøya) and Fykanvatn (Glomfjord) – are all located on the coast of central Nordland (Figure 27). Most of the polished figures in the rock art of central Nordland have been known since the early 1900s. The two most recent finds are the figures from Kanstadfjorden (Bjerck 1993: 1) and Nes Fort Vest, dis-

covered in 1993 and 2006 respectively (Hauglid 2006: 5–6).¹²¹

As Hesjedal (1992: 41) has pointed out, the polished rock art sites constitute a rather homogenous category of rock art. This is characterized by figures depicting large animals rendered in a more or less naturalistic style. In contrast to the rock art of later periods, there are no signs of humans or geometric motifs whatsoever. It should be mentioned, though, that two supposed boat figures were recently discovered at Valle by Efjord in Ballangen, one of the seven known sites of polished rock art. These unique boat figures – lacking the characteristic elk-head prow of boats depicted in later periods (see section 5.1) – are estimated to be 11 000–10 000 years old. This dating would make them the oldest boat depictions in the world (Gjerde 2021: 137). The Valle find also reminds us that additional, previously unidentified motifs may be discovered at existing rock art sites in the future. The discovery of new images, however, is greatly dependent on good luck and proper weather conditions. Many of the figures that are currently known are so indistinct that they are only visible when the sun illuminates them from a specific angle.

Of the animals depicted in polished rock art, elks, reindeer, bears, and whales predominate. Solitary figures mostly portray elks and whales, but the majority of figures have been depicted in groups of three or more. These animal combinations mainly represent reindeer, elks, and bears. However, animal images are sometimes so ambiguous that the species cannot be distinguished with certainty (Hesjedal 1992: 41, 43). As Hesjedal (1992: 41) has maintained, combinations of figures can be divided into three separate categories. The first consists of complete figures, the second – and most common – of incomplete figures, and the third of both complete and incomplete figures. In Hesjedal's view (1992: 41), it seems that the incomplete nature of so many figures is intentional.

Polished figures in the rock art of central Nordland probably number around 100 in total, although their exact number is difficult to ascertain due to the fact that many figures are superimposed and/or unfinished. As Lødøen (2010a:

69–80) has pointed out, sea and land animals overlap each other at Klubba and Leiknes, whereas a bear figure has been portrayed with an elk's head at Fykanvatnet. Such depictions indicate that the images were not simply replicating animals encountered in the wild. This is also seen in the dimensions of the animal figures, which in many cases are larger than life-size. Another indication of this is found in a special type of motif: that of an animal with its head turned backwards. Such depictions are found only at the Leiknes 1 panel (Figure 28). Even if sporadic figures of this kind are also found in northern rock art from later periods, it has been argued that the representations from central Nordland are related to the Upper Palaeolithic cave art of Spain and France, where similar depictions are common (Gjessing 1932: 21; see also Hesjedal 1992: 31; 1996: 32).

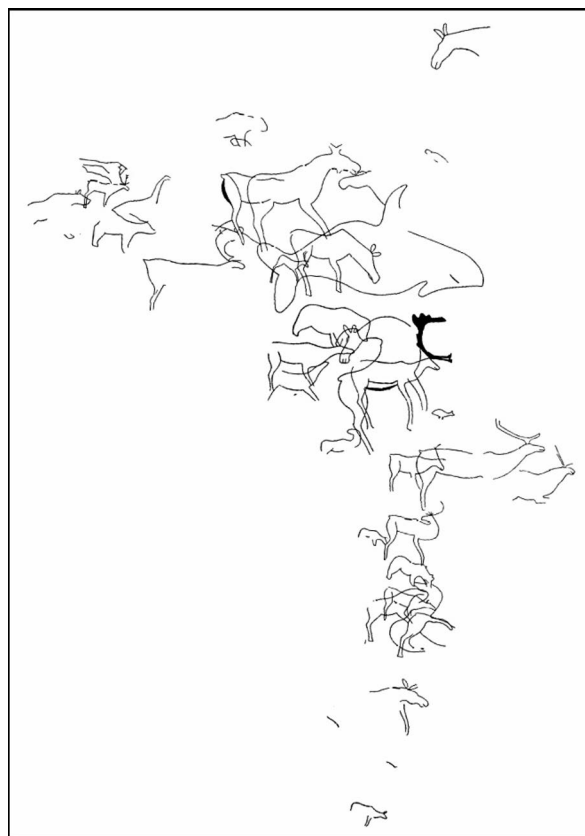


Figure 28. The Leiknes 1 panel. Tracing from Gjessing 1932, plate VIII. Not to scale.

Apart from some small parts of the figures in the Leiknes panel (such as the antlers of one reindeer), the polished rock art images consist of outline figures polished on smooth surfaces of dark rock, usually consisting of gneiss or granite. While some of the figures are nearly impos-

¹²¹ Martinus Hauglid (archaeologist, Nordland County), email correspondence 27.3.2018.

sible to see today, others can be discerned remarkably well from afar due to the contrast with their darker rock background. As Lødøen (2010a: 70) notes, many of the polished figures are particularly visible at night when they reflect artificial light. In fact, even if in the past the figures must have been much more clearly visible in daylight than they are today, it is completely possible that rock art sites were also visited at nighttime during prehistory (cf. Wisner & Needham 2023).¹²²

5.1.1 Dating

In his extensive overview of the dating of rock art from the Ofoten area, Gjerde (2010: 183–196) recounts the major viewpoints set forth over the past century or so with reference to the date of the polished rock art. In short, the polished figures were associated with Upper Palaeolithic rock art by several scholars in the early 1900s, and ascribed to the early Stone Age, although later this interpretation came into question. In the 1930s, a so-called evolutionist chronology of style was introduced. According to the chronology that was developed by several scholars over the course of subsequent decades, the polished figures were the oldest type of rock art in northern Norway, followed by pecked carvings and paintings respectively (see Gjerde 2010: 185–186).

In the early 1990s, arguments for the early age of polished rock art gained weight as a result of Hesjedal's (1990; 1992; 1994) studies, based on shoreline dating (on the dating method, see e.g. Sognnes 2003). These indicated an age of between 8500 and 9900 years for the polished figures. Some scholars have cast doubt on these early dates, however, and several shortcomings are indeed evident as regards the reliability of the geological data, especially concerning the earliest dates (see e.g. Helskog 1989: 91–92). In

addition, the fact that no archaeological finds have been discovered adjacent to the allegedly earliest examples of rock art means that their early dating is still somewhat uncertain (Goldhahn 2018: 55). Even so, Gjerde (2010: 189, 198) considers the shoreline chronology method to be appropriate for dating polished rock art, which in his view is likely related to the initial settlement phase of northern Fennoscandia, and perhaps even to the “socialization” of this unfamiliar landscape (see below). Moreover, Gjerde (2010: 189) argues that the scarcity of polished rock art sites is misleading and explained by the fact that the existing sites have been preserved mainly because of their more favourable positions within the landscape.

Whereas Hesjedal's dates were based on early elevation data and on the extraction of two metres from the average shoreline level, Gjerde (2010: 191–192) conducted his study with new measurements, applying the average water level directly to these (Table 2). The results were, in general, consistent with the notion that the polished figures predate the pecked ones, even if the chronological difference between these two phenomena appears to have been no longer than the duration of the period in which polished figures were produced, that is approximately 1700 years.

Table 2. Summary of the dating of polished rock art sites in central Nordland, as proposed by Gjerde (2010: 196, 386, fig. 99) and Hesjedal (1992: 31, tab. 1).

Rock art site	Dating according to Gjerde (2010)	Dating according to Hesjedal (1992)
Nes	9700–9400 BP	9400 BP
Valle	9600 BP	9900 BP
Sagelva	8200 BP	8700 BP
Leiknes 1	9100–8600 BP	9100 BP
Leiknes 2	8000 BP	8500 BP
Fykanvatn	9500 BP	9800 BP
Vågan	8400 BP	8700 BP
Klubba	9300 BP	9100 BP

Notwithstanding the slight differences between Hesjedal's and Gjerde's chronologies, all locations with polished rock art figures are dated before the Tapes transgression and can be placed roughly within the interval of 9900–8000 BP. If one sets aside the uncertain dating of the Fykanvatn site (see Gjerde 2010: 188, 386, foot-

¹²² Actually, this pertains to virtually all rock art sites. For instance, Goldhahn (2020: 20) notes that all the earliest radiocarbon dates obtained from rock painting sites in Northern Europe stem from soot or charcoal samples. While Goldhahn (2020: 20, 32, 35) relates these traces to clearance ceremonies or cleansing rituals involving fire and smoke, I find it just as feasible that fires were kept at the sites because they were visited at night. This interpretation, of course, by no means excludes ritual or ceremonial activity.

note 208), and given that there are no elk depictions at Valle, Sagelva and Leiknes 2, *the polished elk figures can be approximately dated to the period 9700–8400 BP, that is, around 9250–7500 calBC* (Gjerde 2010: 196, fig. 99). However, it is fully possible that the period in which polished figures were produced was considerably shorter than this proposed time range of more than a millennium. According to Lødøen (2010a: 82–83), for example, the sites with polished rock art resemble each other to such an extent that it

cannot be ruled out that some of the figures (if not all) were even made by the same person. This would only necessitate that the images were originally made at different elevations. However, since the following discussion focuses on depiction of elk figures within polished rock art in general, I consider that the broader period 9250–7500 calBC offers a sufficient framework for the dating of polished elk figures in central Nordland.

5.1.2 Elks in the polished rock art of Nordland

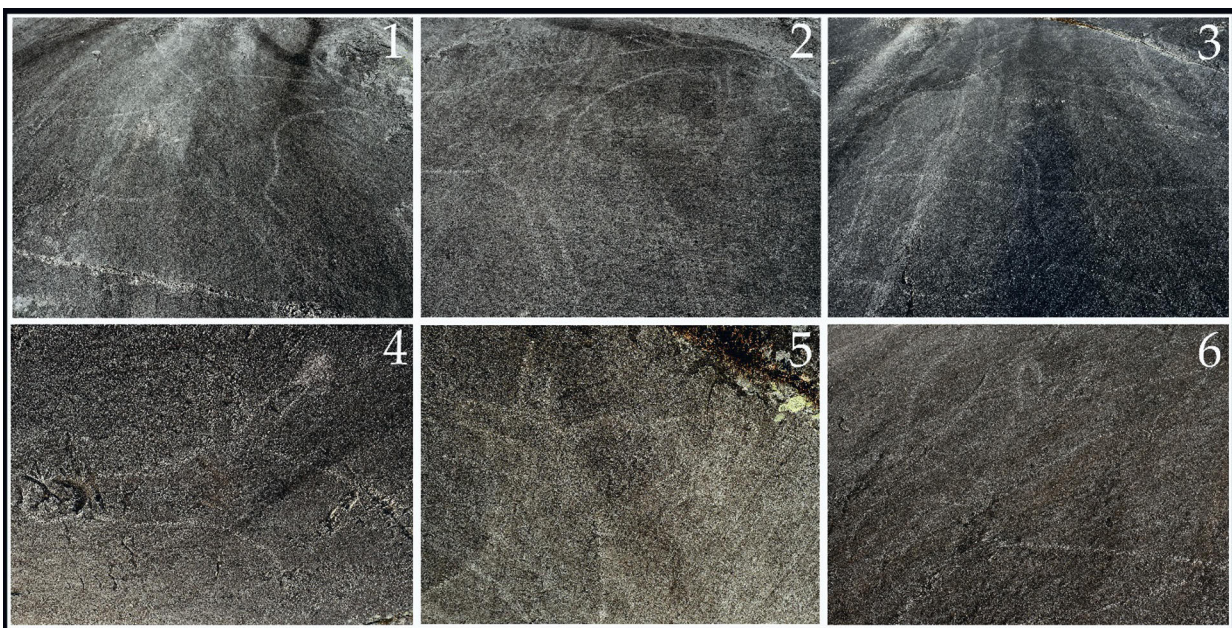


Figure 29. Elk depictions in polished rock art. 1–2. Klubba, Åmøy; 3–6. Leiknes, Tysfjord. Photos and compilation: Ville Mantere.

The depiction of elks at polished rock art sites differs in terms of both size and frequency. At Vågan, for example, a large, solitary elk figure constitutes the only rock art at the site (Figure 33).¹²³ At other sites, such as Klubba, several elk depictions are present, but corrections have been made to the contour lines of some elk figures, and it is often impossible to ascertain which lines should be understood as forming a figure (see e.g. Hesjedal 1992: 41, 43). Moreover, the depictions of reindeer and elks

are often so similar that it is not always possible to determine with certainty which of the two species the images represent (cf. Skandfer 2020: 123–124).

In Gjessing's (1932: 11–12) opinion, there are six more or less clear depictions of elks at Klubba (Figure 30.1–6). At Fykanvatn, Hallström (1909: 144, fig. 50b) discerned one elk image (Figure 30.7), although Gjessing (1932: 14, plate IV) understood the figure to be a reindeer. In Gjessing's view (1932: 17, plate VII), however, another cervid figure that Hallström (1909: 146, fig. 53) only described as an "undefined four-legged animal" might represent an elk because of its prominent shoulder area (Figure 30.8). These differences in interpretation clearly illustrate the difficulties one encounters when at-

¹²³ Two additional figures have apparently existed besides the elk figure, but these are no longer visible (<https://www.kulturminnesok.no/kart/?q=&am-county=&lokenk=location&am-lok=&am-lokdating=&am-lokconservation=&am-enk=&am-enkdating=&am-enkconservation=&bm-county=&cp=1&bounds=67.2984162077326,14.904499053955078,67.29666881242078,14.908919334411621&zoon=18&id=48649>, accessed on 28.2.2023).

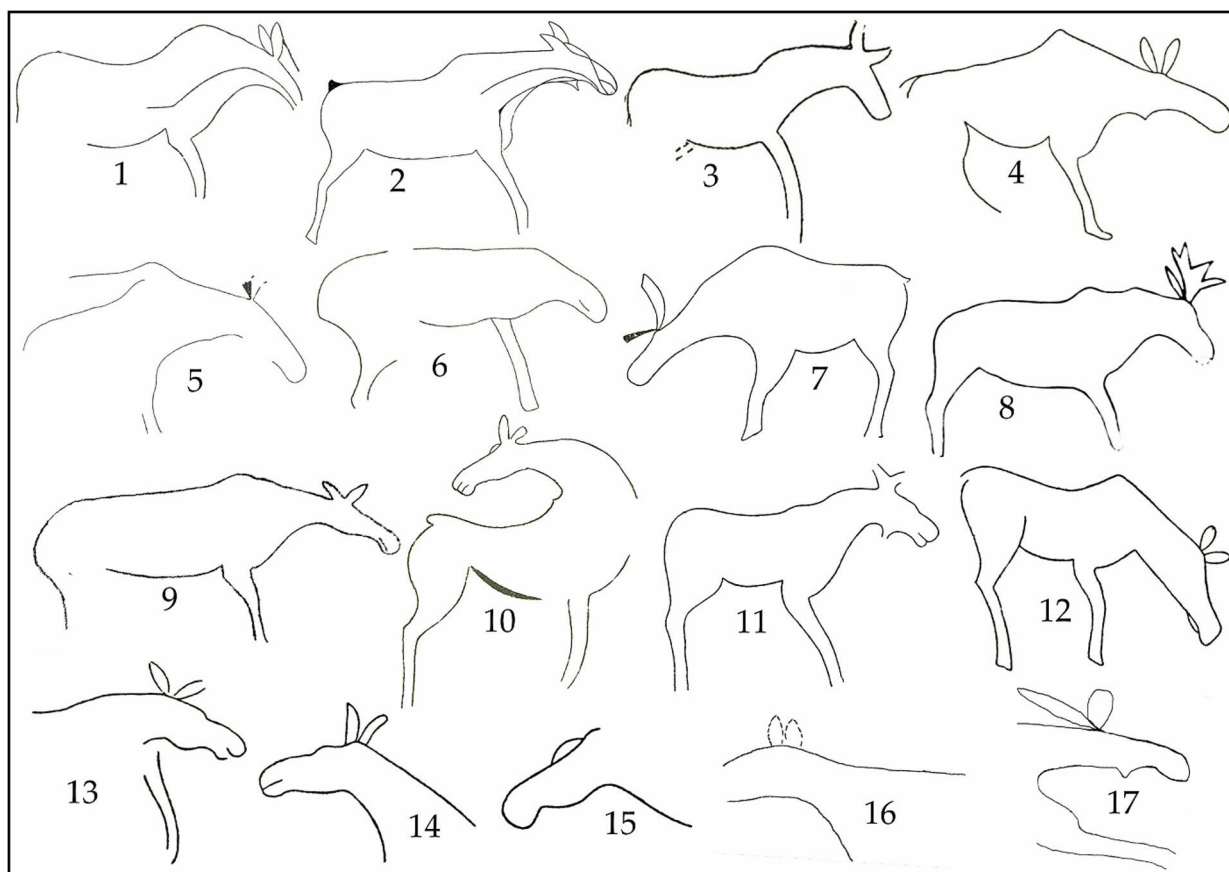


Figure 30. Evident and probable elk figures in the polished rock art of central Nordland. 1–6. Klubba, Åmøy; 7–8. Fykanvatn, Glomfjord; 9. Vågan, Skjerstafjord; 10–15. Leiknes 1, Tysfjord; 16. Fjellvika, Kanstadfjord; 17. Nes Fort Vest, Kanstadfjord. Tracings by Hallström 1909 (7); Gjessing 1932 (1–6, 8, 10–15); Ville Mantere on the basis of photographs and sketches by Ola Sæther (9), Hein Bjerck (16) and Bjørn Helberg (17). Compilation: Ville Mantere. Not to scale.

tempting to ascertain the intended subject of (polished) rock art figures.

At Leiknes 1, Gjessing (1932: 21–24) identified six evident elk- or elk-head representations (Figure 30.10–15), in addition to a couple of other incomplete figures that may also depict elks. At Nes, there are two depictions of elks, one in the Fjellvika panel (Figure 30.16) and another (Figure 30.17) in that of Nes Fort Vest (Bjerck 1993; Hauglid 2006; Helberg 2016: 298–299, 302–303). One alleged elk figure has also been discerned in the Jo Sarsaklubben panel (Bratrein 1968: 17), but it has not been possible to identify this figure in recent years and the initial interpretation is of questionable reliability (Helberg 2016: 301).¹²⁴

In sum, 17 more or less evident elk depictions can be identified in the polished rock art of Nordland (Figure 30). Looking at these depictions as a whole, it is possible to see both similarities and differences between the figures. All elk figures are portrayed in profile with not more than two legs marked out. Whereas some

are anatomically accurate representations of elks, others are clearly exaggerated or schematized depictions of this species. The muzzles of the elks have likewise been portrayed in varying detail. Most of the animals have been portrayed with both ears clearly visible, but the antlers seem to have been depicted only in a few uncertain cases.¹²⁵ In this respect the elk figures differ significantly from the reindeer depictions, which often have antlers.

One's general impression of the rock art from central Nordland is that the elks (and other animals, for that matter) are depicted within a setting, from which human elements, for some reason or another, are entirely absent. As Gjerde

¹²⁵ Proposed depictions of antlers on polished elk figures are rather ambiguous. In the Leiknes 1 panel, for instance, Gjessing (1932: 21, plate VIII) discerned one elk figure with antlers. In Hallström's tracing (1938, plate V-VI), however, this figure has no antlers but instead two large upright ears (Figure 30.11), similar to those found on the two other large elks in the panel. Correspondingly, another elk figure in the lower part of the same panel, which in Gjessing's tracing is antlerless (Figure 30.13), might, according to Hallström's tracing, possibly have antlers.

¹²⁴ M. Hauglid, email correspondence 3.4.2018.

(2010: 188, 195) points out, however, the differences between polished figures and pecked rock carvings are in fact not as remarkable as has often been assumed. Stylistically, many of the pecked elk figures are reminiscent of the polished ones, and as regards size, considerably large, pecked elk representations exist both in Norway and in Sweden (Gjerde 2010: 187–188, fig. 94, footnote 102). Moreover, as Helskog (1989: 97, 99) has stressed, the naturalism traditionally used to characterize the polished figures is not unparalleled in northern rock art. As will be seen, many of the figures in Alta, for instance, can be regarded at least as lifelike in their appearance, despite their smaller size.¹²⁶

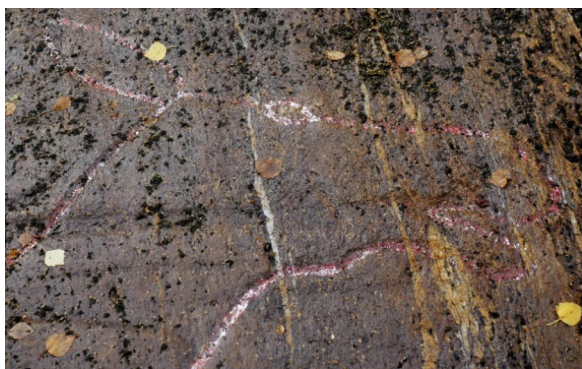


Figure 31. The head of a pecked elk figure at Brennholtet, Narvik, northern Norway. Photo: Ville Mantere.

An interesting detail worth mentioning in this context is that, on two elk figures from the large Leiknes panel, the elk's eye has been represented as an oval protuberance above the muzzle (Figure 29.6; Figure 30.15). This very same manner of depicting the eye can be found on a pecked elk figure at Brennholtet in Narvik, located only some 70 km east of Leiknes (Figure 31). Importantly, the Brennholtet figure is equally large in size (2.15 m in length) and located in a highly similar setting to the polished figures (see Gjerde 2010: 230–236). Furthermore, Gjerde (2010: 231, 235) has noted that this elk figure would have been visible from afar to seafarers. He therefore interprets Brennholtet in a similar vein to the polished sites, that is, as a landscape marker (as well as a possible crossing

point for elks). However, the proposed age for the Brennholtet elk is around 4000 calBC (Gjerde 2010: 196, fig. 99). This is as much as *four or five millennia later* than the dating suggested for the polished rock art figures. Because of the numerous similarities, such a vast chronological dissimilarity to me seems unlikely – even though we should not forget that the survival of images from earlier periods may have affected the production of later rock art.

As mentioned above, Gjerde (2010: 189, 198, 239; 2021: 146) suggests that polished rock art was related to the act of familiarizing the landscape (cf. Malmer 1989: 10; Taçon 1994: 123). In his view, the large figures may have acted as reference points for the initial colonists of the central Nordland region, and one of the purposes of the art was perhaps to be visible from a distance to people travelling by boat (cf. Sognnes 2002: 202). This understanding seems feasible, especially as the newly discovered boat figures at Valle indicate that boats were present in the region already at the time when the rock art was produced (see section 6.2.9). I also fully agree with the idea that the rock art was made to be seen from the sea. In fact, despite the images being located significantly further away from the shoreline than they were in prehistoric times, the connection between polished rock art sites and the sea is manifest even today (Figure 32). The association between the polished rock art and the early colonization of central Nordland could, moreover, explain why no human interaction is depicted in the rock art – the region was up to that time not inhabited by humans and hence regarded first and foremost as the realm of wild animals.

However, I am meanwhile aware of the problems inherent to this kind of reasoning. As Günther (2009: 22) has accurately pointed out, it readily supposes a dichotomy between “nature” as represented by the animal kingdom and “culture” as represented by humans – as if these would constitute two separate realms, and as if the former in some way had to be “humanized” so that humans could live “in the wilderness” (see also Wallis 2013: 25). Yet, as was discussed earlier, this distinction between nature and culture is considered to be largely foreign to indigenous thinking. Without a doubt, the first colonists of central Nordland depended on hunting and must have had an intimate relationship with animals (see also Fuglestad 2011: 40–

¹²⁶ In addition, while Gjerde (2010: 188) correctly observes that notable differences in motif selection still exist between the polished and pecked carvings, the newly discovered boat figures at Valle seem to contradict the prevailing view that only large game was depicted in polished rock art. Indeed, when more polished rock art sites are encountered that exhibit greater variation in the imagery, as I believe will occur in future, our understanding of this form of rock art and its relationship to pecked rock art will be further refined.



Figure 32. Views from polished rock art sites in central Nordland. 1. Jo Sarsaklubben (Nes), Kanstadsfjord; 2. Klubba, Åmøy; 3. Vågan, Skjerstafjord; 4. Leiknes, Tysfjord. Photos and compilation: Ville Mantere.

42). Instead of constituting a separate sphere, animals were most probably considered a vital part of their world from the outset (see also Günther 2022: 131 and cited references). For this reason, I am disposed to seek slightly different explanations for the region's rock art than those based on a "socialization" or "familiarization" of the landscape. That said, I still find Gjerde's notions concerning the visibility of the polished rock art useful. Clearly, as Gjerde (2010: 198) writes, the size of the figures and their location indicate that the art was "made to be seen from a distance". The central question that arises, however, is for *whom* the figures were made to be seen?

Following Gjessing's (1945: 314) line of reasoning, Gjerde relates the making of the polished rock art to the marking of "good or favourable places for hunter-fisher-gatherers" that moreover "could act as reference points in the landscape" (Gjerde 2010: 198, 239). He also explicitly proposes that some of the polished sites pinpointed good hunting spots (Gjerde 2010: 440). However, while it is of course possible that

prehistoric hunters wanted to pin down such locations in the landscape by means of rock art, such an assumption can also be criticized. In particular, it is justified to pose the question of whether prehistoric hunters – who after all were specialized in, and dependant on, a mobile hunting-gathering lifestyle – would really have felt a need to mark out places that were central and favourable to them using larger-than-life-sized animal figures. To me, this seems rather unlikely. However, assuming that rock art was indeed produced at such favourable locations, could it be that the art was instead made to warn *others* that these locations were already occupied?

In fact, Gjerde (2010: 198) himself speaks of "colonizing new land", and although he does not specify what he means by this expression, it seems possible that also he understands the function of the rock art being related to territory marking (cf. Gjerde 2021: 146). At any rate, the idea of rock art marking the boundaries of hunting grounds is not completely new (see e.g. Hood 1988: 77–78;

Hartley & Wolley Vawser 1998; Miettinen 2000: 24; Sognnes 2002: 202; Norder 2003; Bird & Bliege Bird 2018: 351; for critique, see Smith & Blundell 2004: 252–253; Whitley 2011b: 307). For instance, in his discussion concerning rock paintings and ancient folk poetry, Korteniemi (2008: 37) has paid attention to an account made by Fellman (1906: 222–224) in which he describes how a Saami *siedi* served the function of reserving and sacralizing the region so that it was only the makers or owners of the *siedi* that were entitled to hunt in its surroundings (on the relationship between sacredness and territory, see e.g. Anttonen 1996; Arsenault 2004). It is indeed possible that (polished) rock art sites served a more or less similar function. In other words, if this understanding holds true, the rock art in central Nordland was indeed made to be seen, but it was not primarily intended to be looked at by those who produced it. Instead, it was aimed at other groups of hunters, for whom it communicated that this area was already in use by someone else.

Importantly, however, I do not claim that the polished rock art was made with the intention of controlling or owning the animals in the Nordland region. To be sure, as we have seen, human-animal relationships in hunter-gatherer societies are far more nuanced and complex than straightforward efforts to control game animals (cf. Günther 2009: 26–28). In fact, a more or less universal aspect of hunter-gatherer thinking is that the control of animals does *not* lie in the hands of humans but is ultimately the preserve of the animals themselves and/or their (master) spirits. However, what humans can accomplish by means of respectful actions towards the hunted animals and their (master) spirits is a functioning relationship to these beings. Moreover, it is difficult to think of any other region where human relationships with animals would have been as crucial as in the northernmost parts of Europe (see e.g. Gjerde 2020b). Indeed, as Skandfer (2020: 115) notes: “[I]n 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”.

Now, assuming that the makers of the polished rock art had developed a working relationship to the animals in central Nordland upon which they were dependant on, one may ask the rhetorical question “Would anything in their lifestyle have been more important and worthy of protection than this relationship?”. In other words, what I am arguing is that it was not the animals as such but the *relationship* to them that past hunter-gatherers were ultimately concerned with (cf. Skandfer 2020: 122–123). As we saw earlier, hunter-gatherer groups tend to regard animals as an ever-renewable resource and thus the disturbance in animal relations is likely to have been considered a far more significant threat than the simple fear of this resource running out permanently (see also Günther 2022: 144–146). Hypothetically speaking, perhaps the most disruptive factor imaginable for prehistoric hunter-gatherers would have been the sudden appearance of foreign humans in their territory (cf. Schulting 2014: 1272).

I thus contend that the key function of figural representations of elks, and of large, polished rock art images more generally – as well as the explanation for their placement in the landscape – was to *signify a group’s presence and its occupation of a territory* (cf. Martínez 2000). This, of course, is not to say that it was necessarily their only purpose. Obviously, the creators of rock art knew where the images were located and thus, even if it was not their primary purpose, the rock art sites could also have acted as “reference points” within the landscape. The sites where the images were made may also have been places where the animals were observed, or even hunted (Gjerde 2010: 438–440). Likewise, it is fully conceivable that the images were at the same time intended to be seen by the animals themselves (cf. Günther 2022: 127–135).¹²⁷ In fact, on the basis of the ethnographic data dealt with above, I am inclined to believe that *making animal depictions on rocks was a way of showing respect towards the local animal species*. In this way, the relationship to the animals was materialized, and perhaps the animal figures themselves were

¹²⁷ Günther (2022: 130–131) proposes that the images of elks and reindeer at the early rock art sites could have imitated experienced animal individuals that other animals were supposed to follow when crossing waters. This explanation recalls the early interpretations centred on sympathetic magic (see section 2.1.1).



Figure 33. Polished elk figure at Vågan, Skjerstafjord. Photo: Ville Mantere.

also considered capable of granting protection and good fortune to their creators. In all of these potential scenarios, however, *rock art was made with a human-animal relationship in mind*.

As Ramqvist (2002a: 88; 2002b: 144) has pointed out, it is evident that the animals depicted in rock art consist namely of those animals that were economically important to the creators of that art. To put it differently, even if scenes of hunting are absent in polished rock art, it is obvious that the hunting of the animals depicted was nevertheless the *fundamental* reason for their portrayal. To be sure, if *the aim of polished rock art was to inform* the observer that this area was already in use by someone else, as I am disposed to suggest, this was done namely *in order to assure access to the elks (and other animals) depicted in the art* (cf. Nash & Chippindale 2002: 12–13).

For some reason or another, however, human elements were not depicted in the earliest polished rock art in the same way as they were in later periods. We can only speculate as to why this was the case, but following the interpretation of rock art suggested above, a feasible explanation may be that humans did not regard themselves as superior to, or in control of, animals. In fact, one could even argue that the opposite might have been the case. As we shall see later in this chapter, this explanation may

also shed light on the question of why depictions of terrestrial hunting are so scarce within northern hunter-gatherer rock art in general. An additional reason for the lack of human elements may be that the *existence* of rock art was of greater importance than its diverse imagery. Thus, if the function of polished carvings was to demonstrate to foreigners (and to the animals themselves) the prevailing relationship between the art creators and animals in the region, and this could be achieved solely by depicting large animal figures, perhaps there was simply no need to depict humans on the rocks.

Next, let us turn to the eastern Norwegian rock art, which seems to constitute something of a turning point as regards the introduction of human elements into northern rock art. In eastern Norway, elk figures are, as in central Nordland, depicted “among each other”, but include a thought-provoking new element – the so-called “inner markings”.

5.2 The rock carvings in eastern Norway



Figure 34. Map showing the rock art locations in eastern Norway (*includes the newly found rock painting sites at Espedalsvatnet and Moss). Map: Ville Mantere/NatGeo MapMaker.

The rock carvings of eastern Norway constitute a rather homogenous group as regards style, motif selection and their location next to water (Lødøen 2010c: 279).¹²⁸ It is important to point out, however, that in October 2018 it was announced that the first rock painting site in eastern Norway had been discovered at Espedalsvatnet in Gausdal, Innlandet (Figure 34).¹²⁹ This site (Steinberget) consists of nine likely elk figures, the possible depictions of a bear and two humans, as well as several indefinite images (Gjerde 2020a: 49–53). Another rock painting site, albeit without evident depictions of elks, was in June 2023 discovered at Moss in Viken.¹³⁰ It is possible

¹²⁸ Lødøen (2010c: 280, 287) has even suggested that the similarities between some of the panels are so striking that they could have been made by the same carver.

¹²⁹ <https://www.tv2.no/a/10146998/>, accessed on 17.10.2018.

¹³⁰ <https://www.niku.no/2023/06/fant-hellemalerier-i-moss-kommune/>, accessed on 20.6.2023.

that the future discovery of further painted rock art sites may alter our current understanding of eastern Norwegian rock art. Nevertheless, this section will focus upon sites with carved elk figures, and in mentioning “eastern Norwegian rock art”, I will be referring namely to these locations.

A total of 11 rock carving sites comprise the eastern Norwegian group, of which the earliest, Åskollen in Drammen, was already known by the mid-1800s (Mikkelsen 1977: 149, 153 and cited literature). The latest find, meanwhile, is that of Utenga in Lier (Viken), discovered in 2013.¹³¹ The unique Utenga find comprises of three elk figures, of which the largest is almost four metres in length and in height, making it the largest elk figure in the whole of Norway (Figure 35).

The other nine Stone Age rock art sites in eastern Norway are Skogerveien in Drammen, Ekeberg in Oslo, Geithus in Modum, Glemmestad in Østre Toten, Stein in Ringsaker, Møllerstufossen in Nordsinni, Drotten in Fåberg, Dokkfloyvatn in Nordre Land and Eidefossen in Fron.¹³² The number of carvings at these sites varies considerably. At some sites (Eidefossen, Dokkfloyvatn), only a couple of figures are evident, whereas other sites (Geithus, Skogerveien) may include around 40 images. It should be noted, however, that at many places in eastern Norway the level of preservation of rock carvings is poor and it is clear that many carvings have faded away over time.

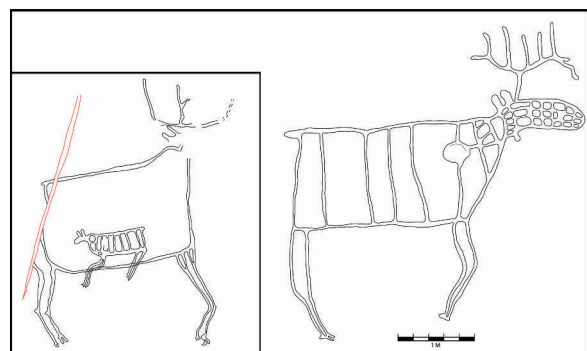


Figure 35. Elk carvings in Utenga, Lier, Viken. Tracings: David Vogt.

¹³¹ <http://www.bfk.no/Documents/BFK/Kulturminnevern/%C3%85rsrapport/%C3%85rsrapport%202013.pdf>, pp. 17–19, accessed on 5.9.2018.

¹³² Of these sites, however, the carving panels of Dokkfloyvatn, Eidefossen and Glemmestad have later been removed to different locations (Lødøen 2010c: 289, 293).

The sites of Åskollen, Skogerveien, Utenga, Ekeberg and Geithus were originally located by the sea, whereas the remaining sites are inland, situated along rivers and lakes connected to the Drammen and Glomma waterways. Stylistically, figures from coastal (Figure 37) and inland sites (Figure 38) form recognizable clusters, but some evident similarities also exist between several inland and coastal sites (see e.g. Mikkelsen 1977: 179–180 Glørstad 2010: 218–219; Fuglestad 2018: 208, 227).



Figure 36. Elk carvings in Drotten, Fåberg, Lillehammer. Photo: Ville Mantere.

All the inland sites are located within direct proximity to water (Figure 36). The placement of rock art at coastal sites appears to have followed the same approach, even if such panels are no longer adjacent to water (Lødøen 2010c: 294–295). Apart from the evident importance of water, however, it seems that the selection of locations for rock art did not apply any strict rules. As Glørstad (2010: 223, fig. 7.2) illustrates, rock carvings in eastern Norway are situated sometimes near powerful rapids and sometimes beside still or calm water systems. Equally, rock carvings have been made on outcrops of bedrock and on individual boulders, without discrimination.

In Mikkelsen's view (1977: 189–194, 197; 1986: 127–128), the rock art locations in eastern Norway are related to seasonal dwelling sites; used primarily during autumn and winter by hunter-

gatherer groups, whose main quarry was the elk. It appears, however, that even if some of the carvings are situated near sites of human habitation, there is no clear-cut connection between the two, as most dwelling sites are not located in close proximity to rock carving sites (Glørstad 2010: 224). On the other hand, there is a considerably large accumulation of different Mesolithic artefacts such as hatchets and axes in the vicinity of coastal rock carvings. This has led Glørstad (2010: 225–136, fig. 7.3) to suggest that the Late Mesolithic Nøstvet (c. 6300–4700 calBC) population may have considered this landscape to be in some way special.

As regards the selection of motifs, the vast majority of the rock art figures in eastern Norway depict elks or cervids of uncertain species, but which are nevertheless likely to represent elks. At some sites, such as at Geithus, elks are depicted in a manner that is physiologically accurate, but at other sites, the animal figures are highly stylized, with a disproportionate, oblong body shape that sometimes makes it difficult to identify them as elks. Such depictions, however, often display a marked dewlap. This can be used as an indication that these figures represent elks rather than any other species – even if some could in theory also represent red deer, which are known to have existed in the region during the Mesolithic period (see Mikkelsen 1977: 191).

In 1977, Mikkelsen published a statistical reckoning of motifs that were at that time known to exist within the eastern Norwegian material. This scheme shows that, out of a total of 121 figures, as many as 77 were elks or cervids (Mikkelsen 1977: 151, table 1).¹³³ Since then, new carvings have been found at Dokkfløyvatn (Boaz 1998: 291), Utenga (Figure 35) and Geithus (Paasche 2000: 25), all of which are likely to represent elks. Currently, the total number of known carvings from eastern Norway is around 150, and of these figures, approximately 100, or two thirds, represent elks with varying degrees of certainty. Except for at the sites of Åskollen and Skogerveien, elk/cervid depictions are the

¹³³ Mikkelsen (1977: 149, 156), however, left some figures from the sites Skogerveien and Geithus outside his analysis.



Figure 37. Elk figures on coastal rock art sites in eastern Norway. 1. Skogerveien, Drammen; 2. Utenga, Lier; 3–4. Geithus, Modum; 5–9. Ekeberg (Sjømannskolen), Oslo. Retouched photos and compilation: Ville Mantere. Not to scale.

predominant, or only, rock art motifs in eastern Norway.¹³⁴

Motifs other than elks (or cervids) are therefore rare. These include a number of indistinguishable figures, elk footprints, a couple of whales and halibuts, some waterfowl and a few uncertain animal depictions (see Mikkelsen 1977: 151, 189–190, table 1). Only three figures can be identified with relative certainty as representing humans, while in two further cases such an identification is less certain.¹³⁵ These anthropomorphic figures are rather abstract in shape and

can hardly show any interaction with other figures (for a possible exception, see Figure 37.5). The only conceivable depictions of artefacts are the few oval abstract figures at Skogerveien and Ekeberg that have been interpreted as wooden hunting traps for elks or cervids (Engelstad 1934: 81–83, 87, plate XLIII; Mikkelsen 1973: 4–5; 1977: 190; Gjerde 2010: 433). However, these figures are difficult to interpret as such with any certainty (see section 4.3.5).¹³⁶

Given that all of the rock carvings in eastern Norway are, or have been, located in close proximity to water, it is remarkable that no boats have been depicted.¹³⁷ That said, it has been pointed out by several scholars (e.g. Taavit-

¹³⁴ As Glørstad (2010: 222) rightly notices, however, the site of Åskollen is also dominated by the depiction of elk. This is due to the large size of the prominent elk figure at the site (Figure 4), in contrast to the other, significantly smaller figures on this panel. It is important to bear in mind that not only the number, but also the size of figures has an influence on the overall appearance of a rock art panel.

¹³⁵ The three rather evident anthropomorphs are located in Ekeberg, Skogerveien and Glemmestad. At Møllerstufossen there are in Fuglestad's view (2018: 261) two more human figures, but in my opinion, these are, as Mikkelsen (1977: 168) also argues, more likely to depict some fur animals seen from above.

¹³⁶ Some strange lines are also discernible behind certain elk figures (e.g. at Stein) but these can be interpreted as remnants of other animal figures rather than as spears or artefacts of any kind.

¹³⁷ Gjessing (1937: 58, fig. 6) interpreted one figure at Stein (Ringsaker) as a fragmentary boat depiction, but according to Mikkelsen (1977: 166), this carving is not a representation of a boat but of a badly preserved, four-legged animal. In my view, too, this figure is more likely to have represented an animal (elk?) than a boat.



Figure 38. Elk figures on inland rock art sites in eastern Norway. 1. Dokkfløyvatn, Nordre Land (Kittilbu Utmarksmuseum); 2. Drotten, Fäberg; 3.–6. Stein, Ringsaker; 7.–9. Møllerstufossen, Nordsinni. Retouched photos and compilation: Ville Mantere. Not to scale.

sainen 1978: 190–191; Lahelma 2007a: 117–118; Fuglestad 2018: 194–196) that some of the eastern Norwegian elks have antlers that are highly reminiscent of boats. I will therefore address this topic more thoroughly in the next chapter. However, one possible explanation for the strangely shaped antlers could be that, like the rest of the elk's body, they are depicted using the so-called x-ray perspective, and are thus actually represented in cross-section (cf. Figure 4).

While some of the rock art panels have been interpreted, for instance, as depictions of migrating elks (see e.g. Lødøen 2010c: 281, 289, 292), the overall impression of eastern Norwegian rock art is that it is rather static and non-descriptive in character. In these depictions, there is no clear interaction between elks and the rare human figures present, between elks and any other motifs, or even between elks them-

selves.¹³⁸ In this way, the eastern Norwegian rock carvings can generally be understood as a continuation of the polished rock art of central Nordland. To be sure, notwithstanding the differing style of production, the (generally) smaller size and more abstract shape of its figures, and the slightly broader selection of its motifs, the rock art of eastern Norway is still primarily centred on depicting animals “among each other”.

In this context, the geographical connection between rock art sites depicting elks and the animal's natural presence in eastern Norway is so clear that it can hardly be considered a coincidence. For instance, while visiting the Møllerstufossen site in the summers of 2018 and 2020, I was struck by the presence of large amounts of fresh elk droppings right next to, and even *on* the site's rock art panels (Figure 40).

¹³⁸ Exceptions proving the rule are the possible depictions of mating elks at Geithus (Figure 41.25) and Møllerstufossen (Figure 40).

This would indicate the elk's preference to reside exactly where the carvings are located.¹³⁹ In the same way, Mikkelsen (1977: 190, 193; 1986: 128–133) noted that he has often found that such rock carvings are located along important migratory routes of elks, with hunting pits found adjacent to the Geithus carvings (Figure 39). He regarded these observations as evident indications that elks were commonly hunted at the rock art locations when the animals were swimming or had been chased into the water. In addition he argued that many of these sites were good locations for fishing and were probably also places where people gathered for feasts and ceremonies, during which times the rock carvings were produced (Mikkelsen 1986: 134–135). Mikkelsen (1986: 139) furthermore interpreted the depictions of elk footprints and alleged elk traps as attempts to call elks in order to hunt them.



Figure 39. Elk carvings at Geithus (Kاتفoss), Modum, Viken. Photo: Ville Mantere.

Recalling the discussion of the previous chapter, in which I demonstrated that elks have often been hunted along their migration routes or at water crossings, it is certainly not far-fetched to assume that the rock art figures found at such locations are also related to the hunting of elks. Obviously, *some* connection exists between the elk depictions in (eastern Norwegian) rock art and elk hunting, which in the end played a vital role for the people that produced these images. The problem, however, is that there are no ways

of ascertaining how, exactly, this connection was manifested.

Nevertheless, in light of the ethnohistorical data discussed in Chapter 2, it is conceivable that the ultimate reason for depicting elks on rocks was somehow related to the wish of assuring their reproduction. It also seems that the depiction of elks at places where the animals thrived naturally was significant. In fact, this is anything but surprising. Assuming that such activities were directed towards the elk in order to guarantee or contribute to its rebirth, it would be natural for these to be carried out within the elk's home environment, irrespective of their level of detail (cf. section 7.10.1).

This is as much as one can claim without entering into pure speculation. To be sure, it is fully possible that elks were hunted at rock art sites, as Mikkelsen argued, but it is equally possible that sites such as Møllerstufossen functioned in precisely the opposite manner as places where elk hunting was prohibited. In fact, the scarceness of rock art sites corresponds better with this latter scenario, for it is evident that rock art sites are far too rare to function simply as markers for good hunting spots. The very assumption that prehistoric elk hunters would have felt a need to mark out prime hunting locations is also questionable (cf. discussion above).

In the previous chapter I emphasized the importance and prevalence of hunting management among indigenous groups and argued that some sort of hunting regulation was probably in force already in prehistoric times. As noted above, it is not uncommon for hunter-gatherer groups to protect certain regions in the landscape from hunting, often in rotation. It is thus feasible that at least some of the rock art sites – especially those with no human elements whatsoever – could denote places that were reserved for the elk, where they could reproduce without being hunted. Thus, elks would have been depicted on stone in eastern Norway for the very same underlying reason as in central Nordland – for assuring future access to elks.

In fact, the proportion of antlered versus antlerless elks also seems to support the idea that these images are closely associated with the theme of reproduction. This is especially evident at some of the eastern Norwegian sites, such as

¹³⁹ I equally paid attention to fresh elk faeces next to the carvings at Stein in Ringsaker and on the walking trail to the Drotten site, although here a fence prevented elks from entering the immediate vicinity of the rock art figures.



Figure 40. Elk droppings at the Møllerstufossen rock carving site in Nordsinni, eastern Norway. Photo: Ville Mantere.

Møllerstufossen (see also Günther 2022: 53) and Glemmestad. At these locations, only solitary elk bulls are depicted with antlers, but a manifold number of elks are portrayed without antlers; seemingly representing elk cows. In fact, Mikkelsen's analysis showed that only eight or nine elks of a total of 37 elk figures depicted with a dewlap are portrayed with antlers in eastern Norway, and the share of antlered elks is even smaller if one includes elk figures without a dewlap (Mikkelsen 1977: 192–193, tab. VI; 1986: 13).¹⁴⁰ Mikkelsen (1977: 193) speculated on whether this inconsistency can be associated with selective hunting, and while this remains a feasible explanation, I nevertheless find it more likely that the ratio echoes the natural proportion of dominant bulls in relation to fertilized cows within elk populations during the autumn rut (see detailed discussion in section 6.3).

Taken together, the location of the carvings, the absence of human elements, and the fact that some of the sites seem to represent elk bulls and cows in the rutting period thus suggest that *the*

purpose of the carvings was to secure the revival of elks. The rock carvings were, in other words, closely related to attempts to manipulate the environment (see also Nash & Chippindale 2002: 12). Regardless of whether elks were perceived as a finite or renewable resource, it is thus not particularly far-fetched to propose that hunting was perhaps prohibited at places where carvings had been made that depict groupings of elks as they would appear during their reproductive phase.

However, to prove the existence of such “refuge” locations is beyond our reach, and it would be too audacious to understand all eastern Norwegian rock art sites simply in this light. For example, even if we cannot ascertain the temporal relationship between the carvings and the adjacent hunting pits at Geithus, there probably exists some connection between the two. On the other hand, it should be emphasized that *the proposed “refuge” locations were not necessarily definite or exclusive in character.* It is fully plausible that some of the rock art locations were based on rotation, and hunting could have been practised in their surroundings in certain years.

¹⁴⁰ Although new carvings have been found, the proportions have not changed substantially.

In fact, the relationship between lucrative hunting spots and their protection is more or less self-evident – hunting regulations would be most efficient when centred on sites that otherwise (or under normal circumstances) would have played a major role in hunting.

It is also worth stressing that the interpretation proposed above does by no means rule out the performance of activities of ritual character at rock art sites. Neither does it exclude the possibility that the sites could have been intended to communicate a message – similar to that which I proposed in the case of polished rock art – directed at other hunting groups and/or at the elks themselves. That said, the important point that I wish to make here is that *irrespective of whether this rock art was sited at locations where elks were hunted, the sites and the figures were still ultimately related to the interests of human subsistence, and specifically to the process of elk hunting.*

5.2.1 Dating

Based on the elevations of the sites of Skogerveien and Åskollen (58–59 masl), Mikkelsen (1977: 184) proposed a date range for these between 6200 and 4700 calBC. Correspondingly, he regarded the Ekeberg site as slightly later, with an approximate date of 4000 calBC, and the Geithus carvings as probably coeval with the Ekeberg rock art. On stylistic grounds, Fuglestedt (2018: 227–229) likewise regards the sites of Åskollen and Skogerveien as the oldest and the Geithus carvings as slightly younger, although she is of the opinion that the Ekeberg site is not part of this stylistic group but instead is more reminiscent of the inland carvings.

A study made by Glørstad (2010: 220–221), based on newer geological data, confirms the Mesolithic age of the eastern Norwegian carvings, and it is largely in line with the scheme proposed by Mikkelsen. Glørstad dates both Skogerveien and Åskollen to the period 5700–5490 calBC. In his view, the Geithus carvings stem approximately from the period 4900–4800 calBC, and 4800 calBC is also the likely date for the Ekeberg site (Glørstad 2010: 221; see, however, Fuglestedt 2018: 229 for a contrasting view). The newly discovered Utenga carvings in Lier are elevated around 65 masl, making them probably slightly older than the Åskollen and

Skogerveien carvings, which are located around ten km south of Utenga. However, blasting works resulting in rockfalls have been carried out in the near vicinity of the Utenga rock carvings. It can thus not be ruled out that more carvings would originally have been located at this site also at lower elevations. Accordingly, the shoreline dating cannot be reliably used for determining the age of the Utenga carvings.¹⁴¹

Regarding the age of the inland rock art sites, the situation is more complex, since the shoreline chronology cannot be directly applied. Mikkelsen (1977: 185) was of the opinion that the strong stylistic similarities between the coastal rock art and the carvings found at Stein, Glemmestad and Møllerstufossen suggest that these sites are contemporaries – even if he acknowledged the possibility that all of the carvings at the sites were not necessarily made on the same occasion. This view is also mostly supported by Fuglestedt (2018: 227–229). The carvings found at Dokkfløyvatn also resemble those at these sites, which has led Glørstad (2010: 220) to regard them, too, as belonging to the same period. Moreover, he is of the opinion that a gradual stylistic change can be discerned in relation to the carvings located in the coastal region and the sites situated along inland waterways. This variation in the rock art can, according to Glørstad (2010: 220), be seen as an indication of the basically contemporary age of the rock art in the two regions. However, he acknowledges that the carvings in these two distinct areas were not necessarily made by the same population. Thus, Glørstad (2010: 220) also argues that the sites of Drotten and Eidefossen are part of the same tradition despite their somewhat differing styles. This is also in my opinion a more probable understanding than that proposed earlier by Mikkelsen (1977: 185), which would associate the two sites to different periods and/or cultures (see also Fuglestedt 2018: 227).

In sum, *all of the rock carvings in eastern Norway can somewhat reliably be dated to the period 6000–4800 calBC*, which correlates rather well with the Late Mesolithic Nøstvet phase (c. 6300–4700 calBC) in eastern Norway (Glørstad 2010:

¹⁴¹<http://www.bfk.no/Documents/BFK/Kulturminnevern/%C3%85rsrapport/%C3%85rsrapport%202013.pdf>, pp. 17–19, accessed on 5.9.2018.

35–37; 221; see also Mikkelsen 1977: 186–189). The internal chronology of the rock art sites is still to some extent uncertain, but it seems that there is a general agreement among scholars that the coastal sites, with the possible exception of Ekeberg, are somewhat older than the inland sites.

5.2.2 Elks in the rock art of eastern Norway

Most of the elk depictions in eastern Norwegian rock art are drawn in outline. Aside from this shared feature, the elk representations from this region differ significantly from each other. Apart from evident differences in size, the images vary in their depictions of elks, which appear either with or without the following features: antlers, hoofs, dewlap, inner markings, a “life-line” (a line running from the elk’s mouth to its supposed heart), or a double back line. Moreover, some of the elks have been portrayed with two legs whereas others have four, and there are noticeable differences also in the shape of the body, as well as in the depiction of ears and legs (Mikkelsen 1977: 174–180). Some of these attributes are found only at the coastal or, in one case, at the inland sites, but many occur at both. Yet, as Lødøen (2010c: 294) reminds us, even if the eastern Norwegian carvings constitute a distinct group, these are not completely unique in northern hunter-gatherer rock art. Largely comparable elk images are found both in the interior of Sweden as well as elsewhere in Norway, even if some variation can be observed in the decorative features that appear on the elks’ bodies.

Indeed, of all the features observable on elk figures in eastern Norway, the most conspicuous are without doubt the inner markings. Few elk figures are known that do not exhibit some kind of inner markings, and the designs that have been carved within the elk bodies exhibit remarkable variation.¹⁴² Fuglestad (2018: 183–190) has comprehensively addressed the various opinions of earlier scholars regarding the origin

and meaning of these body patterns. In short, scholars have disagreed on whether a relationship exists between the body patterns and the actual organs and skeletal parts of the elk. While some have considered these graphic designs as an attempt to depict the elk’s actual body parts (especially the ribs), others have argued that the designs have nothing in common with these. Equally, some scholars have stressed that the geometric patterns have been applied only as mere decorations, or due to a desire to fill in empty space. Others have, in turn, claimed that the graphic designs represent the most powerful or significant parts of the animals or their skeletons. Some have also argued that the emergence of these inner markings would relate to a shift in focus from the outer features of the elk to its internal parts. The body patterns have also been varyingly associated with hunting magic, fertility symbolism, shamanism, and entoptic phenomena.

As Fuglestad (2018: 190) concludes, most scholars have been of the opinion that the graphic patterns evolved from a manner of representing the natural features of elks’ bodies. This progression, in turn, has been understood mainly as a development from a naturalistic depiction to a more stylized one. Paradoxically, however, scholars have by no means reached agreement on whether the inner markings actually relate to any actual elk organs. Solving this question appears to be a highly problematic task, for as Fuglestad (2018: 192–193) notices, some of the elk figures feature inner designs that represent actual organs in addition to depictions that clearly have no natural origin.

An illustrative example is the large elk figure at Åskollen (Figure 4, Figure 41.1), which seems to show parts of the animal’s skeleton, the heart, the stomach, the diaphragm, and the intestines – perhaps also the kidneys and lungs (Mikkelsen 1977: 195–196; Fuglestad 2018: 193). On the other hand, however, the elk figure also contains features that have no natural parallels, such as rows of oblong segments, possibly depicting cuts of meat (Fuglestad 2018: 193). The existence of such cuts has led me to consider whether some of the elk figures could actually be depicting the ways in which elk carcasses were cut, or shared, by elk hunters. Obviously, this does not explain

¹⁴² According to Lødøen (2010c: 294), the body decorations seem to be fewer at the sites located north. It can therefore be speculated that the tradition of making inner designs may have a coastal origin.

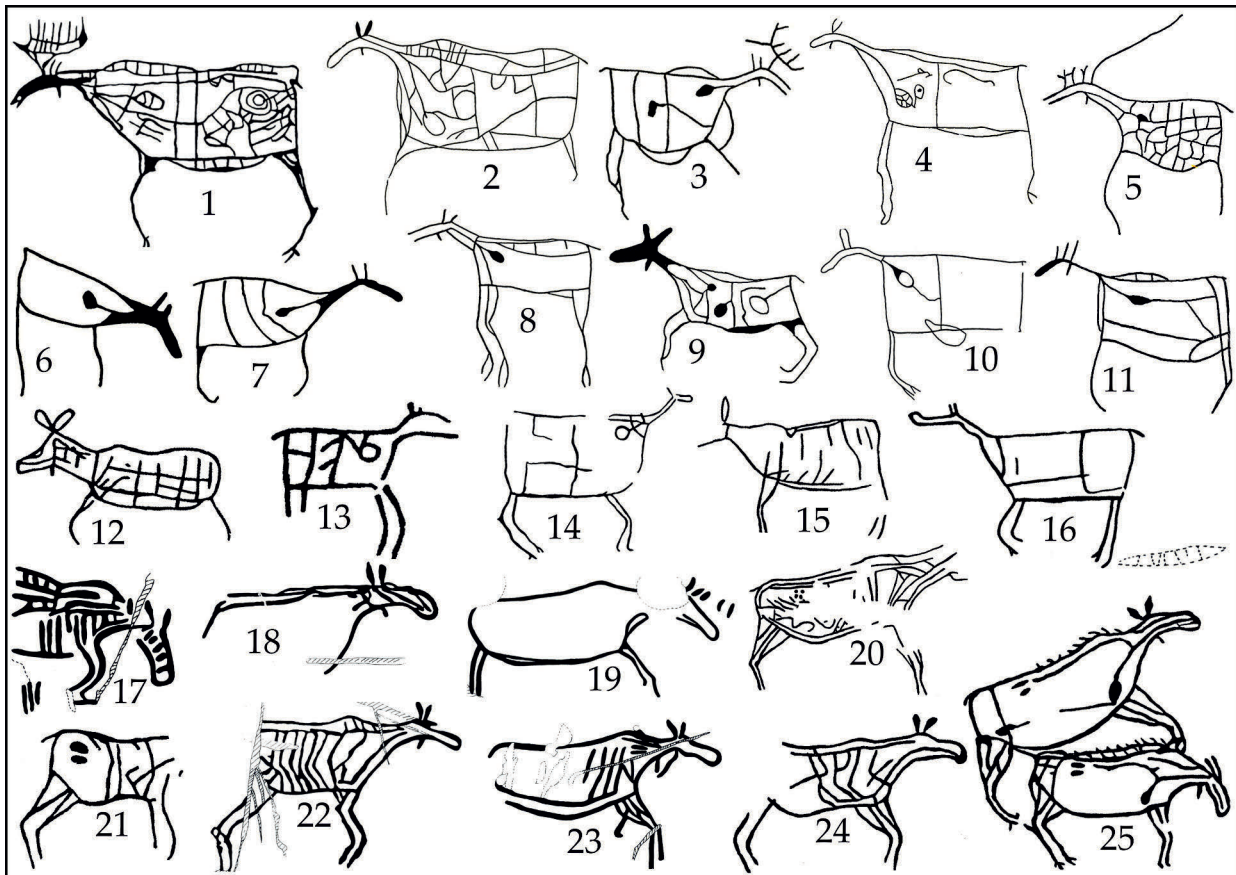


Figure 41. Elk figures on coastal rock art sites in eastern Norway. 1. Åskollen; 2–11. Skogerveien; 12–16. Ekeberg; 17–25. Geithus. Tracings from Engelstad 1934 (fig. 2–11), Mikkelsen 1977 (fig. 1, 12–16, 20–21, 24–25), Paasche 2000 (fig. 17–19, 22–23). Compilation: Ville Mantere. Not to scale.

all inner patterns present within elk figures, but some could perhaps be interpreted in this way – instead of perceiving such designs motivated by a simple desire to fill in empty space (cf. Fuglestedt 2018: 196, 205, 217).

In fact, Ingold (2000: 118) has pointed out that, in Australian aboriginal art, similar examples of segmentation within animal depictions “indicate the way in which the carcass should be cut up for presentation to various categories of kin”, and such illustrations are understandable as “a kind of instruction manual...for butchery and distribution”. I am inclined to view some of the inner designs of eastern Norwegian elk figures in a somewhat similar light – even if I do not think that they should, as a result, be understood as “totemic” expressions, or *churingas*, as Fuglestedt (2010: 29–32) interprets them to be.¹⁴³

¹⁴³ Churingas are geometrically ornamented artefacts that are thought to be “imbued with ancestral power” (Fuglestedt 2010: 27). The term originally refers to sacred items made of wood or stone that were used among Australian aboriginals. Churingas were made famous by Durkheim (1912) through his theory of totemism, in which these items have a central role.

Tanner (1979: 157) notes that, among the Mistassini Cree, elk are as a rule skinned and butchered immediately at the kill site to facilitate the transport of the meat to the camp site. Usually, the Cree hunters cover the cuts of meat with spruce branches or bury them in snow. They then return to the camp site “with a number of special parts of the animal, which are used as tokens to announce the kill that has been made. A meal is prepared with these parts, and the following day every able-bodied person returns to help transport the meat back to camp” (Tanner 1979: 147). Typical tokens taken to the camp are the heart, the lower intestine, and certain types of fat found in the abdominal cavity (Tanner 1979: 155–156).

The elk’s various body parts have been ascribed with different meanings across the taiga region. As Järvinen (2000: 65) recounts, for instance, the ears have possessed special connotations for many peoples, for there has been a widespread belief among many indigenous populations that the animal’s soul

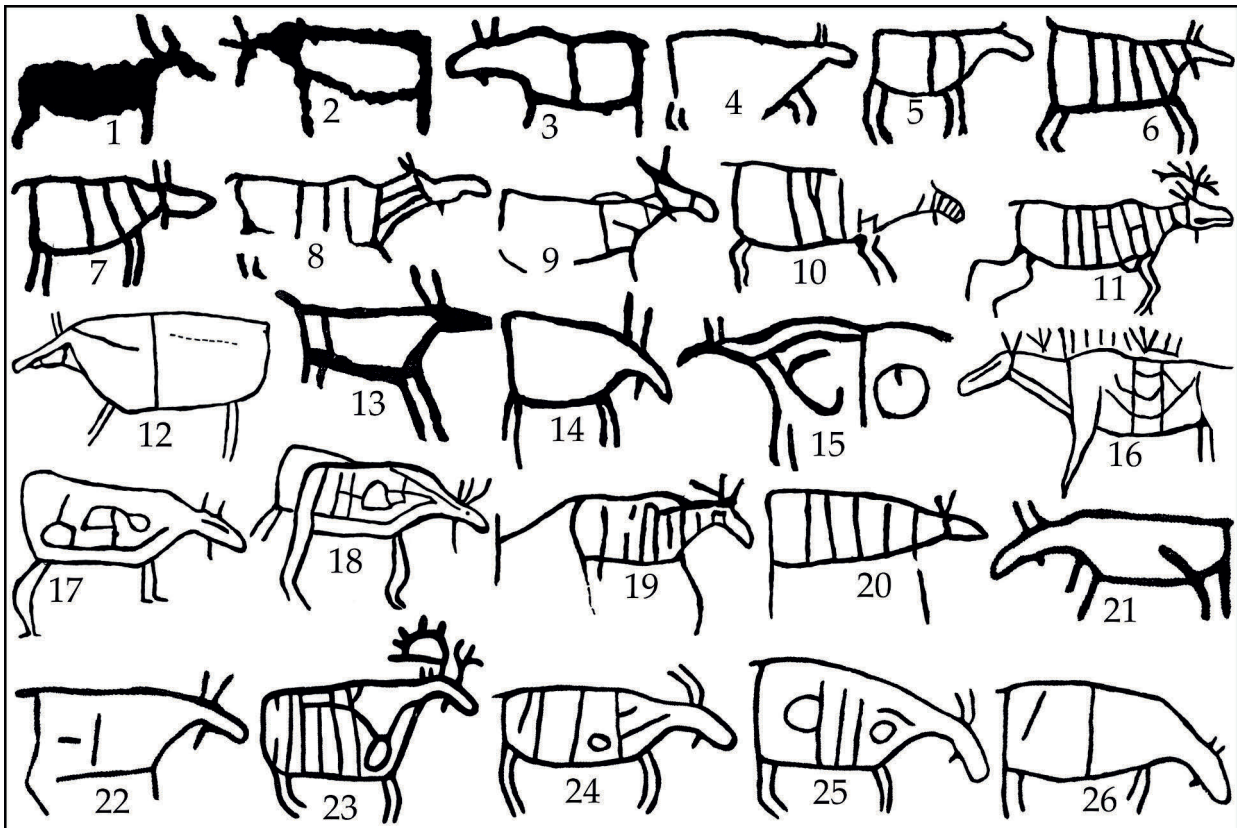


Figure 42. Elk figures on inland rock art sites in eastern Norway. 1–2. Dokkføyvatn; 3. Eidefossen; 4–8. Drotten; 9–12. Glemmestad; 13–20. Stein; 21–26. Møllerstufossen. Tracings from Boaz 1998 (fig. 1–2), Mikkelsen 1977 (fig. 3–26). Compilation: Ville Mantere. Not to scale.

resided in its ears.¹⁴⁴ Among the Vas Yugan Khanty, meanwhile, the elk's nose and lips were considered special and consumed by the hunter. The heads of elks also tended to serve as focus for special rituals. These were often consumed during "elk-head feasts" held at places within the landscape that were considered sacred (see Jordan 2003: 107; 2008: 238–239; Filtchenko 2011: 187, 193 and cited references). The Cree likewise held feasts in which only the elk's head was eaten (Tanner 1979: 158, 168–169).

Among several North American peoples, there have also been strict rules concerning certain animal parts that were forbidden for women to consume. Amongst the Cree, for instance, only men were permitted to eat the elk's head, heart and forelegs, and it seems that, overall, it was considered fitting for the fore-quarters to be consumed by men, and the hind-

quarters by women (Brightman 1993: 123–124 and cited references). It is fully possible that similar beliefs and proscriptions, relating to specific body parts of elks (and of other animal species) already existed in prehistoric times: these may also feature in the inner designs depicted on the animal figures in rock art. Günther (2010: 107–108), for instance, has interpreted the inner designs as reflecting such parts of the animal as were considered particularly significant and which may have been treated with special care in order to please the forces that were regarded as responsible for the regeneration of these animals.

According to Fuglestedt's (2018: 193–194) source (an elk hunter and zoology professor), a feature of particular interest that can confidently be identified on many elk figures is the diaphragm or the midriff muscle, which is "a prominent element one is confronted with when quartering the animal". This muscle is apparently depicted on most elks as a single vertical line dividing the animal, but on the Åskollen elk it consists of two paralleling lines. In order to double-check this

¹⁴⁴ Elk figures in northern rock art, as well as carved artefacts representing elks, have often been portrayed with noticeably large ears. One possible explanation for this is that these held special connotations in prehistoric indigenous thought.

interpretation, I also showed images of elks in eastern Norwegian rock art to an experienced elk hunter. He similarly recognized the midriff muscle, in addition to the heart, the lungs, the stomach, the intestines and the large arteries represented within several of the elk figures. In his opinion, it is not that surprising in fact that the midriff muscle is emphasized on many elk figures, for it is an anatomically significant body part that separates the respiratory system from the digestive system. To be sure, the midriff muscle continues to have importance as a dividing body feature for modern-day elk hunters, since a shot to the hindquarters of the animal will immediately result in the rapid dispersal of bacteria, leading to the swift contamination of the meat. This does not occur when an elk is struck in its forequarters, and thus this is the only manner in which elks are shot. The resulting meat is thus of significantly better quality both in terms of nourishment and preservation.¹⁴⁵ Most probably, Stone Age hunters were aware of this fact and the vertical line depicted on many of the eastern Norwegian elks is thus indeed likely to represent the diaphragm muscle. It should also be noted that alleged representations of the midriff muscle are not unique to eastern Norway. On some elk depictions in Alta and Nämforsen, for instance, a similar “midriff part” seems to be discernible.

Based on a large whale figure with inner designs at Skogerveien (Figure 154.4), Fuglestedt (2018: 198–217, tab. 5.1) proposed a chronological scheme according to which the patterns would have been produced on eastern Norwegian rock art figures. Yet, even though I find her interpretation fascinating, I think that the actual evidence is far too weak to corroborate the scheme she suggests, especially as regards the body patterns on elk figures, which are too varied to be studied chronologically. More significant is the notion put forth by Fuglestedt (2018: 213, 223), that the manner of depicting inner designs on animal figures was clearly not preceded by a tradition of depicting inner organs in a more realistic manner – even if there is

no doubt that the rock artists would have had the knowledge to mark these out accurately. Instead, the inner designs were from the very beginning partly inspired by nature but also partly by “culture”, because of an “ambiguous intention” that was related to the depiction of animal figures, as Fuglestedt (2018: 214) puts it.¹⁴⁶

On this point I partially agree with Fuglestedt. It seems to be true that the geometric patterns in eastern Norwegian rock art can to some extent be traced back to natural organs, even if these are always depicted in a rather “cultural” manner (cf. Glørstad 2010: 234–235).¹⁴⁷ On the other hand, I cannot find sufficient evidence to support Fuglestedt’s (2018: 214) idea that the so-called “cultural” elements on eastern Norwegian rock art figures gradually increased at the expense of natural features, which in turn would have vanished completely in the course of time. I also disagree with her view that the fundamental reason for depicting ambiguous designs would have been to prevent the viewer from separating nature from culture, or that the designs would signify an introduction of totemic belief systems during the Late Mesolithic (Fuglestedt 2008: 360–364; 2018: 214–215; see also Glørstad 2010: 234–235).¹⁴⁸ Rather, in the case of inner designs, I argue that the “cultural” lines were added on elk figures in order to signi-

¹⁴⁶ This probably holds true also more specifically for the so-called rib pattern, or “vertical line pattern”, which is not directly but only ambiguously related to natural elk ribs (Fuglestedt 2018: 216).

¹⁴⁷ While Fuglestedt uses the term “culture”, “fantasy” could in my view serve as a better designation for denoting that abstract human thought lies behind the designs instead of a plain imitation of natural features. I have here, however, for the sake of simplicity decided to follow Fuglestedt’s terminology and to use the problematic terms “culture” and “nature” for separating between the said causes for image making.

¹⁴⁸ Also more generally, I claim that the rock art material in Scandinavia is far too scarce and varied to support Fuglestedt’s (2010: 29–31) idea of totemic and animistic groups co-existing and perhaps merging in this region during the Mesolithic and the Early Neolithic periods. Moreover, local and temporal variations in how elks and other rock art motifs were depicted do not imply that divergent figures were created by groups representing totemistic or animistic belief systems. In particular, I am critical towards Fuglestedt’s (2008: 357; 2010: 32) assumption that animistic societies would easily transform into totemic groups and *vice versa*, and that the Scandinavian rock art would signify transitions from animism to totemism and back in a relatively short timespan.

¹⁴⁵ Jari Mantere (executive director, Vakka-Suomi game-keeping association), email correspondence, 20.9.2018, 12.12.2018.

fy that these represented something other than purely generic animals.

The fundamental reason for making the figures was to assure access to elks as a food resource in the future, but the rock art makers were not simply interested in just any kind of elk. Instead, the vital point was to gain enduring access to elks that could be hunted – to animals that would conceivably “give themselves up” to the hunters. I thus argue that one of the purposes for the inner designs was to signal that the animals that would be reproduced in the future would be “beneficial” individuals, or elks willing to be killed. Therefore, I believe that the manner of representing elks with “human-related” features, such as cuts of meat, expresses a desire to achieve some degree of interaction with, or control of, the depicted animals.

Moreover, irrespective of whether game management practices existed in Late Mesolithic eastern Norway, I claim that prehistoric elk hunters in Northern Europe paid at least the same level of attention to individual, perhaps even “personal”, traits of elks as the Cree (section 4.5). Another function of the inner designs, I believe, was hence to distinguish between different elk individuals. As a matter of fact, the inner designs are never fully identical. This gives further support to the view that it was crucial to separate elk depictions from one another (cf. Skandfer 2020: 119) – just as it was important to distinguish between elk individuals in the wild. This is fully understandable, since the ethnographic data strongly suggests that the identification of animals that ought *not* to be killed may have been just as important as the selection of the animals that were to be hunted.

We can only speculate as to whether the intention of the inner designs was to affect the elks within a territory or to transmit “individual information” about them. Nonetheless, the common purpose of the various inner designs was to epitomize difference and individuality. To put it differently, *the aim of the inner designs was to underline the role of elks as individual and amenable animals*. In fact, I find it probable that the function of the inner designs was in this respect more or less similar to the suspiciously-

common incomplete figures in the polished rock art of central Nordland. In line with Hesjedal (1992: 41), I am disposed to interpret the latter as signalling differences in meaning compared to the finished figures. Perhaps, these differences were similarly related to the very nature and approachability of individual animals.

In sum, the elks depicted in eastern Norwegian rock art would form part of a developmental phase subsequent to that of the elk figures in the polished rock art of central Nordland. I would especially like to stress the importance of the recently discovered carvings in Utenga as evidence of a transition stage between the polished rock art and the eastern Norwegian carvings (cf. Gjerde 2010: 394). If the Utenga carvings can indeed be dated on the basis of their elevation, then these figures should be regarded as the oldest examples of eastern Norwegian rock art. Further support for this conclusion can be found in their artistic characteristics: the large size and location of the Utenga elk figures would link them to the polished rock art of central Nordland, whereas their inner designs and the pecking style used in their production would connect them to the later eastern Norwegian carvings.

Undeniably, there are several differences between the eastern Norwegian carvings and the polished rock art of central Nordland. Yet, a fundamental aspect common to the art of both areas is the almost total lack of human elements depicted in the rock art. As will be seen below, this is in sharp contrast to the later rock art of Fennoscandia, where elk figures are being depicted together with human figures in different settings.

5.3 The rock carvings in Alta, Norway



Figure 43. Map showing the rock carving sites along the Altafjord and the rock carving site at Slettnes. Map: Ville Mantere/NatGeo MapMaker.

The rock carving sites in Alta in northernmost Norway, discovered in the 1970s, constitute the largest concentration of Stone Age rock art in Northern Europe, with around 7000 figures in total (Gjerde 2010: 240–242; 2019a: 17). The rock art situated at multiple sites along the Altafjord is comprised of both paintings and carvings. In this study, however, by the umbrella term "Alta", I refer especially to the rock carving sites.¹⁴⁹ In this section, I will more specifically examine depictions of elks on the rock art panels at the sites of Kåfjord, Hjemmeluft (Jiebma-luokta) and Amtmannsnes (Figure 43).¹⁵⁰

¹⁴⁹ Despite several zoomorphic depictions found in the rock paintings at Transfarelv, no elk figures or other elk-related motifs are discernible among the painted figures in Alta.

¹⁵⁰ Like Günther (2022: 19), I have decided not to include the rock carvings on the large boulder known as Storsteinen in the study. This is because individual figures on the rock are highly difficult to discern due to numerous superimpositions, and because the dating of the figures remains obscure (Tansem 2020). For the elk figures on the Storsteinen boulder, however, see Figure 52.

The predominant motif in Alta is the reindeer, which is depicted more than five times more often than the elk, which is the second most common animal represented in the panels (Tansem 2022: 162, fig. 2). Besides reindeer and elks, the motifs used in Alta include other animals such as bears and whales, as well as fish and numerous animal tracks.¹⁵¹ Depictions of anthropomorphs, boats and various artefacts are also common. In contrast to the polished rock art of Nordland and the eastern Norwegian carvings, the Alta petroglyphs include many descriptive and narrative scenes, portraying, for example, the fishing and hunting of various species (Helskog 1988).

Due to the vast number of carvings and the large variety in motifs, it is difficult to ascertain the percentage of elk figures in Alta. These are more common in some panels than in others (e.g. Gade 2020: 43–44), and the proportion of elk figures differs greatly between periods. According to Tansem (2022: 162, fig. 2), 209 elk depictions in total have been identified at the three sites of Kåfjord, Hjemmeluft and Storsteinen (Figure 52). Günther (2022: 87, 91) has recently arrived at a rather similar reckoning, discerning 195 elks in total at the sites of Kåfjord and Hjemmeluft. In addition, I would suggest that a number of possible elk depictions can be identified at the Amtmannsnes site (Figure 51). Thus, I would estimate that elk depictions constitute around three to five per cent of the total amount of rock art figures in Alta. This is merely an educated guess, for it has not been possible to make a detailed calculation of the different motifs within the frames of this study. On the other hand, such a categorization would inevitably be somewhat defective, as there are many carvings in the Alta area waiting to be unearthed. Moreover, there are evident problems as to whether

¹⁵¹ In Gjerde's (2010: 282–283, fig. 185) opinion, for instance, elk tracks depicted on the Bergbukten 4 panel have a well-thought-out placement on the rock surface, lying in a zone where land and water meet. He understands these elk tracks as denoting a crossing place used by elks – a place where elks came ashore, possibly as a result of elk hunting taking place from boats. Importantly, Günther also points out that the tracks of animals are perceived by several northern hunter-gatherer groups as more or less comparable to their images (Günther 2022: 59 and cited references). It has even been proposed that natural animal tracks may have affected or inspired the production of rock art (Alberti & Fowles 2018; cited in Günther 2022: 151; see also Brandišauskas 2017: 155–157).

various kinds of lines, dots and other markings (such as animal footprints) on the rocks should be included in the number of individual figures (see Tansem 2020: 99).

It has been noted that many of the carvings in Alta have made reference to microtopographical features on the rock surfaces. Some have argued that it is, for instance, possible to discern natural rivers and lakes on the rock art panels (see e.g. Gjerde 2010: 270–286; Tansem 2022: 166 and cited references). As Gjerde (2010: 256) points out, scholars have also taken the enormous quantity of rock art in the Alta region as an indication that the area served as a central meeting point (see e.g. Hood 1988: 77–78). In addition, several Stone Age settlements are located in the vicinity of rock art sites (see e.g. Gjerde 2010: 261–262; Helskog 2020: 52–61). It is thus obvious that the rock carvings in Alta not only differ markedly from the petroglyphs in central Nordland and eastern Norway but are moreover exceptional in northern hunter-gatherer rock art in general. The closest similarities to the Alta petroglyphs are found at other large carving sites such as Nämforsen, Vyg and Kanozero. As these sites have also been interpreted as meeting places, I will address the topic more closely in relation to the Kanozero carvings.

5.3.1 Dating

The petroglyphs in Alta offer an exceptional insight into the development of rock art in the region over a period of approximately five millennia. There are currently a couple of slightly different chronologies that have been proposed for the rock art in Alta, based on shoreline dating and stylistic observations (for overviews regarding the dating of Alta rock art, see Gjerde 2010: 246–254; Helskog 2020: 46–61; for critique, see Tansem 2020). Gjerde's (2010: 252) chronology consists of five periods: 5200–4200 calBC (I), 4200–3000 calBC (II), 3000–2000 calBC (III), 1700–1200 calBC (IV) and 1100–200 calBC (V). Helskog (2014: 29), meanwhile, identifies six different periods: 5000–4800 calBC (I), 4800–4000 calBC (II), 4000–2700 calBC (III), 2700–1700 calBC

(IV), 1700–500 calBC (V) and 500 calBC–AD 100 (VI), respectively.¹⁵²

To complicate matters, however, Helskog (2020: 51, 61) has recently reconfigured his scheme into ten periods: 5000–4800/4700 calBC (I), 4800/4700–4300/4200 calBC (II), 4300/4200–3800/3700 calBC (III), 3800–3600 (IV), 3600–2600 calBC (V), 3200–2400 calBC (VI), 2500–1800/1700 calBC (VII), 1500–1100 calBC (VIII), 1100/1000 calBC (IX) and 500–0 calBC (X). In sum, despite some internal differences in the chronologies, both Gjerde and Helskog agree that *the oldest rock carvings in Alta were made in around 5200–4800 calBC and that petroglyphs were subsequently produced over different periods, ending at around the beginning of the first millennium calBC, or possibly even later.*

Because I concur with Helskog's view that the highest – and thus, supposedly, the very earliest – elk depictions in Alta (Period I) differ from those of subsequent periods, I am disposed to follow Helskog's revised chronology for the elk motifs in Alta over Gjerde's. However, since there are elk depictions in Helskog's (2020: 61) Period V but not in the somewhat uncertain Period IV that he outlines, I have, for the sake of simplicity, decided to group the elk motifs in Alta into four periods as follows: 5000–4800 calBC (I), 4800–4200 calBC (II), 4200–3700 calBC (III), and 3600–3200 calBC¹⁵³ (IV). Needless to say, the dating and periodization of the Alta petroglyphs will continue to be debated in the future, but for the purpose of this discussion, I have found this four-phase division sufficient for expressing the changes that took place in the elk motif over time. I will also utilize the same grouping in the following chapter when examining the elk-headed boat and staff depictions from Alta.

¹⁵² Somewhat confusingly, Helskog (2014) replaced the earlier term “phase” with “period”, in order to make a distinction from his earlier chronology (Karin Tansem, archaeologist, Alta Museum, email correspondence 27.8.2018). Furthermore, in his latest chronology, Helskog (2020: 61) replaced the term “period” with “layer”. Although the term “period” will be used here, it is unclear which term will gain currency in future.

¹⁵³ The date proposed for the Amtmannsnes carvings, where all the supposed depictions of elk at an elevation of 14–16 masl are situated, is 3600–3200 calBC (Helskog 2020: 60).

5.3.1.1 Elks in Period I (c. 5000–4800 calBC)

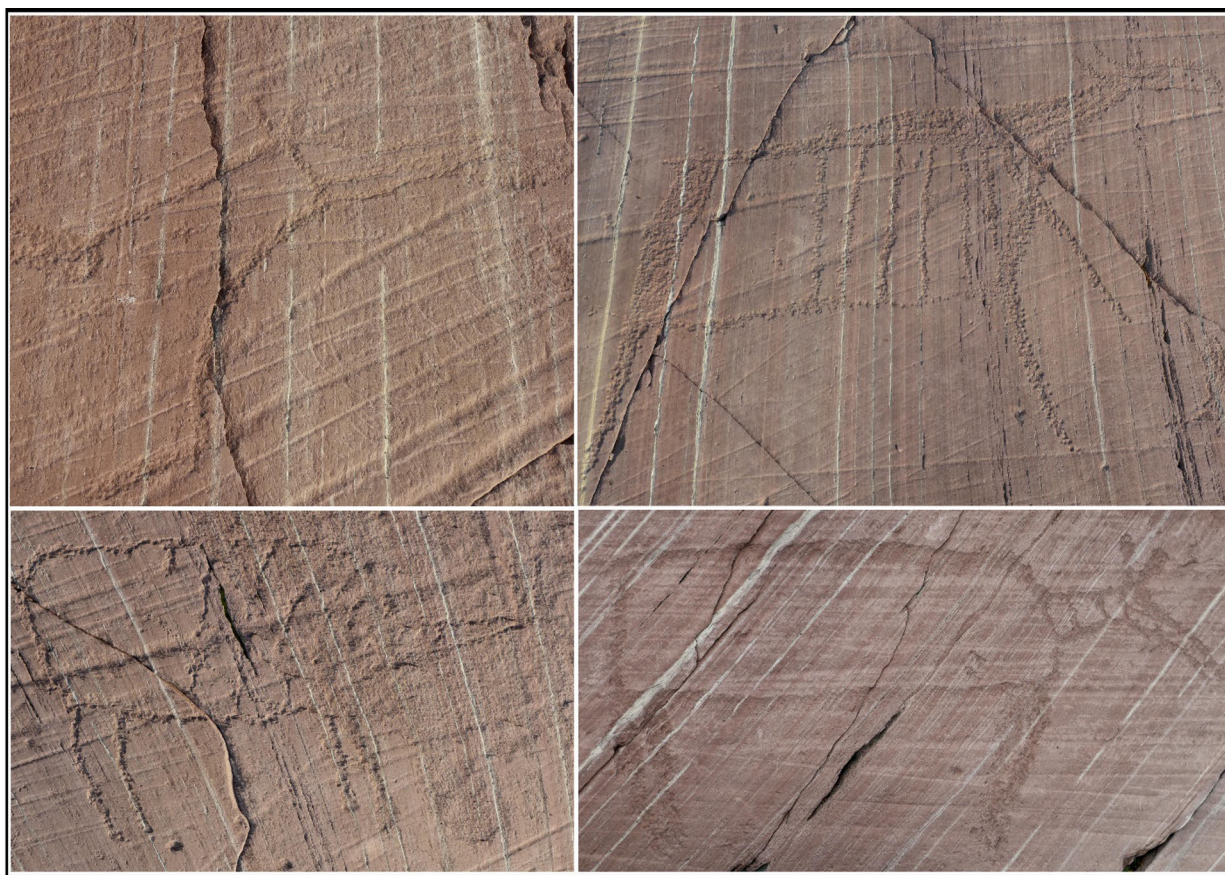


Figure 44. Elks from Period I in Kåfjord, Alta. Photos and compilation: Ville Mantere. Not to scale.

The oldest elk figures depicted in Alta are in all likelihood those found on the uppermost panel in Kåfjord 1 (c. 25.5–26.5 masl). These are believed to date approximately to the period 5000–4800 calBC (Helskog 2014: 43; 2020: 51, 61). On the panel, there are 16 figures in total, of which four seem to depict elks (Figure 44). The other images consist of two or three elk-head boats, a bear, a reindeer, a possible bird, as well as some abstract and incomplete figures. The elk depictions are rather peculiar and exaggerated in shape, with thin legs, rectangular bodies and long muzzles. These images appear to closely resemble the elk depictions from Tennes in Balsfjord, south of Tromsø, which are more or less contemporary with the oldest figures from Kåfjord (Helskog 2014: 44, for the Tennes figures, see Gjessing 1932, plates XXII–XXVII and Hallström 1938, plates I and II).

The elk depictions of Period I show differences in relation to one another; especially as regards the portrayal of the head and body of the animal. Striations are incised upon the fore-

quarters of two of the elks, whereas the heads of the other two display ornamentations.¹⁵⁴ All elks are portrayed without antlers and dewlaps, and hence it is rather likely that these represent elk cows. Of special interest is the largest elk figure (Figure 45.3), which possibly has a spear stuck in its chest (Helskog 2014: 45).¹⁵⁵

As regards inner designs, the early elk depictions at Kåfjord bear some resemblance to the eastern Norwegian rock carvings. Some of these figures may in fact be roughly coeval with the oldest elk depictions from Kåfjord. As with the eastern Norwegian elk depictions, the rectangu-

¹⁵⁴ Often this type of ornamentation is referred to as a “rib pattern”. However, as Gjessing (1936; cited in Fuglestad 2018: 185), for example, has pointed out, this term is problematic in a stricter sense, for the “ribs” are often depicted outside the areas of the elk’s body in which ribs should normally be located. In this study, the term “rib pattern” is used, but only in a general sense as a descriptive term.

¹⁵⁵ It should be noted, however, that two elks in the panel are, rather unusually, depicted with four legs. For this reason, there remains a possibility that the alleged spear figure actually represents the elk’s other foreleg – even if the elk’s positioning would in that case seem rather unnatural.

lar elk figures from Period I in Alta are depicted without any obvious connection to anthropomorphic figures. However, the possible spear image and the elk-headed boats on the uppermost Kåfjord panel may still represent a human presence in close proximity to the elk. Meanwhile, since the short and transitional Period I in Alta is represented only by four elk depictions, it is not possible to draw any far-reaching conclusions on the basis of these. What is obvious, however, is that these differ significantly from the elk figures made in the subsequent period.

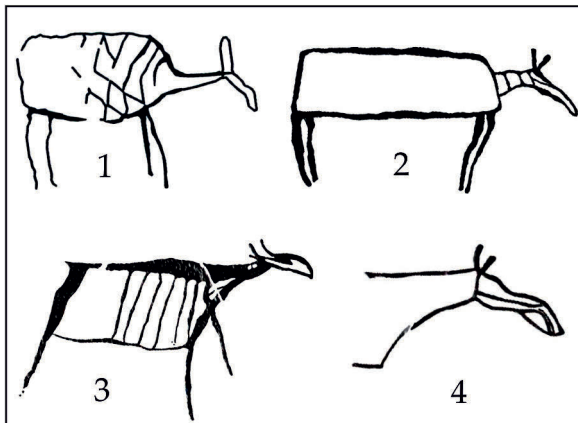


Figure 45. Elk depictions from Period I in Alta. Kåfjord 1. Tracings by Knut Helskog (fig. 1) and Karin Tansem (fig. 2–4). Alta Museum Rock Art Archive. Compilation: Ville Mantere. Not to scale.

5.3.1.2 Elks in Period II (c. 4800–4200 calBC)

In the second period, the production of rock art in Alta was prominent both in terms of the overall number of pictures and the variety of motifs depicted (Helskog 2014: 99). During this period the rock art panels (c. 22–25.5 masl) also start to include representations of anthropomorphs and various acts such as hunting and fishing. Reindeer predominate (623 figures, c. 70% of animal depictions), but elks are also common (122 figures, c. 14% of animal depictions) (Günther 2022: 75–76, 87, fig. 26).¹⁵⁶ The latter have, as a rule, been depicted in relation to other figures (espe-

cially in Hjemmeluft) but are sometimes depicted as independent figures (especially in Kåfjord) (Günther 2022: 87–91, fig. 44).

According to Günther (2022: 100, tab. 4, 6), there are 12 discernible “groups” of elks with the figures from Period II. She links six of the groups to winter or spring-winter, and one to autumn, describing the rest as being without any clear seasonal affiliation. Because of this, Günther (2022: 100) concludes that the elks from Period II are associated first and foremost with (late) winter (hunting). She interprets the elk groups as animals that are standing clustered in wintertime, which in her view contrast with the wandering elks of the following period (Günther 2022: 118). As I will point out in relation to the Nämforsen rock carvings below, however, recognizing movement in elk depictions is not entirely unproblematic. I regard Günther’s deductions as somewhat problematic also at a more general level, for as she herself admits, the majority of individual elk figures offer very few clues as regards any related time of year, and her argument is mainly based on how the elk depictions are grouped. Yet, we cannot be sure whether all the elk depictions in these “groups” are contemporary, and even if they were, only half of the groups defined by Günther (2022: 100) are associated with winter. There are also some “seasonal contradictions” that further weaken the argument that the elks from Period II would be associated with a particular season (Günther 2022: 104).

Most of the elk figures in Period II are depicted without antlers. I find it justifiable to interpret them primarily as elk cows because there are also some clear depictions on the panels of elk bulls bearing antlers.¹⁵⁷ The majority of elks are depicted with two legs, but some have three or four limbs. It is interesting that whereas the legs of many elks have been marked only as simple lines, their hoofs have sometimes been rendered in an overstated manner (Figure 47.3). The elk figures have occasionally been depicted in relation to anthropomorphs – sometimes carrying weapons – but it is not always possible to ascertain whether these scenes represent

¹⁵⁶ According to Günther (2022: 87), there are 94 distinct elk figures from this period at Hjemmeluft and 28 at Kåfjord (the four uppermost elks in Kåfjord that I attribute to Period I are not included). It should be noted here that in her dissertation, Günther (2022) speaks of phases 1 and 2 based on Gjerde’s (2010) chronology. Here, these phases correspond to periods II and III.

¹⁵⁷ Most of the elk figures in this period are “sexually undefined” according to Günther (2022: 87). Of those elk depictions that she argues can be defined, the majority are female (42%), followed by male (35%) and young elks (23%) (Günther 2022: 88, fig. 44).

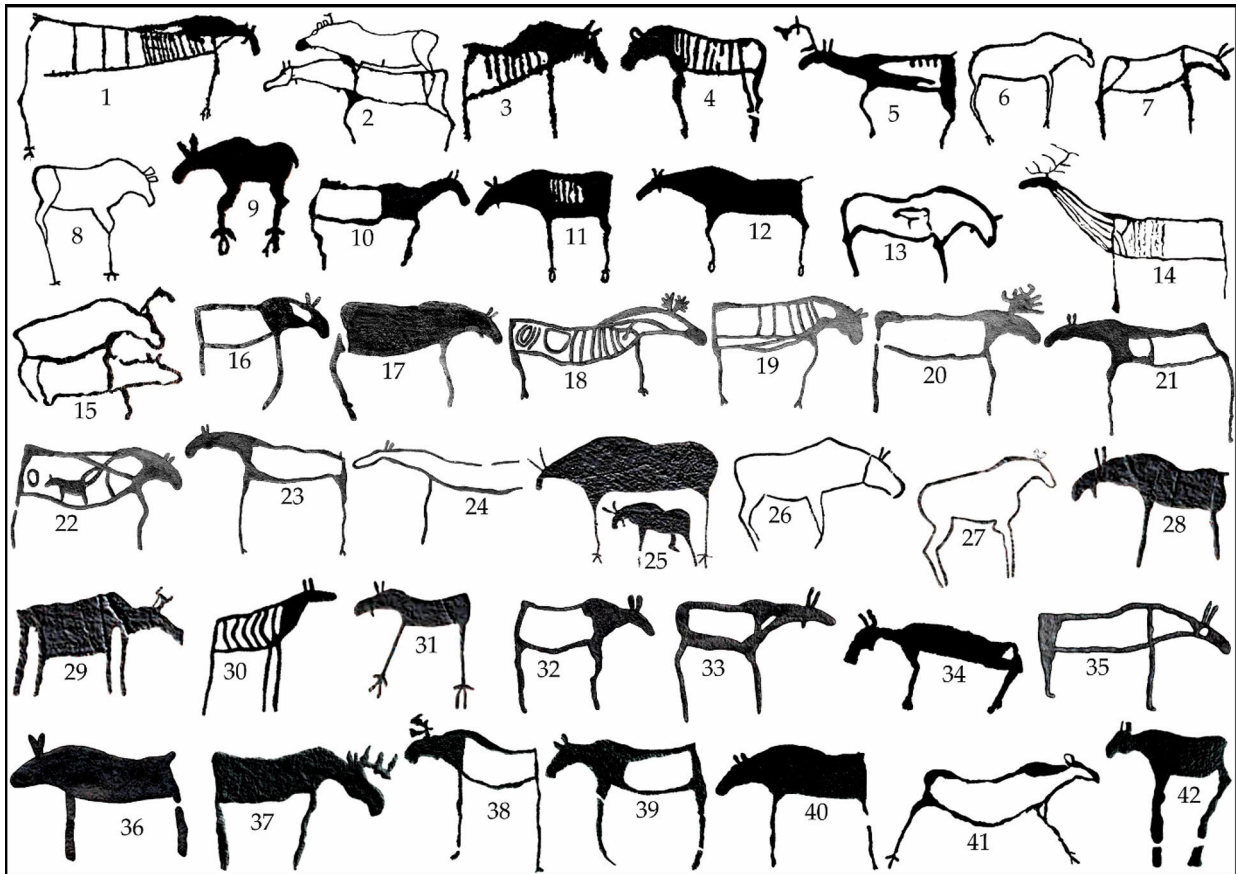


Figure 46. Elk depictions from Period II in Alta. 1–8. Bergbukten 1; 9–10. Bergbukten 4A; 11–13. Bergbukten 4B; 14–15. Bergbukten 7A; 16–24. Bergheim 1; 25–31. Kåfjord 1; 32–36. Ole Pedersen 1; 37–42. Ole Pedersen 9. Tracings by K. Tansem (fig. 1–33; 35–42), R. Normann (fig. 34). Alta Museum Rock Art Archive (<http://altarockart.no/fotoweb/>). Compilation: Ville Mantere. Not to scale.

actual hunting or some ritual or imaginary actions (cf. Ranta et al. 2020: 233–243). In Günther’s (2022: 87) view, however, there are seven instances of elk being hunted in Period II, and I find this understanding acceptable.

There is a rather large variation between the elk figures of the second period (Figure 46). On one hand, these include realistic elk depictions made with a high degree of anatomical accuracy, and many realistic scenes, such as representations of elk cows with their calves, or of elk swimming. Similarly, there are depictions of breeding elk and of springing elk cows (Helskog 2014: 73; Günther 2022: 87). On the other hand, there are evidently fictitious scenes, such as on the panel Ole Pedersen 9, where elk of various sizes and shapes are portrayed in different positions together with other animal species and anthropomorphic figures as part of a more or less chaotic whole. Equally, some of the elk figures from the second period display clearly disproportional dimensions, such as exaggerated backs or legs. These kinds of variations in elk depictions occur not only across different

sites but within individual panels also. For instance, on the extensive Kåfjord 1 panel comprising of more than 900 carvings, elk have been rendered in different styles and sizes, and are positioned in various areas of the panel.

The elk of the second period are made both in the scooped-out style and in the outline style. Moreover, there are numerous figures that have been only partly scooped-out. As regards these figures, it is especially the forequarters of the elk that have been portrayed in the scooped-out style, in contrast to their rearquarters, which are depicted in outline. Such a manner of depiction seems to have been widespread. Depictions of elk with highlighted forequarters seem to dominate at many places where partly scooped-out elk depictions occur, such as at Nämforsen and in eastern Norway, and also in Siberia (see e.g. Jacobson 1993: 92).

A possible explanation for the emphasis on the forequarters is that they relate to the same aspect as the depictions of midriff muscles on the eastern Norwegian elk carvings. Thus, the scooped-out forequarters may in some cases

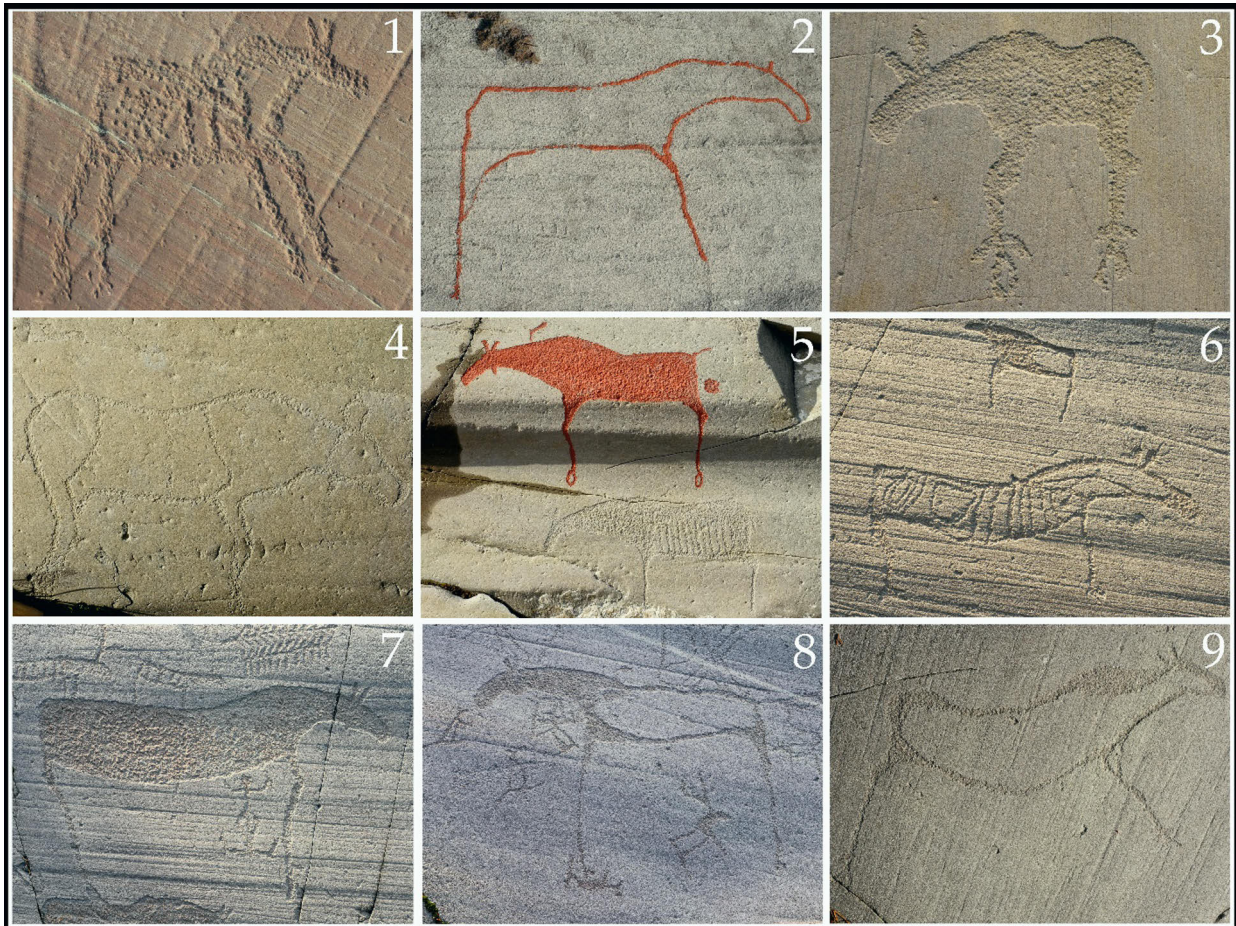


Figure 47. Elk depictions from Period II in Alta. 1. Kåfjord; 2. Bergbukten 1; 3. Bergbukten 4A; 4–5. Bergbukten 4B; 6–8. Bergheim 1; 9. Ole Pedersen 9. Photos and compilation: Ville Mantere. Not to scale.

refer to the vitally important respiratory organs, which perhaps had a special importance in the minds of prehistoric elk hunters. Moreover, on the topic of hunters mimicking the appearances of elks and reindeer, Guthrie (2005: 279) points out: “[i]t is interesting ethologically that the head, antlers, and mane are focal points for recognition; the rear part of the body is almost inconsequential”. However, despite being mesmerizing, these explanations do not hold for all partly scooped-out elk figures in Alta, for there are numerous depictions of elks in which the scooped-out area is not restricted to the fore-quarters of the animal.

Some of the bodies of elk figures have also – either partly or entirely – been portrayed with geometric patterns (see Günther 2022: 113–115, tab. 9, 10). These varying designs occur most often on elks that are partly scooped-out. It thus seems likely that both the scooped-out parts as well as the geometric patterns signified some connotations that differentiated these animals from the wholly outlined or scooped-out elk figures. An obvious

possibility is that these various kinds of depictions were made by different people, with the aim of distinguishing new figures from pre-existing ones. However, in this case I find it more probable that a more or less similar explanation lies behind the figures as the one I suggested for the elk figures with inner designs in eastern Norway (and the incomplete figures in central Nordland). In other words, the differing ways of representing elks in Period II were perhaps used for underscoring the fact that the elks were *individuals*, not all of which were huntable or ready to give themselves up to the hunters (for an opposing view, see Günther 2022: 123).¹⁵⁸

Skandfer (2020: 119) has pointed out that the reindeer figures from Alta, which have been similarly depicted with different kinds of inner

¹⁵⁸ A systematic study of the different kinds of elk depictions could reveal important information concerning the relationship between the elks with inner designs and the scenes in which these occur. If, for instance, it would turn out that elk cows depicted together with their calves are always portrayed without inner designs, this could be taken as a sign of that such elks were not ought to be hunted.

designs, are all unique in appearance. She proposes that these refer to different reindeer individuals with distinctive fur-colour patterns. However, while this understanding may well hold true for the reindeer depictions, it does not seem to be a credible explanation for the elk figures. This is because there is significantly less variation in fur colour on elks compared to reindeer (see also Günther 2022: 117). Yet, I find Skandfer's (2020: 119) observations highly important, for these demonstrate that one of the functions of inner designs was clearly to emphasize individuality. I firmly believe that this holds true for the elk figures as well. In other words, the rock art makers in Alta wanted to underline the fact that the animals depicted were not identical to each other, even if they were of the same species (for an opposing view, see Günther 2022: 117). It thus seems that not only were scooped-out and outline elk depictions categorically different from each other, but variations existed also within these groups. It follows that *the rock art from Alta does not consist of generic elks, but of elk individuals* in particular.

As noted above, I concur with Fuglestedt (2018: 214–215) that the inner designs on eastern Norwegian elk figures refer to natural organs only in part. The same goes for my understanding of the geometric patterns and the partly scooped-out body parts on the elk depictions in Alta (see, however, Günther 2022: 116). The fact that rather abstract inner designs exist already in the first period indicates that there was never a phase in Alta in which entirely accurate “natural” organs were portrayed on elk figures. Rather, just as in eastern Norway, inner designs were from the outset ambiguous in character and corresponded to natural elk organs only to a limited extent.

According to Helskog (2010: 178, 182; 2014: 100), it is possible to recognize a pattern on some sloping rock art panels with reference to the way the elk figures are positioned. In his view, especially on the large panels situated in Hjemmeluft, elk figures are predominantly centred on the lower parts of the panels, indicating that these animals belonged to the underworld, and were probably also connected to the concept of revival (see also Helskog 2004: 275). Helskog (2010: 182–185) notes that among Siberian peoples, the elk is often linked to the underworld and/or to water, and therefore there appears to

be “at least some correspondence between the archaeological and the ethnographic records”. There are, however, exceptions as to the placement of elk figures on rock art panels, and it seems that if the panels can actually be understood as cosmological “maps”, then some of the elks were also conceived as belonging to the upper world (Helskog 2010: 185; 2014: 100).¹⁵⁹

With reference to the correspondence between the archaeological and ethnographical record, there is one specific scene from Period II that I wish to shortly address. This composition is found on the Bergheim 1 panel, and I believe that it may contain significant information about early beliefs relating to elk reproduction. In the composition, a male elk with antlers and a gravid elk cow with an elk foetus inside her womb are depicted (Figure 48). What is eye-catching in the scene is that there is a line that goes from the elk foetus through the elk cow, ending in a highly enigmatic, elk-headed entity. In contrast to the elk depictions whose heads have been made in the scooped-out style, the elk-headed creature is rendered in the outline style, seemingly in order to signify its dissimilarity to “ordinary” elks. Apart from the unmistakable elk-head, however, it is impossible to ascertain what this entity is representing. With a hint of imagination, it could be understood as an anthropomorphic figure with its hands stretched out, but such an interpretation remains fully hypothetical. Irrespective of what the elk-headed entity is representing, however, it seems obvious that its role is closely related to the fertilization of the elk and to the life of the unborn elk calf. Freely applying Helskog's idea of the position of rock art figures conveying meaning, one could even argue that the fertilizer is literally a “higher power” due to its placement above the elk(s). At any rate, it is rather evident that the scene reflects *the idea that the reproduction of elks is something that outer forces can affect*. I believe that this theme was of major importance in the past, and I will therefore return to it later on in this study.

¹⁵⁹ I need to stress here, however, that I completely concur with Günther's critique of applying interpretations rooted in cosmology, for it “suggests something fixed and defined in which humans, animals and others (Spirit beings and ancestors) reside in their respective places. As such, it runs the risk of becoming a mould into which the material is forced. Furthermore, cosmology and world view are *a priori* more attuned towards the esoteric and cognitive above the pragmatic and embodied” (Günther 2022: 38).



Figure 48. Scene from the Bergheim 1 panel, Alta. Retouched photo: Ville Mantere.

5.3.1.3 Elks in Period III (c. 4200–3700 calBC)

In the third period (c. 17–21 masl), animal figures are not as varied or as numerous as in Period II. This holds also for the elk depictions, which according to Günther (2022: 91) consist of a total of 69 distinct representations from the sites of Kåfjord (13 depictions) and Hjemmeluft (56 depictions). Compared to Period II, however, the overall proportion of elks (c. 15%) in relation to other animals – mostly reindeer (74%) – remains virtually unchanged (Günther 2022: 75, fig. 26).

Elks in the third period are virtually never depicted in interaction with anthropomorphs. As Günther (2022: 93) points out, there are no depictions of elk hunting. Instead, there are depictions of wandering elk herds (Figure 49.21) and of elks interacting with each other, or with other animal species (Helskog 2014: 109, 126). Just as in the previous period, the majority of elk depictions seem to represent elk cows, which are sometimes depicted as springing or with off-

spring. Günther (2022: 91) maintains that as many as 81% of the elks in Period III represent females.¹⁶⁰

In contrast to the second period, elks from Period III are exclusively depicted using the outline style. Scooped-out body parts can occasionally be discerned, but the inner designs were for some reason not popular during the third period. This appears strange, given that, in particular, the vertical line pattern on the elk's body – possibly representing the ribs – is discernible as a characteristic feature not only in the two earlier periods but also in the subsequent fourth period. The lack of inner designs in Period III not only applies to elk depictions – as Günther (2022: 111, 117) notes, virtually all animal depictions (as well as boat figures) are now made in the outline style, and these have no or few inner markings.

Despite some evidently dissimilar depictions, the elks depicted in Period III are more uniform in style as those from the second period. In

¹⁶⁰ According to Günther's (2022: 95) calculations, there are 15 male elks with antlers in Period II and two in Period III, respectively.

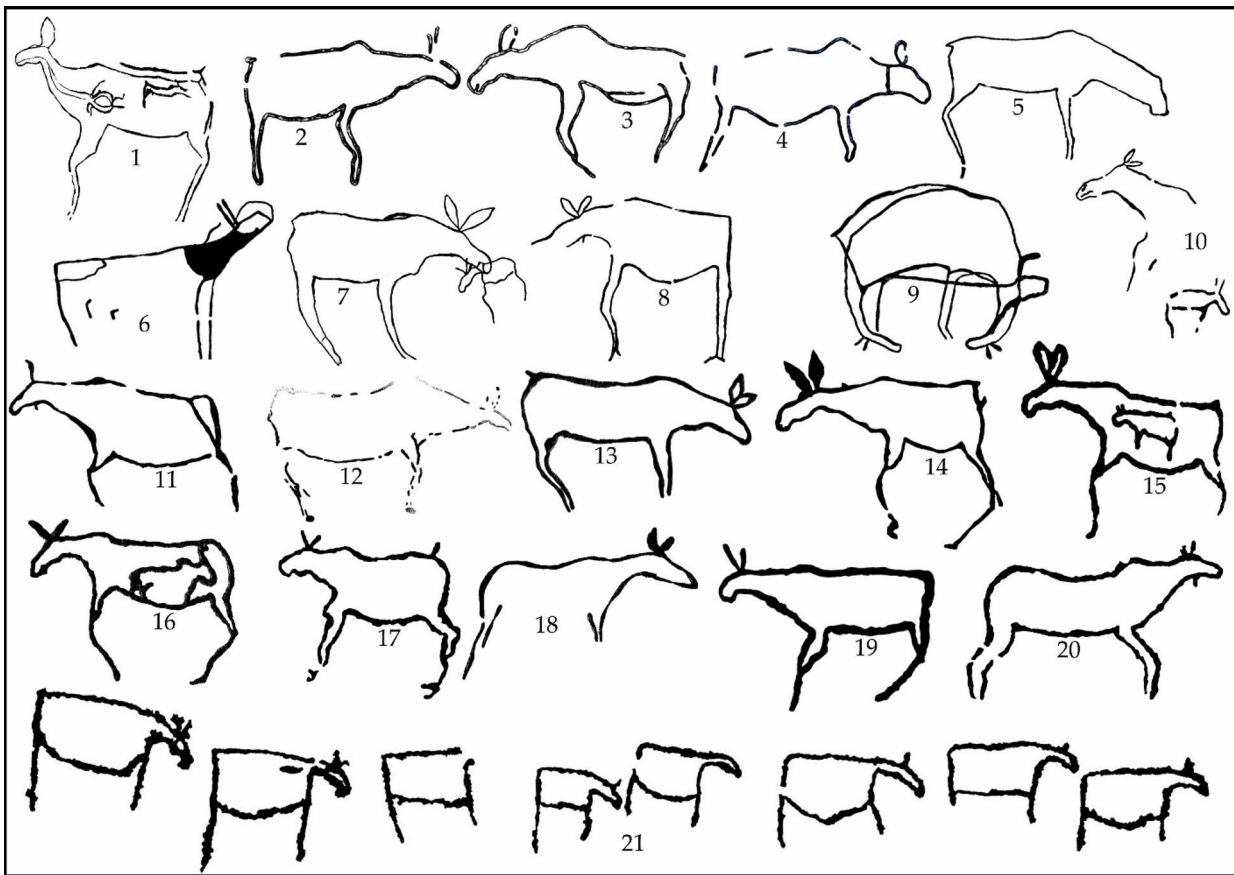


Figure 49. Elk depictions from Period III in Alta. 1. Apanes 1; 2–4. Bergheim 4A; 5–10. Kåfjord 2; 11–21. Ole Pedersen 11A. Tracings by K. Tansem. Alta Museum Rock Art Archive. Compilation: Ville Mantere. Not to scale.

addition, there are now closer similarities between the elk depiction made at Kåfjord and at Hjemmeluft (Günther 2022: 91). Most of the elk figures are found only on a few panels, in which these occur in groups (Günther 2022: 93). Still, no elk representations have been identified that are completely identical. This seems to corroborate the notion that, even within the clear group of outline elk figures, all depictions are in fact unique representations of individual animals. As Helskog (1989: 95) reflects, the elks (and the reindeer) of the third period are perhaps the most naturalistic in the rock art of Alta.¹⁶¹ Despite their significantly smaller size, the animals of this period are often as naturalistic as the ones represented in the polished rock art of Nordland.

Overall, the changes that take place in the third period seem highly peculiar. It looks as if there is an essential shift from “interactive” rock art imagery back to the manner of depicting elks

“among each other”. Fuglestedt (2018: 293–294, tab. 7.1) understands the changes as reflecting a development from totemic animal depictions to earlier, animistic animal depictions, but to me, this hypothesis seems far too audacious. Günther’s (2022: 93–94) interpretation, in turn, is that the elks of Period III represent “females heading for the calving grounds in spring”. However, I also find this reading too daring to apply to elk depictions in general, especially as the explanation is based on only five groups of elks (Günther 2022: 101). In addition, if this explanation would hold true, one cannot but wonder why only a few elks have been depicted with calves or fetuses. Likewise, there are two male elks with antlers from Period III that clearly cannot belong to a spring context (cf. Günther 2022: 93).

Nonetheless, I concur with Fuglestedt (2018: 165, 261–262) and Günther (2022: 118–121) that there is a certain “lack of control” associated with Period III in Alta. This is not only manifested in the lack of elk-human interaction compared to the previous period, but as Günther (2022: 118–119) points out, elk-

¹⁶¹ As Günther (2022: 117) rightly points out, however, there are nevertheless some very schematized animal depictions from this period. This holds true for elk depictions also (Figure 49.21).

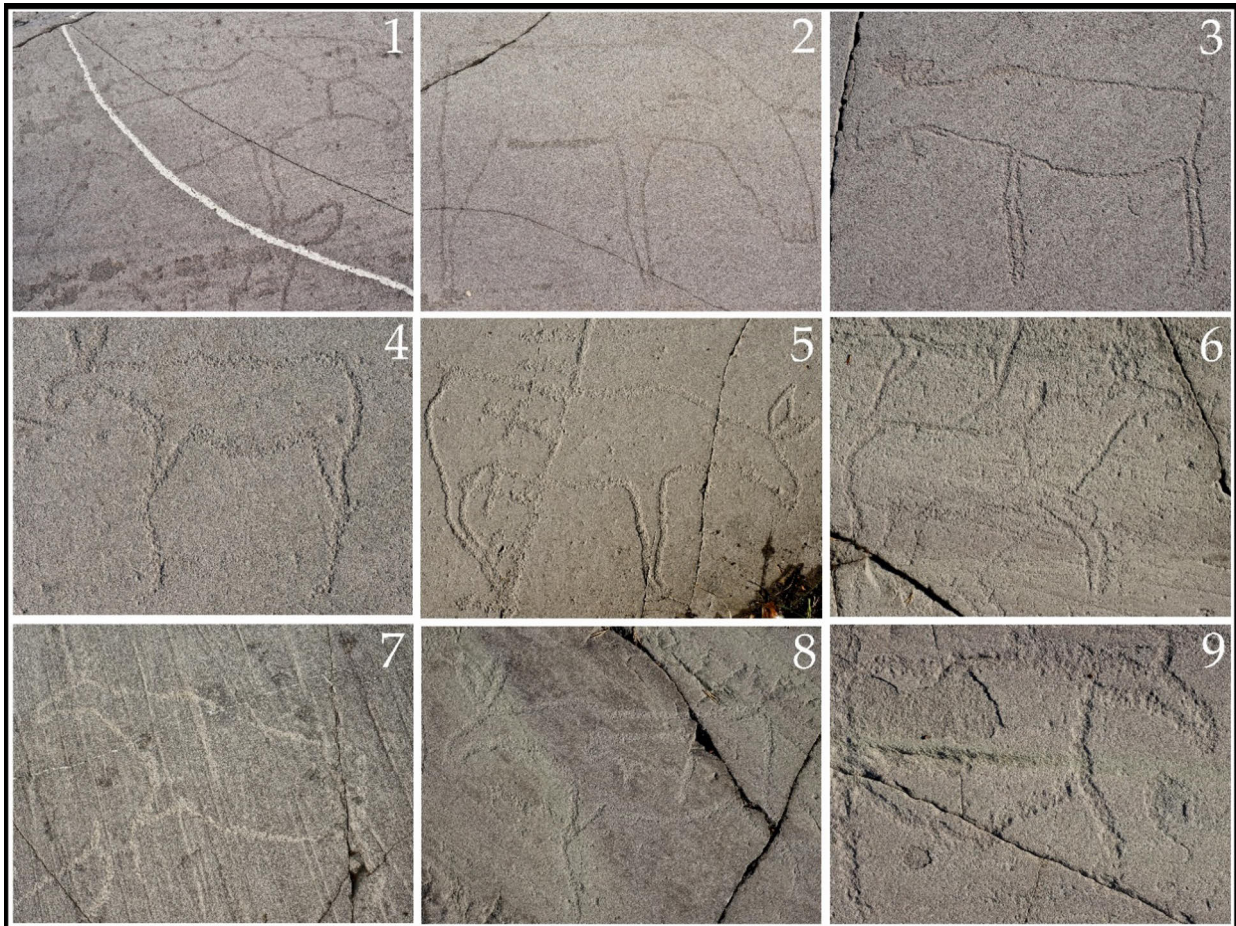


Figure 50. Elk depictions from Period III in Alta. 1. Bergheim 4A; 2. Bergheim 6; 3. Ole Pedersen 3; 4. Ole Pedersen 4; 5.–9. Ole Pedersen 11A. Photos and compilation: Ville Mantere. Not to scale.

headed staffs, hunting corrals, weapons and nets are all conspicuous by their absence in the third period. Conceivably, this may give weight to the idea proposed above about depictions of elk representing something more than generic game animals. A possible albeit merely hypothetical explanation could be, for instance, that elk (and other animal) populations had started to decline in the region to a point where hunting had to be heavily regulated or even prohibited. Perhaps, the “naturalistic” depictions of elk from this period were thus produced in an effort to bring back elk that had disappeared from the landscape (cf. discussion in section 2.2.2; see also Günther 2022: 96, 149). Be that as it may, the absence of human elements can be taken as a sign of that humans appear not to be in control of the elk depicted in the third period. Likewise, the theme of reproduction is again present and perhaps even more prevalent than in the previous period (cf. Günther 2022: 149).

5.3.1.4 Elks in Period IV (c. 3600–3200 calBC)

In the fourth period (c. 14–16 masl), elk figures were still represented in the rock art of Alta, but they now differ remarkably from those depicted in earlier periods.¹⁶² The elk are no longer depicted as naturalistically as previously. The animals of the fourth period have instead a more rectangular shape and it is in many cases difficult to ascertain whether the animals depict elk, reindeer, or some other deer species (Helskog 1989: 95–97; 2014: 167). The elk depictions are made in the outline style and many of their bodies have been decorated with vertical lines (Figure 51). The elk of the fourth period seem actually to be more akin to

¹⁶² While I have chosen to follow Helskog’s (2020: 60) recent suggestion and dating of the Amtmannsnes figures to the period 3600–3200 calBC, it must be stressed that this is noticeably older than the 2700–1700 calBC timeframe previously proposed by Helskog (2014). Due to the lack of radiocarbon dating from nearby sites, this new dating suggestion must be treated with a certain degree of caution.

the rectangular elk depictions of the first period than to the more unequivocal and realistic elk depictions of periods II and III. It should be noted, however, that the elks from Period IV are all found on the site of Amtmannsnes, which is located a couple of kilometres northeast of the Hjemmeluft panels (Figure 43). The notable difference between the images of periods III and IV may thus partly be also due to their geographical distance.

Despite the significant chronological difference, the elks in Period IV also bear resemblance to the elks of eastern Norwegian rock art. The animals with inner designs, in particular, recall some of the abstract elk depictions found at inland sites in eastern Norway (Figure 42). The details used in the depiction of elks in both instances also differ from each other. For example, the legs of the elk figures have been depicted merely as lines, which are either straight or bent. Some elks have two legs, but others have been portrayed with all four limbs. In compositions, the elk figures of Period IV occur often in close relation to anthropomorphic figures, and also overlap each other. That said, it seems that the anthropomorphs do in fact not represent living human beings but instead denote some mythical creatures (Helskog 2014: 160; cf. Lødøen 2015). The recognition of distinct scenes is difficult, but there are, for example, no evident representations of hunting.

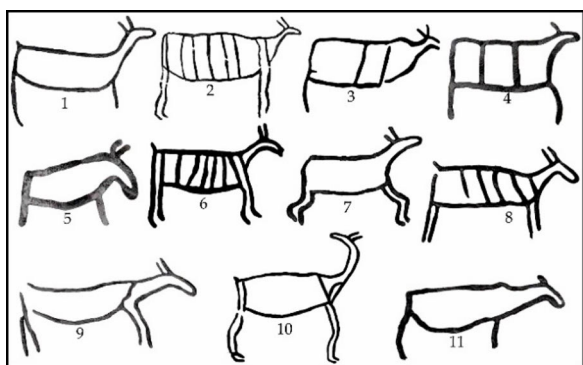


Figure 51. Possible elk depictions from Period IV in Alta. Amtmannsnes 2B. Tracings by K. Tansem. Alta Museum Rock Art Archive. Compilation: Ville Mantere. Not to scale.

The general impression is that the rock art of the fourth period is more abstract than that of earlier periods. Elk figures in Period IV are no longer visibly depicted with offspring, even though all the elks seem to represent cows, due

to their lack of antlers. Because of the latter notion, Helskog (2014: 167) is of the opinion that the elk cow continued to have a more significant role than the bull in the worldview of the rock artists in the fourth period also. However, given that the elk figures in Period IV are rather few in relation to reindeer depictions, it seems as if the general importance of the elk had already begun to diminish. It is conceivable that these notions are somehow related, and that the increased significance of the elk cow, probably as a birth-giver, was a response to a real decline in local elk populations.

5.3.2 Elks in the rock art of Alta

To summarize the information presented above, the elk motif is continuously present in the rock art of Alta during the period 5000–3200 calBC. Although the overall number of elk depictions is less than that of reindeer figures in all periods except for the first, the evidence suggests that the elk was significant to the rock artists of periods I, II and III, after which it decreased in importance and was no longer a species of relevance by the end of Period IV around 3200 calBC.¹⁶³

Over the course of these four periods one can observe clear similarities as well as notable differences in the depictions of elks made on the rock art panels in Alta. For instance, although elk bulls are certainly represented in the rock art of periods II and III, perhaps as many as 95–98% of the elk depictions in Alta are portrayed without antlers and thus most likely represent elk cows (see Helskog 1995: 258). It therefore seems that *the focus on the elk cow was a key theme in Alta that lasted almost two millennia* – even though, in general, the elk figures in the rock art panels underwent many

¹⁶³ While it is outside the scope of this study, in the site's sixth period (previously the fifth period; c. 3200–2400 calBC, c. 11–12.5 masl), elks were according to Helskog (2014: 185, 197) no longer of importance to the local inhabitants. This is suggested by the complete absence of unambiguous representations of elk (see also Helskog 1995: 258–259). It seems conceivable that the reindeer over time replaced the elk's position in Alta. In Helskog's view, this was probably due to an actual decrease in elk populations during this period, even though this premise cannot be verified due to the lack of relevant osteological material from the region.

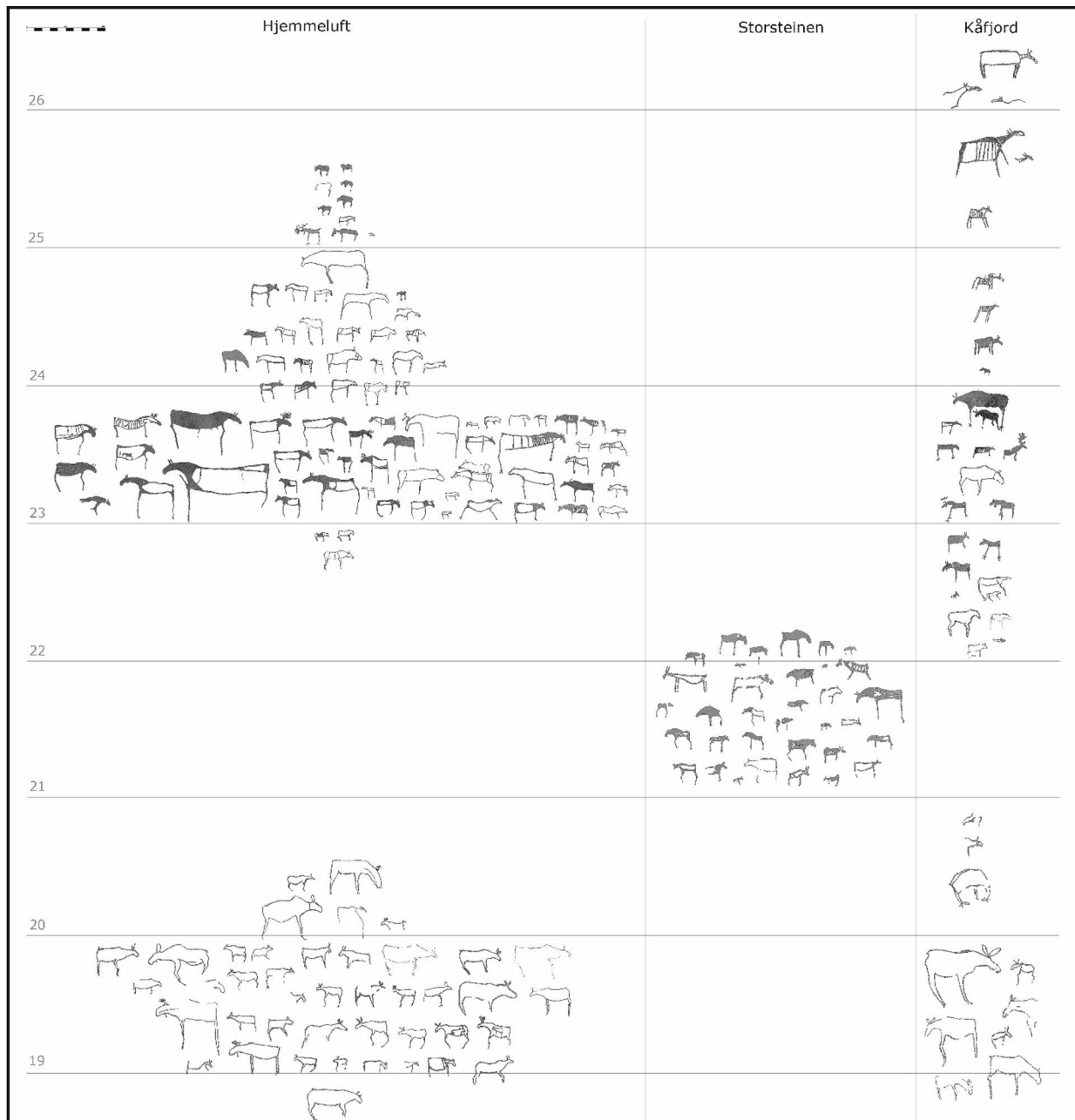


Figure 52. Elk depictions at the rock art sites of Kåfjord, Hjemmeluft and Storsteinen according to elevation. Figure from Tansem 2020.

changes during this time as regards their shape, prevalence and role.

Another persisting feature in Alta is the *individualistic appearance of elk depictions*. Irrespective of the chronological period and depiction style, elk figures are always unique, and no two elks are represented in the same manner (Figure 52). This notion is perfectly in line with the widespread conception in hunter-gatherer societies that, instead of being exploitable resources, prey animals are often individual “persons” in essence (see, however, Günther 2022: 123).

Stylistically, the elk representations in Alta shift from highly naturalistic to very abstract depictions, which, in many cases, are ambiguous. However, as Helskog (1983: 55–56; 1989: 97–98) points out, no “degeneration” in style can be observed over time, with naturalistic and stylized representations occurring side by side within the same periods. For instance, even though the most naturalistic elks are in general found in the third period, stylized elk depictions also appear in this phase.

That said, three major changes can be distinguished over the different periods. The first is

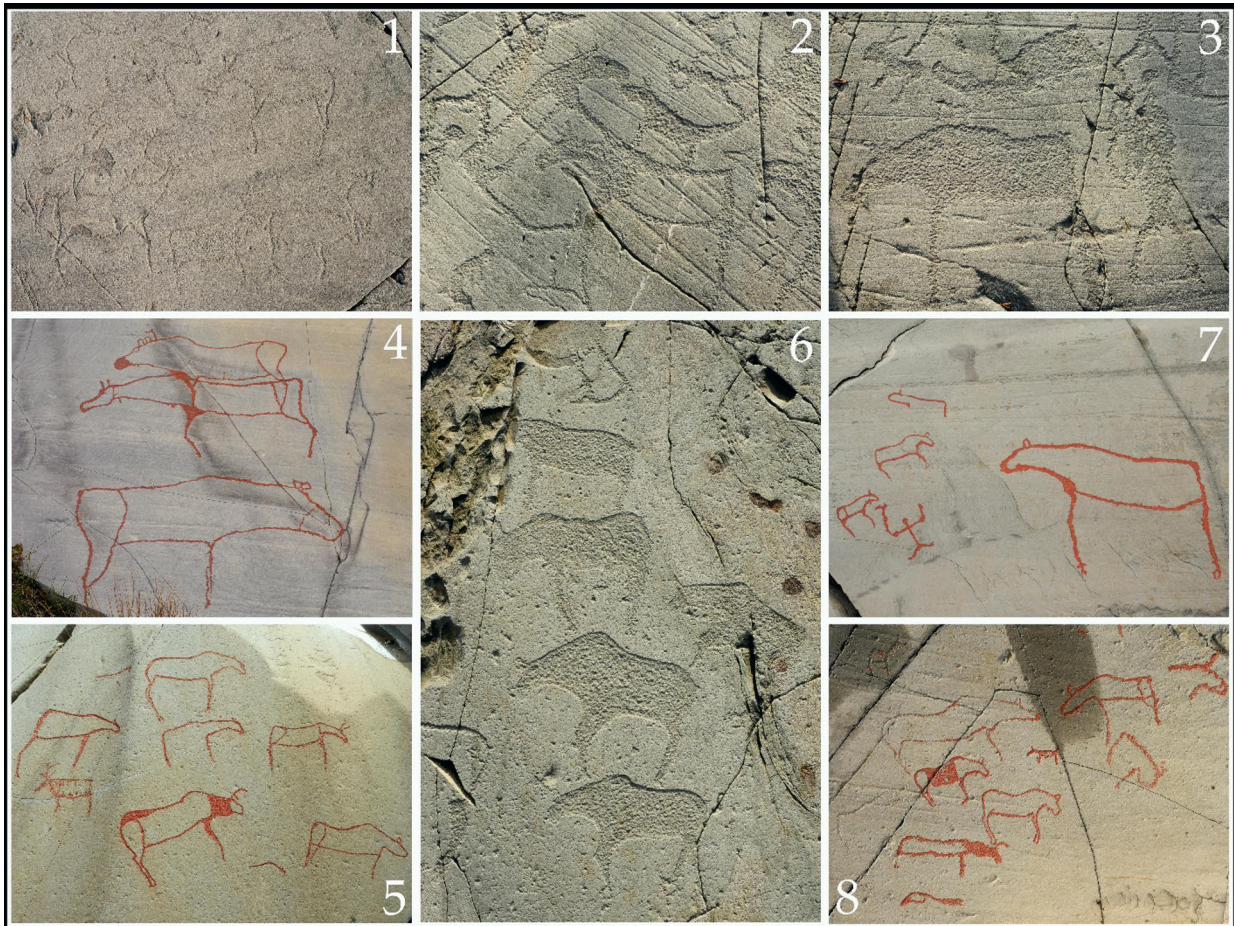


Figure 53. Scenes with elk depictions in Alta. 1. Ole Pedersen 4; 2.-3. Ole Pedersen 9; 4.-5. Bergbukten 1; 6. Bergbukten 4A; 7. Bergbukten 1; 8. Bergbukten 4B. Photos and compilation: Ville Mantere. Not to scale.

the emergence of the “interactive” rock art of the second period. Whereas the few solitary elk figures from the first period are rectangular and stylized in shape, in the second period the elk figures are abundant and characterized by a great variation in both style and context. The elks of Period II occur often in relation to other figures, including anthropomorphs, and are depicted in various kinds of scenes that seem to represent both real and fictitious events. Intriguingly, the second notable change, demonstrated by the introduction of Period III, is of inverse character: a change back to “naturalism”. Elk depictions are now more uniform in style and also fewer in number than in the previous period. Most elk depictions from Period III are rendered as more or less lifelike outline figures and occur only seldom in relation to humans. Finally, a third major change took place by the start of the fourth period, when depictions of elks are again few, abstract and rectangular in shape, and hardly distinguishable from other deer species.

These changes are highly thought-provoking and give rise to myriad questions, such as why the interaction between humans and elks is so marked during the second period, and why some sort of reaction seems to have taken place subsequently to counter this phenomenon. Obviously, future studies will refine our understanding (and dating) of the Alta rock art and hopefully provide some answers to the above questions.

What cannot be stressed enough, however, is the unusual character of the rock art in Alta. Even if the depictions of elk at this site provide a unique insight into changes that took place within the elk motif over the longer term, these changes cannot be taken as representative for northern hunter-gatherer rock art in general. For instance, numerous settlement sites are known to have existed within the vicinity of the carvings in Alta, whereas the polished rock art and the eastern Norwegian carvings are instead often positioned in locations where the rock artists themselves did not dwell. Likewise, while

many of the rock art sites in eastern Norway and central Nordland give an impression of having been produced on a single occasion, Alta was a place where people returned to make images for thousands of years.

To be sure, these and other dissimilarities strongly suggest that the rock art of Alta served a different purpose to the rock art at the sites discussed earlier in this chapter. While I am disposed to ascribe a communicative, probably even a cautionary, function to the smaller rock art sites, which allegedly was more reliant on the existence of images than on their precise content, this is not the case in Alta. Here, images were used to create complex scenes, and it seems in general that this site was more regularly visited by humans rather than by wild animals. This, again, is also reflected in the rock art's imagery, in which anthropomorphic figures play a central part.

As regards the elk motif in particular, its role was not as central to the rock art of Alta as it was to that of central Nordland and (in particular) eastern Norway. However, the elk's significance in Alta was not solely limited to elk depictions *per se*; it was also discernible in two entirely new kinds of motifs that I will focus on in the next chapter – elk-head boats and elk-head staffs. The panels in Alta also include depictions of hunting, which are absent from the sites located in eastern Norway and central Nordland. These notions, too, indicate that the rock carvings of Alta belong to a different context than that of the smaller rock art sites. Let us now take a closer look at another large concentration of rock art that is reminiscent of Alta in several respects but in which the elk motif played an even more pronounced role – the rock carvings of Nämforsen.

5.4 The rock carvings at Nämforsen, Sweden



Figure 54. Map showing the location of the Nämforsen rock carvings by the Ångerman River. Map: Ville Mantere/NatGeo MapMaker.

The renowned rock carvings at Nämforsen constitute one of the largest concentrations of hunter-gatherer rock art in Northern Europe. The carvings have been known since the early 1700s, and they are located along the Ångerman River in Ångermanland, Norrland (Figure 54). Here, around 2600 petroglyphs are distributed along the southern riverbank and the islands of Laxön (994 figures altogether), Notön (1122 figures) and Brådön (479 figures) (Larsson & Broström 2018: 64, 104, 120–121).¹⁶⁴

The rock art at Nämforsen has been studied extensively from various perspectives, both by Swedish (e.g. Hallström 1960; Baudou 1993; Forsberg 1993; Lindqvist 1994; Sjöstrand 2010a; 2010b; 2010c; 2011) and international scholars (e.g. Tilley 1991; Gjerde 2010; 2015; Sapwell 2014; 2016). Many of these have emphasized the exceptional landscape surroundings of the site, and, especially, the importance of Nämforsen as a central meeting place and a transitory stopping point for people travelling between the coast and the interior (see e.g. Gjerde 2010: 370; 2015: 74 and cited references). It has also been argued that the rock carvings themselves mirror the local landscape. Gjerde (2010: 373–380; 2015: 79–87), for instance, is of the opinion that the rock art panels at Nämforsen are informative representations of the surrounding landscape and can

¹⁶⁴ Several carvings reported by Hallström (1960) on the southern and northern riverbanks could not be identified in the 2001–2003 documentation conducted by Larsson and Broström (2011: 36, 40–41).

be understood, to some extent, as serving the function of maps (see, however, Tilley 1991: 67 for a contrasting view). Thus, Nämforsen seems to bear close resemblance to Alta as regards its macro- and micro-topographical features.

What additionally links the petroglyphs of Alta and Nämforsen is their connection to dwelling sites. In close proximity to the Nämforsen rock carvings there are settlement sites that were in use for several millennia. The exceptionally rich settlement of Ställverket, for instance, was occupied from around 4000 calBC onwards, although most finds date to the Bronze Age (see Käck 2009; Gjerde 2010: 353–354, 361; Bertilsson 2017: 90, 92–93 and cited references). Interestingly, the surviving bone material from this settlement comprises mostly not of elk bones but of fish remains, which suggests that the site was inhabited seasonally during the summer (see e.g. Baudou 1993: 249; Bertilsson 2017: 98–99 and cited references). At another nearby settlement, known as Rå-Inget, the earliest signs of occupation date to around 4200 calBC, but here, too, most of the finds are from the Bronze Age (Gjerde 2010: 354; Bertilsson 2017: 92–93 and cited references). The osteological material at Rå-Inget has yielded elk remains, indicating that this site was in use all year round (Baudou 1993: 249). A carved slate plate depicting several figures, including an elk, has also been recovered from this site (Baudou 1993: 254, 256; Forsberg 1993: 214; see Appendix 1).

As regards the selection of motifs, the most common theme at Nämforsen is the elk. Approximately one third, or around 900 figures, of the petroglyphs at Nämforsen depict elks.¹⁶⁵ In fact, as Gjerde (2015: 75) notes, Nämforsen possesses the *largest concentration of elk figures in Fennoscandia*. Other recurring motifs at the site include, but are not limited to, anthropomorphs, boats, artefacts, fish, cup-marks and foot soles. Despite the rather large variety of motifs, how-

ever, the Nämforsen rock carvings are clearly not as diverse as the carvings in Alta. The Alta rock carvings are also more vivid and narrative in character when compared to the Nämforsen petroglyphs.

5.4.1 Dating

The age of the Nämforsen rock art has been debated by numerous scholars over the decades. The discussion has mainly centred on shoreline displacement but has also included issues of typology and carving style (for overviews, see e.g. Forsberg 2000: 60–64; Gjerde 2010: 351–358). Despite several differences of opinion, the common view of scholars today is that the majority of the rock carvings at Nämforsen can be attributed to the Stone Age. The first figures, it seems, were probably carved around 5000–4200 calBC, that is, during the Late Mesolithic period (see Gjerde 2010: 354–357; for a contrasting view, see Bertilsson 2017: 92–93, 100, 103). As regards the latest figures, scholars seem to agree that a small number of the carvings, which exhibit clear southern influences, date to the Bronze Age (e.g. Gjerde 2010: 352, 357; Bertilsson 2017: 100). It thus seems that rock art figures were depicted at Nämforsen over the course of three or even four millennia. In this respect, too, Nämforsen is reminiscent of Alta.

Based on the occurrence of certain motifs and superimpositions – principally in Brådön – it is accepted that the ensemble of carvings from Nämforsen were not made on a single occasion but over an extended time period. The panel E:4–6 in Brådön (Figure 55) is a case in point, exhibiting motifs from different periods, with its present-day form coming as the result of several stages of carving (see Forsberg 1993: 218, 222–223). However, to accurately differentiate and date the individual phases of carving at Nämforsen is a highly complicated task. Perhaps the two most important chronologies to be suggested are those of Forsberg (1993: 195–228) and Lindqvist (1994: 212–220). These are of special interest to this study because they pay attention not only to superimpositions, but also to chronological links between different types of elk depictions at Nämforsen. I have tried to encapsulate the two chronologies in Table 3, together with the systems of dating suggested

¹⁶⁵ The exact number of elk figures at Nämforsen is difficult to ascertain, but it should be mentioned that Hallström (1960: 283–293) identified altogether around 1750 recognizable figures, together with an additional 300 carved lines representing uncompleted or fragmented figures. Out of all these carvings, he understood 719 (35%) to represent animals, of which “the great majority...are intended to represent elks”. Sapwell (2014: 140) has, in turn, on the basis of Larsson’s and Broström’s (2011) study, calculated that 34% of the rock carvings at Nämforsen depict elks.

by later scholars, who have applied these chronologies.

In sum, Forsberg's and Lindqvist's chronologies are congruent in that *scooped-out figures predate outline carvings at Nämforsen*. However, although I concur with this view, I would like to note the increase of figures evident at Nämforsen in later years. In Laxön alone, Larsson's and Broström's latest study (2018: 64) resulted in the discovery of more than 400 new carvings, increasing the total amount of recorded figures by 69%.¹⁶⁶ Therefore, the chronological schemes – Forsberg's in particular – should be re-evaluated in the light of such new discoveries. Meanwhile, I would also argue that the shapes of single elk figures at Nämforsen vary far too greatly for their common differences to be used as the basis for a reliable and detailed chronology. For instance, one can only rarely identify an elk image to be clearly "straight-legged" or "curve-legged"; not to speak of the difficulty one faces in determining which of the elks have long or short legs (cf. Forsberg 1993; Sjöstrand 2011). In addition, the elk depictions are often fragmentary and it is not always clear whether inner markings within figures are intentional or remains of other, superimposed figures.

That said, I consider it conceivable that the scooped-out, the partly scooped-out (including those with inner designs) and the outline elk figures represent chronologically different traditions. I will therefore address these separately in the following subsections. As regards the dating of these depiction styles, I have adapted the datings proposed by earlier scholars, and dated the *scooped-out elk figures broadly to the period 5000–4000 calBC*, the *partly scooped-out depictions to 4000–3300 calBC* and the *outline elks to 3300–1800 calBC* (Table 3).

However, it cannot be sufficiently stressed that this division should only be regarded as a rough guide for the study of changes in the elk motif at Nämforsen. The dates given for the phases should thus not be taken as definite. Moreover, it is important to mention that some scholars, such as Ramqvist (2002a: 96–97 and cited references), have fundamentally

questioned the chronological dissimilarity between different rock art styles at Nämforsen and instead proposed that these served to indicate different clans or possessed some religio-functional meaning.¹⁶⁷

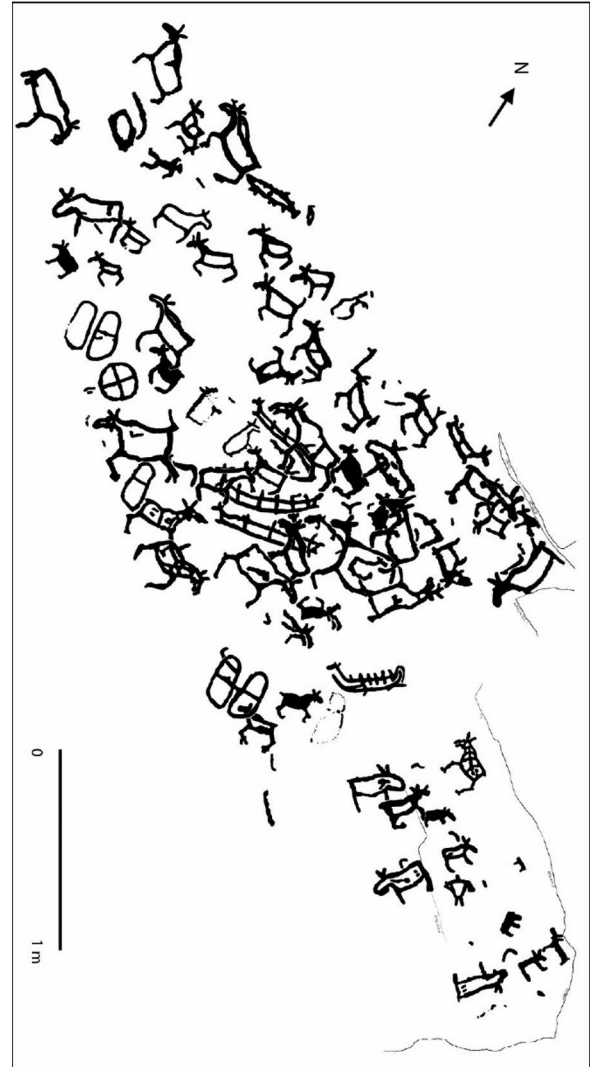


Figure 55. Panel E:4-6 in Brådön, Nämforsen. Tracing by Larsson & Broström 2011, p. 97.

¹⁶⁶ In Notön and Brådön, the corresponding percentages were smaller, 30% and 14%, but still significant (Larsson & Broström 2018: 121).

¹⁶⁷ Here it can also be mentioned that, according to Väino Poikalainen (cited in Kivikäs 2003: 62), the scooped-out and outline figures in the Onega rock art are not chronologically distinct.

Table 3. Suggestions on the periodization of the Nämforsen rock carvings.

Forsberg's (1993) chronology (based on elk figures):	Period I (wholly scooped-out elk figures)	Period II (outline elk figures with bent legs and rectangular body, sometimes scooped-out head)	Period III (outline elk depictions with long bent legs + prominent ridge/neck + body patterns + mouth marked out)	Period IV (outline elks with short straight legs, rounded muzzle + head in line with body; similarities to elk figures at Norrfors (c. 2000 calBC)
↓				
Sjöstrand's (2011) dating	c. 5000–3000 calBC (+ straight legs, often close to human figures)	c. 3000–2500 calBC	c. 2500–2200 calBC (+ inner markings, overlapping with Period IV)	c. 2200 calBC– (+ inner markings, overlapping with Period III)
Lindqvist's (1994) chronology:	Style A c. ~3200 calBC (wholly scooped-out (elk) depictions)	Style B.1 c. 3200–1500 calBC (partly scooped-out elk depictions + inner markings, often "realistic")	Style B.2 c. 3200–1500 calBC (outline elk depictions, with two possible exceptions)	Style C c. 1500–1200 calBC (footsoles, wheelcrosses, ship figures)
↓				
Gjerde's (2010) dating	Late Mesolithic (c. 5000 calBC–)	Stone Age	Stone Age	Early Bronze Age (c. 1000 calBC)
Fuglestedt's (2018) dating	Late Mesolithic (c. 5000–4000 calBC)	Early Neolithic (c. 4000–3300 calBC)	Early Neolithic (c. 4000–3300 calBC)	
→				
New suggestion for elk figures:	Period I (c. 5000–4000 calBC) (scooped-out elks)	Period II (c. 4000–3300 calBC) (partly scooped-out elks)	Period III (c. 3300–1800 calBC) (outline elks)	

5.4.1.1 Elks in Period I (c. 5000–4000 calBC)

According to Tilley (1991: 58), around 55% of the elk figures at Nämforsen are scooped-out. However, due to several recent discoveries (Larsson & Broström 2011; 2018), it is likely that the scooped-out figures now constitute almost two-thirds of the total amount of elk figures at Nämforsen. Although scooped-out figures occur on the islands of Notön and (to a lesser extent) Brådön, they are most common in Laxön. As Sapwell (2014: 145) shows, scooped-out elk figures in Laxön occur in clusters significantly more often than do any other motifs, and these groups are seldom portrayed in isolation. Sapwell (2016: 366–367) has also shown that human figures are without exception depicted in proximity to scooped-out elk figures, although the latter are not always portrayed adjacent to human figures. This is also in line with Ramqvist's (1992: 42–43, fig. 5) observation that human figures and depictions of elk-head staffs

most often occur in the vicinity of scooped-out elk figures.

The scooped-out elk figure seems thus to have held a significance especially in connection with depictions of human beings. Sapwell (2016: 370) therefore proposes that the elk perhaps acted as a liminal symbol between the "human's world and the wider world". Fuglestedt (2018: 261) likewise underlines the unique character of the scooped-out elk figures at Nämforsen. She argues that these are unambiguous and natural, in opposition to depictions of humans, elk-head staffs and elk-head boats, which she regards as ambiguous representations.¹⁶⁸

The scooped-out elk motif is, according to Sapwell (2014: 145), more standardized than many of the other images at Nämforsen. This can be observed in "the most regular size, shape and proportion" of this motif compared to, for

¹⁶⁸ In Fuglestedt's (2018: 263–264) view, subjects of the Nämforsen rock art figures become even less ambiguous during the Early Neolithic. Of the motifs of this period, it is only the boat figures that she comprehends as ambiguous representations.

example, boat figures or outline elk figures. Sjöstrand (2011: 188) somewhat similarly argues that elk depictions from the first phase are conceptual and representational, in contrast to those from the following period, which become more experimental and mediative in function. Even so, there is still a rather large variation between the scooped-out elk figures themselves (Figure 56). Some have an elongated swayback, others have an almost rectangular body, and some elks exhibit prominent shoulders. Some of the elks are very schematic in style and it is at times difficult to ascertain whether a figure actually depicts an elk or some other animal, such as a dog or a reindeer. Most of the animals, however, are recognizable as elks because of their characteristic muzzle or dewlap. Elks are portrayed with antlers only in a minority of cases.

According to Sjöstrand (2010b: 10–11), a clear correlation exists between elk depictions with straight legs and the scooped-out technique – even if some bent-legged elks have been depicted in this technique, and straight-legged elks are

more common also among the outline figures. In my view, however, the connection between the scooped-out elks and straight-leg figures is not as straightforward or evident as Sjöstrand argues. In fact, there is a rather large variation between the scooped-out elk figures also as regards the portrayal of their legs: the length of the legs differs, the front and hind legs can be of same or dissimilar length, and the hoofs are depicted only occasionally. One can also easily discern that in addition to the straight-legged animals, on many elk figures at least one other leg is bent (Figure 56).

In contrast to Alta and eastern Norway, where the oldest elk figures were depicted with geometrical patterns, it thus seems as if the supposedly earliest elk depictions at Nämforsen were made exclusively in the scooped-out style, and often in a more or less realistic manner. This form of representation was, in Fuglestad's (2018: 255–256) view, a “new invention”, despite the fact that fully scooped-out figures are also present among the elk depictions in Period II in

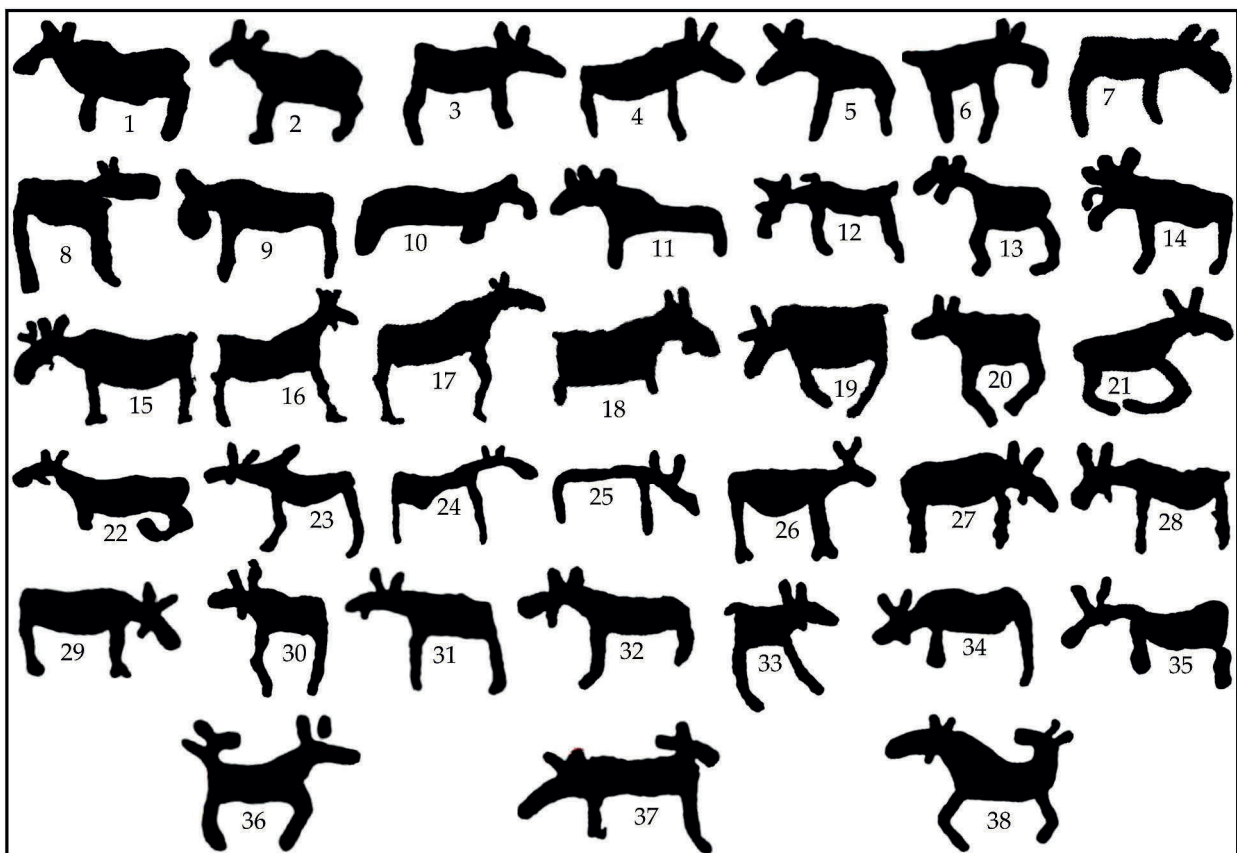


Figure 56. Wholly scooped-out elks at Nämforsen. 1. Main Group (MG) 1:A4; 2. MG1:D14–15; 3. MG1:D1a; 4. MG1:G3; 5. MG1:D14–15; 6. MG1:D16a; 7. MG1:D16c; 8. MG2:P3; 9. MG1:F4; 10. MG1:D16; 11. MG1:D5–5a; 12. MG1:D14–15; 13. MG1:D6; 14. MG1:D16; 15. MG1:G1; 16. MG1:G4; 17.–18. MG1:G1; 19. MG2:C6–7; 20. MG1:D6; 21. MG1:Y2–3; 22. MG1:X1; 23. MG1:C2; 24. MG2:L1; 25. MG2:M2; 26. MG2:K5; 27. MG1:F2; 28. MG1:G5; 29. MG1:C1; 30. MGMG1:G4; 31. MGMG1:D14–15; 32. MG1:D16; 33. MG1:E3; 34. MG3: A1; 35. MG2:K4; 36. MG2:D5; 37. MG1:D14–15; 38. MG2:D5. Tracings from Larsson & Broström 2011. Compilation: Ville Mantere. Not to scale.

Alta.¹⁶⁹ However, while I concur with Fuglestedt that the scooped-out elks at Nämforsen are often lifelike in shape, I would like to point out that all of these cannot be regarded as “realistic”. There are also some double-headed animals, indicating that not all elk figures reflect the physical appearance of real, living animals.¹⁷⁰

5.4.1.2 Elks in Period II (c. 4000–3300 calBC)

There are several figures that are only partially scooped out at Nämforsen. As in Alta, if the rest has been rendered in the outline style it is most

often the head or the front part of the figure that has been scooped out. In some cases, the head of an elk figure has been separated from the outline of its body, with a line drawn through the neck (Figure 57.38–39). There are also numerous elk depictions that have different kinds of inner designs. The so-called rib pattern that is common in Alta and in eastern Norway appears, however, not to have been popular at Nämforsen, but here the elks are instead filled with dots, so-called “life-lines” and single vertical lines, or combinations of these.

As Fuglestedt (2018: 255) notes, however, it is remarkable how rarely elks are depicted with inner designs at Nämforsen, compared to those found in eastern Norway and in Alta. It also

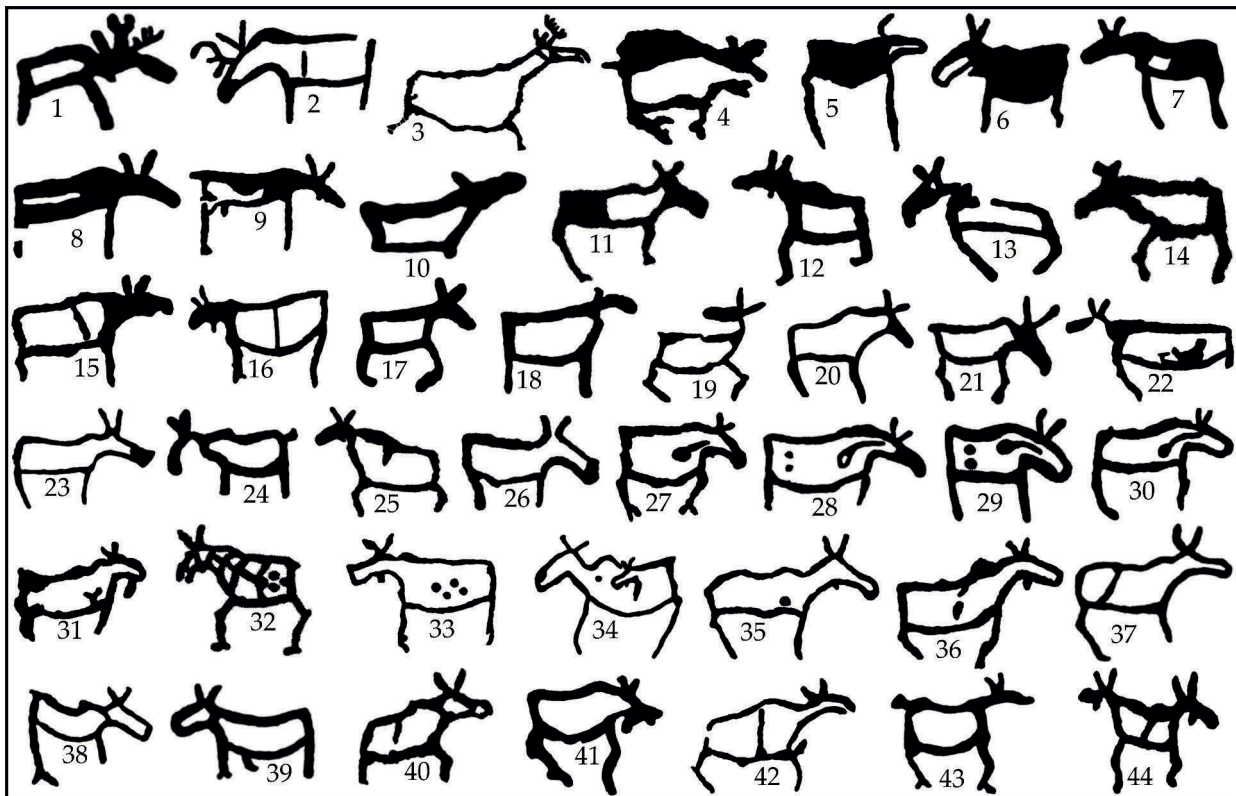


Figure 57. Partly scooped-out elk figures and elks with inner markings at Nämforsen. 1. Main Group (MG) 1:D14–15; 2. MG2:C6–7; 3. MG1:F1; 4. MG3:E1; 5. MG2:O2; 6. MG2:C3; 7. MG2:L10; 8. MG2:M1; 9. MG2:D5; 10. MG1:G1; 11. MG3:D1; 12. MG1:D21; 13. MG1:G1; 14. MG1:G3; 15. MG3:O1; 16. MG2:D2; 17. MG2:Y2; 18. MG1:X1; 19. MG2:D2; 20. MG2:C4; 21. MG1:X1; 22. MG2:H1; 23. MG2:A2; 24. MG3:E4–6; 25. MG2:E3; 26. MG3:J1; 27. MG3:F1; 28. MG2:C6–7; 29. MG3:F1; 30. MG3:E1; 31. MG3:E4–6; 32. MG3:O1; 33. MG2:R3; 34. MG1:E2; 35. MG3:D1; 36. MG2:P1; 37. MG2:T3; 38. MG2:E1; 39. MG3:D1; 40. MG3:R1; 41. MG3:B1; 42. MG3:O2; 43. MG3:O2; 44. MG3:B1. Tracings from Larsson & Broström 2011. Compilation: Ville Mantere. Not to scale.

¹⁶⁹ In Alta, however, the scooped-out elk figures occur merely alongside animals with body patterns and not as a uniform group.

¹⁷⁰ In Sjöstrand’s view (2011: 181–182), the majority of the “unusual” elk depictions (such as double-headed animals, therianthrope representations and elks merging with human figures) are made in the scooped-out style. Such depictions are, however, also found among the partly scooped-out and the wholly outlined elk figures.

seems that the manner of ornamenting elks with patterns was at Nämforsen connected to a later chronological phase. In particular, it is puzzling that the appearance of this style at the site appears to coincide with the third period in Alta, when geometric patterns ceased to appear on elk depictions.

There is a rather large variation also between the partially scooped-out figures at Nämforsen. The elk figures in this group differ from each other in body shape, leg position and in level of detail. Some of the partially scooped-out elks are portrayed with hoofs or antlers. Also within this group there are elks that can be called “realistic”, but there are also animals that clearly do not represent real-life animals, such as the double-headed elk from Brådön (Figure 57.44). The general impression is that the elks of Period II are intentionally represented in an individualistic way.

5.4.1.3 Elks in Period III (c. 3300–1800 calBC)

When examined as a group, the outline elks appear somewhat less realistic than their wholly and partly scooped-out counterparts. Admittedly, some of these elk figures appear rather detailed and representational, but the majority of outline elk depictions consist of fairly simplistic figures that can still be recognized quite easily as elks. Again, however, noticeable variation between the elk figures can be observed.

The body shape, for instance, differs from round-bellied to rectangular, and from seeming-

ly elongated to virtually quadratic. Likewise, the legs of the elks are sometimes heavily bent, and sometimes slightly leaning or completely straight. Furthermore, while some of the legs are depicted as tiny stubs, others appear to be stretched out in relation to the elk’s body. Most elk legs are portrayed as simple lines, but occasionally the hoofs are depicted. An interesting detail is that sometimes the legs are connected to each other (Figure 58.36–37). The legs of a running elk appear momentarily in a more or less similar manner, but this also pertains to the legs of a resting elk (Figure 60).

Amongst the outline depictions of elk, some animals appear with dewlaps, and in a few cases the antlers (or stubs indicating such) have been marked out. Some representations depict amalgamations of outline elks and anthropomorphs (Figure 58.38–39) – perhaps interpretable as so-called “bestiality scenes” (Larsson & Broström 2011: 21; see also Lahelma 2007a: 117–119). While human figures and elk-head staffs usually occur in relation to scooped-out figures, the motifs depicted in relation to outline elk figures often represent influences from southern Scandinavia (such as ships, foot soles and cup marks: see Ramqvist 1992: 42–43, fig. 5).

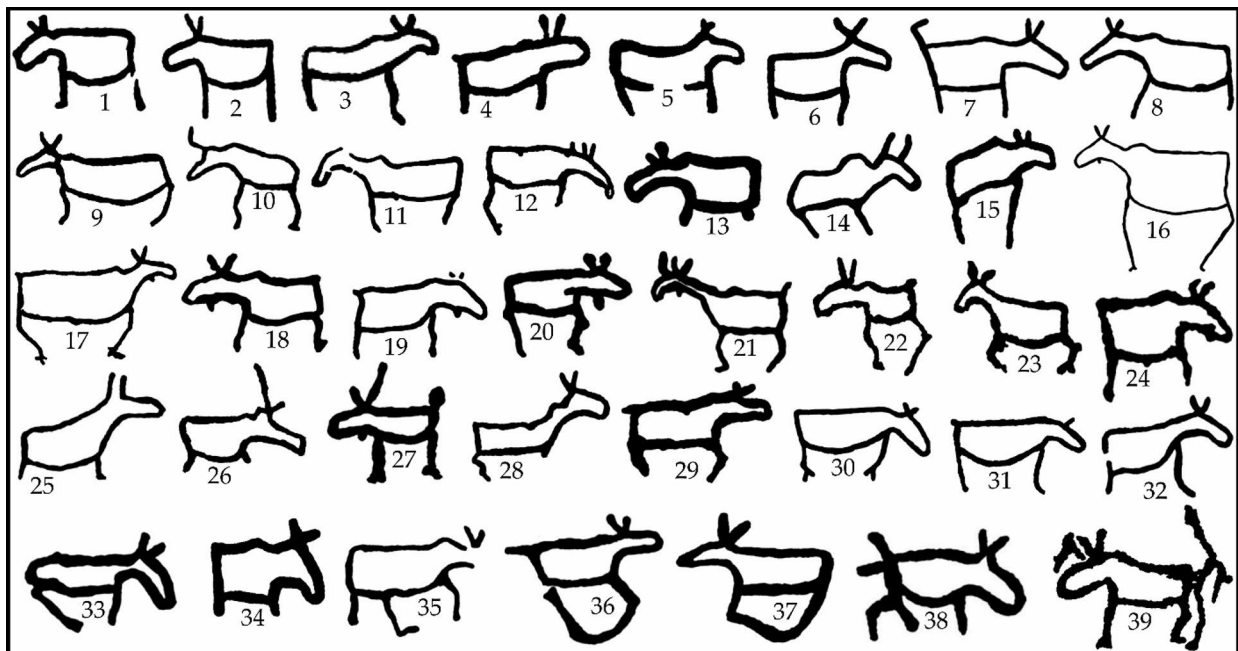


Figure 58. Outline elks at Nämforsen. 1. Main Group (MG) 2:C3; 2. MG2:C6–7; 3. MG1:G1; 4. MG2:C3; 5. MG1:G1a; 6. MG2:A10; 7. MG2:A2; 8. MG2:R3; 9. MG1:G1a; 10. MG3:A1; 11. MG1:B1; 12. MG1:D19; 13. MG2:T4; 14. MG2:A4; 15. MG2:A1; 16. MG2:R3; 17. MG3:E2–3; 18. MG3:K1–2; 19. MG2:S6; 20. MG2:F2; 21. MG3:D2; 22. MG3:G; 23. MG1:D9; 24. MG1:D6; 25. MG2:T1; 26. MG2:K1; 27. MG2:C4; 28. MG2:G2; 29. MG2:K1; 30. MG2:S6; 31. MG2:K3; 32. MG2:F1; 33. MG2:D6; 34. MG2:X1; 35. MG3:O1; 36. MG2:A2; 37. MG2:A4; 38. MG2:G1; 39. MG1:D12–13. Tracings from Larsson & Broström 2011. Compilation: Ville Mantere. Not to scale.

5.4.2 Elks in the rock art of Nämforsen

The vast majority of elk depictions at Nämforsen share certain recurring features, irrespective of their depiction style. Apart from a few exceptions, all elks are portrayed in profile with two legs, and most of the elks lack antlers but have both ears marked out. These traits are not only distinctive of the Nämforsen elk figures, but of the elk motif in the rock art of Northern Europe in general. That said, the overall impression of the elk figures at Nämforsen is that they, too, are diverse and do not represent similar, “generic” elks. There appears to be less variety between the different scooped-out elk figures than between those of the two other styles, but this is easily understandable, given that there are fewer ways of denoting dissimilarity when the bodies of elk figures have been wholly scooped out.

As Tilley (1991: 62) put it, “[t]here are no clear relationships between outline and scooped forms according to whether they face right or left, are depicted as active or passive, or in terms of absence of body parts”. The same variety holds true for the partly scooped-out elk depictions, as well as for those with inner markings. Likewise, all categories contain both “realistic” and “stylized” depictions, as well as “unusual” depictions of elks, such as animals merged with other figures. The distribution of the different kinds of elk depictions at Nämforsen also varies. There are panels on which either scooped-out or outline elks predominate almost completely, but also several panels on which both techniques are evenly employed (see Hallström 1960: 286; Ramqvist 1992: 40–41, fig. 4).¹⁷¹ Interestingly, elks are depicted in numbers when they are portrayed together with other motifs (mainly humans and boats), but not when they are depicted alone (Tilley 1991: 63).

Among the elk depictions, there are at least six animals that have two heads, as well as numerous elks that have been portrayed without a

head or some other body part. As Tilley (1991: 58–60) stresses, it seems likely that at least some of the latter forms of depictions are intentional (see also Kivikäs 2003: 74). Tilley (1991: 60) is also of the opinion that on many elk depictions one leg is intentionally emphasized. In his view, as many as 64% of the elks depicted at Nämforsen are abnormal in the sense that one or both legs are missing, or that one leg is not like the other. However, while I agree that some of these leg depictions may well have been represented in this way on purpose, I do not concur with Tilley’s distinction between “passive” and “active” elks. In Tilley’s (1991: 60) view, most elk depictions at Nämforsen are “passive” elks that are “static, lifeless representations with straight, stiff legs”, and which thus differ from the “active” elks with bent legs. Similarly, Forsberg (2000: 73) regards the scooped-out elks as “passive”; in contrast to the outline elks, which he comprehends as “active” animals.

The distinction between “passive” and “active” is a dichotomy that may not have been perceived as such in prehistoric thought (on the concepts, see e.g. Silva & Yrjönsuuri 2014). To be sure, Sjöstrand (2010b: 2010c) makes, in my opinion, the very same mistake as Tilley and Forsberg, when she takes this opposition for granted without problematizing the issue. She even writes: “[T]o claim that elks with bent legs represent animals in motion is hardly controversial. So also not that an elk with straight legs should represent an animal that is standing still. A fundamental assumption in my analysis is thereby that the leg position describes elks in various stages of movement” (Sjöstrand 2010b: 9).¹⁷² As a matter of fact, not all scholars subscribe to the assumption that bent legs would indicate movement. Hallström (1967: 55), for instance, was of the opinion that the majority of elks at Nämforsen clearly depict stationary elks, and that the only certain exceptions are the few elks that have their head bent backwards or visibly stretched upwards.

An anecdote worth mentioning in this context concerns a painted elk figure with bent legs

¹⁷¹ According to Ramqvist (2002a: 95–96, fig. 6), almost 90% of the elk figures depicted at the painted rock art sites in Norrland are rendered in the outline style, and the few known examples of scooped-out elk figures are all found at sites situated rather close to Nämforsen, close to and north of the Ångerman River. It should be noted, however, that the number of known rock painting sites in Norrland has increased significantly in recent years.

¹⁷² My translation. Original text: “Att påstå att älgar med böjda ben föreställer djur i rörelse är knappast kontroversiellt. Så heller inte att en älg med raka ben ska föreställa ett djur som står stilla. Ett grundläggande antagande i min analys är således att benpositionen beskriver älgar i olika grader av förflyttning”.

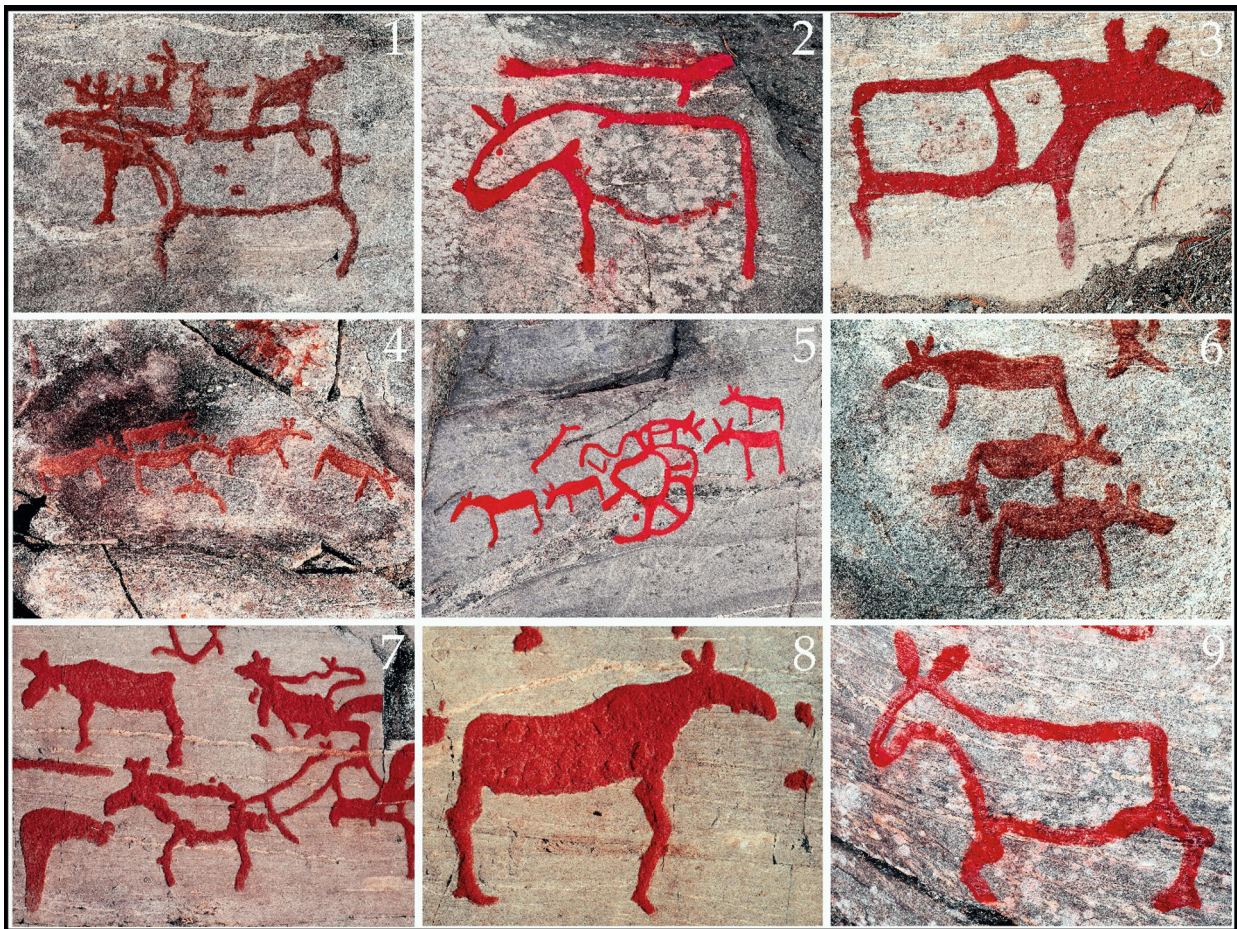


Figure 59. Different kinds of elk depictions at Nämforsen. 1. MG1:F1; 2. MG1:D12; 3. MG1:G3c; 4. MG1:C1; 5. MG1:D10; 6. MG1:C1; 7–8. MG1:G1. 9. MG1:D9. Retouched photos and compilation: Ville Mantere. Not to scale.

(Figure 67.22) from the Uittamonsalmi II rock art site in southeastern Finland. The authors who published the painting initially took the figure as a skilful representation of a running elk (Sarvas & Taavitsainen 1976: 46). However, when a veteran elk poacher saw the depiction, he immediately recognized it as a representation of a dead elk, with the tongue hanging out and the legs bent.¹⁷³ That is of course not to say that all elk depictions with bent legs at Nämforsen should be regarded as killed animals, but it is important to bear in mind that prehistoric rock art makers may not have shared our comprehension of movement or liveliness.¹⁷⁴ For instance,

an elk resting or sleeping on the ground (Figure 60) – in what we would define as a “passive” state – typically has its legs bent (for a similar consideration concerning animal depictions in Upper Palaeolithic rock art, see Guthrie 2005: 104–106). Thus, if the position of the elk legs held a distinct meaning at Nämforsen, other than simply signifying movement, it might well have had other (or additional) meanings for the carvers.



Figure 60. Resting elk bull with bent legs. Photo: Ville Mantere.

¹⁷³ Jussi-Pekka Taavitsainen (Professor emeritus of Archaeology, University of Turku), oral information 31.10.2013.

¹⁷⁴ It should be noted that Siikala (1981: 93) has, in the light of Siberian ethnography, implicitly suggested that elk images in rock art may depict killed animals, and that the horizontal marks sometimes encountered at rock art sites (e.g. Iitti Kotojärvi in Finland) may simply denote the number of animals killed. Günther (2022: 91) has also recently suggested that some of the elk figures on the Ole Pedersen 9 panel in Alta could be representing dead elk that have been “put on display”.

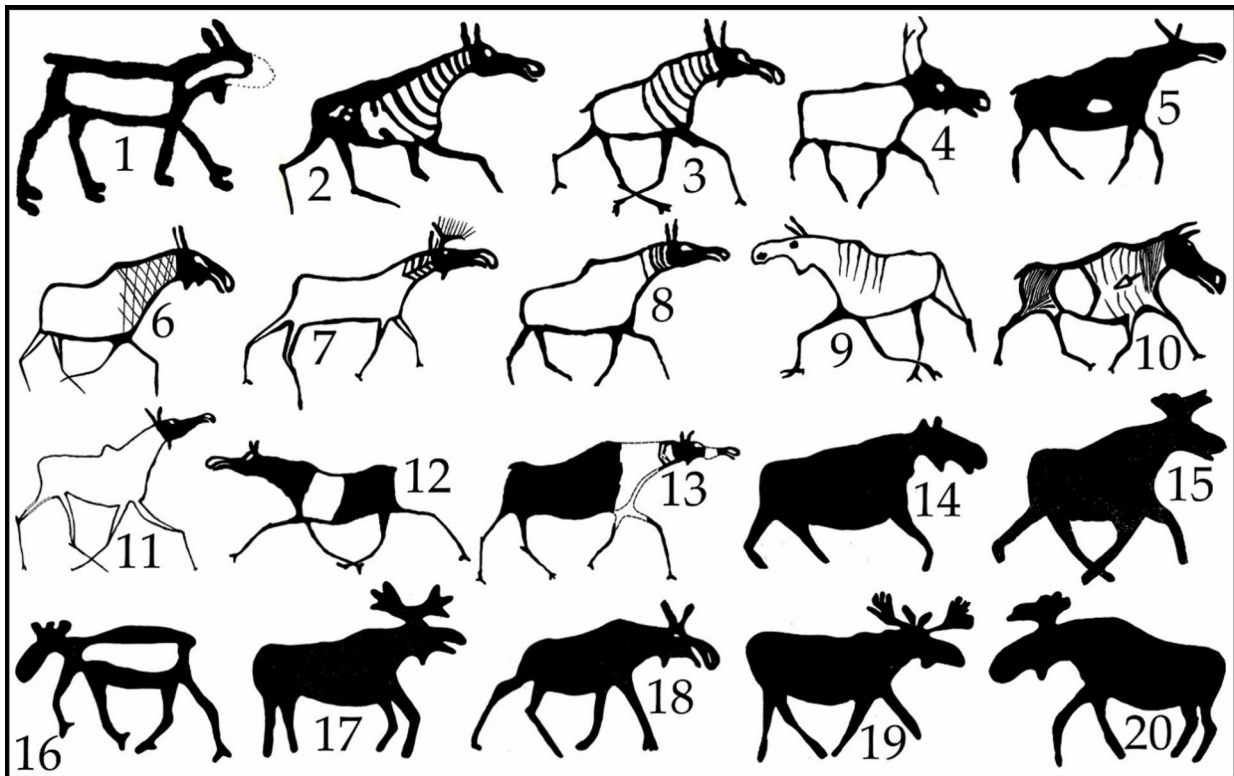


Figure 61. Elk figures depicted in motion at Nämforsen (no. 1), and at some Siberian rock art localities. 1. Nämforsen, MG III, Q:1; 2.–10. Tom River; 11.–13. Tutalskaya; 14.–16. Bes-Yurekh; 17.–18. Maya (6th group); 19. Sylgylyyr; 20. Yukaan. Tracings from Larsson & Broström 2011 (fig. 1); Okladnikov & Martynov 1972 (fig. 2–13); Okladnikov & Mazin 1979 (fig. 14–20). Compilation: Ville Mantere. Not to scale.

I would also like to point out that there are fundamental dissimilarities between the bent-legged elk depictions found at different rock art sites. For instance, bent-legged elks are common in the rock art of Siberia, where such depictions are characteristic to the so-called Tom style as well as to the Angara style and its derivatives (see e.g. Ponomareva 2016: 74–76; Nenakhova 2019: 107). Yet, these representations differ significantly from the Nämforsen elks in that their four legs are depicted separately (Figure 61.2–20). The Siberian elk depictions are therefore much more likely to represent movement (see also Ramqvist 2005: 104). Without doubt, these resemble walking and running elks as they are encountered in nature and thus stand in sharp contrast to the bent-legged elks at Nämforsen. A rare exception is the partly ambiguous elk on panel Q:1 in Brådön, whose four legs are depicted separately (Figure 61.1).¹⁷⁵ This unusual figure can be compared, in particular, to elk depictions of the so-called

Yakutian version of the Angara style (Figure 61.14–20) (see Ponomareva 2016: 75, fig. 4), and may depict a walking elk. Another exceptional, four-legged animal can be seen on the large panel Q:1 in Notön (Figure 63), where one of the many elks depicted stands out from the rest in having all its four legs marked out. Notwithstanding these possible exceptions, I find it fair to say that *the elks depicted at Nämforsen cannot be reliably labelled as “active” or “passive” animals.*

The compositions in which the elk figures at Nämforsen are included give the impression of portraying both believable and imaginary scenes. Sometimes this is the case even within single panels. According to Kivikäs (2003: 61), for instance, a pair of elks depicted on the Lillforshällan panel probably represents an elk cow giving birth to her calf. By contrast, the same panel also shows elk figures that are touching images of fish and boats, that is to say, scenes that are fictional rather than representational in character (Figure 62). It should be noted, though, that it is not always easy to differentiate which figures on the Nämforsen panels belong to a specific composition or scene (see e.g. Sjöstrand 2010a: 259).

¹⁷⁵ According to Larsson & Broström (2011: 41), another somewhat similar animal figure (interpreted as a possible goat or reindeer) was discovered in 1934 on a loose stone on the southern riverbank. The stone was moved to a museum but has since been lost.



Figure 62. The Lillforshällan panel at Laxön, Nämforsen. Photo: Ville Mantere.

Hallström (1960: 341, 370) was initially of the opinion that elk battues took place at Nämforsen, and that animals were killed by driving them into the rapids. As Gjerde (2015: 82) recounts, many later scholars criticized Hallström's outlooks and pointed out, for instance, that actual killing scenes are virtually absent from the Nämforsen rock art. To be sure, apart from the single image of an elk being pierced by a large spear (Figure 17.1), there are no obvious hunting scenes in the Nämforsen panels (Forsberg 2000: 73; Bertilsson 2018: 86; Fuglestvedt 2018: 159; see, however, discussion in Hallström 1960: 306–307). Or, at least, there are no scenes that clearly portray the *killing* of the animals.

However, in this context I wish to underline that the Nämforsen carvings are situated beside forceful rapids and a prominent waterfall, which are astonishingly loud even today, and were presumably even more powerful when the carvings were made (cf. Gjerde 2010: 369–373). The sound of the rapids has usually been interpreted as having held spiritual significance for the rock art makers (see e.g. Goldhahn 2002a; 2002b). Yet, without dismissing any symbolic connotations that the sound of water might have had, it is also worthwhile to briefly consider

what kind of practical function this unusual natural phenomenon could have fulfilled for the carvers of the nearby rock art.

Above, we saw how indigenous elk hunters actively try to cover the sound of their movements by wearing clothes that make as little noise as possible and by preferring to move through the landscape on windy days. Against this background, it is not unlikely that the noise of a large waterfall could have served the very same purpose. If elk inhabited the Nämforsen area – a possibility that is suggested by the plethora of elk images there – it is conceivable that it was easier to approach to within a killing distance of these near the rapids than elsewhere in the region. The noise of the running water would have covered the sounds of the hunters within the vicinity of the rapids especially effectively when their flow was faster than average. If this was in fact the case, the relevance of this factor would not be limited solely to Nämforsen but could also shed light on the placement of elk images at other northern rock art sites situated near rivers and river systems (for a list of sites, see Goldhahn 2002b: 53, tab. 3).

In fact, also some modern scholars have suggested that the Nämforsen carvings may be related

to elk hunting, which once took place in the region. In Gjerde's (2010: 375–378) view, some scenes could represent communal elk hunting, such as the panel Q:1 in Notön, on which around 40 elks – all lacking antlers – are depicted alongside human figures (Figure 63). This panel has been discussed extensively by several scholars, who have mostly interpreted it either as a realistic depiction of a battue or as a mythological scene (see Sjöstrand 2011: 104). Of special interest in this panel are the ambiguous items carried by some of the anthropomorphs. These do not represent evident hunting weapons (like spears or bows) but appear still to indicate some sort of items aimed at controlling the elks in the scene.

In this respect, the composition can be likened to the Bergbukten 1B scene in Alta (Figure 20), which, following the opinion of Herva and Lahelma (2019: 77), I would interpret as representing the luring of an elk in order to kill it. At least one of the items in the Notön panel can be identified as an elk-head staff. Thus, it could be argued that its function is the very same as in the said composition in Alta, and accordingly associated with the act of attracting the elk. Some of the ambiguous items in the panel could also denote elk scapulae, which are known to have been used for this purpose. On the panel

there is also a depiction of a human figure holding a long pole, with a ring at its lower end, in each hand. Such poles and “pole-carriers” are known from other northern rock art sites as well, and it thus seems likely that these had a special importance in the past (Hallström 1960: 319–320, 344). Hallström (1960: 320) regarded the poles as ritual items, because no scene which connected them unmistakably with hunting was known at the time when his work was published. However, at Kanozero there is a scene (Figure 74) in which similar poles seem to be used namely in the hunting of elks specifically. It is thus possible that the poles were indeed related to the hunting of elks, which of course does not exclude any additional uses and connotations the items may have had. That said, the noticeably large number of elks depicted on the Notön panel makes it highly unlikely that the scene would replicate an actual luring or killing of all the elks found on the panel, at least not on a single occasion.

In Gjerde's opinion (2010: 376), the elks on the Notön panel represent bulls, cows, and calves in wintertime, as some of the elks have beards and some have been portrayed smaller than others. He interprets the panel as a representation of the actual landscape as seen behind the panel, with the elk hunting scene(s) corresponding to two pitfall

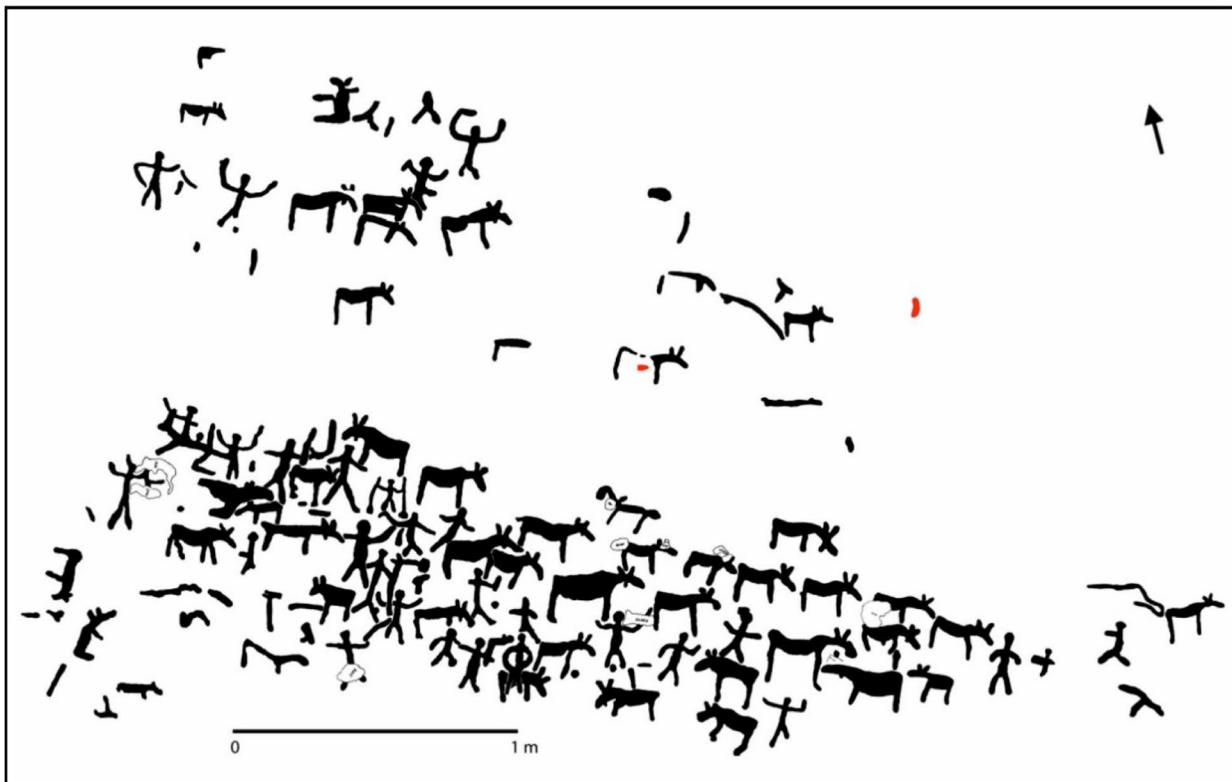


Figure 63. Possible elk hunting scene in Notön, Nämforsen. MG II, Q:1. Tracing from Larsson & Broström 2011, p. 74.

trap systems in the vicinity of Nämforsen (Gjerde 2015: 85–86). Despite offering a captivating reading of the evidence, I view this interpretation with scepticism. As was discussed with reference to the elk's behaviour, elks can, on rare occasions, come together in large groups during winters with harsh snow conditions. However, the fact that the human figures in the panel are all depicted without skis or snowshoes does not support the idea that the panel in Notön would depict a realistic winter hunt. In addition, there are no depictions of possible pitfall traps in the panel. That said, the evidence equally does not support Tilley's (1991: 66–67) reading of the panel, according to which it would not be a representation of reality but rather of cosmological nature. Obviously, *some* elements in the composition relate to elk hunting.

A third explanation for the Notön panel – and for similar panels with numerous images, such as at Nämforsen and other large rock art sites – may lie in the process of accumulation. Hallström (1960: 308), for instance, was rather convinced that many of the large panels had evolved over a longer period. Indeed, if one accepts that new figures were carved sequentially – for instance during annual meetings in the summer when large quantities of salmon could be caught at the site (cf. Goldhahn 2002a: 79) – it follows that the individual figures on the panel are not necessarily linked to each other as it might appear at first glance. As Hallström (1960: 308) writes, however, that is not to say that the carvers would have ignored the pre-existing figures in the rock, or that the reason(s) for making images would have changed over time. In addition, I fully agree with Hallström that there are evident, meaningful compositions at Nämforsen, but these only convey part of the overall meaning. While there is practically no way of telling exactly how often, how many, why, or by whom new carvings were produced, the realization that some panels may have reached their current state over a longer timespan may nevertheless be critical to understanding their content.

To put it differently, it is fully possible that the Notön panel and its counterparts are not the result of active and considerate planning. Consequently, these cannot be regarded strictly as scenes or maps, realistic or imaginary. Instead, the appearance of these accumulative panels was subject to change, and it seems probable

that this factor also had an effect on their meaning. The elks depicted may thus well represent “real” animals – even if the panels in which they occur did not necessarily depict actual events. Following this interpretation, *the more or less chaotic panels with numerous images could in fact be exactly what they appear to be – myriads of carvings made over an extended period of time and therefore assembled in a seemingly illogical manner*. The Notön panel, for example, may initially have been much more similar to the said elk seduction scene in Alta. However, as new images were added, the size of the composition was not only enlarged, but, inevitably, its appearance and original meaning was also changed.

If this scenario holds true, as I believe it does, it is a feasible possibility that it was the very act of producing rock art figures that was of key importance – not necessarily the image that resulted or its relation to its context (cf. Sjöstrand 2010a: 260). Based on the limited selection of rock art motifs at Nämforsen, it is obvious that the individual elk figure, too, was of significance, but as I see it, it served namely as the site's main motif and its creation was loaded with special meaning. By no means am I suggesting that Nämforsen was an exception in this regard. Rather, a similar focus on production over product can be detected at other large rock art sites, too.

It should be noted, moreover, that the images at Nämforsen are actually not that different from the petroglyphs made at smaller sites, such as those in central Nordland and eastern Norway. It is important to realize that Nämforsen, too, was once a site with only a few figures and thus not fundamentally unlike these smaller rock art sites. For some reason, however, people returned to places like Alta and Nämforsen repeatedly and continued to make images there. By contrast, at most other rock art sites in Northern Europe, new images were not produced in this way. We can only speculate on the reasons for which certain locations developed into rock art “centres”, but as proposed, it seems likely that one contributing factor was that these were places where people from different areas would meet.

An important notion that Sjöstrand (2010a: 254) draws attention to with regard to the study of change in rock art is that “[t]ime itself does not cause changes to the material culture; it merely makes them visible”. As obvious as this may be, it

is essentially the changes within a single motif group, in this case the elk motif, that enable a temporal study of rock art. The so-called phases or styles at a certain site are thus fundamentally to be understood as “datable variations of a single motif” (Sjöstrand 2011: 111). What exactly caused these variations over time is, however, despite its fundamental significance, a question that has often been overlooked by scholars, who have been mainly concerned themselves with identifying and dating the different phases of production (Sjöstrand 2011: 111).

To put it differently, the underlying purposes and motivations for changes in style cannot be explained solely by defining a chronology, even if the former are just as important to understanding rock art as the mere demonstration of changes. A fundamental question that then follows is how changes within a certain motif should be comprehended – as reflecting a continuity or alteration in meaning? Sjöstrand’s interpretation is the latter: that a change in the stylistic depiction of a given motif also reflects a change in the meaning(s) ascribed to it. Applying this outlook to the elk motif at Nämforsen, she thus concludes that different kinds of elk depictions expressed different things, and that the elk motif encompassed numerous symbolic connotations over time (Sjöstrand 2010a: 254–255). In her view, variations in the shape and placement of the elk figures at Nämforsen therefore illustrate general societal changes that took place in the Neolithic period (Sjöstrand 2010a; 2011).

On the basis of a sequential analysis of rock art compositions, Sjöstrand stresses that at Nämforsen, in most cases, multiple figures occurring within a single panel represent accumulations over time. She especially associates this accumulation of images to the second and fourth phase of Forsberg’s (1993) four-phase chronology (Table 3). In her view, the rock artists of these phases desired to differentiate their carvings (either by style or location) from those that were already present on the Nämforsen panels (Sjöstrand 2010a: 258–263; 2011: 128, 140–142). She argues, for instance, that the disappearance of narrative compositions, scooped-out elk figures and “unusual” elk depictions indicate that the elk started to function as a “key symbol” in Norrland during the second phase (Sjöstrand 2011: 188).

Meanwhile, even if pre-existing petroglyphs may indeed have acted as references for subsequent rock carvers, I find Sjöstrand’s inferences

questionable. For example, I do not believe that the rock carvers of the last phase would have recognized, or even been interested in, which of the pre-existing elk figures at Nämforsen were the oldest. I thus find it rather far-fetched to assume that the rock artists would have intentionally made their elk depictions resemble the oldest ones for “nostalgic” or “archaizing” reasons, as Sjöstrand (2010a: 264–265; 2011: 128–130) argues. In the same way, it should not be forgotten that the carvings at Nämforsen were made by a limited number of people, who can hardly be regarded as representative of the wider population of Norrland. The identification of rock art phases is itself not without problems and, furthermore, many explanations can be offered for the different carving styles that do not carry any wide-ranging or universally applicable implications. Indeed, while Sjöstrand (2011: 155) criticizes Tilley’s (1991) claim that all elk figures depicted at Nämforsen refer to the same thing irrespective of their mutual differences, Sjöstrand’s own argumentation can equally be criticized for the simple reason that there is no way to ascertain whether the elk motif may have referred to different things at different points in the past.

To sum up the central points of the above discussion, elks were depicted at Nämforsen in different styles, which I believe to reflect chronologically distinct periods. Even within these styles, however, it seems that elks were intentionally made to appear different from one another. In turn, I do not believe that most of the resulting rock art scenes were consciously planned. Rather, I would suggest that many of the carving panels at Nämforsen (and presumably in Alta and other large rock art centres as well) simply “came to be”, as (different) people on different occasions made new images on the rocks over a length of time. This probably reflects the fact that the act of carving and the production of images was of greater importance than the scenes that resulted from these processes. Instead of reflecting societal changes, I therefore find it more likely that the dissimilarity between the elk depictions at Nämforsen echoes the *personal* desires of the carvers to leave recognizable signs on the rocks. Presumably, these were somehow associated with the elk hunting process, although their precise motivations are beyond our reach. Meanwhile, the carvings at Nämforsen are not unique in the sense that comparable rock art concentrations,

containing multiple images produced on more than one occasion, are also known elsewhere in Fennoscandia. Even if such sites are not numerous, there remains a clear possibility that they are related to one another, and so the reasons for people returning to these sites to make rock

carvings could well have been similar. I will therefore proceed to discuss the role of large rock art centres as meeting points, with relation to the Kanozero petroglyphs. Before doing so, however, I must first address the evidence from Finnish rock paintings.

5.5 The rock paintings in Finland

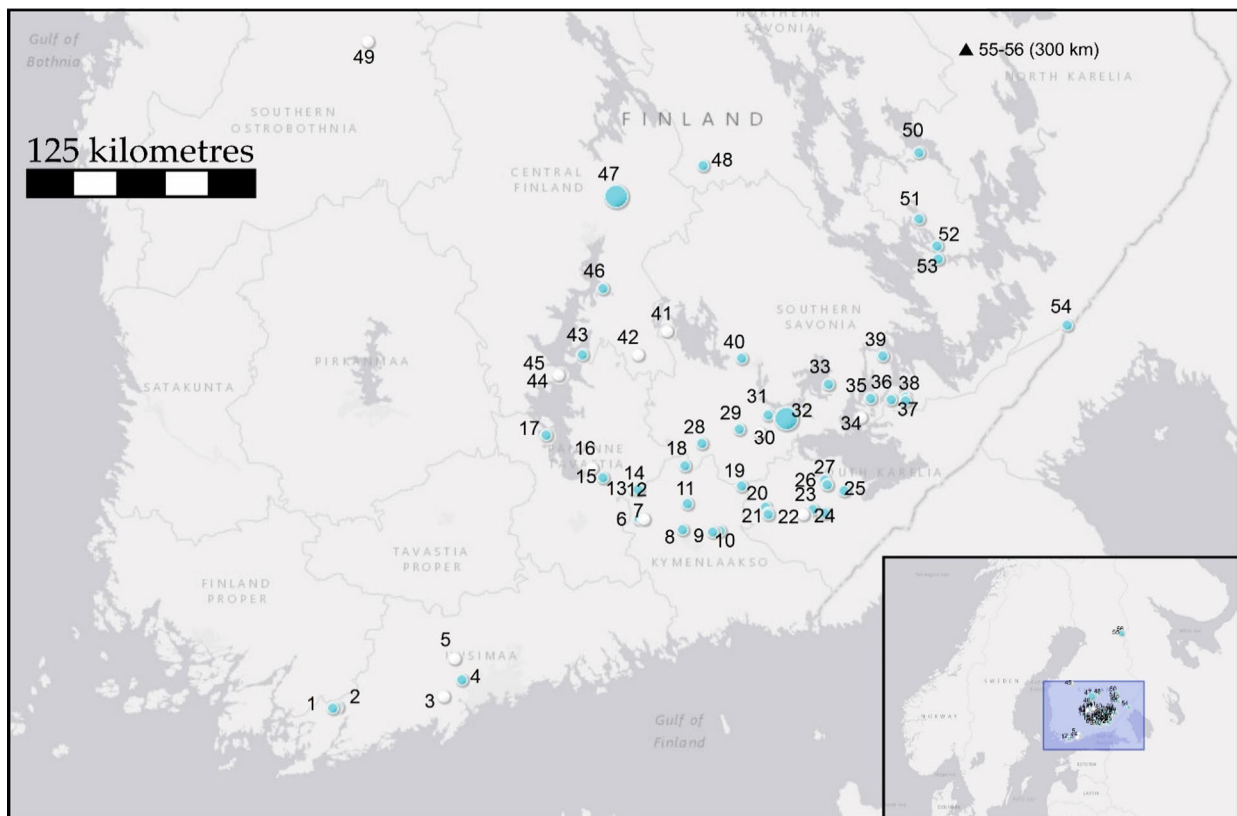


Figure 64. Map showing the distribution of rock paintings with elk figures in Finland. White circles indicate sites with uncertain elk depictions (marked by an asterisk in the following list). 1. Pikku Kullaanjärvi; 2. Lammasjärvi; 3. Juusjärvi*; 4. Jäniskallio; 5. Salmijärvi*; 6. Kotojärven Haukkavuori; 7. Mertavuori*; 8. Pakanavuori; 9. Jyrkkävuori; 10. Lakiasuonvuori; 11. Verla; 12. Konniveden Haukkavuori; 13. Karhusaari*; 14. Rautakannanvuori; 15. Väinönkallio; 16. Huonpohjanvuori*; 17. Haukkasalo; 18. Tupavuori; 19. Kukkovuori; 20. Siliävuori; 21. Kalamaniemi I-II; 22. Ilmuksenvuori*; 23. Ruominkapia; 24. Salmenvuori; 25. Ruusin Turasalo; 26. Valkeisaari; 27. Kannuksen Linnavuori; 28. Haukkavuori; 29. Itkonlahti; 30. Louhtovuori*; 31. Uittamonsalmi; 32. Astuvansalmi; 33. Sarkasvuori; 34. Ahotaipaleenmäki*; 35. Syrjäsalmi; 36. Maksasaarenselkä; 37. Ekelinniemi; 38. Vetotaipale; 39. Viidanmäki; 40. Verijärvi; 41. Hahlavuori*; 42. Viherinkoski B*; 43. Avosaari; 44. Pyhävuori*; 45. Pyhänpää; 46. Hakavuori (Raidanlahti); 47. Saraakallio; 48. Toussunlinna; 49. Pyhävuori*; 50. Luutsalo; 51. Vierunvuori; 52. Haukkalahdenvuori I-II; 53. Kurtinvuori; 54. Louhisaari; 55. Väräkallio; 56. Julma-Ölkky*. Map: Ville Mantere/NatGeo MapMaker.

Finnish rock art consists solely of painted sites located predominantly in the southeastern part of the country, although some sites are known from northern parts of Finland.¹⁷⁶ Moreover,

two newly discovered sites – both containing elk images – have also expanded the distribution area towards the southwest (Siljander 2017: 21; Luukkonen 2018: 21–22). It therefore seems plausible that the current distribution of Finnish rock paintings partly reflects the fact that studies have mainly focused on this region. New sites may thus be discovered in future outside the main area of rock art concentration in southeastern Finland.

¹⁷⁶ I omit from this discussion cup-marked stones, which in Finland are attributed to the Iron Age and later periods (even if it could be argued that these, too, belong within the category of rock art), as well as rock engravings from the historical period. Likewise, I do not take into account the possible rock carving at Marraskoski in Rovaniemi, as this single figure has been destroyed and its authenticity remains questionable (see Taskinen 2000: 21–22; 2007: 124–125 and cited references).

However, there are also some additional aspects that complicate the discussion of the number and distribution of rock art sites.

First of all, at many rock art sites, no identifiable images can be discerned, either due to weathering or because no figures were ever depicted in the first place. The question of whether such sites should be regarded as rock art locations in the strictest sense is thus open to interpretation. Secondly, red ochre occurs naturally on rock surfaces, and it is not always possible to establish whether the reddish colour in the rock is of natural or human origin (see e.g. Taavitsainen & Kinnunen 1979: 41; Lahelma 2008c: 70). Thirdly, at some sites (both with and without identifiable figures) the paintings most likely date from the historical period. Nonetheless, according to Luukkonen (2021: 12), there are at present 103 rock painting sites with identifiable figures in Finland that most likely date to the prehistoric era.¹⁷⁷

Even if the geographical distribution of rock painting sites may alter somewhat in future as the result of new discoveries, most Finnish rock art sites share certain common topographical features. The most evident of these is probably their close proximity to freshwater bodies. Although some recent discoveries from southern parts of Finland are located near the coast, it seems as if these sites, too, were originally situated at lakesides (Luukkonen 2018: 22). The Finnish rock painting tradition thus appears to be linked to population(s) that inhabited the interior of the country, whereas coastal groups did apparently not produce rock paintings. It has been suggested that this division might have been caused by differences between coast-dwelling seal-hunters and terrestrial hunters residing inland, or by linguistic or cultural boundaries (Miettinen 2000: 48, 63–65; Sepänmaa 2007: 117; Lahelma 2012a: 17).

On the other hand, Korsman (2000: 34) has accurately pointed out that most of the boulders on the coast that are suitable for rock art would have been situated below the waterline until around 3000 years ago. Therefore, the distribu-

tion pattern may be explained at least partly by topographical factors. In any case, the majority of known rock art sites in Finland are located close to water, being especially numerous on the shorelines of Ancient Lake Saimaa and Ancient Lake Päijänne and their tributaries (see Sepänmaa 2007: 109–110). Many rock painting sites are situated along central waterways, and it has been stressed that the paintings are closely related to the frequent use, perhaps also to the formation of, these routes (see e.g. Miettinen 2000: 26–27; Kivikäs 2010: 165). Lahelma (2001: 11) has proposed that the rock paintings may have “guarded” liminal places along water routes and therefore been subjected to rituals (cf. Bradley 1997: 123–124; Sognnes 2002: 202). However, instead of understanding the placement of rock paintings in terms of sacrality or liminality (cf. Sognnes 1994: 43; Helskog 1999: 75–92; Lahelma 2001: 9–11; Damm 2020: 86; Valovesi 2021), I find it just as likely that the images were actually not directed for the group that produced them but were instead intended to be seen by outsiders. I will deliberate on this idea below.

Rock paintings in Finland are usually found on prominent, upright cliffs that rise from the water (Figure 24), or on large erratic blocks. The majority of rock art sites are located on surfaces that could only have been reached by boat or over the ice. As the painted motifs include boat depictions but no images indicating winter (such as skis or snowshoes), I find the former alternative the more likely. It is also common for Finnish rock art locations to be in some way extraordinary in appearance and visible from afar (e.g. Lahelma 2001: 8). However, even if I believe that this was intentional, it should be noted that it is namely at such places that rock art has previously tended to be sought. Nowadays it is known that paintings can also be found at less conspicuous locations (Miettinen 2000: 47). Still, I concur with Damm (2020: 79) that often the appearance of the cliffs seems to have been of greater importance than the images painted upon them. In general, the placement of Finnish rock paintings recalls that of polished rock art, which despite its maritime character similarly gave the impression of having been created to be noticed. In Finland, however, it seems that conspicuous cliffs were chosen to

¹⁷⁷ In addition to the sites listed by Luukkonen (2021), a new rock painting site consisting of at least one anthropomorph and some vague additional figures was recently discovered in Saarelanvuori, Taipalsaari, in southeastern Finland (<https://www.esaimaa.fi/paikalliset/6040281>, accessed on 2.9.2023).

serve the same function as the large-sized animal figures in central Nordland. Their aim was, in other words, to *draw the attention of the observer to the rock art*.

Many of the Finnish paintings face south-westwards, whereas paintings made on cliffs oriented towards the north or northeast are remarkably rare (Sepänmaa 2007: 113–117). This notion can partly be explained by geological factors, i.e. the withdrawal of the ice sheet, but it is nonetheless possible that the orientation of the cliffs held some significance for the rock art makers. In fact, rock paintings and rock carvings in Fennoscandia and Siberia are also commonly placed upon surfaces facing southwards (see e.g. Jacobson 1993: 92; Kivikäs 2005: 27; Brandišauskas 2017: 231). Hence, perhaps at least some of the rock art locations were chosen for the sun to light them during the day. This notion seems also to strengthen the assumption that it was important that the images were clearly visible.

Above, I interpreted the polished rock art in central Nordland as being communicative in character and directed towards unknown hunting groups, signalling to these that the area and its resources were already in use. In addition, the making of animal figures was probably a way of expressing respect towards the local animals, and the rock art was thus feasibly directed in part towards the animals themselves. In fact, largely similar interpretations can be made as regards Finnish rock paintings, for a number of reasons.¹⁷⁸

To start with, the vast majority of rock paintings in Finland have been positioned so as to face outwards from the shore. This suggests that one of their functions was to be visible to people travelling on waterways (Poutiainen 2010: 46). Indeed, if the rock paintings had been made in the middle of the forest, they would have been encountered by humans only by chance. By painting figures along water routes, meanwhile, the rock artists could be assured that their images would be seen. As Gjerde (2020: 98, 104) has pointed out, both the paintings and the con-

spicuous cliffs they are found on were (and still are) especially noticeable in wintertime, when the frozen waterways would have provided a vital means of travelling. While it is possible that some of the painting locations aided the rock artists to orient themselves by functioning as reference points within the landscape (see Mänttinen 2014: 31–32 and cited references), it is likewise conceivable that the primary purpose of the art was to function as a deterrent to any strange trespassers. What speaks in favour of the latter interpretation is the said “extraordinary” location of many of the paintings. In particular, I here refer to the exceptional acoustics and to the anthropomorphic shape of some of the rock art sites.

It has long been pointed out that many cliffs with rock paintings are anthropomorphic in character (Figure 65), and it seems feasible that the shape of a rock outcrop has in some cases been instrumental to the decision to produce rock art there (see e.g. Taavitsainen 1981: 11–12; Taskinen 2006; Lahelma 2008b). Another factor that may have affected the placement of rock art on conspicuous cliffs concerns the special acoustic qualities of many of these locations (see e.g. Reznikoff 1995; 2014: 106–107; Lahelma 2008c: 63–67; 2010: 50–54, Rainio et al. 2014; Valovesi & Rainio 2022). Actually, both of these evident aspects become readily understandable if one follows the interpretation proposed above. In other words, if the actual intention of the rock art was to attract the attention of the observer and to provoke a sense of awe, it is indeed difficult to think of a natural context for these vivid red images that is any more dramatic than the echoing surroundings of sheer rock outcrops with features resembling those of a human face, positioned along frequently-used water routes.

As a rule, the shoreline in front of Finnish rock paintings was not suitable for human habitation, even if a terrace or an overhang is sometimes present next to the painting. It seems rather evident that, in most cases, the intention was not to spend time at the rock art site (see e.g. Kivikäs 1995: 18–19; 2005: 10). A rare exception is the rock painting at Valkeisaari in Taipalsaari, which is the only known rock painting site in Finland with a prehistoric cultural layer (Lahel-

¹⁷⁸ Damm (2020: 86) seems to acknowledge the possibility of a somewhat similar explanation for the Swedish rock painting sites when she states that “...an explicit association with hunting luck or with the protection of the resource area from non-locals is an obvious possibility”.

ma 2006; 2007b: 50).¹⁷⁹ Furthermore, no prehistoric settlement sites have been discovered in the vicinity of these rock painting sites, but this may partly be explained by the scarcity of field surveys to date (Seitsonen 2005: 6; Lahelma 2008a: 20; Poutiainen 2010: 46).

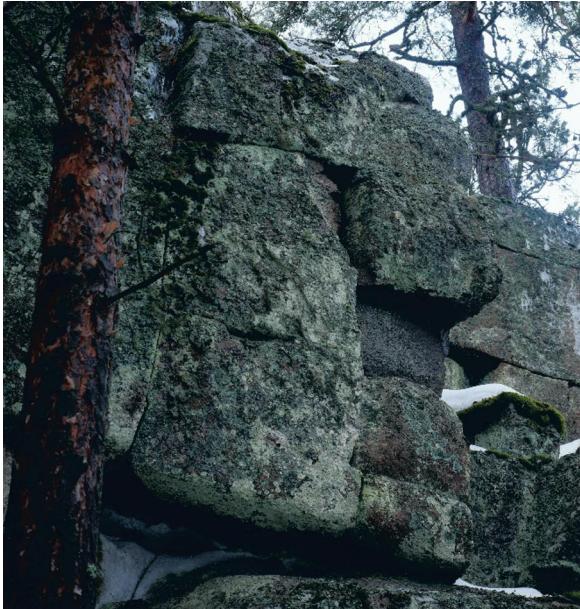


Figure 65. Anthropomorphic cliff at the Kintahuonvuori site in Kouvola (Jaala), Finland. The rock paintings are located on the left side of the anthropomorph. Photo: Ville Mantere.

Unlike in Swedish Norrland, there seems to be no clear-cut connection between rock art sites and pitfall traps in Finland (Tjörnström 2010: 4–5, 11; Mantere 2014: 37–38). That said, it has been pointed out that elks are often found close to Finnish rock art sites. Taavitsainen (1978: 193) has, for example, suggested that, based on local accounts, the surroundings of the Väräkallio site in Suomussalmi probably constituted a winter habitat for elks in prehistoric times also. Generally speaking, it can thus be stated that the placement of the Finnish rock paintings also bears some resemblance to the eastern Norwegian rock carvings. Both are closely connected to water and seem also to coincide, at least to some extent, with places that elks naturally tend to occupy. This notion, too, seems to correspond with the explanation suggested above. In other words, *the sites that the rock art makers wanted to secure by means of the art were considered to be*

especially favoured places, in which elks thrived and could be hunted.

The rock paintings in Finland have generally been produced using red ochre, preserved to the present day as a result of the layer of amorphous silica that has formed on top of them (Taavitsainen & Kinnunen 1979: 40–41).¹⁸⁰ The paintings are commonly found on sloping or upright rock surfaces, where the figures are often sheltered by a protecting overhang. As noted in the introduction, it is unclear whether this situation reflects the original placement of the rock art, or whether it is only the rock art located at such places that has survived to the present day. It has, however, been argued that the future preservation of rock paintings might have been a critical consideration for those who produced them (Kivikäs 2009: 19). Indeed, this would also support the explanation that the visibility of the images was of importance namely because their essential function was to act as signs. Likewise, it is probably not a coincidence that the art was specifically made on vertical cliffs, on which the images were visible all year round.

As a matter of fact, while Gjerde (2020: 102–104) argues that the sites were intentionally visited during the winter when these were more accessible, there is basically nothing that would contradict the opposite explanation. In other words, their location may have been chosen deliberately so that the images would *not* be easily approachable all year round. As mentioned above, at several rock art sites the red colour on the rock is clearly of human origin even though no images are discernible. Sometimes, one gets the impression that earlier figures may have been consciously covered over and obscured by the addition of new paint (see also section 1.4.2). Thus, the initial rock art makers may intentionally have preferred locations that were difficult to access, and where the images could not be easily vandalized. It should also be stressed that even if signs of later activity may be found at some rock painting sites, this is certainly not the case at all of these. In fact, one would expect archaeological finds to be considerably more frequent at rock painting sites if Gjerde's (2020: 109) assumption about active

¹⁷⁹ Some sporadic finds, however, have also been discovered adjacent to the rock paintings of Iitti Kotojärvi, Laukaa Saraakallio, Lemi Venäinniemi, Luumäki Kalamaniemi 2, Puumala Syrjäsalmi and Ristiina (Mikkeli) Astuvansalmi (see Lahelma 2006: 5, tab. 1).

¹⁸⁰ At present, there are some early indications that other red pigments may also have been used in rock paintings (Uine Kailamäki, MA, personal communication 27.11.2021).

visits to rock paintings were to hold true (see also Goldhahn 2020).¹⁸¹

Identifying motifs within rock art is always to some extent a subjective process. This is especially the case as regards Finnish rock paintings as the figures are often more or less fragmented and/or obscure. According to the most recent classification by Luukkonen (2021: 18–21), anthropomorphic figures (267 in total) form the largest group (33% of the total amount of 801 figures), followed by cervids (233, or 29%), boats (96, or 12%), other animals (88, or 11%), different kinds of geometric images (74, or 9%) and handprints (43, or 5%). I find this categorization trustworthy, and it should be noted that it differs only slightly from the earlier calculations made by Lahelma (2008a: 23–24, fig. 9) and Taavitsainen (1978: 19).

Finnish rock art imagery is rather monotonous, with the three most common motifs – the human, the elk and the boat – constituting as many as 75% of all figures depicted. Overall, the rock art gives an impression of being very motionless in character (see e.g. Kivikäs 1995: 33; Lahelma 2005: 35). In this respect, the Finnish rock art can be characterized as “static” or “iconic”, in contrast to the “narrative” rock art, for instance, in Alta or Kanozero (Lahelma 2001: 9 and cited references; see, however, Bolin 2010). Again, this could indicate that *what* was depicted did not matter as much as the fact that *something* was depicted on the rocks. What reinforces this impression is the fact that most of the rock art sites in Finland consist only of single or of a few images. In sharp contrast to these, however, at a small number of sites, a far greater number of figures have been depicted. These include Saraakallio 1 (112 figures), Väräkallio (83 figures) and Astuvansalmi (78 figures), which are among the largest rock painting sites in Northern Europe (Luukkonen 2021, Appendix 1). It seems likely that these sites therefore served a function that was at least partially different to that of the majority of Finnish rock art sites.

5.5.1 Dating

As Taavitsainen (2007: 138) points out, the most common method that has been used for dating Finnish rock art is that of shoreline chronology, which yields only rough *terminus post quem* dates. Virtually all suggested datings that rely on the shoreline displacement at Lake Saimaa and Lake Päijänne are based on the studies undertaken by Saarnisto in the early 1970s (Saarnisto 1970; 1971a; 1971b).¹⁸² According to the propositions (e.g. Jussila 1999; Seitsonen 2005; 2008; Hakulinen 2011; 2016; see also Saarnisto 1969), the rock painting tradition in Finland dates back approximately to the period 5000–500 calBC. This extremely vague dating reflects the many difficulties connected to the shoreline displacement chronology (see e.g. Hakulinen 2011: 21–23; 2016: 33). First of all, the dating method is based on the premise that the rock paintings are limited to shoreline locations, which was not necessarily always the case. Secondly, there are evident problems related to determining the waterlines of ancient lakes, including the yearly fluctuations of these. Thirdly, the elevation at which the paintings were originally made has likewise often been debated, and it has been suggested that at certain sites scaffolds may have been used to apply the paintings to the rock face. This inevitably complicates the dating of rock art images (see e.g. Sarvas & Taavitsainen 1976: 47; Taavitsainen & Kinnunen 1979: 40; Hakulinen 2011: 24).

Nevertheless, scholars today seem to be more or less in agreement that the rock art tradition in Finland started sometimes around 5000–4000 calBC. Estimated dates for the end of the rock painting tradition are more varied. While it was earlier assumed that the last images may have been produced as late as around AD 500 (Taavitsainen & Kinnunen 1979: 40), the current view is that the production of rock art ended earlier, probably sometime between 2000 and 1000 calBC (Jussila 1999: 132; Seitsonen 2005: 13). However, it cannot be totally ruled out that some of the Finnish rock paintings may be of later date (Lahelma 2008a: 41). I nevertheless concur with Lahelma (2008a:

¹⁸¹ In this context it can be noted that most of the rock paintings in Norrland, for example, are found at locations similar to those of the Finnish petroglyphs: questions relating to the representativeness of the painting locations are therefore of relevance here, too (cf. Sjöstrand 2011: 37).

¹⁸² Matti Saarnisto (Professor of Geology, Geological Survey of Finland), email correspondence 18.2.2019.

40–42) that *the period 5000–1500 calBC can be generally regarded as the era of Finnish rock art*, with the bulk of the paintings (and thus of the elk figures) being most likely linked to a Neolithic context, more specifically to the period 3600–2500 calBC.

Of special interest to this thesis are Seitsonen's studies (2005; 2008) of the correspondence between certain motifs and different time periods in the regions of Lake Saimaa and Lake Päijänne. In Seitsonen's view, boat figures are amongst the oldest motifs, but for some reason these disappear from rock art imagery earlier than the anthropomorphic and zoomorphic depictions. Depictions of elks and anthropomorphs seem, on the other hand, to become more common over the course of time; except for during the final phase, in which elks are no longer numerous. Equally, he argues that the rock art becomes more schematic and monotonous towards the end of the tradition. In the Lake Saimaa region, the rock painting tradition appears to have mostly flourished in the middle of its period of existence (around 3600–2500 calBC), as indicated by the fact that largest number of figures and largest variety in motifs occur during this period (Seitsonen 2005: 10–12).

Against this background, however, it seems somewhat odd that the majority of the archaeological and osteological finds discovered adjacent to Finnish rock art sites are dated towards the end of the rock painting tradition. Leaving aside Early Medieval and historical finds, the aforementioned Valkeisaari site, for instance, has yielded dates from the Early Bronze Age, and roughly coeval dates have also been obtained from elk and waterfowl bones

unearthed from the lake bottom in front of the rock painting at Iitti Kotojärvi (Lahelma 2006: 50–51, 56–63; 2020: 186; Taavitsainen 2007: 140; see section 4.4). Two arrowheads discovered at Astuvansalmi and Saraakallio have likewise been dated to the Early Bronze Age, although a third arrow tip apparently attributed to the Late Comb Ware culture (c. 3750–3250 calBC) has also been found at Astuvansalmi (Sarvas 1969: 292; Lahelma 2007b: 68). Earlier finds also include the four amber pendants discovered by underwater excavations in front of the Astuvansalmi rock painting site, which most likely belong to the Comb Ware culture (Grönhagen 1994: 8–14). In addition to these discoveries, some other rock painting sites have yielded finds (mainly quartz and flint pieces) that are difficult to date with any certainty (see e.g. Lahelma 2006: 67–68, fig. 8).

In general, however, the dated finds discovered at rock painting sites seem to date noticeably later than the heyday of rock art suggested by the shoreline chronology. This trend is not unique to Finland; the situation seems to be largely similar for rock art and associated finds from Sweden and Norway as well (see Lahelma 2006: 71; 2008a: 41 and cited references; see also Goldhahn 2020). Indeed, the datable finds made in the vicinity of rock art sites should be considered as providing *terminus ante quem* dates for the rock art itself (cf. section 1.4.2). While the connection between the rock art and the finds made in its vicinity is in most cases more or less obvious, it is still fully possible that the establishment of a human presence at rock art sites is a significantly more recent phenomenon than the initial production of the art (see also Damm 2020: 87).

5.5.2 Elks in Finnish rock art

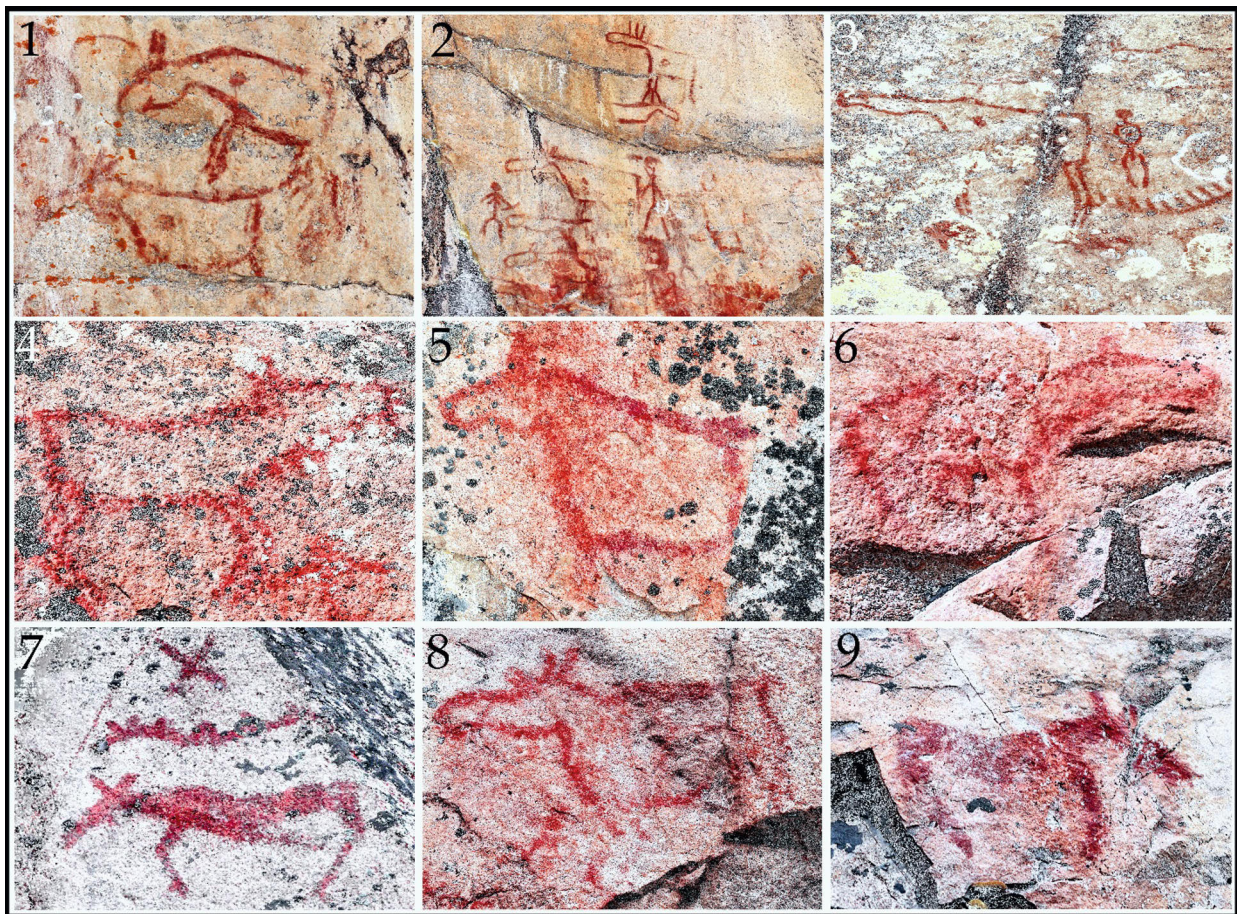


Figure 66. Elk depictions in Finnish rock art. 1–3. Astuvansalmi, Mikkeli (Ristiina); 4–6. Uittamonsalmi (I), Mikkeli (Ristiina); 7–9. Saraakallio (I), Laukaa. Retouched photos and compilation: Ville Mantere. Not to scale.

According to recent calculations made by Luukkonen (2021: 19), there are altogether 233 depictions of cervids in Finnish rock art. Purely naturalistic depictions of elks are rare, and most of the cervid images are so stylized that it is not possible to ascertain the exact species. Even though cervid depictions in Finnish rock art are commonly identified as elks, it has been argued that some figures may portray deer (see e.g. Rankama 1997; Korteniemi 1997; Lahelma 2008a: 25). Besides, some of the animal figures appear to comprise both deer and elk features (Kivikäs 2009: 73–75; on the subject, see Skandfer 2020: 123–124). According to my understanding, however, elk figures are present at 43 of Finnish rock art sites and plausible elk depictions can be discerned at 13 additional sites (Figure 64).¹⁸³ It follows that approximately half of Finnish rock painting sites display figures

that are likely to represent elks. The geographical distribution of the rock paintings with elk figures principally corresponds with the overall distribution of Finnish rock painting sites.

The smallest elk figures measure approximately 15 cm whereas the largest figures are almost a metre in length (Miettinen 2000: 54). Apart from a few possible exceptions, all elk figures are portrayed without antlers. According to Luukkonen (2021: 19–20), 75 of the cervid depictions are made in the outline style, 59 in the scooped-out style and 99 have been depicted using a single line. Of the outline representations, 21 figures (27%) are marked with a so-called heart spot and nine animals (12%) display other kinds of inner designs. Elk depictions usually face left, but this is especially evident in the case of outline figures, since 81% of them are depicted in this way (Luukkonen 2021: 19).¹⁸⁴

¹⁸³ There are furthermore eight sites with evident or probable zoomorphic representations, but the figures at these sites are too unclear to be identified as elks.

¹⁸⁴ Correspondingly, 73% of scooped-out cervids and 60% of single-lined cervids face left (Luukkonen 2021: 20).

According to Seitsonen (2005: 10; 2008: 82–83), outline elk figures are common in the rock art of the Lake Saimaa and Lake Päijänne region during the first half of the rock painting era, but are replaced by right-facing elks made by a single line in the Neolithic–Early Bronze Age transition period. Despite this thought-provoking observation, however, the overall number of elk figures dated to the latter period is still so small that this finding must be taken with a certain caution.

In spite of the static character of Finnish rock art, there are some cases in which certain figures are indisputably connected to each other and thus reflect some kind of interaction. For example, the most common combination of two figures in Finnish rock art is that of an elk and a human (Figure 67). In most cases, the human figure is depicted behind the elk (Miettinen 2000: 126–127; Kivikäs 2003: 146; 2009: 80). Some of these compositions resemble the so-called bestiality scenes at Nämforsen (cf. Figure 58.38–39). The human-elk pairs are so numerous that they probably reflect some widespread and commonly acknowledged connotations. Kivikäs (2009: 80) has offered various alternative interpretations for such compositions, including hunting, the chasing of a cosmic elk, representations related to the regeneration of elks and/or the common origin of elks and humans. Lahelma (2007a: 129), in turn, has interpreted the bestiality scenes as illustrating male shamans interacting with their female spirit-helpers. However, even if I concur that a sexual symbolism may be present in the scenes, I find Lahelma’s interpretation, centred on shamanism, unlikely. This is because of the rather audacious assumptions that shamanism was commonly practised during the Stone Age, and that the shamans’ spirit helpers would “have been generally imagined as being of the opposite sex” (Lahelma 2007a: 129).¹⁸⁵

Instead of shamans and their spirit helpers, I believe that the elk-human combinations illustrated in rock art are likely to represent the same phenomenon as the depictions of elks and anthropomorphs on engraved slate artefacts, that is, representations of the personal relationship between the hunter and a specific elk being; presumably the game ruler or the master animal

spirit of elks (see section 7.4). On the rock surfaces, I argue, *the elk-human pair thus not only communicated the message that the area and its key resources were in use, but it was probably also a way of expressing respect for the personal, human-elk relationship.*

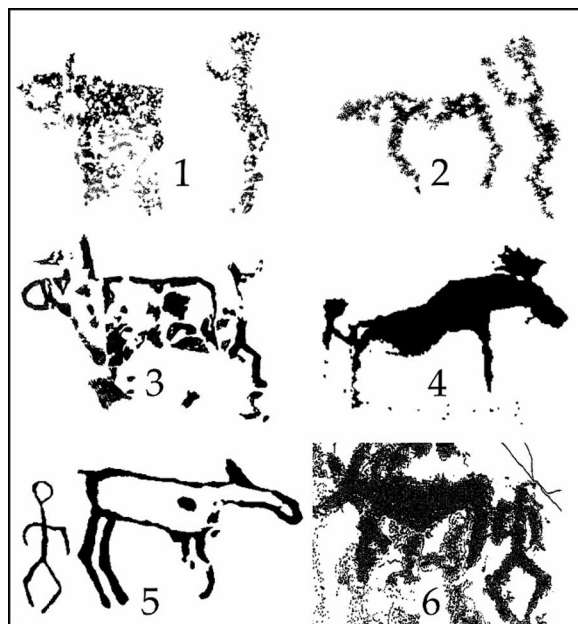


Figure 67. Depictions of elks and humans in Finnish rock art. 1. Jyrkkävuori, Kouvola; 2. Tupavuori, Kouvola; 3. Kotojärven Haukkavuori, Iitti; 4. Salmenvuori, Lappeenranta; 5. Vierunvuori, Heinävesi; 6. Saraakallio, Laukaa. Tracings from Miettinen 2000 (fig. 1–5); Kare 2000 (fig. 6). Compilation: Ville Mantere. Not to scale.

Another thought-provoking scene in Finnish rock art, which may imply a partly similar connotation as the human-elk pairs but with a communal focus, is found in Verla, Kouvola. On this panel, a group of rather naturalistic elk figures are heading westwards (Figure 69). The composition has been understood as a moving herd of elks led by an old elk bull (see Miettinen 2000: 115 and cited references). Amongst the elks there are, however, also several human figures that have been depicted not only next to, but also on top of, the elk figures. The scene has been interpreted as relating to hunting, although no depictions of hunting weapons are evident (Kare 2000: 114). On the panel there is an area of paint which may possibly bear traces of one or two large-sized boat figures (Kare 2000: 114; Miettinen 2000: 121). If this interpretation is correct, it could reinforce the assumption that the scene represents an elk drive – a reading that Kare (2000: 112–115) suggested not only for the Verla painting but also for the Astuvansalmi panel, which similarly contains humans and large, left-facing elks with

¹⁸⁵ It should also be noted that the anthropomorphic figures in these compositions usually lack male characteristics, and in some “bestiality scenes”, such as at Salmenvuori in Finland (Figure 67.4), the elk may have been depicted with antlers.

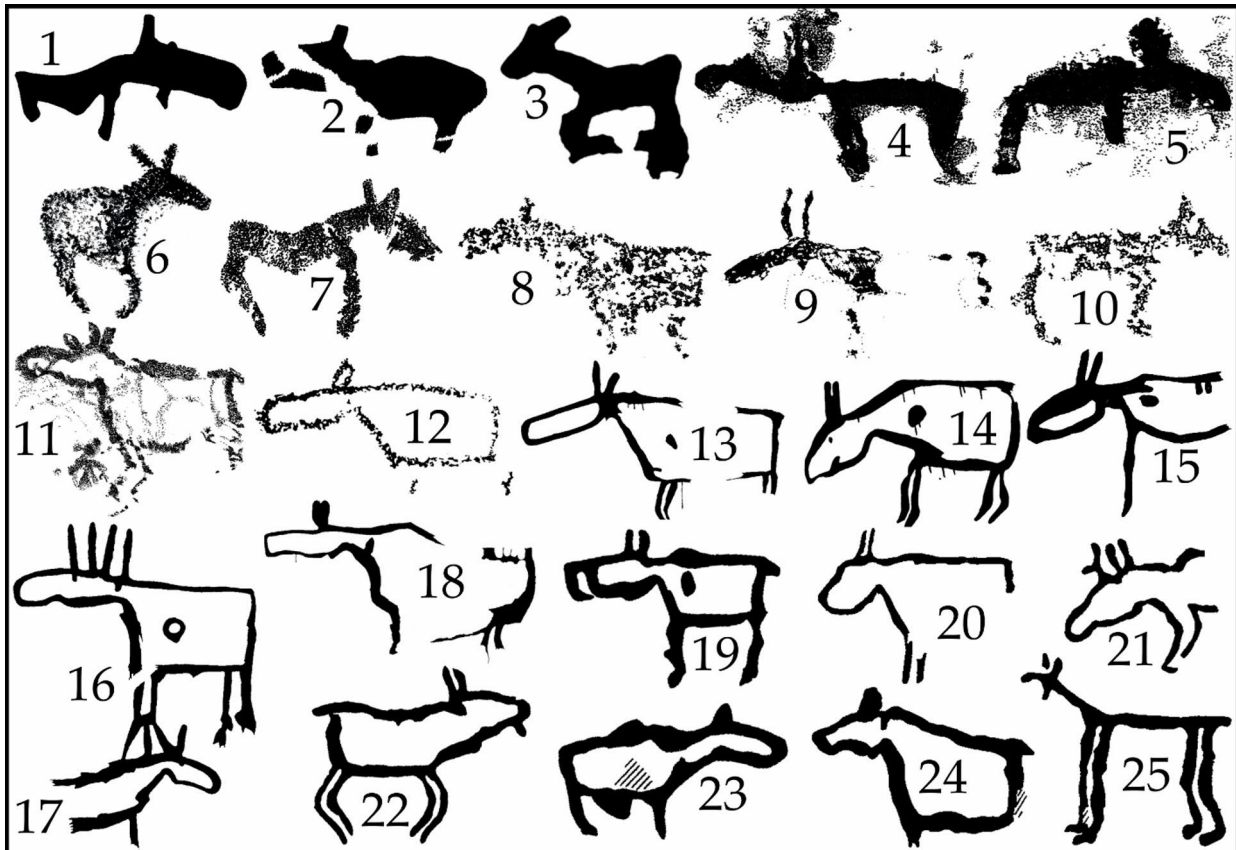


Figure 68. Elk depictions in Finnish rock art. 1. Kurtinniemi, Enonkoski; 2. Jäniskallio, Espoo; 3. Väräkallio, Suomussalmi; 4. Haukkalahdenvuori I, Enonkoski; 5. Haukkalahdenvuori II, Enonkoski; 6. Konniveden Haukkavuori, Iitti; 7. Saraakallio, Laukaa; 8. Lakiasuonvuori, Kouvola; 9. Rautakannanvuori, Iitti; 10. Pakanavuori, Kouvola; 11. Saraakallio, Laukaa; 12. Lakiasuonvuori, Kouvola; 13.–18. Astuvansalmi, Mikkeli (Ristiina); 19.–21. Ruominkapia, Lemi; 22.–25. Uittamonsalmi, Mikkeli. Tracings from Rauhala 1976 (fig. 1); Sarvas 1970 (fig. 2); Taavitsainen 1979 (fig. 3); Kivikäs 1999 (fig. 4–5); Miettinen 1986 (fig. 6); Kare 2000 (fig. 7, 11); Miettinen 2000 (fig. 8–10, 12); Sarvas 1969 (fig. 13.–18.); Sarvas & Taavitsainen 1976 (fig. 19–25). Compilation: Ville Mantere. Not to scale.

heart spots (Figure 70). Irrespective of whether the Verla scene portrays hunting in a strict sense, however, I claim that *essentially* it told that this was an inhabited and utilized area, where people had a relationship to the local elks. I find this to be a credible interpretation for the Astuvansalmi panel also, in spite of its exceptional size.

In the large number of humans that it depicts, Finnish rock art differs markedly from the polished rock art and the eastern Norwegian rock carvings. Even though variations between sites are large, and purely narrative compositions are lacking, many of the elk figures in Finnish rock art are clearly depicted within a setting in which humans are also present. If my interpretation holds true, it seems that sometimes elks and humans were depicted together to signify to outsiders that a hunting territory was in use. However, most of the time just one or more elk figures were considered sufficient to convey the same meaning. These could appear as the sole images on the rock surface, or as parts of a larger selection of motifs.

As a matter of fact, I am inclined to believe that the meaning given to elk images was not necessarily that different from the meanings ascribed to other rock painting motifs. Handprints, for instance, could very well have signalled the very same basic message as elk figures, that is, of a human *presence* in the landscape (cf. Bird & Bliege Bird 2018: 351; see also Brady et al. 2018: 558).¹⁸⁶ Moreover, it seems that the mere existence and visibility of the paintings could be of even greater significance than the (elk) images themselves. The conspicuous cliffs located at notable places in the landscape, imbued with exceptional anthropomorphic and acoustic qualities, suggest that a primary aspect of rock paintings was their placement. They were intended to be noticed.

¹⁸⁶ As Lahelma (2008a: 59) has noted, handprints in Finnish rock art are often superimposed on other figures, in particular on images of elk. I take this as a further sign that the connotations related to different rock art motifs were comparable. A handprint over an elk figure might, for example, have conveyed the same message as an elk-human pair.



Figure 69. A herd of elk on the rock painting at Verla, Kouvola. Tracing by T. Miettinen (from Kare 2000, p. 118–119, fig. 113). Photo and compilation: Ville Mantere. Not to scale.



Figure 70. The main rock painting panel at Astuvansalmi, Mikkeli (Ristiina). Retouched photo: Ville Mantere.

5.6 The rock carvings at Kanozero, Russia



Figure 71. Map showing the location of the Kanozero rock carvings on the Kola Peninsula. Map: Ville Mantere/NatGeo MapMaker.

The rock carvings located at Lake Kanozero on the Kola Peninsula (Figure 71) were discovered as recently as 1997. Despite their remoteness, the sites had been visited by numerous people – including Gustaf Hallström – before the actual carvings were noticed (Likhachev 2011: 9; 2018: 54–61). At present, more than 1400 carvings are known from Lake Kanozero (Likhachev 2021a: 146). The petroglyphs are found on three islands – Kamennyi, Elovyi, Gorelyi – and on a single rock boulder (Odinokaya), situated on the eastern lakeshore (Kolpakov & Shumkin 2012a: 16–26; for recent discoveries, see Likhachev 2020; 2021b; 2021c).

The Kanozero carvings are found in groups, usually consisting of a few or some dozens of figures (Kolpakov & Shumkin 2012a: 28). There is, however, one notable exception: known as the group Kamennyi-7 (Figure 72). This concentration comprises of more than 600 carvings, which thus account for almost half of all figures discovered at Kanozero. Moreover, Kamennyi-7 contains several superimpositions, as well as

many distinctive figures and scenes that are not found in other groups, suggesting that this location was of special importance to the rock artists of the region (Kolpakov & Shumkin 2012a: 57–62).

Excluding indefinable and fragmented images, boats constitute the most common category of motifs at Kanozero, accounting for approximately 22% of the total amount of identifiable images. Almost as common (21%) are various animal footprints and imprints of skis and snowshoes. The third largest group consists of anthropomorphic figures (16%), followed by zoomorphic figures (14%) and ichthyomorphic images (9%). Other motifs include abstract figures (9%), cup-marks (8%) and ornithomorphic figures (Kolpakov & Shumkin 2012a: 315).

Almost half of the identifiable animal figures at Kanozero depict elks. Deer figures are also rather common, constituting about one quarter of the animal figures, whereas other animals occur only once or a few times (Kolpakov & Shumkin 2012a: 301, tab. 2). The majority of the ichthyomorphs depict whales, and there are more than 30 compositions at Kanozero depicting whale hunting from boats. Largely analogous sea hunting depictions are found in the Vyg River rock art (Kolpakov & Shumkin 2012a: 319, 332–335). At Kanozero there are also depictions of other animals – including elks, beavers, a bear, a crane, and a seal – being hunted from boats. In addition, there are scenes of elks and deer being hunted on land, and two multifaceted scenes depicting winter (bear?) hunting taking place on skis and snowshoes respectively (Kolpakov & Shumkin 2012a: 321–324; Likhachev 2022: 143–149; 2023: 78–82). In other words, *the imagery in the Kanozero rock art is closely connected to hunting, especially that of a marine nature.*

Besides their resemblance to the rock art at Vyg River, the Kanozero petroglyphs also exhibit similarities to the rock carvings at Čalmn-Varrè, Onega and Alta, but at these sites the connections are mainly restricted to specific motifs and/or compositions (cf. Kolpakov et al. 2018: 108–111). At Vyg, however, the overall appearance of the rock art is without doubt closest to that of Kanozero (see Kolpakov & Shumkin 2012a: 332–347). Notwithstanding the

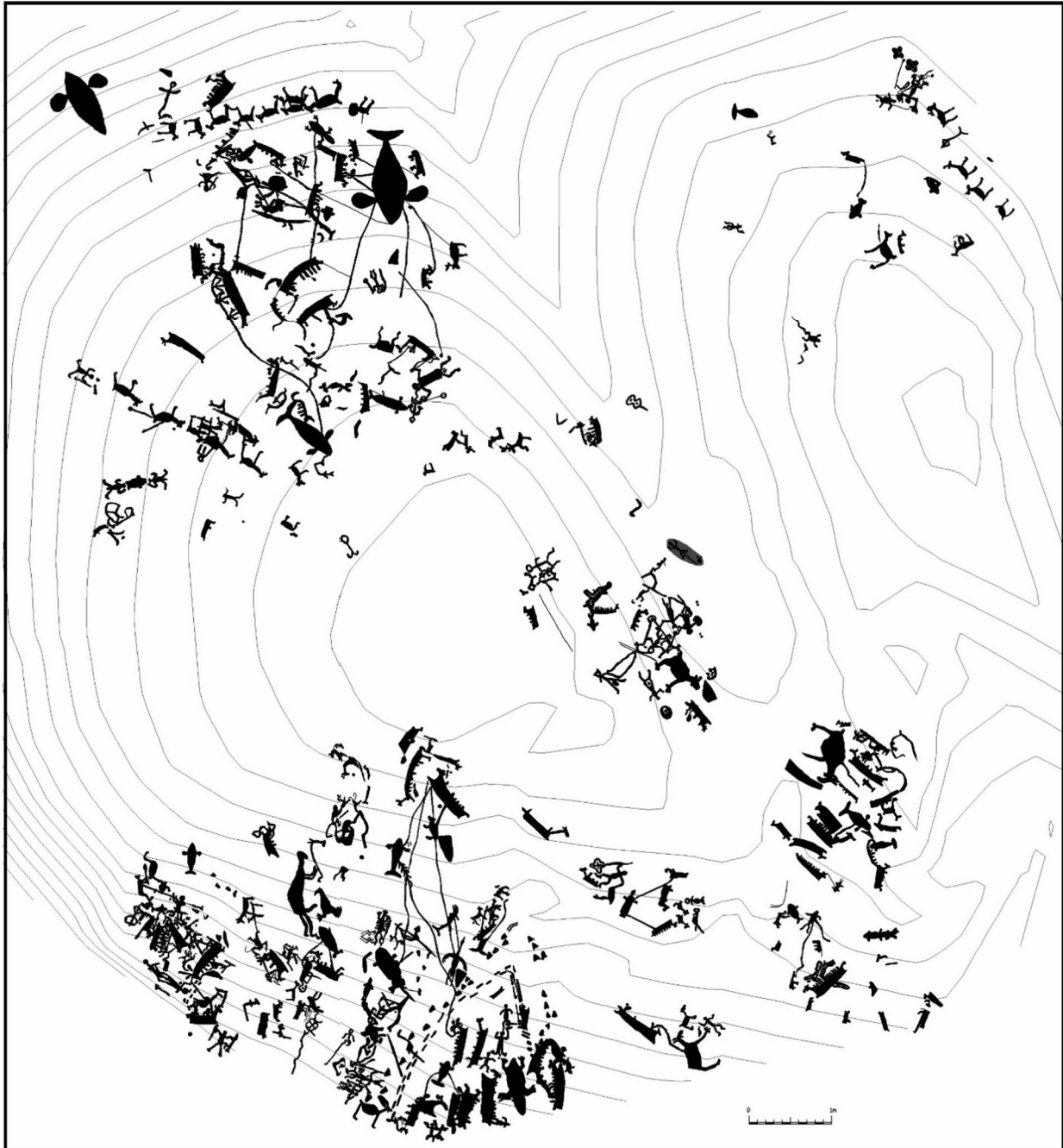


Figure 72. Kamennyi-7 panel in Kanozero. Tracing from: <https://web.archive.org/web/20070928180101/http://kae.rekvizit.ru/kan/kanintr.htm#k7>.

similarities to other rock art sites, the Kanozero petroglyphs differ in many ways from rock carvings at other locations and undoubtedly have a unique character.

Virtually all of the figures in Kanozero rock art are made in the scooped-out style. The only exceptions to this rule are some sporadic

images such as wheels or imprints of snowshoes, and certain figural parts, such as the bellies of pregnant anthropomorphs (Kolpakov & Shumkin 2012a: 344). These rare outline figures have clearly been depicted to signify in detail what the figures in question are representing.

5.6.1 Dating

Even if Lake Kanozero is connected to the White Sea through the Uмба River (Figure 71), it seems that it was already a freshwater lake during the Holocene, and not a sea gulf (see Kolpakov et al. 2008: 86; Kolpakov & Shumkin 2012a: 14 and cited references). The dating of the Kanozero petroglyphs is problematic, not only because of the fact that the carvings cannot be dated on the basis of the shoreline chronology, but also because erosion and several superimpositions indicate that carvings were made at the site at different periods (see Gjerde 2010: 327–328 and cited references; Kolpakov & Shumkin 2012a: 348).

Typological analogies between the Kanozero carvings and the Vyg petroglyphs, together with cultural similarities to the Bolshoy Oleniy Ostrov burial ground (also known as Kola Olenostrovskiy, hereafter referred to as BOO), have led Kolpakov and Shumkin (2012a: 348) to propose a broad dating for the Kanozero rock art from the 4th millennium to the 2nd millennium calBC. This also largely agrees with Gjerde's (2010: 332) view, according to which the earliest petroglyphs date approximately to 3700 calBC (see also Gjerde 2019a: 24). In his opinion, however, the latest carvings may be only a few centuries old.

During an expedition in 2018, various artefacts, including ceramic fragments and remains of tools used for making petroglyphs, were discovered. These finds have been dated back to around 6000 BP, and the probable age of the Kanozero carvings thus seems to be the 4th millennium calBC.¹⁸⁷ It goes without saying, however, that more studies are needed to ascertain the age of the different carving phases at Kanozero. For this reason, *I regard the broad period 4000–2000 calBC as the most probable timeframe for the elk depictions found at Kanozero.*

5.6.2 Elks in the rock art of Kanozero

The elk figures in the Kanozero rock art are rather evenly distributed and occur on all panels that contain many images. All of the elk figures

are made in the scooped-out style.¹⁸⁸ All elks are depicted without antlers, in contrast to deer figures, which are portrayed with antlers (Kolpakov & Shumkin 2012a: 344). Unlike the elk depictions made at many other rock art sites, the Kanozero elks have as a rule not been portrayed with V-shaped ears, but with parallel ears. This can, according to Kolpakov and Shumkin (2012a: 344), be regarded as a feature characteristic to Kanozero.

Some of the elk figures have the hoofs, or toes, marked out (Figure 73). The hoofs probably encompassed some widely-recognized connotations, since, as seen above, these are marked out in many of the elk depictions from Alta and Nämforsen as well. Presumably, the special meaning associated with the hoofs was, at least at Kanozero, particularly related to the elk, because here the hoofs or toes are marked out only on elk figures but not on those of deer (Kolpakov & Shumkin 2012a: 299). Interestingly, however, there seems for some reason to be no unambiguous elk footprints depicted at Kanozero, even though numerous tracks of deer, bears and humans can be found in the rock art (Kolpakov & Shumkin 2012a: 310–311).

Stylistically, the Kanozero elks are rather distinct when compared to elk depictions at other northern hunter-gatherer rock art sites. In the main, elk (and deer) figures at Kanozero resemble those found at Vyg and Onega, but in their details they are clearly dissimilar (Kolpakov & Shumkin 2012a: 334, 338). However, as Kolpakov and Shumkin (2012a: 337, 347) point out, some four-legged animal figures from the Elovyyi Island (of which at least one can rather certainly be interpreted as an elk) bear a clear resemblance to the cervid figures depicted at the rock art site of Čalmn-Varrè, located beside the Ponoj River on the Kola Peninsula, some 150 km east of Kanozero (see Gurina 2005: 17–46; Kolpakov et al. 2018: 102–103; Likhachev 2021b: 84).

¹⁸⁷ <http://tass.com/science/1010138>, accessed on 2.10.2018.

¹⁸⁸ The only possible exception is a figure on Kamennyi-7 that appears to represent an elk figure with a largely exaggerated back, made in the outline style (Figure 73.30). However, this figure is so unlike the other elk depictions at Kanozero that it is possible that the figure does not actually represent an elk but is a remnant of some other motif.

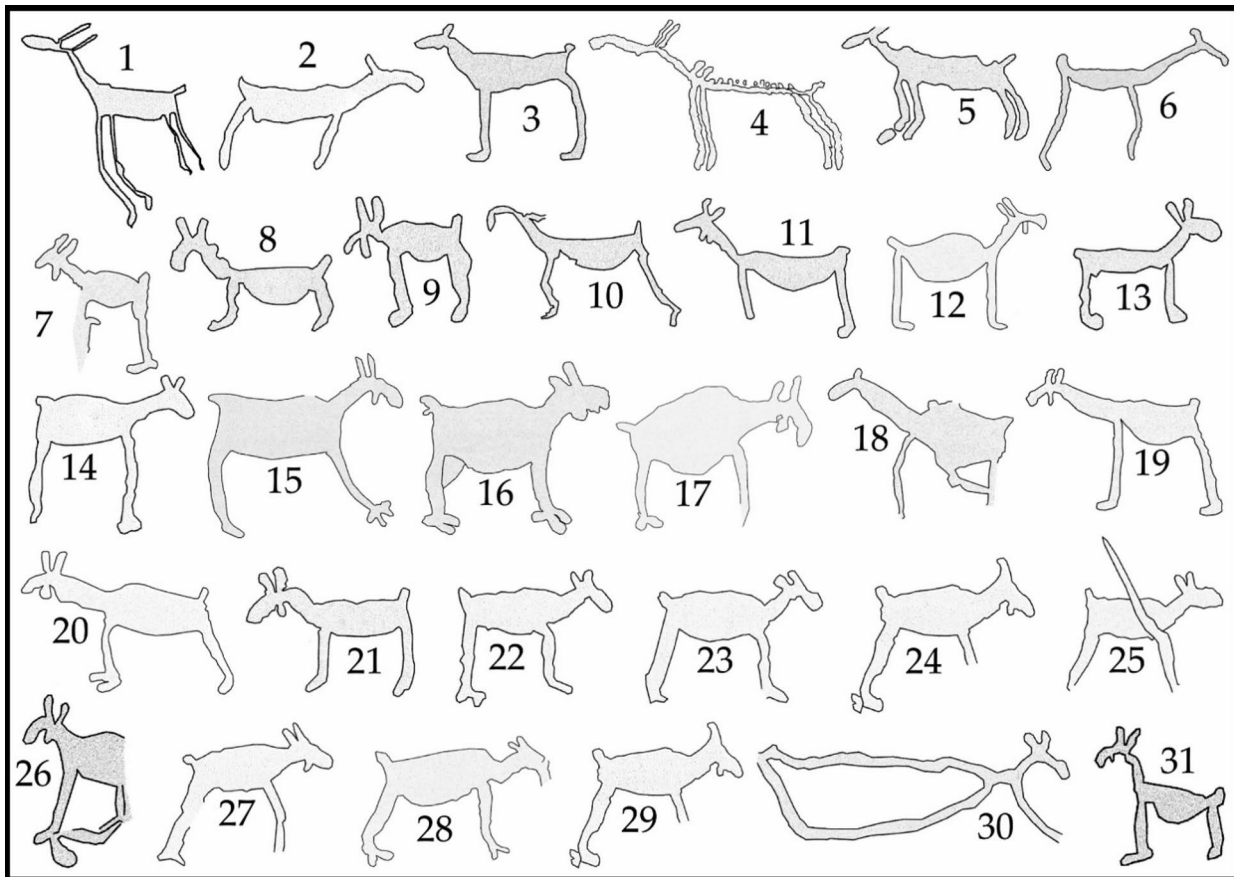


Figure 73. Elk depictions in the Kanozero rock art. 1. Elovyi-4; 2. Elovyi-3; 3. Elovyi-1; 4. Elovyi-2; 5. Elovyi-6; 6. Gorolyi-2; 7. Kamennyi-7; 8–9. Kamennyi-3; 10. Kamennyi-6; 11. Kamennyi-3; 12–30. Kamennyi-7; 31. Odinokaya. Tracings from Kolpakov & Shumkin 2012. Compilation: Ville Mantere. Not to scale.

Ascertaining the animal species depicted in the Kanozero rock art is in most cases difficult or downright impossible. Differences between elk and reindeer depictions are often ambiguous, and in many cases the zoomorphic figures could also represent dogs or wolves (Kolpakov & Shumkin 2012a: 298–301, 331; cf. Skandfer 2020: 123–124). Yet, according to Kolpakov and Shumkin (2012a: 299), there are altogether 21 figures that have been depicted with dewlaps. It seems reasonable to interpret these as depictions of elks, even if some of the figures are otherwise rather abstract in appearance. In addition, the authors recognize seven animal figures that lack a dewlap, but which nevertheless can be regarded as probable elk figures because of the style of their depiction. As a result of new discoveries made in recent years (e.g. Likhachev 2021b: 84), my estimation is that currently around 40 elk depictions are present within the rock art from Kanozero.

As regards compositions at Kanozero, there are four scenes in which elks are being hunted from boats (Figure 16). These scenes, along with

the depictions of beaver hunting taking place from boats, lack parallels in northern rock art (Kolpakov & Shumkin 2012a: 322, 346; Kolpakov 2020a: 65–69). Only a couple of scenes are known in which elks are hunted on land (e.g. Likhachev 2021b: 80). While some of these seem to depict elk hunting with bows (Likhachev 2022: 144; 2023: 78–81), one composition depicts a string of elks, with the animals apparently being hunted with spears (Figure 74). One of the elks appears to have been struck with two spears that have rings at their ends. At Kanozero there are at least three depictions of anthropomorphs holding such a weapon in each hand, and analogous images are also found at Nämforsen and Onega (see Kolpakov & Shumkin 2012a: 297, 342, 345).

As mentioned previously with regard to ancient elk hunting methods, ski poles are known to have been used as killing weapons by hunters that had tracked down elks on skis. It is therefore conceivable that at least some of the enigmatic rod-shaped weapons depicted at Kanozero could actually be depictions of hunting spears

that also were used as ski poles. At least, such an understanding would accord fittingly with the notion of “strategic” hunting, since an elk hunter moving on skis (or snowshoes) would always

have had two spears literally at hand. There is, moreover, no reason why this amalgamation of a ski pole and a spear could not have been used throughout the year.



Figure 74. A string of elks being hunted on Kamennyi-7 at Kanozero. Tracing from: <http://kae.rekvizit.ru/kan/kanintr.htm>. Not to scale.

In addition to the aforementioned scene showing a row of elks being hunted, there is another depiction of a row of elks, albeit in this case there are no humans or signs of hunting connected to the scene (Kolpakov & Shumkin 2012a: 325). The two foremost elks in the row are depicted at a 90-degree angle in relation to the rest of the animals. Two of the elks have also been depicted one on top of the other, as if mating, and the head of the last elk has an abnormal shape, suggesting that the string may depict something else than purely a row of elks as encountered in the wild (Figure 75).

While this cannot be taken as proof that the area was also inhabited by elks in prehistoric times, it nevertheless indicates that the region is favourable to elks, suggesting that these may also have inhabited it at the time when the petroglyphs were made.

It should be mentioned, though, that large accumulations of elks have in our day been encountered beside Lake Kanozero – especially on its eastern shore, where the carvings are located – during their seasonal migrations across the Kola Peninsula (Makarova 1996: 78–83).

As in eastern Norway, Finland and Nämforsen, images were thus likely made on rocks within the elks’ “own” habitat. The large quantity of images at Kanozero, however, indicates that this site – and especially the Kamennyi-7 panel – was of unusual importance to the rock artists themselves as well. This aspect links Kanozero to other large rock art concentrations, such as those in Alta and Nämforsen, even if these include an even larger number of figures. It seems probable that the function of the sites was therefore to some degree comparable.



Figure 75. A string of elks on Kamennyi-7 at Kanozero. Tracing from: <http://kae.rekvizit.ru/kan/kanintr.htm#k7>. Not to scale.

When Meinander (1979) wrote his thought-provoking article about innovation centres in the arctic, the Kanozero rock carvings had not yet been discovered, nor had the magnitude of the Alta rock art been fully recognized. However, there can be little doubt that Meinander (1979: 91) would have interpreted the Kanozero and Alta sites in a similar light to those of Vyg and Nämforsen, which he saw as probable meeting

places.¹⁸⁹ At all of these sites, archaeological findings made in vicinity of the carvings include various evidence of prevalent human activity. This indicates that, unlike the majority of smaller rock art sites, these larger concentrations of rock

¹⁸⁹ To be precise, Meinander (1979: 91–92) took Vyg as an “arctic” innovation centre and saw Nämforsen in a similar light but did not designate the latter with the same label because of its southerly location.

art were places where people spent time. It is of course impossible to ascertain whether they actually served as meeting places for people from different regions, but the characteristic imagery at these locations points to this possibility.

As Hallström (1960: 317) and Meinander (1979: 91) noted, for instance, images of elk-head boats at Nämforsen are so similar to those found at Lake Onega and Vyg River that they strongly suggest contacts between the regions.¹⁹⁰ As the material evidence has accumulated, there are today even more grounds to support the idea that the large rock art sites were “nodes in the landscape” where people from different areas met (see Gjerde 2018: 217–220; cf. Hood 1988: 79). The fact that depictions of elk-head staffs or explicit elk hunting scenes, for example, are predominant at large rock art sites like Alta and Kanozero but are rarely found at the smaller rock art sites seems to support the idea that there were some commonly acknowledged principles as to the imagery and function of certain sites. This may be explained namely by the fact that the rock art at these places resulted from meetings that took place between various hunter-gatherer populations, in which “[g]oods and gifts were exchanged, ideas, words and folklore were taught and learned” (Meinander 1979: 93).

Indeed, even though Kolpakov (2020b: 201) has recently argued that “differences between sites and traditions are too significant to suggest that creators at different sites across Northern Fennoscandia were influenced by one another”, there are many, myself included, who take a different standpoint (see e.g. Gjerde 2018: 217; 2019a: 19). As Damm (2020: 79, 81) argues, the Kanozero carvings are, just like the other large rock art concentrations, located in a transitional zone between inland territories and important bodies of water. Even though the transitional character of Kanozero is not as evident as that of Alta and Nämforsen, I still concur with Gjerde (2010: 411) and Damm (2020: 79) that Kanozero’s liminal location itself also supports the view that it served as a meeting place. While the carvings seem to have been made in a freshwater setting and contain various terrestrial themes, the

prevalence of scenes illustrating maritime hunting strongly speaks in favour of habitual seafaring. The plethora of large and uniform boat figures at Kanozero (Figure 117) likewise indicates that their makers did certainly not live in isolation from other human populations. Gjerde (2010: 336) even goes on to argue that Kanozero “was a place where people gathered to exchange information through the year, and there would always be people passing by and stopping at Kanozero”.

However, while I concur with Gjerde (2010: 409) that gatherings could take place at the large rock art sites on an annual basis, or perhaps even at multiple times within a year, I do not share his view that “there were always people at the large rock art areas like Alta, Nämforsen, Kanozero and Vyg; hence, here one would always meet people”. Instead, I am rather disposed to concur with scholars such as Meinander (1979: 92) and Ramqvist (2002b: 155; 2005: 105), who have argued that despite intense long-term settlement, the occupation of such sites was not permanent but seasonal (see, however, Käck 2009). Even though large meetings could in theory have taken place on skis in wintertime (cf. Käck 2009: 191–192; Gjerde 2010: 412), it seems more probable that people travelled between the locations first and foremost by boat (Gjerde 2010: 410–416). The Kanozero carvings, at least, were most probably made before the onset of the winter snows, even if they do include depictions of skis and snowshoes (see, however, Gjerde 2020b: 101–102). One should also bear in mind that in winter there are only a couple of hours of daylight at Kanozero.

As Damm (2020: 82) notices, it seems evident that the rock art produced at such large sites did not constitute “esoteric knowledge” but was instead “known by all who lived and frequently visited the areas”. This is perhaps also reflected in the size and placement of the carvings. These would probably not have been visible from afar like the polished rock art figures in Nordland or painted cliffs discovered in Finland. At places like Kanozero, by contrast, the spectator would already have known what to expect. In a way, one could perhaps even speak of two opposing phenomena. At the large rock art concentrations, the aim was to encourage people to congregate, whereas many of the smaller rock art sites were

¹⁹⁰ As Gjerde (2018: 217) recounts, however, Tilley (1991: 13) did not concur with the hypothesis that a connection existed between Nämforsen and Russia during the period of study.

made in order to repel humans (and perhaps attract animals). To oversimplify the matter, *large rock art centres were made with humans in mind, while smaller rock art sites were created with animals in mind.*

Fuglestad (2018: 370) suggests that meetings at the large rock art sites were organized by so-called “big men”, who themselves became depicted on the rocks and whose task was to act as “aggrandizers”. I will discuss the concept of big (wo)men later in this study, but it is worth noting here that another function that presumably was linked to these individuals was their control of, or access to, certain artefact categories such as the elk-head boats and elk-head staffs (cf. Glørstad 2010: 195–196). What supports this view is the fact that depictions of both of these elk-related motifs are predominantly limited to the large rock art localities (see Chapter 6). As I will set out in the following chapters, the big (wo)men gained noticeable status within their societies as supreme hunters. In the course of time, these individuals – carrying elk-headed staffs and travelling in elk-headed boats – became to be considered as mythical ancestors by later populations visiting the rock art sites.

If we thus accept the idea that places such as Kanozero served as meeting places, an obvious and important question that follows is what exactly took place at these meetings. Bolin (2010: 31–33) regards the large rock art sites as “ceremonial centres” where people from different areas gathered and transmitted narratives that were centred around creation myths. In the light of Australian ethnography, he suggests that the rock art was probably used for memorizing, initiating, and transferring “sacred knowledge” from one generation to another, and the creation of the rock art figures was presumably associated with rituals (Bolin 2010: 29–31). This understanding may well hold true, and the idea of ancestral creation myths partly overlaps with my suggestion that the human figures depicted in rock art became over time regarded as mythical forefathers (cf. Hays-Gilpin 2019: 99). However, there are a number of other feasible reasons for the meetings that can likewise be proposed, such as exogamy or exchange trade (cf. Meinander 1979: 93). Perhaps, as Helskog (2020: 45) suggests, rituals were also carried out in

order to create and reinforce social alliances between different groups.

Ultimately, it is impossible to know the fundamental reasons that lay behind the prehistoric meetings, but again, we should not forget the importance of lifestyle as the uniting link between the hunter-gatherer groups that inhabited different regions of Northern Europe. Thus, it is most reasonable to assume that *when hunter-gatherers met each other, aspects related to the hunter-gatherer lifestyle epitomized such gatherings.* As Skandfer (2020: 125) rightly points out, “[H]unting knowledge must have been shared within communities and between generations” and this probably took place through various activities (see also Brandišauskas 2017: 245–246). She furthermore concludes that “[M]aking and using rock carvings could have been one of those activities, rooted in the observation of, learning from and appreciation of animals” (Skandfer 2020: 125). I definitely concur with Skandfer’s notions, and while she does not explicitly associate the sharing of hunting knowledge with meetings at the large rock art concentrations, this remains in my opinion the most probable explanation for the fact that clear-cut hunting depictions are found at the largest rock art sites.

Following from this, the depictions of elk hunting by boats at Kanozero are not necessarily reflections of ancestral “sacred knowledge” but rather of hunting knowledge that was transmitted from one or several groups to another. Yet, as Günther (2022: 38) writes of traditional knowledge: “[t]o know is to be attentive to the relations within the ecological community and the communication going on, but knowledge is also dreamed and contemplated. It is talked about and put into perspective by the experience of others – those of the present and those of the past”. Thus, it would be simplistic to claim that the images at Kanozero were produced merely in order to demonstrate, for example, how elk hunting from boats was carried out. Most probably, the images and their production carried multiple connotations, all of which are beyond our reach. Similarly, we can only speculate upon whether the representations were made by the people inhabiting the Kanozero region, by faraway visitors who introduced novel ideas to the local

population – or perhaps by both of these. Nonetheless, it seems obvious that figures such as the above-mentioned hunting spears with ring-shaped ends would not have been depicted on rocks at Kanozero, Nämforsen and Onega if no connection existed between these regions.

Having now examined the elk motif in northern rock art by means of six case studies, let us sum up the central points of discussion from this chapter and consider what these can tell us about the elk's role in northern rock art more generally.

5.7 The elk motif in the rock art of Northern Europe – a summary

Table 4. Summary of the six case study areas with elk figures.

Rock art region	Central Nordland	Eastern Norway	Alta	Nämforsen	Finland	Kanozero
General date for the rock art	9250–7500 calBC	6000–4800 calBC	5000–0 calBC	5000–1000 calBC	5000–1500 calBC	4000–1000 calBC
Main period for elk figures	9250–7500 calBC	6000–4800 calBC	4800–3700 calBC	5000–4000 calBC	3600–2500 calBC	4000–2000 calBC
Technique	Polished	Carved	Carved	Carved	Painted	Carved
Style	Outline	Various	Various	Various	Various	Scooped-out
Total number of figures	c. 100	c. 150	c. 7000	c. 2600	c. 800	c. 1400
Number of elk figures	c. 17	c. 100	c. 220	c. 900	c. 230	c. 40
Percentage of elk figures	c. 15–20%	c. 60–70%	c. 3–5%	c. 30–40%	c. 25–30%	c. 3–10%
Elks interacting with humans	No	No (?)	Yes	Yes	Yes	Yes
Elks with antlers	No (?)	Yes	Yes	Yes	No (?)	No
Location of the rock art	Coastal sites	Close to water	Coastal sites	River/fjord	Lakesides	Lakeside
Characteristic feature(s)	Large-size animals	Inner designs	Periodization	Accumulated figures	Striking locations	Hunting scenes
Main interpretation for the elk depictions	Signifying human presence and respect towards animals	Aimed at assuring access to huntable elks	Focus on animal individuals	Compositions evolved over time	Made for foreign groups to signify human-elk relationships	Resulting from the exchange of ideas

To encapsulate the data presented in this chapter, I have created a table that summarizes the dates of the case study sites and notes some of the key aspects that are related to the elk motif at these locations (Table 4). As can easily be seen, the elk has been a species of significance in the northern rock art for a period of more than seven millennia, from the Early Mesolithic to the beginning of the Early Bronze Age. However, equally noticeable in the table is the wide range of the proposed datings. Indeed, one cannot disregard the fact that there is, unfortunately, a notable margin of error linked to all the rock art sites and phases discussed in this chapter with

reference to their exact age. Inevitably, this has a major effect on attempts to accurately determine the changes that have taken place in northern rock art over time.

While they remain a more or less significant motif at all sites studied, in terms of prevalence, it is only in eastern Norway that elk depictions constitute more than half of the total amount of rock art figures. Individual rock art sites exist both in eastern Norway and in Finland where only elks have been portrayed, but usually the elk depictions are found on panels and at sites where they occur alongside other motifs. From a geographical perspective, it is not surprising that

the case study sites with the largest proportion of elk figures – eastern Norway, Finland and Nämforsen – are located in the southern and central parts of the region of study. To be sure, it seems rational that at sites located further north, and at which the imagery is moreover associated with maritime elements, the elk as a species was overall not as important as it was in the south. This is, for instance, well reflected in the rock art of Alta, where a large quantity of elk depictions are known, but these are nevertheless inferior in number to those of reindeer.

A common characteristic of many individual rock art sites with elk depictions is that these are located at prominent places within the landscape. This seems not only to be the case for sites with elk depictions, but for sites with other motifs also, especially in Finland. Besides rock art figures, various spatial aspects were frequently used to catch the eye of the viewer. Images were made on prominent cliffs, along water routes, in places with special acoustics, and next to anthropomorphic cliffs. All of these features suggest that *the rock art locations were not chosen haphazardly but with the intention of attracting attention and conveying information*. As I have stressed, it thus seems unlikely that the rock artists would have produced rock art simply for their own enjoyment. Instead, the images were probably often intended to signal to foreign groups that they had entered a territory that was already occupied. This does, of course, not exclude the possibility that rock art may have possessed additional connotations. For example, I also believe that the creation of *elk* depictions was a way of expressing respect and gratitude for the relationship that existed between the rock artists and this species. In other words, depictions of elk could also be intended to be seen by the animals themselves.

It should be pointed out, however, that a fundamental difference seems to have existed between the “ordinary” rock art sites that constitute the vast majority of northern rock art, and the few large rock art “concentrations”, such as in Alta, Nämforsen and Kanozero (cf. Sognnes 2002: 198–199, 209). This difference is not only epitomized by the sheer number of figures, but also in several other ways. For instance, the largest rock art sites are associated first and foremost with a process of accumulation. Likewise, large rock art

concentrations are typically linked to settlements and other signs of human occupation. Their imagery, too, is in several respects different from that of smaller sites. As regards the elk motif in particular, the clearest difference seems to relate to depictions of hunting. As a rule, the (more or less) clear elk-hunting scenes were depicted at large rock art concentrations and not at “ordinary” rock art sites.

To be sure, these and other dissimilarities between the small and large rock art locations suggest that their functions differed. My understanding is that *the figures made at sites with large rock art concentrations relate to the exchange of ideas and techniques between different populations*. The smaller rock art sites, in turn, are so numerous and varied that it would be fallacious to force them under a single interpretation. Nevertheless, I believe that *many of the smaller rock art sites with elk depictions were made in order to announce the occupation in the landscape, with the underlying intention of assuring access to elks for the resident population*.

Importantly, however, as Günther (2022: 141) has recently emphasized, function is not synonymous with motivation. Thus, even if the *function* of large and small rock art sites varied, this is not to say that the underlying *motivations* for making images at these sites were necessarily different. On an existential level, it is probably no overstatement to say that *elk images were made at different kinds of rock art localities due to a shared concern for the relationship between humans and elks*. The importance of this profoundly significant relationship was, in turn, ultimately rooted in the human population’s dependence on the elk. “To be dependent on other creatures for sustaining life, not just through another winter but forever,” Günther (2022: 141) writes, “is an existence permeated by an insight about the vulnerability and limitations of human life and that it is ultimately dependant on others, fundamentally prey animals”.

As regards style, the elk depictions in northern rock art exhibit a considerable variety when perceived from a long-term perspective (see e.g. Sognnes 2007). Over the course of the entire period of study, elks are depicted both in a highly naturalistic manner and by means of heavily stylized representations. Such variations can be observed for instance in Alta, where

naturalistic and stylized images are found at similar elevations. As Helskog (1989: 101) has suggested, a stylistic variety within a single period is moreover probably not unique to Alta but also holds true for hunter-gatherer rock art more generally.

Thus, as Goldhahn (2018: 55–57) stresses, there seems not to be any firm grounds for the assumption traditionally favoured by rock art researchers concerning a straightforward evolution from naturalistic to stylized depictions in northern rock art (see e.g. Helskog 1989: 88; Fuglestedt 2018: 180 and cited references). However, as Fuglestedt (2018: 181, 255) points out, within the Mesolithic period, such a shift in style seems to occur to some degree, even if this development cannot be equated with evolutionism or “degeneration”, as some early scholars would argue (see Fuglestedt 2018: 182 and cited references). Undeniably, the earliest Early Mesolithic rock art consists of depictions of large animals that can be regarded as “naturalistic”, and towards the end of the Mesolithic era, images were increasingly made in a large variety of styles, both naturalistic and stylized.

Another feature that distinguishes the Late Mesolithic rock art from earlier petroglyphs is that it began to include depictions of large animal herds. According to Fuglestedt (2018: 104–106), such herds constitute a “key moteme” for the Late Mesolithic population, whose “mind was obsessed with herds”. As regards elk figures, however, this notion is somewhat exaggerated. It is true that compositions with numerous elk figures are found for instance in Alta and at Nämforsen, but as we have seen, these animals are often very diverse in terms of their size, orientation, and depiction style. On this point, the “elk herds” differ significantly from deer and reindeer herds, which commonly consist of more or less identically sized animals, made in a uniform style and oriented in the same direction. This is by no means surprising, given that the latter animals are gregarious by nature, whereas elks are solitary animals that congregate only rarely.

In Fuglestedt’s (2018: 114) view, depictions of elk concentrations serve to illustrate the infrequent occasions on which the animals tend to gather: during the autumn rut or in their winter habitats. However, especially at sites with large

concentrations of rock art, many of the alleged “herds” are in fact the result of a series of solitary elk figures being produced over a longer period. In addition, the focus of the panels seems to be on the individual *differences* between the animals, rather than on their similarities (cf. Skandfer 2020: 119). Undeniably, there are some depictions of groups of elks in northern rock art, which in all probability refer to “natural” concentrations of elks. However, the general occurrence of such scenes is certainly not so frequent that one could speak of any evident focus shift from depictions of single elks to elk herds, or of a Late Mesolithic “obsession” with the latter.

With regard to this question, an obvious problem is the scarcity of rock art sites reliably dated prior to the Late Mesolithic period. At the moment, our understanding of Early Mesolithic rock art relies solely on sites within a limited area of central Nordland, and there are obvious risks in using these few sites for making generalizations about the earliest forms of rock art as a whole. Indeed, if, or when, new sites of Early Mesolithic date will be discovered, these will undoubtedly broaden our understanding of the imagery and style of the rock art of this period. In fact, the newly discovered boat figures at Valle (section 5.1) serve as examples of figures that already contradict what had been a general consensus amongst scholars, according to which the earliest rock art images consisted only of naturalistic animal representations.

At this moment in time, however, the concept of a certain development during the Mesolithic period seems to hold for the elk motif. During the Late Mesolithic, the convention of making large, more or less naturalistic animals in the outline style was changed. In the course of this period, elk figures began to be produced in a variety of styles, including depictions with different kinds of body patterns. On this point, I regard the Utenga carvings (Figure 35) as constituting a significant link between the Early Mesolithic tradition and Late Mesolithic rock art.

However, it is also important to bear in mind that in the rock art of Northern Europe there is a gap of approximately 1500 years – between 7500 and 6000 calBC – during which, it appears, no elk depictions whatsoever were produced (Table 4). This is simply the result of a lack of rock art sites firmly dated to this period. As Gjerde re-

counts, there are a number of sites with elk representations, such as Gärde in Sweden, Skavberget near Tromsø and some painting localities in central Norway, which could potentially date back to this period, but the age of these sites is highly debated (Gjerde 2010: 387–391 and cited references).¹⁹¹ For this reason, it has not been possible to examine the evolution of changes related to the elk motif without interruption, and it can only be hoped that sites with unquestionably mid-Mesolithic dates could be discussed in upcoming studies.¹⁹²

The most significant change related to the elk motif in northern rock art lies in the interaction between elk figures and anthropomorphic representations. Human depictions are absent from the polished rock art tradition, and the few humans depicted in eastern Norwegian rock art can hardly be regarded as interacting with the elk figures near them. We can only speculate on the reasons for which human figures are lacking, but the most probable explanation is that the rock art served a function that was not dependant on the depiction of human figures. However, from around 5500–5000 calBC onwards, this situation changed. Elks began to be depicted interacting with humans, for instance at the case study sites of Nämforsen and Alta (Period II). Moreover, it is roughly at this time that northern rock art starts to depict clearly evident scenes and compositions.

A number of other significant changes also take place in the rock art at around 5500–5000 calBC. Gjerde (2010: 394–401) has termed this period a “rock art explosion”, manifested by a remarkable increase in motifs and rock art sites all over northern Fennoscandia. Whether the reasons behind this change are to be found in the arrival of a new population, or in some other factors, is a matter that falls outside the scope of this study. It should be emphasized, however, that this is also the period in which the earliest figures were made at the sites with large rock art concentrations. It is therefore possible that it was these large rock art sites specifically that acted as

“innovation centres” (see above) from which the innovations noted above – such as the manner of depicting humans in rock art – spread across northern Fennoscandia.

The changes related to the elk motif at around 5500–5000 calBC can, in other words, be understood within a broader framework, in which the overall character of the rock art fundamentally changes. Against this background, however, the shift back to “naturalism” in Period III in Alta is thought-provoking, and clearly speaks against a linear development of the elk motif there. Similarly, in Finnish rock art there are sites made after 5000 calBC where elk figures appear independently, without any connection to human figures. Thus, the evidence for a “rock art explosion” is not straightforward. Regional differences existed, and feasibly the function and meaning of the elk motif differed at large and at small sites, as well as at painted and at carved sites (cf. Ramqvist 2005: 104–105).

Overall, however, I agree with Gjerde (2010: 401) that the changes that took place in the rock art at around 5500–5000 calBC were common to all of (northern) Fennoscandia. With reference to the elk motif, its interaction with depictions of humans was the primary but not the only change that took place. The size of the elk figures became smaller, and elks came to be more explicitly depicted in different kinds of scenes and compositions, in which the animals were interacting with other, not just human, figures.

In terms of depiction style, a large variation can be observed over time, and on this point, too, various regional differences can easily be discerned (Table 5). From a broader perspective, the polished outline figures constitute the clearest tradition that can be defined chronologically. Other styles of depiction were, by contrast, more long-lasting and difficult to associate with specific periods, aside from at single sites. For instance, it seems that the scooped-out style was abandoned more or less simultaneously in Alta (Period III) and at Nämforsen (Period II) (Fuglestad 2018: 167, 256). However, while it would be tempting to draw far-reaching conclusions as to what kind of factors might have triggered these changes, one cannot ignore the fact that the Kanozero rock art follows a completely different pattern. Here, all elks are depicted in the scooped-out style.

¹⁹¹ As Helskog (2020: 52–54) notes, it cannot be totally ruled out that the rock carvings at Slettnes and some of the petroglyphs in Alta, too, could be of mid-Mesolithic origin, even though this seems unlikely.

¹⁹² I concur, however, with Gjerde (2010: 387) that the depictions of elks at the said localities would stylistically fit within this scheme as they possess features that are characteristic both to the polished figures and to the later rock carvings.

Table 5. Chronological scheme of the study sites with reference to the different carving periods in Alta and Nämforsen. Abbreviations: C.N. = central Nordland; E.N. = eastern Norway; A. = Alta; N. = Nämforsen; K. = Kanozero; F. = Finland; Elks + humans = elks interacting with anthropomorphic figures; Outl. = outline figures; Sc. out = scooped-out figures; Var. = various (both outline and scooped-out figures); Pol. = polished figures; Carv. = carved figures; Paint. = painted figures.

Site	C. N.	E. N.	A. (I)	N. (I)	A. (II)	A. (III)	N. (II)	A. (IV)	F.	K.	N. (III)
Date	9250–	6000–	5000–	5000–	4800–	4200–	4000–	3600–	3600–	4000–	3300–
calBC	7500	4800	4800	4000	4200	3700	3300	3200	2500	2000	1800
Style	Outl.	Outl.	Outl.	Sc. out	Var.	Outl.	Var.	Outl.	Var.	Sc. out	Outl.
Technique	Pol.	Carv.	Carv.	Carv.	Carv.	Carv.	Carv.	Carv.	Paint.	Carv.	Carv.
Inner designs	No	Yes	Yes	No	Yes	Rare	Yes	Yes	Rare	No	No
Elks + humans	No	No (?)	No	Yes	Yes	No	Yes	No (?)	Yes	Yes	Yes
Elks with antlers	No	Yes	No	Yes	Yes	No (?)	Yes	No	No (?)	No	Yes

In other words, it looks as if different styles were preferred in different regions and eras, irrespective of each other. It follows that the scooped-out and outline depiction styles cannot be universally used as chronological markers. Moreover, sometimes the overall character of the rock art site dictated how the elk motif was to be depicted. At Kanozero, for example, all petroglyphs are produced in the scooped-out style, and it would surely be surprising if the elk depictions had constituted an exception. At certain sites, different styles of portraying elks also seem to have made occasional comebacks. The most conspicuous examples of this concern the depictions of elks with inner designs, which in Alta are found in periods I, II and IV, but surprisingly not in Period III.

The different styles of depicting elk were not necessarily linked to changes in the essential meaning of this motif, however, as some scholars have argued. Rather, these might at times also have been related to a conscious desire to draw a distinction between pre-existing and new carvings – and/or their makers – without altering the key meaning and function of the elk motif itself. For instance, given that the earliest elk depictions at Nämforsen were made in the scooped-out style, the most obvious way to create figures that still represented elks, but which yet could easily be distinguished from the earlier depictions, was to carve elk figures that were no longer wholly scooped-out (cf. Sjöstrand 2011: 140–142).

Of course, that is not to say that the meanings ascribed to the elk figures could not have changed over time. Bearing in mind that the rock art periods identified in Alta and Nämforsen could have lasted hundreds of years, it is certainly probable that the manner of depicting elk figures

was subject to change over the course of time. Likewise, the differing styles of depiction undoubtedly could express different connotations when these were produced at around the same time. An elk with scooped-out forequarters, for example, differed probably in some way from a wholly outlined or scooped-out elk depiction from the same period. As argued above, I am disposed to believe that these differences are related to a desire to distinguish between different types of animals within the local environment, such as between elks that could be hunted, and elks that were not suitable for hunting. Ultimately, however, I claim that *irrespective of whether an elk figure was made in the outline or scooped-out style, or whether it was depicted with inner designs, it still in all cases denoted, and was recognizable as, an elk.*

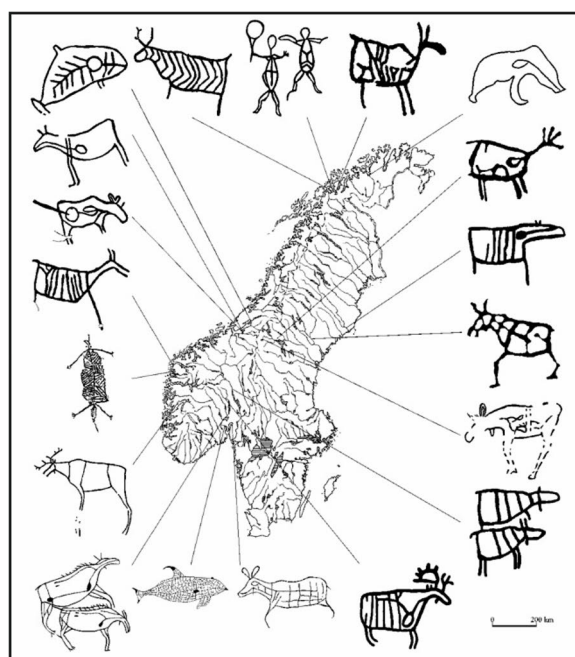


Figure 76. Rock art figures with inner designs from different parts of Scandinavia. Figure from Goldhahn 2002b, p. 46.

As I concluded with regard to the eastern Norwegian rock carvings, there seems never to have existed a phase in which elk figures were depicted with entirely natural body organs. This notion also holds true for northern rock art in general. The inner designs seem always and everywhere to have been more or less ambiguous in character. What I did not emphasize, though, is that these inner designs are not only characteristic of elk figures in northern rock art. Different types of inner designs are found on various rock art motifs throughout Scandinavia (Figure 76), and such figures are moreover found across the northern hemisphere (see e.g. Goldhahn 2002b: 45 and cited references). The inner designs are thus comparable with the outline and scooped-out styles, as these are not solely associated with the elk motif.¹⁹³

The tradition of depicting figures with more or less ambiguous inner designs was not only geographically widespread. It was also noticeably long-lived, as it continued from the Late Mesolithic period until the Late Neolithic and perhaps even into the Early Bronze Age. Apparently, some portable artefacts with so-called “life-lines” from later periods can also be interpreted as continuations of the very same tradition (see Goldhahn 2002b: 46). One such item is a 3.6 cm long figurine made of antler (Figure 77), found in 1908 at the Mestersanden settlement on the island of Kjelmøy by the Varangerfjord (Solberg 1909: 79; for the settlement, see Helskog 1977: 15–18). This plausibly represents an elk and seems to have a “life-line” running from the animal’s mouth to a body part that has been marked out, apparently representing the heart of the animal (Gjessing 1936: 144).

This manner of depicting elks with a life-line and a heart is a well-known and widespread phenomenon within hunter-gatherer rock art (see e.g. Hagen 1976: 136–137, fig. 86). However, three radiocarbon dates from Mestersanden point towards AD 230–560 being the approximate age of the settlement (Helskog 1978: 119).¹⁹⁴ Such a date seems, in other words, to place the figurine in a significantly later

period than that of hunter-gatherer rock art in Northern Europe. Indeed, if the Iron Age date for the Mestersanden figurine is accurate, it would – as Lindqvist (1994: 236) puts it – “be an extremely late expression of this tradition” (see also Gjessing 1936: 144; Hagen 1976: 159, fig. 94).



Figure 77. Elk(?)-shaped antler figurine from Mestersanden (Kjelmøy), Sør-Varanger, Finnmark. C. 21105.264. The archaeological collections, UiT Arctic University Museum of Norway. Photo: Tanja Larssen.

Regardless of the dating of the Mestersanden figurine, however, there are hardly any signs that would indicate any clear-cut development in the shape and content of inner designs produced in rock art. As mentioned, I do not concur with Fuglestad’s (2008: 360–363; 2018: 211–212) view that a development of inner designs might be discerned during the Late Mesolithic period in eastern Norway. Equally, the evident similarity between eastern Norwegian elks and Late Neolithic elk depictions at, for example, Norrfors in Sweden (Figure 78) certainly does not support the assumption that inner designs underwent any kind of chronological developments.



Figure 78. Elk figure with a life-line and inner designs at Norrfors, Umeå, Sweden. Retouched photo: Ville Mantere.

In other words, just as the scooped-out and outline styles cannot be linked to any specific periods or areas, the same goes for elks depicted with inner designs. There is thus no way of ascertaining whether the inner markings were made for similar reasons at all rock art sites in Northern Europe, or whether their connotations differed depending on the region and/or epoch.

¹⁹³ It is, of course, theoretically possible that this tradition originated with representations of elk specifically, but there are no ways of ascertaining that this would have been the case.

¹⁹⁴ 1650±90 BP (T-1728); 1700±90 BP (T-1729); 1770±90 BP (T-2473).

Yet, as Günther (2009: 28; 2022: 116) has noted, human figures in northern rock art seem never to have been depicted with so-called “life-lines”, even if anthropomorphs may exhibit other kinds of inner markings, such as skeletons. This points to the fact that humans and animals were not considered fully analogous in prehistory. I therefore concur with Günther (2009: 28) that the life-line is somehow associated with *animal* ceremonialism. This important observation could potentially indicate that – instead of being mere adornments – at least some of the inner designs depicted on animals did indeed have widely-understood connotations.

Depictions of elks in northern rock art are characterized by variation, and this is in all of its banality the most noticeable characteristic of the elk motif in terms of its style. However, this variation might also provide a key to understanding the meaning of elk images. In Alta, the elk images seem to have been intentionally and carefully represented as individual animals. Elk figures in northern rock art also in general give a similar impression. This provides a strong reason to believe that *the elk figures depicted in the rock art of Northern Europe represent elks as individuals – not as general or remote animals*. This notion, again, is anything but surprising in the light of ethnographical data from the boreal forest zone, which manifestly shows the intimacy of human-animal relationships within hunter-gatherer societies.

Despite differing styles of depiction, elk figures in northern rock art still display some recurring characteristics – such as being portrayed in profile with both ears visible. Such common traits point towards a long-lasting continuity in the connotations ascribed to the elk motif. The most obvious of such characteristics is the elks’ repeated lack of antlers (section 6.3). Another common representative feature for elks in northern rock art is that these are very rarely depicted in clear-cut hunting scenes. True, there are some depictions of elks being hunted in Alta and Kanozero, and possibly also at some of the other sites discussed above. However, in this respect the case studies are not fully representative of northern rock art, for the vast majority of the elks depicted in northern rock art are not associated with hunting scenes. It is also important to emphasize that even at the case study sites, elk

figures belonging to hunting scenes represent only a tiny fraction of the elk depictions.

Moreover, and as Fuglestedt (2018: 124) also observes, it is often highly difficult to ascertain whether a scene in which an animal is confronted by one or several humans, boats and/or tools, actually represents hunting (cf. Ranta et al. 2020: 233–243). This probably posed no difficulty to the rock artists, but to us, there is a degree of ambiguity evident in these scenes. For instance, while Gjerde (2010: 424) argues that “elk hunting is best illustrated at Nämforsen”, Fuglestedt (2018: 159) writes that “hunting scenes are totally lacking at Nämforsen”. Bertilsson (2018: 86), in turn, is of the opinion that the rock carvings (at Nämforsen) reflect a strong desire for acquiring control over the elk, even if there was “no intention to depict the actual hunt or killing”.

The scarcity of evident elk hunting scenes is indeed somewhat surprising given the elk’s key importance as a game animal throughout prehistory. Depictions of whale hunting are, for instance, far more common in northern rock art than depictions of elk hunting. Yet, the elk must have constituted a considerably more widespread economic resource than whales, which undeniably were seasonally-crucial animals in many coastal areas (cf. Gjerde 2010: 420–426). On the other hand, as Günther (2009: 26) has with good reason argued, the scarceness of hunting weapons and hunting scenes is actually not illogical if one pays attention to the fact that the human-animal relationship among many indigenous populations goes far beyond a simple wish for control over animals. As an example, she mentions the rock art of northwestern America, in which hunting tools are seldom portrayed, even though the art is closely linked to hunting and animal relationships (Günther 2009: 26; see also Günther 2022: 70–71).

Indeed, the ethnographical data clearly indicates that the killing of animals in indigenous hunter-gatherer societies has more or less universally been associated with ambiguity, feelings of sorry and guilt, as well as a fear of being punished (see e.g. Serpell 1986: 143–170). Because of the moral paradox related to hunting, indigenous hunters are even reported to blame others and to actively cover the fact that they have been responsible for the deaths of animals. In this light, the lack of depictions related to

killing in northern rock art becomes understandable. To put it differently, *instead of being a celebrated action that ought to be commemorated, the killing of an elk might well have been seen as precisely the opposite – an activity that despite its inevitability would preferably have not taken place at all.*

In consequence, it is anything but surprising that hunting or killing scenes are very rare in rock art, and that the few exceptions are as a rule found at sites with large concentrations of rock art, which seemingly served a different function to that of the majority of rock art sites where elk figures were depicted. In other words, it seems

that depictions of elk hunting could at times be created at the large rock art centres, where people from different regions met each other, but not usually at the ordinary rock art locations, where the image-making was instead more intimately associated with marking a group's territory. I will return to this topic later when discussing elk-shaped artefacts. First, however, I will in the following chapter continue to examine the elk's role in northern rock art by studying two categories of figures that are closely related to the elk motif: elk-head boats and elk-head staffs.

6 Elk-head staffs and elk-head boats in the rock art of Northern Europe

Apart from being a predominant theme in hunter-gatherer rock art itself, the elk is also closely connected to other motifs that point towards the extraordinary significance that this animal had for prehistoric rock artists in Northern Europe. Elk-headed boats and elk-headed staffs can reveal important information about the connotations that ancient human populations ascribed to the elk. As will be seen, both

motifs seem also to depict, at least to some extent, real-life objects. Moreover, since antlerless elks are depicted even more frequently on both these classes of artefacts than they are among rock art elk figures more generally, I will at the end of this chapter address this topic more thoroughly. I begin, however, with a presentation of all the depictions of elk-head staffs known in northern rock art.

6.1 Elk-head staffs in the rock art of Northern Europe



Figure 79. Map showing the distribution of rock art sites with depictions of elk-head staffs. Map: Ville Mantere/NatGeo MapMaker.

As the name suggests, elk-head staffs in northern rock art are depictions of staffs, the end of which seems to be shaped in the form of an elk's head. In the rock art panels, such staffs are often carried by anthropomorphic figures in varying poses. However, even though the staffs are

commonly referred to as elk-head staffs, these are seldom so detailed that it would be possible to determine the animal species with absolute certainty. Nevertheless, as some of the depictions have a characteristic elk muzzle (sometimes with a dewlap), and because clear-cut elk-

head staffs have also survived as tangible artefacts, it is reasonable to assume that these depictions, while more ambiguous, represent the same type of item. That said, it cannot be completely ruled out that some of the staffs depicted actually represent other animal species, such as (rein)deer. Here, however, I will for the sake of clarity speak only of elk-head staffs. The majority of these have been portrayed with ears, which are often depicted in a similar manner to those of full-bodied elk figures: as two lines projecting from the elk's neck. Some of the elk-head staffs exhibit special characteristics, such as a striated head part or handles for carrying, but most lack any such details. The staffs have in all cases been portrayed without antlers.

The distribution of rock art sites with depictions of elk-head staffs is illustrated in Figure 79. As is the case with elk-head boat depictions (see Gjerde 2010: 397–400), elk-head staff figures are concentrated in the northeastern parts of Fennoscandia. As will be seen, these two motifs seem in fact to be at least partially related, because *evident elk-head staff depictions are only found at sites where elk-head boats have been depicted*.¹⁹⁵ It is moreover important to note that the sites where these motifs occur are exceptional among the rock art sites in Fennoscandia as regards the number of figures. Indeed, representations of elk-head staffs are found almost exclusively at the largest rock art sites; Alta, Nämforsen, Kanozero and the Vyg River. The staffs are also depicted in a rather similar fashion at all of these sites. An exception that proves the rule is the smaller site of Slettnes in northernmost Norway, where rock carvings appear to include a couple of elk-head staff images. Meanwhile, slightly different depictions of elk-head staffs are found at Lake Onega. Finally, the large Late Mesolithic rock art site of Vingen in western Norway contains a large number of staff depictions. These, however, differ from the staffs depicted at other sites in several respects, and I do not find it likely that these staffs represent elk-heads. That

¹⁹⁵ The only possible exception to this rule that I am aware of is a single carved figure from Čalmn-Varre on the Kola Peninsula, which has been interpreted as a possible elk-head staff (Antti Lahelma, PhD, university lecturer in Archaeology, University of Helsinki, email correspondence 11.10.2021). However, the figure is so ambiguous and uncertain that I have, on the basis of photographs, decided not to include it in the present discussion on elk-head staffs.

said, I still find it important to address these staff depictions, too, as they can reveal information about staff representations on a more general level. For this reason, the staff depictions found at all of the sites mentioned above will now be discussed in detail.

6.1.1 Elk-head staffs at Slettnes

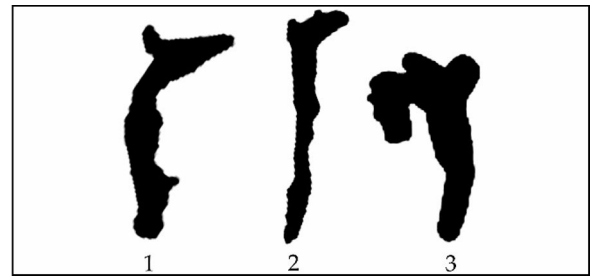


Figure 80. Possible elk-head staffs at Slettnes. 1. Helleristningsstein 1; 2. Helleristningsstein 2; 3. Helleristningsstein 4. Tracings by Johnny Nordhus, from Hesjedal 1993. Compilation: Ville Mantere. Not to scale.

The northernmost rock carvings in the world are those from the island of Sørøya in Slettnes, northern Norway. The carvings are made on boulders that were discovered in the early 1990s during archaeological excavations of a Neolithic settlement (Hesjedal 1993: 24; Hesjedal et al. 1993: 75–81; Hesjedal et al. 1996: 75–82). It seems that the carved boulders are in fact older than the settlement, as these were covered with beach gravel that presumably originates from a sea-level rise related to the Tapes transgression around 7000–6000 BP (Hesjedal 1993: 32; Hesjedal et al. 1993: 81; Hesjedal et al. 1996: 82). Consequently, Gjerde (2010: 246–250) has dated the Slettnes rock art to approximately 5500 calBC. The evident stylistic similarity between the Slettnes figures and the earliest rock carvings from Alta also strongly point towards their more or less contemporary age (Hesjedal et al. 1996: 200). This is understandable, as the carving sites in Alta are located only some 70 km south of Slettnes (Figure 43).

There are approximately 70 rock art figures at Slettnes. The motifs are similar to those found in Alta. There are depictions of different types of animals, as well as humans, boats, animal footprints and abstract figures (Figure 81). Among the figures there are three depictions that may represent elk-head staffs. These appear on boulders 1, 2 and 4 (Figure 80). All are made in the

scooped-out style, and as Hesjedal (1993: 25) and Arntzen (2007: 33–34) have pointed out, two of them are reminiscent of the elk-head staffs depicted in Alta. The third alleged staff from Slettnes (Figure 80.3) has previously been vaguely interpreted as a “T-shaped tool” (Hesjedal et al. 1993: 79; Arntzen 2007: 50–51), but it seems likely that this figure, too, depicts an elk-head staff. Despite its somewhat abnormally-shaped muzzle, the bent form of the staff and the somewhat thicker upper part resemble depictions of elk-head staffs from other locations.

Although I am inclined to interpret the Slettnes staffs as elk-head staffs, it is evident that these stand out in northern rock art. The Slettnes site differs completely in scale and character from other rock art sites with depictions of elk-head staffs. Moreover, the staffs at Slettnes have not been depicted in the hands of humans, nor inside boats, which makes them more or less unparalleled in northern rock art. Their ambigu-

ous role in the rock art panels does not provide clues as to their function, in contrast to staff depictions at other sites, which occur within different kinds of scenes. For instance, elk-head staffs depicted at other localities characteristically form part of various types of confrontation scenes. The Slettnes staffs, however, are not found in contexts that would give any evident indication of confrontation. Instead, the staff depictions seem to have been carved on the boulders with no clear sign of their relation to the adjacent figures.

Apparently, however, the Slettnes staffs constitute the earliest examples of elk-head staffs in northern rock art, and this fact may partly explain their unique character. If the early date of the Slettnes carvings is correct, then such staffs only began to be depicted some centuries later, within various scenes in Alta, where they play a far more central role than in the Slettnes rock carvings.



Figure 81. Stone II at Slettnes with an elk-head staff depicted behind the largest elk figure. Tracing by Johnny Nordhus, from Hesjedal 1993.

6.1.2 Elk-head staffs in Alta

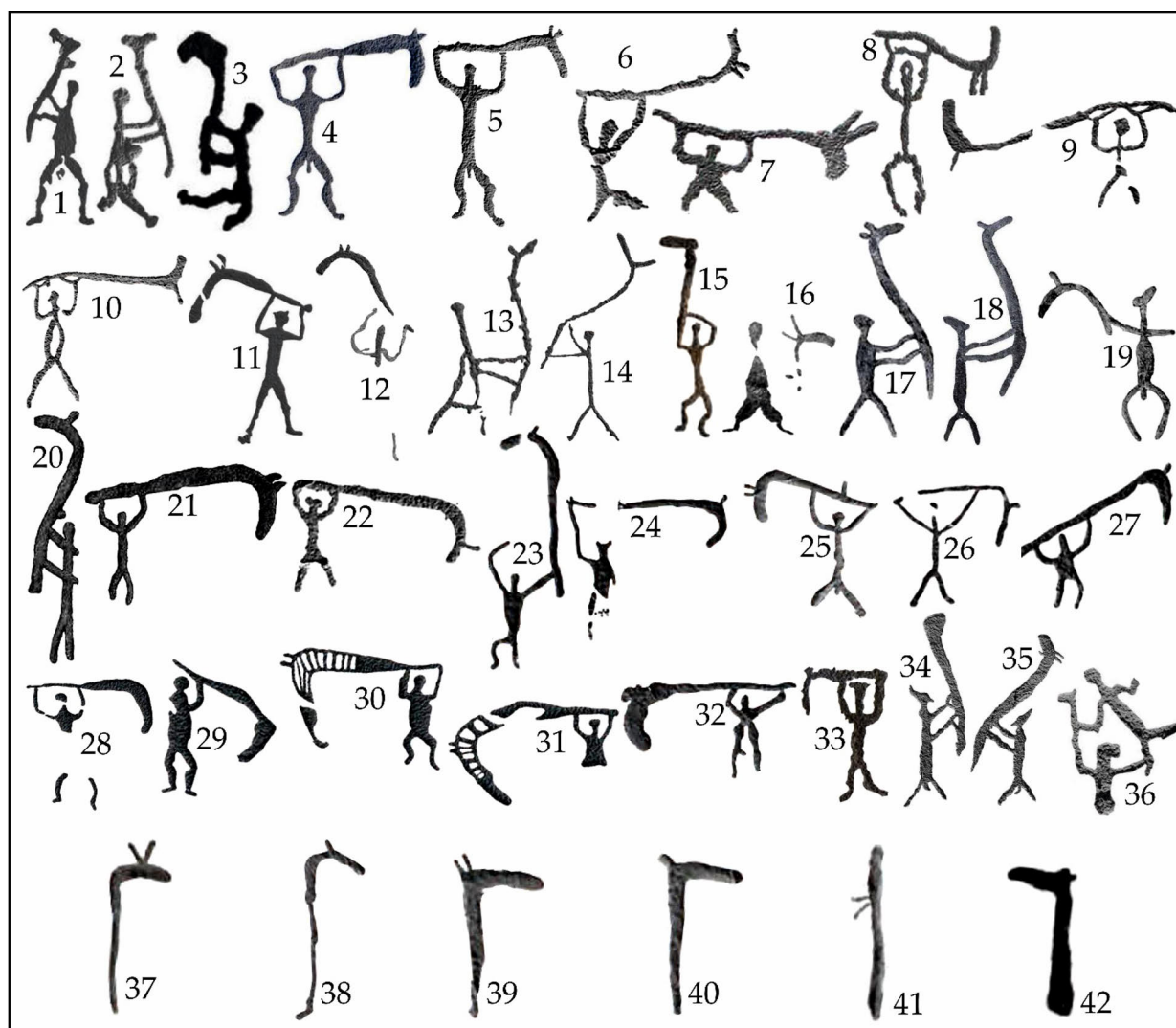


Figure 82. Elk-head staff depictions in Alta. 1–3. Bergbukten 1; 4–8. Bergbukten 4A; 9–14. Bergbukten 4B; 15. Bergbukten 7A; 16. Bergbukten 8A; 17–21. Bergheim 1; 22. Kåfjord 1B; 23–25. Kåfjord 1G; 26–27. Kåfjord 1I; 28–31. Kåfjord 1N; 32. Kåfjord 1O; 33. Ole Pedersen 1; 34–36. Ole Pedersen 9; 37–38. Kåfjord 1G; 39–40. Kåfjord 1O; 41. Kåfjord 1D; 42. Kåfjord 2C. Tracings by K. Tansem (fig. 1–15; 17–32; 34–42), H. Johansen (fig. 16), R. Normann (fig. 33). Alta Museum Rock Art Archive. Compilation: Ville Mantere. Not to scale.

In Alta, elk-head staffs can clearly be identified on the rock art panels of Kåfjord, Bergbukten, Bergheim, and Ole Pedersen (Figure 82).¹⁹⁶ All of these panels (as well as the Isnestofthen 5A site) also contain images of more or less ambiguous artefacts that may possibly represent elk-head staffs (Figure 83). Hence, the number of elk-head staffs depicted in Alta probably exceeds 50 but might be as high as 70.

¹⁹⁶ At Amtmannsnes, no depictions of elk-head staffs are known, but due to the vast number of superimposed carvings at Storsteinen, it cannot be completely ruled out that elk-head staffs were depicted at this site also. However, no staffs can clearly be discerned in the tracings. This is also the view of K. Tansem (email correspondence 23.11.2016).

All of the clear depictions of elk-head staffs belong to the second period of Helskog's (2020: 51) chronology (c. 4800–4200 calBC; see Helskog 2014: 29). Some uncertain depictions are also found in the third period (c. 4200–3700 calBC) but not in the later periods (Helskog 2014: 145).¹⁹⁷ All evident representations of elk-head staffs in Alta are made in the scooped-out style, except for two staffs that have been portrayed with a similar partial striation (Figure 82.30–31).

¹⁹⁷ K. Tansem, email correspondence 23.11.2016, 6.12.2016.

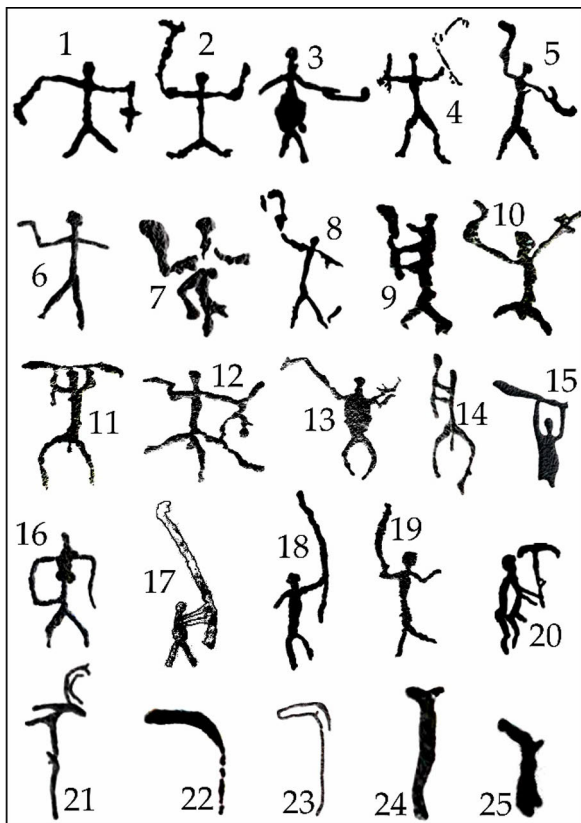


Figure 83. Plausible elk-head staff depictions in Alta. 1.–3. Bergbukten 1; 4.–5. Bergbukten 4A; 6.–8. Bergbukten 4B; 9.–14. Isnestoften 5; 15. Kåfjord 1N; 16. Ole Pedersen 5; 17. Ole Pedersen 7; 18.–19. Ole Pedersen 9; 20. Ole Pedersen 11A; 21. Kåfjord 1G; 22. Kåfjord 1O; 23. Kåfjord 1L; 24. Kåfjord 1D; 25. Bergbukten 4B. Tracings by K. Tansem (fig. 1–16; 18–25), G. Sørsgård (fig. 17). Alta Museum Rock Art Archive. Compilation: Ville Mantere. Not to scale.

Apart from their common use of the scooped-out style, great variation exists between the elk-head staffs depicted in Alta. They occur in isolation as well as within different kinds of scenes, and their size varies, although most are very large when compared to the anthropomorphic figures holding them. Staffs depicted in isolation form a clear minority, as around 85% of the staff depictions in Alta are depicted in the hands of anthropomorphs.¹⁹⁸ The staffs are usually carried by anthropomorphs in both hands; either horizontally above the head (Figure 84) or in a vertical position (Figure 85). Unlike at

Nämforsen, however, there are no clear-cut depictions of elk-head staffs inside boats.¹⁹⁹

The elk-head staffs in Alta are related to elk figures on at least three occasions (Helskog 1988: 79). Many of the staffs seem to form part of narrative compositions in which various motifs are depicted in association with the staffs. Some scenes give the impression that the staffs are associated with hunting (Figure 20), but this holds true only for certain compositions (cf. Günther 2022: 90). Many staffs are found in scenes where they form part of some kind of confrontation. For example, scenes of opposing staff-bearers are characteristic to Alta (see Fuglestedt 2018: 119–128).

In a well-known scene at Ole Pedersen 9, two staff-bearers are confronting each other, whereas at Bergbukten, there are several compositions where anthropomorphic staff-carriers face down one or several animals (Figure 85). Perhaps the most famous of such scenes is found in Bergbukten 4B, where an anthropomorphic figure holds a large elk-head staff above his head, using this to touch the muzzle of the elk figure in front of him (Figure 13). Helskog (1988: 45; 80) and Gjerde (2015: 82–83) have interpreted the scene as representing the conventional killing of an elk trapped in a pitfall, but as I have pointed out earlier (Mantere & Kashina 2020: 13), such an interpretation is highly improbable. Rather than regard them as clubs meant for killing, I am therefore inclined to seek different explanations for the use and meaning of elk-head staffs.

¹⁹⁸ All staff depictions that are not carried by anthropomorphic figures are found on the Kåfjord panels (the only possible exception being a figure in Bergbukten 4B (Figure 83.25), which could with a hint of imagination be a miniature elk-head staff). This is thought-provoking, given Günther's (2022: 87) observation that most of the elk depictions at Kåfjord are similarly solitary in character.

¹⁹⁹ There are a few representations of boats, in which crew members are holding artefacts that could perhaps be interpreted as staffs (Figure 103), but in none of these cases is it possible to confirm that the items specifically refer to elk-head staffs.

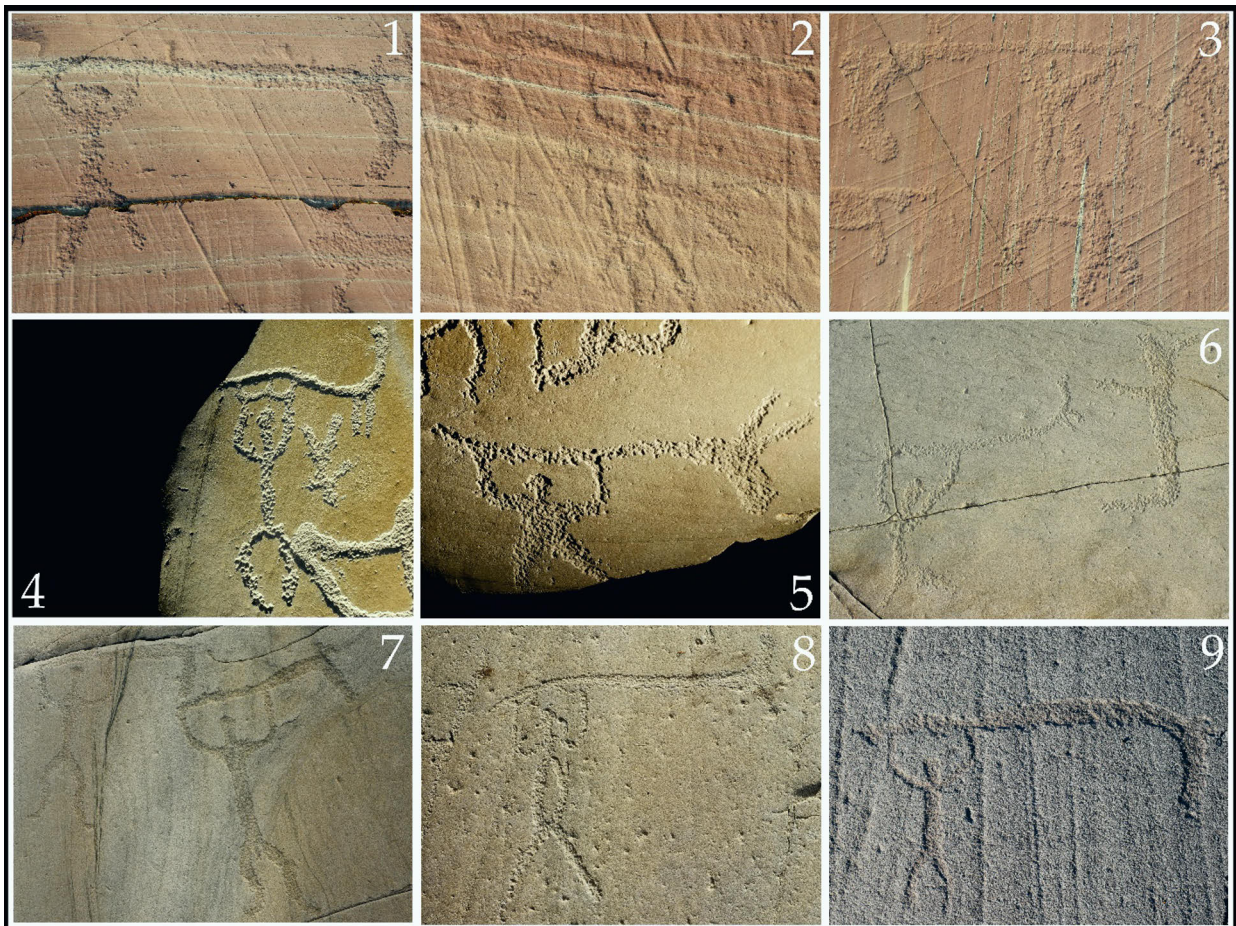


Figure 84. Depictions of elk-head staffs in Alta carried horizontally in both hands. 1.–3. Kåfjord; 4.–7. Bergbukten 4A; 8. Bergbukten 4B; 9. Bergheim 1. Photos and compilation: Ville Mantere. Not to scale.

Of the more than 30 clear depictions of anthropomorphic figures carrying elk-head staffs (Figure 82), only seven are depicted with a distinctive marking to indicate the sex of the anthropomorphic character. It is, however, difficult to determine whether the markings refer to the male or the female sex as these have been carved only as abstract lines or dots between the legs (cf. Helskog 1988: 80; see also discussion in Goldhahn & Fuglestad 2012: 243 and section 8.1.4). It seems more likely, however, that the figures represent males rather than females, as none of them are depicted with breasts (for a similar view, see Zhulnikov & Kashina 2010b: 74). Helskog (1988: 80) noticed that in scenes where anthropomorphic figures are holding elk-head staffs, either all or none of the figures exhibit distinctive markings to indicate their sex. In Helskog's opinion, this can be understood in two ways; either the activities related to elk-head staffs were performed by both males and females, or otherwise information concerning the sexual characteristics of the figures is intended

to form part of the scenes depicted (cf. Fuglestad 2018: 357–363).²⁰⁰ At this point, I find both explanations feasible.

However, instead of concentrating on depicting the genitals, it seems that the manner in which the heads of the anthropomorphs were portrayed was of particular importance to the rock artists. To be sure, many of the staff-carriers have conspicuous heads that can, for instance, be conical or split in two. This thought-provoking trait is not unique to Alta, but staff-carriers are depicted with unusually-shaped heads at other rock art locations also.

²⁰⁰ For example, in the scene from Bergbukten 1B (Figure 20), consisting of (likely) elks and five anthropomorphs, of which two are carrying elk-head staffs, all of the human figures have been interpreted by Helskog (2014: 70) as representing women performing ritual activities.



Figure 85. Depictions of evident and probable elk-head staffs in Alta carried vertically in both hands. 1.-3. Bergbukten 1; 4. Bergbukten 7A; 5.-7. Bergheim 1; 8. Ole Pedersen 7; 9. Ole Pedersen 9. Photos and compilation: Ville Mantere. Not to scale.

6.1.3 Elk-head staffs at Nämforsen



Figure 86. Elk-head staffs at Nämforsen. 1. Main Group (MG) 1, C:1; 2. MG1, D:1–2b; 3. MG1, G:1; 4.–5. MG2, L:4; 6. MG2, L:5; 7. MG2, Q:1; 8. MG2, Y:1; 9. MG3, A:1 (part of larger figure); 10.–11. MG1, D:14–15; 12.–14. MG1, G:1; 15. MG1, A:9b; 16. MG1, D:1a; 17. MG1, D:6; 18. MG1, D:7; 19. MG1, H:2 (only visible in Hallström’s tracing); 20. MG2, D:5; 21. MG2, D:5 (part of boat figure, which is a later addition; see Forsberg 1993: 218, 221, fig. 17); 22. MG2, D:5; 23. MG2, L:1; 24. MG2, N:1; 25. MG2, Q:1; 26. MG3, A:1; 27. MG3, A:3. Tracings from Larsson & Broström (2011) except from fig. 19, which is from Hallström (1960). Compilation: Ville Mantere. Not to scale.

In the Nämforsen rock art panels, I have identified around 40 figures that may represent elk-head staffs.²⁰¹ Approximately 30 of these depictions can be regarded as more or less certain (Figure 86). The rest are so ambiguous and/or fragmented that they cannot be interpreted as elk-head staffs with any certainty (Figure 87). However, the existence of many superimposed figures within the Nämforsen rock art makes the recognition of single figures very difficult and the number of elk-head staffs at Nämforsen may in reality be somewhat larger than that presented here.²⁰² Most of the evident depictions are found on large panels, such as on the Lillforshällan

panel in Laxön (Figure 62) and on the large Notön panel (Figure 63). However, staffs occur also in more remote areas, such as on panel Y:1 in Notön (Hallström 1960: 246). At Nämforsen, all evident depictions of elk-head staffs and of people holding them have systematically been made in the scooped-out style, and it is thus likely that they originate from the period 5000–4000 calBC (see section 5.4.1).²⁰³ Some staff figures may have

²⁰¹ The figures presented here have been derived from two different tracings of the Nämforsen rock art panels, the first made by Gustaf Hallström (1960) mainly in the 1930s and the second by Thomas Larsson and Sven-Gunnar Broström (2011; 2018) in 2001–2003. The localities are here referred to as described in the said publications; Main Group (MG) 1 refers to rock art panels on the mainland and on the island of Laxön, whereas MG2 and MG3 refer to rock art panels on the islands of Notön and Brådön, respectively.

²⁰² Panels with many superimposed figures are, for instance, panel D:14–15 in MG1 and panel A:1 in MG3.

²⁰³ The view that elk-head staffs are associated with the oldest (scooped-out) rock art panels at Nämforsen was shared by several scholars already in the early 1990s (see Baudou 1993: 253–259; Forsberg 1993: 217; Lindqvist 1994: 213–215), even though the overall dating of the Nämforsen panels and the different style phases has since then been revised. However, it should be mentioned that not all scholars have shared these opinions. Ramqvist (1992: 43), for instance, has proposed that there might be other underlying explanations for the chosen style of carving. In his view, the elk-head staff serves as an example of a motif that for some reason – plausibly connected to ritual behaviour – was chosen to be depicted solely using the scooped-out technique. Another scholar who has been critical of the general dating of the Nämforsen rock carvings is Bertilsson, who has argued that most of the elk-head staff depictions at Nämforsen represent various types of Bronze Age axes (Bertilsson 2018: 80, 87–88).

been carved in the period 4000–3300 calBC when partly scooped-out images were produced, but there is no reason to believe that elk-head staffs would have been depicted after 3300 calBC, when figures seem to have been made exclusively in the outline style.

Although there is a rather large variation between the elk-head staffs depicted at Nämforsen, almost all of them seem to have one thing in common. This is the characteristic shape of the elk's muzzle; narrowed in the middle and enlarged at the tip. In a few cases the dewlap has also been depicted. Because of this similarity, the elk-head staffs at Nämforsen are actually, despite their more remote distance, closer in appearance to those from the Kanozero rock art than to those depicted in Alta (cf. Zhulnikov & Kashina 2010b: 74–75).

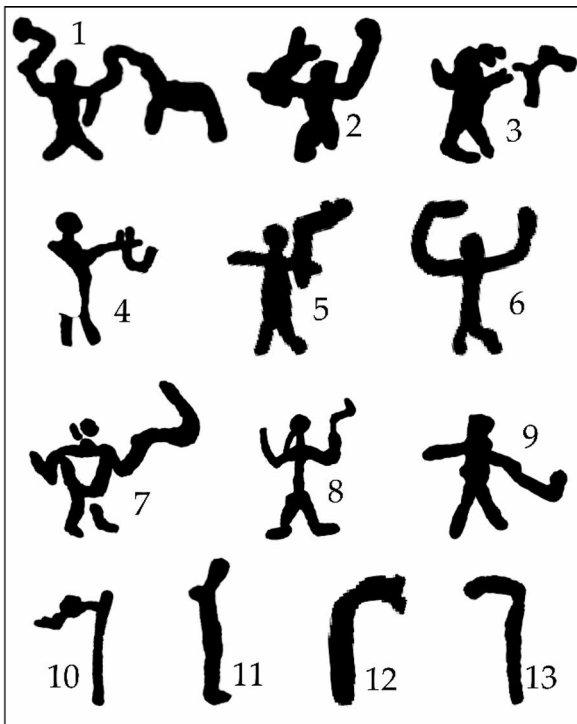


Figure 87. Plausible elk-head staffs at Nämforsen. 1. MG1, C:1; 2–4. MG1, D:14–15; 5–6. MG2, Q:1; 7. MG2, U:1; 8–9. MG3, A:1; 10. MG1, D:5; 11. MG1, D:10; 12. MG2, Q:1; 13. MG2, Y:3. Tracings from Larsson & Broström 2011. Compilation: Ville Mantere. Not to scale.

Apart from the more protuberant muzzle, the elk-head staffs at Nämforsen differ from the staffs in Alta in several other respects also, even if they date to roughly the same period. Perhaps the most notable difference is related to the way in which they are carried by anthropomorphic figures. In contrast to the staffs depicted in Alta, which are predominantly carried by anthropomorphic figures in both hands, at Nämforsen

only one elk-head staff is depicted in this manner (Figure 86.3).²⁰⁴ Instead, the anthropomorphs at Nämforsen hold the staffs in only one hand, usually in a vertical position.

Another key difference is that while staffs depicted in isolation constitute only some 15% of the elk-head staffs from Alta, at Nämforsen these form the majority of the staffs depicted. Of the elk-head staffs evident at Nämforsen, 12 are carried by anthropomorphs, whereas 17 are depicted without any immediate connection to a human figure (Figure 86). In Alta the staff-bearers have been depicted both in profile and frontally, but at Nämforsen no anthropomorphs holding staffs are depicted in profile. This is in line with the manner in which anthropomorphs are depicted at Nämforsen in general, since these are almost never portrayed in profile. Furthermore, a notable dissimilarity is that none of the elk-head staffs evident in Alta have been portrayed on boats, but at Nämforsen there are five staffs depicted in this way – one carried by an anthropomorph and the rest as solitary items (Figure 88.2–5). All of these boats are found on the Lillforshällan panel and clearly possess an elk-head prow (Figure 107).²⁰⁵

There are, however, also evident similarities between Alta and Nämforsen regarding the elk-head staffs and their carriers. For example, two of the staff-bearers at Nämforsen appear to have been depicted with (male?) genitals (Figure 86.3,5), but just as in Alta, the majority of the staff-carriers lack any distinctive sex markers. Likewise, the heads of some of the anthropomorphs holding staffs are abnormal in shape. Moreover, even if elk-head staffs are not portrayed with as much variety at Nämforsen as they are in Alta, they nevertheless similarly occur in different kinds of scenes and in interaction with various motifs.

²⁰⁴ Another figure of this type may exist on panel A:1 in MG3 (Figure 86.9), but here the anthropomorph holding the supposed elk-head staff is part of a larger figure that cannot be defined with certainty (see Hallström 1960: 250). Another conceivable case is an anthropomorph with raised hands from Lillforshällan, but the staff that this human figure might be holding is merged/superimposed with the hull of an elk-head boat and the depiction thus remains uncertain.

²⁰⁵ On panel D:5 of MG2, a solitary elk-head staff (Figure 86.21) seem also to have been depicted inside a boat, but this boat figure is in fact, as Forsberg (1993: 221), for example, has pointed out, a later addition and the elk-head staff was thus not originally a part of the boat figure.

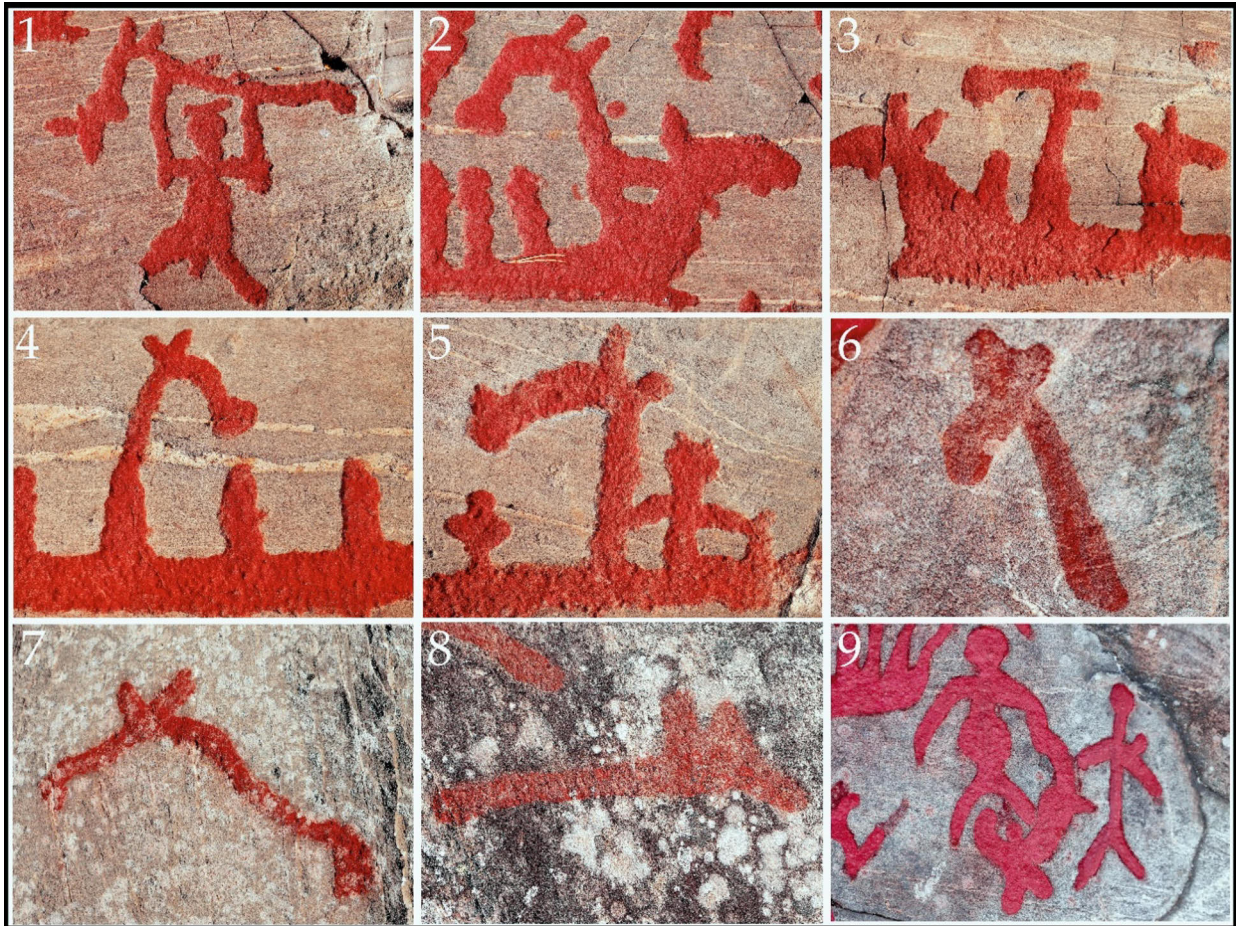


Figure 88. Depictions of elk-head staffs at Nämforsen (Main Group 1). 1.–5. G:1 (Lillforshällan); 6. D:14–15; 7. D:7; 8. D:1a; 9. D:14–15. Retouched photos and compilation: Ville Mantere. Not to scale.

Of special interest is a scene on panel C:1 in Laxön, in which an anthropomorph is holding two rods with ring-shaped ends (Figure 89). The upper part of at least one of the staffs seems to be shaped like the head of an elk, and I am therefore disposed to interpret this pole as an elk-head staff, as cautiously proposed also by Hallström (1960: 146, 319) and Kivikäs (2003: 63, 65). Depictions of anthropomorphs carrying rods with rings are widespread in northern rock art and found, for instance, at Kanozero and Onega (see e.g. Kolpakov & Shumkin 2012a: 345). However, such rods are usually depicted without any zoomorphic traits. Above, I interpreted these kinds of items as amalgamations of ski poles and hunting spears. The elk-headed pole depicted at Nämforsen, however, obviously cannot be interpreted in this light. Nonetheless, I still believe that just as with the hunting spears, this unusual elk-head staff, too, is related to the hunting process.

More precisely, I believe that the scene at Nämforsen depicts an activity that is more or

less analogous with the composition at Bergbukten 1B in Alta (Figure 20), discussed earlier. Even if the Nämforsen composition is far more ambiguous than the said scene in Alta, it still includes elements that suggest a similar narrative. Most importantly, the elk that the other rod is touching seems to be the only elk in the composition to be depicted with antlers (Hallström 1960: 146). This suggests that it is a male elk that is being lured and/or hunted. Another fact that strengthens this hypothesis is that the second human figure in the scene is touching the hindquarters of the elk figure. In addition, some unexplained lines below the elk could possibly be interpreted as a pitfall trap. Undoubtedly, there is more to the scene than meets the modern eye, but in any case, the elk-head staff plays a central role, just as in the Bergbukten 1 scene. In other words, it looks as if the elk-head staffs are in both cases somehow associated with the aim of controlling/affecting the (male) elk's behaviour.



Figure 89. Staff-bearer amidst elks at Laxön, Nämforsen. Retouched photo: Ville Mantere.

6.1.4 Elk-head staffs at Kanozero

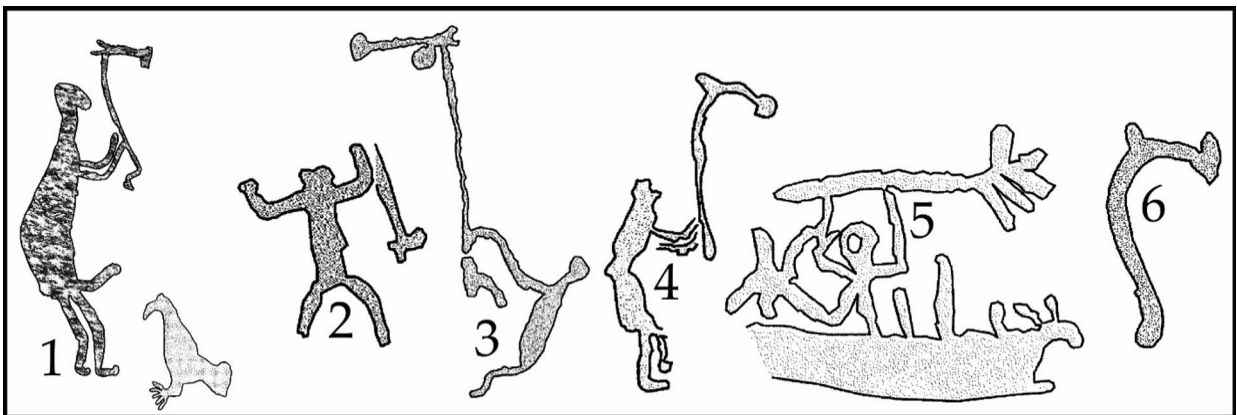


Figure 90. Elk-head staffs in the rock art of Kanozero. 1. Kamennyi-7; 2. Kamennyi-6; 3. Kamennyi-4; 4. Elovyi-1; 5. Kamennyi-7; 6. Kamennyi-3. Tracings from Kolpakov & Shumkin 2012a. Compilation: Ville Mantere. Not to scale.

Kolpakov and Shumkin (2012a: 312) have discerned four more or less certain depictions of elk-head staffs in the rock art of Kanozero; one is freestanding (Figure 90.6) and three others are being held by anthropomorphic figures (Figure 90.1,3,4). In addition, there are at least two other compositions at Kanozero that probably include elk-head staffs. The first of these (Figure 90.2) is found on Kamennyi-6 and portrays an anthropomorph, whose left hand seems to be connected to an axe-shaped elk-head staff that is upside down (Kolpakov & Shumkin 2012a: 161). The

second item is found on the Kamennyi-7 panel, where an anthropomorphic figure inside an elk-head boat holds a large item horizontally above its head (Figure 90.5). This item, which Kolpakov and Shumkin (2012a: 245) have understood as a possible harpoon, is highly interesting in several ways. In my view, the figure can hardly be a harpoon, and is in fact rather dissimilar to other alleged harpoon depictions at Kanozero (see Kolpakov & Shumkin 2012a: 313). I believe that this item represents an elk-head staff, and it is important to note that the position in which it

is held has counterparts especially in Alta (Figure 84). However, the staff itself is unlike the other elk-head staffs depicted at Kanozero. The end of the muzzle does not have a “bulb”, and the neck part has four protuberances instead of the usual one or two strokes that depict the ears of the elk.

Assuming that the item really represents an elk-head staff, the additional strokes can be interpreted mainly in two ways. Either these portray the antlers of the elk, or they signify the ridge part of the elk, which is sometimes decorated in an exaggerated manner on material objects, such as on the famous elk-head staff from burial 153 at YOO (Figure 126). Given that there are no counterparts in northern rock art for elk-head staffs with antlers, I am somewhat more inclined towards the latter interpretation. Another interesting feature in the composition is that, besides the boat having an elk-head prow, another elk-head with a dewlap seems to be depicted inside the boat, right next to the staff-holder. I find it possible that this figure, too, might represent an elk-head staff.

Three of the anthropomorphic figures holding elk-head staffs at Kanozero have been portrayed in profile, which is a rare way of depicting anthropomorphs at this site. In fact, of the 146 anthropomorphic figures identified by Kolpakov and Shumkin (2012a: 292), only 11 have been depicted in profile.²⁰⁶ The two “new” staff-carriers are, however, portrayed *en face*. As regards the staff depictions, four are rather similar in shape with the ears and a protuberant muzzle marked out, and thus reminiscent of the staffs depicted at Nämforsen. On one staff, the characteristic dewlap of the elk is evident (Kolpakov & Shumkin 2012a: 312).

Two of the staffs stand out from the others because their lower end curves backwards visibly. As the anthropomorphic figures are not holding the staffs at this point, it is unclear whether these distensions represent handles or something else. Extensions of this type are not found elsewhere on rock art figures depicting elk-head staffs. However, the recently discovered elk-head staff from Maksimovka 1 has an extension at the end of its handle (Andreeva

et al. 2021: 12, fig. 1) and the well-preserved elk-head staff from Šventoji 3B (Figure 126) has a hole in the lower end of its handle, apparently for fastening a cord (Iršėnas et al. 2018: 131). Consequently, one possible explanation for the extensions depicted on the Kanozero staffs could be that these represent loops used for carrying the staffs (see discussion in the following chapter). This reading could also explain the ring in the lower end of the aforementioned elk-head staff(s) from Nämforsen (Figure 89).

Of all the staff depictions in northern rock art, the elk-head staffs at Kanozero are the most difficult to date. As seen in the previous chapter, the broad period of the 4th to the 2nd millennium calBC seems to provide the most probable timeframe for the carvings. Yet, based on the dating for other rock art sites with depictions of elk-head staffs, it seems to me that the staffs at Kanozero belong to the Neolithic period. I am thus inclined to consider the 4th and 3rd millennium calBC as the most probable date for these depictions, even if a later dating cannot be ruled out.

The number of elk-head staff depictions at Kanozero is noticeably lower than in Alta or at Nämforsen but the motif cannot be deemed insignificant. Indeed, the exceptionally large Kamennyi-7 rock art group (Figure 72) is dominated by an eye-catching male figure with an elk-head staff in his hands. This composition is clearly of central importance within the panel (Figure 90.1). The staff-carrier, who, once again, displays an abnormally shaped head, measures more than a metre in length and is the largest of all the anthropomorphs depicted at Kanozero. Immediately in front of this male figure is a carving of a bird – most likely a common raven (*Corvus corax*). It is the only example of its kind in the Kanozero imagery (Kolpakov & Shumkin 2012a: 189, 304, 327).²⁰⁷ The composition gives reason to assume that this bird might have been regarded in a special light by the rock carvers at Kanozero, which is not surprising since the exceptional intelligence of this bird has been widely known throughout history (see e.g. Hein-

²⁰⁶ One also notes that only 17% (25 figures) of the anthropomorphic representations have been depicted with something in their hands (Kolpakov & Shumkin 2012a: 296).

²⁰⁷ Lahelma (2019: 232) has interpreted the bird as a capercaillie (*Tetrao urogallus*) and suggested that it would represent a prey animal. I am, however, skeptical about this understanding and instead disposed to interpret the bird as a raven, which is also the view of Kolpakov and Shumkin (2012a: 327).

rich 1999). Among the Yukaghirs, for example, the raven is one of the few birds considered to be sentient, thus resembling human beings (Willerslev 2007: 74).

A highly interesting anecdote from this context is that some elk hunters still today keep track of ravens during battues, because these are said to give away the elks' location.²⁰⁸ This interplay also benefits the raven, for as a scavenger it is always the first bird on the scene after a killed elk has been eviscerated.²⁰⁹ It is thus a highly feasible explanation that the raven was seen as an ally of elk-hunters even in prehistoric times. I am therefore disposed to believe that the Kamennyi-7 scene is a mythical narrative related namely to this human-raven-elk relationship. Even if the composition is unique in northern rock art in terms of its motifs, it nevertheless represents the very same theme of confrontation as many of the scenes involving staffs found at other rock art sites.

Another scene of special interest in Kanozero's rock art is found on the panel Kamennyi-4. Here, an anthropomorph holding a noticeably large elk-head staff confronts two other anthropomorphs, which seem to represent a couple. The female figure is pregnant, and the male figure is depicted with an elongated, snake-like phallus and a spear in his hand (Figure 91). Kolpakov and Shumkin (2012a: 318, 343) have termed this scene as the "love triangle". The authors have pointed out that remarkably similar scenes are found at the Bronze Age rock art sites of Vitlycke and Kville in Sweden, although in these cases, the persons confronting the couples are holding an axe and a spear, respectively, with no zoomorphic traits whatsoever. Another largely similar scene is also found at Hoghem in Tanum, as Kolpakov (2018: 175) points out, but here, too, the person confronting the couple is holding an axe-shaped item with no zoomorphic attributes. In Bronze Age depictions, the couples are depicted in intercourse, whereas at Kanozero the woman is gravid. Nevertheless, I concur with the view that these scenes are somehow related, despite the fact that the Bronze Age examples lack the connection to elk-heads.

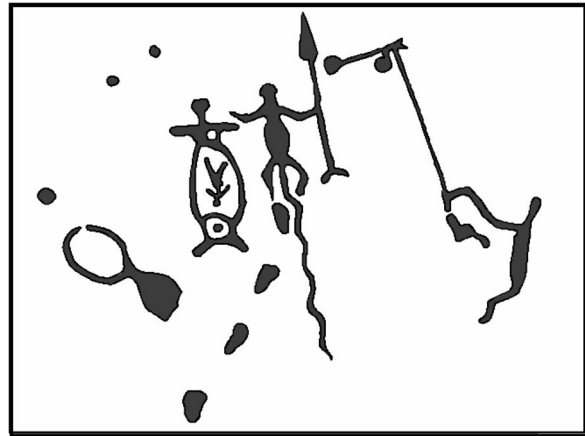


Figure 91. The "love triangle" scene at Kamennyi-4, Kanozero. Tracing from: <http://kae.rekvizit.ru/kan/kanintr.htm>. Not to scale.

The precise meaning of the "love-triangle" composition is beyond our reach, but the confrontation taking place between the staff-bearer and the couple (or the man) does not seem to be of violent nature. Rather, as Zhulnikov and Kashina (2010b: 76; Kashina & Zhulnikov 2011: 26) have set forth, it seems as if the composition is related to "productive symbolism" or fertility. I, too, am inclined to interpret the function of the elk-head staff (and its carrier) in this vein. In fact, the semiotic connotation of the Kamennyi-4 composition seems to be largely similar to the scene on Bergheim 1 (Figure 48) – even if the latter does not include any kinds of humans or elk-head staffs whatsoever. As was discussed above, this scene seems to depict an elk couple that is similarly controlled or caretaken by an "outer force"; represented by the elk-headed entity that is connected to the elk foetus by a line. As I argued, this suggests that the outside entity plays a central part in the elk's fertilization.

Now, in the Kanozero scene the connection between the staff-bearer and the foetus is not as evident as in the Bergheim 1 scene, but the very same idea of an "outer force" affecting the couple seems apparent. This time, however, the "love triangle" does not consist of elks but of humans. Yet, it is fascinating to note that the power of the outer force seems not to lie so much in the third anthropomorph itself but in the elk-head staff that this person carries. Moreover, in this scene there can be no doubt that the staff specifically depicts an elk-head; the characteristic muzzle and dewlap together signify that the true power in the scene resides in the elk.

²⁰⁸ H. Willamo, oral communication 12.11.2022.

²⁰⁹ J. Mantere, personal communication 17.11.2022.

Consequently, I claim that the scenes at Bergheim 1 and Kamennyi-4 depict *two different manifestations of the same phenomenon, that is, of an “elk-entity” assuring rebirth*. In Alta, the entity is depicted literally, as an eye-catching elk-being, while at Kanozero it is represented by the elk-head staff. In both scenes, the feminine side of the couple is portrayed as a gravid female. The masculine aspects, in turn, are in Alta epitomized by the elk bull’s antlers and at Kanozero in the shape of the spear and the exaggerated phallus of the male anthropomorph. What I am arguing is, in other words, that ideas related to animal and human reproduction in these scenes mirror each other. In both cases, it is *namely the*

elk-being that has the ultimate power or control over the couple and its offspring.

The fact that conceptions related to the rebirth of humans and elks thus seem to have been comparable is hardly surprising, however. As was discussed in Chapter 2, the rebirth of elks, in a way, assured the continuity of humans as well. It is thus perfectly reasonable that the “force” responsible for reproduction is epitomized in the rock art scenes as an *elk-head staff* or an *elk-being*. I will deliberate further on this subject in section 8.1.5. Next, however, I will discuss another concentration of rock art from Russia where depictions of elk-head staffs are found: the rock carvings beside the Vyg River.

6.1.5 Elk-head staffs at Vyg River

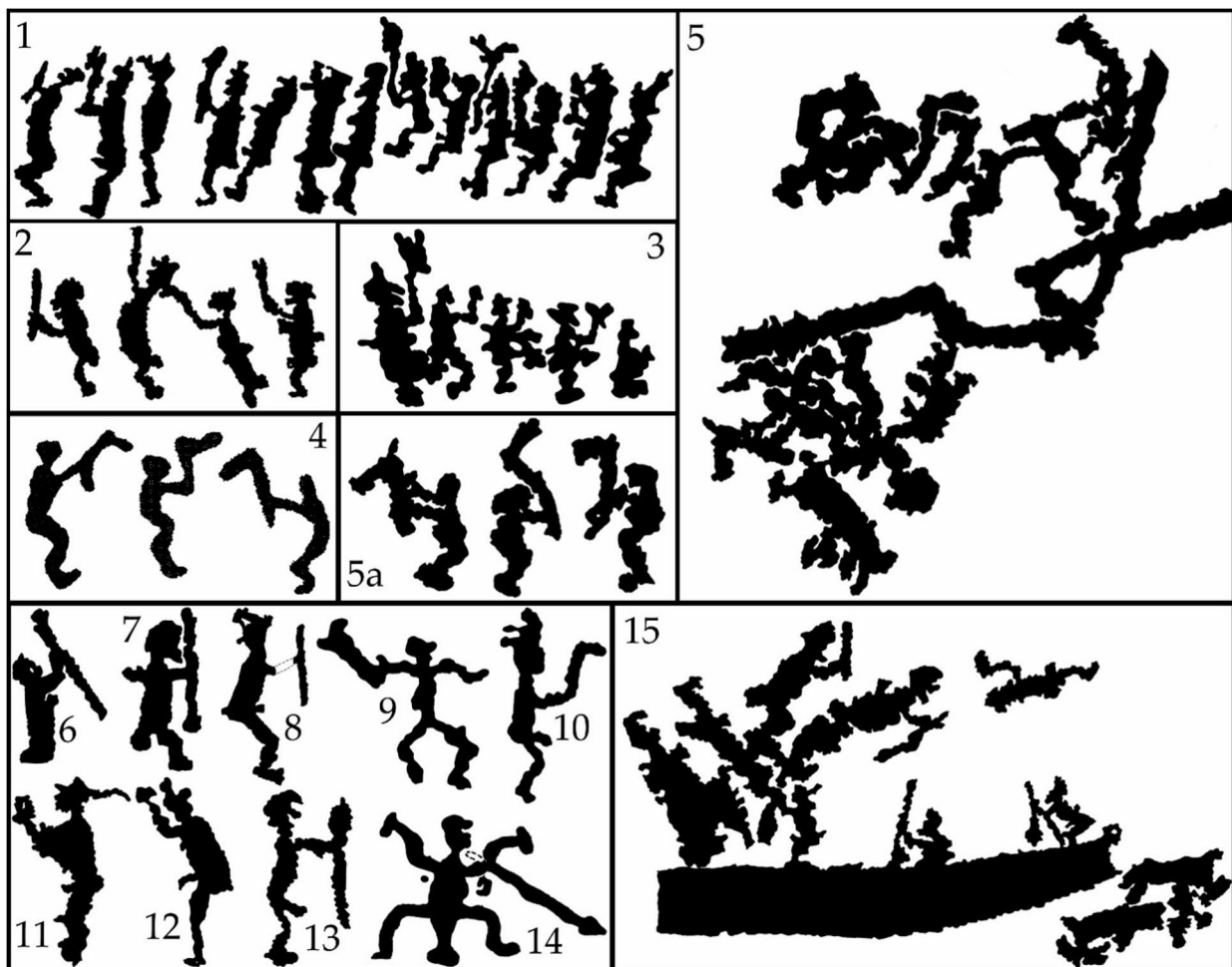


Figure 92. Depictions of plausible elk-head staffs at Vyg River. 1–3. New Zalavruga: 1. Group XVII; 2. Group I; 3. Group XI; 4. Unknown locations; 5a–5. New Zalavruga: Group XV; 6–13. New Zalavruga: 6. Group I; 7–8. Group VI; 9. Group VIII; 10. Group VI; 11. Group XIV; 12. Group XVII; 13. Group XX; 14. Erpin Pudas; 15. New Zalavruga: Group IX. Tracings from Savvateyev 1970 (fig. 1–3, 5a–13, 15), Lobanova 2015 (fig. 4), Ravdnionikas 1938 (fig. 14). Compilation: Ville Mantere. Not to scale.

The tracings of the Vyg petroglyphs, located beside the Vyg River near the White Sea, are most challenging when it comes to distinguish-

ing individual figures. It is clear that a new all-inclusive documentation of the Vyg carvings would provide better means for understanding

the elk-head staffs depicted at this site. In my examination of the Vyg rock carvings, I have utilized all the tracings that have been available; those published by Savvateyev (1970), the even older tracings made by Ravdonikas (1938), and the recent tracings of the Zalavruga carvings made by Lobanova (2015). With the help of these, I have discerned a number of more or less evident elk-head staff depictions at the site.²¹⁰ All of these are made in the scooped-out style and carried by anthropomorphic figures, which in most cases have been depicted in curving poses, as though in motion.

All of the clear depictions of elk-head staffs in the Vyg rock art are found at the famous location of Zalavruga. Here, the carvings are divided into two groups according to the chronology of their discovery. Old (Staraya) Zalavruga refers to the rock art panels discovered in 1936 by Ravdonikas, while New (Novaya) Zalavruga denotes the petroglyph groups discovered in the 1960s by Savvateyev (see e.g. Savvateyev 1977: 67). In terms of age, however, the carvings at New Zalavruga appear to be older than the petroglyphs at Old Zalavruga (for an in-depth discussion regarding the dating of Vyg rock art, see Gjerde 2010: 291–300 and cited references; see also Gjerde 2013: 39–40; for the connection between the carvings and nearby settlements, see Lobanova 2020 and Zhulnikov 2021).

According to Gjerde (2010: 300), the initial carvings at New Zalavruga were apparently made in around 3700 calBC, whereas the youngest carvings at Old Zalavruga are dated approximately to 2000 calBC (see also Janik 2010: 92). Zhulnikov adds several centuries at both ends of this interval and places the most likely elk-head staff depictions roughly within the period 4100–3300 calBC.²¹¹ However, as Lobanova (2007b: 26–29), Gjerde (2010: 297–298) and Janik (2010: 85–92) among others have stressed, petroglyphs have been made at Old Zalavruga in at least three different phases,

which are difficult to date accurately. It is thus most reliable to date the elk-headed staffs at the Vyg River to the broader period 4000–2000 calBC.

In the Vyg rock art, the most likely depictions of elk-head staffs are found on panel XV at New Zalavruga. This panel is unfortunately rather ambiguous, since the figures on the panel overlap each other, making the differentiation of single figures a difficult and subjective process. In the initial tracing by Ravdonikas (1938, plate 19), several figures on the panel were not noticed at all. Thanks to Savvateyev's documentation (see Savvateyev 1970: 61–62), the scene appears in a completely different light. According to that latter tracing, it is possible to discern a rather clear-cut composition of two opposing anthropomorphs with probable elk-head staffs in their hands (Figure 92.5a–5).²¹² This scene has obvious counterparts in Alta. Another depiction of an elk-head staff can be found below the aforementioned composition, on the left side of the panel.²¹³ Here, an anthropomorphic figure, surrounded by boats, holds a staff with both hands. This item is the clearest depiction of an elk-head staff from Zalavruga, with the ears and the muzzle visibly marked out.

Another scene that seems to comprise at least one elk-head staff can be found in Group IX at New Zalavruga (Figure 92.15). Here, a fragmented boat figure with three crew members is surrounded by smaller boats and a number of different-sized anthropomorphic figures. In Autio's (1981: 82) opinion, two or three of the anthropomorphs depicted in the scene are holding "elk-headed cult signs". Most likely, he is referring to the leftmost anthropomorph in the large boat and to the human figures above it, each of which carries some sort of item in their hands. In my view, too, the leftmost figure standing in the boat appears to be holding some kind of a curved staff, which is clearly of different shape than the supposed depictions of pad-

²¹⁰ A rather large number of new figures have been found in the area since Savvateyev's publication (see e.g. Lobanova 2007a; 2007b; Gjerde 2010: 287), but among these carvings, there are no depictions of elk-head staffs and the newer discoveries do not as such affect the discussion here.

²¹¹ Aleksandr Zhulnikov (Associate Professor of Archaeology, Petrozavodsk State University), email correspondence via Ekaterina Kashina (PhD, Senior Researcher, State Historical Museum, Moscow), 20.10.2021.

²¹² It seems that two additional anthropomorphic figures are, moreover, portrayed behind the two central characters, but it is difficult to determine whether or not these figures also carry elk-head staffs in their hands.

²¹³ It should be noted that the two scenes presented here are separated by a carved line, which Savvateyev (1970: 62–63) interprets as a river. It seems therefore rather likely that the two compositions with elk-head staffs are not entirely disconnected but are in some way related to one another.

dles in the hands of the two anthropomorphs behind him (Savvateyev 1970: 259).²¹⁴ It is also possible that at least the rightmost of the items carried by the anthropomorphic figures above the boat represents an elk-head staff due to its clearly curved end.²¹⁵

In fact, the majority of anthropomorphic figures at Zalavruga have been depicted in action and with something in their hands (see e.g. Savvateyev 1970: 91, fig. 19). There are no items that, apart from the aforementioned figures, would visibly portray elk-heads, but a number of additional figures may perhaps be deemed to be ambiguous depictions of elk-head staffs (Figure 92.1–3, Figure 92.6–14; Figure 115) (see e.g. Carpelan 1977: 7–8).²¹⁶ Hopefully, new tracings will in the future shed new light on these figures. The carvings at Vyg are narrative in character and there are several unique and seemingly important compositions that could reveal thought-provoking insights as to the use of elk-head staffs – if it only could be confirmed that such artefacts are in fact being portrayed in the rock art.²¹⁷

6.1.6 Elk-head poles at Lake Onega

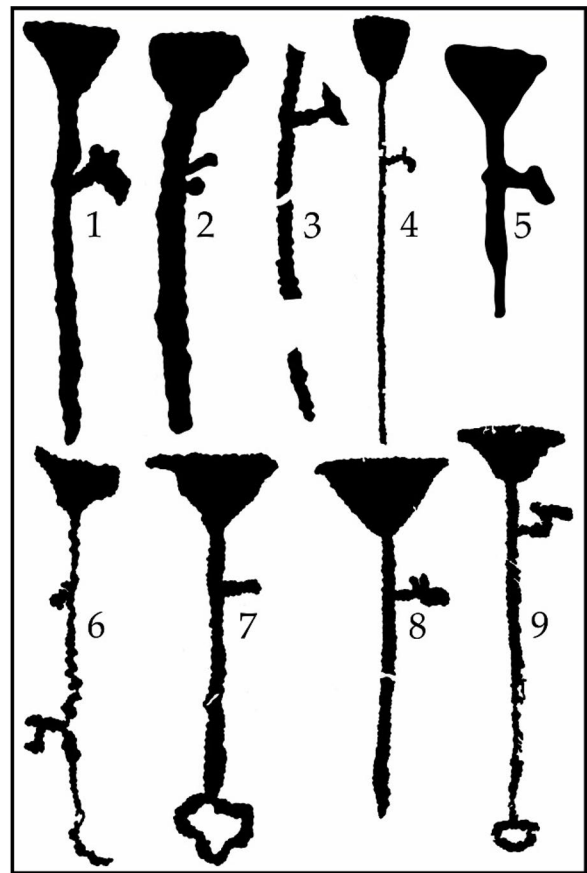


Figure 93. Poles associated with elk-heads at Lake Onega. 1. Karetsky Nos 1; 2. Karetsky Nos 2; 3–5. Peri Nos 3; 6–9. Peri Nos 6. Tracings from Poikalainen & Ernits 2019. Compilation: Ville Mantere. Not to scale.

The eye-catching poles depicted at Lake Onega constitute a group of elk-head staffs unparalleled in northern rock art. These items have a scooped-out, triangular-shaped upper part. In contrast to the elk-head staffs discussed above, the elk-head has not been depicted at the end but in the middle of the rod (Figure 93). There are nine such representations in the rock art from Lake Onega, from the sites known as Karetsky Nos and Peri Nos (see Ravdonikas 1936: plates 3, 19, 20; Hallström 1960: plate XXVIII).²¹⁸ Seven of the nine poles carved at Onega have rather clear elk-head attachments, whereas two staffs have more abstract protuberances. I believe, however, that the latter also represent elk-heads despite their unclear shape.

²¹⁴ An alternative reading could be that the item represents not a staff but a paddle superimposed below the above figure(s).

²¹⁵ According to Savvateyev (1970: 259), there is also a group of four staff-bearers on the left side of the scene, but these figures are far too vague to be described as such with any certainty. The same holds true for the anthropomorph depicted in the rightmost corner of the scene, standing in a boat, and carrying some unidentifiable object.

²¹⁶ In some cases, the items are so elongated in shape that, if they were to represent some animal, the snake could be a possible species depicted as some snake-shaped sculptures are known from portable art (see e.g. Koivisto & Lahelma 2021).

²¹⁷ Three probable depictions of elk-head staffs can in fact be discerned in the newer tracings made by Lobanova (Figure 92.4), but it is unfortunately not clear on which panels these figures exist (Lobanova 2015: 266). I believe, however, that these represent the aforementioned figures on panel XV.

²¹⁸ When referring to the carvings depicting elk-head poles, I have utilized the most accurate tracings made by Poikalainen and Ernits (2019).

As regards the dating of the Onega rock art, it seems that most of the figures were carved around 4500–3000 calBC and the youngest figures probably date to around 2000 calBC (Zhulnikov 2010: 89; see also Bednarik 1993; Lobanova 2020: 212).²¹⁹ Poikalainen (2004: 35) has, on the basis of superimpositions, argued that the elk-head poles belong to the latest figures carved at Onega, but as he put it, “the number of superimposed petroglyphs at Lake Onega is too small to draw wider generalizations” (see also Poikalainen 1990). Thus, the elk-headed poles at Onega cannot be precisely dated but most likely date to within the broader interval of 4000–2000 calBC.

The distinct Onega poles have been interpreted by Stoliar (2001: 95–96) rather audaciously as being related to the elk-head sculptures found at the YOO burial ground. In Stoliar’s view, these sculptures were “prototypes” for the carved staffs and he even interpreted one of the poles at Peri Nos VI as pointing towards the YOO cemetery (see e.g. Stoliar 2000: 149; 2004: 26). Zhulnikov (2006: 72; 2009: 80), on the other hand, does not recognize a connection between the tangible sculptures and the poles depicted in the rock art, since the two are clearly different in shape and size, and because the petroglyphs depicting poles have systematically been portrayed without any evident connection to anthropomorphic figures.

There can hardly be a direct link between the sculpted elk-head staffs from YOO and the poles depicted in the rock art of Lake Onega. This is not least due to the significant time gap between these, as the YOO artefacts seem to be at least two millennia older than the pole carvings at Onega. However, there is one tangible item that I believe may actually be associated with the depictions of elk-head poles. This is an elk-headed miniature staff from the site of Mayak II on the Kola Peninsula. It is easy to see that if mounted on a rod, this unusual sculpture would resemble the poles depicted at Onega (Figure 94).²²⁰ Radiocarbon dates obtained from the

cultural layer where the staff was found lie within the interval of 2570–1430 calBC²²¹. The age of the item thus also seems to largely correspond with the date proposed for the youngest carvings at Onega.

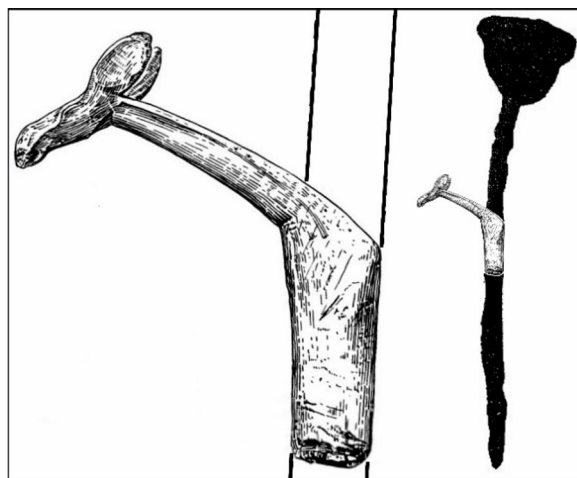


Figure 94. Elk-headed miniature staff from Mayak II and proposed reconstruction. Drawing from Gurina 1997, fig. 58. Reconstruction: Ville Mantere. Not to scale.

Many interpretations have been put forth regarding the function of the Onega poles. As Poikalainen (2004: 26) recounts, Linevski understood them as throwing weapons, Ravdonikas as “worship attributes” and Stoliar as “power-staffs” that were pointing to the underworld. Zhulnikov (2006: 74–75; 2009: 81–82), in turn, saw them as representations of the world tree, and the poles have also been compared to figures depicted on historic Saami drums and boards found in a Mansi shrine (Autio 1981: 148–149; Zhulnikov 2006: 73–74; 2009: 79–81). All of the interpretations remain rather hypothetical, and while the Onega poles undoubtedly signify the special role of the elk for northern hunter-gatherers, the rock art scenes cannot shed much light on their precise function.

On two of the Onega poles, however, the lower part terminates in a ring-shaped protuberance. This ring or loop is analogous to that depicted on the hunting spears/ski poles discussed above, as well as to that depicted on one of the elk-head staffs at Nämforsen (Figure 89). Because of the similarities, it is conceivable that the Onega poles are also related to some stage of the (elk) hunting cycle. Moreover, even if the poles at Onega are not associated with anthropo-

²¹⁹ A. Zhulnikov, email correspondence via E. Kashina 20.10.2021.

²²⁰ Another possible tangible counterpart to the elk-heads depicted on poles is a miniature elk-head sculpture from Zvejnieki, which bears some resemblance to the sculpture from Mayak II. This item, however, is dated to the Late Mesolithic period and does not constitute a parallel as evident as the item from Mayak II.

²²¹ 3930±40 BP (Le-1496) and 3235±33 BP (Hela-2396).



Figure 95. Elk-headed pole, elks and an elk-head boat depicted on the Peri Nos 3 panel. Inv. no. 1509-1. The State Hermitage Museum, St. Petersburg. Photo: Ville Mantere.

morphs, the contexts in which these occur are largely similar to those of “proper” elk-head staffs at other rock art sites. For example, on the Peri Nos 3 panel, an elk-head pole is depicted next to elk figures and an elk-head boat (Figure 95). This suggests that the elk-headed poles at Lake Onega are not fundamentally different from the elk-head staffs made at other rock art sites, even if these clearly differ from the latter. A possible explanation for their contrasting appearance lies in their younger age. It is fully possible that these are the latest elk-headed “staffs” found in rock art, and it can therefore be proposed that the function of elk-head staffs had changed from what it had been in earlier periods.

In addition to the elk-head poles there are some other unusual motifs at Onega that are seemingly connected to the elk. First of all, there are a number of lengthy, highly abstract signs that Ravdonikas (1936: 157–158; 162) interpreted as depictions of human figures masked as elks or deer. While I am inclined to concur with this interpretation in most cases, there is nevertheless one figure at Peri Nos 3 that could also be un-

derstood as an elk-head staff – at least on the basis of Ravdonikas’ obsolete tracing (Figure 96.1). Other possible but uncertain staff depictions are found on Lebediny Nos and the Kochkovnavolok Peninsula (Figure 96.2–4) (see e.g. Zhulnikov 2006: 73; 2009: 81).

Perhaps the most obvious characteristic regarding the elk-headed poles at Onega is that the figures are all depicted in isolation, with no direct association to human figures. There are two possible exceptions to this rule, both found at Peri Nos 3. The first relates to an unusually shaped anthropomorph carrying some item in its hands (Figure 96.5a–c).²²² The second figure is placed in the hands of an anthropomorph standing in a boat (Figure 96.6). In both cases, however, the figures are too abstract to be interpreted as staff depictions with any certainty. The same

²²² The interpretation of this figure is difficult because of differences in the tracings made by Ravdonikas (1936, plate 13), Savvateyev (1970: 102, fig. 22) and Lobanova (2015: 141, fig. 89), respectively. While the item in question seems to be discernible in all tracings, its possible zoomorphic shape can only be distinguished in Savvateyev’s tracing.

certainly holds true for the alleged staff-carrier (Carpelan 1977: 8) found in a boat figure on Karetsky Nos (Figure 114.39).

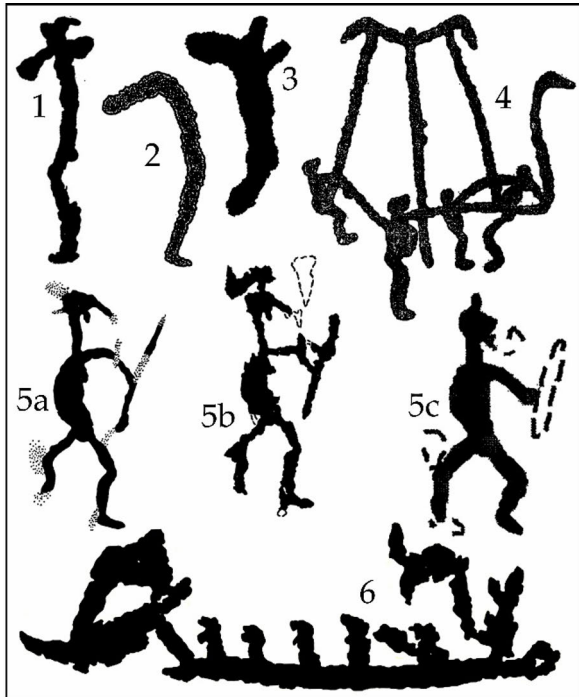


Figure 96. Possible elk-head staffs at Lake Onega. 1. Peri Nos III; 2. Lebediny Nos; 3. Kochkovnavolok Peninsula; 4. Lebediny Nos; 5a–c. Peri Nos III; 6. Peri Nos III. Tracings from Ravdonikas 1936 (fig. 1, 5a), Savvateyev 1970 (fig. 5b, 6), Poikalainen & Ernits 1998 (fig. 2, 4) and Lobanova 2015 (fig. 3, 5c). Compilation: Ville Mantere. Not to scale.

6.1.7 Animal-head staffs at Vingen

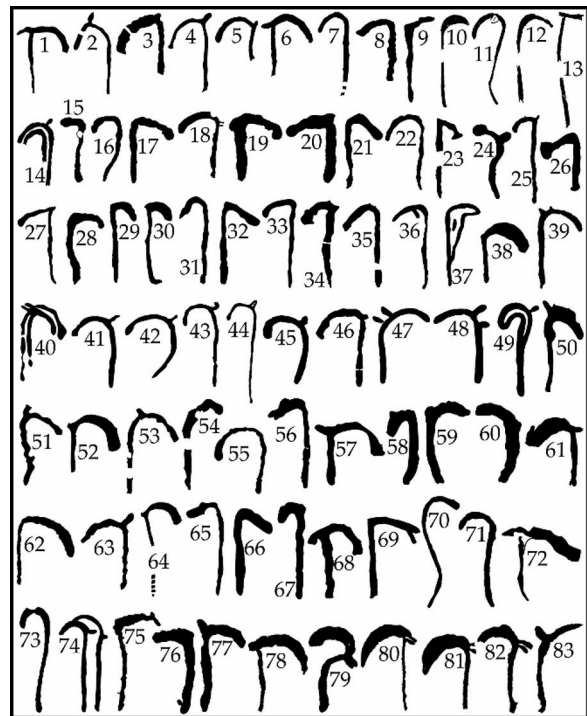


Figure 97. Staff depictions at Vingen. 1–9. Bak Vehammaren; 10–16. Bakkane; 17–36. Leitet; 37–38. Storåkeren; 39–49. Teigen; 50–68. Urane; 69–73. Ved Vatnet; 74–77. Vindbakken; 78–83. Nedste Lægda. Tracings made by Hallström (fig. 1, 21–22, 31–32, 39–44, 68), Bakka (fig. 2–6, 10–14, 33–36, 47–49, 69–70, 73–74), Bøe (fig. 7, 17–18, 23–30, 37, 45–46, 50–58, 62–67, 71–72, 78–83), Mandt (fig. 8, 15, 38), Lødøen (fig. 9, 16, 59–60, 77), Gran & Gundersen (fig. 19–20), Adriansen (fig. 61), Wrigglesworth (fig. 75–76). Tracings from Lødøen & Mandt 2012 (fig. 1–77), Bøe 1932 (fig. 78–83). Compilation: Ville Mantere. Not to scale.

In addition to the rock art sites addressed above, there is finally one important rock art location depicting staffs that deserves to be discussed separately. This is the site of Vingen, situated on the coast of western Norway. The site contains more than 2300 rock carvings and can thus be regarded as an exceptional rock art concentration, similar to the sites of Kanozero, Nämforsen, Alta, Vyg and Onega (cf. Gjerde 2018: 219). However, the staff depictions at Vingen differ significantly from those found at these sites.

The Vingen carvings can be rather confidently dated to the period 5400–4200 calBC, although it is impossible to determine their age more precisely (Lødøen 2013: 29–30, fig. 10). Nonetheless, the Vingen staffs are among the earliest staffs depicted in northern rock art. In addition to the early age of the Vingen rock art, its remote location and the unusual character of the staff

figures at this site can together reveal important information about the origins of elk-head staffs.

The most evident characteristic of the Vingen staffs is their great number. Whereas the elk-head staffs depicted at other rock art sites represent only a trivial proportion of the total amount of carved figures, at Vingen the situation is totally different. Here, as much as 519 crooked figures can be discerned. These constitute around 24% of the carvings and form the next largest motif category at Vingen, outnumbered only by depictions of red deer (Lødøen & Mandt 2012: 42, 107). As the number of staff figures is so large, it goes without saying that not all of them can be dealt with here. Instead, I have chosen to present a demonstrative overview of the different types of these figures (Figure 97).

As can be seen, the Vingen staff depictions are not only unlike the elk-head staffs at other rock art sites, but there are also noticeable differences between the Vingen staffs themselves. While some of the figures are reminiscent of scythes or sickles, others are shaped like crooks, and some even bear resemblance to Lyngby axes. It should be noted that while Lødøen and Mandt (2012), for instance, refer to crooked figures (*krokfigurer*) as a uniform category, other scholars, such as Tilley, have drawn a distinction between “hook” and “scythe” images, due to their varying form (Tilley 2008: 102–105; see also discussion in Hallström 1938: 452–455). In this context, I do not find it necessary to divide the staff figures into distinct categories, even if I, too, am aware of the notable variations in their shape. Indeed, some are depicted with “ears” while others are not; some figures are more heavily curved than others and some of the staffs are significantly thinner than others. The list of differences can be extended further: some of the curved figures end in a muzzle-like thickening whereas others have been depicted with a tapered end, and the shafts are varyingly depicted as straight or curved. Undeniably, among the staff depictions at Vingen there are figures that bear resemblance to some of the elk-head staffs presented earlier in this chapter, but the over-

whelming majority of the Vingen staff depictions lack parallels at other sites.²²³

However, even if the crooked figures at Vingen cannot be categorically identified as unmistakable depictions of animal-head staffs, such an interpretation has often been favoured (see e.g. Hallström 1938: 454; Tilley 2008: 102–105; Lødøen 2009: 582; 2010b: 38–39; 2015: 80; Zhulnikov & Kashina 2010b: 74; Kashina & Zhulnikov 2011: 23; Lødøen & Mandt 2012: 107). In my opinion, too, the Vingen figures probably depict animal staffs of different kinds. However, I am rather assured that none of them actually represent elks, as has sometimes been suggested (e.g. Zhulnikov & Kashina 2010b: 74; Kashina & Zhulnikov 2011: 23; Lahelma 2019: 234). This is because the animal figures at Vingen predominantly portray red deer. Although it cannot be ruled out that some of the cervid figures at the site depict elks, these are in any case trivial in number compared to the red deer depictions, which constitute 43% of the figures at Vingen (Viste 2003: 43, 107). I would thus claim that *the Vingen staffs represent deer-head staffs rather than elk-head staffs*.

The staff figures have been given various explanations over the years. For instance, Hallström (1938: 454–455) understood them as ritual or magic symbols, probably connected to the pursuit of these animals. In Bøe’s view (1932: 36), they represent tools or weapons that were used for hunting. The figures have also been understood as fishing hooks, pike poles, boomerangs, scythes, sickles and so forth (see e.g. Hagen 1976: 98–99; Lødøen & Mandt 2012: 107 and cited references). Tilley (2008: 103–105), in turn, has argued that they could represent metaphoric landscape markers that refer to the adjacent fjords, which in his view are more or less identical in shape to the crooked figures. Most scholars, however, have perceived the staffs as representations of tangible artefacts and I, too, think that this interpretation holds true.²²⁴ What makes our understanding of these staff figures so difficult, however, is the fact

²²³ At the Ausevik site, located some 30 km from Vingen, there is a figure that may possibly represent a solitary counterpart to the Vingen staffs (Hagen 1976: 98–99; Tilley 2008: 102–103). However, this figure is so abstract that it cannot be unquestionably identified as the depiction of a staff (Figure 98.4).

²²⁴ In fact, the staffs are the only motifs at Vingen that can be understood as representations of specific objects.



Figure 98. Scenes with staff depictions at Vingen (fig. 1–3, 5) and a possible counterpart from the Ausevik site (fig. 4). 1. Leitet 9; 2. Nedste Lægda 1; 3. Leitet 8; 4. Ausevik; 5. Leitet 6. Tracings made by Bakka (fig. 1, 3, 5), Hallström (fig. 2) and Hagen (fig. 4). Tracings from Lødøen 2009 (fig. 1); Hallström 1938 (fig. 2); Lødøen & Mandt 2012 (fig. 3, 5); Hagen 1976 (fig. 4). Compilation: Ville Mantere. Not to scale.

that none of them has been portrayed in the hands of human figures. To be precise, the figures have as a rule not been depicted in any obvious connection to human figures whatsoever (for two rare exceptions, see Figure 98.1, 3).

Most of the staff figures at Vingen are depicted separately from other motifs, but there are some panels where the staffs seem to be closely connected to depictions of red deer (Figure 98.2, 5). As both Lødøen (2009: 582–585) and Fuglestedt (2018: 120–121) have pointed out, there are several scenes in which the staffs have been depicted as confronting red deer, and even though the staffs are not carried by humans, they give the impression of exerting control over the animals.²²⁵ Lødøen (2009: 583–585; 2015: 90) interprets such scenes as signifying interaction between the two motifs and he argues that the animals are portrayed in the scenes as though

startled or afraid. By a somewhat similar token, Fuglestedt claims that the staffs act as mediating devices that operate between the world of animals and that of humans. She moreover interprets the staffs as ambiguous representations of humans and sees the depictions of staff “herds” as symbols of human society in general (Fuglestedt 2018: 129–131). Even if I do not concur with the assumption that the staffs could be equated with a human society, I would agree with Fuglestedt (2018: 163–166) that the theme of confrontation is also present at Vingen. The confrontation scenes also suggest that the ideas underlying the Vingen staff depictions, and the “proper” elk-head staffs might have been of similar character. Most probably, these ideas were related to the relationship between humans and animals.

As to the question of what might explain the notable differences between the Vingen staffs and the “proper” elk-head staffs, I am inclined to seek answers especially in the remote location of the Vingen carvings. In relation to other rock art sites with depictions of elk-head staffs, Vingen occupies an outlier position in westernmost Scandinavia (Figure 79). It is thus not so surpris-

²²⁵ According to Lødøen, scenes depicting staffs confronting animals are limited to the central area at Vingen, where “hundreds of staves have been pecked at strategic locations, as if they were enclosing ongoing processes charged with controlling power, preventing persuasive forces from escaping the area” (Lødøen 2009: 585). In contrast, carvings depicting staffs are absent from the outer reaches of the Vingen rock art area.

ing that the phenomenon of depicting animal-head staffs was manifested differently in this fringe region, where the red deer was seemingly a far more important animal than the elk. Moreover, there are some tangible animal-head staffs which may portray the heads of red deer (Figure 127). Such artefacts and the crooked depictions at Vingen suggest that animal-headed staffs could sometimes be depicted as deer-headed staffs, even though the most common manifestation was undoubtedly the elk-head staff.

As to the remarkably large number of staffs depicted at Vingen, the essential reason may equally be related to the fact that the figures do not represent elk-head staffs but deer-head staffs. In this chapter we have seen that the elk-head staffs depicted in northern rock art were items that in different contexts *represented the elk*. I firmly believe that, *besides acting as a mediatory device, the function of the deer-head staff was likewise to represent (or comprise certain features of) the red deer*. When deer-headed staffs are portrayed on the rock art panels, I would claim that it was fully logical for these to be depicted in herds, since their gregarious nature is one of their fundamental characteristics.²²⁶ Subsequently, the large number of staff depictions at Vingen seems to be a natural result of depicting deer-head staffs in the same way as red deer were encoun-

tered in nature – in numbers. Thus, whereas Fuglestad (2018: 129–131) argues that the staffs mirrored the human society, I contend that the situation is actually just the opposite. In other words, these reflected the red deer population.

A conceivable explanation for their unrelatedness to anthropomorphic figures may be found in the early dating of the Vingen staff depictions. The only representations of staffs in northern rock art that appear to be contemporary with, or even slightly older than, the *terminus post quem* for Vingen (c. 5400 calBC) are those found at the site of Slettnes (c. 5500 calBC). It is therefore thought-provoking that it is namely at this site that one finds staff depictions most reminiscent of those at Vingen; abstract staff figures not carried by anthropomorphs. Admittedly, there is a vast geographical distance between the two sites, their dating is contested, and the sites are fundamentally different as regards their number of carvings. Nonetheless, I am disposed to suggest that the introduction of staff-carrier figures into rock art some centuries later may essentially be understood in the light of the “rock art explosion” (see above).

Having now discussed all staff depictions in northern rock art, I will next move on to summarize and reflect on this thought-provoking category of motifs.

²²⁶ Perhaps it was also because of this notion that the staffs were not depicted in the hands of anthropomorphs – red deer individuals could not be controlled in the same way as elk individuals because of their gregarious coherence.

6.1.8 Elk-head staffs in the rock art of Northern Europe – summary and reflections

Table 6. Table summing up depictions of elk-headed staffs in northern rock art.

Rock art region	Slettnes	Alta	Nämforsen	Kanozero	Vyg River	Lake Onega	Vingen*
Main period (c.)	5500 calBC	4800–4200 calBC	5000–4000 calBC	4000–2000 calBC	4000–2000 calBC	4000–2000 calBC	5400–4200 calBC
Total number of figures (c.)	70	7000	2600	1400	3400	1200	2300
Number of staff figures	3	50–70	20–40	6	3–20	7–15	519
Percentage of all figures	c. 4%	c. 1%	c. 1%	<1%	<1%	<1%	c. 24%
Staffs carried by humans	No	Yes	Yes	Yes	Yes	No	No
Solitary staffs	Yes	Yes	Yes	Yes	No	Yes	Yes
Part of confrontation scenes	No	Yes	Yes	Yes	Yes	No	Yes

I will here sum up the most significant notions concerning the elk-head staff depictions as a whole and propose some ideas about their meaning and function. It should, first of all, be noted that scholars have long observed similarities between the staff depictions in northern hunter-gatherer rock art and the material elk-head staffs that have been found in burials and settlement layers (e.g. Hallström 1960: 315; Carpelan 1974: 39; 1977: 7–8; Zhulnikov & Kashina 2010b; Kashina & Zhulnikov 2011). It is also my contention that the staffs depicted in rock art refer to these similar, concrete objects, which are known across the boreal forest zone (section 7.2).

However, one of the first things one must pay attention to when comparing the staffs depicted in rock art to surviving elk-head staffs is that the former are noticeably larger in size. To be sure, petroglyphic elk-head staffs are often even larger than their anthropomorphic carriers, which is thought-provoking because the physical items never measure more than 50 cm in length. In fact, Hallström (1960: 313–314; 1967: 54) suggested that the staffs depicted in rock art could be referring to real elk-heads that were wielded on top of poles. This understanding would not only explain the considerable size of the figures, but also why many of the staffs are held by anthropomorphic figures in both hands.

It is, of course, possible that the staffs depicted in rock art do not refer to real-life artefacts but to purely fictional items, but the fact

that tangible elk-head staffs have been found in significant numbers across a broad geographical area is in itself a strong indicator that these items were widely known in northern regions. As a consequence, their occurrence in rock art is hardly surprising. Since the proportions of physical and petroglyph staffs are largely similar, I am disposed to see the large size of the latter simply as a creative feature (Mantere & Kashina 2020: 6). That is, however, not to say that real elk-heads, too, could not have been carried on top of staffs, nor that the elk-head staffs in rock art were necessarily linked to real-life activities.²²⁷

In terms of their date, the depictions of elk-head staffs in rock art seem to cover a period lasting more than three millennia. The oldest staff depictions date to the Late Mesolithic period and the latest seem to be of Late Neolithic origin. Apparently, “proper” elk-head staffs were depicted mainly in the period 5000–3000 calBC, and slightly different kinds of staffs were made both before (Slettnes, Vingen) and after (Lake Onega) this main period. Unfortunately, however, the dating of the staff depictions is still so uncertain, and the material is so scarce that this view must be taken with a certain caution.

²²⁷ There is some ethnographic evidence describing the use of real elk-heads in contexts other than food consumption. According to Ashihmina (2002: 11), for example, real elk-heads have been used both as sacrifices laid within the foundations of buildings and to adorn houses since the Early Bronze Age in the northern Sub-Urals region.

In any case, as Zhulnikov and Kashina (2010b: 74) have pointed out, representations of elk-head staffs are no longer found in Bronze Age rock art. Kolpakov (2018: 178) argues that this is possibly explicable by the fact that depictions of axes in Bronze Age rock art are in many ways similar to staff depictions. In his view, it seems in fact as if the “magical” properties of the elk-head staffs were eventually conveyed to real axes, which in the Bronze Age petroglyphs are no longer zoomorphic in shape.

As regards their depiction style, elk-head staffs have been represented in a more or less similar manner at all of the rock art sites where they occur. All portrayals of this motif are pecked and made in the scooped-out style. There is thus little support for Lahelma’s (2019: 234) suggestion that “different types of staffs” would signify members of competing clans, simply because such different types hardly exist. Instead, the depictions of elk-head staffs in rock art are noticeably more standardized than, for instance, those of elks or of boats. Moreover, despite the large number of rock painting sites in Northern Europe, not a single portrayal of an elk-head staff is to be found in these paintings. Most probably, this has to do with the very nature of the rock art sites, because staff depictions occur specifically at the largest rock art sites in Northern Europe.

Indeed, with the sole exception of Slettnes, the elk-head staffs are found only at sites with large rock carving concentrations, each consisting of at least 1200 carvings. As was stated in the previous chapter, I am inclined to understand the large carving sites as “innovation centres” that stimulated the spread of novel concepts – such as elk-head staffs – among hunter-gatherer groups coming from different regions (cf. Meinander 1979: 91–92; see also Melheim & Ling 2017: 68 and cited references; Gjerde 2018: 219). The fact that elk-head staffs are restricted to these sites seems to fit well into this interpretation, as does the fact that all sites are shorebound and located in places situated along long-distance travel routes. In this light, it is also understandable that the geographical distribution of images of elk-head staffs is remarkably large within rock art, even if the plain number of sites where the depictions occur is not particularly large as such.

In this context, I want to emphasize again that the distribution of elk-head staff depictions corresponds largely with that of elk-head boats. Indeed, as noted above, all sites with depictions of elk-head staffs also contain depictions of elk-head boats. The reverse does not, however, hold true, for as will be seen, the elk-head boats occur sometimes without any connection to elk-head staffs. Elk-headed boats in northern rock art are also found outside the region of study, but as far as I am aware of, no figures that clearly represent elk-head staffs are found outside Europe.²²⁸ We are thus dealing with a motif that was more restricted than the elk-head boat. This is not only discernible in the geographical range and in the more standardized manner of elk-head staff depictions, but also in the prevalence of this motif. There are altogether around 1000 depictions of elk-head boats in the rock art of Northern Europe, whereas depictions of elk-head staffs are noticeably fewer in number, consisting of approximately 150 figures in total (Table 6). That said, I am still of the opinion that a special connection exists between the two motifs. This is not only reflected in their similar distribution, but also in the fact that elk-head staffs are sometimes depicted inside elk-head boats. In addition, both motif categories are characterized by elk-heads that lack antlers.

Yet, even though depictions of elk-head staffs are found at the sites with large rock art concentrations, the theme is not a common motif at any of the aforementioned sites. To be sure, roughly one per cent, at most, of the figures depicted in Alta, Nämforsen, Kanozero, Vyg and Onega represent elk-head staffs (Table 6).²²⁹ However, it

²²⁸ Types of staffs somewhat similar to those portrayed in Northern Europe can be discerned at certain rock art locations in the Urals and in Siberia, but there are no clear parallels to elk-head staffs among these representations. For instance, Ozols (1974: 10–11) has mentioned a possible staff depiction at the Pisaniy Kamen site in the Urals region. This figure, however, is not carried by a human figure and seems to be dated to the Early Iron Age (Chernetsov 1964, table IX; Shirokov & Chairkin 2011: 65). Representations of staffs presumed to be depicted with animal-heads are also found at Kalbak-Tash in the Altai region (see Kovtun 2008: 26, tab. 4). However, despite being loosely reminiscent of the elk-head staffs discussed in this chapter, the Altaian figures are still not directly comparable in terms of their age or appearance.

²²⁹ At Slettnes the proportion is slightly larger, but still not significant. At Vingen, the situation is totally different, with almost one quarter of the figures representing staffs of different kinds, but as stated above, I believe this is because the crooked figures at this site represent deer-head staffs.

must be noted that representations of staffs often play a more significant role at the sites than their limited prevalence alone would indicate. Indeed, the elk-head staffs carried by anthropomorphic figures, in particular, often play a central role in the rock art panels in which these have been depicted. Examples of such panels include but are not limited to: Ole Pedersen 9 in Alta, Lillforshällan at Nämforsen and Kamennyi-7 at Kanozero.

As to scenes and compositions, there are obvious differences between the sites, and even within the sites themselves. Overall, most of the elk-head staff depictions are carried by anthropomorphs, but this is mainly because of their large number in Alta. As regards the staffs held in the hands of anthropomorphic figures, there is a notable variation as to how these are wielded. Sometimes the staffs are held in one hand only, at other times in both hands, and the staffs are variously held in vertical and horizontal positions (see Zhulnikov & Kashina 2010b: 75–6; Kashina & Zhulnikov 2011: 24–7; Mantere & Kashina 2020: 6).²³⁰ Even though variations exist also within single sites, it seems as if the diverse positions largely reflect regional conventions.

The staff-carriers in rock art are sometimes depicted with a phallus, but in most cases, sexual attributes are lacking. There are thus no firm grounds for interpreting all staff-bearers as male individuals, as has previously been suggested (cf. Zhulnikov & Kashina 2010b: 74; for discussion on sexual attributes on anthropomorphic rock art figures, see section 8.1.4). What is apparent, on the other hand, is that the heads of the staff-bearers often have a peculiar shape.²³¹ It is thus probable that the figures do not actually depict living humans but rather some sort of mythical beings (Zhulnikov & Kashina 2010b: 74). Indeed, the unusually shaped heads of the staff-carriers are so common and widespread that I believe that these are indicative of a common belief shared by the rock artists. As to the question what these entities with abnormal heads exactly represent, there are of course no

certain answers. However, one reasonable explanation may lie in Glørstad's (1999; 2010) idea of a male elite that presumably existed in the Late Mesolithic period.

Glørstad's argument is based on his reading of Mesolithic stone hatchets in southern Norway and western Sweden (see section 7.3). These he interprets not only as parallels for elk-head staffs, but also as representations of masculine symbolism, signifying power and prestige (Glørstad 1999: 56–57; 2010: 187, 193, 236). The hatchets have been found in waterlogged find contexts, and Glørstad therefore suggests that these were socially significant items deposited in aquatic settings by “mighty men” in the society. By depositing the hatchets in the water as offerings, the items were intentionally taken out of circulation, which consequently promoted the status of these leaders within their societies (Glørstad 2010: 195, 204–210). Glørstad claims that the “mighty men” acted as charismatic representatives for larger groups and came eventually to be considered honoured mythical ancestors and forefathers by subsequent generations. He furthermore suggests that these ancestors may more or less have been regarded as incarnating the elk and *vice versa* (Glørstad 2010: 244).

Assuming that Glørstad's explanation is accurate, this would find support in the depictions of staff-carriers in prehistoric rock art. For if one supposes that the rock carvers wanted to depict important mythical ancestors through the use of the elk-head staff motif, the most straightforward way of illustrating the former would have been to depict them with some attribute that distinguished them from living beings. I would argue that the unusually shaped heads should specifically be regarded as distinctive markers of this type. In other words, these were made in order to depict the nature of the anthropomorphs to be almost, but not entirely, the same as that of living human beings (for rock art illustrating narratives connected to past ancestors, see Bolin 2000: 166). Consequently, along the lines of Glørstad's interpretation, I would suggest that the staff-bearers neither represent living beings, nor fantastic creatures. Rather, I argue that *the elk-head staff-carriers in rock art represent the forefathers of the rock artists: important*

²³⁰ Here it can be observed that the notable variation as to the ways in which Scanian axe images are presented and grouped within Bronze Age rock art has been interpreted as signifying that such items possessed “extended biographies” (Skoglund 2017: 210).

²³¹ In fact, it seems that it is typically the heads of male staff carriers (depicted with phalluses) that have an unusual shape.

ancestors, who over the course of time had evolved into mythical characters.

A recurring characteristic in the rock art compositions involving elk-head staffs is that there is often some kind of confrontation taking place. Sometimes the staffs (and their carriers) face each other, whereas in other scenes they are confronting boats or animals (Fuglestedt 2018: 119). Often, such compositions are best understood as illustrations of mythical actions; possibly embodying some kind of mediation or control by means of confrontation (see Fuglestedt 2018: 129–131; Herva & Lahelma 2019: 77). It is impossible to specify, exactly, what kind of interaction is taking place in the various compositions of confrontation, or what the rock artists thought it was possible to achieve by the use of elk-head staffs. However, the large variety within these scenes at different rock art sites suggests that regional differences existed. For instance, the male staff-carrier confronting a raven (Figure 90) and the “love triangle” composition (Figure 91) at Kanozero are examples of compositions involving elk-head staffs that have not (as yet) been found elsewhere in northern rock art. Similarly, the depictions of large boats with elk-head staffs as independent crew members are unique to Nämforsen (Figure 88). Yet, despite these various manifestations, the essential meaning of the elk-head staff was in all probability similar at Kanozero and Nämforsen. At both sites, it represented an item (or being) thought to be capable of mediating between different realms. Moreover, it seems that in the various kinds of confrontations, the staff was powerful namely because it *represented* the elk.

Assuming that the scenes with elk-head staffs represent mythical actions performed by ancestors, it is also reasonable to interpret the staffs as items that could encompass “ancestral history”. Conceivably, the staffs thus had a comparable function to the *churingas* known from Australian ethnography (see footnote 143). *Churingas* were powerful, decorated items thought to comprise

ancestral power known as *mana* (Durkheim 1912: 96–108, 144–147; cited in Fuglestedt 2010: 27–29). As Fuglestedt (2008: 358) writes, besides geographical places, *mana* can be manifested in “objects that are highly valued on background of its biographical (ancestral) history and origin in a specific raw material source”. Thus, if one is to use the Australian vocabulary and understand the staffs as *churingas*, it was the elk that represented the *mana* of the staff. It is of course impossible to say how much of the staff’s power was linked to the animal it represented and how much to the person that used it, but there is reason to believe that the staff was itself considered a highly powerful item (Mantere & Kashina 2020: 14). The existence of solitary staffs at several rock art sites shows that this was an item that was not only important when carried by a powerful being, but it also had importance in its own right.

It is vital to stress, however, that even if I find the concepts of *churinga* and *mana* to be potentially useful in comprehending depictions of elk-head staffs in rock art, I do not associate the staffs with totemism, to which the two aforementioned terms are most commonly linked. The reason for this is that the archaeological record strongly indicates that the staffs were personal items that were intimately connected to their owners, instead of being inherited or communal artefacts (Mantere & Kashina 2020: 16). This notion speaks against a totemic interpretation, essentially because the alleged relationship between the elk and the staff-carrier was not something that pertained to the whole group of hunters but was instead restricted to the most powerful individuals only. I will elaborate further on these notions in the following chapter in relation to the physical elk-head staffs. Next, however, let us move on to another category of motifs in rock art that is closely linked to the depictions of elks and elk-head staffs – that of elk-headed boats.

6.2 Elk-head boats in the rock art of Northern Europe



Figure 99. Map showing the distribution of elk-head boats in the rock art of Northern Europe. Map: Ville Mantere/NatGeo MapMaker.

In this section, I will discuss the motif of a boat with an elk-head figurehead, which is recurrent in the rock art of Northern Europe. Before addressing the representations of elk-headed boats, however, it is worth mentioning that possible but abstract animal-headed boats can be seen for instance at the Norwegian rock carving sites of Evenhus in Trøndelag (see Gjessing 1936, plates LXXV–LXXIX) as well as Skjomen and Rødøy in northern Norway (Hallström 1960: 298). In fact, along the Norwegian coast there are several rock art sites with boat depictions that have bird-shaped prows (Gjerde 2017: 133–135, fig. 5.9). In theory, some of these could be depicting elk-heads in an abstract style, although I do not find this likely (see, however, Sognnes 1996: 40 for a contrasting opinion). Moreover, according to Arntzen (2007: 89, 32) and Gjerde (2010: 399, fig. 283), a possible elk-head boat is depicted on a carved stone that originates from the site of Langnesholmen (also known as Isnestofthen II)

north of Alta, but which today is kept at Alta Museum.²³² Amongst the carvings on this stone, there are two human figures and five reindeer depictions, as well as some vague, additional carvings. However, none of the figures in my opinion clearly represent boats and I have therefore not included Langnesholmen in my listing of rock art sites with elk-head boats.

As Gjerde (2010: 397–400; 2017: 121, 126), for instance, has pointed out, the geographical distribution of elk-head boat depictions is concentrated in the northeastern parts of Fennoscandia (Figure 99). In Norway, no depictions of elk-head boats have been identified south of Alta, and in Sweden depictions of elk-head boats have until recently been limited to the carvings at Nämforsen, with a few possible exceptions at Norrfors. However, it was recently reported that elk-head boats had been

²³²<http://altarockart.no/fotoweb/archives/5000-Browse-in-Norwegian/Indekserte%20bilder/20131128laju027.jpg.info#c=%2Ffotoweb%2Farchives%2F5000-Browse-in-Norwegen%2F%3Fq%3DIsnestofthen>, accessed on 6.3.2019.

identified also at the site of Tumblehed near Gothenburg (Schultz Paulsson et al. 2019). These boat images would fill an important gap, for no boat figures of any kind had earlier been known to exist among Swedish rock paintings. This represents a thought-provoking anomaly, because boats – sometimes portrayed with an elk-head prow – constitute a rather common motif in Finnish rock art. The images at Tumblehed now give reason to believe that further painted elk-head boats may be found in Scandinavia in the future.

In addition, a recent discovery in Tulguba on the northwestern shore of Lake Onega indicates that painted elk-head boats probably also exist in northwestern Russia. The Tulguba find consists of a single boat figure that not only seems to represent the first painted elk-head boat in northwestern Russia but also the very first rock painting found in Russian Karelia (Zhulnikov 2022).²³³ The fact that paintings exist in this region was hardly a surprise for rock art researchers, however, as painted petroglyphs are found in large numbers in southeastern Finland. It is thus rather anticipated that additional rock paintings will in the future be discovered in Russian Karelia, and it is possible that more elk-head boats will be found among the paintings.²³⁴

Before proceeding on to discuss elk-head boats in the rock art of Northern Europe, a few words need to be said about the occurrence of this motif outside this region, as depictions of boats are noticeably widespread in rock art globally. They also often share certain recurring characteristics, such as being depicted in profile with a more or less curved prow and stern, and the people inside the boat marked as simple

vertical lines (see e.g. Formozov 1973: 42–43, fig. 16; Devlet & Devlet 2005: 246–247; Kullikova 2014: 61–66). The animal-headed prow, while not as common as the aforementioned traits, is also a feature that is depicted on boat figures across the northern forest zone. Indeed, animal-headed prows have been depicted in Siberian as well as in Canadian rock art, indicating a circumpolar dispersal of this trait (see e.g. Lahelma 2017: 149, 155, 158, fig. 6.3.). The Siberian depictions in particular seem to depict clearly distinguishable elk-heads (Figure 100.1–4).

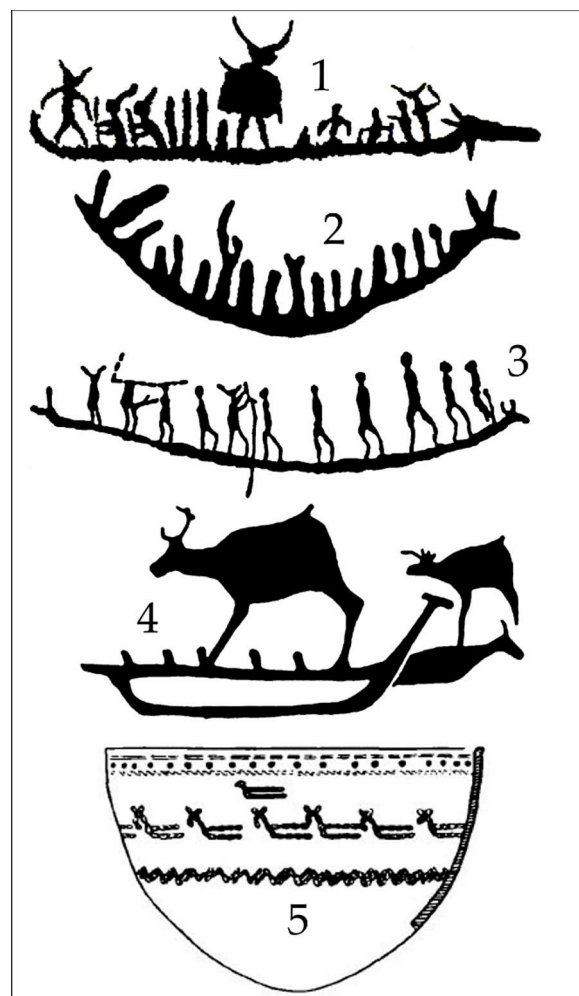


Figure 100. Depictions of elk(?)-head boats in Siberian rock art and on a ceramic vessel from the Perm region. 1. Shalabolino (Middle Yenisei); 2. Sheremet'evskoe (Ussuri); 3. Shalabolino (Middle Yenisei); 4. Pegtymel (Chukotka); 5. Ceramic vessel from settlement Bor III (Dobryansky District, Perm region). Tracings from Ermolenko et al. 2011 (fig. 1); Devlet & Devlet 2005 (fig. 2–4) and Oborin & Chagin 1988, p. 22, fig. 29. Compilation: Ville Mantere. Not to scale.

²³³ <https://gazeta-licey.ru/news/82042-v-karelii-vpervyie-obnaruzhen-vyipolnennyiy-ohroy-drevniy-naskalnyiy-risunok>, accessed on 13.11.2019.

²³⁴ In fact, already before the discovery of the Tulguba figure, Shakhnovich (2014: 64–68) proposed that a red ochre spot found in 2010 in western Karelia constituted a prehistoric rock painting. The alleged painting consists likewise of a single figure that Shakhnovich took as a stylized boat depiction. The colour spot, which, interesting as such, was found on the southern shore of a lake called Pisanets (“scripture”), is, however, most probably of natural origin (<https://gazeta-licey.ru/news/82042-v-karelii-vpervyie-obnaruzhen-vyipolnennyiy-ohroy-drevniy-naskalnyiy-risunok>, A. Zhulnikov's reply to M. Shakhnovich in comment section, accessed on 15.10.2019).

It can also be noted that ceramic vessels in the Urals region have sometimes been ornamented with depictions of animal-headed boats or swimming animals (see e.g. Serikov 2014: 252, fig. 60). For instance, a 46-cm diameter vessel with possible elk-head boat depictions (Figure 100.5) has been found at the Bor III settlement, located by the lower reaches of the Chusovaya River in the Perm region (Bahder 1957: 9, abb. 2; Oborin & Chagin 1988: 22).²³⁵

In addition, in line with Lahelma (2017: 155), I regard the later boat depictions with alleged horse-heads in south Scandinavian rock art as belonging to the same phenomenon as the elk-head boats. As Westerdahl (2011: 296; see also Westerdahl 2005: 13) has argued, the horse-headed boats can be understood as a continuation of the elk-head boats by agricultural populations. Moreover, in parts of southern Scandinavia, other animal species such as the bull and the wild boar seem also to have been connected to boats in similar token to the horse during the Early Bronze Age (see Melheim & Ling 2017: 67 and cited references). As Herva and Lahelma (2019: 119) have pointed out, however, the animal-heads on the prows of Bronze Age boat carvings are many times so schematic that it is often not possible to ascertain whether they represent the heads of elks or horses.²³⁶ For instance, the animal-head depicted on a boat figure on the Solberg nedre 1 panel in Skjeberg, eastern Norway, is largely reminiscent of the elk-heads depicted at Nämforsen (Figure 101).²³⁷

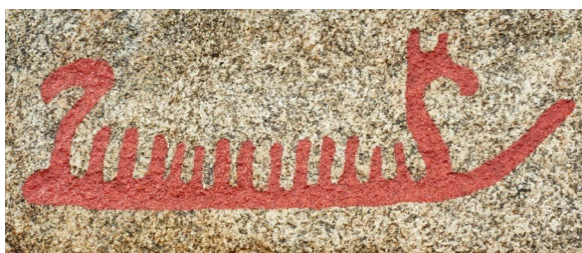


Figure 101. Horse(?)-headed boat figure on the Bronze Age rock art site Solberg nedre 1 in Skjeberg, Sarpsborg (eastern Norway). Photo: Ville Mantere.

²³⁵ A radiocarbon date (3920 ± 80 BP; Ki-15082) from the Bor III site yielded the result 2560–2280 calBC (Mosin et al. 2014: 36, tab. 2).

²³⁶ The same goes for the ambiguous horse(?)-heads that are found on a number of bronze knives from Sweden (e.g. SHM 9822:793; SHM 3765) and Norway (e.g. T18383 a).

²³⁷ Other interesting boat figures with possible elk-head prows that fall outside this study due to their Bronze Age origin are the Norwegian carvings at Björngaard in Stjördalen (Trøndelag) and Bö in Sokndal (Rogaland) (see Hallström 1960: 299, 302).

With these notions in mind, let us turn to the elk-head boat depictions in the hunter-gatherer rock art of Northern Europe. I will first present the depictions of elk-head boats site by site, after which I will discuss this motif category in depth.

6.2.1 Elk-head boats at Slettnes

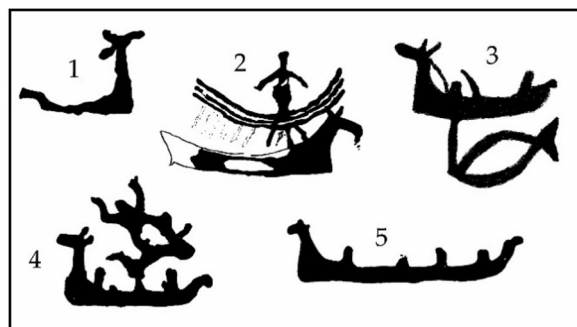


Figure 102. Elk-headed boats at Slettnes. 1. Stone I; 2–3. Stone II; 4–5. Stone IV. Tracings (fig. 1–2, 4–5) by Johnny Nordhus (from Hesjedal 1993) and fig. 3 by Ville Mantere (based on the tracing by Stölting 1997). Compilation: Ville Mantere. Not to scale.

There are five rather clear boat representations at Slettnes. All boats are made in the scooped-out style and depicted with antlerless elk-head prows (Figure 102).²³⁸ Three of the boat depictions include strokes, which are usually understood as denoting crew members (see below). The rock carvings at Slettnes are dated approximately to 5500 calBC (see above). This probably makes the Slettnes boat figures the oldest representations of elk-headed boats in the rock art of Northern Europe.

As Stölting (1997: 21) and Arntzen (2007: 34) have pointed out, the Slettnes boat figures are reminiscent namely of the boats depicted in the earliest periods in Alta (see also Hesjedal et al. 1996: 200). This is not surprising given their proximity in space and time. The Slettnes boats also share many stylistic features with the elk-headed boats at other northern rock art sites, such as the aforesaid strokes and the shape of the hull. Two of the Slettnes boats seem to be associated with anthropomorphic figures, and in a tracing made by Stölting (1997: 19, fig. 7), a boat figure looks to be connected to a fish by a

²³⁸ In addition, there are three or four other possible boat depictions at Slettnes, on panels 1 and 2, respectively. These figures, however, are so abstract and/or fragmented, that it is not possible to say with certainty whether the figures actually represent boats or not.

line, as if denoting fishing from the boat (Figure 102.3). This interpretation, however, must be considered somewhat uncertain as the composition cannot be discerned in the initial tracing of the stone (Hesjedal 1993: 27). That said, it is by

no means inconceivable that fishing or whaling from an elk-head boat was also depicted at Slettnes, given that such scenes are found at several other northern rock art sites (see e.g. Stølting 1991; Gjerde 2013).

6.2.2 Elk-head boats in Alta

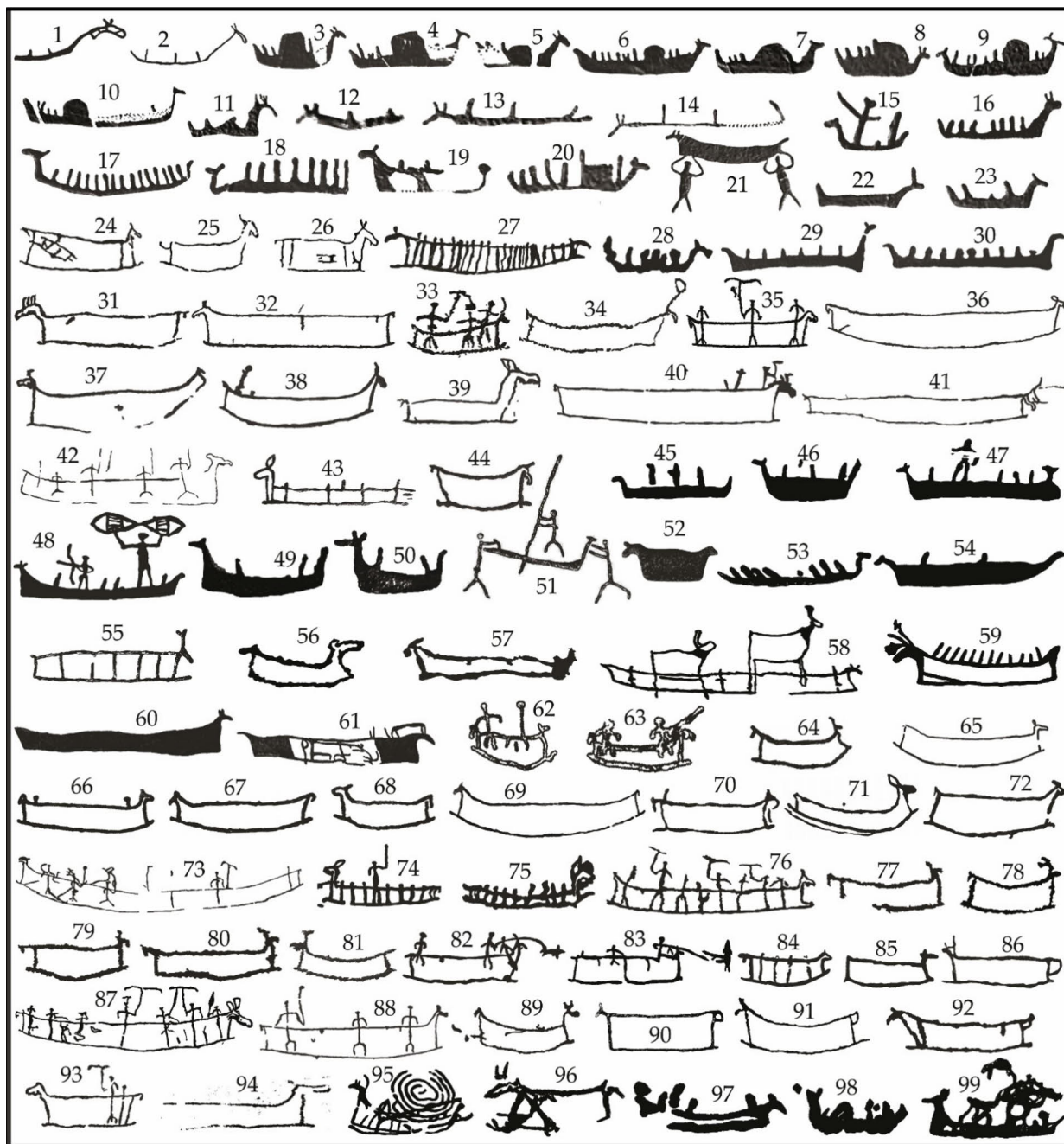


Figure 103. Elk-headed boat figures in Alta. 1.–2. Kåfjord 1A; 3.–14. Kåfjord 1G; 15. Kåfjord 1I; 16. Kåfjord 1J; 17.–18. Kåfjord 1K; 19.–20. Kåfjord 1L; 21.–23. Kåfjord 1O; 24.–26. Kåfjord 2D; 27. Kåfjord 2E; 28.–30. Bergbukten 1; 31.–32. Bergbukten 2; 33.–41. Bergbukten 3A; 42.–44. Bergbukten 3B; 45.–49. Bergbukten 4B; 50. Bergbukten 8A; 51.–54. Bergheim 1; 55. Bergheim 4A; 56.–58. Bergheim 6; 59.–61. Ole Pedersen 1; 62.–69. Ole Pedersen 3; 70.–73. Ole Pedersen 4; 74.–76. Ole Pedersen 5; 77.–80. Ole Pedersen 6; 81. Ole Pedersen 10; 82.–92. Ole Pedersen 11A; 93. Apanes 1; 94. Apanes 4; 95.–99. Storsteinen. Tracings by Karin Tansem. Alta Museum Rock Art Archive. Compilation: Ville Mantere. Not to scale.

After having systematically examined the tracings of all rock art panels in Alta, I have discerned approximately 100 more or less evident depictions of elk-headed boats (Figure 103). In addition, some 40 uncertain figures may represent boats with elk-head prows.²³⁹ Needless to say, this is a highly subjective interpretation, for many of the boat figures are so abstract and/or fragmented that a definite classification is impossible to achieve. For instance, the Storsteinen boulder comprises so many partial and superimposed carvings that additional elk-head boats may well exist on the stone besides the five figures that I have been able to discern (Figure 103.95–99). Correspondingly, some of the animal-headed prows from Alta are so schematic that it is impossible to ascertain whether these represent the heads of elks or reindeer.

I have not meticulously listed the boat carvings that lack zoomorphic details, but it can be stated that the majority of boat figures in Alta have been depicted with an elk-head prow. According to Helskog (2020: 64), the total number of boat figures in Alta is 135, which implies that as many as 75% of the boats have an elk-head prow. It is noteworthy that this feature seems to fade in importance over time, because it is namely the most recent boat depictions that lack an elk-headed prow. These younger boat figures are also noticeably different in shape when compared to the elk-headed boat figures from earlier phases (Klem 2010: 55–70; Helskog 2014: 40–204).

The boat with an elk-head prow appears to have already been important to the people who made the very first carvings in Alta. This is indicated by the two elk-headed boats carved at Kåfjord (Figure 103.1–2) that date to the first carving period of around 5000–4800 calBC (Klem 2010: 55; Helskog 2014: 43–45; for periodization, see previous chapter). According to Helskog (2014: 44), these single-lined boat figures are unique in northern rock art in terms of their shape.

In the second period (c. 4800–4200 calBC), all boats are depicted with a completely carved hull, with the majority exhibiting an elk-head prow (Helskog 2014: 92; 2020: 65). The elk-heads on the prows are generally represented without

antlers, although there are some possible exceptions to this rule (Figure 104.7). There are also some boats dating to this period that are portrayed without an elk-head prow. In Helskog's view (2014: 92), this can perhaps be explained by the fact that the elk cow was a totem animal, and it was only the members of this clan that made carvings of such boats. While this remains a possibility, a more probable scenario could be that the elk-headed prow was somehow related to status. The boats that lack the elk-headed prow could have been used, for instance, by adolescents who were seen by their society as not yet having come of age.

In any case, there is a large variety of actions with which the elk-headed boats are associated during the second period. On the Bergbukten panels, for instance, halibut fishing and reindeer hunting are depicted as taking place from elk-head boats (Helskog 1985: 189–190). In general, the compositions give reason to believe that elk-head boats were habitually used for such activities by the societies who produced the rock art. There are also a couple of depictions of anthropomorphs carrying elk-head boats (Figure 105.4–5). These compositions indicate that the boats were lightweight, most probably made of hide (see section 6.2.9.1).

In the third period (c. 4200–3700 calBC), the boat figures are larger and mainly depicted with an outlined hull. The prows are still prevalently shaped as antlerless elk-heads. However, as Helskog (2014: 136) points out, it is sometimes difficult to say whether the heads actually represent those of elks or whether these should instead be interpreted as reindeer-heads (cf. Skandfer 2020: 119). This especially concerns the few boat depictions on which the animal-head prows seem to have antlers. In Helskog's (2014: 136; 2020: 65) opinion, there are also boats in this period with prows that are shaped as bird-heads.

As regards the role of elk-head boats in relation to other figures, the scenes are characterized by their high degree of variation. On some panels, the boats are depicted in isolation, whereas at places they occur in groups and/or are clearly connected to activities such as fishing, hunting,

²³⁹ My understanding of the distribution of ambiguous elk-head boats is as follows: Bergbukten (6 representations); Bergheim (5 representations); Kåfjord (7 representations); Mellom Bergheim og Apanes (1 representation); Ole Pedersen (21 representations).

and trapping.²⁴⁰ Equally, there are many boats depicted without any crew, while some of the boats have a varied number of anthropomorphs (often three) inside them (Helskog 2014: 137; Günther 2022: 119). According to Günther (2022: 93), there are four instances in which unmanned boats interact with elks. In several cases, T-shaped items and other kinds of objects are carried by the people inside the boats, possibly indicating their status (Helskog 1985: 191–194).

While Günther (2022: 93) notes that the boats are more common in the third than in the second period, the significance of the elk-headed prow seems to lose importance by the end of the third period. In Helskog's (2014: 138; 2020: 65) view, the boat figures on Apana Gård 9 are illustrative of the decline; the boats have prows, but these are no longer clearly shaped as elk-heads.²⁴¹ From around 3700 calBC onwards, elk-headed boat figures are entirely absent from Alta (Helskog 2014: 154, 174; 2020: 51, 61). As seen above, this coincides with an overall decline in the

significance of the elk. Elk depictions are fewer and more abstract than in the preceding periods and nor are there any representations of elk-head staffs. Even if this probably reflects a certain decline in the economic importance of the elk in the region, it seems unlikely, as Helskog (1985: 194) has pointed out, that the boat itself would have lost its importance for people living in the northern coastal zone. Indeed, even if no boat figures of any kind seem to have been depicted in the period 3700–2200 calBC, after 2200 calBC boat depictions resume in Alta (Helskog 2020: 64–69). However, this time they bear more similarity in shape to south Scandinavian boats of the Bronze Age than to those depicted in Alta during earlier periods (Helskog 2014: 192–193). These boats have prows, but they are, apart from a few exceptions, depicted merely as abstract lines. In rare cases there are prows which appear to be shaped as animal-heads, but in Helskog's view (2014: 192, 194; 2020: 68), these are not depicting the heads of elks but of horses.

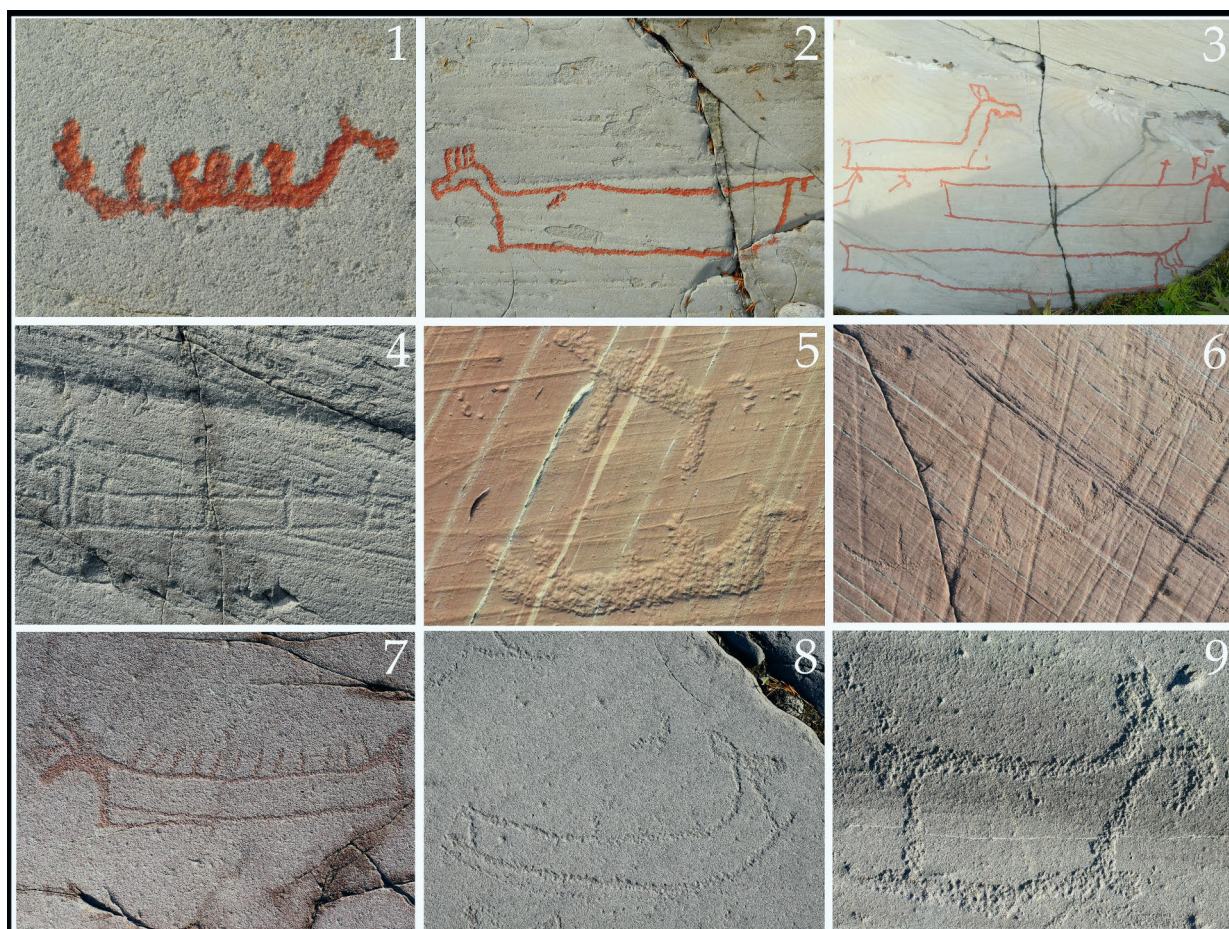


Figure 104. Elk(?)-head boat depictions in Alta without distinct anthropomorphs. 1. Bergbukten 1; 2. Bergbukten 2; 3. Bergbukten 3A; 4. Bergbukten 3B; 5–6. Kåfjord; 7. Ole Pedersen 1; 8. Ole Pedersen 4; 9. Ole Pedersen 11A. Photos and compilation: Ville Mantere. Not to scale.

In sum, there is a large variety both in the shape of the boats depicted and in the scenes in which they are represented in Alta. The boat crews are more often represented as abstract vertical lines than as identifiable anthropomorphs. According to Helskog (2014: 99), this simplistic manner of depicting human figures may have a pragmatic explanation, as humans sitting in a boat would appear like this when seen from afar. However, even if this is a common way of interpreting strokes on boat figures also more generally, it should not always be assumed to be the case.

Indeed, in Alta there are several cases in which humans inside boats have been portrayed in a rather detailed manner, even if the crews are primarily represented by strokes (Figure 105).

Perhaps, the artist(s) thus wanted to, by means of such depictions, indicate the special role of one or several people in relation to the rest of the crew. Alternatively, the vertical strokes could signify elements related to the construction of the boat, such as ribs or beams. If this is the case, it probably means that different kinds of boats were used in Alta, as boat figures lacking these strokes are only slightly more prevalent than those portrayed with them. Regardless of their interpretation, the boat with vertical strokes is a remarkably widespread motif across the taiga region. It is therefore conceivable that the strokes also to some degree represent a stylistic trait that did not necessarily always have a direct actual correspondence to the ordinary boats used locally in daily life.

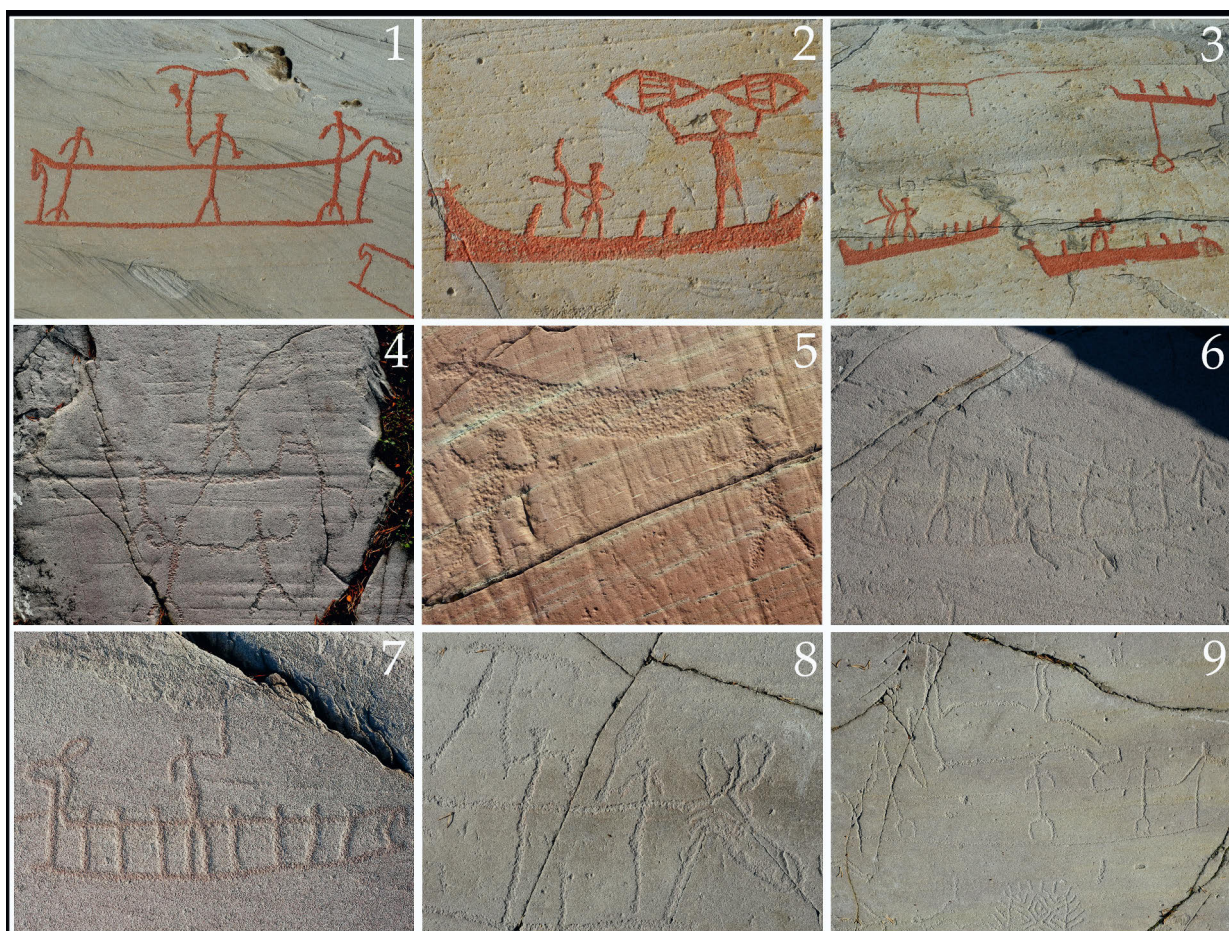


Figure 105. Elk(?)-head boat depictions with anthropomorphic figures in Alta. 1. Bergbukten 3A; 2.–3. Bergbukten 4B; 4. Bergheim 1; 5. Kåfjord; 6.–7. Ole Pedersen 5; 8.–9. Ole Pedersen 11A. Photos and compilation: Ville Mantere. Not to scale.

6.2.3 Elk-head boats at Nämforsen (and Norrfors)

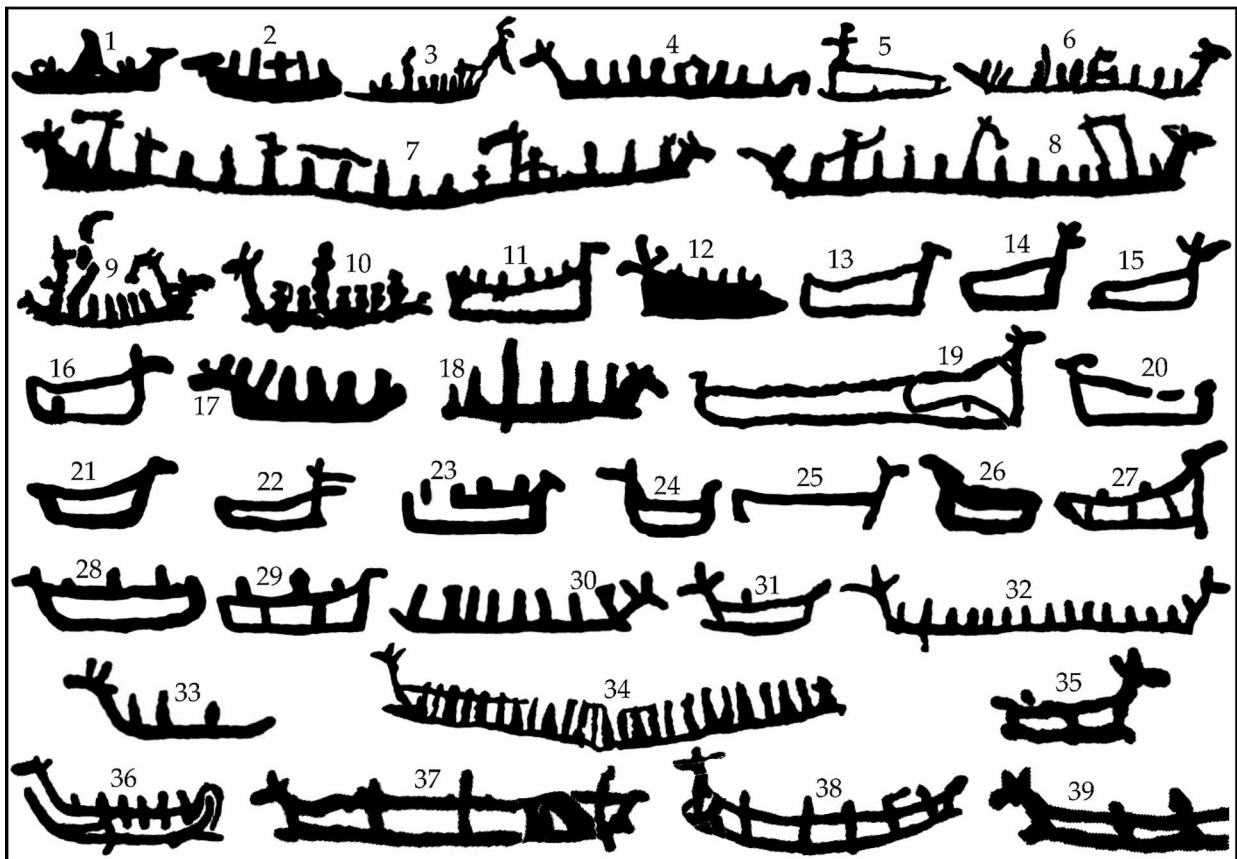


Figure 106. Elk-head boats at Nämforsen. 1. Main Group (MG) 1, D:6; 2–4. MG1, D:14–15; 5. MG1, E:1; 6–9. MG1, G:1; 10. MG1, G:2; 11. MG1, G:4; 12. MG2, E:2; 13. MG2, G:4; 14–16. MG2, P:1; 17–18. MG2, Q:1; 19. MG2, R:3; 20–23. MG2, S:8–9; 24–25. MG2, T:3; 26. MG2, U:1; 27. MG2, U:2; 28–29. MG2, V:2–3; 30. MG3, A:1; 31–33. MG3, B:1; 34. MG3, B:2; 35–39. MG3, E:4–6. Tracings from Larsson & Broström 2011. Compilation: Ville Mantere. Not to scale.

In Hallström's (1960: 293) view, 366 boat depictions exist at Nämforsen, but as new carvings have been discovered, the total number of boat figures now exceeds 400 depictions (see Larsson & Broström 2011: 109–110; 2018: 121). Of these, the vast majority have been portrayed with a curved prow that most likely denotes an animal-head. However, the prows have in most cases been portrayed so schematically that it is not possible to determine whether these are actual depictions of elk-headed prows. Some of the abstract boat prows give an impression of being shaped like birds. As Hallström (1960: 295) pointed out, the overall shape of these boats, too, is at times reminiscent of bird figures. Recogniz-

ing elk-headed boat prows at Nämforsen is highly problematic also because of the presence of multiple fragmented and superimposed carvings on the panels.

When I assessed the tracings of these carvings, I mainly used the ears and the characteristic shape of the elk's muzzle as a means of identification. As a result, there are in my opinion only around 40 boat figures at Nämforsen that have been depicted with a more or less evident elk-head prow, always without antlers (Figure 106). In other words, there are at least 200 additional boat carvings at Nämforsen that may, or may not, possess elk-headed prows.

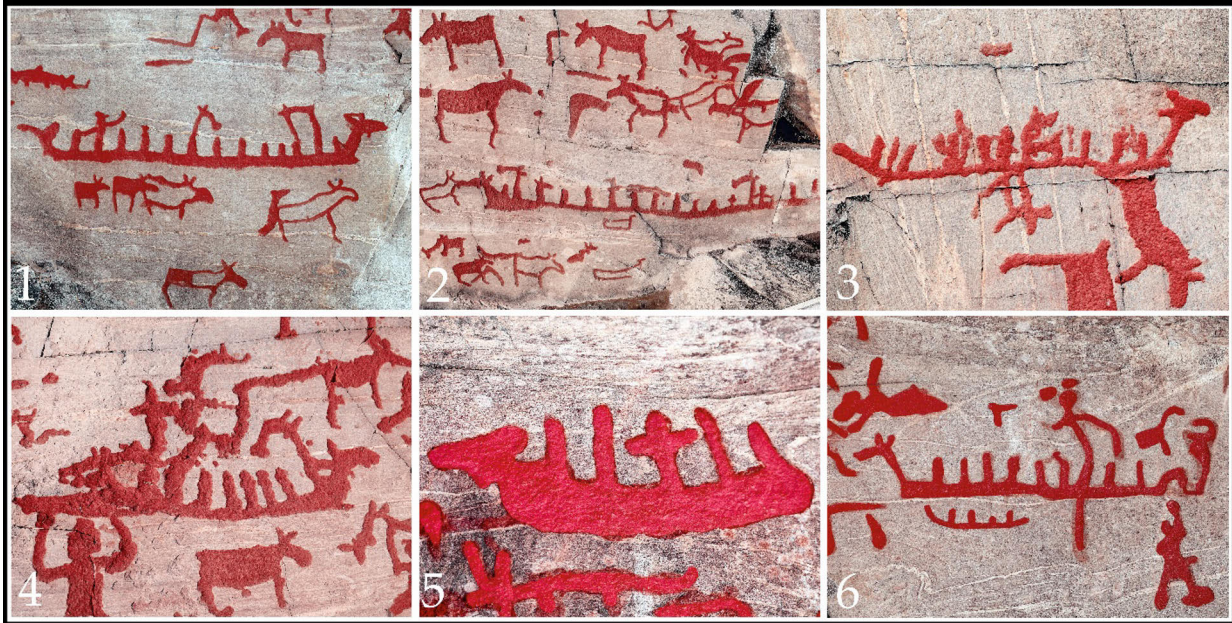


Figure 107. Elk-head boat depictions at Nämforsen. 1.–4. MG1, G:1; 5.–6. MG1, D:14–15. Retouched photos and compilation: Ville Mantere. Not to scale.

The vast majority of the boat figures at Nämforsen are made in a double-lined style, but most of the boats with an evident elk-head prow have been made in a single-lined style (Hallström 1960: 294). This suggests that the boat figures refer to different kinds of boats, of which only some were decorated with elk-heads. Another notion that may point towards a similar conclusion is that the share of total boat depictions that elk-head boat figures represent is significantly smaller at Nämforsen than at other rock carving sites. Hallström (1967: 53) interpreted the small boats depicted as vehicles used primarily for hunting and fishing. By contrast, he saw the large boats depicted with crews as representing a mode of long-distance transport between Nämforsen and the coast (cf. section 6.2.9.1).

Anthropomorphs are depicted distinctly inside the boats only in a few cases, but more than half of the boats exhibit vertical strokes. In this way, the Nämforsen boat carvings are not only highly similar to those depicted in Alta, but also to those found at other sites. The number of strokes depicted on the Nämforsen elk-head boats ranges from three to as many as 25. In Hallström's (1960: 294) view, around 15 of the boats are so large that they can actually be denoted ships. However, no signs of sails, oars or masts can be identified on the elk-headed boat figures. Just as in Alta, it seems as if elk-heads have in a couple of cases been depicted both on

the prow and the stern of the boat (Hallström 1960: 294). Moreover, three elk-head boats have elk-headed staffs as "passengers" (Figure 106.7–9).

As regards compositions, the elk-head boats at Nämforsen are found on small remotely situated panels as well as on the largest panels consisting of myriad figures.²⁴² However, unlike in Alta, the scenes are not clearly of a narrative character and there are, for instance, no obvious depictions of elk-head boats being connected to activities such as hunting or fishing. There are some panels where the boats seem in some way to be interacting with other motifs but interpreting the meaning of such scenes is highly complex, with some of the images having possibly accumulated over time.

The boats with the most detailed elk-head prows at Nämforsen have been made in the scooped-out style. They thus most likely belong to the oldest carvings at the site, with a probable date within the 5th millennium calBC. However, single-lined and outline boat figures with clear elk-head prows suggest that the elk-head boat was a long-lasting motif at Nämforsen (for dating and periodization, see the previous chap-

²⁴² According to Sapwell (2014: 148–150), the elk-headed boat figures are more often found in clusters than are those without elk-head prows. In his view, this is because "opinions towards the elk prow become increasingly integrated into more continued and repeated practices, while those boat motifs without elk prows seem unchanged".

ter). The ship figures attributed to the Bronze Age are, in turn, different in shape and no elk-head prows can be discerned among these depictions (see e.g. Lindqvist 1994: 220, 233–234; Gjerde 2010: 351–352). Thus, the elk-head boats at Nämforsen cannot be dated more precisely than to the period 5000–1800 calBC, which is the overall date for the Stone Age carvings at the site.

Yet, the majority of abstract animal-head prows are associated with small, outline boat figures. This suggests that some kind of decline in the manner of depicting elk-head prows at Nämforsen took place over time – just as in Alta. The closest parallels to the later boat depictions with abstract animal-head prows are found among the petroglyphs at Norrfors (Figure 108). This site, also known as Stornorrfors, was discovered in 1984 by the Ume River, some 100 km northeast of Nämforsen. Initially, 54 carvings – mainly depictions of elks – were documented at the site (Ramqvist et al. 1985: 314). A later study revealed an equal number of new figures, and the site is today known to possess at least 97 carvings (Broström 1999: 2). Unfortunately, the carvings at Norrfors are badly preserved and there are several superimpositions that further complicate the proper identification of the figures.



Figure 108. Boat depictions at Norrfors. Umeå, Sweden. Retouched photo: Ville Mantere.

In the first publication, two of the seven boat figures then known were interpreted as possibly having animal-headed prows (Ramqvist et al. 1985: 321, 326). The new documentation, in turn, resulted in the discovery of three new boat

figures, of which at least two seem to have animal-heads (Broström 1999: 2, 6–7). However, while it is evident that the boats have animal-headed prows, none of them can be interpreted for certain as depicting the head of an elk (Figure 109). Thus, all of these depictions fall into the same category as the majority of the boat figures at Nämforsen.

Broström (1999: 4) divided the boat depictions at Norrfors into two categories; the so-called canoe-shaped boats that lack the animal-head prow, and the animal-headed boats that are more quadratic and “south Scandinavian” in shape. Yet, the best candidate for an elk-head boat at Norrfors would, if representing a boat, belong to the former category. This elongated figure has a rib pattern and a large distinct elk-head and was initially interpreted by Ramqvist et al. (1985: 326, fig. 24) as a boat figure (Figure 109.5a). However, in a newer tracing, the figure appears in a somewhat different light (Figure 109.5b) and now looks more like a fragmented elk depiction (Broström 1999: 2, 8).

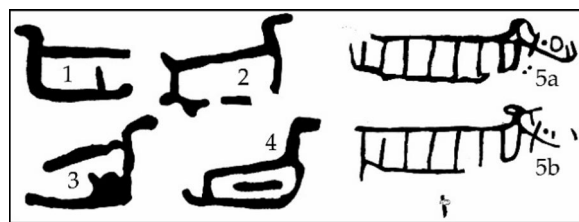


Figure 109. Possible elk-head boats at Norrfors. Tracings from Broström 1999 (fig. 1–4, 5b) and Ramqvist et al. 1985 (fig. 5a). Compilation: Ville Mantere. Not to scale.

The Norrfors carvings ought to date to the Late Neolithic period. The elevation of the carvings (approximately 53–54 masl) indicates that the rock art dates to around 2100–2000 calBC and it seems that the carvings were made soon after the rocks became accessible (Ramqvist 1988: 46; 1989: 220). According to Forsberg (1993: 216; 2000: 65), typological similarities to elk depictions carved on slate points (see section 7.5) similarly suggest that the Norrfors carvings were made in around 2000 calBC. This means that the abstract elk-head boats at Norrfors – if they are interpreted as such – are amongst the last representations of this motif in the rock art of Northern Europe.

6.2.4 Elk-head boats at Tumblehed



Figure 110. The Tumblehed rock art panel in Gothenburg, Sweden. Retouched photo: Ville Mantere.

The rock painting site of Tumblehed, located on the outskirts of Gothenburg on the coast of southwestern Sweden, was found in 1974 and constitutes the most well-preserved painting in the region (Cullberg et al. 1975; Nash 2002: 178). It was reported in 2019 that elk-head boats had been found among the Tumblehed figures. By utilizing digital and infrared photography, x-ray fluorescence spectroscopy and the DStretch image manipulation software, researchers from Gothenburg University were able to discern several hitherto unidentified images from the Tumblehed panel. In addition, they were able to ascertain that the paintings on the panel were made on at least two separate occasions (Schultz Paulsson et al. 2019: 405–409). On the basis of digital colour enhancement of my own photographs, taken under favourable weather conditions, I concur with the authors that some of the boat figures at Tumblehed can indeed be regarded as having elk-headed prows (Figure 110). I

also share their view that the images at Tumblehed were not produced on a single occasion.

Among the newly identified figures, there are, according to Schultz Paulsson et al. (2019: 409), three single-lined boat depictions with long “crew” strokes (12 at most) and more or less clearly identifiable elk-heads. The largest of the boat figures in particular has a prow that has parallels in Finnish rock art (Figure 111). In the upper left corner of the Tumblehed panel there are remains of a fourth boat figure. Even if both ends of this figure are absent, it is probable that this boat, too, had an elk-head prow. Other motifs in the Tumblehed panel include anthropomorphs, fish, a whale, a seal, various geometric designs, and a large deer with prominent antlers (Schultz Paulsson et al. 2019: 409).

As the first painted site featuring elk-head boats to be found in Scandinavia, the Tumblehed panel extends the geographical distribution of this motif notably. Moreover, these figures constitute the oldest depictions of boats in general

within this region (Schultz Paulsson et al. 2019: 417). On the basis of shoreline dating and similarities to other rock art sites with elk-head boat depictions, the authors suggest that the Tumlehed paintings stem from the period 4200–2500 calBC (Schultz Paulsson et al. 2019: 412). This seems like a reasonable date, because the closest parallels for the figures at Tumlehed are undoubtedly found in Finnish rock art, which likewise ought to date to this period. The Tumlehed boats also exhibit certain similarities to boat depictions at other northern rock art sites (see Nash 2002: 180).

While it is argued that the boats, the fish and the sea mammals depicted on the Tumlehed

panel indicate a hunting scene (Nash 2002: 185–187; Schultz Paulsson et al. 2019: 414), I doubt whether this is actually the case. Despite the multitude of motifs, my overall impression is that the panel is definitely not comparable to narrative scenes illustrating sea-hunting from boats in Alta, Vyg and Kanozero. Instead, the Tumlehed paintings bear close resemblance to many of the rock art panels from Finland, which are equally static in character. That said, I would agree that the boats at Tumlehed are still most likely related to the depictions of elk-head boats at other rock art locations and thus reflect long-distance seafaring (Schultz Paulsson et al. 2019: 415).

6.2.5 Elk-head boats in Finland (and Russian Karelia)

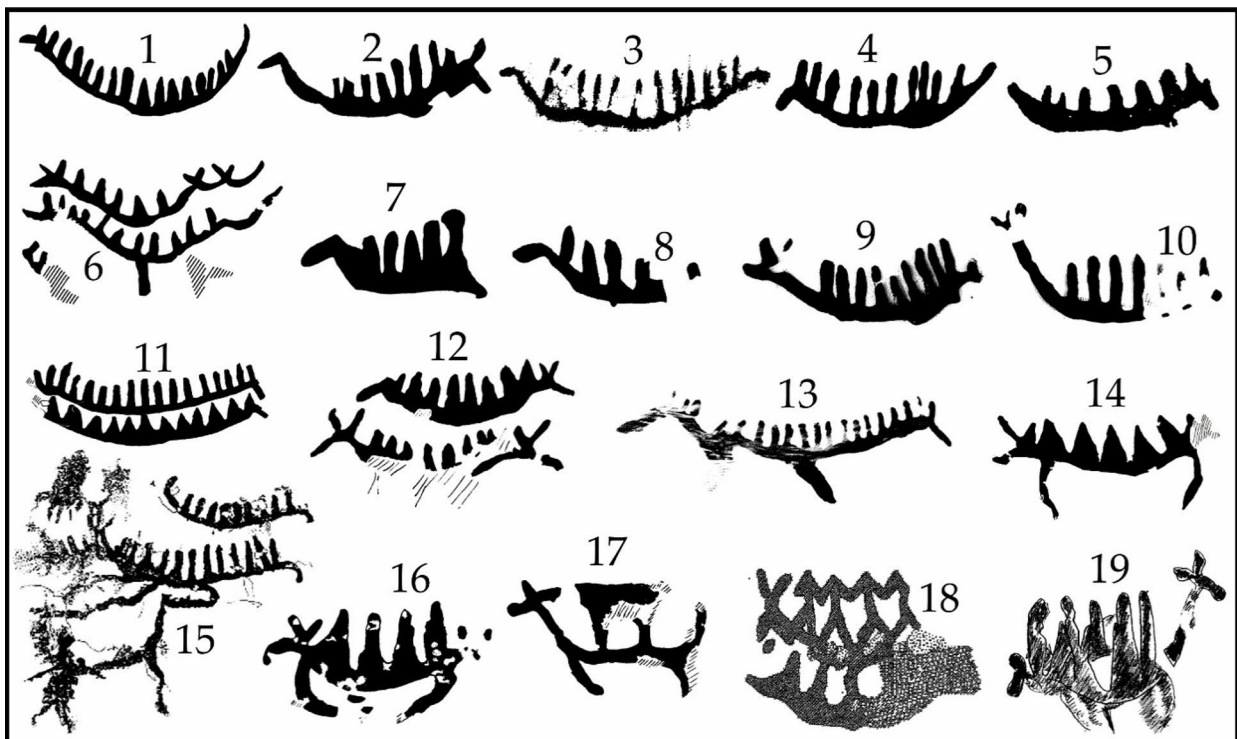


Figure 111. Plausible elk-head boats and elk-boat amalgamations in Finnish rock art. 1.–2. Astuvansalmi, Mikkeli (Ristiina); 3. Kintahuonvuori, Kouvola; 4. Muuraisvuoret, Luumäki; 5.–8. Uittamonsalmi, Mikkeli (Ristiina); 9.–10. Venäinniemi, Lemi; 11.–14. Saraakallio, Laukaa; 15. Pyhänpää, Kuhmoinen; 16. Saraakallio, Laukaa; 17. Avosaari, Luhanka; 18. Valkeisaari, Taipalsaari; 19. Patalahti, Asikkala. Tracings by: Sarvas & Taavitsainen, personal archives (fig. 1, 4, 9–13, 16–17); Sarvas 1969 (fig. 2); Kivikäs 2009 (fig. 3, 15, 19); Sarvas & Taavitsainen 1976 (fig. 5–8); Taavitsainen 1978 (fig. 14); Luho 1968 (fig. 18). Compilation: Ville Mantere. Not to scale.

In Lahelma's (2008a: 25–26) view, eight figures out of a total of 68 boat paintings in Finnish rock art (12%) have been depicted with an elk-head prow. In Luukkonen's (2021: 20) opinion, based on a somewhat larger number of figures, 12 depictions out of 96 boat figures (equally around 12%) represent elk-headed boats. However, as

Luukkonen (2021: 20) emphasizes, on 23 additional boat figures, the stern of the boat at least has been portrayed with an oblique line that may in some cases be interpreted as an abstract elk-head. In Figure 111 and Figure 112, I have therefore presented the more or less plausible examples of elk-head boats. As Poutiainen and

Lahelma (2004: 74) rightly point out, the Finnish variations of the elk-head boat are as a rule depicted merely with an abstract line in the prow, and the figures could hardly be labelled as elk-headed boats if one were unaware of the more clear-cut representations of this motif in

the rock art of Fennoscandia. The most obvious example of an elk-headed boat in Finland is probably that of Patalahti (Figure 111.19; Figure 112.1) in Lake Päijänne (Poutiainen & Lahelma 2004: 71–75; Lahelma 2007a: 117).

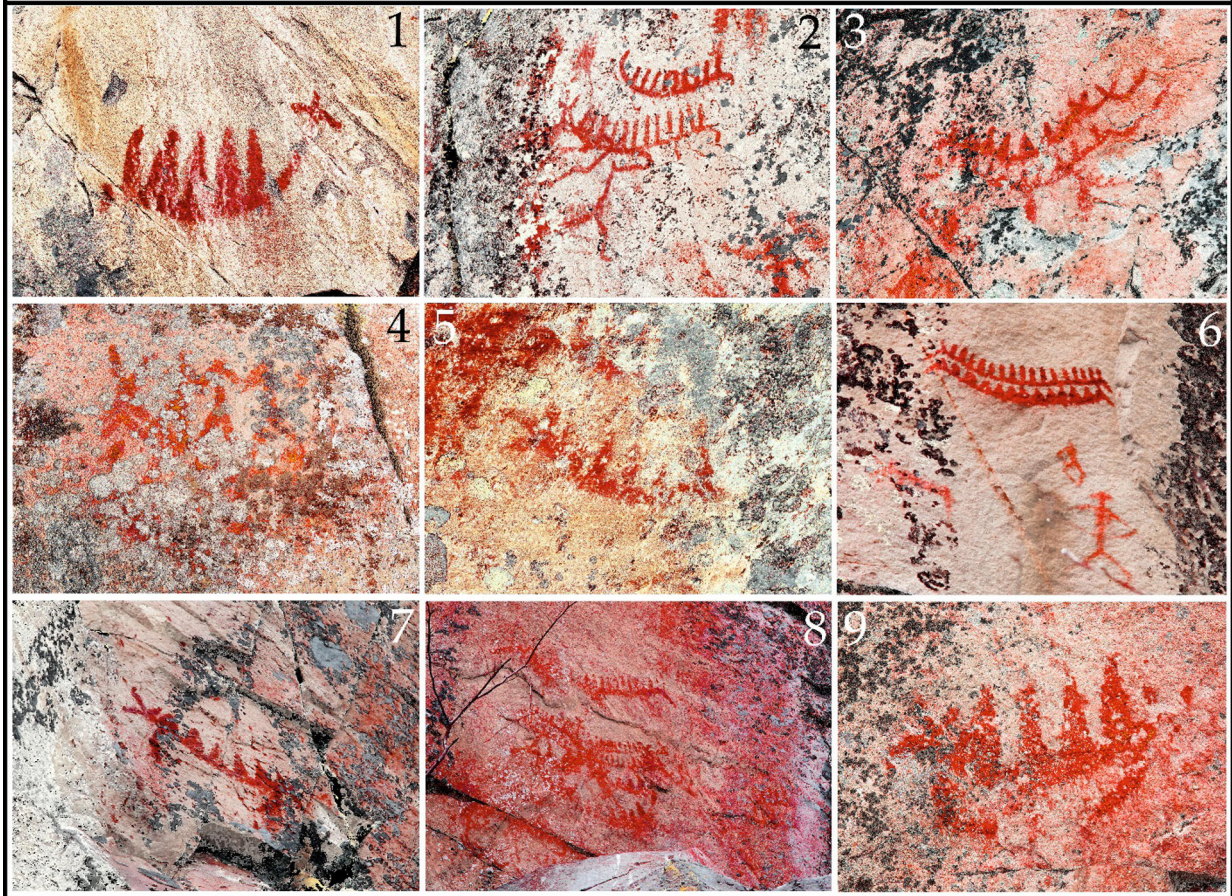


Figure 112. Plausible elk-head boats and elk-boats in Finnish rock art. 1. Patalahti, Asikkala; 2. Pyhänpää, Kuhmoinen; 3. Uittamonsalmi I, Mikkeli (Ristiina); 4. Valkeisaari, Taipalsaari; 5. Tikaskaartenvuori, Mikkeli; 6.–9. Saraakallio, Laukaa. Photos: Ismo Luukkonen. Image processing and compilation: Ville Mantere. Not to scale.

In addition to the elk-head boat figures, there are a number of images in Finnish rock art that do not represent “conventional” boat figures, but which still seem to combine elements of boats and elks. The most evident example is probably that pointed out already by Taavitsainen (1978: 189); a figure from Saraakallio that has the shape of an elk-boat, but which also has legs (Figure 111.14; Figure 112.7). There are also two largely similar depictions at Saraakallio (Figure 111.16; Figure 112.9) and Avosaari (Figure 111.17). Obviously, these figures do not represent real-life boats but rather some imaginary creature (Taavitsainen 1978: 188–189; Lahelma 2007a: 117–118). At Pyhänpää, there is likewise an interesting amalgamation of an elk and a boat (Figure 111.15; Figure 112.2). The

motifs merge so that the boat appears to represent the elk’s massive antlers (see Lahelma 2007a: 116–117).²⁴³ In addition, there are numerous examples of boat figures that are confusingly reminiscent of elk antlers, especially as seen from ahead or from behind (Figure 112.3). Such figures, however, are also common outside of Finland, and I will therefore discuss these images in more detail at the end of this chapter.

As was noted in the previous chapter, Seitsonen (2005: 8–10; 2008: 80–84) suggests that the boat motifs are among the earliest figures made in the Lake Saimaa and the Lake Päijänne dis-

²⁴³ As Luukkonen (2021: 20, 340) notes, the boat depiction is painted on top of the elk figure. It is therefore possible that the figures are not contemporary but may belong to two different stages of painting.

tricts, and date to around 4100 calBC. In both regions, however, boat figures seemingly disappear from rock art earlier than other figures and it seems as if boats were scarcely depicted after 2500 calBC (Seitsonen 2008: 80–83). Thus, it seems that boat figures continued to be depicted at least during the period 4100–2500 calBC. However, it cannot be ruled out that some of the (elk-head) boat figures were made somewhat later or earlier. I hence find it safest to date the Finnish elk-head boats broadly to the period 5000–1500 calBC, which is the approximate timespan for the rock painting tradition in general.

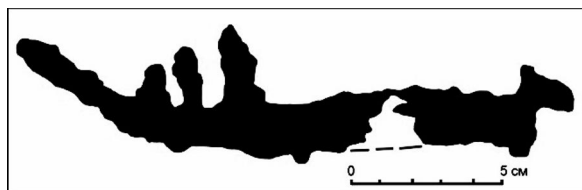


Figure 113. Plausible depiction of an elk-head boat from Tulguba, Kondopozhsky District, Russian Karelia. Tracing from: <https://gazeta-licey.ru/news/82042-v-karelii-vpervyie-obnaruzhen-vyipolnennyiy-ohroy-drevniy-naskalnyiy-risunok>.

In the autumn of 2019, it was confirmed that the first rock painting on the eastern side of the Finnish border, in Russian Karelia, had been found.²⁴⁴ This painting – which had actually been discovered a couple of years earlier²⁴⁵ – was found accidentally on a cliff some 200 metres from the northwestern shore of Lake Onega near the village of Tulguba (*Tullahti*) in the Kondopozhsky (*Kontupohja*) district, north of Petrozavodsk. Zhulnikov (2022: 10–11) speculates that the location of the Tulguba painting may be related to an ancient production site, as notable deposits of green slate – the most significant material for making stone tools in the region – occur in this vicinity.²⁴⁶

The painting represents a boat figure measuring around 15 cm in length. The boat has a prow that can be understood as an elk-head, even though this interpretation is somewhat open to debate (Figure 113). The weathered figure has three vertical strokes, but it is possible that originally there were more of these. The boat bears

resemblance to Finnish elk-head boat depictions, but also to carved elk-head boats, especially those found at Vyg and Kanozero. On the basis of the elevation of the figure and its Finnish counterparts, it has been estimated that the Tulguba painting dates to the 4th or 5th millennium calBC (Zhulnikov 2022: 11–12).

Overall, the painted versions of elk-head boats are largely similar to the carved ones, as they, too, are characterized by vertical (sometimes triangular) strokes and antlerless elk-head prows. However, the painted elk-head boats are distinguished by their lack of narrative scenes. Undeniably, a few compositions exist, in which two or several boats have been depicted close to another (Figure 112.8), but there are, for instance, no scenes that could be understood as portraying hunting or any other recognizable activity being performed from boats. Overall, unlike the carved elk-head boat figures, the painted elk-head boats do not give an impression of being connected to scenes depicting real-life activities.

In fact, while elk-head boats depicted at Nämforsen and Onega (possibly also at Slettnes and Norrfors) similarly do not form part of hunting scenes, there is one clear difference between the painted elk-head boat figures and the depictions of this motif at most of the other sites. This is the fact that *no evident anthropomorphic figures are depicted inside the painted elk-head boats*. There are two possible but highly uncertain exceptions. The first is the figure at Valkeisaari, in which four, possibly anthropomorphic figures lacking heads appear to be holding each other's hands (Figure 111.18; Figure 112.4). However, interpreting these arrow-shaped figures as humans is everything but clear-cut (Luhó 1968: 35), and even if they were to depict humans, their connection to the boat figure(s) is ambiguous. The second conceivable exception is a badly preserved human figure at Saraakallio, which has possibly been depicted inside a boat figure (Figure 112.8), but here, too, the association between the anthropomorph and the boat is not clear-cut.

²⁴⁴ <https://gazeta-licey.ru/news/82042-v-karelii-vpervyie-obnaruzhen-vyipolnennyiy-ohroy-drevniy-naskalnyiy-risunok>, accessed on 15.10.2019.

²⁴⁵ A. Lahelma, email correspondence 25.9.2015.

²⁴⁶ <https://gazeta-licey.ru/news/82042-v-karelii-vpervyie-obnaruzhen-vyipolnennyiy-ohroy-drevniy-naskalnyiy-risunok>, accessed on 15.10.2019.

6.2.6 Elk-head boats at Lake Onega

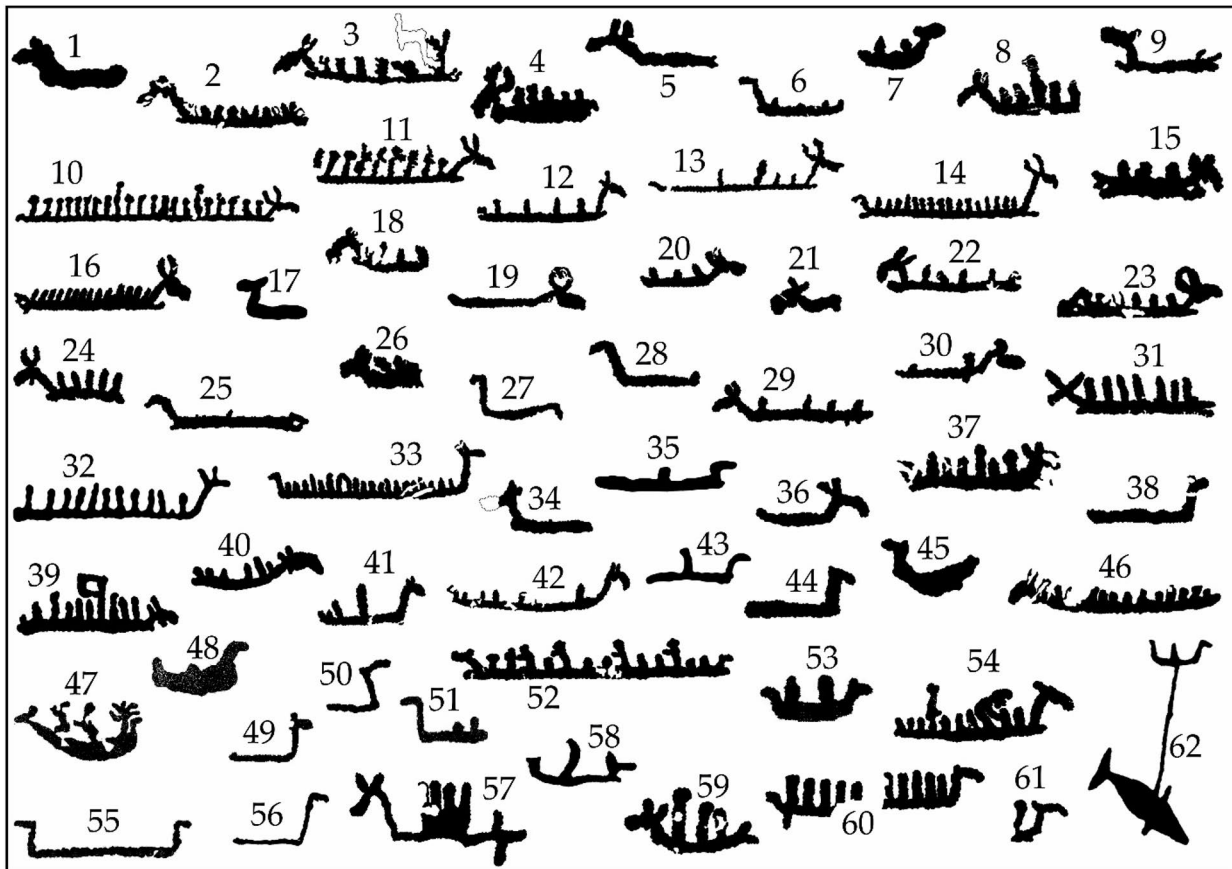


Figure 114. Elk-headed boats at Lake Onega. 1–4. Peri Nos 1; 5–27. Peri Nos 3; 28. Peri Nos 4; 29–32. Peri Nos 6; 33–46. Karetsky Nos; 47–51. Lebediny Nos; 52–53. Malyi Gurii; 54. Bolshoy Gurii; 55. Tolsty (Vodla); 56. Kladovets Nos; 57–62. Besov Nos. Tracings from Poikalainen & Ernits 2019 (fig. 1–46, 55); Poikalainen & Ernits 1998 (fig. 47–51); Poikalainen & Ernits 2021 (fig. 52, 54, 57, 59–61); Lobanova 2015 (fig. 53, 58, 62); Ravdonikas 1936 (fig. 56). Compilation: Ville Mantere. Not to scale.

According to Lobanova (2015: 278), there are 65 depictions of boats on the rock art panels at Lake Onega thus, constituting around five per cent of the total amount of petroglyphs (see Poikalainen 1999: 64; 2004: 10, 33; Lobanova 2015: 278). Most boat figures are found on the Peri Nos cape. Other panels exhibit significantly less, if any, representations of boats. The boat carvings in the Vodla region are somewhat different in shape and more abstract than the boat figures depicted at other carving localities at Onega.

In Poikalainen's (1999: 67; 2004: 35) view, the boat figures (or scaphomorphs, as he denotes them) are among the latest motifs carved at Lake Onega when analysed on the basis of superimpositions. The superimposed figures are, however, too few to enable any broader conclusions to be drawn, but it is possible that the elk-headed boats belong namely to the latter part of

the period 4500–2000 calBC, which is the likely timeframe for the Onega petroglyphs in general (see above).

Most of the Onega boat figures have been depicted as long, straight low lines with an elk-headed prow (Figure 114). All of these seem to be portrayed without antlers (Poikalainen 2004: 27). There are a few cases in which the ears are depicted in a somewhat abstract manner and could potentially represent antlers, but this is most likely due to the poor tracings of the carvings. About half of the boats have abstract vertical "crew strokes", ranging from two to 22 in number (Lobanova 2015: 279). Only rarely have anthropomorphic figures inside the boats been represented in detail (Poikalainen 2004: 30; Zhulnikov 2009: 82–83).

The boat figures at Lake Onega are seldom part of narrative scenes depicting human

activities, such as hunting (Lobanova 2015: 281).²⁴⁷ In fact, at Onega the boat depictions are connected to sea-hunting scenes on only two or three occasions (see Lobanova 2015: 279, fig. 198; Gjerde 2010: 415). This is in sharp contrast to the other Russian carving sites (Vyg and Kanozero), but this anomaly may reflect the simple fact that whales have never been present in Lake Onega (Kivikäs 2009: 87; Gjerde 2010: 415, 436). This may likewise explain why the boat hulls are significantly smaller than at Vyg or Kanozero:

perhaps the function of these boats was different (Zhulnikov 2006: 105). At Besov Nos cape there is nevertheless a single depiction of a beluga whale being hunted from an animal-headed boat (Figure 114.62). As Lobanova (2015: 215) points out, however, it is possible that this particular boat prow does not represent the head of an elk but of a swan. There are also some other boat prows at Onega that are better understood as bird-heads rather than elk-heads (see e.g. Lobanova 2015: 88, 101, 125, 206, 279).²⁴⁸

²⁴⁷ The Onega boat figures have been interpreted in various ways. It has been suggested that the boats were used for the transportation of the deceased, or that they were related to a solar cult (see e.g. Formozov 1973: 40–44; Poikalainen 2004: 30; Zhulnikov 2006: 105–110). As Lobanova (2015: 280, 284) critically points out, such interpretations have typically been grounded on simplified use of ethnographic analogies and far-fetched comparisons to boat figures in ancient Egypt or in southern Sweden during the Late Bronze Age. I do not find it fruitful to speculate here upon the particular meaning of the Onega boats, as it is obvious that these are closely related to the elk-head boat depictions at other rock art sites.

²⁴⁸ A solitary carving at the Tolsty site in the Vodla region (Poikalainen & Ernits 1998: 273) seems to depict a boat with two prows, one likely denoting an elk's head and the other possibly representing a bird-head (Figure 114.55).

6.2.7 Elk-head boats at Vyg River

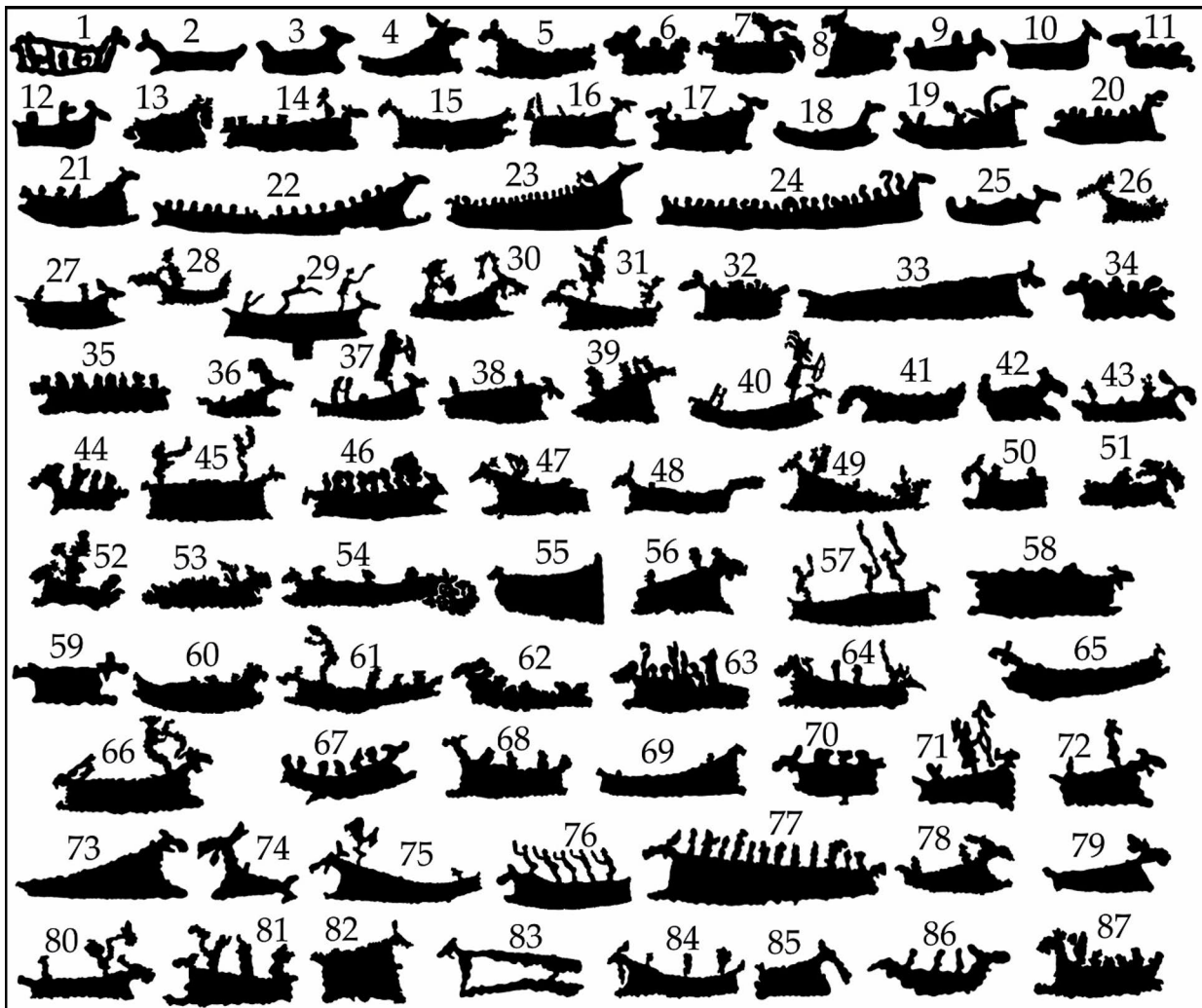


Figure 115. Elk-headed boats at Vyg River. 1.–8. Besovy Sledki; 9.–12. Yerpin Pudas; 13.–16. Nameless islands; 17.–25. Old Zalavruga; 26.–87. New Zalavruga: Groups I (fig. 26–32); IV (fig. 33); V (fig. 34–35); VI (fig. 36–42); VII (fig. 43–44); VIII (fig. 45–50); IX (fig. 51–52); X (fig. 53–56); XI (fig. 57–59); XIII (fig. 60–64); XIV (fig. 65–66); XV (fig. 67–68); XVI (fig. 69); XVII (fig. 70–77); XVIII (fig. 78); XIX (fig. 79); XX (fig. 80, 82); XXII (fig. 81, 83–84); XXV (fig. 85–87). Tracings from Ravdonikas 1938 (fig. 1–3, 9–12, 17–25), Savvateyev 1970 (fig. 4–8, 13–16, 26–28, 30–56, 58–75, 77–87) and [www.http://rockartbridge.com/en/belomorskie_petroglify/petroglify/](http://rockartbridge.com/en/belomorskie_petroglify/petroglify/) (fig. 29, 57, 76). Compilation: Ville Mantere. Not to scale.

At Vyg River, the total number of petroglyphs is likely to be more than 3400 (Lobanova 2020: 205, tab. 2). According to Kolpakov and Shumkin (2012b: 79), as many as 551 of the carvings depict boat figures. Since most of them have an elk-head prow, the representations of this motif are by far more numerous at Vyg than at any other rock art site. However, the prevalence of boat figures varies greatly between the different carving sites at Vyg. For instance, according to Poikalainen (2009: 97), the boat constitutes the most common motif at the Ostrovki capes (63% of the carvings), whereas only seven per cent of the petroglyphs at Besovy Sledki represent boats.

Representations of elk-headed boats at Vyg are characterized by their similarity in style. Apart from a single exception (Figure 115.83), all are made in the scooped-out style. In some cases, the stern, too, is shaped like an elk-head. At the site of Yerpin Pudas, several boat images were found in 2008 that seem to have been depicted with swan-headed prows (Lobanova 2015: 279). Poikalainen (2009: 100) has also identified deer-heads on some of the boat prows. Nevertheless, such depictions are greatly inferior in number to those with elk-head prows. Most of the elk-heads are depicted without antlers. As stressed above, however, the tracings currently available of the Vyg carvings are unhelpful when it comes to identifying the details of figures.



Figure 116. Sea hunting scenes with elk-head boats at New Zalavruga. 1. Group IV; 2. Group V; 3. Group VII; 4. Group VIII; 5. Group XI; 6.–7. Group XVII; 8. Group XVIII; 9. Group XXII; 10. Group XXV. Tracings from Savvateyev 1970 (fig. 1, 3, 4, 6–8) and [www.http://rockartbridge.com/en/belomorskie_petroglify/petroglify/](http://rockartbridge.com/en/belomorskie_petroglify/petroglify/) (fig. 2, 5, 9, 10). Compilation: Ville Mantere. Not to scale.

The rock art at Vyg is traditionally dated roughly to the period 4000–1500 calBC, although Gjerde (2010: 291–300; see also 2017: 121–122), Janik (2010: 89–94) and Zhulnikov (2021: 17) have all argued for a somewhat earlier origin for the oldest carvings in this region. Gjerde (2010: 300) is of the opinion that the carvings at Vyg originate from the period 5300–2000 calBC, and according to him, elk-head boats were produced at Vyg throughout this period. However, he argues that the whale hunting scenes suggest that this hunting technique became more organized and extensively practised towards the end of the Neolithic Period, which also resulted in an increase in the size of boat figures over time (Gjerde 2010: 299, fig. 201).

On the other hand, as Janik (2010: 87) notes, the boats at Vyg were not only important in relation to hunting but were significant for other reasons as well. In Janik's (2010: 93, fig. 11) view, the oldest rock art in the Vyg region can be roughly dated to around 4500 calBC, whereas

the latest carvings were produced in around 2100 calBC. Zhulnikov, in turn, is of the opinion that boats were depicted at Vyg throughout all periods (in his view c. 4400–1500 calBC), but he argues that the earliest boat depictions do not have elk-headed prows.²⁴⁹ Despite certain differences in details, I find all of these studies useful, and am willing to accept their joint view that the oldest rock art at Vyg is somewhat older than has previously been claimed. I thus consider the broader period 4500–2000 calBC as the most likely date for the elk-head boat depictions at Vyg River.

In contrast to the boat carvings at Onega, the Vyg River boats exhibit a higher hull, and the crews are most often represented in detail, even if vertical “crew” strokes are also depicted (Poikalainen 2009: 100). The detailed crew depictions at Vyg also differ from those at Kanozero,

²⁴⁹A. Zhulnikov, email correspondence via E. Kashina 20.10.2021.

but in all other respects, the Kanozero elk-head boats clearly constitute the closest parallels for the Vyg boat figures (Kolpakov & Shumkin 2012a: 332). This not only pertains to their shape, but also to their role in the compositions. At both sites, the elk-head boats commonly relate to

scenes illustrating whale hunting. At Vyg one finds depictions of whale hunting scenes involving, on the one hand, small, solitary boats with only one or a few individuals and, on the other hand, large boats carrying numerous people (Figure 116).

6.2.8 Elk-head boats at Kanozero

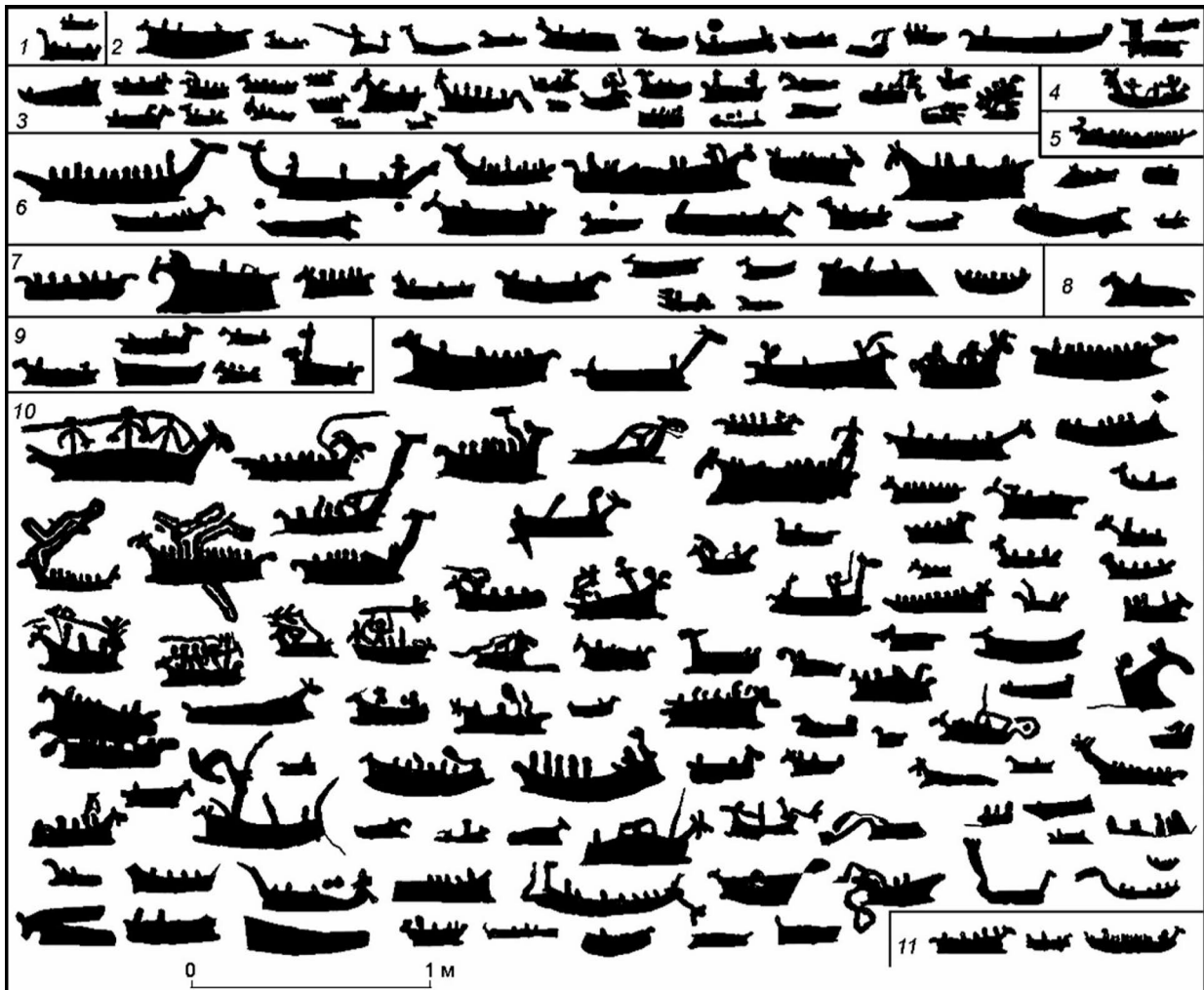


Figure 117. Elk-headed boats in the rock art of Kanozero. Compilation from Kolpakov & Shumkin 2012b, p. 77.

At Kanozero, there are more than 200 carvings illustrating boats. All are shown in profile and rendered in the scooped-out style. Apart from two sickle-shaped boats, the boat prows are shaped like elk-heads in all cases where they are discernible (Figure 117).²⁵⁰ All of the elk-heads are depicted without antlers and 26 of the elks

exhibit a characteristic dewlap (Kolpakov & Shumkin 2012a: 305–306). The vast majority of the Kanozero boat figures are portrayed with a front keel and a stern post, and about half of the boats also have a rear keel (Kolpakov and Shumkin 2012a: 307). Most of the Kanozero boats are depicted with a crew, either as rows of abstract lines or as more detailed anthropomorphic figures (Kolpakov & Shumkin 2012a: 308).

According to Kolpakov and Shumkin (2012a: 319–322), there are 44 definite and 11 possible

²⁵⁰ Since Kolpakov & Shumkin's 2012 publication, some new boat figures have been discovered on the panels Kamennyi-8, Kamennyi-10, Elovyyi-7 and Gorelyi-5, the majority of which seem to have elk-headed prows (Likhachev 2020: 91, 95, 100, 104).

representations of hunting taking place from boats. In other words, approximately one quarter of the elk-headed boats at Kanozero are related to hunting scenes. Most of these scenes depict the hunting of cetaceans (whales), but there are also a couple of unique compositions, in which elks and beavers are hunted from a boat (Figure 16).

Because of the evident parallels between the boat carvings at Kanozero and Vyg, for example with regard to their elk-head prows, the shape of their hull, their keels, their stern posts and role in sea hunting scenes (Kolpakov and Shumkin 2012a: 332, 335), I find it probable that the boat depictions were produced before 2000 calBC. Just as in the case of elk-head staffs, I thus find the broad interval of 4000–2000 calBC as the most probable date for this motif at Kanozero.

Despite the multiple similarities between the elk-head boat figures at Vyg and Kanozero, however, there are noticeable differences in how

the boat crews have been depicted. At Vyg, there are rows of standing anthropomorphs with paddles in their hands. At Kanozero, however, no paddles or oars are depicted, and the anthropomorphic figures are portrayed in a more abstract manner (Kolpakov & Shumkin 2012a: 305, 332; 2012b: 79). On the other hand, some of the alleged boat crews at both sites have been depicted by simple, nonfigurative strokes. Besides Vyg, the Kanozero boat carvings also show some similarity in shape not only to the boat figures found at Onega and Nämforsen (Kolpakov & Shumkin 2012a: 338, 341), but also to the boat depictions in Alta and at Slettnes.

Having now separately presented depictions of elk-head boats at each of the main rock art sites, let us next sum up the key findings and look at this motif category in more general terms.

6.2.9 Elk-head boats in the rock art of Northern Europe – summary and reflections

Table 7. A summary of the elk-head boats in the rock art of Northern Europe.

Rock art region	Date (c.)	Technique	Style	Number	Percentage of all figures	Percentage of boat figures	In hunting or fishing scenes
Slettnes	5500 calBC	Carved	Scooped-out	5	7%	>90%	No (?)
Alta	5000–3700 calBC	Carved	Various	100	c. 2%	c. 75%	Yes
Nämforsen (+ Norrfors)	5000–1800 calBC	Carved	Various	40 (+5)	1.5–9%	>8.5%	No
Tumlehed	4200–2500 calBC	Painted	Single-lined	3	10%	>90% (?)	No (?)
Finland (+ R. Karelia)	5000–1500 calBC	Painted	Various?	8–11	1–1.5%	12%	No
Lake Onega	4000–2000 calBC	Carved	Single-lined	60	4.5%	90%	No (?)
Vyg River	4500–2000 calBC	Carved	Scooped-out	550	16%	>90%	Yes
Kanozero	4000–2000 calBC	Carved	Scooped-out	200	15%	99%	Yes

The key characteristics of elk-head boat depictions in the rock art of Northern Europe are summed up in Table 7. As can be seen, the earliest depictions of elk-headed boats seem to have been made around 5500–5000 calBC, which

coincides with the aforementioned “rock art explosion”, during which a number of noticeable changes in rock art took place in different parts of Fennoscandia (Gjerde 2010: 394–401). Until recently, the elk-head boats depicted around

5500–5000 calBC were believed to represent the oldest boat depictions in Fennoscandia. However, the two boat figures that were discovered in Valle in central Nordland may be as much as 11 000 years old, thereby predating previously known depictions of elk-headed boats by several millennia (Gjerde 2021: 137). Since the two boat figures have no elk-head prows, it seems reasonable to argue that the manner of associating boats with elk-heads emerged sometime between the creation of the figures in Valle and that of the elk-head boat figures discussed in this chapter. However, given that elk-head boats seem to have constituted a geographically widespread motif around 5000 calBC, I find it likely that the origins of this connection go further back in time, perhaps to the mid-Mesolithic period. Indeed, the wooden elk-head from Lehtojärvi (Figure 118), widely regarded as a boat prow, has yielded the date of 7060–6250 calBC²⁵¹ (Jungner 1979: 29). This strongly suggests that *physical elk-head boats existed before depictions of this motif appeared in significant numbers at rock art sites*. As was stated in the previous chapter, however, our understanding is still in many ways flawed due to the scarcity of rock art sites dating from before the Late Mesolithic period, and future discoveries will hopefully shed light also on the emergence of the elk-head boat motif.

The elk-head boat depictions are not of Late Mesolithic age at all rock art sites, however. At Tumlehed and Kanozero at least, the elk-head boats appeared in the Neolithic period, and perhaps even closer to the end than the beginning of that period. In fact, it seems that the “main” period for depicting elk-head boats was also more generally the Neolithic, and more precisely the period 4000–3000 calBC. Apart from Slettnes (and Norrfors), it seems feasible to assume that elk-head boats were made at all known rock art sites during the 4th millennium calBC. However, it is also important to point out that the elk-head boat was a noticeably long-lasting motif. At least in the rock art of Finland, Vyg, Nämforsen and Alta, depictions of elk-head boats seem to have been produced for more than a millennium. At several sites, the depiction of elk-head boats apparently continued until 2000–1500 calBC. As noted above, the

manner of portraying boat figures with elk-head prows was presumably replaced by a tradition of making horse-headed prows, since it is these kinds of boats that are primarily found among Bronze Age carvings (see e.g. Westerdahl 2011: 296; Kaul 2017: 175–177; Melheim & Ling 2017: 67).

Stylistically, elk-head boat depictions are noticeably more varied than those of elk-head staffs. In fact, the only repetitive peculiarity that catches the eye is that painted elk-head boats are more uniform than the carved ones. This is, for instance, epitomized in that *all painted elk-head prows lack antlers and no distinct anthropomorphs are depicted inside the painted boat figures*. In addition, *the painted elk-head boats are never portrayed in narrative scenes (such as hunting scenes) that would depict unambiguous interaction with other motifs*. Yet, it should be noted that a lack of narrative is characteristic for rock paintings in general, and it is thus no surprise that the elk-head boats also reflect this idiosyncrasy. In addition, painted elk-head boat images are greatly inferior in number to carved depictions of this motif.

The carved elk-head boat depictions can themselves be divided into scooped-out, outline, and single-lined forms. At some sites (namely Alta and Nämforsen), the different styles seem, to some degree, to reflect different periods. At other sites (such as Vyg and Kanozero), all rock carvings are made in the scooped-out style and the elk-head boat figures, predictably, do not differ in this respect. Overall, however, there are hardly any regularities that would characterize the elk-head boats made in the different carving styles. For example, vertical strokes and more detailed depictions of humans inside boat figures are encountered in the scooped-out, outline and single-lined versions of this motif. Correspondingly, boat figures that lack these characteristics have been rendered in all these different styles. There are furthermore no style-specific differences as to the shape and size of elk-head boats. Exceptionally-sized boat depictions, both small and large, have been produced using these different carving styles, and while some elk-head boats are more or less rectangular, others are portrayed mainly as straight or bow-shaped lines.

As Westerdahl (2005: 14) has noted, there are variations as to how boat depictions are associ-

²⁵¹ 7740±170 BP (Hel-168).

ated with elks. Usually, it is namely the prow of the boat that has the shape of an elk-head, but sometimes the stern, too, represents an elk's head. There are also some panels that comprise both elk-head boats and boats that lack a zoomorphic appearance. It is probable that such differences are intentional, although ascertaining their meaning remains rather hypothetical (cf. Westerdahl 2005: 14–15; Helskog 2014: 92). As proposed, one feasible explanation is that the different kinds of boats somehow reflect the status of their owners. For instance, adolescent hunters may not have possessed elk-head boats before entering adulthood and/or gaining a certain position within their group. Likewise, boats with numerous crew strokes and a single distinguishable anthropomorph perhaps represent large, collectively-used boats with their owner/builder marked out (cf. Anichtchenko 2016: 99–100).

At several sites there are depictions of animal-headed boats, in which the animals portrayed on the boat prows possibly represent birds or reindeer instead of elks. This suggests that the elk was not the only animal species that was considered to have a special relationship with boats. Instead of signifying opposing clans (see Helskog 2014: 92), the different kinds of animal-head prows may, for instance, at some sites have denoted boat-owners of differing ranks. Yet, in the majority of cases it is namely the head of an elk that has been depicted on top of the boat prow, and it is obvious that this animal was the foremost species to be associated with boat depictions during the Stone Age.

As regards the number and prevalence of elk-head boat depictions at the aforementioned rock art sites, significant differences exist between locations (Table 7). Vyg stands out as the site where elk-head boats are by far the most common, followed by Kanozero. The common feature for the boat depictions at these sites is that they all seem to represent elk-head boats specifically. Notwithstanding Slettnes (and possibly Norrfors), the rock art sites with the fewest depictions of elk-head boats are those consisting of paintings. Most probably, this is due to the different context and function of the small rock painting sites in contrast to the large rock carving concentrations. Yet, there are no clear patterns as to how the prevalence of the elk-head

boat motif correlates with the location of the rock art site. Numerous elk-head boats have been depicted not only at sites located adjacent to the ancient seashore (Alta, Vyg), but also at lakeside locations (Kanozero, Onega). Correspondingly, the boats depicted at Tumlehed, Slettnes and at the Finnish locations indicate that sporadic elk-head boats could be produced on the coast as well as at lakesides.

As regards scenes and compositions, equally large differences can be discerned between the different rock art sites where elk-head boats are depicted. At Nämforsen and in Finland, for instance, the general impression is that the elk-head boat depictions at these sites mainly held some mythical connotations. This interpretation is supported, for instance, by seemingly imaginary figures, such as boat-elk amalgamations and elk-head staff “passengers”.

In sharp contrast, narrative (sea) hunting scenes involving elk-head boats are found at the large rock carving concentrations in Alta, Kanozero and Vyg, and there is every reason to believe that hunting, fishing, and trapping from elk-head boats took place also in the everyday life. Strangely, however, the overwhelming majority of the hunting scenes portray whaling. In fact, elk hunting scenes that include the use of boats are so rare in rock art that it does not seem feasible for elk-head boats to have been portrayed on rocks simply because of their predominant role in elk hunting. That is not to say that elks were not hunted from boats, however. Rather, I find it most probable that this method was widely used by prehistoric hunters, especially at lakeside locations (cf. section 4.3.4). The reason for the lack of boat hunting scenes at “ordinary” rock art sites is therefore probably that rock artists refrained from explicitly depicting the hunting or killing of animals at these sites, as I concluded in the previous chapter.

To sum up, elk-head boats were clearly not purely imaginary constructions. As Kolpakov and Shumkin (2012a: 344, 347; 2012b: 79) point out, the recurring characteristics shared by the boat figures in rock art, including their elk-headed prow, point toward the existence of actual boats of similar shape during prehistoric times. However, based on their multifaceted role in rock art, it can also be stated rather confidently that elk-head boats were not associated mere-

ly with the material world (cf. Helskog 2020: 62). I therefore argue that *the elk-head boat should be understood as a motif that illustrates how binary concepts, such as sacred and profane or real and unreal, were inseparable in the past*. With this in mind, I will now seek more detailed explanations for the elk-head boat motif. I will begin by discussing possible concrete inspirations for the elk-head boats depicted in rock art.

6.2.9.1 Real life inspirations for the elk-head boat depictions in rock art?

Despite the large amount of boat figures in hunter-gatherer rock art, no actual boats dated to the Stone Age have hitherto been discovered in Fennoscandia or northwestern Russia, regions from which petroglyphic boat depictions are known. Nevertheless, scholars are in agreement that people in the north used boats – already

when northern Fennoscandia was colonized some 11 000 years ago (see e.g. Tromnau 1987; Glørstad 2013; Helskog 2014: 90; 2020: 65; Fletcher 2015; Gjerde 2017: 126 and cited references; Gjerde 2021). Numerous Stone Age dugouts have been found in Central and Western Europe (for an outstanding overview, see Arnold 1995 and 1996) and it is most likely that similar dugouts were, alongside other types of boats, used in the northern areas as well.

The best available proof of the existence of elk-head boats as tangible constructions is the aforementioned elk-head sculpture recovered in 1955 from a bog in Lehtojärvi, Rovaniemi (Figure 118) (Erä-Esko 1958: 8). Even if it is possible, as Hallström (1960: 317) proposed, that this elk-head would have been carried atop a pole, it seems more likely that it represents a boat prow. This has also been the prevailing view among scholars (e.g. Erä-Esko 1958: 15; Carpelan 1974: 65; Lindqvist 1994: 240; Huurre 1998: 253). The Lehtojärvi elk-head is made of wood, which also



Figure 118. The wooden elk-head from Lehtojärvi, Rovaniemi. KM 14189:1. Archaeological artefact collections, Finnish Heritage Agency. Photos and compilation: Ville Mantere. Not to scale.

provides a rather straightforward explanation to the question of why these types of boat prows have not been found elsewhere.²⁵²

A detail of special interest concerning the Lehtojärvi elk-head is the fact that it has antler stubs. Thus, in contrast to the overwhelming majority of elk-head boat depictions in rock art, the Lehtojärvi elk-head seems to depict a male elk. This contradiction is certainly thought-provoking, but as long as the find remains the only one of its kind, questions related to the ramifications of its male sex remain difficult to answer satisfactorily. It should be emphasized, though, that the Lehtojärvi boat prow is noticeably older than the elk-headed boats depicted in rock art. I therefore find it conceivable that a change took place in this period that altered the meaning of the elk-headed boat prows and highlighted the significance of the elk cow in particular (cf. section 8.1.5).

Another explanation that can be offered is of course that elk-headed boats in rock art are referring to male elks with shed antlers, but this is a less probable reason. Even if it has sometimes been suggested that the elk bull that had dropped its antlers was symbolically associated with winter and maturity (see Zhulnikov & Kashina 2010b: 77), it seems very unlikely that *boats*, which, of all seasons, were least associated with (late)winter, would so commonly have been linked with elks during the time of the year when boats could *not* be used (cf. Kovtun 2011: 114–115; see discussion below).²⁵³ In addition, there are virtually no signs of antler stubs on the elk-head boats depicted in rock art. This appears strange if the rock artists really wanted to underline that the elk-heads on the boat prows belonged to bulls rather than to cows.

As regards the Lehtojärvi boat prow, however, the presence of antler stubs is more under-

standable. This is because it would have been most difficult for the carver to shape realistic or full-sized antlers out of the wood (cf. Hallström 1960: 290). Perhaps, however, this was first tried, because the Lehtojärvi boat prow is made from the root crown of a pine, and the root branches may actually have been seen as resembling elk antlers. Be that as it may, the remaining antler stub seems deliberately sculpted and painted with red ochre, which indicates that irrespective of whether they had originally been of larger size, the antlers on the Lehtojärvi elk-head were already represented as stubs in prehistoric times.²⁵⁴ I am disposed to believe that this was for pragmatic reasons, and their size should therefore not be taken to refer to winter.

Since I find questions related to the representation of elk antlers highly meaningful, I will elaborate further on the topic of antlers later in this chapter. However, there are a couple of additional, thought-provoking features on the Lehtojärvi elk-head that deserve to be briefly addressed here. Firstly, the sculpture has a hole in which separate ears (or, less likely, larger antlers) could have been fastened. Secondly, the hollow elk-head has a seemingly thoughtful fastening construction, as it has apparently had two similar holes for being mounted by means of a dowel (Erä-Esko 1958: 12). These notions speak in favour of the interpretation that the elk-head functioned as a boat prow, but, even more importantly, they also strongly suggest that it was not permanently attached to the boat.

To be sure, the elaborate structure of the Lehtojärvi elk-head implies that the boat prow was designed so that it could be removed and refastened repeatedly. The hole for attaching ears(?) likewise indicates that it was only on certain occasions that the boat “turned” into an elk. The obvious question that arises is what kinds of situations the use of elk-head boats was restricted to. On this point, the elk-head boat depictions in rock art do not provide us with any clear-cut answers because of the noticeable variation between different sites. Yet, if my above suggestion holds true and the differences in boat depictions at single sites illustrate variations in the status of the boat owners, the

²⁵² Another possible hollow boat prow that deserves to be mentioned here was discovered at the Särnate site in western Latvia (Vankina 1970, pl. VIII: 2). In Zhulnikov's (2009: 109) opinion, it resembles an elk-head. This item (A 11416: 73) has, however, unfortunately gone missing since its publication, and it is thus no longer possible to evaluate its possible elk-headed shape (Normunds Grasis, archaeologist, NML, personal communication, 28.8.2017). However, the said piece was badly fragmented when found, and on the basis of a photograph of the item, it is in my view highly questionable whether it actually ever possessed a zomorphic shape in the first place.

²⁵³ Except for some of the coastal locations which remained open to the sea throughout the year.

²⁵⁴ The antler stub on the right side of the item seems to have been damaged, probably by a shovel, when the item was unearthed.

Lehtojärvi boat prow furthermore suggests that even those entitled to use elk-headed boats did not use them constantly.

As elk hunting has ever been a highly seasonal endeavour, it is logical to assume that the artefacts associated with this species, including elk-headed boats, were also mainly reserved for seasonal use (cf. Kovtun 2011: 115–117; see below). This does not, of course, exclude other kinds of contexts for their use, such as initiation or funerary rites – or meetings between different groups. The fact that elk-headed boats are so closely associated with the large rock art concentrations may itself indicate that such boats were used namely when people from different regions met each other. Obviously, there is a risk of drawing overly bold conclusions on the basis of a single artefact, but if we assume that the mounting system on the Lehtojärvi sculpture was widespread, then this suggests that instead of being associated with fully unexpected situations or crises, the use of elk-headed boats was at least planned to some degree.

But why was the head of an elk placed at the prow of a boat in the first place? A possible explanation for the elk's connection to boat figures is that it was namely elk hides that were used in the construction of the physical boats themselves (Lahelma 2007a: 128, footnote 2). Stölting (1997: 20), for example, writes that “an obvious suggestion is that an animal head hints at the building material of the material's origin. Boats of these times, it is believed, had always been made of hide, consisting of a solid skeleton covered by skin. No other building material is so likely”.²⁵⁵ In a similar vein, Helskog (2014: 91) and Gjerde (2017: 122) find it probable that the elk-headed boats depicted in rock art signify the same type of vessels (umiaks) that are known to have been used by the Inuits – in other words, open, hide-covered boats (cf. discussion in Hallström 1960: 296; see also Helskog 1985: 198–199; for a contrasting view, see Fitzhug & Luukkanen 2019: 491; for a general discussion on early boats in Europe, see e.g. Fletcher 2015).

Even if it is possible that wooden dugouts were used and associated with elk-head prows

in forested regions, it is probable that at least the elk-headed boats depicted at coastal rock art sites refer namely to hide boats, because here access to wood would have been limited (see Gjerde 2021: 138–140). In addition, as Gjerde (2021: 140, 147) summarizes, the lightweight construction, the load capacity, and the speed of the umiaks made these kinds of skin boats better-suited to northern coastal environments than wooden boats (for an in-depth study of early skin boats, see Anichtchenko 2016). Even though Gjerde argues for the importance of the skin boat namely in marine hunting, it is probable that the very same factors were crucial in other regions as well. It is therefore not particularly far-fetched to assume that inland elk-hunters, too, preferred skin boats (or birch-bark canoes) over dugouts. We cannot of course know which animal skins were used for making boats, but feasibly, elk hides could be used for this purpose at least in regions where access to other large mammal skins was limited. It is likewise conceivable that elk bones and sinews could be utilized in the making of the boat frame.

Thus, boats may have been associated with elks simply because they were, at least to some extent, made out of elks. If one is to accept this rather banal understanding, it can further be proposed that perhaps the boat-makers also wanted the head of the elk to be visible in the boat construction. If this was the case, however, one may ask why real elk heads were not used for this purpose. As a matter of fact, Zhulnikov (2006: 109) finds it likely that the elk heads depicted on boat prows were real elk heads that have not survived in the archaeological record. In my view, however, it is more probable that sculpted elk-heads were used for practical reasons, since a real elk head, even without antlers, weighs easily more than 30 kg.

At all of the aforementioned rock carving locations there are elk-head boats that have been portrayed both with and without vertical strokes, and the number of strokes varies from one to almost 30. Even if the Lehtojärvi elk-head and the whale hunting depictions that are abundant in rock art strongly suggest that elk-head boats existed in reality, the large number of crew strokes on some boat figures casts doubts on whether boats carrying so many passengers could really have existed in prehistoric times.

²⁵⁵ Later in the same article, however, Stölting (1997: 22–24) puts forth the idea that later boat carvings, in which the bottom line surpasses the boat's prow and stern, might represent another type of boats that were not made of hides but instead of wood.

Undeniably, there are ethnographical accounts describing how umiaks could occasionally carry a load of several tons (Anichtchenko 2016: 110–111 and cited literature). The largest umiaks could carry as many as 30 persons, but such boats were mainly used for transportation, whereas the boats used for whale hunting typically had seven to ten persons onboard.²⁵⁶ In fact, it seems that the boat depictions in prehistoric rock art correspond with available ethnographical data to some degree on this point at least, since the boat figures with the largest number of crew strokes, for instance at Vyg River, do not form part of hunting scenes. However, I am still disposed to believe that the large number of strokes on prehistoric boat figures should not be taken literally as a description of the number of people that travelled on a single boat simultaneously. As stated above, it seems that elk-head boats were not purely factual means of transport, but their importance went beyond the needs of everyday life. Indeed, various explanations for the elk-head boats are based on the assumption that these boats had notable mythical significance, especially with reference to the afterlife. However, before addressing the association with elk-head boats and the underworld, I will first examine the peculiar interrelationship between elks, boats, and water.

6.2.9.2 Elks, boats, and water – a special connection

In Helskog's (2014: 73) view, a possible factor that may at least partly explain the elk's evident relationship to boats and water is that "the animal thrives in marshy terrain, eats reeds and rushes and is unafraid of swimming long distances". In fact, several scholars have taken up the idea that the elk was seen as an aquatic animal in the past, since elks prefer wet surroundings in the summer, and because elks were frequently hunted in such environments (see e.g. Glørstad 2010: 237–238). In other words, the notion that the elk is capable of moving between land and water might itself have inspired prehistoric peoples to associate elks with boats. Boats may even have been seen to represent elks,

in the sense that the different parts of the boat were metaphorical representations of the elk's body (Helskog 2010: 182–185; 2014: 92; see also Sognnes 1996: 41; Lahelma 2007a: 127–128; Fuglestad 2018: 118).

Along these lines, Poutiainen and Lahelma (2004: 74) argue that a natural explanation for the close relationship between the elk and the boat is that the two were in some way perceived by the Stone Age rock artists as equivalent. To support this idea, the authors refer to Lévi-Strauss' famous concept of *bricolage* and argue that the elk-boat would represent a mythical concept that was established by combining two actual motifs; those of the elk and the boat (Poutiainen & Lahelma 2004: 75). The authors interpret this symbol within a shamanistic framework. In their opinion, both the elk and the boat functioned as the shaman's vehicles in his or her journeys to the next world (Poutiainen & Lahelma 2004: 76).

While I agree that the elk and the boat were probably in some way understood in a similar manner, and both were probably ascribed with a mediating function, I do not find the shamanistic explanation particularly convincing. The variation concerning elk-head boat depictions in rock art is far too large to support such an interpretation. As we have seen, elk-head boats made in different styles are represented in the rock art both in isolation and within wider compositions, both with and without human figures, sometimes as small depictions and at times as considerably large ones, and so on. It is possible that among the elk-head boats there are representations that in some way were related to "shamanic activities", but on the whole, the elk-head boats depicted in the rock art do not give such an impression.

A more nuanced, and a more probable explanation for the elk-head boats has been proposed by Westerdahl (2005: 13). He argues that the underlying reason for associating elks with boats was because the elk as a land animal functioned as a mediator between the familiar, terrestrial realm and the strange world of the sea. Importantly, it seems that the boat had a largely similar function. As Westerdahl (2005: 3) writes, the boat was considered as a mediatory device, operating between the terrestrial and the aquatic domains. Drawing on an extensive body of

²⁵⁶ Evgenia Anichtchenko (PhD, Smithsonian Institution), email correspondence via E. Kashina, 27.10.2021.

ethnohistorical material regarding taboos and rules associated with seafaring, Westerdahl (2005: 13) writes:

...there has existed a universal opposition between land and sea in maritime cultures. In the light of this opposition it appears reasonable that the heads of land animals must have been conceived as strangers in their new environment, transferred from their natural environment, their world, to another. Precisely for that reason they must have been thought of as strong magic at sea and as capable of protecting boats and crews and generally bringing good fortune...They have accordingly also been border-crossers and they warrant the balance of opposites. They are liminal agents. Furthermore, if the sea was perceived as a chaos, the boat itself coming from the cosmos was the means to overcome it, a kind of mobile bridge between the two opposites. The elk was often observed to swim in this divergent element. Thus I propose for several converging reasons that the elk as well as the horse – and in fact also the boat – have been liminal agents in this twin world.

In other words, Westerdahl proposes that the elk, due to its natural behaviour, was considered as an ally to people moving in a strange and dangerous environment (see also Zhulnikov 2006: 109–110). I find this understanding convincing, although not necessarily without additional implications. Presumably, one reason for attaching the head of an elk to the boat was namely because the elk in particular was considered to be an animal that could travel, and help humans travel, between different realms – not only between land and sea but also between the worldly realm and the world(s) beyond it. Separating these spheres from each other, however, may turn out to be impossible, for as will be seen below, the sea, the boat and the elk have all been closely associated with celestial connotations.

Apart from elks, Westerdahl (2005: 11) argues, birds were probably also regarded as liminal creatures in the past, as they live on land but also move across water. Indeed, this understanding could explain the existence of bird-headed boat depictions in rock art (see also Sognnes 1996: 40–41). However, one may ask why other land animals similarly capable of moving between land and water – such as the

bear – were not associated with boats. On the other hand, this fact underlines the elk's unparalleled role in the hunter-gatherer rock art of Northern Europe more generally. Just as bear depictions are greatly inferior to elk portrayals, it is also the elk that is namely associated with boats and staffs – at the expense of other animal species (see also discussion in section 8.1.6).

There are, however, also ceremonial explanations that can be proposed for the seemingly close connection between elks and water. For example, scholars have drawn parallels between elk- (and deer-)headed boats and Saami beliefs, according to which deer were reborn in the sea if their hides were thrown into a river (Devlet & Devlet 2005: 247). Likewise, the Evenks and the Voguls (Mansi) are known to deposit elk bones in water. Apparently, this was done because the elk was, in a way, regarded as an aquatic animal due to its fondness for water in summertime (Grøn & Kuznetsov 2003: 220). In the previous chapter, we saw that elk bones are conspicuous by their absence from the Ställverket settlement, even though carvings of elks, elk-head boats and elk-head staffs are plentiful in the rock art at the adjacent site of Nämforsen. This surprising anomaly has been interpreted to mean that the settlement was used during the summer, but in light of the aforementioned beliefs, the scarcity of elk bones may also be a result of these being deposited in the Ångerman River.

Antlerless elks depicted in association with boats at the Krutya II rock art site by the Tom River in Siberia have been interpreted namely as elk cows because boats could not have been used in this region during the cold months of the year when male elks are without antlers (Kovtun 2011: 114–115). In fact, Kovtun (2011: 115–116) interprets combinations of elks and boats as denoting a particular season of the year – the early autumn, the elks' rutting period, during which they are hunted. In his view, such calendrical symbolism moreover seems likely because the autumn was considered as the beginning of a new annual cycle, associated with fertility and revival. In support of his interpretation, Kovtun recounts that among several northern peoples, the special relationship between the elk (and the deer) and the autumn season is reflected in the names of the autumn months, with the elk cow being of cosmological significance to many

Siberian groups (Kovtun 2011: 115–117 and cited references).²⁵⁷ The elk has also more generally been associated with the changing seasons and the revival of nature (see e.g. Anisimov 1963a: 163; Helskog 2010: 183). It is thus possible, as Lindgren (2002: 61) has suggested, that the regeneration of elks was perhaps more or less synonymous with the regeneration of life in general.

In Helskog's (2014: 136) view, a logical explanation for the association between antlerless elks and boats is that the former depict elk cows that were regarded as life-givers, responsible for the reproduction of new elk generations. In the myths of several Eurasian peoples, the elk is indeed closely associated with concepts of revitalization and renewal, and the elk commonly functions as a mediator between the human and the spirit worlds (Zvelebil 2008: 44).

It is possible that rock artists depicted elks, elk-head staffs and elk-headed boats also partly because they regarded the elk as a common predecessor of humans. In Bolin's (2000: 166) view, for instance, "[t]he fundamental principle behind the depiction of elks was that people believed they had once derived from a mythical elk ancestor". He moreover proposes that the rock art figures at Nämforsen and other large localities were made in order to "reactualize the sacred and mythical past and to display the story of creation", and that the elk-head boats were conceivably portrayed to illustrate the journeys undertaken by the ancestors (Bolin 2000: 167; see also Bolin 2010: 25).

In fact, the latter understanding comes close to the reading that I suggested above for the carriers of elk-head staffs in rock art. Even if I find it too daring to associate the rock art panels with creation myths in particular, I do concur with the assumption that some, if not all, of the anthropomorphs portrayed inside elk-head boats represent similar kinds of ancestors, or "great hunters". It seems that this is actually one of the main differences between large and "ordinary" rock art sites – *the depictions of elk-head staff-carriers and distinct anthropomorphs travelling*

*in boats are found only at the large rock art concentrations.*²⁵⁸

In this context it is also important to recall the fact that the carvings found at sites with large concentrations of rock art were made in several phases and by several generations. What this implies is that – aside from the very first carvers – all later observers would have encountered panels on which rock art figures already existed. As was discussed earlier, the rock art made by earlier generations thus most likely affected the beliefs of later populations and presumably their own rock art as well (see Janik 2008: 101–102). In fact, irrespective of whether the initial depictions of anthropomorphs sitting in elk-head boats and carrying elk-head staffs were intended to represent ancestors or living beings, for later generations that saw these pre-existing figures, the anthropomorphs would *in either case* have embodied ancestors and earlier generations (see also Nash & Chippindale 2002: 9). Most probably, earlier figures also came to be regarded in a more or less mythical light because the knowledge of who had made them – if this information had existed in the first place – inevitably faded as time went by.

6.2.9.3 Elk-head boats and the underworld

The boat being associated with the underworld is a theme that appears to have been remarkably widespread both in space and time. The passage to the underworld has often been likened to the crossing of an ocean or an enormous river, and such allegories have also been depicted in ancient art. Moreover, ethnographical accounts describe the burying and cremating of the deceased in boats or in boat-shaped constructions, as well as the custom of placing the dead in boats that are sent downstream (see e.g. Jacobson 1993: 195–196, Devlet & Devlet 2005: 246–247; Helskog 2010: 183; Kovtun 2011: 116–117). Against this background it is no surprise that boat carvings in rock art have often been associated by scholars with the underworld and the deceased (see e.g. Okladnikov & Martynov 1972:

²⁵⁷ The Vas Yugan Khanty, for instance, call August as the "the elk migration month" (Järvinen 2000: 55).

²⁵⁸ The site of Slettnes possibly represents an exception that proves the rule, but here the connection between anthropomorphs and elk-head boats is not clear-cut.

251–252; Helskog 2010: 182–183; 2014: 92, 100). It should also be noted that in Siberia, rivers have often been connected to female deities and petroglyphs and ritual sites there are frequently positioned adjacent to rivers, indicating the special significance of these waterbodies (Jacobson 1993: 185, 230 and cited literature). The placement of the Nämforsen rock carvings has also been understood in this light (Tilley 1991: 136).²⁵⁹

Although Helskog (2010: 183–184) states that he has not found any ethnographical accounts that would link the boat and the elk, he is still convinced that the elk was not only connected to water but also to the underworld (cf. Anisimov 1963a: 198). In a similar way, it has been suggested that Siberian rock art was made at riversides in order to guide the deceased on their journey to the underworld, and since the majority of these petroglyphs depict antlerless elks, this animal was most likely, in some way or another, related to the realm of death (Jacobson 1993: 230–231). As Jacobson has pointed out, rivers were highly important not only for travelling and as food sources, but also because elks were frequently encountered near rivers. It is thus “not difficult to imagine how boats could become a metaphor for the passage of the soul after death into another world, and how elk could function as metaphor for the ever-renewed source of human sustenance” (Jacobson 1993: 95). In her view, superimposed depictions of female elks and boats from Siberian rock art in particular indicate that the elk cow was not only a life-giver but also closely related to death (Jacobson 1993: 92, 97, 184; see also Helskog 2014: 138; Losey et al. 2021: 18).

Thus, the elk-head boats may have had two simultaneous connotations related to transportation; one that took place in the material world, and another that was connected to an allegorical transition between the world of the living and that of the dead. As an example, Helskog (2014: 92–93) points out a unique scene in Kåfjord, in which several elk-headed boats with peculiarly-depicted loads are heading in the same direction

(Figure 119). Helskog (2014: 93) interprets this scene as depicting the transportation of deceased humans. Similar readings have also been proposed for boat figures in rock art elsewhere, for instance concerning boat depictions located along the Tom River (e.g. Okladnikov & Martynov 1972: 232–234; Mikhailov 2011: 120–123).



Figure 119. Elk-headed boats with similar loads. Kåfjord 1. Tracing by Karin Tansem. Not to scale.

A renowned theme in Siberian ethnography is an elk or a deer that joins boats on their otherworldly journeys (Devlet & Devlet 2005: 247). For instance, among the Evenk people, a theriomorphic deity called *kalir* is said to have the overall appearance of an elk or a (rein)deer, with elk antlers and a fish tail. The *kalir* acts as a guardian for the Evenk shaman and his spirits when they undertake their spirit journeys upon a mythological river (Anisimov 1963a: 166). Somewhat similarly, the so-called blue elk described in Kalevala poetry seems to have been a rather ambiguous amalgamation of a boat and an elk, but which nevertheless was essentially the shaman’s spirit-helper in his journey to the otherworld (Lahelma 2007a: 125–127).

Lahelma, who has explicitly linked the boat depictions in rock art with circumpolar shamanism and interpreted boats as the vehicles of the shaman travelling between different realms, recounts that the Saami noaidi were sometimes known to use divine boats in their otherworldly journeys. Canoes and boats were likewise used by shamans for travelling to different realms in North America and far-eastern Siberia (Lahelma 2007a: 123–125, 132; see also Lahelma 2017: 150). In addition, boats were depicted on shaman drums, which could in turn be shaped like boats. In fact, it seems as if not only the elk and the

²⁵⁹ Scholars have long paid attention to the fact that the majority of rock art sites in Fennoscandia are connected to water and important waterways. In addition to the evident practical significance of water, scholars have also stressed the metaphysical qualities of this element (see e.g. Bolin 2000: 171).

boat were interrelated, but the drum, too, could among several northern peoples be personified and considered as akin to a deer or a boat. These three concepts – the elk (or often a deer), the boat and the drum – were all elements associated with the shaman (see Lahelma 2007a: 123–128; see also Anisimov 1963a: 202; Jacobson 1993: 176–177). However, even though the concepts have commonly been attributed specifically to shamanism, there are reasons to believe that they may in fact stem from an older pre-shamanic tradition, as will be seen below.

Another noteworthy aspect that I believe is closely related to the multifaceted connotations of elk-head boats is the interesting connection between boat figures and elk antlers in rock art. Already in the 1970s, Taavitsainen (1978: 190–191) paid attention to the many boat figures in Eurasian rock art that resemble elk antlers in shape and *vice versa*. In Finland, for example, there are several examples of rock paintings, in which two bow-shaped figures resembling boats are depicted as a pair (see Figure 111).²⁶⁰ Such figures should, in Taavitsainen's (1978: 191) view, not be understood as depictions of boats, but rather as the elk's paired antlers, which essentially represent the entire elk. What could speak in favour of this interpretation is that the number of vertical strokes made on these figures generally corresponds to the number of points (tines branching from the main beam) on the elk's paired antlers. These range from two on the antlers of male calves to, in exceptional cases, more than 30 points on prime-aged bull antlers (cf. Figure 7).²⁶¹ However, while the explanation seems plausible with reference to certain figures, Poutiainen and Lahelma (2004: 74) have pointed out that it is not applicable to all boat figures. Nonetheless, the connection between boats and elk antlers seems to have been of special significance.

To be sure, carved and painted elks with boat-shaped antlers are found both at large and small rock art sites in Sweden, Norway and Finland, as well as in Siberia (see e.g. Taavitsainen 1978: 190; Lahelma 2007a: 116–118). Tilley

(1991: 68), for instance, pointed out that while some alleged elk antler depictions at Nämforsen are reminiscent of elongated ears, others seem to represent boats rather than naturalistic elk antlers.²⁶² Manker, in turn, compared depictions on historical Saami drums with the Nämforsen rock carvings and noted a similarity in the unusually-shaped elk antlers, which in both cases are reminiscent of boats (Manker 1971: 13; cited in Lahelma 2007a: 124). This peculiar connection between boats and antlers was certainly long-lived and widespread, and I even find it possible that the depictions on Saami drums may represent vestiges of this tradition.

To summarize, it is evident that the ecological and ritual explanations for elk-head boats – as well as for the close connection between elks, boats, and water – are closely interrelated. It seems that one of the fundamental reasons for associating boats with elks was linked to the special qualities of this animal, which were transferred to the boats used and depicted by Stone Age hunter-gatherers. Probably, another factor relevant to this explanation is the fact that elks were used for making the boats themselves. As a result, the elk and the boat were considered as related concepts, to the degree that the two became in some way inseparable. Just as the elk as a terrestrial animal could travel across aquatic environments, so too did the boat function as a mediator that linked humans and their terrestrial world with the watery realm. Besides this pragmatic connection, the elk and the boat were also apparently both seen as mediators between the everyday, material world and the underworld. On basis of ethnographical accounts it is reasonable to assume that the elk-head boats were in some way related to the concepts of revival and death, but most likely regional variations existed as to their precise meaning. Similar connotations seem to have been attributed to the elk cow in general.

²⁶⁰ As Lahelma (2007a: 125) recounts, similar, paired boat-like figures are also portrayed on several Saami drums, and such depictions have varyingly been interpreted as representing boats, deer or fighting shamans.

²⁶¹ <https://www.jaktjournalen.se/skot-32-taggar-i-arjeplogs-fjallen/>, accessed on 24.11.2022.

²⁶² In Sjöstrand's view (2010a: 260, fig. 4a), it is the boat figures that were depicted first, and their modification into elk antlers took place at a later stage. Sjöstrand (2011: 120) argues that these elk-boats are reminiscent of later south Scandinavian amalgamations of boats and horses, which can perhaps be understood as continuations of the same phenomenon of associating boats with terrestrial features (see above).

6.3 Elks without antlers in rock art

One of the most conspicuous themes regarding the elk depictions in northern rock art from a long-term perspective is their recurring lack of antlers. In this chapter it becomes clear that the same trend is even more rigidly epitomized in the depictions of elk-headed boats and staffs in rock art. As will be seen in the following chapter, depictions of antlers are almost absent also from the various elk-shaped artefacts found in Northern Europe. For these reasons, I will end this chapter with a discussion on why elk portrayals are characterized by their lack of antlers.

In Hallström's view (1960: 290), the choice of portraying elks without antlers was pragmatic. He proposed that the carvers found it difficult to portray the antlers, and hence these were not depicted but instead replaced by prominent ears. However, even if this explanation may well hold true for some of the portable elk-head sculptures, Hallström's interpretation is not convincing with regard to the petroglyphic elk representations, since accurately-shaped antlers do occasionally occur on rock art panels. Without a doubt, rock artists knew how to depict elk antlers, but for some reason it was not a commonplace practice to depict them. Moreover, as Günther (2010: 97) points out, most of the elk-head sculptures in all likelihood represent elk cows, based on their appearance.

The most obvious way to interpret antlerless elk depictions is as female elks, which unlike elk bulls or reindeer do not have antlers. As Günther (2010: 97) notes, elk depictions are also predominantly antlerless in the prehistoric art of Siberia, and Russian scholars have interpreted such animals as elk cows more often than their European colleagues.²⁶³ There are, however, also some European scholars who have identified elk depictions in rock art as elk cows. Tilley (1991: 68), for instance, saw the elks at Nämforsen as representing cows, but as Günther (2010: 103)

²⁶³ In Günther's view, the reason for which the elk cow has not received much attention in the interpretations of Scandinavian and Finnish rock art is essentially due to the dichotomy between processual and post-processual archaeology. As the animal itself became to be considered unimportant, its sex equally became irrelevant. Günther (2010: 101) furthermore supposes that academics have been afraid of seeming too naïve in interpreting antlerless elk depictions as cows.

stresses, he did not give this notion much attention. This was because Tilley understood the elk cow as a totemic emblem in his cosmological system, in which animals were equated with the feminine and culture stood for the masculine. Lahelma's (2007a: 129) interpretation, on the other hand, was that elks depicted in rock art predominantly represent elk cows because they functioned as the spirit helpers of prehistoric shamans who, he argued, were mostly males.

Even if I am unwilling to associate elk cows ubiquitously with totemistic or shamanistic worldviews, in the manner of Tilley and Lahelma, I believe that both authors may be correct in that the prehistoric elk depictions primarily represent female elks and that a certain kind of sexual symbolism might have existed between (female) elks and humans. In this context it is worth recalling that both the North American Cree and the Siberian Yukaghirs understand animals as female lovers that hunters have to seduce in order to gain success in hunting (Brightman 1993: 131–132; Willerslev 2007: 199). As Herva and Lahelma (2019: 74) have pointed out, the lack of antlered elk depictions may thus be explained by the fact that the elk as a species was essentially considered in feminine terms. However, such an assumption is obviously too daring to be applied to all prehistoric elk representations – not least due to the fact that antlered elks do occur to some extent in rock art. That said, the special relationship that conceivably existed between humans and female elks in prehistoric Northern Europe can shed light on the fundamental reasons for depicting elks on rocks and on artefacts. I will therefore return to this topic in the two following chapters (see section 8.1.5 in particular).



Figure 120. An elk cow. Photo: Ville Mantere.

An important question at this point is whether there are any other traits beside the antlers that can be used for determining the sex of the elks depicted in rock art. As was seen in Chapter 3, body features that distinguish the elk cow (Figure 120) from the bull include a narrower thorax, a saggy back, a smaller dewlap and a more elongated head (Figure 6). However, even if such characteristics are sometimes discernible on more detailed elk depictions, it is most often impossible to recognize these markers to such a degree that the sex of the elk depictions could be fully ascertained. In fact, Wennstedt Edvinger (1993: 72) has argued that the only elk depictions that definitely portray cows are those with calves. On the other hand, it is reasonable to question the extent to which modern views on animal sex markers correlate with those of prehistoric hunter-gatherers (cf. Günther 2010: 102; 2022: 95). Generally speaking, however, the majority of the antlerless elk depictions are so schematic that it has never been possible to determine their sex solely on the grounds of their physical attributes.

However, since male elks shed their antlers every year, it is also possible that depictions of antlerless elks in rock art may refer to elk bulls during the part of the year when these appear without antlers. One of the first scholars to have proposed this explanation for the antlerless elk depictions was Sarvas (1969: 30), who put forth that the Finnish rock paintings may have been associated with elk hunting that took place in late winter. This viewpoint was also favoured and further developed by Taavitsainen (1978: 187–188), who argued that the location of Finnish rock paintings supported this view, as did ethnographic accounts describing the efficacy of elk hunting taking place on skis (see section 4.3.2). Largely similar readings have also been proposed for Scandinavian rock carvings depicting antlerless elks (e.g. Hagen 1976: 63; Mikkelson 1986: 140; Ramqvist et al. 1985: 355; 1992: 44–45; Gjerde 2010: 376).

As noted for instance by Lofterud (2002: 13) and Günther (2010: 102), rock carvings on horizontal surfaces must have been made during the snow-free period of the year, but it is of course possible that elks in their winter state were depicted during the summertime also. In northern rock art there are, in fact, depictions of elks

that can be associated with specific seasons (for seasonality and rock art, see Gjerde 2020b). These include but are not limited to elk cows with their calves, indicating spring and summer (Figure 121), breeding scenes and antlered elks, indicative of autumn (Figure 122), as well as scenes of elk-hunting on skis, taking place in the winter (Figure 14). Taken together, these representations do not indicate that the elk depictions were associated with a single season, at least not on a general level.

As regards rock paintings, the situation is somewhat different since their production would in most cases have been possible in winter. However, if the antlerless elk paintings were to represent the animals as wintertime prey, one may pose the question of why other signs indicative of winter are virtually absent from the rock painting panels. In addition, Lofterud (2002: 13) has rightly pointed out that if the antlerless elks represent bulls, this would seem strange considering that among elks power and prestige are signified namely through the antlers. Undeniably, it seems odd that the ancient artists would have chosen to depict elk bulls specifically during the short period of the year when bulls are without antlers and most reminiscent of cows.

As Fuglestedt (2018: 116) points out, there is also an evident problem in interpreting all elk depictions as representing animals in their winter state, due to the plain fact that depictions of antlered elks also exist in rock art. Indeed, even if these representations are rare, they should certainly not be ignored. Fuglestedt's (2018: 116–117) own understanding is as follows:

[a]mong elks, sociality centers around the cow and her offspring. This includes three categories of elks, all of which lack antlers: female adults, female calves and male calves. In other words, the reason why there is an astonishingly high percent of depicted elks lacking antlers, I suggest is because they represent female elks with calves of both sexes. It is this category of elks that forms true groups, and may represent a metonym of the greater community of elks.

However, even if I partly agree with Fuglestedt's notion of the elk cow having a more prominent role than the bull, I find the overall line of argument somewhat weak. It is true that

besides giving birth, it is namely the elk cow that looks after the calves, in clear contrast to the full-grown male elks that spend most of the year alone. That said, the above understanding does not essentially explain the fact that antlered elks still occur in rock art, or the fact that clear depictions of calves are rare. Undeniably, there are

depictions of elk cows with calves, for instance in Alta and Nämforsen. However, in such cases the calves are clearly distinguishable from the full-grown elks by their unmistakably smaller size (Figure 121). The rock artists clearly knew how to depict calves, but in my opinion, these are rarely represented on stone.

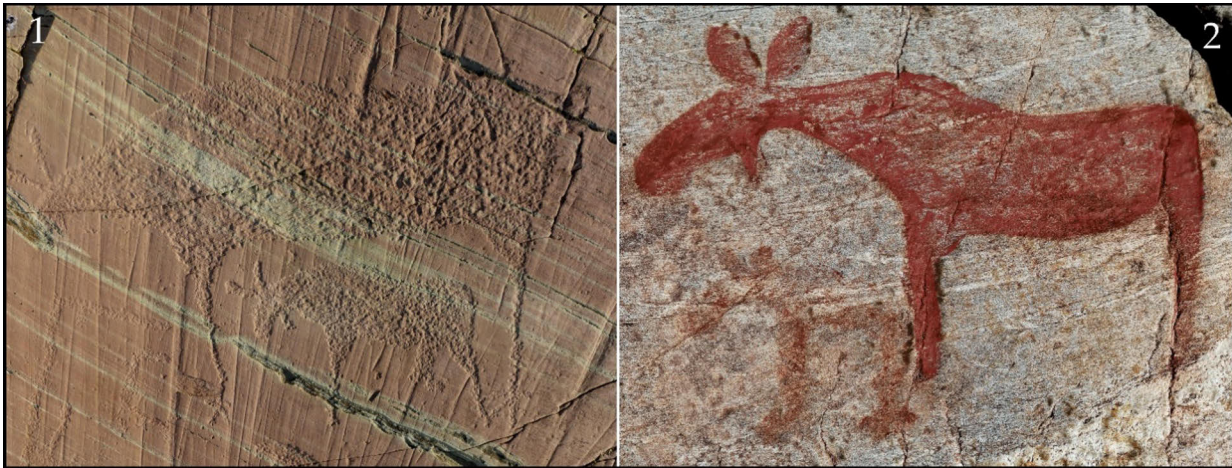


Figure 121. Elk cows with calves. 1. Kåfjord, Alta; 2. Laxön, Nämforsen. Photos and compilation: Ville Mantere. Not to scale.

Of course, it can be argued that older calves are larger in size and may therefore not always be easily separable from full-grown animals. However, if calves with their mothers really were commonly depicted in rock art, as Fuglestedt argues, one would expect these to occur in groups of two or three, as the cow normally gives birth to one or two calves and such “groups” of elks can also be observed in nature. This is nevertheless not the case. Even if compositions of elk cows with their calves can sometimes be identified, the majority of elk figures in northern rock art are certainly not depicted in this way. Moreover, the elk figures do not, as a rule, display the characteristics of calves, that is, a thin neck and a triangular head. There are thus no good grounds for arguing that elk calves of both sexes were commonly depicted in northern rock art.

However, each year there is one period of utmost importance, during which the behaviour and sex ratio of elk groupings is significantly different compared to the rest of the year. This is the autumn rutting period, which demonstrates that elks essentially live under a matriarchal system (Nygrén & Wallén 2001: 81). In practice, this means that even if elk bulls compete and fight for breeding privileges, it is ultimately the elk cow that chooses her mating partner. In

contrast to other cervid species, elk bulls usually do not form actual harems consisting of several defended females. Instead, a number of bulls gather together around a cow in order to compete against each other for the right to breed with her (Nygrén & Wallén 2001: 81, 83). Only in exceptional situations, where for some reason or another there are not enough prime bulls in a region, does an elk cow accept a younger, inexperienced bull. However, this usually occurs at the end of the rutting period, which leads to delayed fertilization and birth, and eventually to smaller and weaker elks and thus possibly also to weaker generations in terms of genetic and phenotypic qualities (Nygrén 2009: 61 and cited references).

It should, however, be noted that the breeding strategies of elks are somewhat different among the taiga and the tundra populations of this species (Bubenik 1987: 354–358). The aforementioned strategy, in which the cow “monopolizes” the bull, typically prevails amongst elks in dense forest (taiga) areas (Bubenik 1987: 355; Nygrén & Wallén 2001: 81). In open forest-tundra regions, the situation is somewhat different, as in such areas it has been noted that several cows seem to congregate around powerful bulls. However, even in these assemblages, it is eventually the female elks that monopolize and

select the bulls (Bubenik 1987: 356–357, Nygrén & Wallén 2001: 81, 83). It has been assumed that due to these differences in breeding strategies, a single prime bull may fertilize a somewhat larger number of cows in the tundra region than it would do in the taiga zone, but this is also dependant on the density and harshness of the region (Bubenik 1987: 354, 357). What is important in both contexts, however, is that *a relatively small number of prime bulls account for the fertilization of the majority of cows*. I would argue that this factor is highly relevant when interpreting elk depictions in prehistoric art.

A long-term study carried out in the Denali National Park and Reserve in Alaska has revealed highly interesting details about the rutting behaviour of elks. The observations undertaken at Denali showed that 98% of the elk cows in the area mated with a single male, and the remaining two per cent with two bulls. Conversely, large-sized bulls undertook nearly 90% of the mating, whereas year-old bulls took part in less than two per cent of the mating observed.²⁶⁴ At most, a dominant bull could mate with as many as 25 cows during each rutting season.²⁶⁵ Even though I am aware that the observations at Denali may not be fully applicable to prehistoric Northern Europe, I nevertheless believe that the findings do reveal fundamental and universal aspects of the elk's behaviour that have almost certainly remained unchanged for millennia. Moreover, there is every reason to believe that prehistoric hunter-gatherers were well aware of these aspects. Van Ballenberghe, who has studied the elk rut in Denali for more than three decades, writes:

Clearly, the largest, highest-ranking bulls were doing most of the mating. Field observations indicated that they accomplished this by defending cows from smaller bulls, aggressively chasing other bulls away, and by defeating challengers in fights. The lowest ranking animals, including yearlings, had very little success. Even some older males that were small for their age, or were

*poor fighters, could not compete with the top ranking bulls.*²⁶⁶

In the light of these facts, the skewed sex ratio of the elk depictions in northern rock art becomes more comprehensible. In other words, a feasible explanation for the predominance of female elks is that *the rock art primarily represents elks that had significance for the reproduction of the species*. Elk cows were thus depicted in numbers, because virtually all of them paired, and because these were the animals that actually gave birth to new elks in the spring. By contrast, only a small number of elk bulls were represented in the rock art, but these animals had a central function in terms of the reproduction of new elks.

Obviously, there are notable differences between rock art sites, and it would be a fallacy to claim that elk depictions were produced for the very same reasons across such a vast area and multimillennial timespan. Yet, especially at the large rock art concentrations, such as Nämforsen and Alta, the depictions of antlered elks usually appear in relation to elk cows. Although the coequality of the figures is not always indisputable, the overall impression is in any case that *the depiction of elk bulls seems intentional and significant despite their clearly lesser number compared to the depictions of elks without antlers*. On this point, therefore, I disagree with Günther (2022: 95), who writes (specifically in relation to the elk depictions in Alta) that “[t]he mating season of the elk was obviously of no interest when making rock art”. My argument is that the mating season was indeed of the utmost interest to the rock artists, but its importance lay not necessarily so much in its seasonal coherence as it did in the theme of reproduction on a more general level.

To put it differently, even if I associate the proportion of male and female elks with elk social dynamics in terms of reproduction, and as epitomized in nature during the autumn rut, I do not claim that the images themselves were made in the autumn or were even representative of that season (see below). Rather, I contend that prehistoric elk hunters were *constantly* aware of how, and what kinds of, elks reproduced, and

²⁶⁴ <https://www.nps.gov/articles/aps-v5-i1-c7.htm>, accessed on 28.5.2019.

²⁶⁵ <https://www.nps.gov/articles/denali-moose-rut.htm>, accessed on 29.5.2019.

²⁶⁶ <https://www.nps.gov/articles/aps-v5-i1-c7.htm>, accessed on 28.5.2019.

that this “traditional ecological knowledge” (see e.g. Günther 2022: 34–35) was a central part of the beliefs and actions linked to the elk hunting cycle. Thus, I believe that, in general, *the elk figures at the large rock art concentrations were not simply depictions of expendable game animals but rather of elks as “caretakers” of reproduction, as animals guaranteeing the continuation of life* (cf. Helskog 2014: 136). The aforementioned “love triangle” scenes at Kanozero (Figure 91) and in Alta (Figure 48), as well as the focus on unantlered elk-head staff and boat depictions also support this interpretation. The elk was considered as far more than simply a quarry to be controlled.

As regards the “ordinary” rock art sites, there are many localities that lack antlered elks entirely, but where these do occur, these also appear to carry special purpose and importance. In the rock art of eastern Norway, for example, the few depictions of elks carrying antlers are usually the largest elk figures at the sites, and such depictions are commonly carved with deeper lines than other figures; suggesting that the elk bull with antlers had a special role for the carvers (Mikkelsen 1986: 137, 140). I claim that these elks were thus depicted because they represented the (prime) bulls that fertilized most cows and thus stood for the reproduction of the species.

In relation to the eastern Norwegian elk depictions, I argued that the so-called inner designs were made in order to signal that it was the access to, and rebirth of, *amenable* elks that was of importance. Now, it seems that the amenable animals depicted were not equally male and female elks, but elk cows predominantly. Yet, the elk hunters surely knew that, even if a healthy and reproductive elk population requires a certain number of bulls in their prime (see section 3.1.4), the hunting should focus on bulls and calves instead of elk cows for the elk population to remain as reproductive as possible (see e.g. Hämäläinen et al. 2001: 143–144). In other words, *the elks depicted in rock art are unlikely to simply mirror the animals actually killed by the rock artists*. If this were the case, not only the total number of elk depictions, but the share of (young) elk bulls in particular should definitely be larger. Consequently, even though the young elk bulls must have been highly valued as easier

targets compared to older and experienced elks – especially during the rutting period – I believe that they were generally not portrayed on the rocks because they were not considered relevant in terms of reproduction. Instead, the evident focus on unantlered elks also at the “ordinary” rock art sites suggests that *the elk depictions represented the animals that their makers wanted to reproduce and exist within the landscape*.

To complicate matters, however, in northern rock art there are representations of elks with noticeably small antlers. Such elk depictions are found occasionally at different localities, and sometimes it seems undeniable that these represent young males rather than prime-aged bulls. This holds true not only for the elk depictions in Northern Europe but for those in Siberia as well. As Losey et al. (2021: 3) note, for instance, antlers depicted on the so-called Angara style elks “are always far smaller than would occur in a mature adult individual”. As a matter of fact, depictions of elks with prominent or exaggerated antlers are surprisingly rare in hunter-gatherer rock art in general. But why is this so?

Guthrie (2005: 132–133), who has paid attention to the fact that Palaeolithic deer antlers in museum collections predominantly belong to young individuals, explains the peculiar phenomenon by what he has termed the “young moose antler effect”. Guthrie (2005: 133) writes:

The answer lies in the fact that during the first six years of its six- to eight-year life span, a bull moose is growing and shedding smallish antlers. The largest antlers are produced only after age six. But few bulls live beyond the year in which they reach full breeding dominance, because depletion of fat reserves and violent fights of full rut participation make it unlikely a bull will survive the following winter. Thus, the solution to this puzzle is simple. If we imagine each bull’s contribution to the pool of shed antlers as a row of six to eight antlers, most of the antlers in this row will be small or modest in size. Few will be large. The smaller ones predominate in our hypothetical antler row, just as smaller antlers are most numerous in the fossil record. Additionally, many bulls die before reaching six years of age and these animals contribute only small shed antlers to the record. It is a major taphonomic bias, accumulating into a real distortion over time.

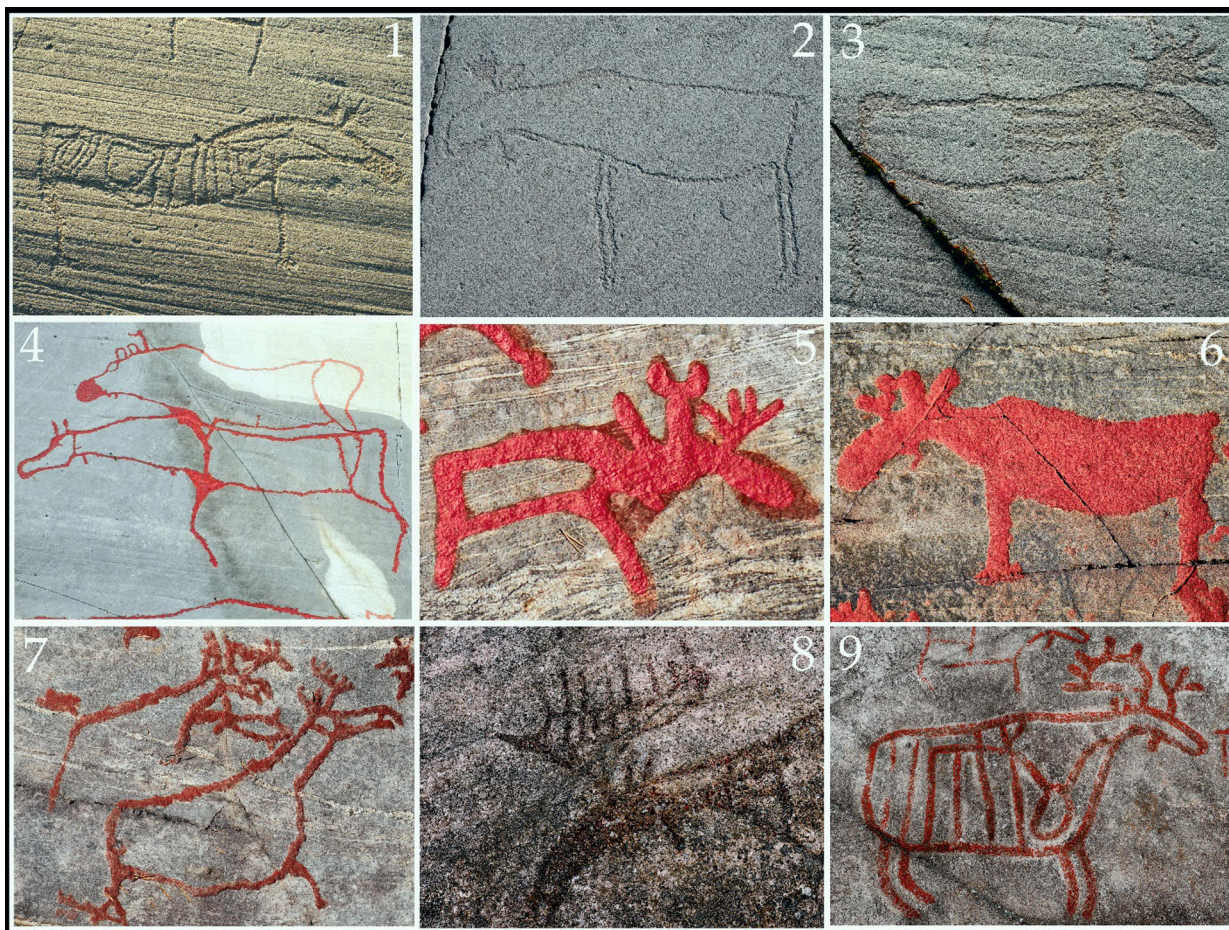


Figure 122. Elks with antlers in northern hunter-gatherer rock art. 1.–4. Alta, Norway; 5.–7. Nämforsen, Sweden; 8. Åskollen, Norway; 9. Møllerstufossen, Norway. Photos and compilation: Ville Mantere. Not to scale.

Now, freely applying Guthrie's explanatory model to the multimillennial hunter-gatherer rock art of Northern Europe, we can see that the basic principle functions here, too. Of all the elk individuals that prehistoric hunter-gatherer groups encountered (and hunted) throughout the year, only a fraction were animals with large antlers. If we assume that each generation that produced elk images on rock art panels depicted elks as they encountered them in their natural surroundings (cf. Günther 2022: 123–125), the same “young moose antler effect” starts to take shape.²⁶⁷

Even the prime bulls which, I believe, are depicted in rock art did not possess their prominent antlers year-round, but for a considerable part of the yearly cycle, their antlers were small. We must therefore return to the question of the

time of the year in which the elk figures were depicted. As I hinted in relation to the Finnish rock paintings, I find it probable that most of the elk depictions in rock art were made in the summertime. Although the autumn was probably a key season both in terms of hunting and the use of various elk-related artefacts, I suggest that rock art figures were predominantly made *prior* to this season, and the male elks with small antlers often represented animals in their summer state. What this implies is that the presence of antlers was seemingly of greater importance than their size or accurate/prominent shape.

To put it differently, just as gravid elk cows were depicted in rock art with fetuses inside them to signify what was *supposed* to take place, so too were male elks depicted with undeveloped antlers because these were to become full-grown in the future. This reading probably explains why there are some depictions of copulating elks in which the bull has noticeably small antlers (Figure 122.4). Such compositions appear odd as they represent bulls during the time of

²⁶⁷ The resulting rock art imagery might moreover have affected the elk images produced by later rock artists, who saw that their predecessors had depicted large-antlered elks in very small numbers compared to the elks portrayed with small and, especially, no antlers.

the year when the antlers should be at their largest (see also Günther 2022: 87, 90, 95, 100). However, if the connotations of such representations were related to *what was to come* instead of illustrating the present state of affairs, the figures make more sense. Consequently, I believe that the size and shape of the elk antlers portrayed in rock art should not be taken as a direct indicator of season, or a straightforward synonym for the elk's sexual maturity, as one may initially assume.

As intriguing as the representations of small elk antlers are, the fact still remains that the overwhelming majority of elk depictions in northern rock art do not have antlers. In fact, at some sites, such as Kanozero, all of the elk depictions seem to lack antlers. I am disposed to interpret such animals first and foremost as elk cows. Fundamentally, I believe that there are two partly overlapping reasons for the predominance of elk cows in art, both rooted in the biology of this animal. The first is the aforementioned fact that elks *live in a matriarchy*, which most certainly was a feature witnessed by prehistoric hunter-gatherers during the annual rutting season. The second point is that by *giving birth to new elks*, it is namely the elk cows that are ultimately responsible for the reproduction of elks. Because of these basic notions, I argue, the female elk came to be regarded in a special light over a vast region, which eventually resulted in the elk cow attaining a distinctive role in art as well.

But is there enough evidence to claim that an actual cult centred on the elk cow existed in prehistoric times, as has sometimes been proposed? One of the advocates of such a theory is Jacobson, who has studied the deer imagery in Scytho-Siberian culture. She writes: “[I]n her most ancient incarnation, she took the form of a monumental and unantlered elk (New World moose). Over centuries and even millennia, her representational form shifted to an antlered animal and then to an antlered but thoroughly syncretic form, until finally her animal aspect was eclipsed in the last centuries before our era” (Jacobson 1993: 3). Indeed, though it exceeds the scope of this study, when discussing the possibility of an elk cult it needs to be stressed that the predominance of antlerless elk depictions is certainly not limited to Northern Europe. It is

equally manifest in the rock art of Siberia and the Urals (see e.g. Martynov 1991: 30–32; Jacobson 1993: 14, 31).

There can hardly be any doubt that the rock art of Northern Europe is closely related to the carvings and paintings found in other parts of northern Eurasia. However, as Jacobson (1993: 90) puts forth, the prevalence of the female elk in these regions is not necessarily due to a straightforward cultural continuity but can also be explained by similarities in the culture of humans living in a similar environment (cf. section 1.4.1). Indeed, I concur with Tilley (1991: 127) that there is a risk of “pursuing sweeping generalizations with regard to such a vast geographical area”. In any case, in line with Günther (2010: 111) I argue that the similarities as regards the absence of antlers are too great to have been caused merely by chance or a stylistic convention, by which the antlerless elks referred to elks in general. Surely this was not the case, as suggested also by the small proportion of antlered elks within the rock art. Undoubtedly, the focus in the boreal forest zone was on depicting the elk without antlers: the elk cow.

In Jacobson's (1993: 91–92) view, the roots of the tradition of portraying female elks go back to the rock art of the Siberian Neolithic, and the manner of depicting elk cows came to an end in the early 2nd millennium calBC.²⁶⁸ She comprehends the long-term predominance of antlerless elk depictions over a vast geographical region as indicative of a belief system centred on the elk cow. This animal was regarded as a *magna mater* (“great mother”) that had relevance not only for the reproduction of elks but for the continued existence of humans and other animal species as well (Jacobson 1993: 96–97). In the light of the elk-centred rock art imagery of northern Europe, however, I am of the opinion that the beliefs associated with the elk cow go even further back in time than Jacobson proposes. At least by the Late Mesolithic, but perhaps already during the Early Mesolithic, the female elk had an unparalleled importance across vast areas of Northern Europe.

Scholars have for long drawn parallels between northern rock art and ethnographical

²⁶⁸ It should be noted that the Neolithic period in Siberia (c. 7th–4th millennium calBC) is used commonly to refer to the period following the Upper Palaeolithic and thus partly overlaps with the Mesolithic period in Northern Europe.

accounts obtained from Siberian peoples, in which the elk, and the elk cow in particular, are linked to various cosmological concepts (see e.g. Anisimov 1963a: 161–163, Okladnikov 1972: 43–46; Taavitsainen 1978: 188–189, Tilley 1991: 135–136). Among the Evenks, for instance, the sky was seen as the taiga of the upper world, where a cosmic elk *Kheglen* resided. She was also perceived as an elk mother and was a central character in a well-known myth describing a cosmic hunt (Anisimov 1963a: 161–162; Vasilevich 1963: 50). The comprehension of the universe as a giant elk seems to have been widespread among northern hunter-gatherers in the forest zone, and the elk was often a significant star constellation in the night sky, for instance amongst the Saami (see e.g. Sammallahti 1991; Hämäläinen et al. 2001: 25–27).

The elk (and the red deer) was also frequently associated with the sun, which many northern tribes conceived as a large running elk or deer (see e.g. Järvinen 2000: 63). According to Anisimov (1963a: 163), this connection is not only notably widespread but also “one of the most ancient elements of the cosmological concepts of the peoples in Siberia” (see also Jacobson 1993: 29–32, 92 and cited literature). Moreover, the sun and the elk are often associated with the understanding of the South as the mythical land of life, and such accounts are documented among Siberian peoples as well as among the Saami (Günther 2010: 106 and cited references).

However, even if the Siberian ethnographical accounts commonly associate the various concepts related to the female elk (and deer) with shamanism, Jacobson (1993: 172) is convinced that this is in fact a relatively recent connection. In her opinion, an older, pre-shamanic tradition underlies the so-called shamanic tradition. The pre-shamanic tradition, Jacobson argues, consisted, first and foremost, of various communal totemic cults, in which the relationship between humans and spirits was *direct*, as opposed to the later institution of shamanism, where this mediation took place through shamans.

According to Jacobson (1993: 172), these communal pre-shamanic cults were mainly centred on the natural world, whereas the shamanistic tradition was more explicitly related to themes of life, death, and sickness. Fundamentally, the pre-shamanic cults seem to have

centred on ancient animistic beliefs, in which the central character was a female progenitor that can be understood as “a clan mother, an earth mother, or an animal mother of life and death” (Jacobson 1993: 180). While this entity was probably seen as a female reindeer in the tundra region, in the forest zone it was undoubtedly initially identified with the elk cow; an animal that symbolized life and revival, but which was also connected to the underworld (Jacobson 1993: 238).

An example of the transformation of totemic cults into a shamanistic tradition can be found in Evenk mythology. Here there are a number of central concepts in which the meaning of mother and that of an elk (or a reindeer) cow are largely intertwined.²⁶⁹ It seems as if these concepts indicate primeval totemic understandings of the elk cow (and reindeer), while the connections to humans are of later origin (Anisimov 1963a: 168–169; 1963b: 110; Jacobson 1993: 191–192). Also more generally, the oldest layers of Evenk mythology were totemic and closely related to the concept of an animal mother. Eventually, however, the totemic aspects of this concept disappeared; first resulting in a therianthrope entity, subsequently in a “cult object” and finally in the features attributed to the shaman (Jacobson 1993: 192, 194; see also Anisimov 1963a: 163, 165, 184).

The above notions demonstrate well the indistinct boundaries between the concepts of animism, totemism and shamanism, and the inadequacy of using these as general theories for explaining past worldviews. Moreover, as Jacobson (1993: 213) stresses, the aforementioned development, by which the initial communal focus on an animal mother – epitomized as an elk (or deer) cow – was reduced so that the animal ended up functioning as the shaman’s spirit helper, was probably not unique to the Evenks but might have taken place among numerous other peoples. Indeed, regardless of whether it ever came to be replaced by shamanism, I find the idea of a “cult” centred on the elk cow as highly relevant, because it would not

²⁶⁹ The Evenk word *enin*, for instance, denotes both a mother and an elk cow (Anisimov 1963a: 168, 177). The name of the elk has in many languages involved multiple meanings. In the Komi language, for example, the elk is called *yera* (“strength” or “might”) and *lola* (“soul” and “life”) (see Ashihmina 2002: 17).

only explain the elk's primary position within the rock art, but also the elk's recurring lack of antlers. In order to address the possible existence and content of such a cult, however, it is necessary to look beyond rock art.

Rock art is certainly not the only type of art that reflects the special importance of the pre-

historic human-elk relationship. A large body of evidence exists that consists of various portable elk-related artefacts found across Northern Europe. Let us now turn to this often-neglected material.

7 Elk depictions in the portable art of Northern Europe

In this chapter, I will discuss various categories of portable art, in which elks or elk-heads are portrayed. For the sake of clarity, I have grouped the elk-related finds into nine distinct categories according to their shape, age, material and/or function. This categorization is intended only to present the various elk-related items as articulately as possible and it does not claim to correspond with the ways in which these items may have been considered in the past (on the categorization of prehistoric art objects, see e.g. Ernits 2001). In addition, it is important to point out that some of the items belong to groups that consist only or predominantly of elk-shaped items, whereas others form part of more general zoomorphic artefact categories, in which numerous animal species are represented beside elks. Equally, there are noticeable differences in the dates and sizes of the various categories. Whereas some consist only of a couple of finds, the largest groups each include more than 30 artefacts, and while some sculptural manifestations

persisted for several millennia as geographically widespread phenomena, others were considerably more short-lived and localized.

Even with its various shortcomings, however, I claim that the categorization utilized in this chapter enables the most thorough and straightforward means to understand the elk-related artefacts of prehistoric Northern Europe. Below, I will address the following artefact groups: elk-headed antler staffs; stone clubs and axes; slate daggers and knives; portable slate items with elk depictions; sledge runners and boat prows; elk-shaped vessels and elk-headed ladles; elk-head finials on bone and antler items, and; elk-shaped sculptures and figurines. I will start, however, by examining the oldest artefact group on which the elk has been portrayed, that is, the finds that date to the Upper Palaeolithic period. These also stand out geographically, as they are the only items in the material that originate from the North European Plain.

7.1 Elk-shaped sculptures from the Upper Palaeolithic period



Figure 123. Distribution of elk-shaped sculptures from the Upper Palaeolithic period. D1. Egemarke; D2. Næsby Strand; G1. Weitsche; G2. Oberkassel; P1. Dobiegniew. Map: Ville Mantere/NatGeo MapMaker.

Altogether, there are five items attributable to the Upper Palaeolithic period that I regard as evident or probable representations of elk. These are the amber sculptures from Egemarke (D1), Næsby Strand (D2), Weitsche (G1) and Dobiegniew (P1), as well as the antler sculpture from Oberkassel (G2). The Weitsche sculpture can be dated to the period 11 800–11 680 calBC and it is thus attributed to the Federmesser culture (Veil et al. 2012: 661–664). Roughly contemporary is the sculpture fragment from Oberkassel, which seems to date back to the period 12 200–11 600 calBC (Baales & Street 1998: 78–79, 83 and cited references). Together, these two finds represent the earliest known elk depictions in portable art from the entire region of study.

Although the three other aforementioned amber items cannot be precisely dated on the basis of their find context, the items are still mutually so similar and akin to the Weitsche

sculpture that it is reasonable to comprehend them, too, as Upper Palaeolithic artefacts. To be more precise, the most probable date for the amber sculptures is the Allerød phase around 11 800–11 000 calBC, when the elk replaced the deer and became the dominant game animal due to the warming climate (Petersen 2013: 229; Michaelsen & Petersen 2016: 5; see also Kabaciński et al. 2011: 159, 162; Veil et al. 2012: 669).

It is noteworthy that while the earliest elk representations are undoubtedly related to earlier zoomorphic artefacts from the Magdalenian period, they nonetheless represent a new category of items. This is not only because of the raw material and the animal species depicted, but also because they depict “free-standing animal figurines”, which are noticeably rare in Palaeolithic art (Veil et al. 2012: 669; see also Kabaciński et al. 2011: 161).



Figure 124. Upper Palaeolithic sculptures portraying elks. For abbreviations and photo credits, see Appendix 1 (G2. Photo and drawing: Jürgen Vogel/LVR LandesMuseum Bonn, compiled by Don Hitchcock (<https://www.donsmaps.com/oberkassel.html>)). Compilation: Ville Mantere.

Even though the Egemark item consists only of the head, I find it likely that the sculpture was originally similar to the items from Næsby Strand, Weitsche and Dobięgniew. On these artefacts, the legs of the portrayed animals are jointed, which has led scholars to speculate how the items were used. Whereas Petersen (2016: 16) assumes that the Næsby Strand piece hung from a strap or a belt, Veil et al. (2012: 669) have argued that the items are too large to have been worn as amulets. Therefore, the authors suggest that the items from Weitsche, Dobięgniew and Oberkassel were probably carried affixed to staffs. However, it seems that the items could be of significance and have numerous functions even as broken artefacts. The Egemark elk-head indicates that it was worn as a pendant after the original sculpture had been broken and repaired (Petersen 2013: 228–233).

Only two of the five items (D2 and P1) are intact, but on the basis of their dimensions – seven

and 12 cm respectively – the three other finds were likely approximately of similar size (Figure 124). Interestingly, there is a notable difference in the realism of the four amber sculptures. There can be no doubt that the Egemark and the Weitsche items depict elks, but the sculptures from Næsby Strand and Dobięgniew are much more abstract in shape and cannot be interpreted as elks with the same certainty as can the two other finds. The former has a disproportionately small head, which can probably be explained by the natural shape of the amber piece that was used for sculpting the item. Nonetheless, there are *evident variations as to the degree of realism pertaining to the earliest elk depictions on portable items*, and these were apparently not made in accordance with any strict convention.

Whilst the function of these items is unknown, it nevertheless seems that *the first images of elk were not placed on everyday utensils* (such as knives or spoons), which appear in the archaeo-

logical record only several millennia later. Apparently, the Upper Palaeolithic amber sculptures instead served some kinds of decorative purpose, but this does of course not exclude any symbolical significance and function that may also be ascribed to them. I am inclined to interpret them as prestige items, the ownership of which was not within the means of all members of their societies. The use of amber as a raw material signifies that the sculptures were precious, and probably only a few individuals were entitled to bear them. This is also indicated by the scarceness of the finds. Since the amber sculptures have been discovered as stray finds and in settlement layers, it is possible that these items circulated amongst the more prestigious hunter-gatherers, although the small number of finds does not allow for any definite conclusions here.

The elk-shape of the artefacts nevertheless suggests that the special role of their carriers was probably connected to this animal species. In other words, I cautiously propose that *the amber sculptures belonged to skilful elk-hunters, who had attained a key position within their society*. Admittedly, this reading might appear ill-founded as the material consists only of a couple of finds that cannot assuredly be linked to specific individuals. However, as will be seen in the following section, there are relatively good grounds for interpreting the elk-head antler staffs along the same lines, and my assumption is that these artefacts reflect the very same phenomenon as the Upper Palaeolithic amber sculptures that existed several millennia before them. As regards the badly fragmented antler sculpture from Oberkassel (G2), its value is not reflected as much in its raw material as in its find context. The Oberkassel sculpture is the only Upper Palaeolithic find to have been excavated in a burial. I am therefore disposed to view this find as I do the elk-shaped amber sculptures, as a prestige artefact.

While I am not aware of any direct contemporary parallels to the Oberkassel find, it should

be noted that in addition to the elk-shaped amber sculptures, a number of other elegant amber figures have been found in Poland (Gdańsk, Słupsk), Norway (Linnes) and Denmark (Fanø, Tangkrogen, Resen) that represent other animal species; predominantly bears or wild boars (see e.g. Terberger & Ansorge 2000: 343, 346). The dating of these items is highly complex, but it cannot be ruled out that they may be contemporaries of the elk-shaped amber figurines. Petersen (2013: 225) has proposed that even though the legs of several sculptures have been broken, it is conceivable that these were originally jointed in the same manner as the elk sculptures described above. Moreover, he points out that the amber figurine from Resen has decorations that are not only similar to those on the Egemarke elk-head, but also to those on a bone rod from Fogens Enge, dated to the Late Allerød. This could suggest that the Resen figurine does not stem from the Late Mesolithic period, as has traditionally been assumed, but may have a significantly earlier origin (see also Petersen 2021: 66–68).

In Petersen's view, there is thus a rather high probability that the elk-shaped sculptures are not the only amber figures that stem from the Late Glacial period, but other animal representations may have existed simultaneously with them (Petersen 2013: 229–232; 2018: 149). However, even if I agree with Petersen that the amber sculptures may generally be older than earlier assumed, it has to be kept in mind that the dating of these items purely on stylistic grounds is more or less uncertain. Hopefully, new finds from datable contexts will therefore in the future shed light on the age of amber sculptures in general. At the moment, it can assuredly be stated that elks were represented in portable art already in the 12th millennium calBC, although our understanding of the human-elk relationship in the art of the Final Upper Palaeolithic period is very limited, as based only on a handful of items.

7.2 Elk-headed antler staffs

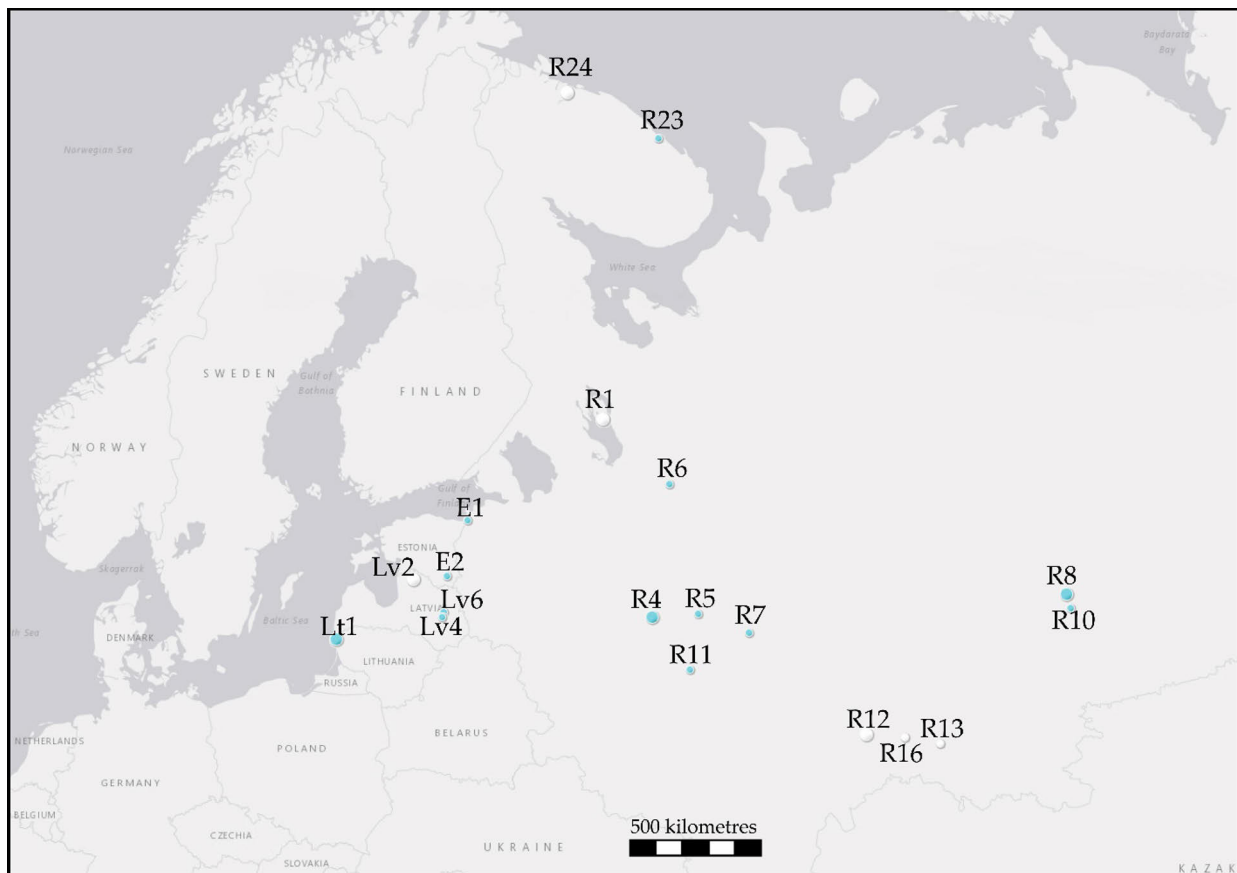


Figure 125. Distribution of elk-headed antler staffs. Lt1. Šventoji (3); Lv2. Zvejnieki (2); Lv4. Malmuta; Lv6. Zvidze; E1. Riigiküla III; E2. Villa; R1. YOO (3); R4. Zamostje 2 (4); R5. Sakhtysh 1; R6. Modlona; R7. Volodary; R8. Shigir (3); R10. Kalmatskiy Brod; R11. Chernaya Gora; R12. Ekaterinovskiy Mys (2); R13. Tok River; R16. Maksimovka 1; R23. Mayak II; R24. BOO (4). Blue circles = settlement layers; white circles = burials. Map: Ville Mantere/NatGeo MapMaker.

In total, there are 33 items that I have included in the group of elk-headed antler staffs (Figure 126). However, the identification of the finds as elk-head staffs is highly subjective since the majority of them consist of mere fragments. In addition, some staffs, especially of small size, may depict species of the deer family other of elks.²⁷⁰ The size of intact staffs ranges from ten to 47 cm, and Zhulnikov and Kashina (2010b: 72) have proposed that the artefacts can be roughly divided into small (≤ 25 cm) and large (≥ 40 cm) staffs. There are several notable differences between the large, “proper” staffs

and their smaller counterparts. First of all, the large staffs show a greater uniformity of shape. Their proportions and the angle in which these are bent are more or less similar in all of the intact specimens. The reason for this most probably lies in the natural dimensions of the elk antler, which formed the raw material for elk-head staffs (Mantere & Kashina 2020: 4). In fact, all of the large elk-head staffs were apparently made out of the same part of the antlers (Figure 151). In consequence, the staffs were connected to elks not only in that they were shaped to resemble them, but also in that, through their fabric, their “essence” was rooted in this animal (cf. Zhulnikov 2006: 177). I also note that the staffs intentionally represent

²⁷⁰ The fact that some staffs seem to be depicting other cervid species is understandable, since the use of animal-headed staffs was a common phenomenon over a remarkably widespread area (see below). In the northernmost regions, the reindeer was a more important animal economically than the elk, whereas the red deer in some other regions was the foremost species. In such peripheral areas, the elk’s position was initially inferior to, or later overtaken by, species that were more relevant locally.



Figure 126. Elk-headed antler staffs from Northern Europe. For abbreviations and photo credits, see Appendix 1. Compilation: Ville Mantere.

antlerless elks but are at the same time made out of elk antler.²⁷¹

The second major difference between the small-sized staffs and their larger counterparts relates to their geographical dispersal. The small elk-head staffs are more limited, as these are not found in central Russia or in the region of the Urals, where numerous large staffs have been discovered (Zhulnikov & Kashina 2010b: 72–3). In contrast, small staffs are known from the sites of Mayak II and BOO, on the northern part of

the Kola Peninsula – at latitudes where no large staffs are known.²⁷² Although some clusters can be discerned, the elk-head staffs in general are spread over an impressive area of approximately 3000 kilometres (Figure 125).

However, given that depictions of such staffs are found at several hunter-gatherer rock art sites, it is most probable that the current distribution of elk-head staffs merely reflects the survival pattern of this evidence. Most likely, large staffs existed as physical items also at these northern latitudes and were commonly recognized over an extensive area. The staffs might even have possessed a special function for people travelling in foreign regions. It has been suggested that during the Bronze Age, octagonal hilted swords functioned as passports or as medieval pilgrim marks, that is to say, ensuring safety and signalling the social identity of their bearer (Kristiansen & Larsson 2005: 233–234; Kaul 2017: 178). It is conceivable that elk-head

²⁷¹ A common denominator for elk-head staffs is their lack of antlers. As regards the large elk-head staffs, there is only one notable exception: the elk-head fragment from Annin Ostrov (R8d). On this sculpture, stubs representing shed antlers of a male elk have been shaped. However, even if Zhulnikov and Kashina (2010b: 73) seem to regard this exception as a sign that could be applied to other elk-head staffs as well, all the other elk-head staffs are still best understood as female elks. Concerning the smaller elk-head staffs, the BOO burial site at the Barents Sea stands out as the only site where animal-headed rods have been depicted with antlers; four of the seven staffs feature sculpted antlers. However, even if some of these representations appear to encompass elements of elks, they may equally depict (rein)deer. I have therefore listed the antlered staffs from BOO in Appendix 2. The only exception is R24a, which I take as an antlered elk.

²⁷² The majority of the staffs are found between 55- and 58-degrees of latitude.

staffs served a comparable purpose several millennia earlier.

Elk-head staffs have been discovered both in burials and in settlement layers (Figure 125). Large staffs are more common in settlement layers whereas most of the small staffs stem from burials. The majority of staffs found in burials originate from large cemeteries and were apparently highly valued grave goods. In burial grounds, staffs have been discovered both in single and collective burials, often but not exclusively in connection with mature male individuals (see Zhulnikov & Kashina 2010b: 73 and cited references).

In terms of chronology, elk-head staffs represent a considerably long-lived phenomenon. Most of the finds have not been precisely dated, but it has in a few cases been possible to ascertain the age of staffs by means of direct or indirect radiocarbon dates (Table 8). The earliest items are the famous staffs from YOO, whereas the youngest specimens originate from the BOO cemetery. The timespan of large and small staffs does not differ noticeably; items belonging to both groups have been reliably dated to the Late Mesolithic and the Neolithic periods. Even though large elk-head staffs have not yielded radiocarbon dates as late as those of the small staffs from BOO, it has on stylistic grounds been argued that some of these also date back to the 2nd millennium calBC (see Appendix 1). Thus, *elk-head staffs seem to have been more or less in continuous use for as long as five millennia, from the Late Mesolithic period to the Early Bronze Age, or around 6500–1300 calBC.*

It seems likely, however, that the elk-head staff did not emerge out of a void but rather was preceded by an earlier tradition of zoomorphic staffs. In this way, I consider the elk-head staffs as part of a broader phenomenon of portable zoomorphic art with origins in the Upper Palaeolithic period. Irrespective of whether the aforementioned amber sculptures were fixed onto staffs, different kinds of staffs existed in prehistoric Europe for a long time. In the famous cave of Lascaux, for instance, there is a depiction of a bird-headed stick that can perhaps be regarded as a zoomorphic staff (see e.g. Ruspoli 1987: 149–151; Wallis 2021). The abundant and much debated find category of perforated batons (*bâton de commandement*, *Lochstab*) from the

Aurignacian and Magdalenian (Leroi-Gourhan 1967) constitutes an even more compelling parallel for elk-head staffs, even if the concrete function of these artefacts is still open to discussion (see e.g. Pettitt 2014: 294).²⁷³

In line with scholars such as Ozols (1974: 9–16), Iršėnas (2010: 177), Kabaciński et al. (2011: 158–162) and Oshibkina (2012: 329–330), I consider these antler staffs and the later elk-head staffs to be interrelated. That said, drawing direct parallels between the Upper Palaeolithic finds and the Late Mesolithic and Neolithic elk-head staffs is obviously impossible. This is not only due to the spatial and temporal distance but also because no elks are depicted on the perforated batons. There are, however, a couple of other zoomorphic staffs from the Early Mesolithic period that might have been associated with the phenomenon of elk-head staffs.

Kabaciński et al. (2011: 158) have suggested that perforated antler artefacts found at the sites of Twedt-Buschau and Verchen in northern Germany, and Krzyż in northwestern Poland, have been shaped in an abstract manner to resemble elk-heads. These items have been approximately dated to the period 8400–7800 calBC and can thus be attributed to the Early Boreal period, or the Maglemosian culture (Kabaciński et al. 2011: 155–157). All three staffs are highly abstract in shape and their length ranges from 23 to 53 centimetres (see Appendix 2). The staffs are made of red deer antler, which, according to Kabaciński et al. (2011: 162), is because elk antler had become scarcer in the Boreal period, and because it was not as easy to shape as deer antler. However, bearing in mind the skilfully shaped “proper” elk-head staffs made specifically of elk antler, I find the latter part of this explanation questionable.

²⁷³ It can also be noted that Magdalenian spear-throwers made of antler frequently portray various animals or parts of their bodies (see e.g. Bahn & Vertut 1997: 96). These atlatls could perhaps also be regarded as certain kinds of predecessors to elk-head staffs.

Table 8. Radiocarbon dates associated with elk-head staffs. Dates (at 95.4% probability) modelled in OxCal v. 4.4.2. using IntCal20 calibration curve (Bronk Ramsey 2020; Reimer et al. 2020). * = reservoir-effect corrected date, modelled with OxCal v4 using IntCal 13 curve and Delta_R of 750±50 years (Zagorska et al. 2018).

Site and staff	Description	Find context	Dated sample	14C date	Calibrated date	Reference(s)
YOO grave 56 (R1a)	Large staff (42.5 cm)	Elder male grave (collective burial 55–57)	Osprey bone; human bone (grave 56)	7570±60 BP (Hela-1374); 7520±40 BP (A: 104)	6570–6250 calBC; 6460–6250 calBC	Gurina 1956; Mannermaa et al. 2008; Schulting et al. 2022
YOO grave 153 (R1f)	Large staff (41 cm)	Elder male grave (double burial 152–152)	Human bone (grave 152–153)	7140±140 BP (GIN-4452); 7340±86 BP (A: 111)	6350–5730 calBC; 6400–6060 calBC (94.3%)	Gurina 1956; Oshibkina 1989; Schulting et al. 2022
Zvejnieki grave 57 (Lv2a)	Small staff (24 cm)	Adult female burial	Human skull (grave 57)	6825±60 BP (Ua-3636)	5750–5250 calBC*	Zagorska et al. 2018
Zvejnieki grave 277 (Lv2b)	Small staff (10 cm), curved	Adult male grave (coll. burial 274–278)	Human bone (grave 277)	5545±65 BP (Ua±19810)	4400–3800 calBC*	Zagorska et al. 2018
Ekaterinovskiy Cape (R12b)	Elk-heads of large staff (13 & 18.2 cm)	Adult male grave	Human and animal teeth (burial 45)	6442±34 BP (Dea-8214)– 5680±20 BP (PSUAMS-4568)	5480–4450 calBC	Korolev et al. 2019
Šventoji 3B (Lt1a; Lt1b)	Two large staffs (42 & 44 cm), smaller unfinished	Settlement layer (bottom of lake sediment)	Direct sample from unfinished staff	4766±31 BP (KIA-51366)	3640–3380 calBC	Rimantienė 1979; Iršėnas et al. 2018
Šventoji 4B (Lt1c)	Small staff (15 cm), made of an elk rib	Settlement layer (bottom of lake sediment)	Several samples from gyttja layer	5110±110 BP (Vs-811) – 4145±80 BP (T-11004)	4230–2490 calBC	Stančikaitė et al. 2009
Mayak II (R23a)	Small staff (12 cm), curved	Settlement layer	Several samples (ceramics)	3930±40 (Le-1496) – 3235±33 BP (Hela-2396)	2570–1430 calBC	Gurina 1997; Murashkin & Carpelan 2013
BOO grave 13-1 (R24b)	Small staff (24 cm), made of an elk(?) rib	Adult male grave (double burial 13)	Human bone (grave 13-1)	3195±39 BP (ORAU)	1530–1400 calBC	Moiseyev & Khartanovich 2012
BOO grave 16-2 (R24c)	Small staffs (16.5 cm)	Adult female grave (coll. burial 16)	Charcoal (grave 16-4)	3090±50 BP (Le-6804)	1490–1220 calBC	Murashkin et al. 2016

As Kabaciński et al. (2011: 162) point out, non-naturalistic and abstract styles of depiction are characteristic of the Maglemosian culture. I am therefore inclined towards interpreting the perforated antler staffs as zoomorphic artefacts, but they may as well be representing a species of cervid other than elk. In fact, in addition to the items from Twedt-Buschau, Verchen and Krzyż,

a fourth largely similar antler rod is known from the site of Gołębiewo in Poland. This rod has been taken to represent a red deer or a roe deer due to its shorter muzzle (Osipowicz et al. 2017: 8–9). In my opinion, however, it is equally possible that all four items portray the same species (Figure 127). At least, the numerous staff depictions at Vingen (see section 6.1.7) support the



Figure 127. Abstract antler staffs from the Northern Lowlands. UP1. Krzyż 7; UG1. Twedt-Buschau; UG2. Verchen. Gołębiewo Photos: J. Kuriga (from Osipowicz et al. 2017); others from Kabacinski et al. 2011. Compilation: Ville Mantere.

assumption that (red) deer staffs existed (alongside elk-head staffs) during the Mesolithic period.²⁷⁴ Certainly, the relationship between different zoomorphic staffs is thus a topic that calls for further research.

In this context it should be mentioned that a number of possible parallels for the North European elk-head staffs are also known from Siberia. The most interesting find category consists of elk-headed items that belong to the portable art of the Early Neolithic Kitoi culture in the Cis-Baikal region. At several cemetery sites in this area, small elk-head sculptures made of antler have been excavated, representing grave goods (Bazaliiskii 2010: 69; Zhambaltarova & Volkov 2013: 116–121; Ponomareva & Taçon 2019: 26–31; Losey et al. 2021: 5–11).²⁷⁵ Among the artefacts, there are some elk-headed staffs, as well as numerous detached elk-head sculptures (Figure 128), which were possibly mounted on staffs (Derevyanko 1994: 462; Ponomareva & Taçon 2019: 29). In recent years it has been possible to date several of the elk-headed items on the basis

of radiocarbon dates obtained from their find contexts. The results indicate that the majority of the finds belong approximately to the period 6400–5900 calBC (7500–7000 BP), which is also the period when the staffs appear in the archaeological record for the first time (see Ponomareva & Taçon 2019: 26–28, tab. 1, 2). The Kitoi elk-heads are thus roughly contemporary with the earliest European elk-head staffs.

Elk-head artefacts found in eastern Siberia have also been attributed to the Late Neolithic Serovo culture (5570–4600 BP) and to the Glazkovo culture (4600–3725 BP) of the Early Bronze Age (Ponomareva & Taçon 2019: 26, tab. 1; Losey et al. 2021: 6, tab. 2). In addition, further conceivable parallels for elk-head staffs (Figure 128) have been discovered in other parts of Siberia, for instance in the Yenisei Basin²⁷⁶ (e.g. de Baye 1894: 11–14, plate IV; Ponomareva & Taçon 2019: 26), the Kutznetsk Basin (see Bobrov 1988: 39–41), the Irtysh Basin (Molodin et al. 2022: 21–23) and the Altai region (Grushin & Fribus 2021: 318–323).

Having briefly discussed elk-head staffs as well as their possible paragons and equivalents, it is now time to take a closer look at the function of this thought-provoking artefact category. To begin with, there are hardly any ethnographically relevant equivalents that would illuminate the use and function of *elk*-head staffs. This has, however, not prevented scholars from drawing – often in a rather ill-founded manner – parallels

²⁷⁴ If one looks at the geographical distribution of the perforated antler staffs from the Northern Lowlands, the nearest rock art site with depictions of staffs is that of Vingen, where a myriad number of abstract staffs occur together with figures of red deer, within a Late Mesolithic context. Given a little imagination, this is not necessarily pure coincidence, and the two phenomena may be interrelated, even though the evidence is currently too scarce to take such a connection for granted. Another manifestation that may be similarly related to deer, elks and staffs is the group of Mesolithic hatchets from southern Norway.

²⁷⁵ Elk-head sculptures have been found at the sites of Fofonovo, Kitoi, Lokomotiv, Shamanka-II, Studenoe-II, Ulan-Khad-IV, Ust' Belaia and Verkholsky, and may also figure in finds from other sites.

²⁷⁶ <https://siberiantimes.com/science/casestudy/news/magical-new-4500-year-old-finds-add-to-oldest-toy-collection-in-the-world/>, accessed on 21.8.2019.



Figure 128. Some possible equivalents to elk-head staffs from Siberian locations. 1.–2. Itkol II (Yenisei Basin, Okunev culture, 2500–1700 calBC); 3. Ust'-Tartas I (Irtys Basin, Barabinskaya culture, 6600–5300 calBC); 4. Shamanka-II, Lokomotiv (South Baikal, Angara Basin, Kitoi culture, 6400–5900 calBC); 5.–6. Bazaikha burial ground (Middle Yenisei Basin, unknown epoch); 7. Ust'-Yodarma II (North Angara Basin, Kitoi culture, 5800–4500 calBC). Photos and illustrations: 1.–2. Andrey Polyakov (IIMK RAS); 3. From Molodin et al. 2022, p. 21, fig. 8; 4. <http://www.vsp.ru/2015/09/01/vdvoe-starshe-egipetskih-piramid-2/>; 5.–6. Ville Mantere (replicas, Swedish History Museum); 7. From Lokhov & Dudariok 2012, p. 132, fig. 4. Compilation: Ville Mantere. Not to scale.

between prehistoric elk-head staffs and other kinds of staffs described in ethnographic literature. Zvelebil (2008: 47; see also Tilley 1991: 136), for instance, alleged that the elk-headed staffs “find a direct parallel in the shaman’s turu, a ritual rod used to mediate between the natural and supernatural worlds”. In a similar manner, Herva and Lahelma (2019: 79) have claimed that “elk-headed staffs can rather comfortably be interpreted as shaman staffs comparable to those used by the Evenk and other Siberian peoples still in the historical period”. However, the accuracy of the above statements can be disputed.

It is true that a staff of some kind was a central part of the shaman’s paraphernalia across several different regions (see e.g. Ivanov 1970: 163–164; Ozols 1970: 14–18; Jacobson 1993: 175; Rozwadowski 2008: 110). Autio (1981: 114–115), for instance, suggested that a possible counterpart to elk-head staffs could be found in Harva’s (1933: 325–326; 1938: 490) studies of the Altaic people, in which a horse-head staff belonging to a Buryat shaman is depicted (Figure 129.2). The function of this staff was to serve its owner during the shaman’s journey to (an)other world(s), as a live horse would in the material world. Likewise, Gjerde (2010: 123) has likened prehistoric elk-head staffs to Evenk (Tungus) staffs described by

Shirokogorov (1935: 290). These staffs seem to have been analogous to the Buryat shaman staffs not only in their shape and function but also in that they, too, represented horses (or reindeer) and not elks (Shirokogorov 1935: 290).

Indeed, the shaman staffs described in ethnographic literature are almost solely associated with horses (less often with reindeer or birds), whereas staffs that represent elk heads are very rare. In fact, the only elk-headed shaman staffs in ethnographic literature that I am aware of are two items mentioned by Ivanov (1970: 163, abb. 144). These staffs have been recorded among the Baikal Evenks, and at least one of the staffs, 1.7 metres in length, depicts an antlered elk (Figure 129.1). Morphologically, however, this staff provides an exact parallel for the horse-headed staffs documented amongst the Buryat (Figure 129.3,4,6), and it has been demonstrated that the Evenk staffs developed as a result of Buryat influence (Diószegi 1968, cited in Ivanov 1970: 164).

One may, of course, speculate upon whether the Buryat horse-staff itself was once preceded by an elk-headed counterpart (cf. Bogdanov 1992: 198–199), but there is no evidence to suggest that this would have been the case. It seems more likely that the horse-headed staffs represent an independent tradition that has nothing to do with

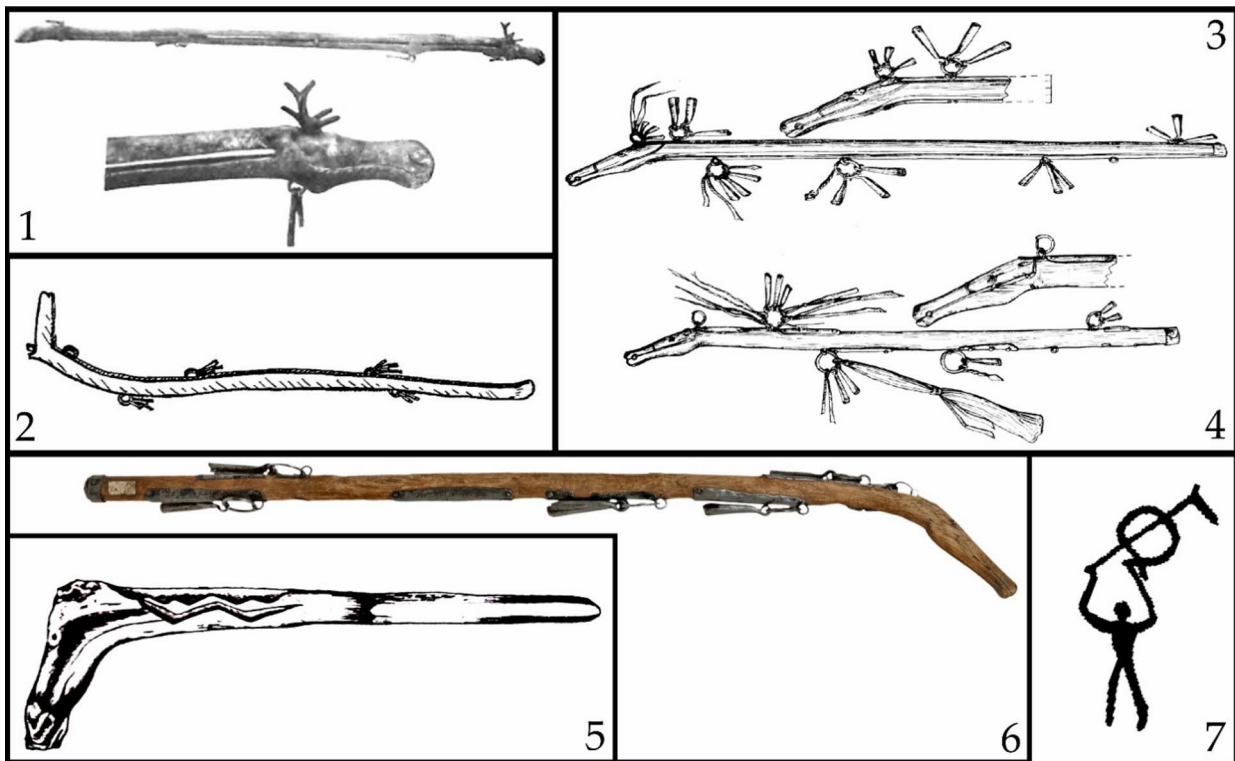


Figure 129. Suggested ethnographic parallels to elk-head staffs from Siberia. 1.–4., 6. Buryat shaman staffs with elk- (1) and horse-heads; 5. Khanty elk-head staff; 7. Chukchi drawing of animal-headed staff. Photos and illustrations: 1. Ivanov 1970, p. 164, fig. 144; 2. Harva 1933, p. 326, fig. 64; 3.–4. Dyakonova 1981; 5. Kulemzin 2000, p. 155; 6. http://vml.culture.ru/muzej_istorii_religii/catalog/small/0002500007/; 7. Bogoras 1907, p. 390. Compilation: Ville Mantere. Not to scale.

the prehistoric elk-head staffs presented above. To be sure, the connection between horses and staffs is noticeably prevalent in Central Asia and southern Siberia (see e.g. Jacobson 1993: 228–229; Rozwadowski 2008: 110–111).

Another reference to the use of animal-head staffs was recounted by Bogoras in his studies among the Chukchi. In the second part of his book *The Chukchee*, there is a drawing made by an indigenous Chukchi, illustrating a thanksgiving ceremony (Bogoras 1907: 390). In the sketch, there is one anthropomorphic figure that holds a long staff above its head, the end of which apparently represents a sculpted reindeer head (Figure 129.7). Bogoras describes the ceremony as being performed outdoors by a family, and he seems to interpret the staff-bearer as a “man who is beating the drum” (1907: 390). There is, however, no explanation for the possible zoomorphic appearance of the staff, which at any rate is not related to the elk but to the reindeer. The item portrayed in the Chukchi drawing can thus not be regarded as a close parallel to the prehistoric elk-head staffs either.

Lastly, the Vas Yugan Khanty are known to have used elk-headed staffs in two ways. As

Kulemzin (2000: 155) recounts, some young Khanty fishers used elk-headed rods – made of birch and up to 1.5 metres in length – when making fish weirs in order to please water spirits. Another group of Khanty, in turn, used similar elk-headed staffs for killing sturgeons inside boats (see also Kulemzin & Lukina 1977: 127; Kulemzin 1984: 87; Zhulnikov 2006: 100; 2009: 86). Yet, even though the Khanty staffs represent elks, it is rather unlikely that these had any connection to the prehistoric elk-head staffs from Northern Europe, not least because of the significant differences in raw material and size (Figure 129.5).²⁷⁷

Moreover, the vast chronological divide between the prehistoric elk-head staffs and the staffs documented by 19th and 20th century ethnographers cannot be ignored. Lönnqvist (1985: 92), for example, is of the opinion that the shaman’s dress is in fact a relatively recent phenomenon among Siberian tribes, and he questions rather critically parallels drawn between Siberian shaman dresses and animal-masked representations in rock art. Even if his study does not concern elk-head

²⁷⁷ It should also be noted that the Khanty were strongly influenced by Turkic peoples during the Middle Ages, and this had many implications on Khanty beliefs.

staffs in particular, it is no overstatement to conclude that *the evidence is far from convincing when it comes to linking archaeological elk-headed staffs with (shaman) staffs documented within the historical era.* However, even though there are no relevant ethnographic parallels for the prehistoric elk-head staffs specifically, I still assert that ethnographic data can shed light on the use of these artefacts in a more general sense.

As Glørstad (2010: 214, 245), citing the research of Odner (2000), has pointed out, the themes of mature men communicating with the realm of their ancestors, the use of material culture as an aid in this task, as well as the amalgamation of nature and culture, are all characteristic features among peoples in the circumpolar region. With these notions in mind, I argued that elk-head staff bearers in rock art represent ancestors that over time came to be regarded as mythical forefathers by rock artists. This assumption was prompted by Glørstad's (1999; 2010) interpretation of Mesolithic stone hatchets in Scandinavia as the possessions of the elder male elite. To briefly recall Glørstad's interpretation, the stone hatchets and the elk-head staffs were comparable, prestige items used by powerful male individuals within their society. The hatchets have shaftholes, indicating that the items were probably mounted on poles and may have resembled the elk-head staffs when carried. The hatchets were in Glørstad's (2010: 187–244) view deposited in water on purpose and thereby intentionally taken out of circulation. This, in turn, endorsed the status of their owners – the powerful males who over time became seen as mythical ancestors, and who in some way might have been equated with the (male) elk themselves.

Now, when one looks at the explanations that have been put forth regarding the elk-head staffs, one notes that these in many regards resemble Glørstad's proposal concerning hatchets. Indeed, most scholars who have addressed the elk-head staffs in depth have regarded them as ritual artefacts belonging to highly ranked male elders (e.g. Gurina 1956: 242; Stoliar 1983: 157; Studzitskaya 1997: 103; Zhulnikov 2006: 177; Zhulnikov & Kashina 2010b; 76–7; Kashina & Zhulnikov 2011: 27–8).

Even though the elk-head staffs are generally not regarded as sacrificial deposits (however, see

Rimantienė 2005: 340–342), there is evidence to suggest that these – like the hatchets – could be removed from circulation on purpose. There are two actions of this sort that can be discerned in the archaeological record – the burying of the staffs together with their owners and the intentional breaking of the staffs. In burials, large elk-head staffs have been discovered as grave goods placed next to adult male skeletons, whereas some small staffs have also been found in burials of older females. Apparently, all the known elk-head staffs found in graves were intact when they were placed there. It thus seems that the elk-head staffs were associated with older individuals, and that the lifecycle of these objects came to a natural end when they were buried along with their owners. By contrast, nearly all of the elk-head staffs from settlement layers consist of fragments. This, I believe, is not a mere coincidence, especially because some of the staffs bear explicit traces of intentional breaking. Instead, breaking the staff was an action that removed the item from circulation (Mantere & Kashina 2020: 12–16).

According to Glørstad (1999: 54), the fact that there exist miniature versions of the stone hatchets is a further indication that these items were status symbols. He sees these miniatures as reflections of a *pars pro toto* logic, serving as symbolic replacements of their paragons without reducing the power of these. As he points out, miniature representations are often linked to items of great power and significance. As an example, Glørstad (1999: 54) mentions Bronze Age burials, in which miniature weapons were placed as grave goods. In his view, these items were most likely not considered as mere miniatures, but as actual weapons that were just as powerful as their paragons. Given that similar, small-sized versions of the full-size, “proper” elk-head staffs are also known, this notion is of particular interest to our study. To be sure, the majority of the miniature animal-head staffs are found in graves, and Glørstad's interpretation may thus well explain their presence.

In all probability, it was thus not only the staff owner who was considered to possess special power, but the staff itself was likewise considered a highly powerful item – at least when in the hands of its owner. This is indicated not only by the existence of miniature replicas and the fact that the staffs were taken out of circulation, but

also by the choice of raw material used in their production, and by their decoration. The use of elk antler in the production of these staffs was clearly of special significance, as perhaps was the ancestral power (*mana*) that existed within them (see discussion in section 6.1.8). Moreover, as Larsson (2000: 33) and Günther (2009: 20–21) have noted, in hunter-gatherer societies artefacts are often ornamented in order to “load” them with powers that would make them more effective. Despite most of the elk-head staffs consisting of fragments, many of these are decorated, which suggests a similar intent.²⁷⁸

Thus, the elk-head staffs were obviously more than simple mediums for communicating the prestige of their carriers. As Lahelma (2019: 229, 234) has argued, it is even possible that the staffs were considered as subjective persons that encompassed a soul (see also Pasarić 2023). As to the question of why not all individuals were entitled to use and possess elk-head staffs, I argue that the answer lies in the fact that being a staff-carrier was not something that was self-evident or inherited, but a prestigious social role that had to be earned. To be more precise, I claim that this role was related to the process of elk hunting.

A most interesting observation is made by Tanner (1979: 139) concerning experienced hunters in the Cree society. This may provide further insights about the special link between elk-head staffs and the most prominent elk hunters in prehistoric groups. Among the Cree, men who have been exceptionally successful in killing members of a specific animal species are sometimes said to have a certain member of this species as their “friend”, “partner” or “pet”, which they ought not to kill. Of special importance is that, as a rule, “the man who has such a reputation is already past the age of peak hunting abilities, so that while his reputation rests on past kills, the significance of his ability is that he is believed to be able to help the younger men of his group make kills of that particular species” (Tanner 1979: 139).

Even if there is no way of ascertaining whether prehistoric elk hunters in Northern Europe similarly could develop a special friendship to certain species, the aforementioned accounts nevertheless give a feasible explanation for why

elk-head staffs were mainly linked to mature individuals within these societies. As I have previously suggested (Mantere & Kashina 2020: 16), owners of elk-head staffs had been skilful elk hunters in the past. Moreover, as the data obtained from the Cree suggests, old and experienced hunters specialized in the hunting of elks may have acted as notable and highly respected instructors or mentors for younger elk hunters, even though they no longer hunted these animals themselves.

The few female burials in which elk-head staffs have been found indicate, however, that the staffs were not solely associated with “big-men” in the society, but certain females, too, could acquire the status of being a staff owner.²⁷⁹ Given that the staffs depict elks, it seems probable that this special status was related to this animal. From ethnographic literature, we know that women have also participated in hunting – even though this fact is often neglected in archaeological research (see e.g. Brumbach & Jarvenpa 1997b: 17–18; Sterling 2014; Haas et al. 2020). For instance, among the Cree, elks were hunted by women, regardless of the existence of certain prohibitions regarding their contact with animal remains (Brightman 1993: 124–126). Moreover, Tanner (1979: 140) also notes that “animal friendship” among the Cree is not limited to males, but married women may also possess a special connection to a particular animal species. My conclusion is thus that *along with males, women, too, could sometimes be considered to be so skilled and respected in the practice of elk hunting that they could achieve a role in the society that allowed them to possess a staff.*

The fundamental question that still remains to be discussed is what elk-head staffs were actually used for. Here, too, I claim, the answer is profoundly related to the hunting process – even if I do not regard the elk-head staffs as killing weapons. Is it possible, however, that the elk-head staff still formed a part of prehistoric

²⁷⁸ Moreover, I have earlier, based on the rock art scene at Bergbukten 4B (Figure 13), argued that these items could be “loaded” with power by touching an elk (Mantere & Kashina 2020: 14).

²⁷⁹ It should be noted here that the elk-head staffs and sculptures found in burials in the Cis-Baikal region exhibit a noticeably similar pattern. According to Losey et al. (2021: 16, tab. 1), all of the Early Neolithic (23 items) and Early Bronze Age (10 items) items that can be linked to specific individuals are associated with adults. These are mainly of male sex, but a number of female individuals are also represented. Overall, elk-related artefacts are rare in Cis-Baikal burials (Losey et al. 2021: 17). This clearly indicates that in the Cis-Baikal area, too, the elk-headed artefacts were not possessed by all members of society but instead belonged to a limited number of special male and female persons.

hunting equipment? I believe that this might well have been the case.

According to Reuterskiöld (1911: 168), there is ethnographical evidence obtained from among the Saami describing how the first person in a bear hunting group ought to carry a staff in his hands. As Reuterskiöld argued, it is indeed conceivable that staffs had a similar role in elk hunting, and he explained the function of the Alunda stone axe (S2) in this light. While this remains a possibility, the elk-head staffs provide an even more probable analogue. Yet, the natural question that arises is why the staffs were part of the hunting process in the first place. The answer probably lies in the process of seducing the elk, which was discussed in Chapter 2 and 4. Indeed, I believe that the idea expressed by Herva and Lahelma (2019: 77) can be applied at least to a certain extent, with the elk-head staffs potentially being used to seduce the prey. I also concur with Lahelma's (2019: 230) claim that holding a staff might have "provided a somatic experience of communicating and engaging with the animal – a sort of a hands-on experience with the elk".

It is of course impossible to know the details of prehistoric elk hunting, but as has been argued, there is reason to believe that it encompassed beliefs similar to those observed among indigenous hunting societies in historical times, as regards the ability to interact and communicate with elks. Moreover, it is most likely that some persons were considered more skilful than others in carrying out such tasks. Thus, it is perhaps not so far-fetched to propose that in prehistoric elk-hunting groups, certain individuals could carry and use staffs, even if the actual killing were undertaken by other means, and probably by other members of the group (cf. Figure 20). Perhaps, the function of the staff was, for instance, to attract an elk that had been tracked to within a killing distance (cf. discussion in section 4.3.7).

Consequently, it is fully possible that the staff was actually considered an essential feature of the elk hunt.²⁸⁰ As Gurina (1956: 215) noted, the elk-head staffs from YOO bear signs of frequent use, and it is quite logical to assume that these items were carried on elk hunting trips. In point of fact, some of the handles of elk-head staffs even have a hole for a fastening and some of the

staff depictions in the rock art of Nämforsen and Kanozero (and Onega) show a loop or ring at the opposite end of the staff. As Iršėnas et al. (2018: 131) note, the hole on the most elaborate staff from Šventoji (Lt1a) "shows traces of considerable wear, which indicates that the staff was carried upside down". Indeed, this is a further indication that the staff-bearers had an actual need to take these items along when travelling. This namely related, I argue, to elk hunting trips, which could be extensive both in terms of their duration and geographical range.²⁸¹

Finally, it goes without saying that the elk-head staffs surely had a significance that went beyond their role in actual hunting. The occurrence of elk-head staffs in burials suggests that the items were of personal importance to their carriers. The fact that the staffs are portrayed in rock art scenes in various settings – sometimes without any connection to elks whatsoever – also indicates that the staffs could have numerous meanings and functions. For instance, the "seduction" of elks by means of staffs was perhaps also performed as a pre- or post-kill ritual in the human community, and conceivably the small-sized elk-head staffs were used namely in such contexts. To be sure, if the elk-head staff played a central part in the elk hunt as I have suggested, it is rather probable that it also played a part in ritual activities, which, after all, were fundamentally related to the successful hunt.

As a result, the elk-head staffs can, in a sense, be understood as "ritual" artefacts. However, these were not used in rituals for the sake of purely irrational or religious activities, but rather because of the concrete belief that it was possible for humans to affect their environment by means of the staffs. Given the elk-headed shape of the staffs, the activities they were used for were ultimately oriented towards the elk. Furthermore, in the light of the general ethnographic data obtained from indigenous hunter-gatherer populations, I consider it probable that the ritual actions were – either explicitly or implicitly – centred essentially on assuring the rebirth (or fertilization) of (killed) elks and thus the renewal of elk populations.

²⁸⁰ See, however, Figure 94 for a different interpretation concerning the small staff from Mayak II (R23a).

²⁸¹ Another feasible reason for the fact that the staffs are so often found broken is that these were in constant use and had a central role in the actual elk hunt.

Even if the detailed nature of the actions carried out by the staffs is beyond our reach, it is highly likely that the elk cow was accorded a special importance in these rituals. In fact, Lithuanian scholars have seen the Šventoji elk-head staffs as reflections of a cult associated with the female elk in particular (Rimantienė 1992a: 374; Straičys & Klimka 1997: 58). It has, for instance, been suggested that “the men of the Nemunas and Narva cultures considered the Goddess-elk or Goddess-deer to have a specific power, such as life-, fertility- and birth-giving” (Straičys & Klimka 1997: 58). Indeed, this assumption may

well be accurate, although there is every reason to believe that this special attitude towards the female elk was not unique to men, nor to the population of Early Neolithic Lithuania. Rather, I am inclined to believe that the especial significance attributed to the elk cow was characteristic of elk-hunters in prehistoric Northern Europe in general. I will therefore return to this issue in the following chapter. Next, however, let us take a look at elk-headed stone clubs and axes, which, I believe, are also related to the category of elk-head staffs.

7.3 Elk-headed stone clubs and axes

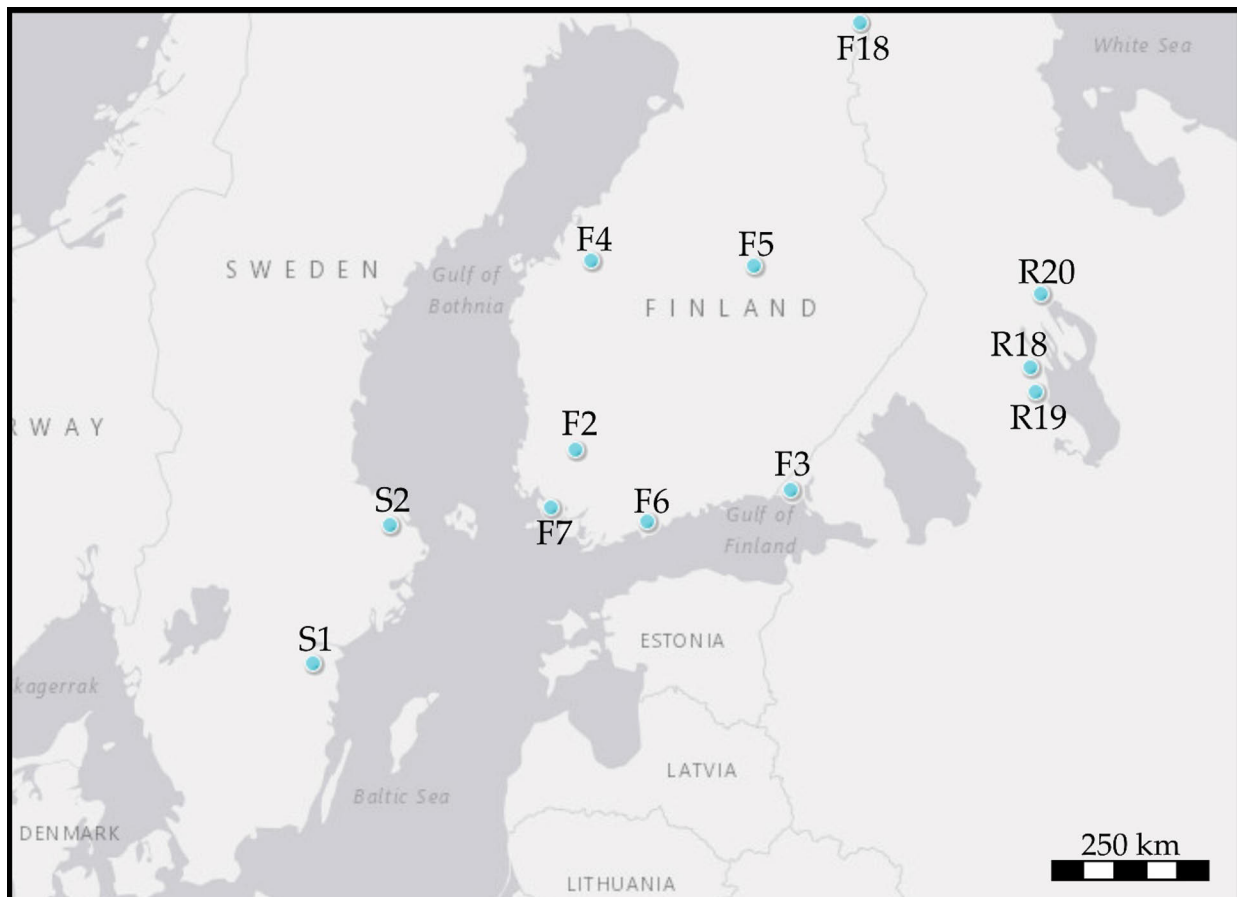


Figure 130. Distribution of elk-headed stone clubs and axes. S1. Östra Ryd; S2. Alunda; F2. Huittinen; F3. Säkkijärvi; F4. Korttesjärvi; F5. Maaninka; F6. Espoo; F7. Kakskerta; F18. Kuusamo; R18. Padozero; R19. Petrozavodsk; R20. Medvezhyya Gora. Map: Ville Mantere/NatGeo MapMaker.

With regard to the animal-headed stone clubs and axes found in Finland, Sweden and north-western Russia, scholars such as Carpelan (1974: 40–58) and Zhulnikov (2012) draw a technical distinction between perforated stone weapons of different types. To simplify this classification, I have chosen to follow Bryusov’s

(1940: 84) division of these items into two main groups. The first consists of artefacts that are shaped entirely to resemble animal-heads, and the second category of items, where only one extremity of the object is shaped in this way. For the sake of clarity, I refer to the former artefacts simply as “clubs” and to the latter as

“axes”.²⁸² Of the 12 elk-head stone weapons known from Northern Europe, there are six that fall into the category of axes and five into that of clubs. As regards geographical distribution, raw material and dating, there are no clear-cut dissimilarities between the two groups, and the axes and clubs are thus undoubtedly closely related to each other.

The elk-headed stone clubs and axes are part of a larger group of shafthole weapons consisting of zoomorphic, phallic or anthropomorphic items. In total, there are 57 items that belong to the two groups set out above (Mantere & Kashina 2022: tab. 1).²⁸³ Out of these objects, only one can be regarded as anthropomorphic; the axe from Kiuruvesi in North Savo, Finland (Meinander 1954a: 90). The category of phallic axes, in turn, consists of three items, and the rest of the artefacts (53 items) are thus zoomorphic in shape. Most of the zoomorphic weapons (18 items or 34%) represent bears, while elk depictions make up the second largest category (12 items or 23%). The rest of the items (43%) represent other animal species or unidentified subjects (Mantere & Kashina 2022: tab. 1).

As Stenberger (1940: 83) noted, zoomorphic stone clubs and axes are characterized by their variety and there seems not to have been any established conventions as to how these were supposed to be made. Indeed, within this category of artefacts there are no two items that are identical, and the subgroup consisting of elk-headed items is no exception. Even if the items from Padozero, Alunda, Kuusamo and Säkkijärvi, for instance, clearly belong to the same morphological group, the elk-heads sculpted on these artefacts are all unique in shape. The elk-headed stone weapons differ also in size. Despite some being broken, the clubs measure(d) approximately from 11 to 21 cm and the axes from 21 to 30 cm in length, respectively.

Geographically, the elk-headed stone clubs and axes are distributed over a rather limited region, extending from the mid-west of coastal Sweden to eastern Karelia. Within this region, the items are rather evenly dispersed, with most of the find sites being located in southern and

central parts of Finland (Figure 130). The elk-headed stone weapons are thus noticeably less widespread than the elk-head staffs. As regards animal-headed stone clubs and axes in general, their distribution is largely similar to that of the elk-headed objects. However, the dispersal of the former is somewhat larger within Russia, where bear-headed stone axes have been found from the Pechora, Upper Volga, and Northern Dvina River basins (see Zhulnikov 2012: 71, fig. 3).²⁸⁴ This geographical divergence may provide an important clue concerning the origins of zoomorphic axes and, especially, the emergence of bear symbolism.

It is noteworthy that zoomorphic stone items are entirely absent in the Baltic region and also remarkably rare in the Trans-Urals area. In turn, there is a notable concentration of zoomorphic stone weapons in the Petrozavodsk region. This area has often been considered as the production centre for such artefacts (see e.g. Ailio 1913: 9–10; Nordman 1937: 47; 1944: 76–83; Shakhnovich 2002: 437). On the basis of the raw materials used, it has long been argued that the soapstone club from Huittinen and the soapstone axes from Alunda and Maaninka, as well as the broken slate axe from Korttesjärvi, must have been imported, with Karelia been regarded as the probable origin for these artefacts (Ailio 1907: 36–37; 1913: 9–10; Almgren 1911: 155–159; Europaeus 1928: 39–40). However, Tarasov has expressed his doubts on these interpretations, since the zoomorphic stone weapons found in Karelia are as a rule not made of soapstone and

²⁸² I use these designations purely in a pragmatic sense for distinguishing between items, not for describing the potential technical function of the artefact types.

²⁸³ The elk-headed stone axe from Kuusamo (F18) was found in 2023.

²⁸⁴ It should be noted here that zoomorphic stone clubs and staffs, which sometimes bear close resemblance to the artefacts discussed here, are also known in the forest-steppe region of Asian Russia, where these sometimes represent bears, but predominantly represent domesticated animals such as sheep and horses (see e.g. Tallgren 1938; Chenchenkova 2004; Kovtun 2012). In Tallgren's view, it was possible that "the phenomenon of the stone clubs with an elk's head...and the eastern stone sculpture...of domestic animals, perhaps have some genetic connection with each other in spite of the dissimilarity of the cultures", and in his view, "questions about connections with far north-western regions and the area between Kazan and Tyumen should be investigated thoroughly" (Tallgren 1938: footnote on p. 117). I concur with Tallgren's view that this is an area that calls for research, although it is unfortunately impossible to address the topic in this dissertation.



Figure 131. Elk-headed stone clubs and axes from Northern Europe. For abbreviations and photo credits, see Appendix 1. Compilation: Ville Mantere.

because items made of this raw material are also generally not characteristic for Karelia.²⁸⁵

Thus, even though it is evident that some of the zoomorphic stone weapons were imported, their Karelian origin is not necessarily as self-evident as has often been assumed. In fact, as regards elk-headed stone axes and clubs, there is a rather notable variety in the raw materials used. Besides soapstone and slate, rock types such as quartzite, sandstone, gneiss, and granite were utilized, indicating that both clubs and axes were also produced locally. This is also suggested by the fact that their shaftholes have been made using different techniques (see Nordman 1944: 76–77; Zhulnikov 2002: 439; Zhulnikov & Spiridonov 2003: 48), and because several items are incomplete. This is especially evident with reference to the shaftholes, as these are unfinished

or totally absent on more than one quarter of the items (Shakhnovich 2002: 437).²⁸⁶

However, unfinished items were also occasionally imported to faraway regions. This is, for instance, the case with the famous Alunda axe, the shafthole of which was never finished. Thus, it seems as if the zoomorphic axes could be of importance even as incomplete items. One elucidating indication of this is the elk-head from Medvezhya Gora (R20), which seems to have been reworked into its current shape after the axe that it decorated was broken. Huurre (1998: 293) has also pointed out that as several of the items are fragments, this may in some cases indicate deliberate breaking.

Most of the elk-head clubs and axes that have been discovered are stray finds. Only a few seem to have any kind of connection to a settlement and not a single artefact has been excavated in a burial context. As Immonen (2002: 35) recounts, archaeologists by tradition interpret finds that

²⁸⁵ Aleksei Tarasov (PhD, archaeologist, Karelian research centre RAS), email correspondence via E. Kashina, 30.10.2020. Tarasov is also of the opinion that even if soapstone deposits are known in Karelia and indeed utilized today, it is improbable that these constituted the key raw material for the zoomorphic stone artefacts in prehistoric times.

²⁸⁶ Shakhnovich (2002: 437) has proposed that the “unfinished” shafthole weapons were used in fire making as friction stones, but this explanation is not particularly credible given that the shaftholes in most items are still complete.

do not belong to dwellings or burials as sacrifices, and this notion holds true also as regards the explanations that have been put forth regarding animal-headed stone weapons. Europaeus (1922: 111) and Carpelan (1974: 34), among others, have understood them namely as sacrificial water deposits. Zhulnikov and Spiridonov (2003: 47) have concluded, in a similar vein, that it is unlikely that the items would have served any utilitarian purpose as they were not found in settlement layers. However, as Immonen (2002: 35) rightly points out with reference to stray finds, the surroundings in such cases are often poorly examined and archaeologists should be more cautious in simply labelling stray finds as “sacral”.

In fact, Huurre (1998: 264) proposed that some water deposits may simply be explained by that fact that the items were deposited in water in order for their wooden shafts to swell and thus sit more tightly within their shafthole. However, even if this explanation is theoretically possible, I do not think that it holds true for zoomorphic stone weapons. This is because – as has often been pointed out by scholars – the shaftholes on these artefacts are so small, fragile, and unbalanced that the items would not have been useful as weapons for beating (see e.g. Ailio 1913: 18; Nordman 1944: 84; Bryusov 1947: 25; Shakhnovich 2002: 437). For this reason, one can also easily dismiss Reuterskiöld’s (1911: 170) interpretation that shafted axes or clubs were used for killing elks that had been trapped in pit-falls or graves.

However, it is not as easy to disprove Reuterskiöld’s (1911: 170–171) second suggestion; namely that elk-head items may have been buried at sites where elks had been killed with the intention of gaining good luck in hunting. This interpretation could in fact explain why zoomorphic axes are encountered as stray finds and not, for example, in burials. In order to attempt to verify this hypothesis, however, one should undertake a systematic survey of the find sites to consider whether these could actually have been kill sites, but the outcome of this would still remain speculative.

It goes without saying that since almost all shafthole weapons have been discovered as stray finds, the question of their function and dating remains complex. Carpelan (1974: 41, 48,

56–57) proposed that it would be possible to date some of the items based on find elevations and stylistic characteristics. In his view, the majority of the elk-headed stone clubs and axes would date back to the second quarter of the second millennium calBC (Carpelan 1974: 77–83). However, the suitability of shoreline chronology for dating stray finds is questionable and many of the archaeological cultures that Carpelan used as frames for dating have subsequently been backdated significantly. Consequently, there is today reason to believe that stone clubs and axes with animal heads are generally somewhat earlier and date broadly to the 3rd millennium calBC (Mantere & Kashina 2022: 49).²⁸⁷ In order to better understand the development of these items, however, it is necessary compare them to other, non-zoomorphic stone weapons in Northern Europe.

The animal-headed stone clubs and axes can be divided into different morphological (sub)groups based on the shape of the items and their shaftholes (Carpelan 1974: 40–58, 72–80; Huurre 2003: 241; Zhulnikov 2012: 70). These (sub)groups have their origin in artefact types that stem from different regions and time periods. Axes with a ridge and a cylindrical shafthole, such as the Säkkijärvi and Alunda elk-head axes, seem to have evolved out of Battle Axe culture axes (c. 2800–2300 calBC). Axes with a rectangular cross-section seem, in turn, to be slightly older and are apparently mainly associated with the Karelian Asbestos Ware (c. 3600–2000 calBC; for current periodization, see Mökkönen & Nordqvist 2017: 93). According to Zhulnikov (2012: 70–71, fig. 1), the origins of a rhombic bear-head axe from Tulguba (Uvarov 1881: plate 34) lie in the rhombic pickaxes of the Karelian Rhomb-Pit Ware culture (c. 3800–3400 calBC). In turn, the zoomorphic club from Jaakima (Zhulnikov 2012: 69, fig. 1) would have its paragon in cruciform pickaxes with oval

²⁸⁷ The only stone weapon that potentially has an older date is the renowned elk-head club from Huittinen (F2), which has widely been thought to stem from the Mesolithic period because of a radiocarbon date 6240–5730 calBC from a piece of charcoal unearthed from an adjacent fireplace (Jungner & Sonninen 1989: 41). However, as already Luho (1952: 34–40) argued, there are several reasons to doubt such an early date, and I am inclined towards dating the Huittinen club to the 3rd millennium calBC also (see Mantere & Kashina 2022: 49).

shaftholes that are even earlier in origin (see also Carpelan 1974: 83).²⁸⁸ Stone pickaxes without animal-heads appear to have been in use already in preceramic times at least in Scandinavia, and perhaps also in Finland and Karelia (see Carpelan 1974: 57–58), and it is conceivable that these served as early models for some of the later animal-head axes.

It has traditionally been argued that the animal-head stone weapons are culturally connected to Fatyanovo battle axes (see e.g. Carpelan 1974: 43, 83; 1977: 14; Shakhnovich 2002: 436). As Zhulnikov (2002: 440) points out, however, only three animal-headed axes are known from the Fatyanovo cultural region itself, whereas most of the zoomorphic items have been found from outside this area (see also Zhulnikov & Spiridonov 2003: 48). It thus seems highly unlikely that all zoomorphic stone items had their origin in this culture. Rather, the emergence of animal-head stone clubs and axes in the 3rd millennium calBC was more generally linked to the introduction of the Corded Ware culture, manifested as several new, region-specific ceramic traditions in northwestern Russia and Northern Europe (Mantere & Kashina 2022: 49–50).²⁸⁹ Despite regional and temporal differences, the general development of stone clubs and axes seems to have been largely similar. At some point during the 3rd millennium calBC, animal-heads started to be depicted on stone items that had not previously had a zoomorphic shape. It is hence most interesting to speculate upon what might have triggered this.

Zhulnikov's (2002: 441; 2012: 70–72) explanation is that conflicts took place in the Eneolithic-Bronze Age transition; between hunter-gatherers

living in the northern forest zone and new Corded Ware culture populations that practised agriculture and animal husbandry (see also Zhulnikov & Spiridonov 2003: 48, 52). The animal-headed stone artefacts are interpreted by Zhulnikov as reflections of status. He suggests that these items were owned by prominent warriors or military leaders, who used them in public rituals, in the course of which the clubs or axes could be hidden or “buried” as an act of peace-making (Zhulnikov 2012: 72).

Even if it is indeed feasible that the emergence of animal-headed stone clubs and axes in the northern forest zone was related to contacts with agricultural groups, it is somewhat far-fetched to presume that the interaction would have been aggressive in essence. I find it more probable that shafthole axes were just one of the cultural traits and ideas that northern hunter-gatherers adopted from cattle herding Corded Ware populations in the course of the 3rd millennium calBC (see Mantere & Kashina 2022: 50). It is also probable that there occurred a bilateral exchange of ideas between the northern hunter-gatherers and the Corded Ware herders (Shakhnovich 2002: 438). In this scenario, the shafthole axes would have been introduced by central Russian Corded Ware populations, but the manner of depicting the items with animal-heads was namely a northern innovation, found in other artefact categories from the forest region (see also Europaeus 1928: 42–43; Nordman 1944: 84; Carpelan 1974: 83; Edgren 1997: 169; Zhulnikov & Spiridonov 2003: 52). As Zhulnikov (2012: 70) has suggested, it is possible that the latter tradition emerged more precisely in the area west of Lake Onega, and from there successively spread to other regions as well.

However, even if the tradition of producing zoomorphic sculptural art in the forest zone undoubtedly had ancient roots, this was not the case for the depiction of bears. In fact, bears are noticeably scarce in all art forms prior to the 3rd millennium calBC. Thus, besides animal-head stone weapons, one of the new conceptions that seemingly was adopted from Corded Ware populations in the third millennium calBC was the bear's novel role. As I will deliberate more closely in the following chapter, for Corded Ware groups the bear had started to constitute a threat by posing a danger to cattle (cf. Korhonen

²⁸⁸ A. Zhulnikov, email correspondence via E. Kashina, 30.10.2020.

²⁸⁹ Zhulnikov (2002: 440–441; see also Zhulnikov & Spiridonov 2003: 51) proposes, for example, that the distribution of animal-headed stone items in Karelia by and large correlates with the dispersion of Textile ceramics (*Setchataya keramika*). According to Zhulnikov (email correspondence via E. Kashina, 30.10.2020), the introduction of the Corded Ware, apparently around 2800 calBC, coincides with Pöljä Ware in Finland and with Asbestos Ware and Late Orovnavolok Ware in Karelia, whereas in the Upper Volga region, it is related to the Late Volosovo Ware. Some centuries later, Fatyanoid (Fatyanovo-like) ceramics appear in the Upper Volga region and its northern surroundings, with Palayguba Ware (2500–2000 calBC) being introduced into Karelia during the same period (for dating of the ceramic traditions, see Mökkönen & Nordqvist 2017).

1982: 100–102). Eventually, this led to the bear achieving a central position in the pastoralists' set of beliefs. In addition, it seems to have put masculinity and the male hunter on the frame.

However, while Zhulnikov (2012: 72) relates the emergence of animal-headed stone weapons to an epoch that would have been distinguished by violence, I do not believe that this interpretation manages to sufficiently explain the association between zoomorphic representations and (male) status items. Instead, it is evident that the animal-headed stone weapons were part of a larger continuum of artefact types, which had actually been related to masculinity, or the male gender, for a long time. Most likely, the connotations ascribed to animal-headed stone clubs and axes were largely reminiscent of those related to battle axes in general. These were, in other words, hardly intended for practical use but instead prestige items, carried primarily by male individuals (cf. Burenhult 1991: 181, 186; Malmer 1991: 176). Swedish battle axes, for example, are rather often phallic in shape, and these appear to have been symbolically associated namely with the male gender. More generally, battle axes are known predominantly from male burials (e.g. Sulimirski 1970: 195; Price 2015: 162–164). For some reason, the animal-headed stone clubs and axes differ noticeably from battle axes namely on this point, as they were never placed in burials.

The elk-head antler staffs dealt with above can be seen as examples *par excellence* of the connection between zoomorphic prestige items and the male gender. Another early category of artefacts that shows this association is the group of Mesolithic (c. 7000–5600 calBC) stone hatchets from southern Norway and western Sweden (Figure 132). As Glørstad (2010: 231, fig. 7.6) recounts, numerous scholars have drawn attention to the similarities between natural elk (and deer) antlers and the shape of some of these hatchets. While Glørstad (2010: 231–232) argues that the stone hatchets symbolized real antlers and sees a connection between the two, he does not, however, interpret antlers as the sole or direct influence for stone hatchets. Rather, he thinks that the stone hatchets symbolized power and status; just as the elk antlers do in the animal kingdom. By associating artefacts with

natural symbols of prestige, Glørstad (2010: 235, 244) argues, both the artefacts and the animals came to be more powerful. I find this interpretation credible.



Figure 132. Different kinds of Mesolithic stone hatchets from southern Norway. Image compiled of photos by Ellen Holte, Museum of Cultural History, Oslo (from Glørstad 2010, p. 185, 187). Not to scale.

In addition to the alleged antler-like shape of some items, there are even more clear-cut references to animals, masculinity, and prestige within the group of Mesolithic hatchets. For as Glørstad notes, many scholars have pointed out that among the hatchets, it is possible to discern both phallic representations and depictions of the beaks of birds of prey (Glørstad 1999: 56–57; 2010: 236 and cited references; Larsson 2000: 38–39). I take this as a further indication that a similar connection between status, masculinity and zoomorphic stone weapons, which can be observed in Late Neolithic animal-headed stone clubs and axes, can already be found in the Mesolithic stone hatchets from southern Norway.²⁹⁰

After 5600 calBC, the production of stone hatchets in southern Norway came to an end. According to Glørstad (2010: 196) there are no known artefact categories that would appear to have replaced the stone hatchets directly. Such objects might have existed, though, he stresses,

²⁹⁰ The two somewhat unusual elk-head staffs from Zamosťe 2 also bear resemblance to the hatchets since their elk muzzles are portrayed as pointed tips (E. Kashina, email correspondence 19.3.2021). In fact, Zhilin (2010: 137) has interpreted the muzzles as the beaks of birds (ravens) and it is indeed conceivable that both terrestrial and avian (and perhaps phallic) elements are present in these artefacts (on the link between elks and ravens, see section 6.1.4). It seems to give further support to the idea that zoomorphic symbols of status and masculinity were in use over a widespread area already in the Late Mesolithic period (the Zamosťe 2 artefacts are dated to 6400–6000 calBC).

as items made of organic materials are rarely preserved in Scandinavian soil (see also Tilley 2008: 103).²⁹¹ Glørstad (2010: 197, 210) suggests that the disappearance of the stone hatchets could indicate a shift towards a lesser emphasis on high-rank male individuals and their artefacts, but I consider this claim too daring in the light of the current data. Nonetheless, I believe that Glørstad is correct in that the stone hatchets were related to the same phenomenon of animal symbolism as the elk-headed staffs, and I also think that his explanations concerning the use of stone hatchets may have relevance for understanding the animal-headed stone clubs and axes.

As we saw above, Glørstad associates the stone hatchets with “mighty men” and he argues that the reason for depositing the items in waterlogged contexts was “to take them out of circulation and thereby make them and the place where they were deposited inalienable, and this way part of the inert structures of society” (Glørstad 2010: 225). Now, given that some of the elk-headed stone weapons have been regarded as water deposits (e.g. Ailio 1913: 12), they may similarly have ended up in water not because of peace-making ceremonies or sacrifices, but because they, too, were purposefully taken out of circulation to endorse the reputation of their owners.

Indeed, animal-headed stone weapons have mainly been interpreted as prestige emblems. Some have argued that the elk-headed stone clubs can be interpreted as elk-head staffs, and the shafthole weapons have even been compared to the items depicted in the hands of anthropomorphic figures in rock art scenes (cf. Figure 92) (see e.g. Hallström 1967: 55; Carpelan 1974: 40; 1977: 7; Huurre 1998: 293; 2003: 242; Zhulnikov & Spiridonov 2003: 54; Zhulnikov 2006: 178–184). Even though most of the rock art scenes featuring staff bearers seem to date from

before the 3rd millennium calBC, it cannot be ruled out that the zoomorphic stone artefacts represent a – perhaps even partly overlapping – continuation of the elk-head staff tradition (see also Lindqvist 1994: 245–246).

There is basically no reason not to assume that zoomorphic stone weapons resembled elk-head staffs in their function as status symbols, but an important difference between the two is that the former were not solely associated with the elk. I am therefore disposed to believe that the stone weapons were not actually used in elk hunting in the same manner as were staffs. Instead, their role was more explicitly associated with signifying the power and prestige of their (male) owners. However, even if I am willing to link elk-headed stone weapons to interaction with Corded Ware populations, the bearers of zoomorphic stone clubs and axes in the northern forest zone during the 3rd millennium calBC were still highly dependent on hunting. For this reason, I argue that also these items were ultimately associated with the hunting process, although in a different way to elk-head staffs. To put it differently, the (elk-headed) stone weapons were not so much related to hunting as they were to individual *hunters*. It was namely this social role that enabled certain individuals to achieve a position of high rank within their societies.

²⁹¹ However, as a potential continuation of the stone hatchets, Glørstad mentions a group of mattock heads dated to 5600–5000 calBC from the Holmen site in western Sweden. These items, which apparently are made of elk antler, were perhaps carried on wooden shafts, which would have made them reminiscent of the staffs depicted at Vingen but also of the actual examples of elk-head staffs (cf. Glørstad 2010: 196 and cited references). On the other hand, as Glørstad (2010: 196–197) himself admits, more or less similar mattocks are known from the Neolithic period and from other parts of Europe as well, and thus his reading of the Holmen items might be too far-fetched.

7.4 Elk-headed slate daggers and knives

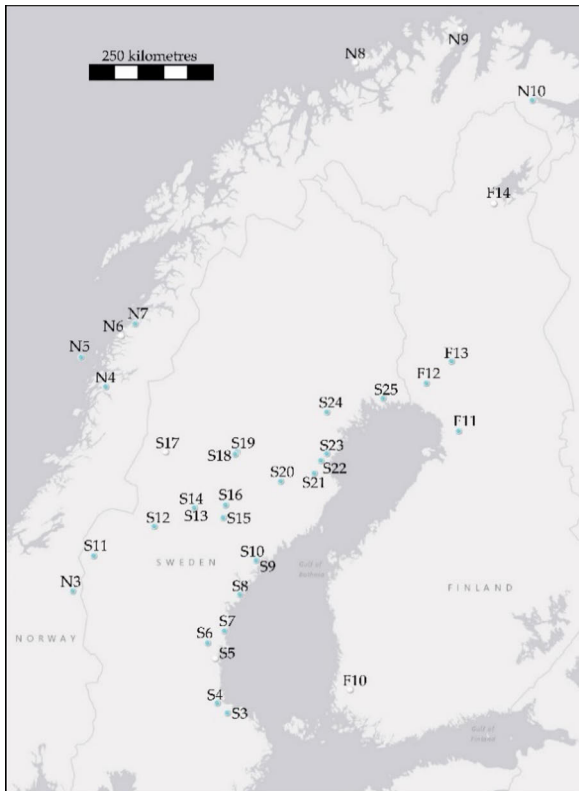


Figure 133. Distribution of elk-headed slate daggers and knives. N3. Røros; N4. Sørheim; N5. Træna; N6. Risvik; N7. Hjelstad; N8. Sørøya; N9. Storbukta; N10. Sirdagoppe; S3. Marma; S4. Valbo; S5. Enånger; S6. Delsbo; S7. Jättendal; S8. Säbrå; S9. Kornsjövågen; S10. Bjästamon; S11. Klocka; S12. Laxsjön; S13. Hoting; S14. Täsjö; S15. Hälla; S16. Åsele; S17. Vilhelmina; S18. Tjikkitråsk; S19. Strömvik; S20. Åmsele; S21. Skramträsk; S22. Kusmark; S23. Bjurselet (2); S24. Älvsby; S25. Nederkalix; F10. Laitila; F11. Yli-li; F12. Tervola; F13. Rovaniemi; F14. Inari. Blue circles = daggers; white circles = knives. Map: Ville Mantere/NatGeo MapMaker.

Elk-headed slate daggers and knives constitute a more or less uniform find category with reference to their dating and spatial distribution.²⁹²

²⁹² The similarities between single-bladed knives and double-bladed daggers with elk-heads are so large that I have here decided to examine the two artefact types as belonging to the same group (for a similar grouping, see Hallgren 2008). Another reason for this decision is that some of the items discussed in this section are broken end fragments/finials, which may have originally belonged to knives just as well as daggers. However, I am well aware that scholars have usually treated these artefact types separately due to their typological differences (e.g. Meinander 1965). One notable difference between slate daggers and single-bladed knives is that the former seem in most cases to have been decorated with elk-heads specifically, whereas many of the latter depict some other animal species or are so abstract that it is not possible to ascertain which, if any, animal they depict (see Appendix 2 for some uncertain cases). In Sognnes' (1996: 33–35) view, some of the slate knives with animal-heads should actually be viewed upside-down, because from this angle several of them are reminiscent of the whale figures depicted in rock art.

Altogether, 37 items (7 knives and 30 daggers) belong to this group, making it the largest group of elk-related artefacts in Northern Europe. In addition to intact finds, a large number of similar objects with broken shafts and many artefacts with schematic ends indicate that elk-headed slate knives and, especially, daggers were noticeably prevalent in the past.

The elk-headed slate items are most common in Sweden, especially in the Norrland region, but are found also in northern Finland and in the coastal areas of Norway (Figure 133). The raw material used in these artefacts originates in the Norrland region, and the items found in Norway and Finland must thus have been imported (see e.g. Simonsen 1954: 306). In addition to the import of finished slate artefacts, local manufacture of slate knives and daggers also took place in Norway. This is indicated by multiple finds of unworked slate pieces that were probably obtained through exchange networks or expeditions to Sweden (see Hallgren 2008: 256).

As Hallgren (2008: 257) points out, finds of slate items with elk-heads are centred in those areas of Scandinavia where Early Neolithic ceramics have not been found, that is, north of the Funnelbeaker culture and west of the Comb Ware culture. It is noteworthy that no elk-headed slate artefacts have been found in Russia.²⁹³ The absence of items in the Mälaren Valley and in the Bergslagen region, both associated with the Funnelbeaker culture, is likewise thought-provoking. In Hallgren's (2008: 260) view, this might suggest that the Funnelbeaker hunters did not hunt elks but were specialized in hunting other species. Alternatively, they did practise elk hunting but treated the elk bones in a different manner to the bones of seal and livestock, which are commonly found in archaeological excavations. Elk-head knives and daggers are not encountered in the northern parts of Norrland either, which may partly be caused by lack of archaeological studies in this region (Hellqvist 2009: 84).

²⁹³ A slate dagger recovered from the Karelian settlement site of Zolotets I has clearly been imported from Scandinavia. According to A. Zhulnikov (email correspondence via E. Kashina 30.10.2020), this dagger could have a zoomorphic handle, but on the basis of photographs, it is clear that this is not shaped to resemble the head of an elk.



Figure 134. Elk-headed slate daggers and knives from Northern Europe. For abbreviations and photo credits, see Appendix 1. Compilation: Ville Mantere.

As Bolin (2000: 167–170, fig. 13) has noted, elk-headed artefacts and items engraved with depictions of elk in the Ångermanland province have often been found adjacent to water; either at lakeshores or by riversides. In Bolin's view, the geographical dispersal of these objects indicates that the elk's symbolic importance in northern Sweden was not limited to the regions where rock art is found. Moreover, the distribution of elk-headed artefacts in coastal areas shows that the elk was an important animal

there, too – even if its significance is not reflected in the osteological material (Bolin 2000: 169; Hallgren 2008: 260).

As Lundberg (1997: 171) has argued, slate – especially red-coloured slate – seems to have been of special significance as a raw material. As Hallgren (2008: 260) notes, however, artefacts made of a slate of a specific colour seem to have been preferred in different regions, and it is clear that some local variations existed within the Slate Culture of northern and middle parts of

Scandinavia.²⁹⁴ On many of the elk-headed artefacts there is also a stripe of some other colour that runs through the item, and it seems evident that such pieces of slate stone were deliberately chosen for the production of daggers and knives.

The length of the elk-headed daggers varies approximately from ten to 30 cm, but as most of the finds are broken, their original length can only be estimated. The same holds true for the knives. These measure approximately seven to 20 cm in length, but several knives are represented in the archaeological record only by handle fragments. Some of the slate knives and daggers are decorated with highly naturalistic elk-heads (Figure 134). On the other hand, on many items the finial decoration is so schematic that identifying this for certain as representing an elk's head has been possible only in about half of the cases (for uncertain cases, see Appendix 2). Sometimes even the zoomorphic shape must be contested, however, and I have therefore decided not to include broken slate daggers in Appendix 2 unless at least a small part of the animal-head remains.²⁹⁵ Moreover, sometimes the slate knives or daggers have "ears", that is, tiny knobs at the end of the handle, which can perhaps be taken as "rudimentary" or "degenerate" forms of animal-head depictions (cf. Meinander 1965: 24). Even if these are far too abstract to be understood as elk-head depictions, I nevertheless concur with Meinander (1965: 16–18, 24, 27) that even artefacts of this type are related to more complete examples of the type and also belong to the same extensive group of slate items, only some of which have distinct animal-heads.

Apart from the single exception of a broken slate figurine from Tjikkiträsk in Sweden (S18) that possibly dates back to the Mesolithic period,

all elk-headed slate items seem to be of Neolithic or Early Bronze Age origin. Many items have been discovered as stray finds and thereby can only be given an approximate dating, but in a few cases it has been possible to date the finds on the basis of ceramics or radiocarbon dates obtained in the vicinity of their find location (F10: 4300–3900 calBC; N10: 4000–3300 calBC; S4: 3300–2350 calBC; S9: 2870–2590 calBC; S10: 2630–2020 calBC; F14: 1900–1500 calBC; S15: 1890–1430 calBC; for references see Appendix 1).

On the basis of these dates, I regard the period 4200–1500 calBC as the main period for the use of elk-headed slate daggers and knives. As long as the Tjikkiträsk elk-head represents the only artefact that clearly differs from the others, one can regard its alleged anomalous dating with great scepticism.²⁹⁶ Some elk-headed slate items were possibly made some centuries after 1500 calBC, but the find category definitely comes to an end in the course of the Early Bronze Age. The elk-headed slate daggers and knives thus belong to the so-called Norrlandic Slate Culture, which emerged in the Late Mesolithic/Early Neolithic transition around 4200 calBC in northern Sweden. This is characterized not only by the various slate artefacts that replaced earlier quartz tools, but also by mounds of burnt stone, elk hunting pit systems and rock art (see e.g. Sjöstrand 2011; Underdal 2018).

Approximately one third of the elk-headed slate artefacts have been discovered as stray finds or lack information regarding their find context. Most of the remaining items have been found in settlement contexts.²⁹⁷ Some elk-headed slate artefacts have also been discovered inside mounds of burnt stone (Bolin 1999: 80). According to Lundberg (1997: 169) the mounds represent the bases of huts that were in use specifically during the winter by elk hunting groups. Bolin (1999: 74–83), on the other hand, does not believe that the

²⁹⁴ Hallgren (2008: 260) also writes that there are local variations in the shape of slate knives. As regards elk-headed slate knives and daggers, however, I have not been able to establish any patterns of distribution linked to any particular forms (for typological discussion, see also Meinander 1965).

²⁹⁵ The main reason for this decision is pragmatic, because the number of slate daggers with broken handles is very large. Examples of slate daggers with broken handles that may have been decorated with animal-heads (and, moreover, with elk-heads), but which are not listed in Appendix 2, include those from Kläpp (SHM 16455) and Nordmaling (SM 8) in Sweden and those discovered at Pello (KM 16406) and Ylitornio (KM 12443) in Finland (see also Meinander 1965: 27).

²⁹⁶ Carpelan (1977: 19–21) has in fact criticized this early dating and argued, mainly on stylistic grounds, that the Tjikkiträsk fragment might be as recent as from the 2nd millennium calBC. Bolin (1999: 80) likewise recounts that the most intensive occupation phase of the mound was during the Late Neolithic and the Bronze Age. Hence it truly seems likely that the animal-head dates back to this period as well.

²⁹⁷ A notable exception is the likely elk-head dagger from Marma in Uppland (S3), which possibly stems from a burial or a hoard. The Marma dagger stands out also as the southernmost elk-head dagger to have been found in Scandinavia.

mounds were used as dwellings but rather as places for – at least partly ritual – gatherings where elk meat was butchered and cooked.²⁹⁸ He also suggests that people from different regions gathered in these places to exchange things and recount stories concerning an elk ancestor, which the animal-headed artefacts in his opinion are indicative of (Bolin 2010: 31).

Regardless of how one understands the mounds of burnt stone, the elk-headed knives and daggers seem not to have been used as grave goods or offerings. Rather, the overall impression is that these artefacts served a practical role within everyday life. Simonsen (1954: 304, 307) excluded the possibility that slate daggers with thin handles could have been of practical use, and in his view the signs of wear on some of the daggers “need not have been caused by use but merely by weathering”. However, instead of agreeing with these opinions, I concur with Meinander’s (1965: 24) view that the shafts of the slate daggers were most likely wrapped with cords of some sort, which is supported by the fact that many of the handles are serrated. The animal-head finial may thus also have served a practical function as it enabled the fastening and carrying of the item.

There are thus no reasons for which these daggers and knives could not have been used in practice (see also Lentfer et al. 2023). Rather, one can take the numerous broken artefacts in this group as a sign that they were indeed in heavy use.²⁹⁹ In fact, after having broken, some of the daggers (S22; F13) have been re-shaped into chisels, which clearly indicates that they continued to be used as tools (cf. Meinander 1948: 14). To be precise, however, Kehusmaa (1977: 9) has correctly pointed out that the daggers were in all probability not used as stabbing weapons, but rather as tools for cutting and ripping.

Now, it is of course tempting to pose the question whether the knives and daggers were

simply used for cutting the meat of the animal that was depicted on their handles. In my view, there is no reason to doubt that this was the case. Despite the large size of the carcass and the time-consuming nature of the work, an elk is usually cut into portable pieces using simply a knife (see e.g. Nelson 1973: 98; Jarvenpa & Brumbach 1983: 178). Moreover, as was discussed in relation to the inner designs depicted on elk figures in rock art, the butchering and sharing of meat and different body parts has been associated with various beliefs and customs in elk hunting societies. I am therefore inclined to believe that *elk-headed slate knives and daggers were first and foremost used for processing killed elks, probably at the kill sites as well as at campsites.*

That is of course not to say that the only reason for depicting slate tools with elegant elk-heads was due to their direct link to this animal. It is fully possible that the elk also served more generally as a symbol of power and fortune. Slate items with depictions of this animal were perhaps considered to bring luck to their owners, and/or maybe the elk-heads were made with the intention of reminding the hunter of the respect that (s)he was obliged to show towards the elk (see below). Baudou (1992: 63) also suggested that the elk-headed daggers could have functioned as symbolical identity markers with the intention of binding hunting groups together.

As Sognnes (1996: 36) pointed out, the fact that the knives (and daggers) served as tools and as depictions of animals at the same time gave them an ambiguous meaning, which was probably the intention from the outset. The relatively large number of finds of such items moreover suggests that we are dealing with objects that could be possessed more or less by anyone in a society. The find contexts do not indicate that these items were especially valuable or exclusively the possessions of the elite, like the elk-head staffs or the stone clubs and axes. Instead, it seems that the slate daggers and knives were items owned by elk-hunters in general. Most probably, they were personal artefacts that belonged to an elk hunter’s basic equipment, at least in the Norrland region. Another kind of artefact, which, I believe, served a somewhat similar purpose, was the portable slate object engraved with the figure of an elk.

²⁹⁸ Hellqvist (2009: 80), however, questions the connection between animal-headed daggers and the mounds of burnt stone, because the latter are not located on the coast where the daggers are frequently encountered.

²⁹⁹ Bolin (1999: 81) also proposed that the Tjikkitråsk animal-heads were ritually destroyed, like the asbestos ceramics that have been found at the site. While this explanation is possible, it should be kept in mind that Tjikkitråsk is a highly exceptional site as it is the only place where numerous animal-heads have been found, only one of these being shaped as an elk, which moreover differs noticeably from other elk-heads depicted on daggers.

7.5 Elk depictions on portable slate items

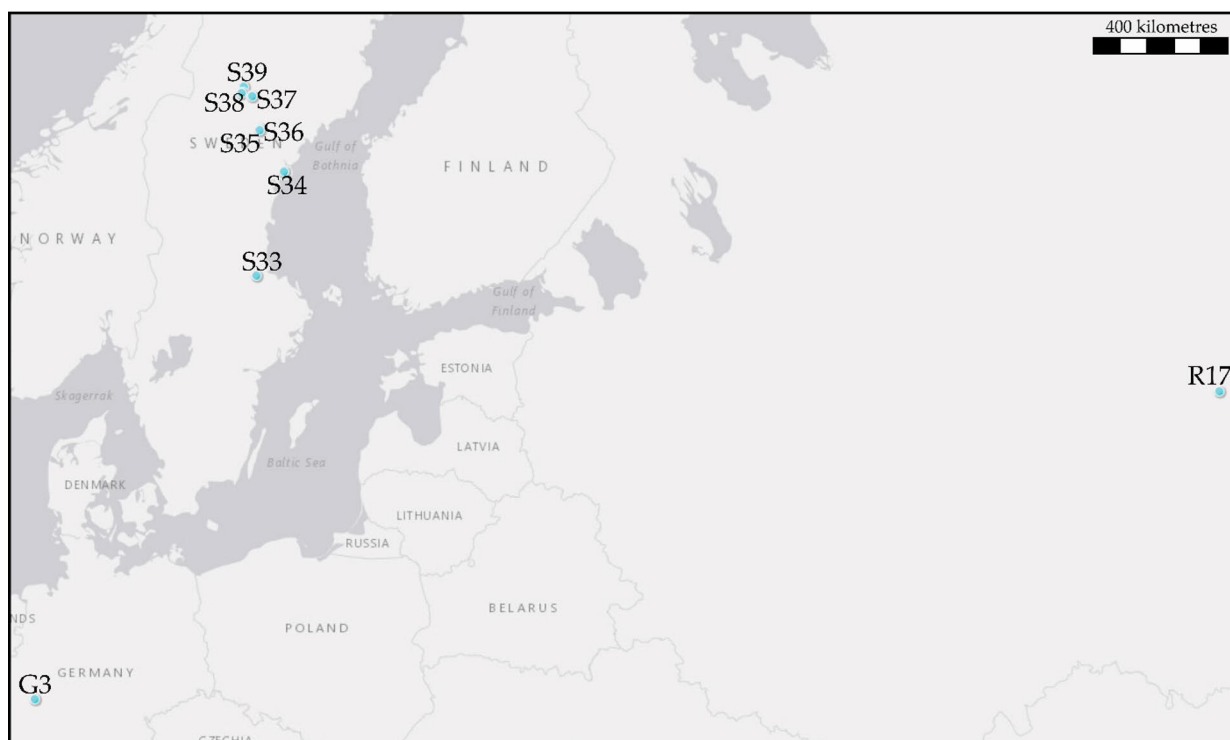


Figure 135. Distribution of slate items engraved with depictions of elks. G3. Windeck; S33. Sättra; S34. Bondsjöhöjden; S35. Notön; S36. Rå-Inget 1; S37. Volmvattnet; S38. Hoting; S39. Rörström; R17. Gornaya Talitsa. Map: Ville Mantere/NatGeo MapMaker.

Nine slate items with carvings of elks are known from the region of study: seven from Sweden and solitary items from Russia and Germany (Figure 135). The items are difficult to date with certainty, but it seems that all of the Swedish finds date to the Late Neolithic or the Early Bronze Age (c. 2500–1500 calBC). The German and Russian finds are significantly older with Upper Palaeolithic and Early Mesolithic dates, respectively. It is admittedly questionable whether these slate artefacts should at all be understood as belonging to the same group. Yet, since the Windeck find (G3) is not a sculpted elk depiction, I have not grouped it with the other Upper Palaeolithic elk representations but have decided to include it here. The same goes for the pebble from Gornaya Talitsa (R17), for which there are no chronological parallels among other elk-related artefacts.

As for the Windeck item, it is evident that this engraved slate stone is not culturally related to the Swedish items, or to the Russian find, even if the raw material and the animal depicted are the same. Engraved plaquettes with animal depictions are common in Magdalenian portable art (see e.g. Bello et al. 2020: 4), but in my opin-

ion, the closest stylistic parallels to the Windeck stone are to be found in several pre-Solutrean carved stones from the Iberian Peninsula, despite the fact that these are several millennia older and depict mammals other than elk (see García-Díez & Ochoa 2015: 307, fig. 2).

The find from Gornaya Talitsa is likewise, as far as I am aware of, the only one of its kind, since it is attributed to the Early Mesolithic period (Melnichuk & Pavlov 1987: 14–15).³⁰⁰ Unlike the Windeck item, this slate pebble unmistakably depicts an elk, but in contrast to all other elk engravings, it is not the entire animal but only the elk's head that is depicted on this item. Stylistically, this pebble bears a closer resemblance to certain elk representations in Siberian rock art than to any other portable

³⁰⁰ In addition to the object from Gornaya Talitsa, only one pebble with engravings is known in the Urals region (Serikov 2020: 106), which suggests that such items were not common in this area. It should, however, be noted that Serikov (2020: 108–109) lists a number of additional pebbles shaped to resemble elks, but none of the items that I have been able to identify depicts an elk-head in a clearly recognizable manner. According to Serikov (2020: 106), the majority of pebbles found in the Urals date to the Eneolithic era, although Palaeolithic and Bronze Age finds are also known.

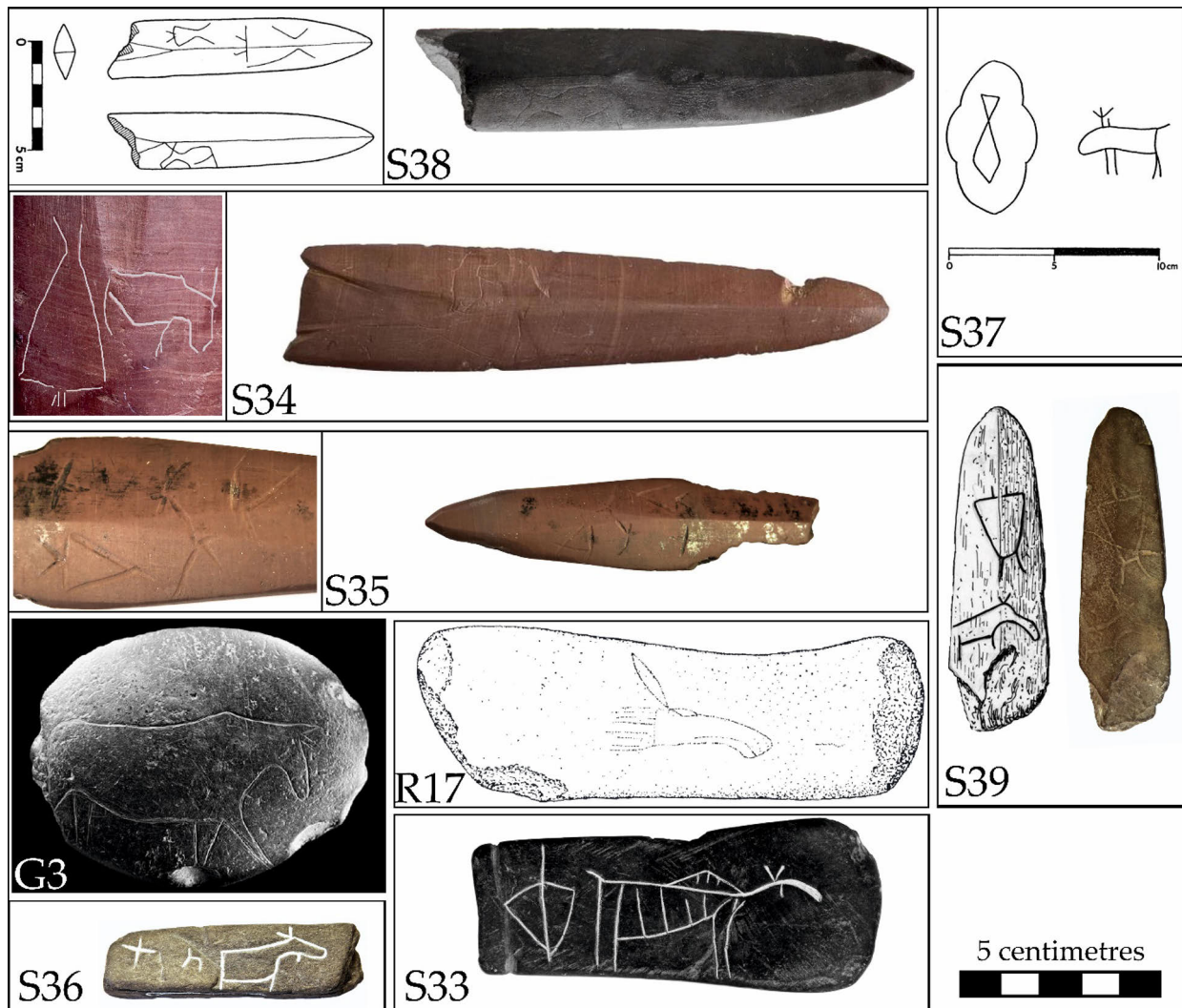


Figure 136. Elk depictions on portable slate stones in Northern Europe. For abbreviations and photo credits, see Appendix 1 (S39. Drawing: Huvudkatalog B, p. 2, <https://catview.historiska.se/catview/index.jsp>). Compilation: Ville Mantere.

artefacts with elk depictions. Images of elks with somewhat similar elongated heads and striated necks are found, for instance, at the rock art sites of Tom and Tutalskaya, which, however, are significantly younger than the object from Gornaya Talitsa (e.g. Ponomareva 2016). Still, I find it possible that this pebble is in some way related to rock art depictions. The manner in which rock artists practised the process of carving before making petroglyphs on rocks is, for instance, a significant but mostly neglected topic.³⁰¹ Organic materials were most probably preferred for such a task, but it is fully possible that also portable stones could sometimes serve this purpose.

³⁰¹ It was especially through discussions with rock art photographer D.A. Ismo Luukkonen in 2018 that I became convinced that petroglyphs at rock art sites are, as a rule, produced so methodically and steadily that the artists must have been practicing the act of carving before they made the final figures on rocks.

Again, this does not exclude any additional functions or related meanings.

In fact, as Serikov (2020: 102–110) notes, pebbles are recurrent finds in various archaeological contexts from the Upper Palaeolithic period onwards, and their common presence in burials and sanctuaries suggests that they were likely related to some kind of ritual behaviour. In Serikov's view, zoomorphic pebbles were probably polysemic and likely to have been used at least in rituals directed towards the hunted animals (Serikov 2020: 110). I find this plausible, and it is moreover conceivable that stone pebbles with elk engravings were considered in a similar light to the elk-shaped (stone) sculptures (see below).

The slate stones and points with carvings depicting elks found in Sweden constitute a more or less uniform category. According to Wennstedt Edvinger (1993: 15) and Käck (1999:

141–143), these date back to the period covering the centuries before and after 2000 calBC. The items are thus categorically younger than the elk-headed slate knives and daggers, which – despite being made of the same material and occurring in the same area – were already in use during the Early and Middle Neolithic periods.

Geographically, most of the Swedish finds are concentrated in the Ångerman River system, although some items have been found outside this region (cf. Bolin 2000: 170, fig. 13). When their dispersal is compared to the distribution of all portable carved items (including those with no elk depictions), one can note that the latter are more widely dispersed across this area. There are, however, small concentrations near the Norwegian border and in the Umeå region, where no artefacts with elk depictions have been found (see Hellqvist 2009: 70–72). It thus seems that in Norrland items with carvings of elk were more closely associated with the interior than were elk-headed slate daggers and knives. All of the engraved slate items have been discovered as stray finds or in settlements, and their find contexts thus do not differ from the elk-headed slate daggers and knives.

In Hellqvist's (2009: 83–85) view, the elk figures carved on the Norrlandic items exhibit similarities to the rock carvings at Nämforsen and Gärde, but there seems to be no direct connection between individual items and specific rock art locations. What I have paid attention to, however, is that the elk figures are never the only carvings made on the items. Instead, there is always at least one other figure depicted either beside the elk, or alternatively on the opposite side of the object. On several items, there is a triangular and/or abnormally-shaped anthropomorphic figure depicted adjacent to the elk (Figure 136). Such figures have counterparts in the Nämforsen rock carvings, where triangular outline anthropomorphs, so-called "athletes", were identified by Hallström (1960: 317, 330). These appear to be more recent than the scooped-out, stick-like anthropomorphs that form the other type of human depictions at Nämforsen (see Baudou 1993: 256–257; Forsberg 1993: 211, 214; Hellqvist 2009: 83).

Baudou (1993: 257) observed that human depictions become increasingly abstract towards the end of the Neolithic period. In his view, the

cross depicted on the engraved slate item from Rå-Inget 1 (S36) in fact represents a human – or a hunter, to be precise. Baudou also argued that the combination of an elk and a triangular human is – in contrast to the depictions found at rock art sites – first and foremost associated with an individual hunter. When one keeps in mind that this combination is found in several cases on items understood to be spearheads – likely used for hunting elks – it is not particularly far-fetched to propose that the human and animal figure represented the owner of the item (the hunter) and his prey (the elk), respectively.³⁰² It is also feasible that the human-elk pairs on slate artefacts are related to similar pairs found in rock art (see above).

However, it seems evident that a hunter would not be depicted on his personal item in just any manner, but rather as a highly abstract, triangular "athlete", in accordance with a well-known local convention. This suggests that a special relationship existed between the hunter and the elk, and it is most likely not a coincidence that the human representations are categorically depicted without any distinctive details. It is also probable that the elks depicted on the items are not referring to just any elk but to specific elk *individuals*. More precisely, it is feasible to assume that the animals represented on the items refer to the *game rulers or master spirits of elks*.

I will deliberate further upon the concept of game rulers in the following chapter. Next, however, let us look at another type of elk-related artefacts, wooden articles related to travel, which, in contrast to the items discussed above, cannot be clearly interpreted as personal belongings but rather seem to represent items that were in collective use.

³⁰² It should be noted, however, that two anthropomorphic figures seem to be depicted on two of the slate points (S35 and S38). Allowing a hint of imagination, these could, for instance, represent the hunter and his (or her) family.

7.6 Elk-headed sledge runners and boat prows

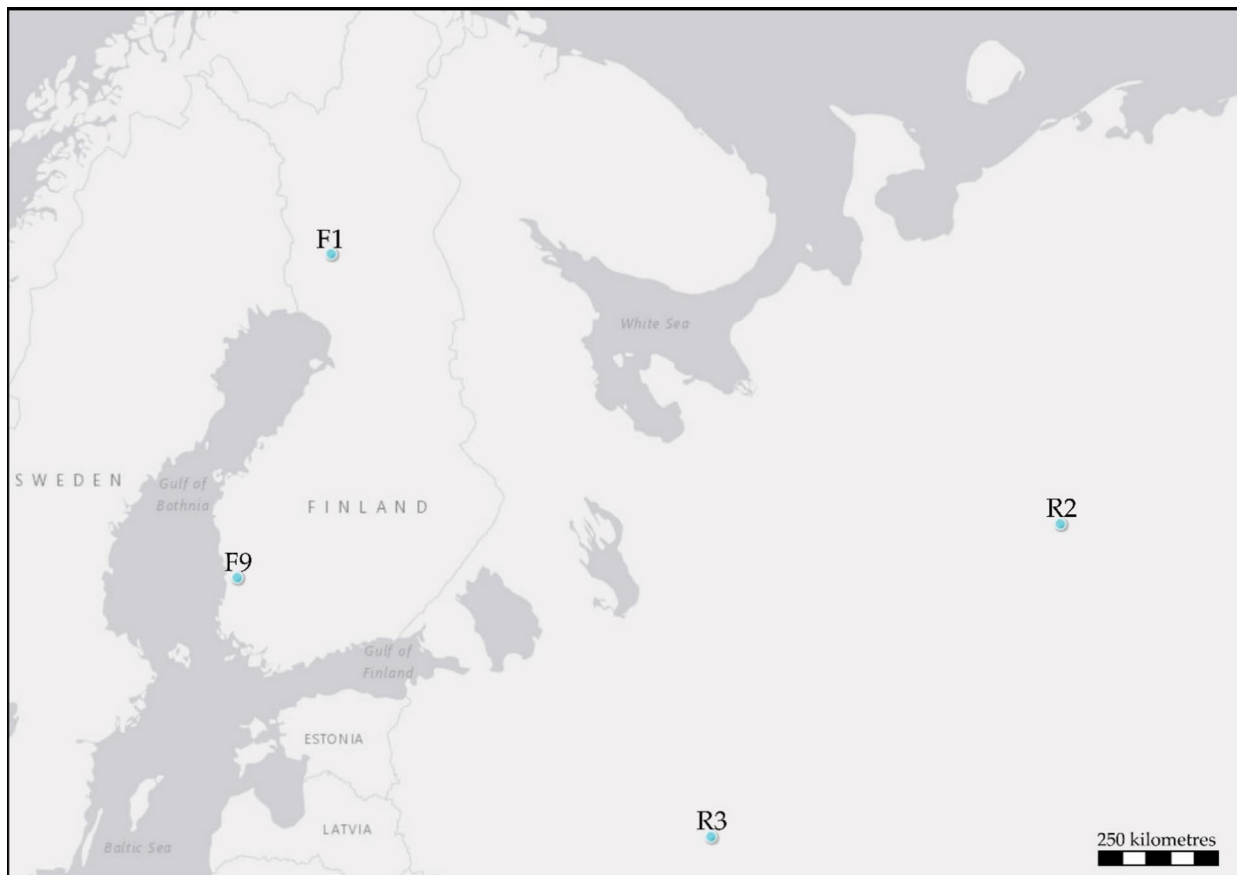


Figure 137. Distribution of elk-headed sledge runners and boat prows. F1. Lehtojärvi; F9. Harjakangas; R2. Vis 1; R3. Ivanovskoe 3. Map: Ville Mantere/NatGeo MapMaker.

This category of elk-related artefacts consists of three sledge runners, as well as the aforementioned boat prow from Lehtojärvi (Figure 138). The four elk-heads are grouped together since they are all wooden items related to travel. The Lehtojärvi elk-head (F1) is dated to the period 7060–6250 calBC and the Vis 1 elk-head (R2) stems from the period 7330–5760 calBC. The item from Ivanovskoe 3 (R3) is dated to the period 6000–5050 calBC, while the Noormarkku sledge runner (F9) has been directly radiocarbon dated to the period 2200–1540 calBC (see Appendix 1). Thus, three of the items are clearly of (Late or even Middle) Mesolithic origin, whereas the most recent artefact is dated to the transition between the Late Neolithic and the Early Bronze Age. However, since we are dealing with wooden items that have been preserved only under exceptional conditions, the nearly three-millennia-long period 5000–2200 calBC without any known artefacts of this type is likely to be artificial.

Geographically, the four finds are widely distributed (Figure 137). This, too, suggests that the artefacts were common in the past. Most likely, however, there were local differences in terms of prevalence. For instance, within a few kilometres distance from the find spot of the Harjakangas sledge runner (F9) lie the find sites of Rudanmaa (Noormarkku), Puisto and Ellinkangas (Ulvila), where sledge runners of different ages have been found (Aalto et al. 1981: 44; Alhonen 1965: 18; see also Salo 1965).³⁰³ Because of the striking concentration of sledge runners in this area, it is probable that a popular, long-established winter route ran through this region (Huurre 1991: 284).

Sledge runners have not solely been depicted with elk-heads, but examples have also been found decorated with the heads of bear and waterfowl – in addition to many examples of

³⁰³ The Rudanmaa and the Puisto sledge runners have been radiocarbon dated to the periods of 4040–3370 calBC (4900 ± 150 BP, Hel-1096) and 830–50 calBC (2390 ± 160 BP, Tx-125), respectively, whereas the Ellinkangas sledge runner dates to the period 3500–2880 calBC (4430 ± 110 BP, Hel- 2525).



Figure 138. Elk-headed sledge runners and boat prows from Northern Europe. For abbreviations and photo credits, see Appendix 1. Compilation: Ville Mantere.

sledge runners that are not carved to represent an animal. In Finland, for instance, more than 20 sledge runners of different types have been found, but only four of these have animal-headed extremities (see e.g. Carpelan 1974: 66–69). In addition to the elk-headed item from Harjakangas, the runner from Ellinkangas (KM 23896) seems to be decorated with the head of a waterfowl (Huurre 1991: 283). This item is made of *Pinus cembra* and must thus be of foreign manufacture. The end of the sledge runner from Alahärmä in Kauhava (KM 16108) is shaped in the form of an animal-head, representing either a waterfowl (Kuokkanen 2000: 44) or a bear (Carpelan 1974: 66). Another potential bear-head is sculpted on the sledge runner from Ketlahti in Heinola (KM 12923) (Carpelan 1974: 68). The dates of these finds suggest that animal-headed sledge runners were used in Finland during the Neolithic period as well as in the Early Bronze Age.³⁰⁴

³⁰⁴ The Ketlahti runner has been radiocarbon dated to the period 2460–1540 calBC (3600±175 BP, Hel-659) (Jungner 1979: 101; Seger 1988: 37–38) and the Alahärmä runner is probably to be dated to the fourth or third millennium calBC (see Carpelan 1977: 26).

With regard to the two Russian elk-headed artefacts, several important considerations exist that must be noted. Firstly, the item from Ivanovskoe 3 (R3) has been previously understood as a broken elk-head staff (Krainov et al. 1995: 43–44; Kostyleva & Utkin 2007: 3–4), but in line with Kashina, I believe that it can actually be seen as an equivalent to the Vis 1 elk-head on the basis of its raw material.³⁰⁵ Secondly, the Vis 1 elk-head (R2) has often been labelled in past literature as the world’s oldest ski, following the the interpretation made by Burov (1989: 393–394), who took it as a flat-bottomed ski tip, belonging to the so-called “Veretye-type”. However, this interpretation has also been questioned. Taavitsainen et al. (2007: 66) are of the opinion that neither the Veretye-type nor the Vis-type – another alleged ski type found at Vis 1 – should actually be regarded as skis.³⁰⁶ In their

³⁰⁵ E. Kashina, email correspondence 17.9.2018.

³⁰⁶ The authors point out that the “Veretye-type ski” with a protuberant animal-head would have been unsuitable for skiing, and that the bottom of the “Vis-type ski” is concave, which likewise casts doubt on its function (Taavitsainen et al. 2007: 66).

view, the elk-headed artefact more likely belonged to a sledge runner and is thus comparable to the so-called “Heinola-type” of sledge runners (Taavitsainen et al. 2007: 66).³⁰⁷ I find this to be a credible interpretation, and I am thus disposed to regard both the Vis 1 and the Ivanovskoe 3 elk-heads as sledge runners.

The Russian finds stem from peat bog settlements while the item from Harjakangas is a stray find. The find contexts and the fragmentary state of the items indicate that elk-headed sledge runners were in ordinary use, just as the boats with elk-head prows (cf. Carpelan 1974: 35). There can be no doubt that sledges were highly significant to prehistoric hunters living in the boreal forest zone. As Taavitsainen and Kuokkanen (2013: 505) state, “winter transport equipment was, in fact, the wheel of the Eurasian tundra and taiga zone”. Together with skis, sledges enabled travel and transportation on frozen lakes, rivers, and bogs during the winter months (see Kuokkanen 2000: 37–38 and cited references; Taavitsainen & Kuokkanen 2013: 505–506). Apart from providing a vital means of transport, sledges must also have been of key importance when elks were tracked down in their winter habitats and when killed elks were transported to campsites. I therefore suggest that the function of the sledge was in several ways comparable to the boat, which could similarly be closely associated with the elk.

Both vehicles were, in other words, essential for prehistoric populations in general, but especially significant to elk-hunting groups. Therefore, it is feasible to claim that *one reason for associating the sledge (and the boat) with the elk was because of the concrete connection that this mode of transport had to that particular animal species*. An additional reason for depicting an elk-head at the end of a sledge runner could have been the wish to ascribe to the sledge some of the elk’s characteristics, such as its speed or endurance.

Just as in the case of elk-headed boats, another probable cause for the link between the sledge and the elk was that materials from killed elks were used in the making of these vehicles. The precise methods of construction used for different kinds of prehistoric sledges have been

addressed by several scholars (see e.g. Itkonen 1932; Kopisto 1964; Kuokkanen 2000; Taavitsainen & Kuokkanen 2013), and I do not find it relevant to discuss this topic here in depth. However, based on experimental reconstructions, elk hides plausibly played a vital part in sledges, regardless of how these were constructed and irrespective of whether they were pulled by humans or dogs (see Kuokkanen 2000: 48–55).

Undoubtedly, the elk-headed sledge runners and the elk-headed boats can thus be conceived as belonging to the same category, as both provided a crucial means of transport that in several ways was linked to the elk.³⁰⁸ It also seems that they appear in the archaeological record at around the same time, probably sometime during the 8th or 7th millennium calBC. Interestingly, however, the bear- and waterfowl-headed sledge runners seem to be a significantly more recent phenomenon, as these are all dated to the Neolithic or to the Early Bronze Age. Apparently, at first thus only the elk was linked to sledges and boats, but in the course of time, other animal species became associated with these vehicles, too. This scenario matches the appearance of horse-headed boat figures in Bronze Age rock art. Yet, as the example from Harjakangas (F9) illustrates, the elk did not completely lose its significance even after other animals started to be depicted on sledge runners. The initial elk-related connotations associated with the sledge runners and boat prows, however, most probably changed over time. The same arguments used to interpret elk-headed sledge runners cannot be convincingly applied to explain, for instance, waterfowl-headed sledge runners that appeared later.

I will deliberate on the relationship between elks and other animals more thoroughly in the following chapter but let us next look at another elk-related artefact category consisting of wooden items that were probably used collectively; elk-shaped vessels and elk-headed ladles.

³⁰⁷ It can be noted that Carpelan (1977: 25) also pays attention to the similarity between the Vis 1 fragment and several sledge runners.

³⁰⁸ Another artefact type that perhaps could be added to this category consists of elk-headed paddles, depictions of which can be found in the rock art of Onega. I concur with Carpelan (1974: 65; 1977: 17–18) that these depictions in all probability had real-life paragons (see also Kashina & Chairkina 2017).

7.7 Elk-headed ladles and elk-shaped vessels



Figure 139. Distribution of elk-headed ladles and elk-shaped vessels. F8. Kittilä; R8. Shigir (2); R9. Gorbunovo (3). Map: Ville Mantere/NatGeo MapMaker.

In this category, I have decided to group together elk-headed ladles³⁰⁹ (2 specimens) and elk-shaped vessels (4 items) (Figure 140). The reason is mainly pragmatic, as these artefact types are represented by so few items that addressing them separately would give rise to pointlessly small categories that would only bewilder the general discussion. Moreover, there are a number of reasons for why the elk-headed ladles can be interpreted alongside the elk-shaped vessels. All are made of wood, they seem to be roughly contemporary items, and they have been found in similar archaeological contexts – sometimes even at the same sites. Most importantly, however, it is reasonable to comprehend both categories as being related to food consumption.

³⁰⁹ Given the relatively large size of these items, it is unlikely that they functioned as spoons used for eating in the common sense of the meaning, even if this is the term commonly used for the items (Immonen 2002: 33–34). For this reason, following Immonen's (2002: 34) suggestion, I here refer to the items as ladles.

There is, however, one notable difference between the two artefact groups. Prehistoric ladles in Northern Europe commonly depict the heads of different animals (bears and, especially, waterfowl), and the elk-headed specimens are thus but one manifestation of zoomorphic ladles among others (see e.g. Carpelan 1977: 22–25).³¹⁰ In sharp contrast, elk-shaped vessels constitute a unique category, as regards both their form and geographical distribution. The four items are all found in the peat bogs of Shigir and Gorbunovo in western Urals, and this unusual artefact type was possibly a local peculiarity (Figure 139). To my knowledge, the only artefacts that can in some way be paralleled with these are the waterfowl-

³¹⁰ For example, five prehistoric ladles are known from Finland and four of these have zoomorphic handles (Immonen 2002). In addition to the elk-headed ladle from Kittilä, examples from Finland include a bear-headed ladle from Kurkisuo, Laukaa (Ailio 1912: 6–9), a duck-headed ladle from Pielisjärvi, Lieksa (Europaeus 1930: 83–84), and a broken bear- or elk-headed ladle from Humppila (see Appendix 2).

shaped ladles that are also known from the Trans-Urals region (Kashina & Chairkina 2011).

As regards elk-shaped vessels, their size ranges approximately from 20 to 40 cm, but it should be noted that only one of the four items is intact. The two remaining vessels with elk-heads are similar in appearance, with the eyes marked out by circular depressions and two paralleling holes in the neck. According to Eding's view (1940: 45), the eyes were once filled with some coloured substance and the holes in the neck were used for attaching ears made of some other material to the sculptures (see also Pogorelov 2002: 159). While the vessels from Gorbunovo seem to depict female elks, the Shigir item may have represented a male elk given its robust body (see Eding 1940: 45; Serikov 2014: 81).

All of the vessels have a large recess that covers the entire back of the animal. In line with Carpelan (1974: 64), I can find no explanation for these other than that they served as some sorts of containers. Although the interpretation remains hypothetical, I am strongly inclined towards considering these objects as *related to the consumption of the meat (or internal organs) of the animal they represent, namely the elk*. This was also the view of Eding (1940: 48–49), as well as of Zamyatnin (1948: 112) and Oborin & Chagin (1988: 22), the latter explicitly associating this vessel type with ritual food and ritual purposes. Pogorelov (2002: 154, 159) also firmly states that the vessels were used only for cult purposes, but in his view, the rituals in which these were used were not related to hunting magic but instead to cosmological beliefs.

In Eding's (1940: 48–49) opinion, in turn, the function of the elk-vessel was to act as a substitute for a real animal in ceremonials directed towards the object of the hunt; the elk. He argues, moreover, that food placed inside the vessel acted as a sacrificial gift. It is rather reasonable to concur with these views. Conceivably, elk meat placed inside the elk-sculpture also made it more or less "alive". However, as Eding (1940: 48–49) further noted, the rudimentary and unfinished bodies of the vessels suggest that it was not necessary to reproduce the entire sculpture of an elk with lifelike accuracy. The focus was instead placed on the most characteristic part of the animal, its head. The very same emphasis on the elk's head at the expense of other features is also noticeable on several other elk-related artefact types.

Even if Carpelan (1974: 64–65, 76–77) on stylistic grounds dated two of the Gorbunovo vessels to the 5th or 4th millennium calBC, it seems more likely that the vessels are more recent in date and can be placed rather in the 3rd or 2nd millennium calBC. As Eding (1940: 45) noted, the best-preserved vessel was seemingly shaped using metal rather than stone tools. The fact that three of the vessels are rather severely fragmented raises the question whether these were broken intentionally, because it is difficult to think of any natural reason for the missing heads and legs on the two sculptures that still have well-preserved bodies. Eding's (1940: 49) understanding was that the items were used only once, after which they were broken and thrown either into water or into a bog, but it is difficult to verify this conclusion.³¹¹

The ladles from Shigir and Kittilä, in turn, date to the end of the Neolithic or the Early Metal Age, approximately to the period 2000–1500 calBC. They are thus largely contemporary with the elk-shaped vessels, but it is fully possible that similar items existed in earlier (or later) times. In Finland, for instance, the category of zoomorphic wooden ladles seems to include items from a rather extensive time period, approximately 3900–700 calBC (see Immonen 2002: 29–33).³¹² In addition, some of the broken elk-head bone and antler figurines from Latvia, which some have interpreted as ladle/spoon handles (see Carpelan 1977: 22 and cited references), date back to the Middle or Early Neolithic, suggesting that elk-headed ladles could well have been made of wood at an early stage.

The ladle from Kittilä is 26.2 cm in length, and as Kivikoski (1936: 9) noted, such dimensions make the item simply too large to have been used as a spoon for eating (see also Immonen 2002: 34). However, Kivikoski (1936: 13) also further argued that the ladle was hardly intended as a purely sacrificial object. This is because the right side of the ladle is much more heavily worn than the left side, which can be seen as resulting from its everyday use. The sharp, roughly 90-degree angle between the elk-head

³¹¹ As Kashina notes, the Gorbunovo finds were excavated near the aquatic context of the peat bog. For this reason, most interpretations have centred on associating the finds with water rituals (E. Kashina, email correspondence 19.3.2021).

³¹² It is noteworthy that of the five Finnish ladles, it is the latest in date (the Lestijärvi ladle) that does not have an animal-head depicted on its handle (Immonen 2002: 42).

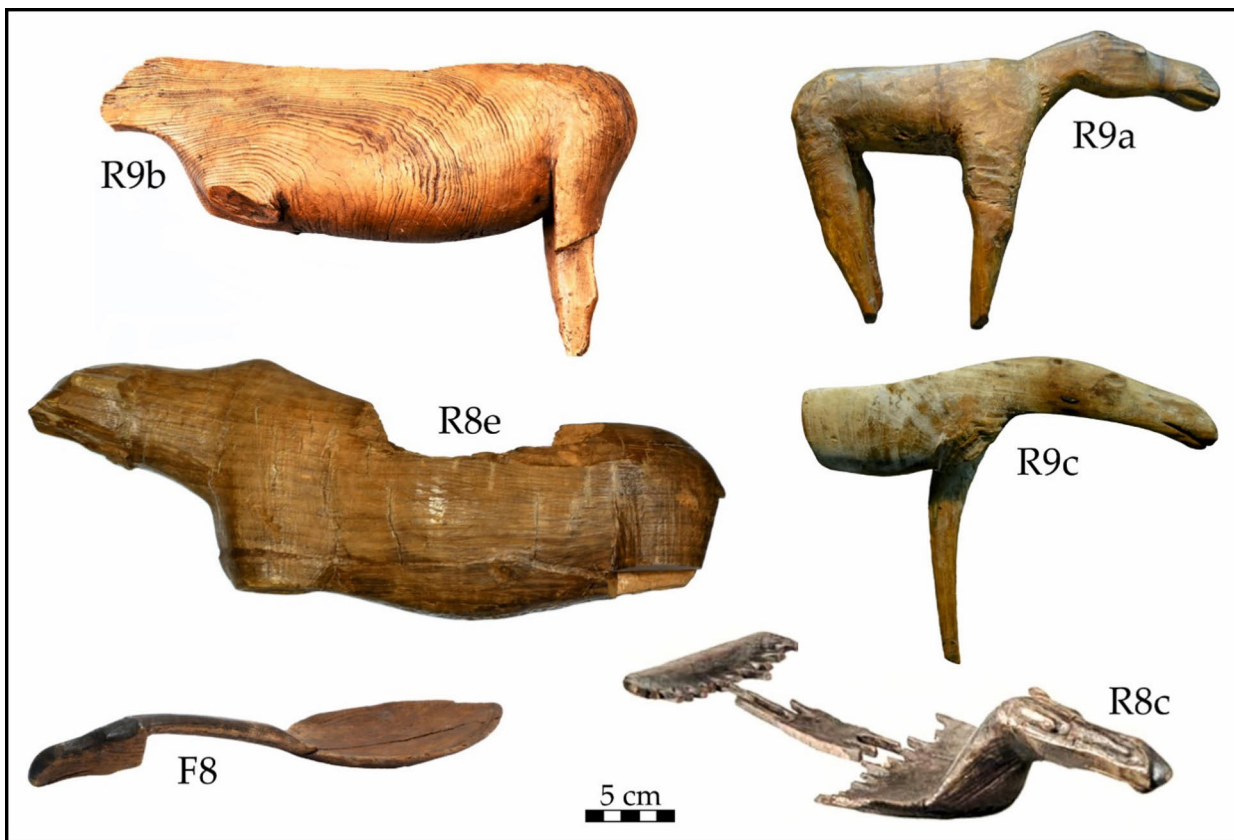


Figure 140. Elk-headed ladles and elk-shaped vessels from Northern Europe. For abbreviations and photo credits, see Appendix 1. Compilation: Ville Mantere.

and the handle can also be interpreted as a practical feature, as the ladle could thereby have been rested against the side of a vessel (Kivikoski 1936: 9, 13). Thus, the Kittilä ladle, at least, was hardly a disposable artefact.

The ladle from Shigir (R8c) measures 35.5 cm in length and is thus even larger than the item from Kittilä. In fact, this ladle is essentially a sieve, which Eding (1940: 49) interpreted as being designed for picking meat pieces out of a stew. Thus, the Kittilä and Shigir ladles seem both to have had at least a conceivable practical function, although it is evident that neither of the two were used in the manner that spoons are used today. A feasible explanation is that prehistoric ladles were used collectively, and perhaps in a similar manner to bird-shaped scoops that have been documented ethnographically (Immonen 2002: 34, 42). These were used for various tasks, such as ladling milk products, or as dishes (see also Pogorelov 2002: 153).

Huurre (1998: 198; 293–294), however, claims that animal-headed ladles were not used for everyday purposes but on special ritual occasions. In his view their waterlogged find contexts suggest that the items were intentionally placed in bogs as sacrifices. Such an interpretation can also be supported by ethnographical data, as the Amurian Giliaks are known to have used waterfowl-headed wooden ladles in bi-

annual rituals, in which these were thrown into water with the intention of ensuring luck in hunting and fishing (Loze 1983: 11, cited in Antanaitis 1998: 61).

Yet, as Immonen (2002: 34–39) rightly emphasizes, the practical and ritualistic use of ladles (or any other artefacts) may not be mutually exclusive. Object biographies have many stages (production, usage(s), deposition) that may differ markedly from one another. In addition, the mere possession of an item does not necessarily make it special in any way, but artefacts might be considered as “cult objects” when they are associated with particular actions (see Immonen 2002: 38). Thus, while Edgren (1984: 62) argued that the wide geographical distribution of wooden ladles gives reason to interpret them as common everyday items, he was probably partly correct in that the items were in everyday use, but also partly wrong in that this was not automatically their only role. It is fully possible that the ladles were used for eating on a regular basis but came to be placed in waterlogged contexts in times of need. Ultimately, I believe that both the elk-head ladles and the elk-shaped vessels were associated with collective, ceremonial elk-meals, in which these artefacts possessed a special significance given their link to the food consumed (cf. Korhonen 1982: 118–119; Immonen 2002: 39).

7.8 Elk-head finials on bone and antler items

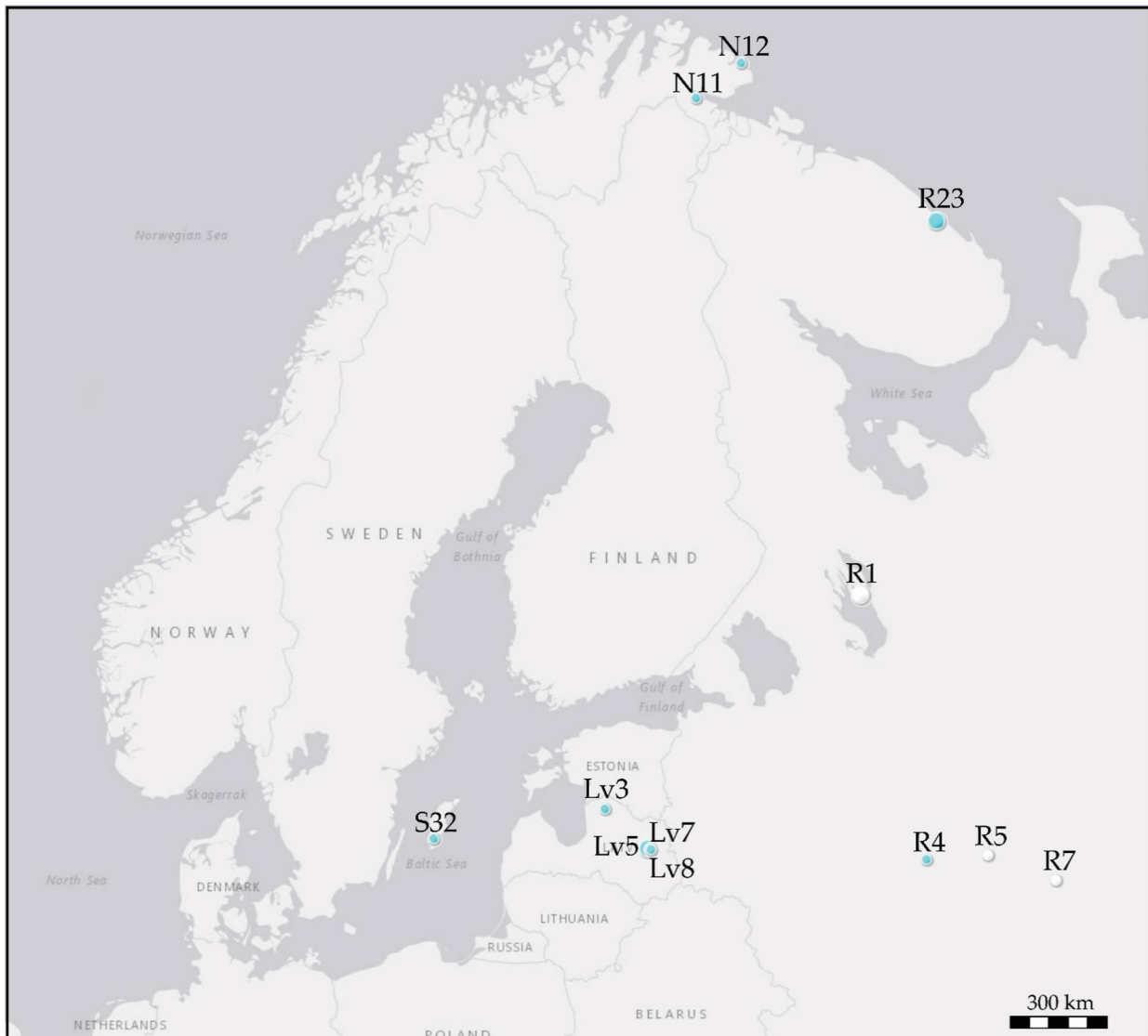


Figure 141. Distribution of elk-head finials made of bone and antler. Blue circles = settlements; white circles = burials. S32. Gullrum; N11. Gressbakken; N12. Skjåvika; Lv3. Riņņukalns; Lv5. Abora 1 (2); Lv7. Piestiņa; Lv8. Lagaža; R1. YOO (3); R4. Zamostje 2 (2); R5. Sakhtysh II; R7. Volodary; R23. Mayak II (4). Map: Ville Mantere/NatGeo MapMaker.

This category of elk-related artefacts consists of 19 items made of bone or antler that depict elk heads (Figure 142). The finds are or, in some cases, have been handles for items serving a variety of functions. The intact finds consist of combs, pins and daggers/knives. In addition, several elk-head depictions are found on broken artefacts, the function of which is not always clear. The Latvian bone and antler figurines, for instance, are all fragments. These objects measure four to nine cm in length and seem mainly to be of Middle or Late Neolithic origin. Most likely, these figurines, too, originally served as

handles for everyday utensils, such as combs, ladles, or knives.³¹³

³¹³ It can be noted that ladles with elk-headed handles made of antler are found in Siberia, for example at the Lokomotiv and Shamanka-II sites in the Baikal region (Bazaliiskii 2010: 69) and the Ust'-Polui ritual complex in the Iamal-Nenets region (Nomokonova et al. 2020: 4).

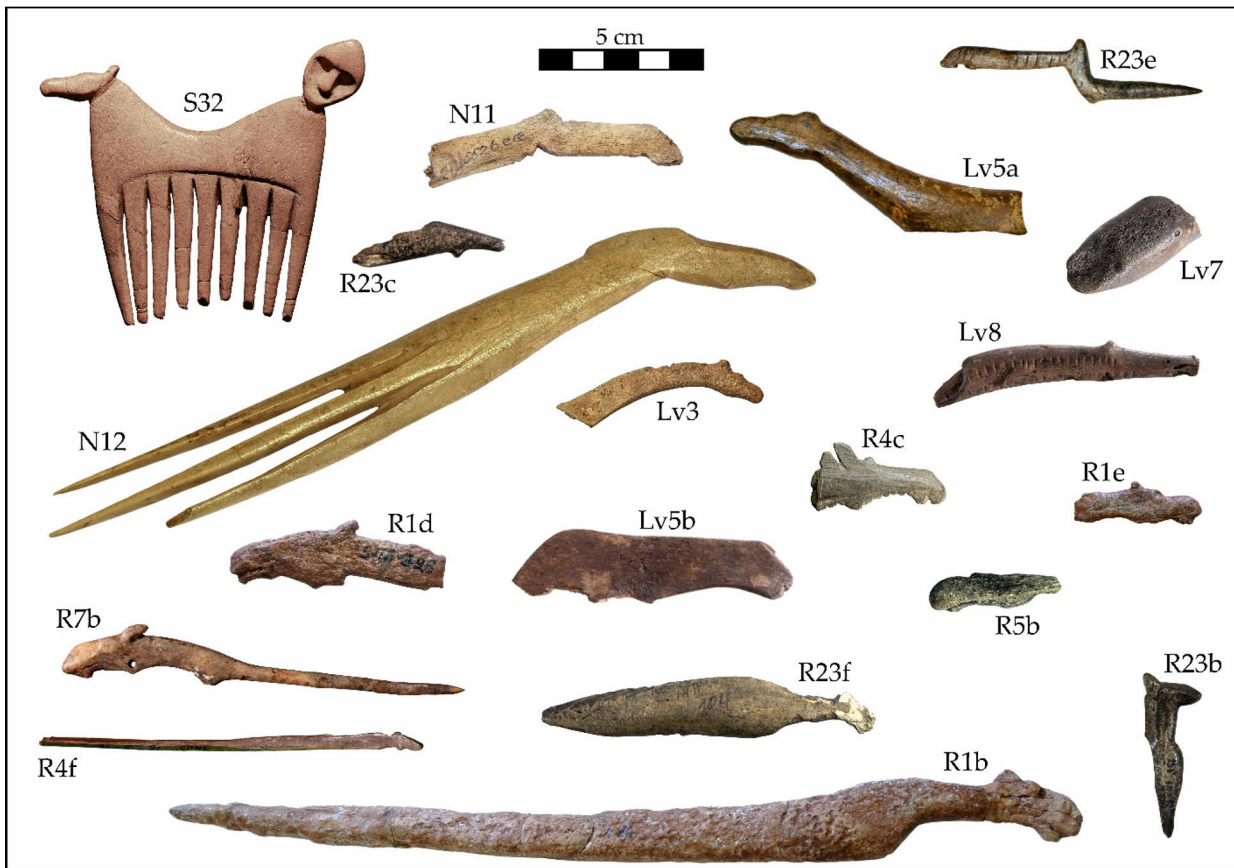


Figure 142. Elk-head finials of bone and antler objects from Northern Europe. For abbreviations and photo credits, see Appendix 1. Compilation: Ville Mantere.

Compared to the number of elk-headed slate daggers and knives, the number of elk-headed daggers and knives made of bone is surprisingly small. As far as I am aware, such items are known only from three archaeological sites, all located in northwestern Russia (R1, R4, R23). Yet, there is every reason to believe that bone daggers and knives decorated with the heads of elks (and other animals) were once produced across a much larger region. In terms of their age, the finds from YOO (R1) and Zamostje 2 (R4) indicate that daggers with elk-heads existed already in the Mesolithic period. Even if a direct chronological connection between these and the slate daggers and knives that appear in Scandinavia during the Neolithic period seems unlikely, they still belong to the same tradition (see Carpelan 1977: 17). The dagger from Mayak II (R23) is also clearly reminiscent in shape to the Scandinavian slate daggers, and it shows that bone items of this type were in use during the Late Neolithic, perhaps even in the Early Bronze Age.

As to the function of elk-headed daggers and knives, there is basically no reason to doubt that

these were actually used for practical purposes. The handle of the intact dagger from YOO (R1b), for instance, bears signs of frequent use (Gurina 1956: 106–107). Perhaps, the bone daggers and knives thus had a similar function to that which I suggested for those made of slate. Yet, the fact that the YOO dagger was placed in a burial suggests that it was more than an everyday tool. Thus, I also find it probable that the elk-headed bone daggers and knives were personal objects thought to bring prosperity to their owners during their lives – and in some cases in the afterlife also.

In contrast to the bone daggers and knives, bone pins and combs with an elk-head finial constitute a rather common category of elk-related artefacts. Altogether, eight such items have been discovered. Their geographical distribution is on the coast of the Barents Sea and in the Volga-Oka region, and a single find is also known from the island of Gotland (Figure 141). In addition to the pins discussed here, some of the small elk-head staffs addressed earlier have sometimes been compared to such pins (e.g.

Carpelan 1977: 28).³¹⁴ However, in line with Zhulnikov and Kashina (2010b: 72), I have decided to include these in the category of small elk-head staffs due to their evident similarity to large, “proper” elk-head staffs.

The two finds from the Volga-Oka region (R5, R7) originate from burials. The items are both attributed to the Volosovo Culture (c. 3700–2300 calBC). A more or less contemporary date is also highly probable for the elk-headed comb from the Gullrum settlement on Gotland (S32). The Skjåvika (N12) and Gressbakken (N11) combs are dated to the periods of 3370–2300 calBC and 2580–2030 calBC respectively. Finally, the pins from the Mayak II settlement (R23) are dated approximately to the period 2500–1500 calBC. It follows that the elk-headed combs and pins are all of Neolithic or Early Bronze Age origin (Appendix 1).

The bone combs and pins with elk-heads exhibit a large variety of styles. One item that stands out in particular is the comb from Gullrum, which depicts an elk-head as well as an anthropomorphic head. These kinds of double-headed, or “bicephalous”, artefacts have a noticeably widespread distribution both geographically and chronologically (see Mundkur 1984), but among elk-related artefacts in Northern Europe, such depictions are extremely rare. The only item that belongs to the group of bicephalous elk representations besides the Gullrum comb is the enigmatic stone sculpture from Tømmervåg in Norway (N2).³¹⁵

There are various interpretations that can be, and have been, proposed for the function of (elk-headed) bone combs. Hansson (1900: 11), for instance, understood the Gullrum item as an ornamental comb that was worn in the hair as a form of decoration, whereas Mundkur (1984: 455) took it as a meat or fish scraper. The Skjåvika comb, in turn, has obviously served

some concrete function since its teeth show clear signs of use to a length of five centimetres.³¹⁶ Gjessing (1938a: 181–182) suggested that this comb was perhaps used in association with textile handicrafts.³¹⁷ While the precise functions of the bone combs remain unknown, the fact that these have all been found in settlement layers leads me to suggest that they served a practical purpose in everyday use. As King (2014: 16–17 and cited references) recounts on a general level, early combs could indeed have served several purposes such as grooming, untangling, delousing, weaving, or culling.

As for the elk-headed bone pins, the situation is not so straightforward. The items unearthed in the Mayak II settlement give a similar impression to the bone combs. The two pins found from the Volosovo burials/hoards, however, seem to indicate that elk-headed pins could also have possessed a special significance outside everyday life. A possible explanation is that the pins were used (only) in association with special clothing, such as in funeral dresses or ritual outfits. At least, the scarceness of elk-headed bone pins speaks against the assumption that these were commonly used at all levels of society. The fact that the Volodary pin was found in a rich burial hoard points towards a similar conclusion (Tsvetkova 1973: 427; see also Kashina & Khramtsova 2016: 30–33).

In sum, elk-head handles are found on different kinds of items, dating from the Late Mesolithic period to the Early Bronze Age. Even though their number is not large, their wide geographical distribution and various find contexts suggest that such artefacts were rather common in prehistoric Northern Europe. Let us now address the final category of elk-related artefacts; sculptures and figurines depicting this animal.

³¹⁴ Likewise, I have classified one bone item from the Zvejnieki burial ground as a small elk-head staff, although this might also have been used as a dagger (Zagorska et al. 2018: 105).

³¹⁵ Interestingly, some double-headed combs have been found at the Gressbakken site, from which the elk-head comb N11 also originates. These combs have been interpreted as representing waterfowl, dogs or bears (see Simonsen 1961: 331–339, 373; Carpelan 1974: 69–70). Even if they do thus not depict elks, these finds might still indicate that there existed a special connection between bone combs and double-headed animal representations, which the Gullrum comb would thus also be indicative of.

³¹⁶ <http://www.unimus.no/arkeologi/resources/musitmoreinfo.php?museum=TMU&id=5561&museumsnr=Ts3880>, accessed on 26.2.2016.

³¹⁷ It can be mentioned that combs with stylized elk depictions have been found at the Iron Age hillfort of Bujskoje in the Vjatka River Basin, northern Sub-Urals (Ashihmina 2002: 12–13, fig. 1. a–b). Even if these are younger than the combs discussed here, it is still possible that the two categories may have been associated with similar beliefs. According to Ashihmina (2002: 12), hair combs have in the northern Sub-Urals region been associated with fertility, health and strength, and the comb is sometimes equated with a phallus in Russian folklore. She moreover notes that combs were present during both childbirth and burial rituals (Ashihmina 2002: 12–14).

7.9 Elk-shaped sculptures and figurines

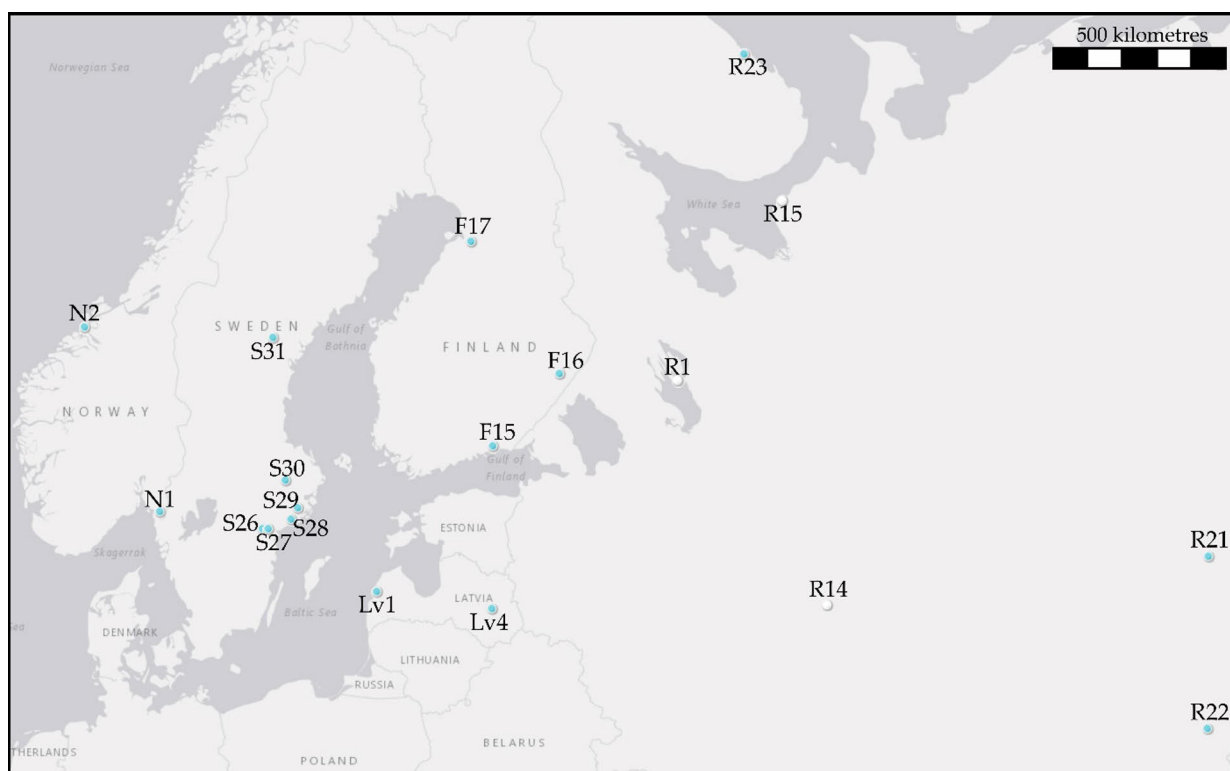


Figure 143. Distribution of elk-shaped sculptures and figurines. N1. Solbakken; N2. Tømmervåg; S26. Åby; S27. Fagervik; S28. Överåda; S29. Korsnäs; S30. Åloppe; S31. Ängsta; F15. Pykinkoski; F16. Rääkkylä; F17. Hangaskangas; Lv1. Särnate; Lv4. Malmuta; R1. YOO; R14. Rybino-Strelka 1 (2); R15. Zimniaya Zolotitsa; R21. Yevstu'nikha 1; R22. Fershampenuaz; R23. Mayak II. Map: Ville Mantere/NatGeo MapMaker.

In this category, I have grouped together elk- or elk-head shaped figurines and sculptures made of different raw materials, which represent the most widespread elk-related artefacts.³¹⁸ Examples of these have been found from the Norwegian coast in the west to the Trans-Urals in the east, and from the Barents Sea coast in the north to the Chelyabinsk region in the south (Figure 143). There are 20 known objects of this type in total, and these differ greatly from one another. I shall begin by discussing elk-shaped clay figurines, and will sequentially address the items made of amber, antler and stone, respectively.

In the archaeological record from Northern Europe, there are eight clay figurines that I view as elk-shaped. Five of these are found in Swe-

den, two in Finland and one in Norway. The Swedish finds form a small concentration in the Mälaren Valley region, but the items are otherwise randomly distributed along a relatively narrow belt that extends roughly from the current Swedish-Norwegian border in the west to the Finnish-Russian border in the east (Figure 145). The total lack of finds outside this belt is noteworthy. It is especially thought-provoking that no elk depictions are known from Russia and the Baltic region, although clay figures representing a variety of other animal species have been found in this area (see e.g. Loze 1995; Kashina 2007).

³¹⁸ I have not drawn a rigorous distinction between “sculptures” and “figurines” in this study, although I prefer to choose the latter term over the former when referring to artefacts that are less than five cm in length, such as most elk depictions made of clay. For the sake of simplicity, I here refer to the items as “elk-shaped”, even though several of the items depict only the (alleged) head of this animal.

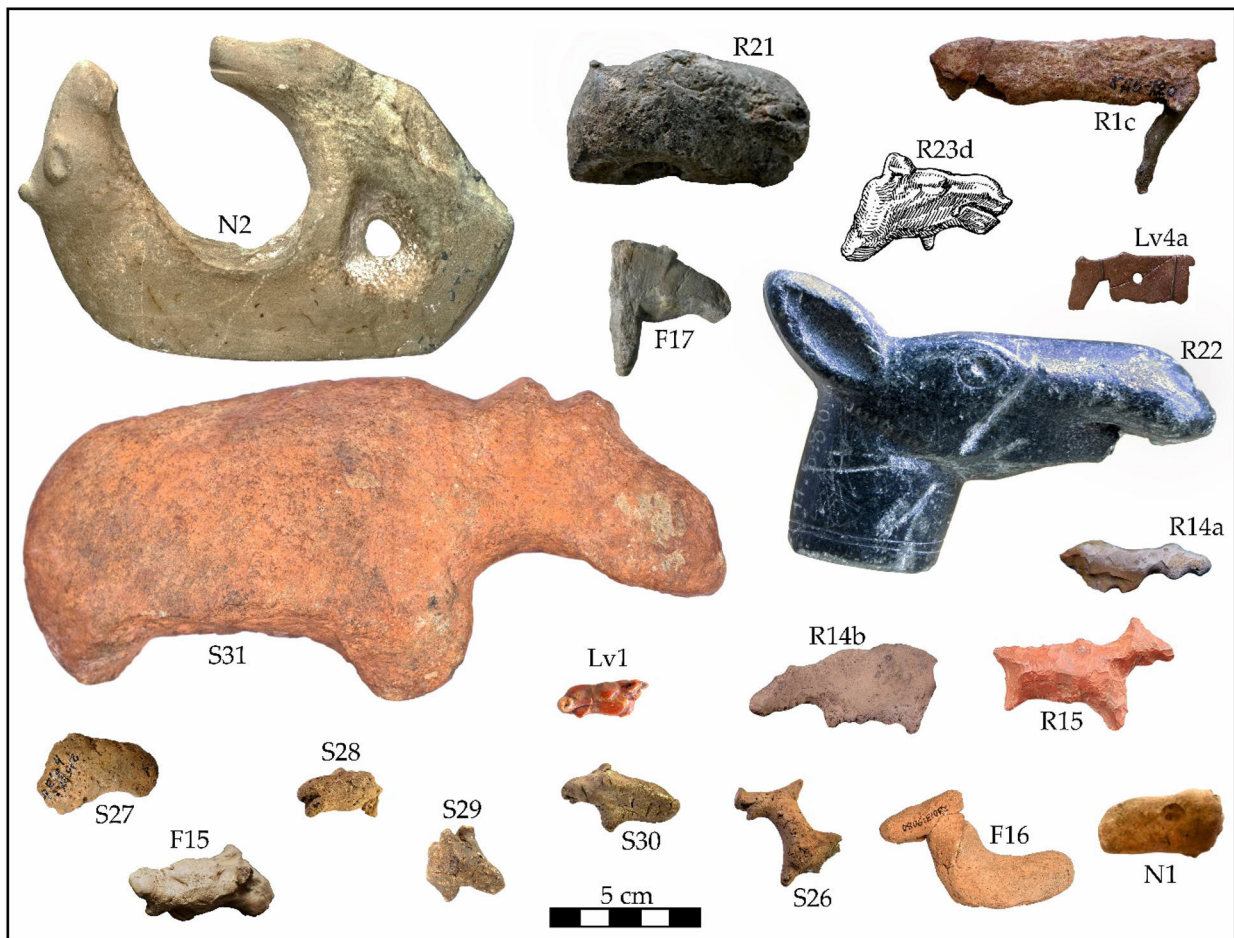


Figure 144. Elk-shaped figurines and sculptures from Northern Europe. For abbreviations and image credits, see Appendix 1. Compilation: Ville Mantere.

All the elk-shaped clay figurines have been excavated within settlement layers. This is not a trait unique to elk-shaped finds, but the link to settlements seems to be a characteristic feature for zoomorphic figurines in general (Kashina 2007: 125).³¹⁹ However, a common denominator for elk-shaped clay figurines is that they seem to be especially connected to coastal locations. This is thought-provoking, because the bone material from these sites is usually dominated by the remains of seals and not of terrestrial animals, which the clay figurines predominantly represent.³²⁰ Swedish scholars have traditionally interpreted this discrepancy by suggesting that the manner of producing zoomorphic clay figurines was a foreign practice that had its origins in the eastern Comb Ware culture (see Janzon

1983: 5–7). The origins of the Comb Ware figurines, in turn, are not fully clear. It is possible that they emerged independently as a by-product of pottery, but their most common interpretation is that either their origins lie in a long-lasting Upper Palaeolithic tradition, which survived in Northern Europe throughout the Mesolithic period in art made on perishable materials, or that these clay figurines were a result of southern influences (see discussion in Nunez 1986: 27–28).

The elk-shaped clay figurines seem all to be of Neolithic origin, and more precisely attributable to the centuries before and after 3000 calBC. The Swedish finds and the single figurine from Norway are attributed to the Pitted Ware culture (3500–2300 calBC). The two figurines from Finland appear to be slightly older and associated with the Typical Comb Ware culture (3950–3500 calBC). The assumption that the tradition of making (elk-shaped) clay figurines spread to Scandinavia from the east is thus also supported by chronological data.

³¹⁹ Kashina (2007: 129–131) has also paid attention to the fact that zoomorphic clay figurines are usually found in assemblages, and the individual finds should therefore perhaps be comprehended as parts of "sets" consisting of several figurines.

³²⁰ As Janzon (1983: 10) noted, however, clay figurines that depict seals are also known.

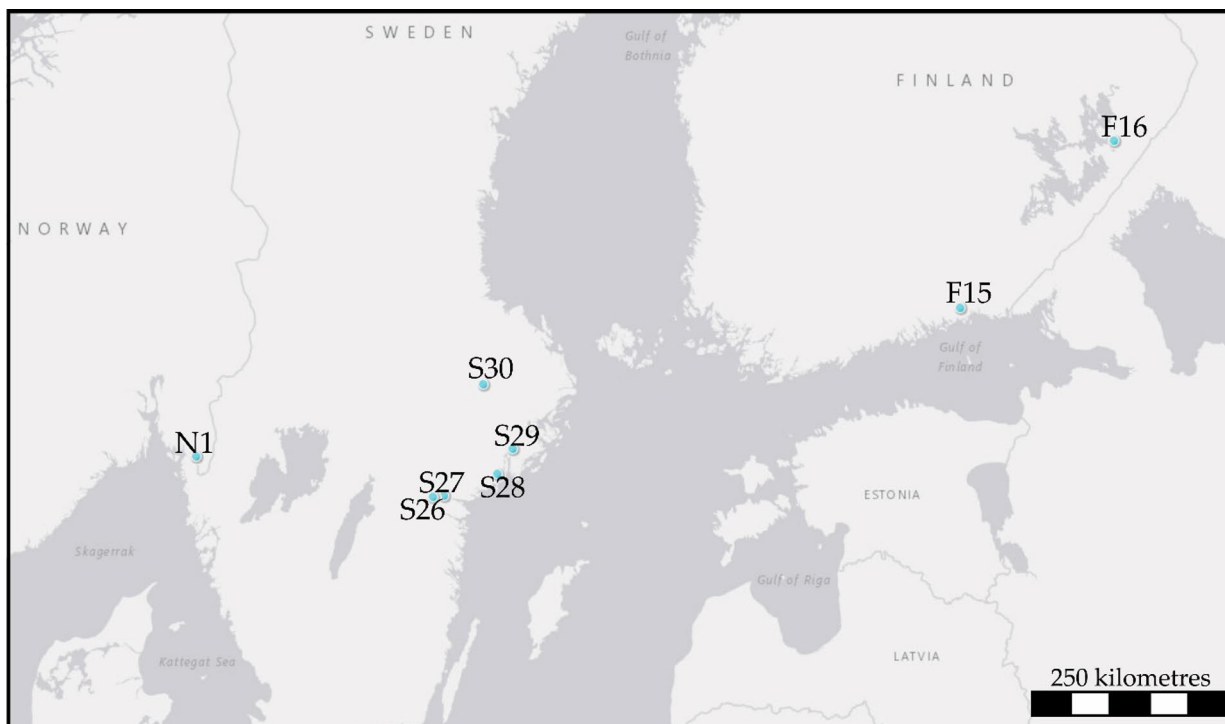


Figure 145. Distribution of elk-shaped clay figurines. N1. Solbakken; S26. Åby; S27. Fagervik; S28. Överåda; S29. Korsnäs; S30. Ålloppe; F15. Pykinkoski; F16. Rääkkylä. Map: Ville Mantere/NatGeo MapMaker.

The dimensions of the elk-shaped clay figurines are noticeably small, with the average length of a figurine being only around four centimetres. Janzon (1983: 8–9) argued that the small size is likely to be just as meaningful as the fact that the figurines are often very ambiguous in shape. Moreover, in passing, she applied to the zoomorphic figurines Kivikoski's (1964: 64) argument for the deliberate fragmentation of clay idols. She noted that these were perhaps broken with the aim of symbolically killing the animals they represented (Janzon 1983: 8–9; see also Nunez 1986: 26 and cited references). Here it can also be mentioned that the Siberian Evenks are known to have produced elk-shaped idols that were beaten if the hunt was not successful (see Antanaitis 1998: 60–61; cf. Pasarić 2023: 6). Yet, it is very difficult to ascertain whether the prehistoric figurines were similarly broken with intent, and what the precise reasons for their breaking would have been in that case (on fragmentation in archaeology, see Chapman 2000). The same goes, however, for other explanations that have been put forth concerning the function of zoomorphic clay figurines. As Pesonen recounts, in Finland alone, these have been variously understood as cult artefacts, representations of ancestors or gods, phallic symbols and

shamanic items (Pesonen 2000: 189 and cited references).

It is not possible to address here all the different theories that have been suggested for zoomorphic clay figurines, but on a general level it can be stated that these have quite often been interpreted as possessing totemic attributes, whereas anthropomorphic clay figures have been more commonly associated with shamans and ancestors (see e.g. Wyszomirska 1984: 119–120). Moreover, Wyszomirska (1984: 119–122) and Nunez (1986: 26), among others, have pointed out that the function of zoomorphic figurines may have been epitomized in different ways across different regions. For example, in some parts of Europe animal figurines are solely associated with domesticated animals and it is thus rather evident that their meaning differed from the depiction of animals in hunter-gatherer cultures.

In general, however, the elk-shaped clay figurines do not seem to have been utilitarian items in the same sense as, for example, known artefacts related to eating or travelling. Yet, the clay figurines may well have been understood as functional by the prehistoric elk-hunters themselves. Among the Cree, for instance, various kinds of charms were worn by hunters during the hunts with the intention of gaining luck

(Tanner 1979: 140). In fact, Jaanits (1959: 226–227) proposed that prehistoric zoomorphic figurines were carried with the aim of gaining luck and security during hunting (see also Günther 2022: 127 and cited references). We do not know whether the elk-shaped clay figurines were used as charms in this way, but if they were, they thus indeed served a concrete “function” for their carriers.

The fact that the elk-shaped clay figurines have not been found in burials suggests that these were not designed for the afterlife. In addition, based on their find contexts, raw material, and the fact that most are highly abstract and/or broken, it is reasonable to claim that the figurines were not regarded as particularly valuable. The figurines were hardly elite or prestige items but could instead be possessed or used at virtually any level of society. If the clay figurines were used in rituals, these were most likely commonplace in character (cf. Kashina 2007: 131).

As regards prehistoric clay figurines in Northern Europe in general, these represent a rather large variety of animal species, of which bird depictions seem to be the most common (Kashina 2007: 127). The items are often more or less abstract in shape and the clay figurines seldom have eye-catching artistic qualities. Wallenius (1986: 7) and Huurre (1998: 294; 2003: 221), for instance, have proposed for this reason that clay figurines were perhaps used as children’s toys, which could also explain why they are so often found broken (see also Iršėnas 2007; on children in prehistoric hunter-gatherer societies, see e.g. Finlay 2014: 1197). Since the eight elk-shaped clay figurines are also abstract and/or fragments, they, too, could have been used as toys.

However, one figurine that stands out due to its exceptionally life-like nature is the find from Åloppe (S30). This find is in fact the only clay figurine found among the material that I regard as a definite representation of elk. It is, however, only the forequarters of the Åloppe elk that have been sculpted, and it seems reasonable to interpret this as a deliberate choice. As Janzon (1983: 11) notes, comparable, half-finished animal representations are familiar among other categories of artefacts; for instance, the Mesolithic amber figurines from Western Europe. Anthro-

pomorphic clay idols have likewise been commonly depicted without extremities (see e.g. Miettinen 1965: 35–41; Leskinen & Pesonen 2008: 198).

Several explanations have been provided for the existence of partial zoo- and anthropomorphic representations. A feasible possibility is, in my view, that these do not refer to full-grown animals and humans but to embryonic stages of the two. Actually, when I showed the image of the Åloppe elk figurine to two experienced elk-hunters, they both were of the opinion that the figurine does not represent a full-grown animal but is instead a depiction of an elk calf³²¹ or a foetus³²². While such opinions are inevitably subjective, I nevertheless wish to give consideration to the idea that some elk representations within the archaeological material could be depicting undeveloped animals.

To begin with, there can be no doubt that prehistoric people were acquainted with the appearance of foetuses of both humans and animals, for example as a result of premature births and miscarriages. In fact, the notion that some of the anthropomorphic clay figures in Finland, Karelia and the Baltic region are embryonic in shape is well-known and such figures are even sometimes considered to form a specific category of clay figures in their own right (see e.g. Loze 1995: 23; Butrimas 2000: 22–23 and cited literature). Now, as regards elks in particular, hunters must have come across elk foetuses especially during the (late) winter, which in all likelihood was a major elk hunting season. On such occasions, the hunters most certainly knew that the life of the calf had been taken away along with that of the elk cow that bore it. Thus, it is reasonable to suggest that activities were carried out not only in order to assure the revival of full-grown elks, but of premature elk calves as well. It can be noted that there are also some ethnographic accounts that underline the distinct significance of the foetus in hunter-gatherer societies. The Mistassini Cree hunters, for instance, give the elk foetus a special treatment and use it as a token for announcing a kill (Tanner 1979: 147).

³²¹ J. Mantere, email correspondence 14.6.2015.

³²² Mauno Salonen (elk hunter), email correspondence 16.6.2015.

Consequently, I find it probable that at least some of the elk-shaped (clay) figurines depict calves. This gives an explanation to the noticeably small size of the objects, but also to their abstract, “incomplete” appearance. Presumably, the figurines were petite and partial because this was exactly what they were intended to represent; small and premature animals that were not fully formed. Thus, *the figurines were likely associated with activities directed towards the types of animals that they represented – that is, calves and foetuses*. This view also seems to provide an adequate explanation for the fact that the elk-shaped clay figurines are found in settlements but not in graves. This, I argue, is namely because the figurines were associated with *elks* – rather than with particular human individuals.

Of all the items in the varied group of elk-shaped sculptures and figurines, the single find that stands out most is the amber elk-head from Sārinate (Lv1), which does not have any clear parallels whatsoever. In appearance it resembles Upper Palaeolithic finds made of the same raw material, but since the elk-head has been dated to the Typical Comb Ware culture (3950–3500 calBC), it is not possible to compare it with these artefacts. Instead, the Sārinate find seems to be culturally related to other amber artefacts found in the Baltic region – even though no other certain depictions of elk are found among these artefacts (see Iršēnas 2001).³²³

The Sārinate find originates from a settlement layer, like most amber zoo- and anthropomorphic figurines from the Baltic region. It is uncertain whether the elk-head was initially part of a larger sculpture representing the entire animal. As Iršēnas (2001: 79–80) has noticed, however, a broken hole on its neck indicates that – like the majority of amber figurines – this piece, too, was most likely worn as a pendant, hanging on a band or a headdress. The fact that amber figurines are often perforated and sometimes found in burials indicates that the amber figurines were more personal in character than the clay figurines, which in turn give a stronger impression of ephemeral and collective use. Amber as a raw material also clearly had a spe-

cial significance in the forest zone of Northern Europe (see e.g. Zhulnikov 2008).

What the clay and amber figurines have in common is that both represent a variety of animal species. They show that even though the elk was of significance, its importance did not surpass that of other animals. As regards the antler plate from Malmuta (Lv4a), the situation seems to be largely similar. There are numerous counterparts to this artefact that can be identified, even if none of them represents an elk.³²⁴ Such items date approximately to the period 4200–2300 calBC and there is every reason to believe that the Malmuta plate, which was probably used as a pendant, dates to this period as well. The badly fragmented elk sculpture from the YOO burial ground (R1c), on the other hand, dates to the Late Mesolithic period. The only counterpart to this artefact is the Upper Palaeolithic elk sculpture from Oberkassel (G2), likewise made of antler and excavated in a burial.

Besides clay, antler and amber figurines, there are a total of nine stone figurines or sculptures that represent elks. These vary greatly in size and shape and are also geographically widespread. They are known from the opposite coasts of northern Fennoscandia, on one hand, and from the Upper Volga region on the other (Figure 143). Elk-shaped stone items have been discovered as stray finds and in settlement layers but not in burials. Thus, these artefacts probably had some practical purpose in the daily life, but are so varied that it is not possible to provide an all-inclusive explanation as to their purpose.

Elk-shaped flint figures (R14a–b, R15) are unquestionably part of the larger category of flint sculptures, which consists of depictions of various animal species and anthropomorphic representations, as well as miscellaneous other figures (Zamyatnin 1948: 87). These are clearly a Russian phenomenon, linked to the forest zone of northwestern and central Russia and especially to the Volosovo culture of the Upper Volga region (see e.g. Zamyatnin 1948: 88–89, 96, fig. 1;

³²³ Alternatively, the Sārinate find could be associated with the Sārinate Ware (c. 4350–2850 calBC) prevalent at the settlement (see Bērziņš 2008), but in either case, there are no close parallels to this sculpture.

³²⁴ Perforated zoomorphic pendants made of bone and depicting silhouettes of animals have been found, for instance, at the sites of Tamula (Estonia), Kretuonas (Lithuania), Zvidze (Latvia), Volosovo and Sakhtysh (Russia) (see e.g. Iršēnas 2007: 12–13). These figurines predominantly represent birds, although some mammals, such as wild boars, are also depicted.

Emelyanov 2001: 33–35; Vorobyev 2008: 143, fig. 1). In Zamyatnin's (1948: 113) view, the flint sculptures emerged at a time when the general importance of flint as a raw material for tools had declined in the area, as new materials and technologies were increasingly used for tool production instead. Thus, he argued, it was solely in sculpture that the flint continued to have importance (Zamyatnin 1948: 113). In Carpelan's (1977: 31) view, the flint sculptures should be understood as "translations" of amber figurines and of art made using bone (see also discussion in Zamyatnin 1948: 101). Vorobyev (2008: 146–148), in turn, associates the flint sculptures with an alleged population increase and climate change. Together, these factors would have resulted in a greater demand for food and eventually in new ritual manifestations, seen in the mass production of zoomorphic representations.

As for the function of flint sculptures, various interpretations have been put forth. As Zamyatnin (1948: 100–101) recounts in his in-depth study, some early scholars saw these objects simply as primitive attempts to reproduce observations of nature into art, whereas others took them as tools or instruments with an unknown purpose. Most scholars, however, associated the flint figures with ritual actions and as Zamyatnin (1948: 112–122) noted, this largely echoes interpretations of flint sculptures more universally. Zamyatnin (1948: 102–111) was himself of the opinion that the flint figures from north-western Russia were related to the Onega petroglyphs (see also Zhulnikov 2014). However, he stressed that the sculptures were also related to other manifestations of prehistoric art in the northern forest zone. In his view, the various art forms had different functions, but in general he saw them as being connected to longstanding calendrical ritual activities (Zamyatnin 1948: 112–113). It is not difficult to concur with him on this point, for seasonality was undoubtedly of utmost importance to prehistoric hunters in the taiga region. The flint sculptures depicting elks could be worn as amulets (pendants) or the like (cf. Zamyatnin 1948: 122), but since clearly evident elk depictions are rare amongst these items, the elk seemingly did not enjoy a special position within the activities with which the flint sculptures were associated.

In contrast to the flint sculptures, the other elk-shaped stone artefacts from Northern Europe are more difficult to categorize and interpret, since these are all more or less unique, solitary finds. The elk-head from Fershampenuaz (R22) evidently served as a finial for an item of some sort. Even if it exhibits a style similar to that of some of the elk-heads depicted on North European stone axes, dealt with above, it is evident that it does not belong to this group of finds. Apparently, it should instead be regarded as belonging to the category of zoomorphic stone artefacts from the forest-steppe region of North Asia (Chenchenkova 2004). The only other depiction of an elk belonging to this group is, as far as I am aware, the elk-head figurine from Yesvtu'nikha 1 (R21). This equally seems to have acted as a finial of some sort. As for the miniature figurines from Hangaskangas (F17) and Mayak II (R23), I find it probable that these were originally decorations attached to larger items made of some other material(s). The Ängsta (S31) and Tømmervåg (N2) finds lack evident counterparts, but it is not far-fetched to interpret them as net weights due to their relatively large size and overall shape, which in both cases is well suited to being fastened to a cord.³²⁵

I will not try to speculate in more detail here on the use or significance of these random finds, but I will content myself with applying to these the same interpretations that I have set forth above concerning other elk-related artefacts. In terms of their age, the group of elk-shaped stone finds can only be dated superficially. The three flint sculptures most likely date to the 3rd millennium calBC and the figurine from Hangaskangas can be approximately dated to 2000–1500 calBC, whereas the soapstone figurine from Mayak II can be placed roughly in the period 2500–1500 calBC. The items from Ängsta, Tømmervåg, Yevstu'nikha 1 and Fershampenuaz are all stray finds, but it seems unlikely that any of them would predate the Neolithic period.

Overall, the elk-shaped sculptures and figurines date to the period 6500–1500 calBC. As finds of these are also geographically widespread, they were presumably commonly used

³²⁵ If these kinds of items were used as net weights, a logical explanation for their scarceness is that most of such finds eventually ended up at the bottom of lakes and rivers, and in seabeds.

by prehistoric hunter-gatherer groups in Northern Europe. Yet, the plain number of finds is surprisingly small when compared to the number of elk-related artefacts in some of the other categories. A probable explanation for this discrepancy is that the small sculptures and figurines were used (perhaps only once) in activities

that predominantly took place outside settlements, such as at kill sites. This would imply that the evidence addressed here represents only a fraction of the artefacts produced, a form of objects that was once highly prevalent across these northern regions.

7.10 Summary and discussion

Table 9. Summary of elk-related artefacts in Northern Europe.

Artefact category	Number of items	Date (c.)	Geographical distribution	Raw material	Find context
1) Upper Palaeolithic sculptures	5	12 000–11 000 calBC	North European Plain	Amber, antler	Stray finds, settlements, burials
2) Elk-head antler staffs	33	6500–1300 calBC	Russia, Baltic region	Antler	Stray finds, settlements, burials
3) Stone clubs and axes	12	3000–2000 calBC	Finland, Sweden, Karelia	Stone	Stray finds, settlements
4) Slate knives and daggers	37	4200–1500 calBC	Northern Fennoscandia	Slate	Stray finds, settlements, “mounds”
5) Slate items with elk engravings	9	12 000–1500 calBC	Germany, Sweden, Russia	Slate	Stray finds, settlements
6) Sledge runners and boat prows	4	7000–1500 calBC	Finland, Russia	Wood	Settlements, stray finds
7) Ladles and vessels	6	3000–1500 calBC	Finland, Russia	Wood	Stray finds, settlements
8) Bone/antler finials	19	6500–1500 calBC	Russia, Baltic region, Scandinavia	Antler, bone	Settlements, burials
9) Sculptures and figurines	20	6500–1500 calBC	Scandinavia, Finland, Russia, Baltic region	Stone, amber, antler, clay	Settlements, stray finds, burials
Total	145				

Above, I present a total of 145 different kinds of elk-related artefacts from prehistoric Northern Europe. These span a period of more than ten millennia and a geographical range of millions of square kilometres (Table 9). I cannot claim that this material is all inclusive; even if my intention has been to gather together all elk-related artefacts from the region of study, it is possible that some items have escaped my notice. It is, furthermore, obvious that new finds will be encountered in the future that may or may not fit into the categories presented here. Nonetheless, I believe that for the time being, the

finds discussed above provide a thorough overview of the elk-related artefacts surviving from Northern Europe.

It goes without saying that much more could be said about these artefacts than that which it is possible to discuss here. Below, I will therefore limit myself to some general notions regarding these objects, including chronology, range, raw materials and find contexts. I will end the chapter by briefly deliberating on the character and function of the different types of elk-related artefacts.

7.10.1 Geographical distribution and find contexts

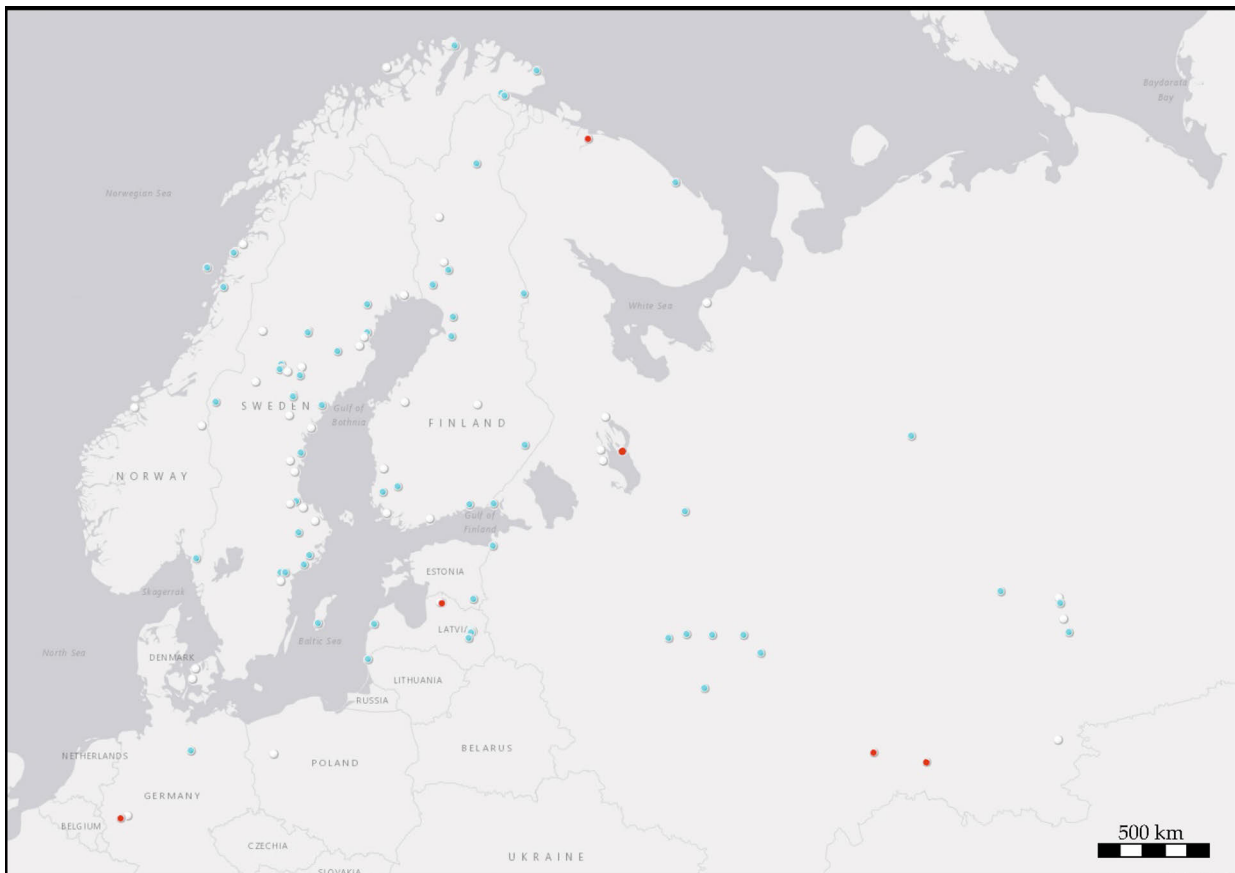


Figure 146. Distribution of elk-related artefacts in Northern Europe 12 000–1200 calBC. Blue circles = settlements; red circles = burials; white circles = other contexts (stray finds, unknown contexts etc.). Map: Ville Mantere/NatGeo MapMaker.

Looking at the overall distribution of elk-related artefacts in Northern Europe, it can be seen that the finds are rather evenly distributed across this extensive region of study (Figure 146). There are few areas where artefacts are completely lacking. Even in such cases, the scarcity of finds is likely to be at least partly explained by artificial factors such as unfavourable conditions for preservation and/or archaeological inactivity. For example,

eastern Norway almost totally lacks elk-related artefacts, although we know from the numerous rock art sites dominated by depictions of this animal that elks must have been of the utmost importance within this area (Chapter 5). I firmly believe that elk-related artefacts also existed in this region, even though these items have not survived into modern times. The same pertains to many other areas as well.

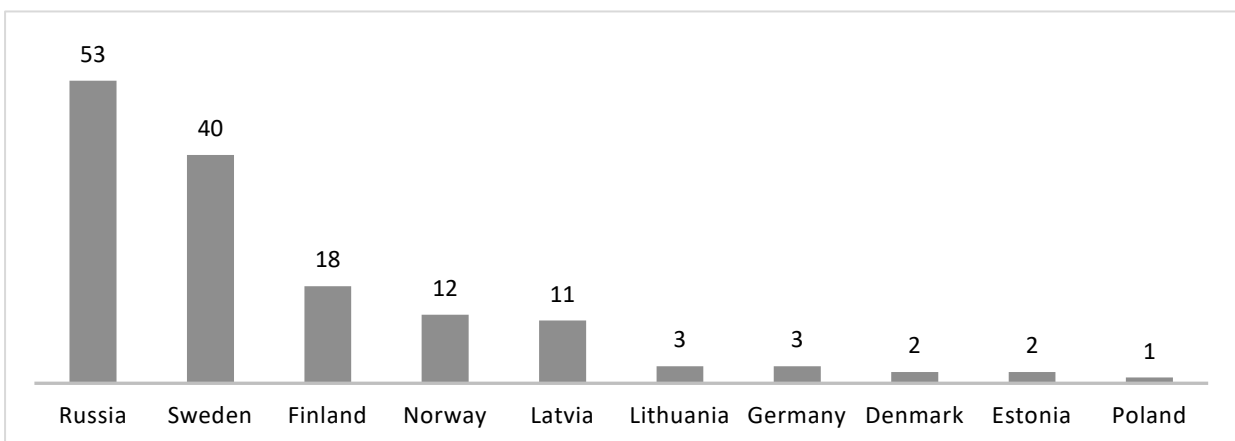


Figure 147. Number of elk-related artefacts in the region of study by country. Chart: Ville Mantere.

On a country-specific level (Figure 147), it is far from surprising that the majority of finds stem from Russia, since geographically the country is by far the largest within the area of study. Equally, the fact that only a handful of items are known from the Baltic states accords fully with the size of these countries.³²⁶ However, what is striking in this respect is the number of artefacts encountered in Sweden, which is noticeably larger than the number of Finnish and Norwegian finds combined. This can be explained largely by the numerous slate artefacts encountered in the Norrland region. Yet, none of the Swedish finds seems to predate the Neolithic period, and there are indeed noticeable regional differences in how the elk-related artefacts correlate with certain time periods. The link is most distinct in the North European Plain, where the elk-related finds are all attributed to the Upper Palaeolithic period.

As regards find contexts, more than half of the finds have been unearthed in, or in immediate vicinity to, settlement layers (Figure 148). This lends support to one of the key arguments in this study, namely that elk-related activities (artefacts including) did not represent something abstract or separate from everyday life but were linked first and foremost to the livelihood and daily life of prehistoric hunter-gatherers.

One quarter of the elk-related items are stray finds. While some of these locations may represent unidentified settlements, it is nevertheless clear that a significant portion does not (cf. Carpelan 1974: 34). As noted, scholars have often been eager to interpret stray finds as sacral offerings without properly problematizing such assumptions. Yet, just as there seems to be little evidence to support the common assumption that “ritual” artefacts can be separated from “mundane” objects within archaeological contexts (cf. Immonen 2002: 35), the same also appears to hold true with regard to the contexts of stray finds (see e.g. Whitley 2014: 1223).

Undoubtedly, ethnographical data can be used to support the assumption that offerings were made at “sacred” locations in the land-

scape. The Khanty, for example, commonly placed elk images made of wood, stone and metal at sacred sites and shrines as gifts for spirits; for instance with the intention of guaranteeing success and safety in hunting (see Filtchenko 2011: 189; Jordan 2011: 18–28). It is fully possible that prehistoric hunter-gatherers also visited similar, “sacred” sites. That said, there are also other ways to explain prehistoric stray finds.

Among the theoretical premises I put forth in Chapter 2 were the suppositions that activities were undertaken in order to communicate with elks, and for assuring their rebirth. Assuming that some of the elk-related artefacts discussed in this chapter were used in such activities, it is not at all surprising that these *actions were carried out within the elk’s natural environment, that is, outside the human settlement*. Yet, it would be inaccurate to label stray find locations in the landscape as shrines or “sacred” places solely because they are located outside prehistoric habitation sites.

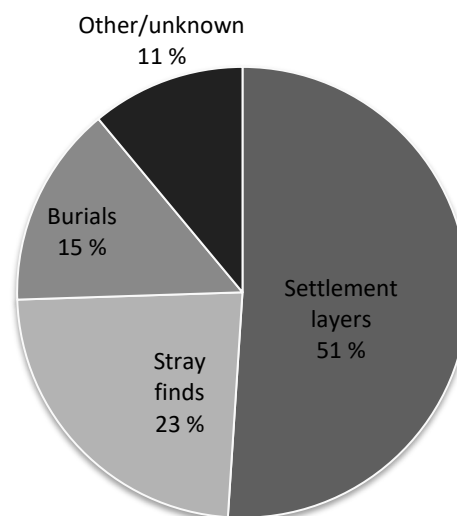


Figure 148. Find contexts of elk-related artefacts in Northern Europe. Chart: Ville Mantere.

I will not speculate upon whether specific elk-related stray find sites were linked to pre- or post-kill actions, but I find it probable that they represent a variety of activities (cf. Günther 2022: 127). For this reason, it is actually somewhat misleading to group together stray finds under the same heading, as if these constituted identical manifestations of

³²⁶ In fact, the largest proportion of elk-related artefacts in relation to areal is found in Latvia, where 11 finds are known.

past actions. This obviously was not the case, but apart from acknowledging the variety of (conceivable) actions related to stray finds, it is most difficult to say anything about the details of these activities without giving rise to pure speculation. What can be stated on a general level, however, is that *elk-related stray finds were, like elk-related artefacts unearthed in settlements, closely associated with the livelihood of prehistoric elk-hunters.*

By contrast, elk-related artefacts encountered in burials must – at least partially – be understood in a different light. Such finds, however, are remarkably rare in the archaeological record (Figure 148). Grave goods make up only 14% of elk-related items, and more than half of these originate from just two sites: the YOO and BOO cemeteries, respectively. It is likewise thought-provoking that only a few artefact types have been found in burials. The grave goods consist of elk-head staffs and pins, bone daggers and sculptures. By contrast, stone clubs or axes, slate daggers or knives, and wooden items are not found in burials. It is thus probably fair to say that elk-related artefacts ended up in burials only in more or less exceptional circumstances. This impression is further strengthened by the fact that the few buried artefacts of this type which have been found in graves clearly stand out from the others and seem to have belonged to notable individuals within their societies.

Above, I paid attention to the phenomenon of so-called “animal friendship” documented amongst the Cree; the belief that some mature and unusually skilful hunters can develop a personal relationship to a certain animal species. Tanner (1979: 140) points out that the death of such a person is seen by other members of the society as potentially hazardous, for there is a risk that the animal species may then disappear from the area. “For this reason”, Tanner (1979: 140) writes, “offerings are made at the funeral feast as an attempt to persuade the deceased not to take his animal friends with him. In order to

discover if any animals will leave the area divination rites are used to reveal this information, and these are often used after the death of a successful hunter or a powerful shaman”. Scott (2013: 163) moreover writes that “[a]n animal who has been particularly generous to a hunter and with whom the hunter has a special relationship commonly makes an appearance at or near the time of death of the hunter; in symbolic terms, the hunter at death is assimilated to the animal, as the hunter has assimilated the animal throughout his or her life”.

In the light of the above accounts, I am inclined towards understanding *buried elk-related artefacts as possessions of individuals, who by means of their special relationship to the elk had significantly assisted their community and therefore gained a distinctive status within it.* I claim that the importance of these individuals was manifested, first and foremost, in their role as supreme elk-hunters. Most probably, these individuals were exceptionally capable in carrying out individual elk hunting techniques by themselves. In addition, it was the supreme elk-hunters who organized and had control over collective elk hunting, and perhaps even hunting management strategies. That, of course, is not to say that the same individuals could not have been ascribed some sort of ritual authority as well – in fact, this seems probable. However, I do not regard them as shamans as a result of this, but rather as powerful hunters, for it was namely their *skill in (elk) hunting* that had made them respected individuals in the community (on the topic of prestige and hunting, see Russell 2012: 155–156). It is likewise important to stress that the close and profound relationship that, I argue, existed between elks and certain individuals, does not reflect totemism, even if this may outwardly appear to be the case. The reason for this is because – instead of being shared by the community in general – the human-elk relationship was highly personal in character and absolutely dependant on the life of the individual hunter.

7.10.2 Chronology and style

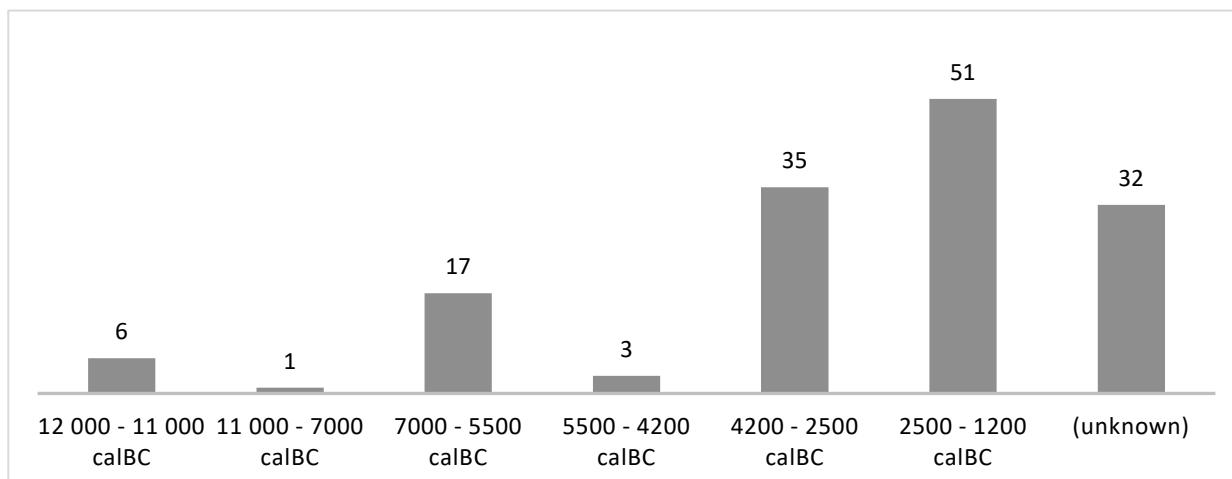


Figure 149. Chronological distribution of elk-related artefacts in Northern Europe. Chart: Ville Mantere.

In terms of chronology, elk-related artefacts are found throughout a vast timespan of more than ten millennia. Despite several uncertainties and shortcomings related to the dating of the finds, it has been possible to propose tentative dates for the majority of elk-related artefacts. To best illustrate the chronological range of the items, I have grouped the finds into six shorter periods (Figure 149). I will examine the human-elk relationship from a chronological perspective more thoroughly in the next chapter, so I will here limit myself to some brief generalizations concerning the chronology of elk-related artefacts.

The first artefacts depicting the elk appear in the North European Plain almost immediately after the elk had taken over the role of the deer as the predominant game animal during the Allerød. What is striking about this, however, is that elk-related artefacts are almost totally absent from the archaeological record during the second period (11 000–7000 calBC).³²⁷ We can only speculate upon the underlying reasons for this remarkable absence of evidence, but I believe that this four-millennia-long pause is artificial, and elks were depicted on portable items during this period also. The current picture can perhaps be partly explained by the high mobility of Mesolithic hunter-gatherers and the simple absence of excavated settlement sites from this period.³²⁸ On the other hand, art objects from the

Early Mesolithic period in Scandinavia and northern Germany also clearly appear scarcer generally, when contrasted to the number of Upper Palaeolithic finds (see Larsson 2000: 34–35). Finds of zoomorphic depictions, in particular, from this period are rare (Płonka 2003). There may thus also be some ideological reasons for the lack of elk-related artefacts during this era.

The period 7000–5500 calBC is, in turn, represented by different kinds of finds. In the light of the data currently available, it seems that elk-headed staffs, boat prows and sledge runners, as well as elk-headed finials on bone/antler items (daggers) all emerge in the course of this epoch. Here, too, however, it should be noted that the material from this period is not particularly representative as it represents only a handful of sites, of which the finds from YOO and Zamostje 2 make up three quarters.

Another peculiarity in the chronological distribution of elk-related finds concerns the noticeably low number of finds from the period 5500–4200 calBC. A partial reason for the lack of elk-related finds is probably that the Comb Ware settlement layers that are found in the East European Plain and the Middle Trans-Urals – usually located at sandy soils and occasionally at peat bogs – have regularly been mingled with both earlier Mesolithic and later (especially Volosovo and Eneolithic/Early Bronze Age) settlement layers. Moreover, as semisubterranean dwellings were not in use in the East European Plain, the preservation of organic materials from the period 5500–4200 calBC is

³²⁷ The only artefact that rather confidently can be placed in this interval is the engraved slate pebble from Gornaya Talitsa, which shows the image of an elk's head (R17).

³²⁸ E. Kashina, email correspondence 19.3.2021.

negligible. In addition, stone was apparently not yet in use during this period as a raw material for zoomorphic representations.³²⁹

An upsurge of elk-related artefacts is, on the other hand, easily discernible during the period 4200–2500 calBC. The new artefact types introduced during this period are clay figurines, flint sculptures and, especially, elk-headed slate daggers and knives, which constitute the majority of the finds dated to this period. The use of earlier types of artefacts also seems to continue, although it must be noted that the total number of artefacts is still relatively small.

Perhaps predictably, the latest period for the production of elk-related artefacts (2500–1200 calBC) also yields the largest numbers. The latest artefacts are also widely dispersed across the region of study. The new artefact categories seemingly introduced during, or slightly before, this period are the elk-shaped vessels and elk-headed ladles, as well as the elk-headed stone clubs and axes. The production of several earlier artefact types, including elk-head staffs, slate artefacts and various sculptures and figurines made of different materials, correspondingly ceased during this period.

Even if Carpelan's (1974: 75–80; 1977: 41–46) studies were preoccupied with linking the artefacts then known to stylistic subgroups, it is only in a few cases that I find that his observations function as accurate chronological markers.³³⁰ Apart from a few exceptions, there are *no general signs of stylistic "development" whatsoever that can be discerned in the elk-related artefacts over the course of the more than ten millennia that these existed in Northern Europe*. This is fully in line with what can be observed concerning the depictions of elk in northern rock art.

As for the elk-related artefacts, I hence concur with Iršėnas (2000: 99), who notes that "there were no essential changes in manner of depiction from the earliest Mesolithic figurines of

Oleniy Ostrov and Vis 1 to the late neolithic-bronze skis [*sic*] from Noormarkku". Indeed, the naturalism of these artefacts is basically the same, despite the chronological distance of at least four thousand years that separates them. It is important to note, however, that the naturalistic manner of depicting elks goes even further back in time. The Weitsche elk-head (G1) shows us that elks were portrayed with life-like accuracy as early as the 12th millennium calBC. Yet, roughly at the same time, this animal was represented on some other artefacts in a barely recognizable manner. Also, just as the manner of producing naturalistic depictions persisted over time, so too did the tradition of making stylized elk representations continue throughout the extensive period in which this animal formed a key motif in prehistoric sculptural art.

Abstract and ambiguous artefacts constitute a rather large proportion of all elk-shaped items, and there are several explanations that can be proposed for these figures. As Martin (1978: 124) writes, for instance, among Algonkian peoples, imitative magic was "aimed at rudimentary duplication". One of its forms was pictorial representation, in which the desired animals were drawn and sculpted in order to gain access to them. Equally, Willerslev (2007: 11–12, 96, 108, 189–191) notes that it is something of a necessity for the mimesis to differ from the original in order for it to be effective. If this difference did not exist, he argues, "the imitator and imitated would collapse into each other, would become one, making any exercise of power impossible" (Willerslev 2007: 11). Therefore, among the Yukaghir hunters the mimetic performances are deliberately imperfect and conducted in order to perceive and manipulate the world from an animal perspective, while simultaneously maintaining a human point of view.

Consequently, the fact that elk representations are seldom completely lifelike may at least in some cases be fully intentional. It is a feasible possibility that some of the elk-related artefacts, such as the elk-head staffs, were purposefully made to look like elks, but not *too* reminiscent of real animals, because this would have affected their properties negatively. Moreover, as Herva and Ikäheimo (2002: 97–98) point out, scholars often take it for granted that art objects are representative and that their function is to express or mediate meaning,

³²⁹ E. Kashina, email correspondence 4.2.2022.

³³⁰ The V-shaped recess under the elk's muzzle on the specimens from Shigir and Sökkijärvi (as well as the item from Medvezhya Gora, which for some reason is missing from Carpelan's catalogue) is likely to constitute one such example (cf. Carpelan 1974: 74). I find it probable that this particular feature is characteristic of the latter half of the 3rd millennium calBC. As Carpelan (1974: 74) noted, however, even the V-shaped recess seems to have a natural origin, as the intention was apparently to emphasize the area inside the elk's mandible.

although this need not to be the case. Undeniably, when dealing with prehistoric artefacts, one can easily fail to look beyond traditional “iconocentric” outlooks that do not necessarily reflect the way in which art was conceived in the past. As the authors state with reference to the abstract elk figurine from Hangaskangas (F17), it is possible that the creative process was of superior importance to the finished product, that is, the resulting figurine (Herva & Ikäheimo 2002: 103). The authors also point out that “[a]lthough the elk undoubtedly had a position in Fennoscandian prehistoric cosmologies, it makes little sense to claim that all elk representations aimed at reproducing some normative conceptions related to this animal” (Herva & Ikäheimo 2002: 100). I agree with this statement, even if, at the same time, I must assert that certain conceptions relating to the elk, such as the specific connotations ascribed to the elk cow, *were* shared by prehistoric hunter-gatherers in Northern Europe in general. Moreover, elk-related artefacts are in several respects so diverse that it would not be worth even trying to interpret, let us say, clay figurines and antler staffs in the same light (see below).

As Iršėnas (2010: 186) conclude, many of the prehistoric zoo- and anthropomorphic finds are so widespread that it is not possible to attribute them to specific archaeological cultures.³³¹ This is, for instance, the case with elk-head staffs, the chronological and geographical distribution of which clearly indicates that the items were characteristic of northern hunter-gatherer populations in general. I thus concur with Iršėnas (2010: 186) that “the concept of archaeological culture is of little value when discussing zoomorphic and anthropomorphic figurative images from the Stone Age...The commonalities of form and style witnessed in the finds can be explained by way of the same economic structure and primitive technique, which thus created an impression of style”. Overall, the elk-related artefacts show us that the elk had a special importance within a multitude of archaeological cultures. These include, but are certainly not limited to, those known as the Federmesser, Maglemosian, Veretye, Upper Volga, Volosovo, Narva, and Comb Ware cultures.

³³¹ Certain artefact groups, however, appear to be quite clearly associated with a specific archaeological culture, such as slate daggers with the Norrlandic Slate culture.

7.10.3 Raw materials

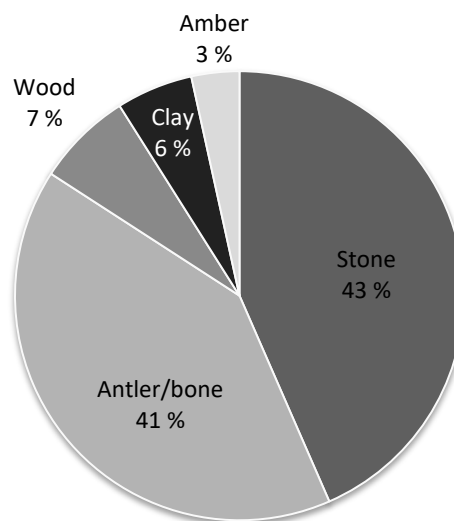


Figure 150. Raw materials of elk-related artefacts in Northern Europe. Chart: Ville Mantere.

In Figure 150, I have grouped the 145 elk-related finds according to their raw materials. As can be seen, the most commonly utilized resource is stone. This is hardly surprising given that stone artefacts have mainly preserved until modern times in their original shape, whereas finds of organic materials have been preserved only under exceptional conditions. Thus, one can rather confidently state that stone items did *not* in fact constitute the largest group of elk-related artefacts in prehistoric times. It is, however, difficult to say which raw material was actually the most common, as there are noticeable dissimilarities in the preservation of various materials across different regions.

For example, the only wooden artefacts among the current material evidence originate from Finland and Russia, although in all likelihood such objects were common across the entire northern forest zone. Correspondingly, no elk-related bone or antler artefacts whatsoever are known from Finland or mainland Sweden, although there is no reason to doubt the use of such items in these regions. The elk-related finds in the Baltic region are, by contrast, almost exclusively made of bone or antler.

As Carpelan (1974: 81–82; 1977: 40–41) has noted, however, it seems that whereas wood and antler were used for making zoomorphic depic-

tions across more or less the entire region that extends from Scandinavia to the Urals, stone was used as a raw material mainly in Fenno-scandia. Despite some contested exceptions, it also seems that elks first started to be sculpted in stone during the Neolithic period. The slate daggers/knives, flint sculptures and elk-headed stone clubs and axes, at least, are all associated with this era. By contrast, wood, bone, and antler were used as raw materials for elk-related artefacts more or less throughout the entire period of study.

The overall scarcity of amber artefacts in the material record is understandable, given the restricted availability of this resource in contrast to other raw materials. However, the same cannot be said of the number of elk-shaped clay figurines. Huurre (1998: 294) makes the important point that clay figurines with a zoomorphic shape are remarkably rare compared to the easy availability of clay as a working material. It is indeed easy to concur with this notion when one looks at the limited distribution of elk-shaped clay figurines (Figure 145). The reasons for which the distribution of elk-related objects made of specific raw materials was noticeably localized can only be speculated upon. The group of elk-headed slate daggers and knives constitutes the most evident manifestation of a local connection between a certain raw material and a particular artefact type. The engraved slate stones, likewise concentrated in the Norrland region, represent another example.

Ingold (2000: 126), who links the production of realistic animal figurines to circumpolar animism, argues that the process of carving figures can be equated with hunting, because in neither case can the outcome be achieved by force but only with the consent of the animal or, in the case of carving, the “intrinsic qualities of the material”. Thus, the carver does not actually create an animal out of nothing, but instead brings forth the animal shape that has been hidden within the raw material from the outset. While I find the allegory with hunting to be a bit exaggerated, Ingold’s notion is still of potential relevance when interpreting elk depictions in portable prehistoric art. For instance, the form of natural amber pieces often dictated the shape of zoomorphic amber sculptures.³³² The Lehtojärvi

boat prow, in turn, has been sculpted so that the elk’s neck follows the natural fibres of the wood (Erä-Esko 1958: 11), and the antler stubs were probably made of root branches that formed allegoric parallels for the branching antlers of an elk (see section 6.2.9.1).



Figure 151. Illustration signifying the part of the natural elk antler that was used for making elk-head staffs. Photos: Orenburg Museum (elk-head staff from Tok River); Jari Mantere (elk antler). Reconstruction: Ville Mantere.

The most interesting manifestation of the connection between raw material and sculpted product, however, can be seen in the large elk-head antler staffs. These were not only made out of elk antler but were carved in accordance with the natural shape of the antler (Figure 151). This most probably had ideological significance, given that the staffs depict the same animal that they are made of. Similarly, a probable reason for associating sledges and boats with elks was because materials deriving from elks were used in their construction. That said, it is impossible, simply on the basis of these concepts, to interpret these and other sculpted elk representations

³³² P.V. Petersen, personal communication 2.11.2021.

as evidence of animism or of any other specific worldview. What they do indicate, however, is that the natural qualities of raw materials were carefully considered by the sculptors of elk-shaped artefacts. In addition, there were profound connotations in the special relationship between the elk as a raw material and the subsequent role it acquired as a manufactured product.

7.10.4 Artefact types and functions

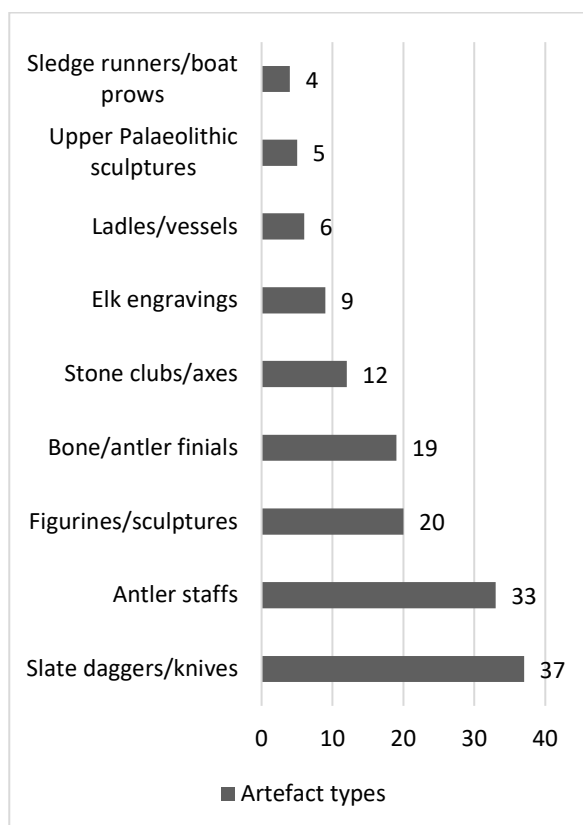


Figure 152. The division of elk-related artefacts in Northern Europe into distinct categories. Chart: Ville Mantere.

As stated at the outset of this chapter, my classification of the various kinds of elk-related artefacts into distinct groups should not be seen as a fixed categorization of how the items were considered in the past. Such a classification would be made excessively complex not only by the overall variations in the production of these artefacts but also by the existence of locally-specific forms. However, elk-related artefacts obviously represent very particular kinds of items. Some artefact groups, such as the elk-headed stone clubs and axes, seem not to have any evident utilitarian function, as least as far as

we can imagine today. Others, meanwhile, such as elk-headed ladles or combs, were utensils that were presumably used in a similar way to their non-zoomorphic counterparts (cf. Iršénas 2000: 97). Yet, while the elk-heads depicted on the latter artefacts in particular may thus appear like decorations, it would not be fully accurate to label them purely as such (cf. Larsson 2000: 33; Immonen 2002: 42).

Ingold's (2000: 126) understanding of animal figurines is that these were made for "keeping animals in mind". Their function was, in other words, to act as constant reminders of the significance of the animals their owner was dependent on. Separate figurines and lifelike zoomorphic carvings were, according to Ingold (2000: 127), made for this very reason on a variety of objects, such as knife handles, harpoon heads and containers, among others. Among the Eastern Khanty, in turn, stylized elk depictions were also made on all kinds of objects, such as on household-related items, clothes, containers, and on some of the shaman's artefacts. Apparently, the key reason for these representations was that the elk was generally considered to be a symbol of wealth and success (Ivanov 1954; quoted in Filtchenko 2011: 188). These reasons may well explain why prehistoric elk depictions occur on all kinds of items.

A question that is closely related to the prevalence of elk-related artefacts is whether these were made continuously or only under exceptional conditions, such as at times of crisis (cf. section 1.4.2). Among the Ojibwa, for instance, carvings representing a sought-after animal species were made at times of game shortages (Martin 1978: 79), and most probably, prehistoric elk hunters, too, encountered periods when their access to elks was threatened. It seems feasible that artefacts portraying elks were utilized at least on such occasions.

Here I also want to emphasize that elk hunting has been closely associated with certain seasons, and I am thus inclined to believe that also *the uses of elk-related artefacts were, first and foremost, seasonal*. Most probably, there were significant differences between artefacts as regards this matter, but my general assumption is that the elk-related artefacts were in use namely at those times of the year when elks were hunted. A consequent assumption is that at least

some elk-related artefacts were used in the autumn specifically, which must have been a season of special importance not only because it was one of the two main hunting seasons for elk but also because it was when the animals reproduced.

Another central issue relating to elk-related artefacts is whether these were used by all members of the society or only by select individuals. My understanding is that both kinds of artefacts, that is, common and personal, are represented within the material evidence. Items that I am inclined to regard as belonging to the former group include the wooden artefacts in particular. The ladles and vessels I would link to communal elk meals that are likely to have been more or less ritual in character. The sledge runners and boat prow(s), in turn, I am disposed to associate particularly with communal elk hunting.

Due to the small number of surviving elk-shaped artefacts made of wood, it is difficult to ascertain whether it is by pure coincidence that all these seem to be related to communal use. However, it remains a possibility that there were widespread conventions in the northern forest zone as to which raw materials should be used for making particular kinds of artefacts. Thus, the use of wood for collective elk-related items may at least partly be intentional, but this is not to say that such artefacts were solely made out of wood. The elk-shaped clay figurines, for instance, I take as artefacts connected with elks (perhaps even specifically calves and foetuses) rather than with specific human individuals. Even if miniature figurines and sculptures were used as personal charms, at least some of them could also be used collectively.

In sharp contrast to artefacts in common use, however, several of the artefact types discussed are best understood as personal possessions. These can moreover be divided into two groups; possessions restricted to only a few selected individuals within a society, and personal items which more or less anyone could possess. Artefacts that I interpret as belonging to the first group are the elk-head staffs and the stone weapons, as well as the Upper Palaeolithic amber sculptures. These all seem to have been valued as prestige items that only particular individuals could access, and which on several

occasions were deliberately taken out of circulation. Additionally, I believe that these artefact groups are related (albeit distantly) to each other.

Within the second group of personal items I include slate daggers and knives, as well as slate items with elk engravings. The large number of these finds in a relatively limited region, along with the fact that they are often encountered in settlement layers, are both strong indicators that such artefacts could be owned by virtually any member of a hunting group. Other types of artefacts that can probably be regarded in similar light are some of the bone and antler items with elk-headed finials, as well as some of the elk-shaped sculptures and figurines. As Kashina (2005: 150–151) notes, the ethnographic material gives reason to assume that zoomorphic figurines were used by hunter-gatherers in order to maintain balance in the world by “compensating” for the animals they killed. Even though elk-shaped figurines are as a rule not found in burials, Kashina (2005: 148) also points out that, more generally, zoomorphic figurines found in burials are associated with men, women and children, and as the items bear signs of everyday use, it is unlikely that the figurines would have been associated with special individuals as has often been assumed.

It should be noted, however, that a bipartite division of elk hunters into “ordinary” and “extraordinary” is in all likelihood too simplistic. It is indeed probable that hunters could be held to possess different, perhaps even fluctuating, forms of status, according to their skills. We can suppose that an apprentice on his (or her) first hunting represented one end of the spectrum. The other end was perhaps embodied by the highly experienced leader of a hunting group – allegedly the powerful elk-head staff carrier who plausibly had a strong personal relationship with the elk and who perhaps was even somehow likened to an elk. Regardless of how accurate these caricature roles might be, it is obvious that the majority of prehistoric hunters were positioned somewhere in-between such extremities. It is, for instance, fully possible that some of the aforementioned artefacts were related to rites of passage and entitled to be used by individuals who had entered adulthood, killed their first elk, or undertaken a similar act. Nonethe-

less, these artefacts were not as prestigious as, for example, the elk-head staffs, which belonged only to the most notable individuals in society – the supreme elk-hunters, who through their actions had received unparalleled respect and status within their community.

The important point I wish to stress, however, is that irrespective of whether the specific artefacts were in common use or in (some kind of) personal use, they were in all cases essentially *possessions of elk hunters*. The implication of this basic notion is that *the elk-related artefacts manifest in different ways the relationship between the elk as a prey and the human as a hunter*.

Against this background, it might appear odd that there is a visible lack of items specifically related to the actual hunting, or to be more precise, the act of killing an elk.³³³ Yet, the absence of representations of elks related to killing in the archaeological record has an almost identical parallel in northern rock art. I firmly argue that these parallels are anything but accidental and can reveal important insights about the human-elk relationship(s) of the past.

At the end of Chapter 5, I noted that the lack of hunting scenes in prehistoric rock art becomes understandable when one pays attention to the ethnographic accounts obtained from among indigenous hunter-gatherer groups. Instead of reflecting dominance over animals, these accounts frequently describe an ambiguous, guilt-ridden, and even fearful attitude towards hunting. Thus, rather than being manifested as victorious events remembered with pride, animal kills were more likely regarded as inevitable actions that could always come at a cost. In fact, this reading might also elucidate why the human figures depicted beside elks on the engraved slate stones are always highly abstract in shape (Figure 136). Presumably, this was because it was necessary to conceal the actual identity of the hunter.³³⁴

Moreover, there is every reason to believe that prehistoric elk hunting was – notwithstand-

ing its seasonal character – an ongoing process with no definite beginning or end. As Reuter-skiöld (1911: 168) argued more than a century ago, all hunting was formerly ritualistic in character, and it is therefore quite possible that the actual killing process could also embrace more than just the most indispensable actions and artefacts for taking the life of the animal. Thus, the very search for artefacts associated with hunting and/or killing may be strongly misleading. Indeed, essentially, I claim that *all of the artefacts discussed in this chapter can potentially be understood as related to the hunting and killing of elks*. The elk-head staffs, for example, were probably considered important in the elk hunt, even if their role in hunting does not necessarily meet the logic of a modern western viewer. Likewise, if personal adornments depicting elks were worn during hunting to bring good luck to their owners, these were definitely central in the elk hunting process as well.

Not all elk-related artefacts were used during the hunting expedition itself, however. As was concluded in Chapter 2, activities were most likely carried out before, as well as after, the hunt, and it is probable that some of the elk-shaped items were related namely to pre- or post-kill activities. The elk-headed slate daggers, for example, were likely used for cutting and sharing the killed elk after a successful hunt. The ladles and vessels probably also belong to the group of post-kill artefacts. Other items, such as the elk-headed sledges and boats, were in all likelihood utilized prior to, as well as after, the hunt, for example in tracking down an elk and in transporting its carcass back to camp. Similarly, the various freestanding sculptures and figurines were most probably in some way related to the hunting process more broadly. Ultimately, however, the question of when a specific item was used is of secondary importance. The fundamental realization, instead, is that *the elk-related artefacts in Northern Europe are all connected to various stages of the hunting process*.

³³³ In fact, the only items within the archaeological material that in my view could be regarded as killing weapons are the few Norrlandic spear heads with elk engravings, although there is of course no way of ascertaining whether even these particular finds were used for this task.

³³⁴ In northern rock art also, anthropomorphic figures are often significantly more abstract and less detailed than depictions of elks. This may at least partly be connected to the same notion.

8 The relationship between humans and elks in prehistoric Northern Europe

So far, I have in this study addressed the relationship between humans and elks as reflected in the osteological data, in hunter-gatherer rock art and in the portable art of Northern Europe. The time has now come to group together these different sources of evidence. In this chapter, I will consider the data presented above from a chronological perspective and re-examine some of the central themes that have arisen from the different materials, such as the importance of the elk cow and the connotations of the elk-head staffs and boats. In order to fully comprehend the elk's role(s) in prehistoric Northern Europe, I will also address some important aspects that have not yet been discussed, such as the elk's position in relation to other animals in the northern forest zone. Finally, at the end of this chapter, I will reflect on the implications of this study and propose directions for future research.

8.1 Humans and elks in Northern Europe – a chronological perspective

In this section, I have, for the sake of clarity, divided the extensive period of study, 12 000–1200 calBC, into seven shorter phases; each characterized by its own general prevailing theme.³³⁵ Needless to say, both the division and the discussion of these phases will inevitably be superficial and limited. It is not possible to take account of all the nuances related to the elk's wide-ranging significance in the past, and our understanding is still in many ways based on noticeably scarce material evidence. The same pertains to dating. There are obvious shortcomings related to the dating of northern rock art and elk-related artefacts. The margins of error are often frustratingly large, and it is obvious that future research will refine numerous

³³⁵ The periodization is based on the datings of the various study materials discussed in this study. I have moreover made the phases shorter towards the end of the period of study to reflect the progressively increasing material evidence (Figure 155).

aspects of the picture presented here. The osteological material provides more fixed results in terms of dating, but as we have seen, this set of evidence is not without its problems either.

As a result of the above, the following chronological framework should be taken as a directional scheme illustrating how the relationship between humans and elks in Northern Europe evolved and was manifested over the course of this long period of study. Despite its general and limited character, I believe that this scheme can shed light not only on the relationships that existed between humans and elks in different time periods and regions, but also on northern hunter-gatherer societies and their way of living in general.

8.1.1 12 000–9200 calBC: The first indications of the elk's significance

Table 10. Key aspects of the elk's role in Northern Europe during the first period (12 000–9200 calBC).

Economic significance	Major significance in the North European Plain and southern Scandinavia (especially during the Allerød); increasing significance in central Russia and the Urals
Elk-shape artefacts	Amber (and antler) sculptures in southern Scandinavia and the North European Plain; engraved slate stone in Germany (Windeck)
Artefacts made of elk	Adzes, mattock heads, projectile points etc.
Special remarks	Elk bone assemblages in southern Scandinavia; first "prestigious" elk-related artefacts

The very first signs of the elk's importance in the region of study can be noticed in the North European Plain during the 12th millennium calBC. On the basis of osteological findings, elk populations were abundant in southernmost Scandinavia and northern parts of Germany and Poland during the Allerød (c. 11 800–11 000 calBC). It is also in this region and in this period that we encounter the first elk-related artefacts.

By contrast, it seems that the elk had not yet become a significant species in economic or cultural terms during the 12th millennium calBC in other areas of the region of study.

The most intriguing question regarding the emergence of elk symbolism is, perhaps, whether it evolved separately or whether it was an alteration of earlier beliefs connected to (an)other animal species. This is a vast topic that cannot be addressed adequately within the limits of this study, but as noted in the introduction, elk-related artefacts and elks depicted in rock art can be understood as belonging to the wider phenomenon of animal art, which has its roots in the Palaeolithic era. The question is thus not so much about *if* but rather about *how* elk symbolism relates to earlier zoomorphic manifestations in portable and parietal art.

In all probability, the closest paragons for the elk's various cultural expressions are to be found in art forms associated with other cervid species. There are a number of reasons to support this statement. Firstly, (rein)deer constituted an extremely important prey for hunter-gatherers more or less universally (see e.g. Burch Jr. 1972; Baker et al. 2014). Secondly, (rein)deer are also recurring motifs in Palaeolithic art. Renowned rock art sites with depictions of various deer species include, for instance, the caves of Lascaux, Pech Merle and Cosquer in France. Famous deer-related sculptures have, in turn, been discovered from sites such as Kesslerloch in Switzerland and the Grotte de la Vache in the Pyrenees (see e.g. Bahn & Vertut 1997; Guthrie 2005). These and numerous other manifestations indicate that (rein)deer had – as elks in later times – a special significance for prehistoric hunter-gatherers, which went beyond their role as a source of food (see e.g. Oleszkiewicz-Peralba 2023: 6–34). Thirdly, and perhaps most importantly, deer are the animals most closely related to the elk taxonomically and belong to same biological family of hoofed ruminant mammals (*Cervidae*).

Eventually, despite certain fundamental differences between elk and other deer species, it is justifiable to assume that elk symbolism evolved namely out of beliefs and actions associated with its closest animal relatives. As has become clear, elk and deer have often been associated with similar beliefs and activities in northern (especially Siberian) ethnographical accounts, and the

mythological roles of these animals seem sometimes more or less identical or intertwined (see e.g. Järvinen 2000: 55–66; Lahelma 2008a: 53).

The Siberian Buryats, for instance, have a belief in a master entity called Bayan Hangai. It has the shape of an elk, but it stands for “all the members of the deer family that are hunted for their meat” (Hamayon 2013: 293, footnote). Likewise, Tungus shamans dress themselves in deer hides and imitate the mating behaviour of male deer in much similar vein to the manner in which elk hunters assume the role of the elk during the various stages of the hunting process. As Hamayon (2013: 287) writes, “[T]he reigning intention is always for ritual behavior to imitate that of dominant males whose chief role and activity is to perpetuate the species: repelling his rivals and mating with his female”. There is reason to believe that such practices, rooted in fundamental observations of animal behaviour, are primordial in origin (cf. Willerslev 2007: 191).

In fact, even if the distinctive behaviour of different members of the deer family induced and necessitated novel and unique responses from people interacting with these particular species, the very manner of observing and imitating animal behaviour was by no means something that arose with reference to these species specifically. Elk- and deer-related beliefs and activities were not developed in a void, and, essentially, both are understandable as intrinsic and ubiquitous responses to life as a hunter-gatherer, the very nature of which is based on observing and responding to animal behaviour.

One possibility is that the elk symbolism that emerged around 12 000 calBC was preceded by an earlier set of beliefs related to the giant deer (*Megaloceros giganteus*), also known as the Irish elk. This colossal animal with its majestic antlers must have presented an astonishing sight across its range. The species co-existed with the elk in southern Scandinavia, northern Germany, and the Baltic coast at least during the Allerød and the emergence of Younger Dryas, possibly also during the Holocene. The giant deer became extinct around 7600 BP, with the last corroborated remains located in Russia (see e.g. Aaris-Sørensen & Liljegren 2004: 70–71; Płonka et al. 2011: 723; Lister & Stuart 2019: 194–197).

Osteological remains indicate that the giant deer was hunted, but according to Lister and

Stuart (2019: 200), the small number of finds at archaeological sites overall indicate that it was “generally a rare species”. In Upper Palaeolithic parietal art, this species is likewise depicted only sporadically, such as in the caves of Lascaux, Cognac and Chauvet in France (see e.g. Ruspoli 1987: 60–61; Bahn & Vertut 1997: 74–75).³³⁶ This evidence suggests that the giant deer was of some significance to prehistoric populations. However, the giant deer seems not to have been nearly as important, either in economic or in cultural terms, as the red deer and the reindeer – the two dominant species in Upper Palaeolithic faunal assemblages and two frequent motifs in the art of this period. It is thus more likely that the foundations for the elk’s special position are to be found in beliefs and practices related to the red deer and, especially, the reindeer.

As Veil et al. (2012: 669) conclude, the elk came to replace the earlier roles of the reindeer and the mammoth during the Allerød. Prior to this phase, “the elk was practically of no importance”, but as a result of the warming climate, the elk not only became a preferred prey but also an animal of ritual significance for Federmesser groups (Veil et al. 2012: 669). As the authors note, it is thought-provoking that, within Federmesser culture, representations of other animal species are conspicuous by their absence. Apparently, this can be explained by a change of climate, which subsequently resulted in major and rapid alterations also at an ideological level. Moreover, as a resource for tool production, the elk took over the role previously occupied by other animals. According to Płonka et al. (2011: 730), it was namely during the Allerød that elk antler replaced reindeer antler and ivory as a raw material for this purpose.

But why was it that the elk gained such a central importance for prehistoric populations so quickly, and on so many levels? Besides the changing climate and its impact on the fauna, I stressed in Chapter 4 that the *high efficacy of elk hunting, and the versatility of the elk as a resource* were likely to be two central aspects in this process. It is also possible that one contributing factor, especially with regard to the elk’s revered role, was related to its natural behaviour, sepa-

rating it from other deer species and consequently calling for novel hunting skills.

According to Mithen (1988: 671), Late Upper Palaeolithic hunter-gatherers increasingly shifted “from co-operative hunting to the stalking and killing of individual animals and the art functioned to facilitate the required information flows” (see also Mithen 1991: 108–110). Instead of earlier mass kills, the focus was now increasingly on the individual animal, and this inevitably put the individual hunter into the frame as well. In fact, Mithen’s reading corresponds well with my suggested interpretation for the earliest elk-related artefacts. On the basis of their seemingly precious raw material and the lack of any evident utilitarian function, I proposed that these “free-standing” sculptures were the emblems and possessions of prestigious elk hunters.

In other words, even if the shift from collective mass kills to hunting individual animals had started already before the elk assumed its primary role, it is obvious that the elk’s natural behaviour necessitated new kinds of hunting strategies. Being a solitary species, elks could not be hunted in numbers like herds of (rein)deer, and it now became crucial to master the behaviour of individual animals (see also Günther 2022: 55 and cited references). Unfortunately, we do not know the exact hunting methods utilized, but most probably, both individual and collective techniques were used. Seasonality and favourable weather conditions were also most certainly exploited, and it is conceivable that the first elk hunters already utilized some types of passive hunting strategies. Predominantly, however, early elk hunting methods were in all likelihood centred on the elementary practices of luring, stalking and mimicking animals. As I have argued throughout this study, the effectiveness of such tasks is largely dependent on *individual skill and experience*, both of which are highly valued characteristics within indigenous hunter-gatherer societies in general (cf. Ingold 1996: 40; Russell 2012: 155–156). Presumably, it was thus the mastery of these hunting techniques that also gave rise to the appearance of unprecedented social roles within hunter-gatherer groups; the supreme elk-hunters, the carriers of the first elk-related artefacts.

The rise of elk symbolism in the 12th millennium calBC paved the way for an exceptional

³³⁶ Surprisingly, some depictions of the species are known also from Scythian art, dating to a period when giant deer most probably had been extinct for several millennia (Lister & Stuart 2019: 197 and cited references).

and noticeably long-lived relationship between humans and elks in the forested zone of Northern Europe. The elk's special status, which emerged rapidly in a rather limited region, soon spread across new areas as elk populations spread northwards. During the Early Preboreal (c. 9700–9200 calBC), the elk was a key game species in southernmost Sweden, northern Germany and Poland. In these areas, elk antler and bone were also important raw materials for the production of different kinds of (sometimes ornamented) artefacts, such as mattock head axes and leister points. Special elk-related evidence from this epoch includes the elk bone assemblages found in Denmark. It is unclear whether these accumulations had a ritual character, but they nevertheless indicate that elks were processed according to uniform practices that already existed in the Early Preboreal. In Finland and in the Baltic region, the elk's role in the fauna increased constantly during this period, but it is only in the very beginning of the following period that we can see the earliest signs of elk hunting in these areas.

8.1.2 9200–7000 calBC: Increasing economic significance

Table 11. Key aspects of the elk's role in Northern Europe during the second period (9200–7000 calBC).

Economic significance	Major significance in southern Scandinavia, North European Plain (especially Poland), northwestern and central Russia, Urals, the Baltic region and Belarus; increasing significance in Finland, central and northern Scandinavia
Elk-shape artefacts	Engraved slate stone in the Urals (Gornaya Talitsa); antler staffs in the North European Plain (possible early paragons for elk-head staffs)
In rock art	Elk figures in polished rock art (central Nordland)
Artefacts made of elk	Tools (e.g. hatchets, pickaxes) pendants, daggers, harpoon heads, points etc.
Special remarks	First elk depictions in rock art; elk bone assemblages in southern Scandinavia

Over the course of the second period, the elk's economic significance increased across virtually

the whole of the region of study. During the Preboreal, the very same development that had earlier occurred in the North European Plain now took place in central Russia and the Urals. Because of changes in the climate that resulted in the growth of forests, elks replaced reindeer as the predominant species during the early Holocene. In fact, Zhilin (2014: 95–96) argues that “the traditional model of the migration of the reindeer hunters from Central Europe to the east in pursuit of reindeer herds during the transition from the Pleistocene to the Holocene should be questioned if not abandoned”. This is because recent data shows that reindeer was actually a species with diminutive significance for the Early Mesolithic population in central Russia. By contrast, the elk's key importance is reflected in the refuse fauna as well as in elk incisor pendants and various tools made of elk bone and antler.

The economic importance of the elk also continued in the North European Plain and in southern Scandinavia. The elk had a key role especially in the Maglemosian culture, indicated by faunal remains and various kinds of artefacts and pendants made of elk bone, teeth, and antler. By 8000 calBC, elks seem also to have been hunted at least in the southern and central (forested) parts of Norway and central Sweden. The polished elk figures in central Nordland give us indirect evidence that elks were present and hunted in northern parts of Scandinavia as well. In Finland, elk populations became noticeably widespread during the second period. Except for the northernmost parts of the country, where reindeer was the key species, elk and beaver were the two most important animals hunted in Finland. In northwestern Russia, as well as in Belarus and the Baltic region, elk and beaver remains are similarly well represented or predominate within the refuse fauna found at settlement sites.

Against this background it is bewildering that elk-related artefacts are almost totally absent from the archaeological record during the period 9200–7000 calBC. While elk bone and antler were used as raw materials for a large variety of tools, the only evident elk depiction on a portable artefact dated to this period is the engraved slate pebble from Gornaya Talitsa.³³⁷ In

³³⁷ The abstract antler staffs from the Northern Lowlands are also dated to this period, but as stated above, I do not regard these as unambiguous representations of elk.

the previous chapter we observed that virtually no elk-related artefacts are in fact recorded for a remarkably long period, from 11 000 to 7000 calBC approximately. The high mobility of early hunter-gatherer populations, the consequent lack of excavated stationary settlements and the general lack of zoomorphic portrayals in portable art in this period all likely account for this phenomenon.

Yet, artistic expressions portraying elk are not completely absent. Perhaps the most notable characteristic of the second period is the appearance of the first rock art in Northern Europe. My understanding is that these early polished rock art sites in central Nordland formed certain kinds of boundary markers. They were probably distantly related to the earlier Palaeolithic rock art of Southwestern Europe – sometimes explained in a similar manner (see e.g. Conkey 1982; Barton et al. 1994; Fuentes et al. 2019) – but at the same time, the polished figures represent a new phase in northern hunter-gatherer activity that clearly relates to later Stone Age rock art in Fennoscandia.

Despite some of the figures being more schematic than others, polished petroglyphs share recurring characteristics such as a large size, a “naturalistic” animal imagery, and a visible, shorebound location. In contrast to interpreting the polished figures as territorial markers intended for the rock artists themselves, however, I argued that the figures functioned as signals for strangers. Concurrently, the (elk) images were probably also directed to the depicted animals as expressions of respect. I believe that the early rock art makers had developed a special, benefactive relationship to the animals they hunted, and this relationship was so valuable that it was worth protecting.

Consequently, *the production of rock art figures was probably not so much related to an effort to monopolize or control the individual animals in the landscape, but rather to secure a relationship with them.* It was this very aim that, I contend, also came to dictate most of the later production of elk figures in northern rock art. Of course, notable differences in detail must have existed between regions and periods, but I still argue that it was namely this principle that lay at the core of hunter-gatherer rock art production, and animal depictions in particular. Over time, the

rock art imagery started to comprise of human elements as well, but there is every reason to believe that the fundamental message of many “ordinary” rock art sites was still linked to the human-animal relationship. Such sites, which included, among others, the Finnish rock painting locations, were places where images were created with animals – elks above all – in mind. By contrast, the large rock art concentrations that formed over the course of a longer timespan were different in function. Despite the imagery at these sites being still heavily centred on animals, the sites themselves were more focused on humans than on animals.

8.1.3 7000–5500 calBC: The elk symbolism emerges

Table 12. Key aspects of the elk’s role in Northern Europe during the third period (7000–5500 calBC).

Economic significance	Major significance in most parts of the region of study
Elk-shape artefacts	Elk-head antler staffs; boat prow (Lehtojärvi); sledge runners; finials, figurine (YOO); (stone hatchets as paragons of elk-head staffs)
In rock art	Carved elk depictions (e.g. eastern Norway)
Artefacts made of elk	Various tools (e.g. pickaxes, hatchets), pendants etc.
Special remarks	First elk-headed boats and staffs emerge; inner designs and smaller size of elk figures in rock art

During the third period, 7000–5500 calBC, the elk’s economic importance became most widespread in the region of study. In southern Scandinavia and the North European Plain, the species was locally significant, although in general, the elk’s role in the diet here was inferior to that of roe deer, red deer, and wild boar. In all other forested parts of the region of study, however, the elk was generally a species of major economic significance.

In eastern and central Norway, elks were the main prey and hunted in numbers especially at inland sites on a seasonal basis. In western Norway and central Sweden, elks were likewise hunted, although red deer and wild boar played a notable role as well. In most of Finland, northern Sweden, the Baltic region, as well as in northwestern and central Russia and the Urals,

the elk was the key prey together with the beaver and other locally important species. The data from Zamostje 2 indicates that elk carcasses were treated according to established customs and that hunters conceivably preferred killing young elk individuals. In addition to the elk's central position within refuse fauna at settlement sites, elk bones and teeth are commonly present in Mesolithic burials. As in the previous period, elk hunting also provided key raw materials to produce various kinds of tools and artefacts.

Elk figures (re)appear in rock art around 6000 calBC. The examination of the case study area in eastern Norway showed that these rock carvings resemble the earlier polished figures due to their static and non-narrative character, as well as their almost complete lack of human elements. In both cases, animals are thus depicted "among each other". In eastern Norway, this statement can also be taken literally on another level, because the carvings are often located in places in the landscape where elk prefer to reside in reality. Without dismissing the basic interpretation of rock art sites as hunting grounds, I offered an alternative reading, according to which the carvings could signal places where elk hunting was wholly or occasionally prohibited in order to guarantee their reproduction. Whatever explanation one chooses to follow, however, I have stressed that the fundamental aim of the images was the wish to assure access to elk in the future. In this way, the rock carvings were closely associated with the hunting process – even if the act of hunting was not unambiguously represented in the imagery as such.

A new element in rock art is to be found in the so-called inner designs that characterize the eastern Norwegian carvings. These, I argued, seem ultimately to be grounded in carcass processing and meat sharing; activities both presumably associated with various beliefs and rituals. I believe that the inner designs were used as personal markers for making a distinction between elk individuals, and the evident focus on elk without antlers moreover suggests that the images were closely related to the reproduction of elk. Consequently, I argued that the elk with inner designs were depictions of amenable and fertile *elk individuals* that the hunters wanted to reproduce and remain accessible.

As regards elk-related artefacts, the third period is marked by the introduction of several new types of items portraying the elk. It is namely for this reason I classify the third period as the era when elk symbolism truly emerges. Novel innovations that appeared during the period c. 7000–5500 calBC were, for instance, the elk-headed staffs and the elk-headed boats, both of which maintained their importance in the northern forest zone for several millennia. Artefact finds from the third period are admittedly scarce but finds from Russia nevertheless reveal us that elk were also represented on sledge runners, sculptures and on the handles of bone daggers and knives.

Thus, while "free-standing" sculptures and engraved slate stones represent the only elk-related artefacts from the previous periods, in the third period elk were also portrayed on artefacts with a clear utilitarian function. As I maintained in the foregoing chapter, it was the *concrete link between the elk and the item* that gave rise to these artefacts. To put it differently, boats, sledges and knives were of course important to hunter-gatherers generally, but for northern hunter-gatherers whose main prey was the elk, these items had their primary significance in relation to this animal.

In fact, it is probably not a mere coincidence that utilitarian artefacts such as elk-headed knives and daggers emerged roughly at the same time as inner designs on elk figures in rock art. Several factors were almost certainly at play behind both phenomena, but a shared cause was in all likelihood the economic role of the elk, which during the third period had become the most prominent in Northern Europe. In other words, as the elk's key importance over other animals increased over a vast region, this seems to have prompted new beliefs and practices related to this animal that spread across the forest zone. These probably included conventional carcass processing and meat sharing. Another feature that emerged during this period was the elk-head staff.

Even if elk-head staffs were undoubtedly connected to earlier artefact types, it was namely in the period 7000–5500 calBC that this category of items became fully established. The artefact probably evolved following the observation that (male) elk could be lured by imitating (elk

cows). Besides its concrete role in hunting/alluring, I have argued that the elk-head staff was a symbol of prestige possessed only by the most skilful and experienced elk-hunters in hunter-gatherer groups. Ultimately, I have claimed that it was because of their beneficial impact upon their societies that these “supreme elk-hunters” were entitled to possess and use elk-head staffs – most probably within other (ritual) contexts as well (cf. Fuglestedt 2018: 362).

The elk-head staffs are reminiscent of the stone hatchets that emerged in southern Norway around 7000 calBC and were in use until around 5600 calBC, that is, throughout the third period. In line with Glørstad, I regard the stone hatchets and the elk-head staffs as belonging to “the same elk-related complex of prestige” (Glørstad 2010: 196). Both seemingly had a certain connection to elk antlers, were taken out of circulation on purpose, were represented in miniature, and, perhaps most importantly, their use was likely restricted to powerful (typically male) leaders.

Both Glørstad (2010: 193–234) and Fuglestedt (2018: 366–372) have made use of Sahlins’s (1963) concept “Big Man” when referring to unformal leaders in society that gained power through their personal skills.³³⁸ As Fuglestedt (2018: 366–367) recounts, such individuals:

build up their influence through successful access to valuable objects, like status weapons and exotic items. These objects are partly used in gift exchange with other big men of neighboring clans, and partly as a means to create followers in his own group. Big men are involved in competition with other big men, while simultaneously working to keep people in his home milieu in a position of dependency. More than that, big men are often great hunters as well as leaders in rituals. They tend to be strongly involved in circulations of people and goods, as they typically organize marriage arrangements on behalf of their own lineage. Big men are organizers of social and ritual life. Through their contact with the ancestors and controlling the rites of passage, they are somehow in charge of the past as well as the future.

There are of course no ways of ascertaining whether similar big men ever existed in prehistoric Northern Europe, but like Glørstad (2010: 193–211) and Fuglestedt (2018: 367) I find it possible that some individuals could possess roles comparable to ethnographically-documented “big men”. Unlike these two authors, however, I am not willing to associate the “big man” concept solely with male individuals and masculinity. There is ultimately nothing in the discussed archaeological material that speaks against the option that some female individuals could have acquired similar positions to men within prehistoric societies. Rather, the opposite seems to be the case. Elk-head staffs unearthed in female graves and rock art scenes in which nonphallic figures carry similar staffs are both understandable in this light. I therefore contend that women during the Mesolithic period could also achieve social roles (such as “supreme hunter” or “big woman”) that clearly separated them from ordinary members of the group.

In fact, Fuglestedt (2018: 371) writes that there is ethnographical data showing that in some societies, “big women” were just as common as big men. Despite this important notion, however, she draws far-reaching implications based on the big *man*³³⁹ concept and proposes that during the Middle Mesolithic period and onwards, Scandinavian society became increasingly male-dominated and unequal in character (Fuglestedt 2018: 370–371). Such a reading is in my view far too daring and ill-founded, since it is basically grounded only on a very limited set of evidence and highly speculative assumptions, such as the view that people with elk antler headgear are represented on Late Mesolithic rock art panels (see below).

According to Glørstad (2010: 233), in turn, the connection between elk and elder individuals in society was altered during the Late Mesolithic, when the production of stone hatchets ended in the Oslo Fjord region. In his view, in around 5700–5600 calBC there occurred:

³³⁹ To be precise, Fuglestedt (2018: 368–372) chooses to use the concept “great man” instead of “big man” in her interpretation. In my view, however, there is no need to make a distinction between the two as both terms nevertheless remain highly speculative, theoretical concepts that have their origin in a geographically and temporally remote context.

³³⁸ The term originally denotes a political type in Polynesia and Melanesia but has been used commonly in anthropology internationally.

a change in the structure of authority, from big-men to seniors...In their strategies the big-men were the great ancestors of the past. The seniors presumably established their authority by controlling the knowledge of the ancestors and thus the history of the social group. Hence, it seems as though two cycles of reproduction fundamental to human life were expressed in the terms of one of them: The elk was one of the basic ingredients of the diet and a favourable raw material for production of gear. Parallel to this, the forefathers were the historical foundation of society. My argument is that these founding powers were melded into one gestalt in the hatchets and in the carvings as the great elk.

Despite Glørstad's premise containing thought-provoking ideas worth attention, I find it also to be rather far-fetched and extremely hard to verify by any means. The big (wo)man concept may truly be of relevance to understanding prestigious (elk) hunters in prehistoric hunter-gatherer groups, but I have equally argued that these individuals were themselves mature by nature. Thus, while I believe that Glørstad is correct in that reproduction of elks and humans *was* of key significance and that important ancestors *could* in some way be equated with elks themselves, I do not concur with the assumption that a change "from big men to seniors" would have taken place in the Late Mesolithic period, at least not on a general level. Nor do I concur with the view that the eastern Norwegian elk depictions in rock art represented ancestors, or that the carvings were made at places where hatchets were deposited, as Glørstad (2010: 234) goes on to argue. My understanding is that elk figures represented elks and were made at places where the animals thrived naturally.

That said, the basic idea of contact to ancestors and access to prestige items lying in the hands of few high-ranking individuals may well shed light on the identity of the owners of elk-head staffs and other similar items. I do not believe that the elk-head staffs were used in gift exchange, but they still most probably strengthened the status of their owners. The fact that many of the elk-head staffs have been found namely in burials of mature individuals suggests that the items were personal and considered important also in the afterlife. Along the lines of

Glørstad, I also proposed that the staff-carriers came over time to be regarded as mythical ancestors, and it was these individuals that eventually became depicted as staff-carriers at the large rock art sites. This took place during the fourth period, characterized by the emergence of human-elk interaction in northern rock art.

8.1.4 5500–4200 calBC: Elk-human interactions in rock art

Table 13. Key aspects of the elk's role in Northern Europe during the fourth period (5500–4200 calBC).

Economic significance	Major significance in Finland and Russia; locally major significance in central and northern Scandinavia (especially Norrland), the Baltic region and Belarus; minor significance in southern Scandinavia and the North European Plain
Elk-shape artefacts	Elk-head antler staffs (probably also sledge runners, finials and sculptures/figurines)
In rock art	Carved (e.g. Alta and Nämforsen) and painted (Finland) elk depictions; elk-head staffs and boats (e.g. Alta, Nämforsen, Slettnes)
Artefacts made of elk	Various tools, pendants etc.
Special remarks	Rock art "explosion": large rock art sites emerge (including depictions of elk-headed boats and staffs); first painted elk images; human-elk interactions etc.

In the fourth period, the elk was a predominant species in the region of study, although its economic importance had now clearly started to decline in certain areas. The reasons behind the diminishing economic status of the elk were most probably several, but the most significant seems to have been related to the changing environment. As Magnell (2017: 123) recounts: "[v]arious palaeoclimatic records, such as pollen, tree-rings, ice-cores, glacier fluctuations and marine sediments, show, for Northern Europe during the Early Holocene, a long-term trend of an increasingly warmer climate punctuated by rapid climatic shifts between 11,500–7,500 cal BP. This was followed by a period of uninterrupted warmth during the Holocene thermal maximum (HTM), c. 7,500–5,500 cal BP with a peak around

6000 cal BP, when annual temperatures were about 2°C warmer than present”.

The warming climate naturally resulted in a variety of consequences for the elk. As the sea-level rose, northern parts of Central Europe became scattered into islands and peninsulas. This subsequently led to isolated and vulnerable elk populations (Schmölke & Zachos 2005: 336). In other areas, the disappearance of suitable forest habitats likely caused the decline of elks. Parasites or diseases may also have influenced elk populations in certain places. Also, the growth of other mammal populations, such as red deer, may have resulted in a competition for food sources that eventually triggered the disappearance of elks from some areas (Schmölke & Zachos 2005: 338). Even if it seems unlikely that the overhunting of elks would have been the main reason for their decline, humans may still have occasionally affected the size of elk populations; either by way of extensive hunting or, for example, through fire cultivation (see e.g. Schmölke & Zachos 2005: 336–338). As Sher (1987: 92) speculated, hunters may also in some areas simply have shifted from elk hunting to red deer and/or roe deer hunting even though elks would still have been available.

Elks were still part of the fauna in the North European Plain and in southern parts of Scandinavia, but their numbers were not large, and the species was apparently no longer economically significant to the Late Mesolithic populations. The elk's significance within human diets apparently declined noticeably in Latvia and Lithuania also. The data from central Sweden and northern Norway is scarce, but elks were most likely hunted in these areas, especially in the interior regions, at least to some extent. In northern Sweden and Finland, at least, the elk was definitely a key species, except for the northernmost mountainous regions and the coastal areas. In northwestern and central Russia as well as in the Urals, the elk likewise continued to be an animal of major economic significance. Also in Estonia and the northern parts of Belarus the elk seems to have maintained its key position.

In sharp contrast to the elk's continued economic importance in many areas is the small number of elk-related artefacts dated to the fourth period, for as was seen in the previous

chapter, there are hardly any artefacts dating to the period 5500–4200 calBC. This is thought-provoking, especially because elks, elk-head boats and elk-head staffs were depicted in rock art in numbers namely during the fourth period. There are, however, essentially no reasons to believe that items similar to those in use during the third period would not have existed in the fourth period.

Nonetheless, the idea proposed by Zhulnikov and Kashina (2010a: 16), that the portable (animal) art served a different (personal) social purpose to the (collective) rock art depictions, may also carry some credence. The authors argue that animal representations in these two categories of art only partially overlap because of this difference (for a discussion on the relationship between rock art and portable art, see e.g. Arias & Ontañón 2013). Following this line of thought, the discrepancy between the upsurge of elk-related motifs in rock art and the absence of elk-related artefacts in portable art could indicate a shift in focus within indigenous thought, from personal to collective beliefs related to elks. However, while I agree that the rock art figures – especially at sites with large rock art concentrations – were probably made for partly different reasons to the portable zoomorphic artefacts, I do not believe that the lack of elk-related artefacts in period four can be explained simply by the upsurge in rock art. Even if the changes in rock art may truly indicate novel outlooks pertaining to the elk, I find it unlikely that the use of elk-related artefacts would really have diminished in the fourth period. Elk-head staffs, at least, were in use in the period 5500–4200 calBC and other elk-related artefacts were most probably likewise in use, even if such items have not survived until the present day (see above).

The most notable characteristic of the fourth period, however, is without doubt related to northern rock art. The multiple changes that took place around 5500–5000 calBC – the emergence of rock art concentrations, the first rock painting sites, the overall increase in rock art sites and motifs, and so forth – are so evident that scholars have spoken of an “explosion” (Gjerde 2010: 394–401) or “boom” (Goldhahn 2018: 57–60) in rock art. This occurrence was, according to Goldhahn, closely related to the

process of “Neolithization”, which in turn had multiple connotations such as a novel relationship to landscape, increased sedentarism, new technologies and a shift towards the use of local raw materials. Moreover, long-term burial grounds, new hunting techniques and communal big game hunting depictions in rock art can all be understood through this process (Goldhahn 2018: 57–58).

A key change in rock art imagery was the general introduction of anthropomorphic depictions and other human elements. Besides being associated with elk depictions, anthropomorphic figures were depicted as bearers and passengers in two new rock art motifs that also appeared in the fourth period: elk-headed staffs and boats. Above, I proposed that these human figures represented mythical “supreme hunters”, who could be of both sexes. What has not yet been discussed in detail, though, is how this interpretation relates to the anthropomorphic rock art depictions themselves.

At first glance, northern hunter-gatherer rock art compositions may give the impression that both male and female individuals were able to interact with elks and elk-related artefacts. This is because anthropomorphic figures both with and without sex markers (usually phalluses, less often breasts) are depicted in association with this animal, as well as with elk-head staffs and elk-head boats. However, the identification of men and women in prehistoric rock art is anything but clear-cut (for a thorough discussion on the subject, see Hays-Gilpin 2004: 15–42). As Fuglestedt (2018: 357, tab. 11.1) demonstrates, for instance, only 31 out of 399 anthropomorphic figures depicted in Alta can be defined as males (29) or females (2), whereas the sex of more than 90% of the human figures remains unsolved. At Nämforsen the situation is much the same; here only three out of 110 anthropomorphic figures can be defined as males, while the rest are of uncertain sex (Fuglestedt 2018: 357, tab. 11.1). To be sure, *most of the anthropomorphic representations in northern hunter-gatherer rock art lack identifiable sexual characteristics.*³⁴⁰

There are a number of ways to explain the low proportion of anthropomorphic figures with

sex markers in rock art. As both Helskog (1988: 80) and Fuglestedt (2018: 358–360) have pondered, marking an individual’s sex was perhaps irrelevant for rock artists, or perhaps the sex is indeed represented in rock art compositions, but in a manner that is not apparent to the present-day viewer. Fuglestedt (2018: 360), for example, poses the question whether all anthropomorphic figures that lack phalluses could actually denote females, but as she herself comments, this seems somewhat unlikely as it would imply that almost all activities depicted in rock art (including hunting) were carried out by women.

Here it should, however, again be noted that many northern rock art panels have been created by numerous individuals over the course of an enormous timespan. In addition, we do not know for sure to what degree the rock art depictions are reflections of reality. In other words, even if anthropomorphic figures really represented humans (which is not always clear-cut), it is still possible that the scenes in which they occur are not factual portrayals of activities that took place in the everyday realm. For instance, I do not interpret the elk-head staff carriers in rock art as ordinary humans but as depictions of forefathers, imbued with more or less mythical connotations. Yet, I concur with Fuglestedt (2018: 356) that rock art figures are “derived from the actual life world” of their makers, and there are hardly any reasons to doubt that *certain* activities depicted in rock art, such as whale hunting from elk-head boats, also took place in reality.

Nevertheless, while Fuglestedt (2018: 361) concludes that the rock art depictions prove that female hunters existed during the Late Mesolithic, this is in my opinion a false deduction. Rather, on the basis of the rock art scenes we are only able to say that by no means all of the anthropomorphic figures interacting with animals have phalluses. That said, I do agree with Fuglestedt that female (elk) hunters most probably existed alongside male hunters in the past, and that women and “commoners” took part in elk hunting as well as in ritual activities associated with this animal (Fuglestedt 2018: 366, 371).³⁴¹ Indeed, ethnographic data not only shows that women participated in hunting with-

³⁴⁰ In fact, the same is true more broadly for hunter-gatherer art, as anthropomorphic depictions on portable artefacts are likewise often impossible to attribute to a certain sex.

³⁴¹ I do not, however, agree with Fuglestedt that the rituals would have centred specifically on the male elk.

in different populations, but also supports the assumption that women had a larger role in the hunting process than has traditionally been supposed by archaeologists (see e.g. Brumbach & Jarvenpa 1997a; 1997b).

Following Ingold's (2000: 5) principal idea of differences in *skill* accounting for cultural variation, I am disposed to claim that within prehistoric hunter-gatherer societies differences in individual skill and experience were of critical importance. Indeed, these factors may even have played a larger role in the past than the mere sex (or gender) of the hunter. As Antanaitis (1998: 66) has argued, it is also feasible that the social status of males and females depended on different criteria. This notion is surely important to bear in mind, for instance, when interpreting grave goods as reflections of status.

Another argument of Fuglestedt's (2018: 363–365) that I find highly problematic is her interpretation of anthropomorphic rock art figures whose heads are bipartite. Without hesitation, she takes it for granted that the abnormal heads on such figures represent “elk antler headgear”, allegedly worn by “elk-humans” participating in an “elk-cult” specifically oriented towards the male elk (Fuglestedt 2018: 363, 366). Such an explanation is of course possible, but not particularly convincing when one examines the heads more closely. This is because there are no actual indications that the heads have any connection with elk antlers in particular. For instance, Fuglestedt (2018: 363) bases her arguments on a composition from Kåfjord in Alta that depicts humans in a circle – some of which have abnormal heads. Yet, most of the animal figures carved adjacent to these human figures can be identified as reindeer, many of which bear antlers. Therefore, it is legitimate to ask whether not reindeer antlers (which are also born by the female of the species) would be a more probable supposition.

Yet, even more importantly, there is hardly any indication that the alleged “antlers” represent antlers in the first place. On the Kåfjord panel, for example, numerous examples exist of elk and reindeer figures depicted with antlers. None of these cases bear any resemblance whatsoever to the heads of the few anthropomorphic figures with alleged “elk antler headgear”. Rather, the latter are more reminiscent of ears. This

is, in fact, often the case with “antlered” anthropomorphs depicted in northern rock art more generally – even though these are commonly referred to as antlered or horned humans (see e.g. Autio 1995).³⁴²

Even though I have reservations about the connection that Fuglestedt (2018: 364–365) draws between anthropomorphs and alleged elk antlers in northern hunter-gatherer rock art, I still support her basic idea of a certain relationship that existed between the society of humans and that of elks. At least, I believe that observations concerning the behaviour of male and female elks also had implications on human society. Let us therefore return to this topic in the next section.

8.1.5 4200–3000 calBC: A widespread focus on the elk cow

Table 14. Key aspects of the elk's role in Northern Europe during the fifth period (4200–3000 calBC).

Economic significance	Major significance in Russia, locally major significance in Finland, the Baltic region and Belarus, central and northern Scandinavia (especially Norrland); insignificant in southern Scandinavia and the North European Plain
Elk-shape artefacts	Elk-head antler staffs; slate knives and daggers; figurines and sculptures (probably also sledge runners and finials)
In rock art	Carved (e.g. Nämforsen and Kanozero) and painted (Finland) elk depictions; elk-head boats and staffs (e.g. Vyg and Onega)
Artefacts made of elk	Various tools, pendants etc.
Special remarks	Widespread focus on antlerless elks; main period for elk-head boats in rock art; mounds of burnt stone and hunting pits (Norrland)

During the fifth period, the elk's economic importance in Northern Europe was still great in many areas, but the special relationship between

³⁴² It was rock art photographer, D.A. Ismo Luukkonen who first drew my attention to the fact that unquestionable depictions of antlered anthropomorphs are virtually absent in northern rock art, and in many cases the signs commonly interpreted as antlers bear a closer similarity to ears.

humans and elks now manifested itself primarily in cultural terms, namely in rock art and in a large variety of artefacts. Some scholars have argued that an “elk cult” existed in the boreal forest zone, reaching from northern Scandinavia to Asia (e.g. Christiansson 1961: 175; Ramqvist 2005: 115). It is somewhat debatable whether such a cult really existed, but if it did, it most likely flourished namely around 4200–3000 calBC.

The elk was no longer of economic significance in the North European Plain and southern Scandinavia during the fifth period, which correlates with the complete lack of elk-shaped artefacts in these regions. In the forested parts of central and northern Scandinavia, however, the elk still had a key role in the diet of human populations. This was especially the case in northern Sweden, where the Norrlandic Slate Culture emerged. The focus on elks in this area is discernible from the osteological material but is also attested by various other forms of evidence, such as numerous hunting pits, elk depictions in rock art, elk-related slate artefacts, as well as mounds of burnt stone. Signs of elk symbolism are also found across coastal regions, where finds of elk bones are not as common as in the interior (Hallgren 2008: 260).

The Slate Culture also extended across the middle parts of Norway, and it is evident that the populations of Norrland and central Norway were in close contact with each other. This is discernible in the exchange of slate and flint between these regions, but also in the Early Neolithic (or Late Mesolithic) rock art, which shows clear similarities between the two areas (Lundberg 1997: 171; Hallgren 2008: 257–260; Underdal 2018: 26–27). It is, however, unclear where the rock art tradition has its roots, and how the Finnish rock paintings relate to Swedish and Norwegian rock art. Since the main period for Finnish rock paintings is somewhat later than the date of the Scandinavian rock art locations, Underdal (2018: 27) finds it unlikely that Comb Ware populations inspired the creation of Slate Culture rock art. A more probable source was, in his view, Norway, where rock art was made several millennia earlier. I basically agree with this view, although it must be kept in mind that there are still many uncertainties as regards the dating of the Fennoscandian rock art sites.

In northwestern Russia and Finland, the elk’s key role in the diet of human populations continued in the fifth period and followed a pattern largely similar to that found in Scandinavia. In the forested inland regions, elk and beaver bones predominate within the osteological material, while seal constituted the most important prey on the coast and reindeer in mountainous areas. The economic importance of the elk was also large in central Russia and the Urals, even if other species were hunted as well, and animal husbandry had started to gain foothold. In the Baltic region and Belarus, the elk likewise seems to have remained an important prey despite the emergence of agriculture. Indeed, the overall data suggests that incipient agriculture and stockbreeding did not radically change the economy of Neolithic hunter-gatherers.

In northern rock art, the period 4200–3000 calBC is particularly rich in terms of the surviving evidence. “By 4000 BCE”, Goldhahn (2018: 59) writes, “most of the acknowledged rock art traditions used by hunter-gatherers in northern Europe were established and flourishing”. This heyday for rock art also included plentiful depictions of elk; not only as representations of individual animals but also in the form of elk-headed boats and staffs. The latter motifs were represented across a vast geographical region, mostly at large rock art sites. The sites with large concentrations of rock art also include scenes that provide indirect evidence for some of the (elk) hunting methods used in Northern Europe. The ski pursuit scene at Zalavruga and the boat hunting depictions at Kanozero, for instance, indicate that both skis and boats may have been used in elk hunting as early as in the 4th millennium calBC.

It is also important to acknowledge that even if the first carvings were created at large rock art sites during the previous period, it was not until this period that their unusual character became clearly accentuated. New carvings were produced at these exceptional locations by new generations, for whom pre-existing anthropomorphic figures in all probability represented (mythical) ancestors, or past “supreme hunters”. I proposed that it was namely at the large rock art concentrations where hunter-gatherer groups from different regions met each other, and that novel innovations spread to new areas across

Northern Europe presumably from these locations.

However, most of the rock art sites that include elk depictions consist of small, painted and carved rock artworks that differ notably from the larger rock art concentrations. It is not possible to give these sites a one-size-fits-all interpretation, but certain recurring characteristics pertain to the sites in general. Perhaps the most evident trait is the eye-catching focus on the depiction of elks without antlers. Another common feature is the rock art's attention-grabbing location in the landscape. Conspicuous rock art locations indicate that one of the most important intentions relating to the petroglyphs was that the figures would be noticed.

Most likely, there were numerous, overlapping connotations in the messages delivered through rock art in different regions and periods. Nevertheless, I am inclined to believe that the primary function of elk portrayals was much the same, no matter their outer contexts. At the core of the production of elk images on rock surfaces was the desire to assure continuing access to elks. Whether the elk images were made for straightforward "hunting magic" purposes (i.e. to portray animals that one wished to kill) or for more complex/ambiguous reasons, the *fundamental* reason behind them was the very same. Equally, even if elk-related motifs were made by shamans or totemic clans, the images were *in any case* essentially rooted in the livelihood of the groups that produced the images. In other words, alleged prehistoric shamans did not carry out soul journeys guided by elks just for the sake of achieving a trance, nor would the alleged totemic groups have worshipped common elk ancestors for no apparent reason. Instead, elk-hunting groups living in prehistoric Northern Europe had, inescapably, a profound connection to this animal, simply because they were more or less dependent on the availability of this exceptional resource. Irrespective of how these groups were organized, guaranteeing access to elks must therefore have been a vital component of their actions and beliefs.

That is not to say that the reliance on elks in prehistoric hunting societies should be taken as a deterministic factor in human-elk relationships within the boreal forest zone. Surely, there were many factors at play that caused both temporal

and regional variations. Not least, elk hunting was strongly bound to seasons, and this was inevitably reflected in ritual activity as well. Prehistoric (elk) hunters were not victims of, but rather fully adapted to, ecological conditions, and this was also manifested in their actions and beliefs during the yearly cycle. In fact, even if I use the term "elk-hunters" here, it would be naïve to claim that prehistoric hunting groups consistently identified themselves as such.

Indeed, just as we saw how "animistic" beliefs are not automatically manifest within hunter-gatherer societies but may appear only under certain circumstances, it is my belief that the significance of elk representations varied during the year. Above, I contended that elk-related artefacts were used especially in the autumn, while elk depictions in rock art were made primarily in the summer, prior to the upcoming rutting and hunting period. In other words, I claim that assuring the rebirth of elks became a task of particular (communal) importance when the role(s) of the elk in the yearly cycle started to become pronounced, and thoughts of this animal increasingly filled the minds of the hunters.

The fifth period also witnessed the flourishing of elk-related artefacts, which are found across a widespread region and represent a variety of items. In addition to elk-head staffs and other artefact categories familiar from the previous periods, new elk-related items that emerged in the fifth period were miniature (clay) sculptures and elk-headed slate daggers and knives. Thus, within these elk-related artefacts, there existed both prestigious items, possessed by prominent hunters, and more "ordinary" artefacts, the use of which was not restricted to high-ranking individuals. Despite evident differences in their use, two common denominators affected elk-related artefacts. Firstly, these were all, in some way or another, related to the *elk hunting process*, and secondly, these first and foremost depicted *antlerless elks*.

Without addressing the theoretical discussion of gender and sex in this study (see e.g. Fuglestedt 2018: 353–355 for a short overview on the topic; see also Jarvenpa & Brumbach 2014; Sterling 2014), I claim that prehistoric hunter-gatherers in the boreal forest zone considered the distinction between the two biological sexes

in elks to be highly significant. This is the only conclusion that adequately explains the outstanding focus on antlerless elk depictions throughout the northern forest zone across a period spanning several millennia. I suggested that, instead of being random generic representations of the species, the importance of elk figures depicted on rocks lay especially in their reproductive role. The same is probably true of elk-related artefacts, which likewise mainly represent antlerless elks that may be best interpreted as cows, but sometimes depict male elks with antlers (or antler stubs).³⁴³

As noted above, I concur with Fuglestedt (2018: 364) that some kind of a connection most likely existed between the social order of elks and that of humans. On a fundamental level, the enduring access to elks also resulted in the continuity of human life. At an everyday level, also, the ethnographic data point towards great similarities among hunter-gatherer populations as regards sexual connotations associated with the process of hunting (see section 2.2.1). These are all closely associated with the aim of assuring reproduction; not only of animals but also of humans. Because of these notions, I believe that elk representations in rock art and on artefacts had a certain link to human reproduction, in addition to their more obvious connection to the revival of elks. One might discern a clue to this in the “love triangle” scenes in Alta (Figure 48) and Kanozero (Figure 91).

In these compositions, an “elk-being” seems to be similarly related to the reproduction of both an elk couple and a human couple. The latter scene more precisely embodies the elk’s fertilizing power in the shape of an elk-head staff. There thus probably existed a belief that the staff could – in the hands of its prestigious carrier – contribute to the regeneration of life. It seems logical to assume that this was partly due to the concrete link between the elk and the staff (Figure 151), and partly because the staff typically represented an elk cow and was carried by a prominent male hunter.

Following the arguments of Herva and Lahelma (2019: 77), I have proposed that the primary use of elk-head staffs was related to the elk hunt, during which the elk was lured by means of the staff. However, it is not particularly far-fetched to assume that this procedure also played a role beyond the hunt itself. A secondary function of the elk-head staff, I assert, was thus related to post-kill rituals, in which the theme of reproduction played a key role. Indeed, I believe that the prehistoric elk hunting cycle came to an “end” only in proper post-kill activities, in which the metaphoric interaction between the hunter and the elk finally became fulfilled. In other words, it was the hunter’s obligation to honour the animal, which had let itself be killed, by responding to its willingness and desires through a display of appropriate actions. Conceivably, the process of seducing the elk was thus replayed in a post-kill setting and now it culminated in the elk being fertilized, which consequently assured the rebirth of the elk’s soul. In this way, elks and humans “gave themselves” to each other; consequently, guaranteeing revival but also assuring the continuity of hunting success into the future.

Could it thus be that carrying a staff in some way meant identifying oneself as a male elk that fertilized the elk cow, or otherwise played a part in the fertilization process? To me, it seems probable that a certain ideological connection existed between dominant elk bulls and powerful male hunters but, undoubtedly, it would be too simplistic to claim that the two were generically equated with one another in prehistoric hunter-gatherer societies. Correspondingly, while Herva and Lahelma (2019: 74) suggest that *all* elks were essentially regarded as females, this interpretation is not really convincing as regards prehistoric Northern Europe, where representations of evident male elks seem to have been of key significance (see section 6.3). I therefore believe that prehistoric elk-hunters did indeed make a distinction between male and female elks, and a hunter who was about to kill an elk was most certainly highly aware of the sex of this animal. It is also feasible that post-kill activities and the role of elk-head staffs could vary depending on the sex of the slain elk. To put it differently, whenever an elk was killed – be it a bull, a calf, or a cow – the appropriate response

³⁴³ Elk-related artefacts with antler stubs are rare but found in several categories of objects. Such artefacts include the boat prow from Lehtojärvi (F1), the amber sculpture from Dobiegniew (P1), the elk-head staff from Annin Ostrov (R8d), a miniature staff from BOO (R24a), as well as one of the bone finials from YOO (R1d).

was to secure its revival, and in this process, the characteristic behaviour of the elk was likely to play a part.

A feasible explanation for the elk cow's central role and the simultaneous existence of actions related to male elks (and calves) may lie in the difference between individual and communal activities. While individual rites were more likely to be centred on the appropriate treatment of the individual elks killed, communal actions were presumably more pervasive in character. In particular, it is worthwhile recalling the discussion of so-called "animal master spirits" or "game rulers", which in indigenous hunter-gatherer groups are often regarded as having the ultimate control over animals. As we saw in Chapter 2, these kinds of entities are believed to dictate the number of animals in the landscape, as well as their amenability to being hunted. Importantly, *it is namely because of animal master spirits that taiga hunters are reported to follow strict rules in their relationships with animals.*

There is of course no way of ascertaining whether similar beliefs in animal spirits ruling over game animals ever existed in prehistoric Northern Europe, but if they did, the focus on antlerless elk depictions starts to become understandable. For, if the *rebirth* of elks was fundamentally in the hands of a master spirit, who in addition was perhaps perceived through a sexual framework as a person to be seduced, it is anything but surprising that this being was understood in female terms. What I am arguing is that the supposed game ruler of elks was in all likelihood personified as an elk cow, even though the elks that she ruled over were both male and female. In other words, *all elks were not regarded as females, but they were controlled by a female elk-being.*

Now, the implication of this understanding is that *instead of being associated with particular animals, many of the elk-related manifestations in prehistoric Northern Europe were related to the feminine game ruler of elks.* Accordingly, the animals depicted on elk-head staffs, for instance, were not actually representing elks as individual (game) animals, but their master spirits, predominantly attributed with feminine qualities (cf. Helskog 2012: 218). The aforesaid elk-being on the Bergheim 1 panel (Figure 48) can likewise

be interpreted as an elk master spirit.³⁴⁴ The general prevalence of antlerless elk-head boats in rock art can also be seen in this light – the animal represented on the boat prows was not just an elk but an elk master spirit, which probably acted as the protector of humans travelling on boats. In fact, this reading can be suggested in a number of artefact categories; especially the wooden elk-related items that I associate with communal use.

An overly strict division in the beliefs and practices relating to the elk and its master spirit is, however, likely to be inaccurate. The same goes for the separation between communal and personal activities. Even if communal rites were likely to be more comprehensive than activities carried out individually, it is still fully possible that all elk hunters could conduct rituals towards killed elks as well as towards their master spirit(s). It is feasible that the distinction between the master spirit and the individual animal remained ambiguous, and the two were always in some way present within elk-related beliefs and activities. In addition, while certain actions were performed only by the most prominent hunters, these "rituals" could still be communal in character. Thus, the beliefs associated with elks and their rulers were probably shared by the whole community. In other words, *the relationship to game ruler(s) was personal and not controlled by a religious elite, but certain individuals were considered more skilful and prestigious than others in maintaining, and benefitting from, these relationships.*

Even if prehistoric hunter-gatherer groups in the boreal forest zone were likely to have their own specific conceptions of the elk, it thus appears as if they held a similar general principle in common. This was the concept of a life-giving elk cow as a master spirit ruling over this species and possibly over other animals and humans as well. Perhaps this being was in some areas perceived as an elk bull or in others as a (rein)deer, but there is reason to believe that in vast expanses of the taiga, it was mainly conceived as an elk

³⁴⁴ In fact, Günther (2022: 95–96) also notes that the elk depictions in Alta always lack male attributes when depicted in "enigmatic situations" involving interaction with humans. As she concludes, "[I]f there is an elk as a conventionalised type or as a personalised being of some kind, in Alta it is likely conceptualised as female" (Günther 2022: 96).

cow (cf. Jacobson 1993: 238). Thus, if one wishes to speak of an “elk cult” that existed in pre-historic Northern Europe, the distinctive trait of this “cult” was its focus on the elk cow as an animal master spirit.

However, whereas Jacobson (1993) understands the origin of the Scytho-Siberian cult of the elk/deer first and foremost through a totemistic framework, I can see no reason why a shared focus on a feminine elk game ruler in prehistoric Northern Europe should be associated with totemism – or any other belief system.³⁴⁵ Indeed, animal master spirits have a central role in “shamanic” societies, but also in “animistic” groups where shamans *per se* are not present. Game rulers also represent a central concept in explanations based on sympathetic magic and animal ceremonialism, and it is thus clear that the mere belief in animal master spirits cannot be used as a means to distinguish any specific doctrine or social organization as such.

That said, I am willing to argue that the game ruler epitomized as an elk cow was widely regarded as a *magna mater* that played a key part in the lifecycle of elks – and perhaps of humans as well – in more or less the same way as Jacobson (1993: 96–97) describes the role of the elk cow in the Scytho-Siberian world (see section 6.3). It is also possible that this game ruler possessed celestial and cosmological connotations, common in northern ethnography, but I do not wish to enter into this discussion as there are absolutely no ways of deliberating on such associations in a cogent manner.

On a general level, however, it seems likely that the relationship to the game ruler(s) was dynamic and intimate rather than static and remote in character. It was, I argue, just as “profane” and “rational” as it was “sacred” and “ritual” in character, reflected equally in beliefs as well as in actions. The numerous accounts describing the ambivalent nature of hunting in indigenous societies suggest that the hunter’s stance towards the game ruler could vary significantly depending on conditions, but the ideal

³⁴⁵ It can be noted here that numerous earlier Soviet scholars also favoured the totemism theory for interpreting animal representations – especially the deer – in Scytho-Siberian art. However, today this model is not regarded as sufficient for explaining the complexity and originality of the Scytho-Siberian animal style (A.R. Kantorovich, Phd, Lomonosov Moscow State University, email correspondence via E. Kashina, 4.2.2022).

was nevertheless to be on good terms with the animal master spirit for the hunt (and life in general) to be successful (see e.g. Schulting 2014: 1277–1279).

8.1.6 3000–2000 calBC: A period of changes

Table 15. Key aspects of the elk’s role in Northern Europe during the sixth period (3000–2000 calBC).

Economic significance	Major significance in Russia, the Baltic region and Belarus; major significance at local level in central and northern Scandinavia and in Finland; virtually absent in southern Scandinavia and the North European Plain
Elk-shape artefacts	Elk-head antler staffs; flint sculptures; wooden vessels; stone clubs/axes; slate daggers and knives; engraved slate items (Norrland); finials
In rock art	Carved (e.g. Nämforsen) and painted (Finland) elk depictions; elk-headed staffs and boats (Vyg, Onega, Kanozero)
Artefacts made of elk	Various tools and pendants
Special remarks	Other animal species start to grow in importance and partly take over the role of elk

The sixth period is characterized by notable changes relating to the human-elk relationship. Some elk-related phenomena seem to come to an end during this period, but at the same time, there are new artefact categories involving the elk that emerge during the 3rd millennium calBC. Below, I will discuss these changes and address a topic that closely relates to them, but which has not received much attention so far in this study – the elk’s significance in relation to other animals.

In economic terms, the elk’s importance was still large across many areas, but regional differences in the sixth period became even more accentuated than during the fifth period. Elks were entirely or almost absent from the North European Plain and southern Scandinavia, and the species was apparently rare also in Norway. In central and, especially, northern Sweden, elks were still of primary significance at the begin-

ning of the 3rd millennium calBC but lost importance over time, possibly due to a natural decline in elk populations caused by the changing climate. In Finland, the elk's role in human diets also seems to have generally decreased during the sixth period. In the interior of Finland, however, while not as significant as in preceding millennia, the elk remained an important species. In the interior of northwestern Russia, the elk's economic significance was likewise notable and widespread, despite the rise of agriculture. The same seems to hold true for central Russia and the Urals, even though the hunting of other animal species appears to have increased. In the Baltic region and Belarus also, the elk generally seems to have remained an important prey animal in the 3rd millennium calBC, as indicated by faunal remains and a range of tools made of elk bone and antler.

As regards rock art, in many ways the 3rd millennium calBC marks a decline in the production of elk-related images. As Goldhahn (2018: 59) notes, the rock art traditions of Finland and mid-Sweden (including Nämforsen) seem to coincide largely with the Comb Ware culture and the Norrlandic Slate culture respectively. Even if some elk images may in these areas have been created during the 2nd millennium calBC, it is rather evident that both traditions already began to disappear in the 3rd millennium calBC. In addition to elk representations coming to an end, the last depictions of elk-head staffs and elk-head boats in rock art would likewise mostly date to the 3rd millennium calBC. Taken together, these notions indicate that, during a relatively short timespan, major changes took place in how the elk was perceived by human populations over a vast geographical region. I will speculate upon the reasons behind these changes in the final section below, but I will here focus on one aspect that may at least partly explain why the elk rather rapidly lost its exceptional status in the forest zone of prehistoric Northern Europe. This is related to the impact of populations practising agriculture and animal husbandry.

The influence of a new set of beliefs linked to agricultural populations becomes clearly discernible in later Bronze Age petroglyphs, but during the 3rd millennium calBC, such signs are not yet evident in rock art. Instead, the introduction of novel beliefs during this period is epitomized by the emergence of new artefact categories, especially zoomorphic stone clubs and axes.

However, before continuing the discussion of the cultural context of these items, which began in the previous chapter, let us briefly address the elk's position in prehistoric art more generally.

Even if it can be addressed only superficially here, a highly important topic when studying the relationship between humans and elks is related to the connections between elks and other animal species in different periods. Understandably, the zoomorphic material from prehistoric Northern Europe is so large that there are no up-to-date studies that would take account of all art forms in which animals are depicted. That said, available studies that focus on smaller regions and/or certain types of artefacts suggest a similar picture.

For instance, in Kashina's (2005, Appendix 1) catalogue, comprising 433 small art objects dated to the Neolithic and Eneolithic periods from the forest zone of Northeastern Europe, anthropomorphic representations (174) constitute 40% of the artefacts, while bird depictions (170) are almost as common, accounting for around 39%. Depictions of all other animal species are greatly inferior in number, the most common of these being elk (25 or 6%), snake (17 or 4%), bear (10 or 2%) and fish (10 or 2%) representations. A somewhat similar calculation, albeit solely focused on Neolithic material from the Baltic region, has been presented by Antanaitis (1995: Appendix B; 1998: 62), according to whom anthropomorphic depictions are more prevalent (31%) than representations of any animal species. By her reckoning, birds (especially waterfowl) are the most common zoomorphic category (22%), followed by indistinguishable animals (15%), elks/deer (9%) and snakes (8%). Also in Iršėnas' categorization of the Stone Age sculptural art of the Baltic Sea region (2000: 99, 103; diagram 1), anthropomorphic representations (36%) are the most common, followed by images of bear (17%), elk (15%) and birds (11%).³⁴⁶

In sum, the above schemes indicate that, on portable artefacts, anthropomorphic representations are more common than depictions of animals. The high number of bird representations is

³⁴⁶ The larger proportion of bear (and elk) representations is, however, due to the stone clubs and axes that Iršėnas (2000) included in his calculation.



Figure 153. Animal depictions on different kinds of portable artefacts from Northern Europe. 1. Salmi, Finland (KM 11211); 2. Antrea, Finland (KM 1557); 3. Pihtipudas, Finland (KM 3801); 4. Pielisjärvi, Finland (KM 9003); 5. Laukaa, Finland (KM 6321); 6. Abora 1, Latvia (NML VI 76); 7. Valma, Estonia (AI 4022:5726); 8. Tamula, Estonia (AI 4118:1193); 9. Riņņukalns, Latvia (AI 1368:70). 1.–5. Archaeological artefact collections, Finnish Heritage Agency; 6. National History Museum of Latvia; 7.–8. Tallinn University Archaeological Research Collection. 9. Tartu University Archaeological Research Collection. Photos and compilation: Ville Mantere. Not to scale.

also striking, as well as the fact that elk images are not particularly numerous when set in relation to other forms of prehistoric sculptures. As noted earlier, the economic significance of animals is sometimes poorly reflected in prehistoric art, as suggested by the surprisingly low number of beaver and fish depictions. On the contrary, we can also notice that representations of certain animal species are far more common in the zoomorphic art of prehistoric northern Europe than their actual economic importance would imply. By this, I refer in particular to bird and snake depictions on portable artefacts (see e.g. Kashina 2015; Kashina & Emelyanov 2020; Kashina & Kaverzneva 2021; Koivisto & Lahelma 2021). While both species – at least the former – might well have been commonly eaten in the past, especially at certain times of the year, their overall role in the yearly diet can hardly have compared to that of elks, beavers, or fish.

In other words, the reasons behind the production of bird and snake representations on artefacts were most probably not similarly related to sustenance, as I argued to be the case for elk depictions.

As regards northern hunter-gatherer rock art, the pictographic material is so vast that it is impossible to calculate the prevalence of different motifs on a general scale. The percentage of elk depictions at individual locations differs notably (Table 4) and there are also numerous rock art sites without any clear-cut elk depictions whatsoever. Overall, however, it can be stated that the elk is the most common animal depicted in hunter-gatherer rock art. This animal occurs in rock art across entire northern Fennoscandia (and beyond), whereas depictions of other animals are more geographically localized (Gjerde 2018: 213). The elk's position is, in other words, clearly more significant numerically in

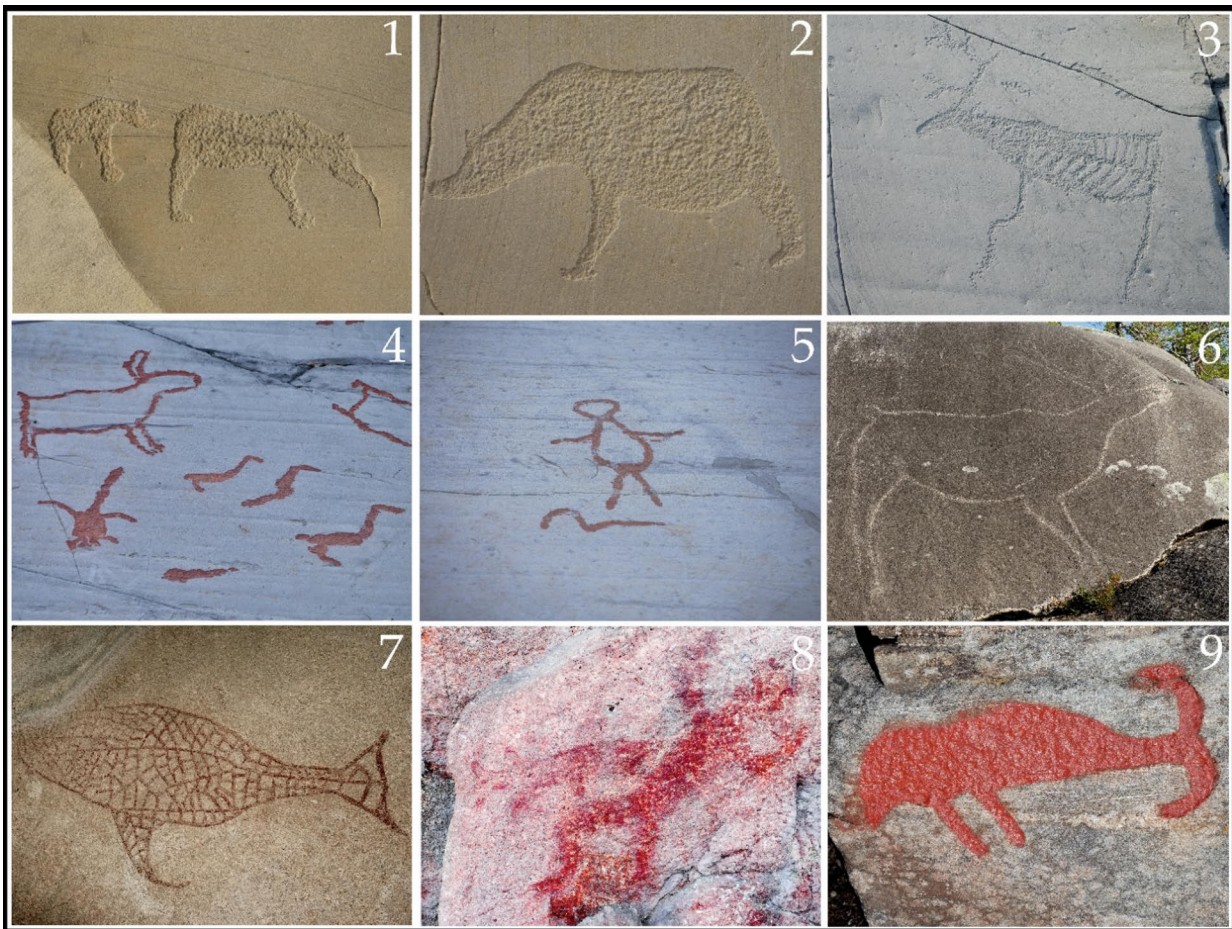


Figure 154. Animal depictions in northern hunter-gatherer rock art. 1.–5. Alta, Norway; 6. Jo Sarsaklubben (Nes), Norway; 7. Skogerveien (Drammen), Norway; 8. Juusjärvi, Finland; 9. Nämforsen, Sweden. Photos and compilation: Ville Mantere. Not to scale.

hunter-gatherer rock art than it is for portable artefacts. Another major difference between these two different forms of prehistoric art concerns depictions of birds. While there are notable exceptions, such as the predominant position of swans in the rock art from Lake Onega, bird depictions are in general not common motifs in rock art. Truly, numerous bird species can be identified in rock art, but their overall proportion is significantly smaller than is the case for portable artefacts.

Despite these discrepancies, there are also some evident correspondences between the animal motifs depicted in portable art and in petroglyphs, such as the surprisingly small number of beaver and seal depictions. Indeed, a thought-provoking question often posed by scholars is why the beaver and the seal are so rarely portrayed on prehistoric items and in rock art (e.g. Huggert 1996: 453–454; Hämäläinen et al. 2001: 21; Mansrud 2009: 200). Sporadic depictions of both animals exist at some rock art sites,

as well as on certain sculptures, but given the economic importance of these two animals in prehistoric Northern Europe, their minor presence in the region's art is somewhat remarkable. The explanation may partly lie in that despite both species being crucial economically, the role of these animals was probably still not comparable to that of the elk in the long term. In addition, the effort needed to gain access to these resources was essentially smaller than the work required in killing an elk. Beaver and seal hunting were thus also likely to be less prestigious and dangerous in character compared to the hunting of large terrestrial animals such as elk (cf. Russell 2012: 15, 155–156). A further cause for the scarceness of seal depictions may be that coastal groups did, for some reason, not produce art in the same way as populations in the interior.³⁴⁷

³⁴⁷ In addition, in northern ethnographic sources terrestrial hunters are reported to show a distrust for seal meat (Günther 2022: 121 and cited references).

But how should one interpret the elk's role in relation to other animal species? Above, we saw that many of the elk depictions on portable objects are found on artefact types that are not solely associated with this animal, but which depict other animals as well. In fact, it seems that it was namely during the latter half of the Neolithic period that such items became common. Ladles, flint sculptures and sledge runners, for instance, flourished during the 3rd millennium calBC, and on all of these artefact types, other species occur more often than elk. This suggests that the use of these items was not restricted to a single animal species, but similar beliefs and actions most likely pertained to a number of animals. For example, the fact that wooden ladles and containers often have elk- or waterfowl-headed handles indicates that probably a more or less similar convention underlay the use of these artefacts. To be precise, I believe that their function was related to communal (ritual) meals. Like elks, waterfowl provided a highly season-specific resource, and it is feasible that bird-headed ladles were, for instance, linked to the beginning of a new hunting season.

Another thought-provoking notion mentioned above was that wooden sledge runners and boat prows seem to be depicted with heads of bears and waterfowl at a significantly later phase than examples with elk-head decorations, because all of the three finds known from the Mesolithic period depict elk-heads (Figure 138). This, again, gives reason to assume that connotations earlier ascribed specifically to the elk started over time to be associated with other animals as well. A similar conclusion can be drawn from the depiction of elk-headed boats in rock art, which over the course of time become increasingly abstract and were eventually associated with other animal species; especially the horse. In consequence, it seems as if the elk in many ways had unparalleled significance in earlier periods, but it gradually lost its extraordinary status over time as other animals came to be associated with roles previously been limited to the elk only.

In this context it is worth mentioning that beliefs and customs related to animals in indigenous hunter-gatherer societies, as documented by ethnographers, are often not limited to a single species but apply to animals in general.

For instance, in Siberia, animal-shaped artefacts (including elk-shaped carvings) were generally donated as gifts to the local spirits that protected these animals in order to obtain good luck in hunting (Zvelebil 2008: 48 and cited references). Similarly, elks, bears and water birds have all been perceived by Eurasian peoples as caretakers of other animals, and as mediators between the different layers of a tripartite universe (Zvelebil 2008: 44). Even if there is no way of ascertaining the age of such beliefs, it is feasible that somewhat similar conceptions relating to animals, not just to the elk, existed during the 3rd millennium calBC. For example, it seems that birds, too, were sometimes associated with boats because of their equally liminal character (see section 6.2.9.2). Moreover, animal depictions in northern rock art share certain characteristics, such as inner designs and life-lines (Figure 76), which indicate that certain conceptions indeed pertained to animal species in general.

It is also possible that different animals were linked to different social roles. Kashina (2005: 149), for instance, suggests that because bird figurines are so common in the archaeological record, these might have been associated with the "average" person in the society. Correspondingly, the elk- and bear-shaped items, which are less common, could have been associated with higher status, and the beaver and aquatic species with a lower one. However, as Vorobyev (2008: 146) notes, this would mean that many individuals had no social status whatsoever, as zoomorphic pendants, for instance, were placed only in the burials of certain individuals while others were buried without any grave goods. To be sure, it is most difficult to archaeologically verify the assumption that different animal species were generally associated with different social roles in a human society.

That said, there seems to be some truth in the notion that the bird image was not necessarily associated with high-ranking individuals in the same way as some of the elk-related artefacts. Here I refer to the seemingly prestigious elk-related artefacts – especially the elk-head staffs and the stone weapons, both of which seem to have been taken out of circulation on purpose. Even if some rare examples of bird-head "staffs" are known (see e.g. Korolev et al. 2017: 209, fig. 1), it seems that, as a rule, birds were not simi-

larly used as symbols of status as were elks, and – later – bears. Thus, birds were perhaps linked to communal beliefs and activities more consistently than were elks.

It also seems, however, that certain animal species had a special connotation when depicted together, and such combinations can sometimes be discerned in archaeological materials. For example, Kashina (2005: 148) mentions birds and snakes depicted in pairs. Such combinations are found on artefacts and in rock art, and it is indeed likely, as Kashina argues, that there existed certain “codes” and shared sign systems that were represented by the specific relationship between certain animals (and humans) (see also Kashina 2007). As regards elk depictions, however, there are no obvious links to other animals that can be discerned in the archaeological record on a general level. The only conceivable exception is perhaps the elk-snake combination (see Huggert 2002b: 27–32). This connection can be clearly seen on two bronze daggers from Seima (Tallgren 1915) and Perm (Studzitskaya 1969) (see e.g. Ashihmina 2002: 16). It may also be discernible in the wavy ridge on the elk-head sledge runner from Vis 1 (Figure 138), which Burov (1989) interpreted as a representation of a snake.³⁴⁸ However, while Burov (1989: 395–397), on the basis of these and some other less evident archaeological examples of elk-snake symbolism from Russia and the Baltic region, speaks of a “cult involving the elk and reptiles which lasted for thousands of years”, I find this interpretation fanciful. Even if some elk-snake combinations exist in the archaeological record of prehistoric Northern Europe, these are still so rare that it is not possible to speak of the elk-snake connection as a common trait for this area, and certainly not as indicative of a cult centring on the relationship between these two species.³⁴⁹

³⁴⁸ One possible explanation for the curved ridge part is simply that the wood deformed while waterlogged (E. Kashina, email correspondence 4.2.2022).

³⁴⁹ It should be noted, however, that in the Scandinavian Bronze Age, the horse (especially its head) and the snake often occur in combination, not only in rock art but on various bronze artefacts as well (Kaul 2017: 190–191 and cited references). However, while this link may well be a continuation of an earlier association between the elk and the snake, there are no clear-cut signs of such a connection in hunter-gatherer rock art or on elk-related artefacts.

Of all the ethnographic references related to animals in the Northern Hemisphere, however, the brown bear (*Ursus arctos*) is without doubt the animal most often connected with myths, beliefs and customs of different kinds (see e.g. Hallowell 1926; Helskog 2012; Pentikäinen 2012; Piludu 2019; Grimm 2023). Against this background, it appears strange that the bear is depicted only rarely in northern rock art and is also rather infrequently represented on prehistoric artefacts other than stone axes. Correspondingly, the elk’s role in historical ethnographic accounts is noticeably limited despite the fact that this animal prevails in prehistoric art (Helskog 2010: 175, 182). Various explanations have been put forth regarding the enigmatic relationship between the elk and the bear in the archaeological record. Let us take a brief look at some of these theories.

Already in the introduction, I proposed that for the inhabitants of the forest zone the bear may have taken over the role(s) previously occupied by the elk. This idea has been suggested by other scholars as well. In Lindqvist’s opinion, for instance, a bear cult was preceded by an elk cult in Siberia and Scandinavia (Lindqvist 1978: 19; cited in Tilley 1991: 127; see also Lindqvist 1994: 245–246). A similar development in the Baltic region has, in turn, been proposed by Rimantienė (1992b: 136–137). Likewise, Shepherd (1995: 35) states that, in Finland, on the basis of archaeological data, “the elk maintained an older and more widespread importance than the bear”, and “[s]ince the bear hunting cult seems to have become so popular in Finnish territory in later millennia, the bear may simply have supplanted the elk hunting cult in that area”. She also puts forth the idea that Christianity might have been more tolerant towards bear symbolism than to an elk cult, which may explain why ethnographical accounts about the elk are so scarce in Finland. Shepherd (1995: 35) writes:

By the historic period, elk symbolism appears largely misunderstood or forgotten. It seems unnatural, given the hints in oral tradition, that elk would have so much less semantic identity in the traditional culture than the bear, especially considering its strong presence numerically among pre-Iron Age finds. It seems more likely that elk associations and motifs were somehow sup-

pressed to a greater extent in the protohistoric and historic periods than those of bear. One possible reason may derive from the elk's presumed link with the ancestor cult. This link would have made elk symbols and meanings particularly offensive to the Christian community and could be the reason for our minimal perception of them in the culture as we know it.

In Carpelan's (1977: 41) view, however, it is unlikely that a bear cult would have emerged considerably later than an elk cult among boreal hunter-gatherers. Nonetheless, he acknowledges that the oldest elk-head sculptures in Fennoscandia and Eastern Europe predate the oldest bear-headed sculptures by more than 2500 years.³⁵⁰ According to him, differences in these finds (no bear-headed staffs or boat prows) indicate that the alleged elk and bear cults manifested themselves differently. He also argues that the production of elk-headed sculptures was probably more or less constant from the Late Mesolithic onwards, whereas the production of bear-headed stone weapons in Finland and eastern Karelia during the Late Neolithic and Early Bronze Age indicates a clear intensification and/or restructuring of the bear cult (Carpelan 1977: 41; see also Lindqvist 1994: 246).

In Finland, several scholars have also speculated upon the existence of two clans; one worshipping the elk and the other having the bear as its totem emblem (see e.g. Kuusi 1963: 43; Siiriäinen 1981: 26–27; Pekkanen 1983; Pentikäinen 2005: 51–52; 2012: 157–158; Salo 2006: 175; Sarmela 2006: 56–58; Herva & Lahelma 2019: 75–76). The key source to this popular interpretation has been Tacitus' *Germania* (98 AD), in which two populations, *helluseios* and *oxinas*, are mentioned. Another factor that, I argue, has strongly affected this theory is the common grouping of animal-headed artefacts into just elk or bear-headed items (e.g. Carpelan 1974: 31–32; 1977: 31).

The former assumption has been earlier criticized, for instance by Ockenström (2012: 22–23), and I find it sufficient to state that any attempt to associate the peoples mentioned by Tacitus with

alleged elk and bear clans remains so hypothetical that it is not fruitful to continue this discussion here. As regards the latter notion, however, it is important to bring forth an aspect that has hitherto gone unnoticed, or is at least very rarely discussed, by those who have associated bear- and elk-headed items with respective totemic clans. This is the fact that, in addition to bears and elks, there is actually a rather large variety of animals represented on prehistoric artefacts – including stone clubs and axes.

Indeed, scholars have sometimes posed the question of why seal-headed stone clubs and axes are absent, as seals were nevertheless important prey animals (e.g. Korhonen 1982: footnote, p. 101; Edgren 1997: 160; Salo 2006: 174), but in so doing they have not questioned the classifications made by Carpelan (1974; 1977). As Huurre (2003: 241) cautiously suggested, however, the zoomorphic stone axe from Salmi (Figure 153.1), for instance, is more reminiscent of a seal than of a bear, which Carpelan (1977) took it to represent. In addition to seals, among the (often ambiguous) stone clubs and axes there are depictions of humans, phalluses, fish and amphibians (Mantere & Kashina 2021: 251–252; see also Shakhnovich 2002: 437).³⁵¹ Even if one could argue that these items belonged to a number of different totemic clans, this interpretation does not seem particularly convincing; especially because the depictions are divided extremely unevenly and are geographically widespread.

Another kind of popular explanation sometimes proposed for the scarceness of bear depictions in rock art is that the bear was associated with a taboo so powerful that it was considered dangerous to depict the animal on the rock. Pentikäinen (2005: 97; 2012: 156), for instance, argues that people were so scared of the bear that they did not dare to produce images of this animal, which competed with humans in hunting elks. In his view, this was especially the case at sites used for elk hunting, where the bear could also launch its attack. This interpretation, however, is not convincing for a number of reasons. First of all, there are some unquestionable depictions of bears in northern rock art, for instance in central Nordland and in Alta

³⁵⁰ I am disposed to date the zoomorphic stone clubs and axes to the 3rd millennium calBC whereas Carpelan attributed them to the first half of the 2nd millennium calBC. Nevertheless, Carpelan's notion of a notable chronological dissimilarity between elk- and bear-headed items is still valid in broader terms.

³⁵¹ Ailio (1905: 8) also recounted that bird-, snake- and sheep-headed stone clubs were recorded in Finnish Ostrobothnia during the 19th century, even if these items have apparently gone missing over time.

(Helskog 2012: 218–230), which indicate that bears could indeed be depicted (Figure 154.1–2).³⁵² Secondly, despite their generally later age, the various bear-headed artefacts equally provide no reason to assume that depicting bears was forbidden (Figure 153.2,5). Thirdly, even if elks are truly a part of the bear's broader diet, it seems highly unlikely that this fact was of any notable relevance to prehistoric elk-hunters, for whom the main elk hunting seasons were in all likelihood autumn and winter. During the winter, hibernating bears constituted no threat or rivalry to elk hunters whatsoever, and during the autumn, the diet of bears consists predominantly of carbohydrates (mainly berries) (see e.g. Kojola 2010: 172; Meriluoto-Jaakkola 2010: 107–109). It is therefore improbable that the reason for not depicting bears had anything to do with taboos or with their competing roles as elk hunters.³⁵³

On the contrary, one of the most believable explanations put forth concerning the difference between elk and bear depictions was presented by Korhonen (1982: 100–102, 119), who associated the emergence of bear-headed artefacts with the introduction of livestock. In his view, the bear first became an enemy and a threat when animal husbandry started to become common. Until the Late Neolithic, Korhonen argued, the elk was the main prey and bears were hunted only occasionally. However, as human patterns of subsistence slowly moved from an economy centred on hunting and gathering to agriculture, animal husbandry also grew in importance, which in turn transformed perceptions of the bear as a prey animal. While the bear had previously been more or less insignificant to the hunter-gatherer population, it now began to be seen as a tangible threat. For cattle herders, securing livestock inescapably became a task of vital importance. At the core of the various actions, offerings and rituals conducted towards the bear, Korhonen argued, was the wish of avoiding any damages caused to cattle. Such views not only continued but appar-

ently increased with the introduction of Christianity (Korhonen 1982: 101–102, 119).

Even if Korhonen (1982: 101) seems to underestimate the economic role of the bear in the Mesolithic and Neolithic periods (see e.g. Kashina & Khramtsova 2023), his idea of the correlation between the bear's new role and the increase of bear-headed artefacts is worthy of attention. Certainly, before 3000 calBC bear depictions are very scarce in zoomorphic art, but during the 3rd millennium calBC, this animal started to be portrayed on various items across the northern forest zone, such as on pendants and on the handles of different items (Kashina & Khramtsova 2023).³⁵⁴ However, the bear's new role is best illustrated in the form of animal-head axes, which constitute the only category of zoomorphic artefacts in prehistoric Northern Europe dominated by depictions of this animal. As noted above, the animal-headed stone clubs and axes were probably introduced by Corded Ware populations originating from central Russia; people who represented the first herders in the northern forest zone and entered this region during the 3rd millennium calBC.

The new "pastoralist ideology" with its focus on the bear seems also to have laid a special emphasis on masculinity. This is not only discernible from the fact that bears became associated specifically with weapons like battle axes, but also because some of the bear-head axes can be interpreted as phallic (see Shakhnovich 2002: 430; Mantere & Kashina 2022: 47). Bear hunting was certainly not without dangers, and it is conceivable that killing a bear was even considered a rite of passage, in which some kind of a transition from boy- to manhood took place (cf. Piludu 2019: 58–59).³⁵⁵ It is moreover likely that the characteristics of the bear were somehow paralleled with male attributes, as bears in several respects resemble humans (see e.g. Helskog 2012: 212; Anttonen 2013: 377; Corma & Ormez-

³⁵² In Alta, the number of bear depictions is in fact notable; according to Günther (2022: 104, 107) there are as many as 98 bear depictions on the Hjemmeluft and Kålfjord panels in Period II and III.

³⁵³ It should be mentioned anecdotally, however, that on the Peri Nos 3 panel in Onega there is a single depiction of a bear chasing an elk (Zhulnikov 2006: 61, fig. 55).

³⁵⁴ Bear depictions in earlier zoomorphic art are, however, not completely unknown. Among the amber sculpture finds from the North European Plain, there are some bear depictions, and a bone hairpin(?) with a possible bear-head finial was also found in the same Oberkassel double burial as the abovementioned elk sculpture (G2) (see Petersen 2018: 142–148).

³⁵⁵ This is not to say that elk hunting was necessarily considered less dangerous. According to Płonka et al. (2011: 730), for instance, some hunters in Siberia were more frightened of the elk than of the bear.

zano 2019; Günther 2022: 150 and cited references; see, however, Hallowell 1926: 150–151 and Günther 2022: 108–110).³⁵⁶

Against the said background, it is not surprising that all of the animal-headed stone axes in Russia that are found outside of Karelia either represent bear-heads or phalluses (Mantere & Kashina 2022: 50, fig. 5.2). Firstly, I take this as a sign that the origin of the new bear symbolism was indeed in central Russia and not in the northern forest zone.³⁵⁷ Secondly, this further indicates that the manner of sculpting stone items in the shape of animal species other than the bear was, in turn, not absorbed from Corded Ware groups (see section 7.3). Instead, it most probably started among northern hunter-gatherers, plausibly in Karelia. It is highly improbable that seal-head axes, for instance, would have had their origin in central Russia.³⁵⁸

In consequence, it seems that the bear did indeed, in some respect, replace the role of the elk in prehistoric Northern Europe, but this only partly describes the history of the roles of these animals in the minds of the region's human population. This is because, essentially, the role of the bear differed noticeably from that of the elk. While the elk had for millennia been associated namely with female characteristics as a benefactive life-giver, the role of the bear was instead closely associated with masculinity and rivalry. Importantly, this new role of the bear might have had an impact on earlier perceptions related to the elk as well.

To use the terminology presented in Chapter 2, the bear was not regarded through a benefactive but an adversarial ideology. This is in line with the notion expressed earlier about the

dissimilarity in human-animal relations between hunter-gatherer and pastoralist societies (Hill 2013: 120 and cited references; see also Helskog 2012: 212). In fact, this is fully reasonable, as livestock were not something humans received as a natural “gift”. Instead, they were above all a *human* achievement that obviously required protection (cf. Ingold 1986: 272–273). To put it differently, irrespective of whether elks had earlier been seen as infinite or as finite resources, cattle obviously were not an ever-renewable resource. Thus, *assuring the rebirth of elks became increasingly replaced by the task of assuring the lives of cattle*. However, while the ultimate power in the case of the former process had been ascribed to the game ruler, in the latter mission the focus was instead placed on the individual hunter. Gradually, the hunting ideology may thus also more generally have developed in a more antagonistic direction, in which the efficiency of hunters now played a central part, not his (or her) advantageous relationship with the game ruler.

However, it is important to again stress that the link between zoomorphic prestige items and powerful (male) individuals was in itself not new, but rather a connection of considerable antiquity. This realization might also explain why zoomorphic stone weapons so quickly became popular in the forest zone during the 3rd millennium calBC – their basic concept was already familiar to hunter-gatherer groups. For example, like stone hatchets or elk-head staffs, the stone clubs and axes seem to have been ritual items that were taken out of circulation on purpose. The important difference, however, is that while zoomorphic prestige items were earlier associated with the hunting process and epitomized the intimate relationship between the supreme hunter and the (elk) game ruler, stone weapons were no longer associated with a similar benefactive ideology. Instead, these appear to be more straightforward symbols of the masculinity and powerful status of their owners – perhaps even their role as warriors, as Zhulnikov (2012: 72) suggests. Fundamentally, this seems to result from a new set of beliefs, in which the elk no longer possessed a crucial role. Let us now move on to the seventh period, during which elk symbolism faced its ultimate decline.

³⁵⁶ Salo (2006: 171, 174) has also suggested that agricultural groups worshipped a god of the sky, personified as a powerful (male) anthropomorph, to which battle axes were strongly linked.

³⁵⁷ It seems that this foreign origin also largely explains the general lack of bear depictions in later northern hunter-gatherer rock art. That is, if the new bear symbolism in the 3rd millennium calBC had emerged among northern hunter-gatherers, one would expect this to be reflected in the rock art imagery, which is not the case.

³⁵⁸ It should be noted here that even though the bear is the predominant animal species depicted on stone axes, no images of bears can be clearly recognized on stone clubs (see, however, UF2 and US1 in Appendix 2 for two possible exceptions). On the other hand, elk representations are found on several stone clubs, which could likewise indicate that the zoomorphic stone clubs were namely a northern phenomenon (Mantere & Kashina 2022, tab. 5.1).

8.1.7 2000–1200 calBC: The decline of elk symbolism

Table 16. Key aspects of the elk's role in Northern Europe during the seventh period (2000–1200 calBC).

Economic significance	Significant in Russia, the Baltic region and Belarus; minor significance in Finland, central and northern Scandinavia; absent in southern Scandinavia and the North European Plain
Elk-shape artefacts	Elk-head antler staffs; slate knives and daggers; engraved slate items (Norrlund); sledge runner (Noormarkku); ladles; finials; figurines
In rock art	Last depictions of elks in hunter-gatherer rock art (possibly e.g. Nämforsen, Finland); probably last (abstract) depictions of elk-head boats (Norrfors, Nämforsen) but apparently no longer elk-head staffs
Artefacts made of elk	Various tools
Special remarks	Major decline in elk symbolism both concerning rock art and portable art

In the final period, the elk's significance in Northern Europe declined in economic as well as in symbolic terms. Many of the cultural manifestations involving the elk that had existed for several millennia in the forest zone came to an end during this period. In this section, I will discuss the multifaceted reasons for these changes.

Economically, the elk was no longer of unparalleled significance in many geographical regions – especially in the western parts of the region of study. The species was absent from the North European Plain and large areas of Fennoscandia. Elks were still part of the fauna at inland sites in the southern part of Finland, but the animal's significance had now noticeably declined compared to earlier periods. In the Baltic region, the elk's key importance in human diets and as a resource for tool production seemingly continued into the Early Bronze Age, even though agriculture and livestock breeding had started to gain foothold. In northwestern Russia and the Urals, the situation seems to have been largely similar. Yet, even in those areas where the species remained important, it no longer enjoyed the same outstanding economic status as in the preceding millennia.

Even if the decline in the elk's significance is thus notable over a vast geographical region, it is perhaps in the Norrland region where this phenomenon is the most apparent. Here, changes in the elk's economic role coincide with a number of cultural changes discernible in the archaeological record. As Baudou (1992: 88) lists, elk-heads disappear from slate artefacts, and in rock art, elk-head staffs are no longer depicted, and elk-headed boat prows become replaced with abstract lines. Baudou argued that the elk's symbolical role disappeared and was at least partly replaced by that of the spear, which points towards major changes in cosmology (Baudou 1992: 88–91; 1993: 257). Hallström (1960: 298, 313–314) and Kolpakov (2018: 178), in turn, have understood the growing significance of the axe in a somewhat similar light.

According to the view of Larsson et al. (2012: 11, 22), a drastic change in climate took place around 2200–1800 calBC. This would have resulted in a colder and wetter environment, eventually leading to a major drop in elk populations in central Norrland. In the authors' opinion, this change is not only reflected in osteological data but can also be observed in the disappearance of the elk from various archaeological sources (such as the mounds of burnt stone), in new ways of hunting, new artefact types, new raw materials (bronze, quartzite and ceramics), and so forth (Larsson et al. 2012: 22–24). It seems, for instance, that the hunting of elks using pitfall traps significantly decreased around 2000 calBC, and the practice was not reinitiated until a millennium later (see Larsson et al. 2012: 18–19, 24).

Another possible explanation that the authors offer for the decline of elk symbolism is that elk products became important trade goods within an exchange network between inland hunters and the sedentary farmers settled along the coast (Larsson et al. 2012: 25; cf. Hallgren 2008: 260). Indeed, without denying the potential impact of the changing climate on elk populations, it follows that if elks were primarily hunted in order to be exported, their symbolic and ritual significance was no longer the same as when they constituted the most important economic resource for the hunters themselves (see, however, footnote 113).

Another conceivable factor for the drastic decline in the elk's significance in Norrland, which

may also relate to the suggested demand for elk products as trade goods, was the high efficacy of elk hunting within this region. In particular, I refer to the almost 40 000 pitfall traps registered in the Norrland area. While only some of them stem from the Late Neolithic and the Early Bronze Age, it is still worth making a few observations on their possible role in the decrease of elk populations around this time.

As noted already, hunting pits in Norrland are positioned at sites through which elks were known to move, and many of the locations are still today frequented by elks. Hence, the effectiveness of pit hunting increased over time, in accordance with a decrease in the amount of labour necessary to invest in this hunting technique. While earlier generations had to spend considerable effort in digging out large pits in the soil, for later populations these pits were readily available in continuously increasing numbers. This surely made pitfall hunting a strategic hunting method. Over time, this resulted in a continued intensification of elk hunting by means of pitfall traps that, at least in theory, could affect the size of local elk populations. Indeed, of all prehistoric elk hunting techniques, hunting by means of pitfall traps was the form most likely to result in overhunting, and of all places in the region of study, this would most likely have occurred in Norrland, where finds of pitfall traps used for elk hunting are remarkably common.

Now, irrespective of whether the cumulative use of hunting pits played a part in the actual decline of elk populations, there can be no doubt that it made elks easier to catch. Moreover, even if the precise dating of various elk hunting techniques is virtually an impossible task, it is rather evident that the elk hunters in the Late Neolithic/Early Bronze age transition had a wider set of refined hunting methods at hand compared to their ancestors. Indeed, the methods used for elk hunting were not static but developed over time as information and experience cumulatively passed on from one generation to other. Consequently, at a general level, the effort acquired to kill an elk was in all likelihood much larger for a Mesolithic hunter than it was for an Early Bronze Age hunter. While the skill and experience of the individual elk hunter had been of the utmost importance in earlier times, for later hunter-gatherer groups that could make use of (existing)

pitfall traps, skis and other innovations, the elk hunt was probably no longer as dependant on the skills of individual “supreme hunters”.

There is of course no way to confirm this supposition, but I find it rather plausible that elk hunting became more commonplace and predictable in character as time elapsed. Assuming that this was the case, it is moreover conceivable that the efficiency of elk hunting was reflected in the elk’s symbolic and cultural roles. In other words, if elk hunting eventually became so well-organized and efficacious that it did not markedly differ from fishing or beaver hunting, it is understandable that the value ascribed to beliefs and actions involving the elk, too, underwent a certain kind of decline. Importantly, increased efficiency of hunting seems not only to have diminished the elk’s superior position in the minds of prehistoric hunter-gatherers, but apparently it also paved the way for other animals to replace the role(s) that the elk had held in the forest zone for several preceding millennia. In a sense, it was thus the decline in the elk’s significance that made it possible for other animals to grow in importance.

Above, I contended that the bear partly took over the elk’s previous position in the northern forest zone, although there were fundamental differences between the connotations ascribed to these two animals. Ultimately, I argued that this was due to a new “pastoralist” set of beliefs introduced to the forest zone of Northern Europe. In the Upper Volga region, for instance, the decline of elk symbolism manifested in the Volosovo culture seems to be largely explainable by the introduction of the Fatyanovo culture, which resulted in major cultural changes including metalworking and cattle breeding (Vorobyev 2008: 148; on the topic of change in hunter-gatherer religion, see e.g. Whitley 2014: 1223 and cited references).

Apart from the bear, there also seems to have been other animals that more or less replaced the elk in its earlier role(s). As Ashihmina (2002: 17) notes, for instance, elk symbolism in the northern Sub-Urals region was gradually replaced by horse symbolism, which took place in parallel with the economic changes in this region after the Bronze Age. Similarly, in Scandinavian rock art, the horse seems to have substituted the elk’s

symbolic significance from the Bronze Age onwards (see Lage 2022).

In fact, Goldhahn (2018: 60–63) argues that a second major rock art “boom” took place around 1600–1400 calBC, with the introduction of bronze technology and a new type of rock art. In his view, it most likely indicates an ontological shift related to farming communities and a “shift from cults associated with the ancestors during the Late Neolithic (2350–1600 BC), to cosmologies that honoured the daily and yearly rebirth of the sun during the Bronze Age”. This is illustrated by new key symbols and hierarchies, especially “maritime and martial themes” (on the topic, see e.g. Brück 2011). The second rock art boom is also characterized by the disappearance of earlier themes (e.g. elks and other elk-related motifs), which probably to some extent reflects changes in climate, but also sedentary lifestyle, farming and herding (see Goldhahn 2018: 63–64). I find this scenario credible.

As regards elk depictions in portable art, the final period 2000–1200 calBC marks the termination of several artefact categories. These include, for instance, the Norrlandic slate items; the elk-headed daggers and knives as well as the engraved slate pebbles and points. The perhaps most notable change on a broader scale was that the production of elk-head staffs ceased, given that this artefact group had been constantly present in the northern forest zone for as long as five millennia. The youngest radiocarbon dated staffs are the miniature staffs from the BOO burial ground, which seem to represent elks as well as reindeer. Perhaps, the use of “proper” elk-head staffs had thus already come to an end, and the BOO staffs were a prolongation of the original phenomenon, manifested differently in a geographically remote region. This scenario suggests that the elk’s role in northernmost regions was eventually taken over by the reindeer. If this was the case, it is fully understandable in light of the changing climate that had forced elks to move south.

In the previous section, we saw that the artefacts on which elks were portrayed during the 3rd millennium calBC increasingly consisted of items associated with a variety of animal species. This trend continued in the final period as well. Besides the artefact groups mentioned above, elks were represented on sledge runners, ladles,

sculptures, and figurines, as well as on bone and antler finials of different kinds. In all of these categories, elk depictions are not characteristically linked to the artefacts themselves.³⁵⁹ This seems to indicate that *before elk symbolism ceased completely, it was preceded by a phase in which the elk’s role was reduced to being considered as merely one animal amongst others.*

The focus on masculinity and the bear most likely continued strongly, even if this was apparently no longer manifested in the production of zoomorphic stone weapons. Understandably, the elk and, especially, the earlier feminine connotations of the elk cow as a life-giver did not fit well into this ideology. Neither played they a role in the new Bronze Age cosmologies that, as noted above, were largely constructed around marine and celestial conceptions. In fact, one should not underestimate the role of novel cosmogonies in the decline of elk-related beliefs. Rather than perceiving the former simply as causal consequences of new kinds of economies and lifestyles, one should consider the possibility that new conceptions were not always related to fundamental changes in the local economy in a straightforward manner.

In northern areas of the forest zone, in particular, agriculture and livestock keeping were long of little or no importance, whereas hunting remained in an important role well into historical times. However, elk symbolism seems to have ceased over the course of the 2nd millennium calBC in these northern areas also. It therefore seems possible that “agricultural” or “pastoralist” sets of beliefs gained a foothold also in areas where agriculture and livestock breeding were not practised as such. Overall, the difference to earlier elk-related beliefs and activities seems to have been notable. The end of the elk-related imagery in rock art and portable art indicates that many of the connotations that for millennia had been associated with this animal underwent a drastic deflation. For the contemporary populations, this was probably manifested in other ways as well.

In sum, it seems that just as the initial roots of elk symbolism were multifaceted, so too were the reasons for its decline. Above, I have listed some probable factors, including changes in

³⁵⁹ The wooden elk-shaped vessels that might stem from this period constitute a possible exception.

climate and economy, intensified and highly developed hunting strategies, trade networks, and the growing importance of other animal species. In all likelihood, there were even more factors at play, such as changes in population, and it also goes without saying that not all of the said aspects were of equal importance across the vast region of study. Yet, in essence, I am disposed to argue that it was namely a multitude of reasons that together caused the elk to lose its multimillennial significance in Northern Europe. Indeed, I find it rather unlikely that a single factor alone, such as the changing climate or the

introduction of agriculture, could have altered the elk's position so fundamentally over so vast a geographical region, no matter how large their influence was on a local scale. A more probable explanation is that a number of contributing factors accumulated over a relatively short timespan, eventually making the time ripe for a change. Once this chain of events had begun, the heyday of the elk was permanently over. Even if the species remained an important prey in many areas, the elk would never recover the role that it had played for people in the northern forest zone over several millennia.

8.2 Summary and conclusions

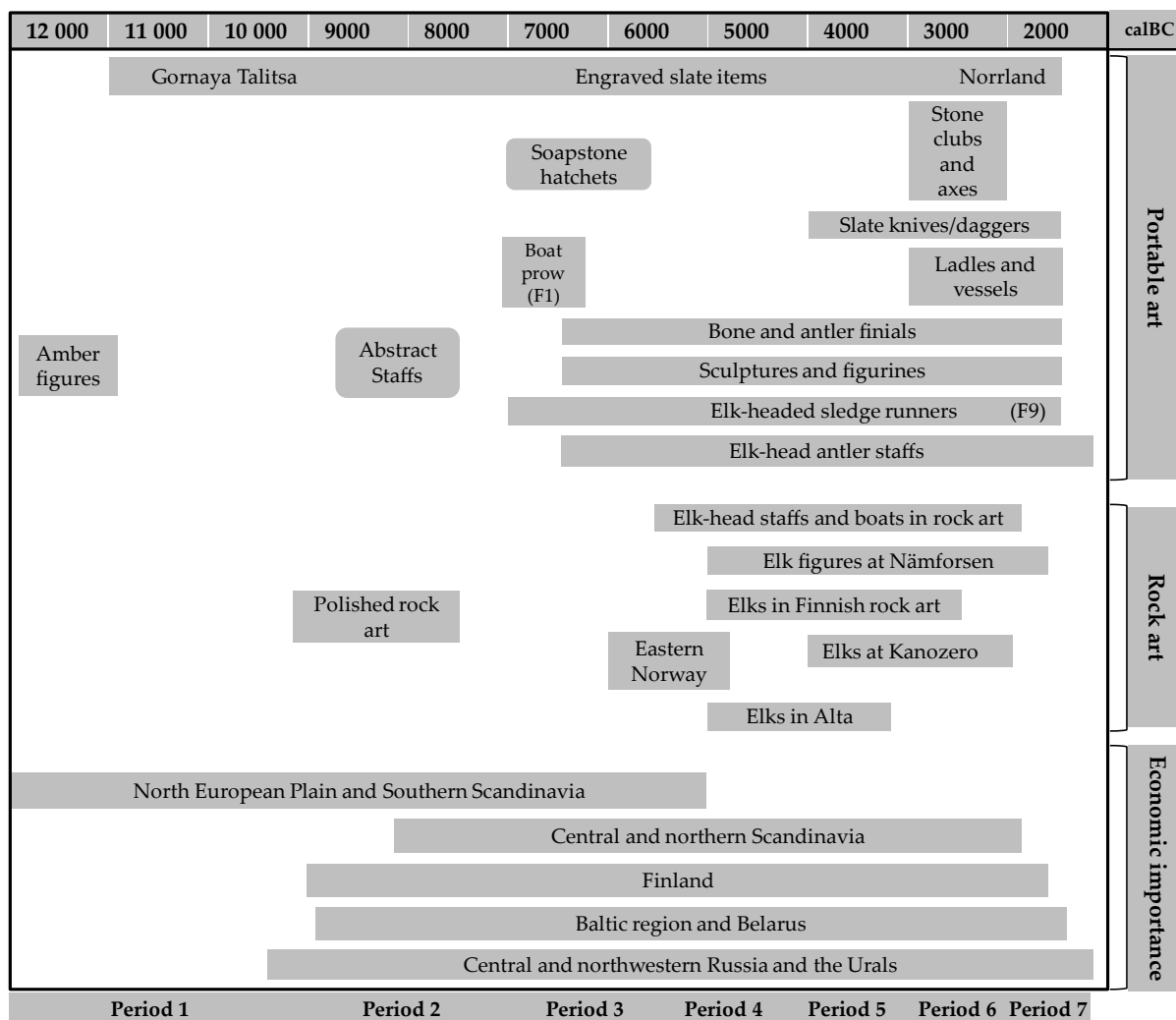


Figure 155. Chronological scheme illustrating various manifestations of the human-elk relationship in Northern Europe from a long-term perspective. Figure: Ville Mantere.

My central aim has been to study the relationship between humans and elks in Northern Europe during the period 12 000–1200 calBC. In

the previous chapters, I have examined this relationship from several perspectives. I have discussed the elk's position within the osteo-

logical material (Chapter 3); topics related to prehistoric elk hunting (Chapter 4); elk-related motifs in northern hunter-gatherer rock art (Chapters 5 and 6); as well as the elk's role in portable art (Chapter 7). In the present chapter, I have brought together these different outlooks and, based on them, assembled a chronologically structured scheme for comprehending the relationship between humans and elks from a long-term perspective. To encapsulate the key manifestations of the elk's wide-ranging importance discussed, and to clarify and visualize their interrelationship in a linear perspective, I have constructed an oversimplified timeline that demonstrates, roughly and directionally, the elk's role over time (Figure 155). Now it is time to draw a conclusion to this study and summarize its implications.

Two key questions that I posed at the beginning of the thesis were related to how the elk turned out to be the most significant animal species in the forest zone of Northern Europe and the manner in which elk symbolism emerged. The subjects have been dealt with earlier in this chapter, but to sum up, both processes most probably started sometime around 12 000 calBC in the North European Plain. This took place when the warming climate caused hunter-gatherer groups to shift their focus from (rein)deer and other animals towards the elk. Besides the change in climate, there must have been multiple factors at play. Of these, the elk's versatility as a resource and the efficacy of elk hunting are likely to have played a major role. Another key ingredient in this development was in all likelihood the elk's solitary behaviour that noticeably distinguished it from other deer species. This aspect, I have argued, necessitated new hunting strategies and, importantly, led to a particular appreciation for the skill and experience of individual elk hunters. Conceivably, the respect and esteem shown for elk hunters further encouraged the conceptions ascribed to this animal. Ultimately, however, elk symbolism did not simply appear in the 12th millennium calBC out of nowhere but was undoubtedly linked to earlier zoomorphic art forms of the Palaeolithic era.

Another central question posed at the very beginning of this study was related to the factors that caused the decline of elk symbolism. Here

too, as we have just seen, there were numerous aspects involved, not least the changing climate. Another major cause was most likely the rise of agriculture and cattle herding – and the new set of beliefs related to them. These factors seem to have had a large impact on the elk's diminished role even in areas where the new subsistence strategies did not fundamentally replace the hunter-gatherer lifestyle. It also seems as if the beliefs and activities associated with the elk hunting process suffered a certain devaluation over the course of time. Moreover, in conjunction with the “normalization” of elk hunting and the decline in the forms of meaning ascribed to the elk, the role of other animal species seems to have become more significant. Ironically, just as the elk had initially replaced the earlier role(s) of other animals, in the end it was the destiny of the elk to be substituted and overruled by other animal species that had become more important.

Between the emergence and decline of elk symbolism, however, there was an astounding epoch of numerous millennia, during which the elk was indisputably the single most important animal species across this enormous region of study. Over the course of this period, the elk's multifaceted significance gave rise to a plethora of manifestations that I have examined to the best of my ability. In particular, material evidence for human responses to the elk consist of various thought-provoking depictions in northern rock art and of a large variety of portable artefacts. The latter can be grouped in several ways. These consist, for instance, of personal and communal belongings; prestigious and “ordinary” items; funerary and settlement finds; local and widespread manifestations; pre- and post-kill artefacts; naturalistic and stylized specimens, and so forth. In other words, the variation in elk-related artefacts is remarkable. Nevertheless, there seems to be one common denominator for the finds, and this is their more or less recognizable relation to the process of elk hunting.

As regards the elk motif in rock art, a similar degree of variation is equally evident. Elk figures were made in various sizes, at widely different locations, with and without connection to other figures, as stylized and naturalistic portrayals, with various kinds of inner designs but equally as outline and scooped-out depictions,

and so on. Despite this diversity, my central argument has been that, ultimately, elk figures in rock art were also in general associated with the elk hunting process. This especially holds true for the “ordinary” rock art sites. Regardless of whether elk hunting was undertaken in the vicinity of these sites, they were still closely linked to the hunting process, and, especially, to the aim of assuring access to elks in the future.

As regards the large concentrations of rock art, however, the function of these seems to have been different. Presumably, their more vivid and multifaceted imagery resulted from meetings between different people. The rock art at such locations can be understood as narrative stories about the actions of past generations, but I have equally stressed the importance of sharing hunting knowledge, as well as the process of accumulation. At times it is evident that the large rock art panels were formed as a result of several successive phases of rock art production. The fascinating compositions and scenes are thus not always a product of considerate planning but instead outcomes of numerous individuals’ conceptions – centuries or even millennia apart. Even on these panels, however, elk figures have a connection to the hunting process. This is, for instance, discernible in the narrative compositions illustrating elk hunting that are found namely at the large rock art concentrations.

Just as in the case of artefacts, elk depictions in rock art do not show any stylistic developments from a long-term perspective. In fact, the variation between elk figures is, even within single locations, so perceptible that I have, along the lines of Skandfer (2020: 119), taken this as a sign of deliberate action. In other words, elk figures in rock art seem in all periods to have represented elk *individuals*, not mere generic expressions of the elk as a species. This echoes the widespread conception in hunter-gatherer thinking that prey animals are human-like persons, with whom it is necessary to entertain good relations. Basically, in the light of current data, the only potential stylistic progression in elk imagery that took place in rock art was the introduction of inner designs and elk-human interactions (as opposed to large naturalistic animal figures) during the Late Mesolithic period. As stressed, however, rock art sites dated to the Early and Middle Mesolithic periods are so

scarce that it is not possible to draw any far-reaching conclusions on the basis of these. Nevertheless, some of the changes concerning the elk motif are obviously comprehensible in the frames of the wider “rock art explosion” that manifested itself across Fennoscandia in around 5500–5000 calBC in a number of ways.

Besides the elk motif, two other elk-related themes in rock art that have been of central importance to this study are the elk-head staff and the elk-head boat. These are examples *par excellence* of the “rock art explosion” as the two not only emerged more or less simultaneously in northern rock art but were also depicted mainly at the same large rock art sites. Moreover, both were represented in rock art but also existed as physical objects. These notions strongly suggest that the two concepts were much similar in essence and most probably had a mutual origin. In both cases, the motifs existed as physical artefacts *before* they started to be depicted in rock art. In all likelihood, the two manifestations go back at least to the mid-Mesolithic period, probably the 8th or 7th millennium calBC, but it is fully possible that their roots go far further back in time.

The elk-headed boats and staffs were vital to the process of hunting, but this certainly was not their only function. Indeed, both were remarkably similar also in that they were represented on rock surfaces in mythical contexts. In this way, these two concepts serve as perfect illustrations of the inseparability of fixed categories in prehistoric hunter-gatherer thought. The staffs and the boats exemplify that there was no strict dichotomy between the sacred and the profane, between the elk and the human, or between the real and the unreal.

I have argued that the elk-head boats and staffs were fundamentally linked to the skill of the individual hunter, but simultaneously, these were just as much linked to the elk as a species, and to the additional connotations related to the elk. By this I want to emphasize the fact that it was *the elk’s natural behaviour* that gave rise to the elk-head staffs and the elk-head boats, respectively. In fact, these two manifestations provide cases in points confirming the basic hypothesis expressed in the introduction: that the beliefs and activities involving the elk were chiefly

grounded in observations of elk as a species from an ecological perspective.

The elk-head staffs, I argue, evolved because of the realization that elks – young bulls in particular – could be successfully hunted by way of imitation. By representing a female elk (master spirit), the elk-head staff functioned as a powerful tool in the hands of the skilful hunter. Over time, this special artefact came to be attributed with additional connotations, but at the core there was the idea that *the elk-head staff represented the elk (cow) and its natural behaviour*. Most probably, this conception was somehow present in all of the different usages of the elk-head staff.

The elk-head boats, in turn, emerged essentially as a result of the elk's ability of moving fluently between the terrestrial and the aquatic realm. The elk and the boat were thus conceptually similar, and this likeness was probably further strengthened by the fact that elk remains were utilized in the production of boats. Like the elk-head staff, the elk-head boat, too, was thus (partly) made out of the same animal species that it represented. It seems probable that the connection between elks, boats and water was moreover manifested in beliefs and activities related to renewal and rebirth. Fundamentally, however, I argue that the underlying notion was here, too, that *the elk-head boat represented the elk (cow) and its natural behaviour*.

The elk-head boats and the elk-head staffs that existed in the real world were used by elk hunters. More precisely, I stressed that these, especially the latter, were possessions of the most skilful elk hunters in each society. Drawing on earlier studies, I likewise argued that it was namely these supreme elk-hunters that came to be considered as mythical ancestors and that moreover were depicted in relation to elk-headed boats and staffs within the large rock art concentrations. Thus, in addition to being innovation centres where people from different regions met and communicated with each other, the rock art produced at the large concentrations was distinct because it was closely related to ancestors.

The connection to ancestors and earlier generations was reinforced by the fact that people returned to the large rock art sites over and over again for several millennia. As time elapsed, the tangible connection to the earlier generations

that had produced the pre-existing images on the rocks inevitably declined, eventually resulting in the petroglyphs and their creators gaining mythical connotations. Regardless of whether the staff-carriers and the elk-head boat owners depicted in the rock art had originally represented living or past supreme hunters, for later generations these were, all the same, epitomized as more or less mythical ancestors. At the same time, however, it is important to acknowledge that the primary cause for organizing and attending meetings most probably was not merely the veneration of ancestors but the hunter-gatherer lifestyle more generally. It was thus aspects related to hunting knowledge that, I believe, were transmitted at the meetings, and probably also portrayed on the rock surfaces.

Elk-related portable artefacts and motifs in rock art may have served different purposes or have been made by different populations, but their common denominator – the elk without antlers – strongly suggests that there were shared conceptions underlying both these forms. Without a doubt, the material discussed in the previous chapters provides good grounds for arguing that the elk cow had a distinctive role in prehistoric Northern Europe. This role can essentially be explained by the elk's biology and ethology. Partly because of the behaviour of elks during the rutting period and partly due to the cow giving birth to new elks, the female elk gained a special position in the minds of past elk hunters, who were not only familiar with, but also well adapted to, the animal's ethology. Indeed, perhaps the most dominant trait in the elk-related beliefs and activities that existed in Northern Europe during the period of study seems to have been the *multimillennial focus on the elk cow, manifested especially as a feminine game ruler or animal master spirit*.

But how should one label and understand prehistoric beliefs and practices involving the elk cow? In Chapter 6, we saw that, in Siberia, the oldest layers of the beliefs centred on the elk cow were *communal* and *direct* and thereby dissimilar from later beliefs, in which the elk cow was associated with shamanic practices. Somewhat bewilderingly, however, Jacobson (1993: 172, 180) regarded these pre-shamanic beliefs both as “animistic” and “totemic” in essence. Nevertheless, at the core of these beliefs there

seems to have been a common conception about the elk cow as a life-giving progenitor. A largely similar explanation has been offered by some researchers for the elk cow's role within a prehistoric European context (e.g. Tilley 1991: 68; Rimantienė 1992a: 374; Straižys & Klimka 1997: 58). In order to further deliberate on the existence of an actual "totemic cult" centred on the elk cow, however, we must return to the theoretical framework of this study.

In Chapter 2, I briefly referred to the evident problem of applying two central concepts of "traditional" totemism to the study of elk representations in prehistoric Northern Europe. The first of these is related to the taboo of killing the totem animal and thus to the typical economic insignificance of this animal species. The second, in turn, regards the common link drawn between the totem animal and a particular clan. By now, it has become even clearer that if we are to understand the evident focus on the elk (cow) in prehistoric Northern Europe as a reflection of totemic beliefs, then it is necessary to acknowledge the inadequacy of both of these principles. To be sure, the elk was economically one of the most important animals in the forest zone for several millennia. In addition, the special significance of this animal was noticeably widespread and certainly not limited to sporadic groups. While it is true that other aspects commonly related to totemic groups, such as the significance of ancestors and landscape, seem to provide a better means to interpret the elk-related archaeological material, it is important to stress that these traits are not unique to totemism but are significant among hunter-gatherers in general.

In consequence, the traditional definition of totemism seems not to be applicable to the elk-centred beliefs that existed in large parts of the forest zone in prehistoric Northern Europe. However, it is still fully possible that members of past hunter-gatherer groups to some degree identified themselves and their ancestors with elks. Likewise, it is conceivable that the elk cow was by these groups seen as a progenitor and a life-giver. Yet, to therefore label these groups and their beliefs as "totemic" would necessitate a rather loose definition of totemism. Importantly, it is justified to ask whether such a vague categorization would be of any help when trying

to shed light on the elk-related beliefs and practices and their practitioners. For, if the traditional dogmas of totemism have proven insufficient, it is likely that none of the conventional views regarding this belief system will provide particularly useful means for interpretation.

For the above reasons, I do not wish to associate prehistoric elk-hunters and their beliefs with "totemic cults" or "clans". The same goes for interpretations centred on shamanism, mainly because of the very same problem of defining this belief system. As we have seen, however, it is rather obvious that some individuals in prehistoric elk-hunting groups were more prestigious than others and were also associated with certain artefacts and ritual power. Such individuals, "supreme hunters" or "big (wo)men", as I have described them, in all likelihood acted on behalf of their group and were probably believed to have a special connection to elks. Moreover, if some type of hunting management was carried out in prehistoric Northern Europe, as I am disposed to believe, it was likely the supreme hunters who were the chief authorities in this process. Nonetheless, as must have become clear by now, I am still not willing to label such individuals as "shamans" or the worldview of past hunter-gatherer groups as "shamanic". This is not only because there are no ways of telling whether "shamanism" ever existed in prehistoric Northern Europe and because the role of prestigious individuals was ultimately related to their skill and experience as (past or present) *hunters*. It is also because shamanism as an explanatory model does not provide the tools for understanding *why* representations of elks were made over several millennia on both artefacts and rocks in the forest zone of Northern Europe. Indeed, just as in the case of totemism, even a loose definition of "shamanism" does not manage to encapsulate the essence of a worldview centred on spiritual beings (cf. Jordan 2008: 233).

Throughout this study I have emphasized the importance of individual *skill* in indigenous societies. As we have seen, it was essentially differences in skill that prompted certain individuals to become more important than others in hunter-gatherer groups. I also argued that differences in skill and experience could even be of greater significance to prehistoric hunter-

gatherer societies than differences in sex. However, it is still necessary to express a few thoughts on the topic of skill, because it is important to realize that skill in prehistoric hunter-gatherer groups was not necessarily understood in the same way that we may understand it today (cf. Finlay 2014: 1198–1199; for an elaborate discussion on skill, see Ingold 2000: 37, 352–354).

A prevailing view among hunter-gatherers is that the ultimate control of animals lies beyond the human sphere and that hunting luck is essentially an outcome of good relations with animals and their master spirits. Thus, in the same way as hunting luck, *hunting skill was most probably considered to be a result of good and beneficial human-animal relations*. Of course, as I have argued, a prestigious elk hunter must have been skilled in imitating, tracking and stalking elks. However, ultimately, such "rational" skills are of poor value if elks do not occur in a region. Prestigious elk hunters were therefore just as dependent on "ritual" skill, that is to say, on the skill of maintaining good relations with elks and their game rulers, consequently resulting in the presence of amenable elks in the landscape.

Needless to say, a division between rational and ritual skill is completely misleading, because the ethnographic data strongly suggests that such a division is unfamiliar to indigenous thought. However, my point here is that it is feasible to assume that prestigious elk hunters in the past were intrinsically regarded as skilful by nature. These individuals were probably seen to have developed a profound connection with the animals they hunted, and it was this connection that prompted them to become efficient hunters. In some sense, this can be understood as a cyclical two-way process. Because of their hunting skill, these individuals had over time developed a personal relationship with the elk(s). Yet, importantly, it was also because of their skill in developing and maintaining these relationships that they had managed to become successful hunters. In the end, *skill was needed in every single aspect of the entire hunting cycle – not just in the killing of the elk but in the numerous post- and pre-kill phases as well*. The latter were not only inseparably associated with one another, but also served to establish proper hunting processes and, thereby, define the identity of the elk

hunter. Unsurprisingly, it was those individuals who best mastered this way of life that eventually became the most important individuals in elk-hunting groups.

Yet, the diversity in the archaeological elk-related material suggests that beliefs and actions related to the elk were both personal and communal in character. While it is possible that rock art (at least the large concentrations of petroglyphs) was more closely associated with a communal purpose than were the portable artefacts (cf. Zhulnikov and Kashina 2010a: 16), there is reason to believe that personal and collective activities were both (omni)present in hunter-gatherer groups. At the core of these activities was the commonly shared belief that people could interact with elks. In other words, *even if the relationship between the hunter and the elk was in all likelihood deeply personal in nature, an awareness of this relationship was shared ubiquitously by all members of the group*.

It is moreover probable that hunter-gatherer groups that shared more or less similar conceptions pertaining to the elk existed over vast areas across the boreal forest zone. Variations as to the precise content of these conceptions are of course to be expected, but on a general level, the resemblance in prehistoric elk representations on the one hand, and the similarity of indigenous human-animal relationships documented in ethnographic literature, on the other, suggests that the basic conceptions concerning the elk were shared by hunter-gatherers at large. To these one can at least include the special role of the elk cow, the conception that elks must be amenable to the hunting process, and the view that humans by means of their actions have an effect on the reproduction of elks.

However, to claim, based on the above notions, that the worldview of prehistoric elk hunters in Northern Europe was "animistic" would not only be a daring but also a rather lacklustre deduction. In the end, such a statement would be of little value as it would not essentially broaden our understanding of the topic of this study by any means. In addition, in using such a categorization, there exists a risk of overlooking aspects that most probably were of vital importance in the past, but which may not necessarily be popular subjects within the modern discourse on animism. While I am definitely

convinced that some of the notions associated with the “animism” model, such as animal personhood, the importance of practice over philosophy and the concept of mimetic behaviour, are all of the utmost significance in understanding prehistoric hunter-gatherer ways of life, these are certainly not the only relevant ideas that exist.

Indeed, as we have seen, gaining luck in hunting and the carrying out of acts in order to compensate for the animals killed are examples of additional, widespread conceptions that I find to be at least as important to the study of the elk’s significance to the populations of prehistoric Northern Europe. Even if both said conceptions have, or at least may have, a central role in animism as well, it has been more common to associate these topics with hunting magic and animal ceremonialism, respectively. This is a major reason for why I find general, large-scale interpretations relying on single theories such as totemism and/or animism (e.g. Fuglestedt 2008; 2010; 2011; 2018) condemned to failure.

Just as Reuterskiöld (1911: 169) stated more than a century ago, the fact that large animals have often been associated with different kinds of ceremonial behaviour does not imply that we should think of these animals as gods or totems, or consider them as being alike. Instead, such rituals have their origin in a remote past and at their core lie two factors; the ethology of the animals on the one hand, and the means used to hunt them on the other (Reuterskiöld 1911: 169). To be sure, these very same observations have been central themes in this dissertation as well. Rather than associating the relationship between humans and elks in prehistoric Northern Europe with certain “isms”, my point has been that the essential way to explain this relationship is to pay attention to the elk’s all-inclusive role within prehistoric hunter-gatherer societies. By this, I mean that – irrespective of the designations used – the economic and ritual aspects of the elk’s past significance were intertwined and inseparable.

It goes without saying that wherever there is a need to hunt elks, it is necessary to get acquainted with the natural behaviour of this animal and to develop and adapt suitable hunting techniques based on this information. It is

thus no surprise that also ritual actions were ultimately rooted in observations of the animal’s behaviour and in the ways it was hunted. One important manifestation of this is the mimicking of the elk, which on the basis of ethnographic observations was far more than a significant hunting technique. Essentially, it was an entire way of living as a human in the world (cf. Willerslev 2007: 186–191). One can even go on to argue that for prehistoric elk-hunters, the most significant characteristic of the elk was its “elk-like” behaviour. This behaviour was not only what separated the elk from humans, but it was also the single most important thing that humans had to master in order to be able to live off this animal.

In the light of what has been said above, a final conclusion that can be drawn is that, on an elementary level, *the elk was represented in various ways in prehistoric art for two essential reasons – to gain success in hunting and to guarantee the reproduction of elks*. This idea is certainly not revolutionary. For instance, the very same principles are at the core of Martynov’s (1991: 30) interpretation of the elk images in Siberian rock art. Likewise, we have seen that similar ideas were already present in the early interpretations of hunter-gatherer rock art in Northern Europe according to the hunting magic theory. However, as self-evident as the said conclusions may be, they manage to encapsulate an intrinsic aspect of human-animal relationships in hunter-gatherer societies that is too often overlooked by modern scholars (see, however, Günther 2022: 141–143). This aspect is ultimately linked to *a need to respond to the unpredictability of particularly important animal species*. It is this very theme that, I argue, lay at the core of the human-elk relationship(s) in prehistoric Northern Europe for numerous millennia. In all likelihood, it moreover played an important part in the emergence of elk symbolism, and when the elk’s symbolical significance declined, this was largely because the elk’s unpredictability was no longer as decisive a problem as it had been in earlier times.

Before ending the thesis by suggesting directions for further research, let us summarize the central conclusions of this study in the form of Table 17.

Table 17. Table summarizing key deductions regarding the relationship between humans and elks in Northern Europe c. 12 000–1200 calBC.

1)	The elk's multimillennial special significance and the birth of elk symbolism were ultimately grounded in the elk's ethology and economic importance
➤	Key reasons for the elk's special position were the elk's solitary behaviour, the high efficacy and prestigiousness of elk hunting, as well as the versatility of this resource
2)	There were two fundamental reasons for making elk representations on rock surfaces and on artefacts, both grounded in the <i>unpredictability</i> of elks:
➤	1) To gain success in hunting
	2) To guarantee the reproduction of elks that could be hunted
3)	Elk depictions made at ordinary rock art sites and large rock art concentrations had different functions, but in both cases the concern for access to elks was key
➤	1) Elk figures at ordinary rock art sites signalled presence in the landscape and the relationship to local elks
	2) Elk figures at rock art centres were linked to meetings between hunter-gatherer groups
4)	Inner designs in rock art were grounded in carcass processing and meat sharing
➤	Inner designs were made on elk figures to emphasize their individuality/personality and to separate between approachable (amenable to hunting) and unreachable elks
5)	The common denominator for elk-related artefacts was their link to the hunting cycle
➤	Elk-related artefacts were used by different kinds of individuals and in different settings, but they were still related to various stages of the elk hunting <i>process</i>
6)	Elk-headed staffs and boats were highly similar concepts, both rooted in the ethology of elks, representing the elk and manifesting the non-existence of strict dichotomies
➤	Boats and staffs existed as tangible items, but they also had mythical connotations (e.g. in rock art): both had a concrete link to the elk, but also to their owner, etc.
7)	Despite obvious differences, a key theme that persisted for several millennia in Northern Europe was the focus on the elk cow as a life-giver (i.e. <i>animal</i> mastery)
➤	The elk cow embodied the "game ruler" or "animal master spirit" of elks that had the ultimate control of rebirth and fertility, but also of hunting success
8)	Actions and beliefs involving the elk were personal and communal at the same time
➤	All hunters had a personal relationship to the elk/game ruler, but differences existed in the degree of its closeness, and these differences were reflected in human societies
9)	The most skilful (in the broadest sense) individuals, the so-called "supreme elk-hunters", became the most respected and authoritative figures in elk hunting groups
➤	Over the course of time, "supreme elk-hunters" from the past became regarded as mythical forefathers that were depicted at the large rock art concentrations
10)	The decline of elk symbolism resulted from a multitude of reasons, including changes in climate and economy, the introduction of new cosmologies and beliefs, as well as the increased focus on other animals
➤	A general change from "benefactive" to more "exploitative" human-animal relationships (a focus shift from earlier <i>animal</i> mastery towards <i>human</i> control)

8.3 Reflections and directions for future research

To rephrase the statements of Willerslev (2007: 180–186; 2013b) and Günther (2022: 31–42) about taking animism and animals seriously, I argue that we need to take the elementary dogmas of

hunter-gatherer thinking seriously to be able to truly comprehend the nature of prehistoric human-animal relationships. In this study, it has been my intention to move along this path. I hope that more scholars will also in the future focus on the *elementary* aspects that lie beneath the archaeological manifestations of past human-animal relationships. This is not to say that

topics such as the acoustic aspects of rock art sites, or stylistic differences between elk figures should be overlooked. Such perspectives of course have an important value, but these kinds of viewpoints, too, should take into consideration the *fundamental* reasons for why animals were depicted in the first place.

As regards further research, there are several directions in which the study of the human-elk relationships in prehistoric Northern Europe could be extended. The connection between Northern European and Siberian material, in particular, is an area of scholarship that requires more attention. Even if it has not been possible to adequately discuss the Siberian material in this study, I have nevertheless pointed at several analogues in Siberian rock art (antlerless elk depictions, elk-head boats etc.) as well as in portable art (elk-head staffs found in burials etc.) that clearly indicate the importance of considering the link between these common manifestations. I hope that I have for my part, by means of this study, paved the way for future scholars to continue in this direction. The presentation in this thesis of surviving elk-related artefacts and of the elk-headed boats and staffs from Northern European rock art will hopefully be of use to scholars internationally.

Another main research topic that should draw far more attention is the link between Upper Palaeolithic animal art and the elk-related manifestations addressed in this study. As noted, elk imagery obviously did not emerge out of a void but is understandable within a wider framework of zoomorphic art with roots in the Palaeolithic era. However, it seems that this is a largely neglected topic among present-day scholars, who are often rigidly focused on studying chronologically separated periods which, after all, are artificial in essence. The same certainly holds true for later periods. The distinction between Stone Age and Bronze Age rock art in Scandinavia, for instance, has traditionally been so significant that only recently have scholars working with these two traditions started to call for more co-operation and boundary-crossing perspectives (Skoglund et al. 2017). Obviously, this pertains to the elk-related motifs in northern rock art as well. As we have seen, the connection between the elk-head boat and the horse-head boat, as well as the link between

the elk-head staff and the spear and/or the axe, are examples of topics that should be devoted more attention in the future. This obviously necessitates that studies of Stone Age evidence start to incorporate Bronze Age material and *vice versa*.

A third topic that I have only partially been able to deal with in this study concerns the relationship between elks and other animals. Studies similar to this could, and should, be undertaken on other important animal species as well (for a brand-new interdisciplinary work on the long-term relationship between humans and bears in Northern Europe, see Grimm 2023). It goes without saying that despite its key position in the past, the elk was certainly not the only animal in prehistoric Northern Europe that played a major part in people's lives, affecting their beliefs and actions. In order to fully understand the larger phenomenon of animal art, for instance, more studies from a long-term perspective should be carried out to examine the elk's position in relation to other animal species. Generally speaking, perhaps the most thought-provoking of all such relationships is that between the elk and the (rein)deer, since these species seem often to have inspired highly similar beliefs.

In sum, it is my wish that upcoming studies addressing various manifestations of the elk's wide-ranging significance would be more holistic approaches than has hitherto been the norm. This applies virtually in every direction. Meticulous studies that are geographically and chronologically limited are of course required, but the significance of wide-ranging, border-crossing, long-term perspectives is unparalleled if we are to really understand large-scale phenomena such as the human-elk relationship(s) in the boreal forest zone. Thus, more collaboration is needed from European scholars and their Russian colleagues, nor should the area outside Eurasia be neglected.

Indeed, as Lahelma (2017) has shown in his commendable article on the so-called sun-ship motif in circumpolar rock art, the archaeological materials of North America are often surprisingly similar to European manifestations. Undoubtedly, European scholars working with rock art would benefit from acquainting themselves with North American rock art and the

interpretations used to explain it. In addition, as I have pointed out throughout this study, ethnographic material obtained from North America has vast potential. Despite its remote geographical setting, this can still be of utmost relevance in understanding prehistoric phenomena in Eurasia as it stems from the same boreal forest zone.

My main research method in this study has been the use of relational analogies deduced from widespread general notions that stem from societies where elks are, or have been, hunted. In hindsight, I consider this method to have been successful. However, I am at the same time aware that the inclusion of more, especially Russian, ethnographic literature would have made it even more successful. I therefore hope that this study will inspire scholars familiar with (Russian) ethnographic material to corroborate, discard or refine the ideas that I have based mostly on North American ethnography, such as the notions of animal friendship and indigenous hunting management.

More holistic approaches are preferable also more widely in terms of methodology. The most evident inadequacy in earlier research is perhaps the lack of proper dialogue between rock art researchers and scholars of portable art. The references made to portable art by scholars of rock art are often far too ambiguous and perfunctory in character. The same goes for the generic, passing allusions to rock art images that abound in literature on artefacts and past beliefs. Pointing out sporadic similarities in different kinds of materials can of course be helpful, but in order to truly grasp the wider picture, it is necessary to look at rock art and artefacts more systematically. Indeed, I hope that this study can be of use to scholars working with northern rock art, namely by presenting an up-to-date overview of the elk-related portable art, a body of evidence that should not be overlooked when interpreting prehistoric beliefs and activities. Correspondingly, I wish that my comprehensive work on elk-related motifs in hunter-gatherer rock art will be considered useful by archaeologists working with portable art but who are not

necessarily familiar with these motifs within the rock art material as a whole.

Besides the lack of dialogue between rock art scholars and other archaeologists, more collaboration is also needed between archaeology and other disciplines in general. Needless to say, multi- and cross-disciplinary approaches become increasingly important as archaeogenetics, and archaeological sciences in general, constantly refine our understanding of the past. In this study, I have deliberately left such considerations aside, but it is obvious that future studies will markedly improve our knowledge about the elk's role among specific prehistoric populations, and thus about the relationship between humans and elks on a broader scale as well.

A particular discipline that I have to some degree utilized in this study, and which I believe to be of utmost usefulness to archaeologists, although not yet in common use, is animal ethology (for a recent exception, see Günther 2022). This outlook should definitely receive more attention from scholars working with past human-animal relationships, because animal behaviour is one of the few aspects of prehistoric life that we can assume to have remained unchanged. Another such aspect is the location of rock art, but this potential is already widely recognized by rock art researchers universally. However, just as prehistoric rock art offers a unique and advantageous point of view because of its fixed location in the landscape, so too does animal ethology provide an important tool for understanding past human responses to the particular behaviour of animals.

While a number of explanations on the elk's significance to past human populations have arisen from notions regarding the elk's ethology, I am convinced that there are still many aspects that can be elucidated by paying attention to the elk's natural behaviour. Of course, this not only holds true for the elk but also for human-animal relationships at large. Indeed, every animal species has its own characteristic behaviour and taking this into consideration when examining past human interaction with the species in question is a starting point that hopefully will be utilized more systematically in the future.

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Appendix 1. Evident and likely elk-related artefacts from Northern Europe

Finland

F1. Lehtojärvi, Rovaniemi



Figure 156. Elk-head boat prow from Lehtojärvi. KM 14189:1. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Haavikko, Lehtojärvi, Rovaniemi, Lapland (1955)
Coordinates	66°37'57"N 25°20'43"E (96.5 masl)
Inventory no.	KM 14189:1 (The National Museum of Finland)
Find type	Boat prow
Description	Elk-head shape boat prow(?); made of the root crown of pine (<i>Pinus sylvestris</i>); lower jaw broken when the sculpture was unearthed; carved nodules probably represent the frontal bone/antler stubs; deep hole behind the nodules; hollowed throat and holes on the neck most probably made for mounting the elk-head on a boat prow by a dowel (see section 6.2.9.1)
Length	37 cm
Dating	7060–6250 calBC (Jungner 1979: 29) ³⁶⁰
Find context	Stray find; unearthed by a worker at a depth of 60 cm during ditch digging in marshland on the eastern shore of Lake Lehtojärvi, an area known to have been part of a larger Stone Age cultural context (settlement finds etc.)
Notes	Red ochre traces indicate that the elk-head was painted (Savola 1958: 26–28)
Reference(s)	Erä-Esko 1958: 8–15; Hyyppä 1958: 21
Classification	1

³⁶⁰ 7740±170 BP (Hel-168).

F2. Palojoenmaa, Huittinen



Figure 157. Elk-head stone club from Huittinen. KM 6292:1. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Lauttakylä, Palojoenmaa, Huittinen, Satakunta (1904)
Coordinates	61°05'20"N 22°44'53"E (67 masl)
Inventory no.	KM 6292:1 (The National Museum of Finland)
Find type	Stone club
Description	Elk-head club; made of soapstone (nonlocal); slightly polished; oblong shafthole between the eyes; proportionally accurate muzzle sculptured carefully; eyes and ears unrealistically depicted as circular, abstract representations
Length	14.7 cm
Dating	c. 3000–2000 calBC
Find context	Stray find(?); surface find from a potato field; later excavations yielded findings characteristic to a Mesolithic dwelling site but the connection between the club and the settlement remains uncertain (see Mantere & Kashina 2022: 41)
Notes	Some have argued that the Huittinen club represents a calf, around 12 months old, which would have been dead for a couple of days (Huurre 1991: 133; 1998: 291; see also Edgren 1984: 60)
Reference(s)	Ailio 1907; Ailio 1909; Luho 1952
Classification	1

F3. Ravi, Säkkijärvi



Figure 158. Elk-headed stone axe from Säkkijärvi. KM 4909:1. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Ravi, Santajoki, Säkkijärvi (South Karelia), present-day Russia (late 1800s)
Coordinates	c. 60°36'00"N 28°10'00"E (12 masl)
Inventory no.	KM 4909:1 (The National Museum of Finland)
Find type	Stone axe
Description	Elk-headed stone axe; made of polished slate; broken at the shafthole; large ears depicted as if the elk (calf?) is alert and paying close attention to its surroundings (Pälsi 1916: 134; Huurre 1998: 292); underside decorated with three parallel lines that run from the elk's throat to the broken shafthole; nine small dot-like marks carved on the dorsal in two rows next to the shafthole
Length	13 cm
Dating	c. 3000–2000 calBC
Find context	Stray find(?); found in a field on the riverbank of Santajoki, c. 3 km from the Finnish Gulf; later excavations revealed large Stone Age settlements in the area (Europaeus 1923; Nordqvist & Seitsonen 2007: 6, 12)
Notes	Clear paragon in metallic items (see Tallgren 1907: 69–71; Carpelan 1974: 73)
Reference(s)	Tallgren 1907: 67–69
Classification	1

F4. Kortesjärvi, Kauhava



Figure 159. Elk-headed stone axe from Kortesjärvi. KM 8756:5. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Kortesjärvi, Kauhava, Southern Ostrobothnia (1800s)
Coordinates	c. 63°18'00"N 23°09'00"E
Inventory no.	KM 8756:5 (The National Museum of Finland)
Find type	Stone axe
Description	Elk-headed stone axe; made of (Olonets?) slate; fragment; oval eyes elevated and engraved in the middle; mandible and both ears missing; oblong hole carved in the elk's mouth; several striations grooved on the forehead
Length	11.5 cm
Dating	c. 3000–2000 calBC
Find context	Stray find; found in a peat bog in the area of Kortesjärvi (see Europaeus 1928: 36–37)
Notes	Stylistic similarities to the items from Alunda (S2) and Säkkijärvi (F3) (see Europaeus 1928: 38, 39; Carpelan 1974: 72, 77), as well as to the elk-headed axe from Kuusamo (F18)
Reference(s)	Europaeus 1928: 36–40
Classification	1

F5. Vianto, Maaninka



Figure 160. Elk(?)-headed stone axe from Maaninka. KM 2023:105. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Vianto, Korppiniemi, Maaninka (Kuopio), Northern Savonia (c. 1800)
Coordinates	63°13'54"N 27°14'07"E
Inventory no.	KM 2023:105 (The National Museum of Finland)
Find type	Stone axe
Description	Elk(?)-headed stone axe; made of soapstone; likely elk head partly broken; decorated with dots in the middle and with parallel lines at three different places on the object; oblong shafthole
Length	27.4 cm
Dating	c. 3000–2000 calBC
Find context	Unknown (stray find?)
Notes	Stylistic similarities to the items from Kittilä (F8), Noormarkku (F9) and Villa (E2) (Carpelan 1974: 78); elongated animal-head interpreted earlier as a dog (Ailio 1905: 7); elk (Nordman 1937: 43; Carpelan 1974: 73, 77; 1977: 48) and a bear (Carpelan 1974: 55)
Reference(s)	Aspelin 1885: 29; Ailio 1905: 7; Carpelan 1974: 73
Classification	2

F6. Finns, Espoo



Figure 161. Elk(?) head stone club from Espoo. KM 2611:1. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Finns, Espoo, Uusimaa (c. 1880)
Coordinates	c. 60°11'42"N 24°34'34"E (13 masl)
Inventory no.	KM 2611:1 (The National Museum of Finland)
Find type	Stone club
Description	Elk(?) head stone club; made of greyish gneiss; stylized eyes; rounded ears
Length	20 cm
Dating	c. 3000–2000 calBC
Find context	Stray find; found in a field (water deposit?); the connection to nearby Late Neolithic settlements is uncertain (see Carpelan 1974: 41; Nordman 1944: 85)
Notes	Interpreted earlier as a sheep (Ailio 1905: 7; Almgren 1907: 123), bear (Reuterskiöld 1911: 170; Europaeus 1922: 113; Carpelan 1974: 41) and elk (Tallgren 1938: 117; Nordman 1937: 42; Meinander 1954a: 86)
Reference(s)	Ailio 1905: 7–8; Europaeus 1922: 111
Classification	2

F7. Höyttinen, Kakskerta



Figure 162. Elk(?) head stone club from Kakskerta. KM 13439:1. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Höyttinen, Kakskerta (Turku), Southwest Finland (1940s)
Coordinates	60°21'50"N 22°08'57"E (22.5 masl)
Inventory no.	KM 13439:1 (The National Museum of Finland)
Find type	Stone club
Description	Elk(?) head stone club; made of quartzite; rounded eyes and ears; finished shafthole
Length	11.5 cm
Dating	c. 3000–2000 calBC
Find context	Stray find; found in a field
Notes	Interpreted earlier as an elk (Meinander 1954b: 12) and as a bear (Carpelan 1974: 40)
Reference(s)	Meinander 1954b: 12
Classification	2

F8. Pälkättöja, Kittilä



Figure 163. Elk-headed ladle from Kittilä. KM 10179:1. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Pälkättöja, Kuusanjoki, Kittilä, Lapland (1935)
Coordinates	67°36'28"N 25°06'43"E
Inventory no.	KM 10179:1 (The National Museum of Finland)
Find type	Wooden ladle
Description	Elk-headed wooden ladle; made of pine (<i>Pinus sylvestris</i>); end of handle shaped as a stylized but evident elk-head; triangular deepening carved under the elk's chin; (decorative?) striations in the wood
Length	26.2 cm
Dating	c. 2000–1500 calBC
Find context	Stray find; found at a depth of 1.6 metres when a soakaway was dug into marshland in Kuusanjoki in Kittilä
Notes	Stylistic similarities to the items from Maaninka (F5), Noormarkku (F9), Villa (E2) and Shigir (R8) (see Carpelan 1974: 63, 77–78)
Reference(s)	Kivikoski 1936: 8–13; Hyyppä 1936: 15
Classification	1

F9. Harjakangas, Noormarkku



Figure 164. Elk-headed sledge runner from Noormarkku. SatM 17064. Satakunta Museum. Photos and compilation: Ville Mantere.

Find site	Harjakangas, Noormarkku, Satakunta (1965)
Coordinates	61°33'36"N 21°58'35"E (c. 40 masl)
Inventory no.	SatM 17064 (Satakunta Museum)
Find type	Sledge runner
Description	Elk-headed sledge runner; made of wood; broken; end shaped as a naturalistic elk-head; snout shape emphasizes the location of the eyes
Length	119 cm (elk-head c. 14 cm)
Dating	2200–1540 calBC ³⁶¹ (Alhonen 1967: 49)
Find context	Stray find; found in a swampland field where the groundwater had raised the sledge runner above the surface; no further parts of the runner were found despite investigations
Notes	Stylistic similarities to the items from Villa (E2) and Maaninka (F5) (Carpelan 1974: 78)
Reference(s)	Salo 1967: 42–45; Alhonen 1967
Classification	1

³⁶¹ 3530±110 BP (I-1921).

F10. Oromaannokka, Laitila



Figure 165. Elk(?)-headed slate knife from Laitila. KM 15269:1. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Oromaannokka, Leinmäki, Laitila, Southwest Finland (1961)
Coordinates	60°55'04"N 21°55'09"E (47 masl)
Inventory no.	KM 15269:1 (The National Museum of Finland)
Find type	Slate knife
Description	Elk(?)-headed slate knife; made of non-local phyllite(?); polished; stylized animal-head handle with ears separated by a small incision; concave carved under the ears (possibly tied at the shaft?); head reminds of an elk muzzle
Length	12.9 cm
Dating	c. 4300–3900 calBC
Find context	Settlement find; initially found during roadworks; later excavations revealed a small destroyed settlement site with findings such as unfinished stone axes made of olivine diabase and potsherds of the Jäkärälä style (c. 4300–3900 calBC; see Tallavaara et al. 2010: 253, table 2)
Notes	Probably imported; only animal-head knife known from southern Finland
Reference(s)	Meinander 1965: 9–10
Classification	2

F11. Juutisen törmä, Yli-Ii

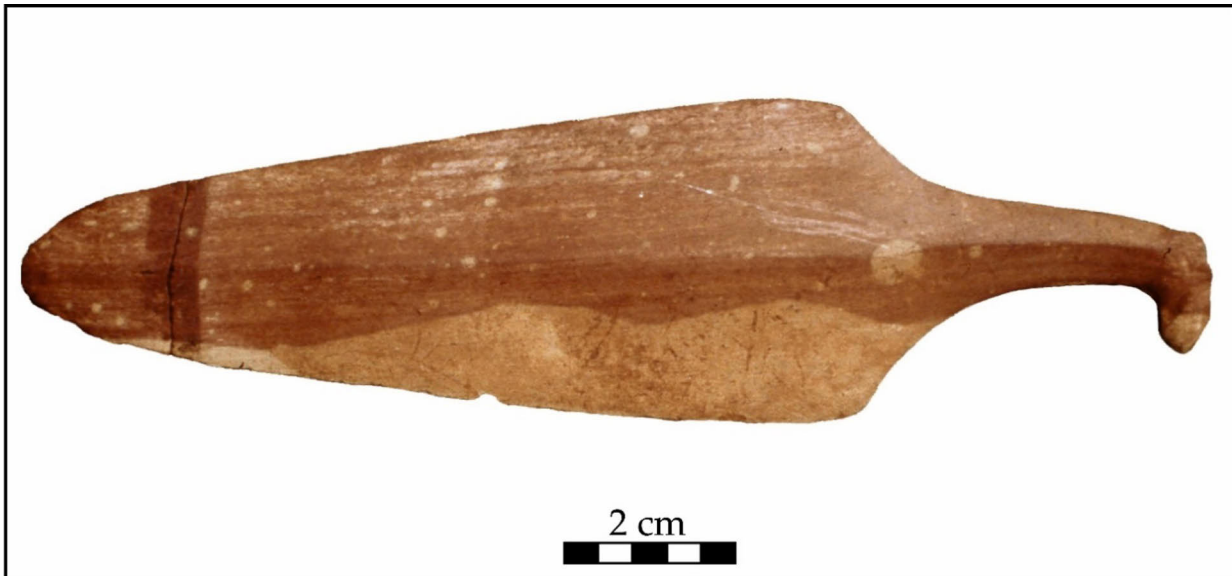


Figure 166. Elk-headed slate dagger from Yli-Ii. KM 19600:1. Archaeological artefact collections, Finnish Heritage Agency. Photo: Northern Ostrobothnia Museum Collection.

Find site	Juutisen törmä, Yli-Ii (Oulu), Northern Ostrobothnia (1951)
Coordinates	65°21'43"N 25°53'38"E (50 masl)
Inventory no.	KM 19600:1 (Northern Ostrobothnia Museum)
Find type	Slate dagger
Description	Elk-headed slate dagger; made of (striped) reddish slate; polished; the ear of the schematic elk-head was apparently broken when the item was discovered
Length	13.5 cm
Dating	4200-1500 calBC (probably 3300-2400 calBC)
Find context	Settlement find; found initially when a foundation pit for a residential building was being dug on the southern bank of Iijoki River; archaeological excavations in 1975 revealed a short-term Stone Age dwelling site belonging to a series of Neolithic settlements in the Iijoki river estuary (Kehusmaa 1977: 11-12)
Notes	
Reference(s)	Kehusmaa 1977: 7-12
Classification	1

F12. Törmävaara, Tervola

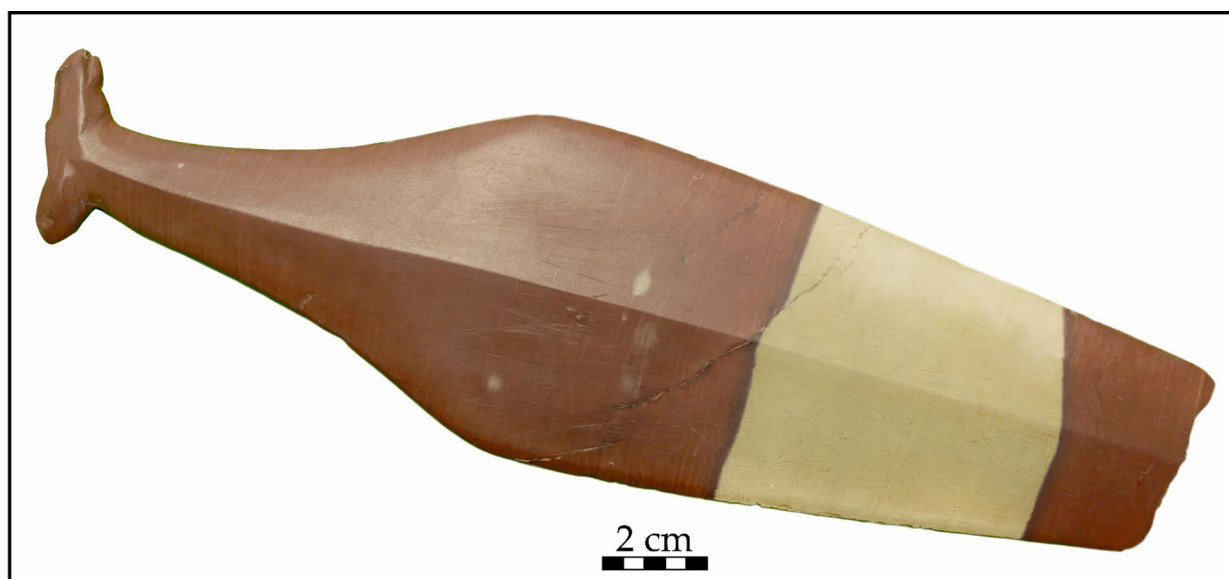


Figure 167. Elk-headed slate dagger from Tervola. KM 11703:1. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Törmävaara, Tervola, Lapland (1946)
Coordinates	66°06'50"N 24°41'40"E (c. 53 masl?)
Inventory no.	KM 11703:1 (The National Museum of Finland)
Find type	Slate dagger
Description	Elk-headed slate dagger; made of (striped) reddish slate; thoroughly polished; broken blade; naturalistic elk depiction
Length	21.9 cm
Dating	4200–1500 calBC; the elevation of the ancient shoreline of Törmävaara would date the Tervola dagger to the middle of the third millennium calBC (Siiriäinen (1974: 43); Meinander (1948: 24; 1965: 32) dated the dagger to the same period as the Pyheensilta projectiles, i.e. 3300–2400 calBC (see Tallavaara et al. 2010: 253, table 2)
Find context	Settlement find(?); unearthed at a depth of c. 60 cm during gravel collecting; exact find location unknown, but probably a gravel pit in the Törmävaara district, some kilometres from the Kemi River; several large Stone Age settlements rich in archaeological findings later discovered at the hillsides of Törmävaara (see e.g. Siiriäinen 1974: 42–43)
Notes	One of the largest elk-headed slate daggers
Reference(s)	Meinander 1948: 14; Meinander 1965: 32; Siiriäinen 1974: 42
Classification	1

F13. Niskanperä, Rovaniemi

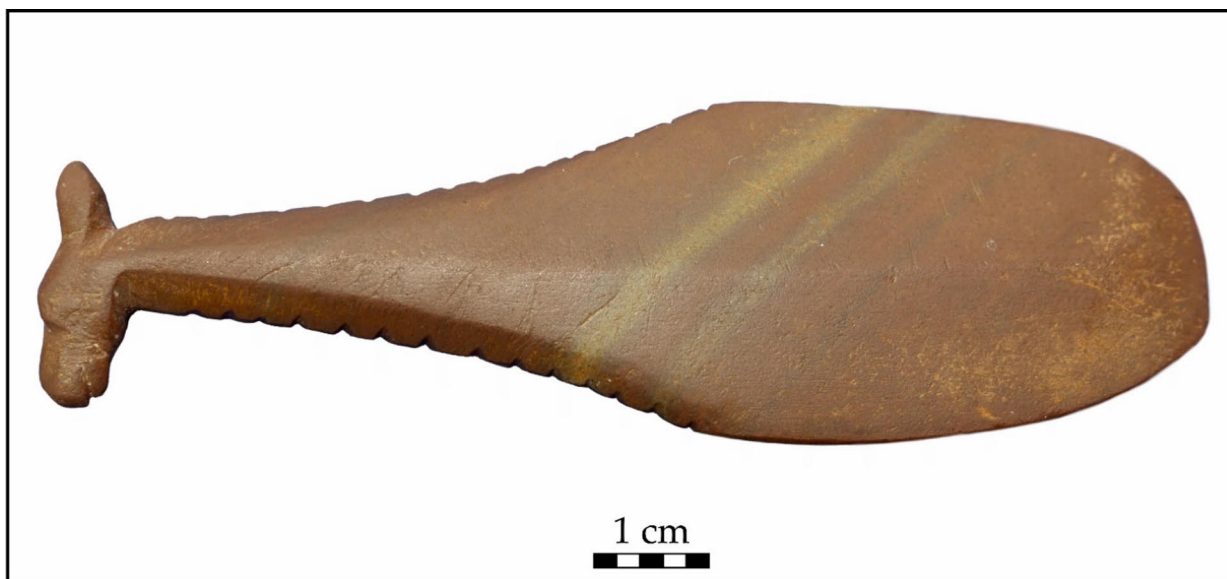


Figure 168. Elk-headed slate dagger from Rovaniemi. KM 9972:1. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Niskanperä (Niska), Valajaskoski, Rovaniemi, Lapland (1934)
Coordinates	66°26'36"N 25°37'46"E (75 masl)
Inventory no.	KM 9972:1 (The National Museum of Finland)
Find type	Slate dagger
Description	Elk-headed slate dagger; reshaped into a chisel; made of (striped) reddish slate; polished; broken blade; serrated handle; naturalistic elk (calf?) depiction
Length	8.5 cm
Dating	4200–1500 calBC (probably 3300–2400 calBC; see Meinander 1965: 32)
Find context	Settlement find; Niskanperä is the most important location in a series of prehistoric settlement sites on the western border of Valajaskoski; exceptionally rich and diverse findings compared to other settlement sites in northern Finland; items originating in Denmark, Sweden and Russia point to the site's far-reaching trade networks; site in seasonal use by fishers and hunters from the end of the Comb Ware culture (c. 3750–3250 calBC) to the Early Bronze Age (c. 1800–1100 calBC) (Purhonen 1977: 47–48; for datings, see Tallavaara et al. 2010: 253, table 2)
Notes	Cf. S22
Reference(s)	Äyräpää 1937: 43–45; Meinander 1948: 14–16; Meinander 1965: 24
Classification	1

F14. Kirakkajoen suu, Inari

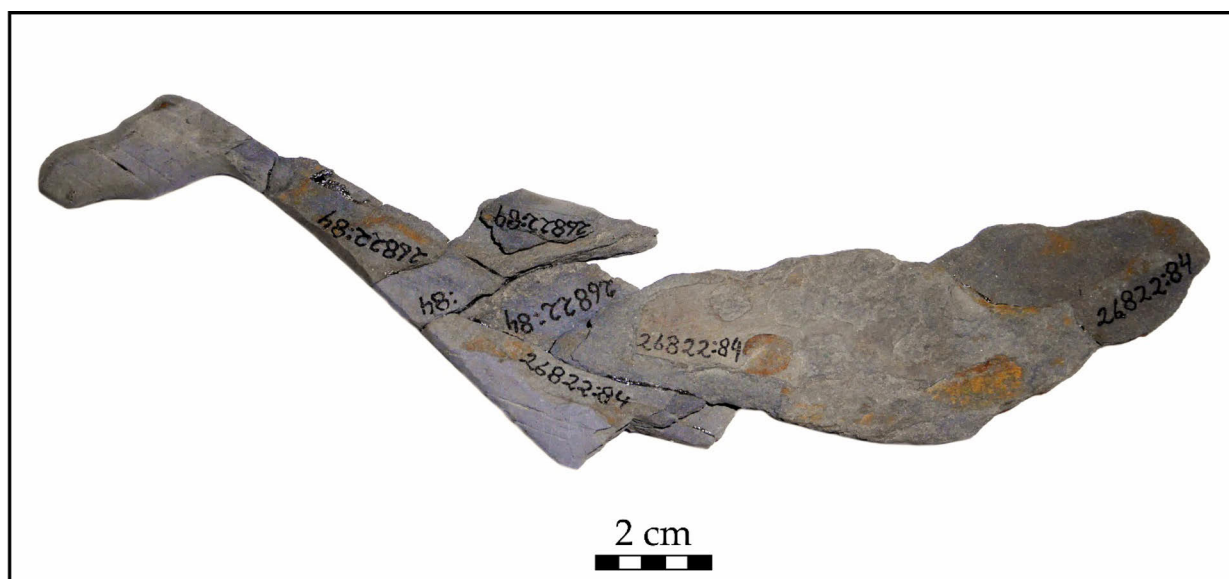


Figure 169. Elk-headed slate knife from Inari. KM 26822:84. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Kirakkajoen suu N 2 (Rahajärvi), Inari, Lapland (1991)
Coordinates	68°43'36"N 27°11'56"E (c. 133 masl, lake water level regulated artificially)
Inventory no.	KM 26822:84 (The National Museum of Finland)
Find type	Slate knife
Description	Elk-headed slate knife; made of greyish poor-quality slate; broken
Length	20 cm
Dating	c. 1900–1500 calBC (probably earlier or contemporary with early Lovozero Ware) (see Carpelan 2003: 51, endnote on p. 514; for ceramic periodization see Tallavaara et al. 2010: 253, table 2)
Find context	Settlement find; Kirakkajoen suu is an enormous long-term settlement site located some 300 metres northeast from the estuary of Kirakkajoki River; knife found together with a large number of other surface findings during a field survey when the water level of Lake Rahajärvi was dropped; knife found in close connection to Imitated Textile Ware (Aki Arponen, personal communication 2.12.2015)
Notes	
Reference(s)	Carpelan 2003: 51
Classification	1

F15. Pykinkoski, Kotka



Figure 170. Elk-head clay figurine from Pykinkoski. KM 22899:532. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Pykinkoski (Kymijoki), Kotka, Kymenlaakso (1985)
Coordinates	60°34'33"N 26°48'40"E (22 masl)
Inventory no.	KM 22899:532 (The National Museum of Finland)
Find type	Clay figurine
Description	Elk(?) head clay figurine; burnt clay; ears and throat broken; eyes depicted as two shallow grooves; cheek bones depicted as two parallel protuberances under the head
Length	4.8 cm
Dating	c. 3950–3500 calBC (typical Comb Ware culture) (for datings of Comb Ware ceramics, see Tallavaara et al. 2010: 253, table 2)
Find context	Settlement find; found at a depth of 35 cm during a trial excavation; the Pykinkoski settlement is situated on the northeastern river bank of the Kymi River; the site was located on a sheltered islet in a sea bay during the typical Comb Ware culture; an anthropomorphic clay idol was found only nine metres from the find spot
Notes	Likely representing elk; wide-open mouth unusual but finds a parallel in the small clay figurine from Överåda in Sweden (S28) (see Welinder 1971: 75, 77)
Reference(s)	Wallenius 1986: 5–7
Classification	2

F16. Pörrinmökki, Rääkkylä



Figure 171. Elk(?)-headed clay figurine from Rääkkylä. KM 28013:7096, 9080–9081. Archaeological artefact collections, Finnish Heritage Agency. Photo: Ville Mantere.

Find site	Pörrinmökki, Rääkkylä, North Karelia (1993)
Coordinates	62°11'22"N 29°54'00"E (c. 84 masl)
Inventory no.	KM 28013:7096, 9080–9081 (The National Museum of Finland)
Find type	Clay figurine
Description	Elk(?)-headed clay figurine; burnt clay; broken; bears resemblance to a swimming animal; interpreted by Pesonen (2000: 183–184) as a reindeer
Length	6.4 cm
Dating	3950–3500 calBC (Typical Comb Ware) (see Pesonen 2000: 183)
Find context	Settlement find; found in three fragments during archaeological excavations; the large Pörrinmökki settlement site is situated on the ancient shoreline of Lake Saimaa; a number of other clay figurines with more or less perceivable zoomorphic appearances were also found at Pörrinmökki and the adjacent Vihi site (see Pesonen 2000)
Notes	For another highly abstract zoomorphic clay figurine from Pörrinmökki initially interpreted as an elk-head, later as a (rein)deer-head, see UF6 in Appendix 2
Reference(s)	Pesonen 2000: 183–185
Classification	2

F17. Hangaskangas, Muhos



Figure 172. Elk-head talc figurine from Muhos. KM 32048:24. Archaeological artefact collections, Finnish Heritage Agency. Photo: University of Oulu, Laboratory of Archaeology.

Find site	Hangaskangas, Muhos, North Ostrobothnia (1998–1999)
Coordinates	64°54'22"N 25°47'06"E (36.5 masl)
Inventory no.	KM 32048:24 (Northern Ostrobothnia Museum)
Find type	Talc figurine
Description	Elk-head figurine; made of talc; flat; characteristic elk muzzle
Length	4.1 cm
Dating	2020–1460 calBC ³⁶² (AMS date obtained from chewing resin at Hangaskangas)
Find context	Settlement find(?); found during archaeological excavations; Hangaskangas has despite slightly equivocal findings been interpreted as a dwelling site
Notes	The figurine is apparently not a fragment of any larger item
Reference(s)	Herva & Ikäheimo 2002: 101–102
Classification	1

³⁶² 3420±105 BP (Hela-154).

F18. Joukamojärvi, Kuusamo



Figure 173. Elk-headed stone axe from Kuusamo. KM 45024:1. Archaeological artefact collections, Finnish Heritage Agency. Photo: Matti Kilponen.

Find site	Joukamojärvi, Kuusamo (2023)
Coordinates	c. 65°52'42"N 29°50'01"E
Inventory no.	KM 45024:1 (The National Museum of Finland)
Find type	Stone axe
Description	Elk-headed stone axe; thoroughly polished; broken at the shafthole; dorsal and forehead decorated with three lines; mandible decorated with dot-like marks; elevated circular eyes; large leaf-ornamented ears; fishbone-ornamented underside; nostrils marked out; pierced mouth; muzzle tip decorated with eight parallel vertical lines
Length	17.3 cm
Dating	c. 3000–2000 calBC
Find context	Settlement find(?); found in sand on the northern shore of Lake Joukamo, c. 3 km from the Russian border; large quantities of quartz flakes indicate a Stone Age settlement
Notes	Paragons in metallic items; stylistic similarities to S2, F3, F4
Reference(s)	https://www.museovirasto.fi/en/articles/moose-head-axe , accessed on 19.6.2023
Classification	1

Sweden

S1. Torrsjö, Östra Ryd



Figure 174. Elk(?) head stone club from Östra Ryd. SHM 19162:1. Swedish History Museum. Photo: Ville Mantere.

Find site	Torrsjö, Östra Ryd, Östergötland (c. 1885)
Coordinates	c. 58°23'39"N 16°09'14"E (c. 70 masl)
Inventory no.	SHM 19162:1 (Swedish History Museum)
Find type	Stone club
Description	Elk(?) head stone club; made of grey quartzite (imported); polished; elongated head and the lack of a forehead suggest elk rather than bear
Length	20.5 cm
Dating	c. 3000–2000 calBC
Find context	Stray find; no details
Notes	Interpreted earlier as a bear (Floderus 1931: 186; Carpelan 1974: 40–41)
Reference(s)	Floderus 1931: 186; http://catview.historiska.se/catview/index.jsp , Inventarienummer 19162, Huvudkatalog (B), pp. 15–16
Classification	2

S2. Granlund, Alunda



Figure 175. Elk-headed stone axe from Alunda. SHM 14168. Swedish History Museum. Photo: Ville Mantere.

Find site	Granlund (Norr-Löfsta), Alunda, Uppland (1910)
Coordinates	60°08'32"N 18°05'59"E (29.5 masl)
Inventory no.	SHM 14168 (Swedish History Museum)
Find type	Stone axe
Description	Elk-headed stone axe; made of soapstone (imported); thoroughly polished; unfinished conical shafthole; pierced mouth; prominent ridge
Length	20.75 cm
Dating	c. 3000–2000 calBC
Find context	Stray find; found during ditch digging (see Sernander & Eriksson 1911)
Notes	Stylistic similarities to F18, F3 and F4
Reference(s)	Almgren 1911
Classification	1

S3. Marma, Älvkarleby



Figure 176. Elk(?)-headed slate dagger from Marma. SHM 19530:d. Swedish History Museum. Photo: Ville Mantere.

Find site	Marma (near Marma railway station), Älvkarleby, Uppland (1925)
Coordinates	60°29'26"N 17°25'44"E (40 masl)
Inventory no.	SHM 19530:d (Swedish History Museum)
Find type	Slate dagger
Description	Elk(?)-headed slate dagger; made of red-brownish slate; polished; sharp, slightly broken blade; abstract animal-head
Length	18.1 cm
Dating	4200–1500 calBC
Find context	Burial/hoard(?); found in a sandy surface layer that sporadically yielded several objects (e.g. arrowheads and a chisel)
Notes	Another slate dagger with a broken shaft was found at the same site
Reference(s)	Santesson 1941: 31; http://catviewhistoriska.se/catview/index.jsp , Inventarienummer 19530, Huvudkatalog B, p. 1
Classification	2

S4. Skuggan, Valbo

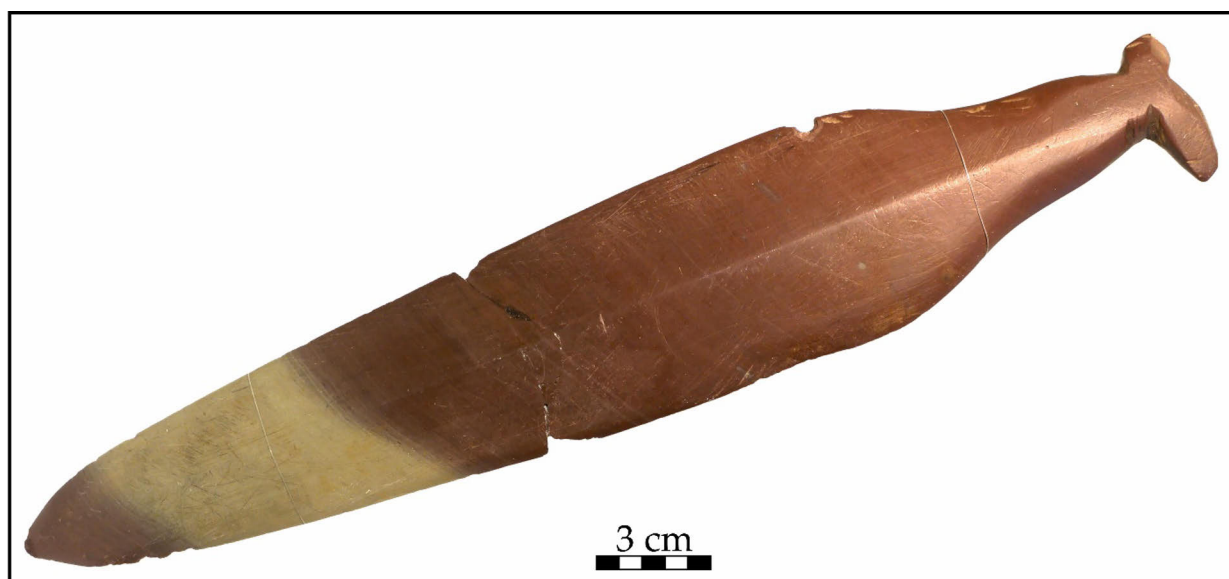


Figure 177. Elk-headed slate dagger from Valbo. SHM 26989:1. Swedish History Museum. Photo: Ville Mantere.

Find site	Skuggan (Åsbyggeby), Valbo, Gästrikland (1956)
Coordinates	60°40'09"N 17°03'10"E
Inventory no.	SHM 26989:1 (Swedish History Museum)
Find type	Slate dagger
Description	Elk-headed slate dagger; made of (striped) red-greyish slate; thoroughly polished
Length	29.8 cm
Dating	3300–2350 calBC; Pitted Ware ceramics of <i>Säter</i> styles III and IV constitute the best reference for dating the dagger (see Meinander 1965: 29); the outdated <i>Säter</i> chronology mainly corresponds with the Fagervik chronology (i.e. slightly overlapping phases III and IV in the Fagervik chronology) (Stenbäck & Vogel 2010: 10, fig. 8; see also Segerberg et al. 1991; Larsson 2009: 58 and cited references) (Niklas Stenbäck, PhD, archaeologist, email correspondence 21.3.2017)
Find context	Settlement find; initially found during earthworks; a Stone Age settlement site was later found at the location
Notes	The longest elk-headed slate dagger
Reference(s)	Meinander 1965: 29
Classification	1

S5. Bölan, Enånger



Figure 178. Elk-headed slate knife handle from Enånger. HM 7509 A. Hälsinglands Museum. Photo: Bonny Sjöblom.

Find site	Bölan, Enånger, Hälsingland (1882)
Coordinates	61°29'23"N 16°57'59"E
Inventory no.	HM 7509 A (Hälsinglands Museum)
Find type	Slate knife
Description	Elk-headed slate knife (handle); made of grey-brownish slate; broken; polished; geometric engravings on the surface
Length	10.1 cm
Dating	4200–1500 calBC
Find context	Stray find; found in a bog during cultivation works
Notes	It is unclear whether the engravings on the item are of prehistoric origin
Reference(s)	Meinander 1965; Hudiksvalls museum, report of inventory number 7509 A.
Classification	1

S6. Norra Sannäs, Delsbo

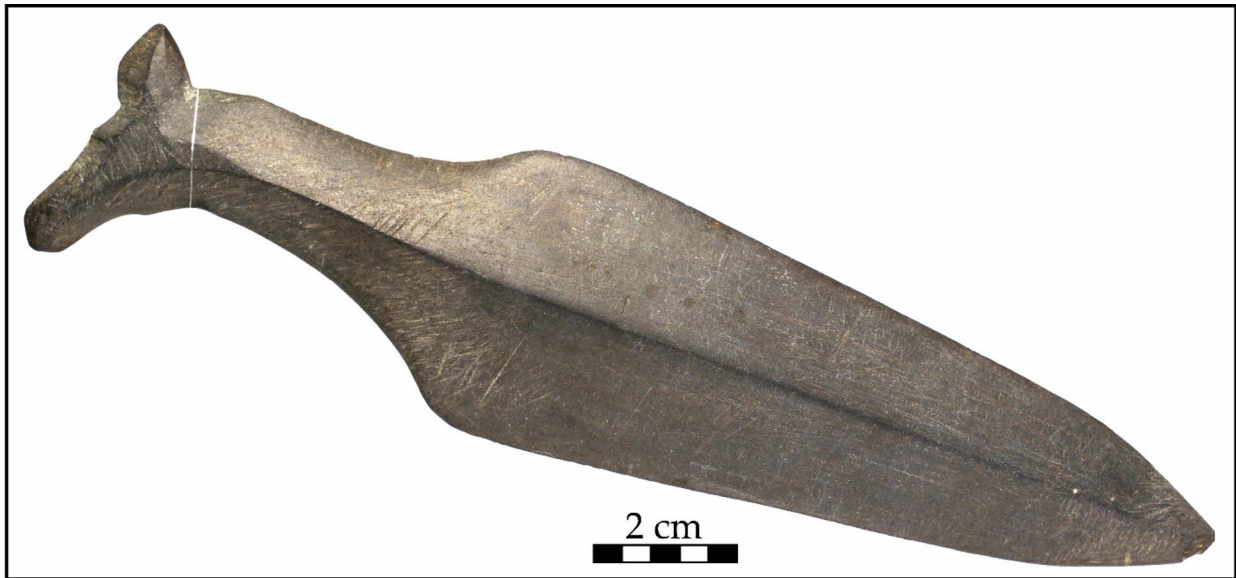


Figure 179. Elk-headed slate dagger from Delsbo. SHM 10469. Swedish History Museum. Photo: Ville Mantere.

Find site	Norra Sannäs, Delsbo, Hälsingland
Coordinates	c. 61°46'56"N 16°41'30"E
Inventory no.	SHM 10469 (Swedish History Museum)
Find type	Slate dagger
Description	Elk-headed slate dagger; made of grey slate; thoroughly polished
Length	14.4 cm
Dating	4200–1500 calBC
Find context	Unknown (no details available)
Notes	
Reference(s)	Almgren 1907: 116; http://catview.historiska.se/catview/index.jsp , Inventarienummer 10469, Huvudkatalog B
Classification	1

S7. Håckstatjärn, Jättendal

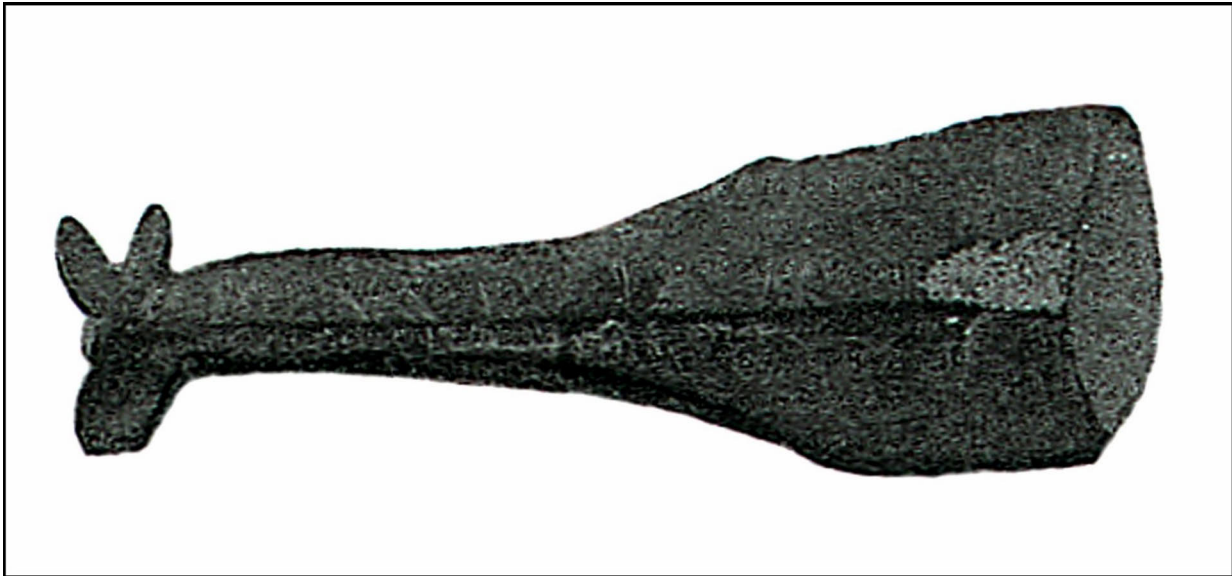


Figure 180. Elk-headed slate dagger from Jättendal. Photo: Hälsinglands Museum. Not to scale.

Find site	Håckstatjärn, Jättendal, Hälsingland (1981)
Coordinates	61°59'39"N 17°18'41"E (38 masl)
Inventory no.	No inventory number given (item in private ownership) (Lars Nylander, antiquarian, Hudiksvalls museum, email correspondence 12.-13.1.2016)
Find type	Slate dagger
Description	Elk-headed slate dagger; made of brown slate; broken blade
Length	Unknown
Dating	c. 3300-1800 calBC
Find context	Settlement find; found in a potato field together with three other stone finds; a Stone Age settlement site with burnt stone and ceramics is located at the find site; originally a sandy sea bay on the Swedish east coast
Notes	The ears are untypically depicted separately (cf. S10)
Reference(s)	Holmstedt 1985: 10-12
Classification	1

S8. Bondsjö, Säbrå



Figure 181. Elk(?) -headed slate dagger from Säbrå. Murberget M77. Västernorrlands museum. Photo: Bo Hellman.

Find site	Bondsjö, Säbrå, Ångermanland (1864)
Coordinates	62°38'30"N 17°53'00"E (59 masl)
Inventory no.	Murberget M77 (Västernorrlands museum)
Find type	Slate dagger
Description	Elk(?) -headed slate dagger; made of grey-brownish slate; polished; broken blade
Length	12.7 cm
Dating	4200–1500 calBC
Find context	Stray find
Notes	Animal-head untypically facing downwards (cf. S20)
Reference(s)	Montelius 1875: 22; Santesson 1941: 31
Classification	2

S9. Kornsjövägen, Nätra

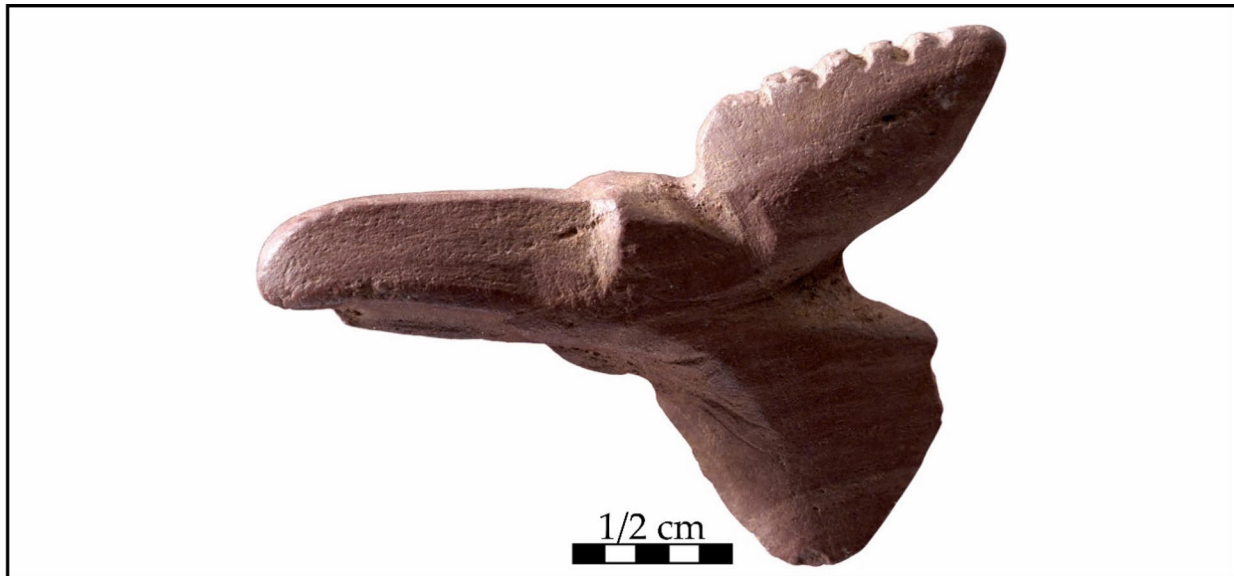


Figure 182. Elk-head slate dagger finial from Kornsjövägen. Murberget 38. Västernorrlands museum. Photo: Västernorrlands museum.

Find site	Kornsjövägen, Nätra, Ångermanland (2001)
Coordinates	63°12'55"N 18°27'59"E (54 masl)
Inventory no.	Murberget inv. no. 38 (Västernorrlands museum)
Find type	Slate dagger
Description	Elk-headed slate dagger (finial); made of red-brownish slate; polished; highly naturalistic elk depiction
Length	1.8 cm
Dating	2870–2590 calBC; radiocarbon dated charcoal sample from the hearth where the figurine was unearthed (Lindqvist 2004: 74)
Find context	Settlement find; found during archaeological excavations in a hearth pit in the interior of a lightweight house structure; found only 500 metres from S10
Notes	The elk-head is in several aspects similar to the sculpture from Hälla (S15); similarities indicate connections between coastal and inland areas during the Neolithic period (Lindqvist 2007: 129)
Reference(s)	Lindqvist 2004: 74
Classification	1

S10. Bjästamon, Nättra



Figure 183. Elk(?) -head slate dagger finial from Bjästamon. Murberget F5514. Västernorrlands museum. Photo: Pehr Lindholm.

Find site	Bjästamon, Nättra, Ångermanland
Coordinates	63°13'03"N 18°28'37"E (55–62 masl)
Inventory no.	Murberget F5514 (Västernorrlands museum)
Find type	Slate dagger/knife
Description	Elk(?) -headed slate dagger (finial); made of reddish slate, polished; separated ears (cf. S7)
Length	1.5 cm
Dating	Radiocarbon dates in the period 2600–2000 calBC were obtained from the find layer (see Holback et al. 2004: 28–30; George 2007: 244)
Find context	Settlement find; found during archaeological excavations inside a large house structure
Notes	Found only 500 metres from the Kornsjövägen find site (S9)
Reference(s)	Holback et al. 2004: 28–30; George 2007: 244
Classification	2

S11. Klocka, Åre

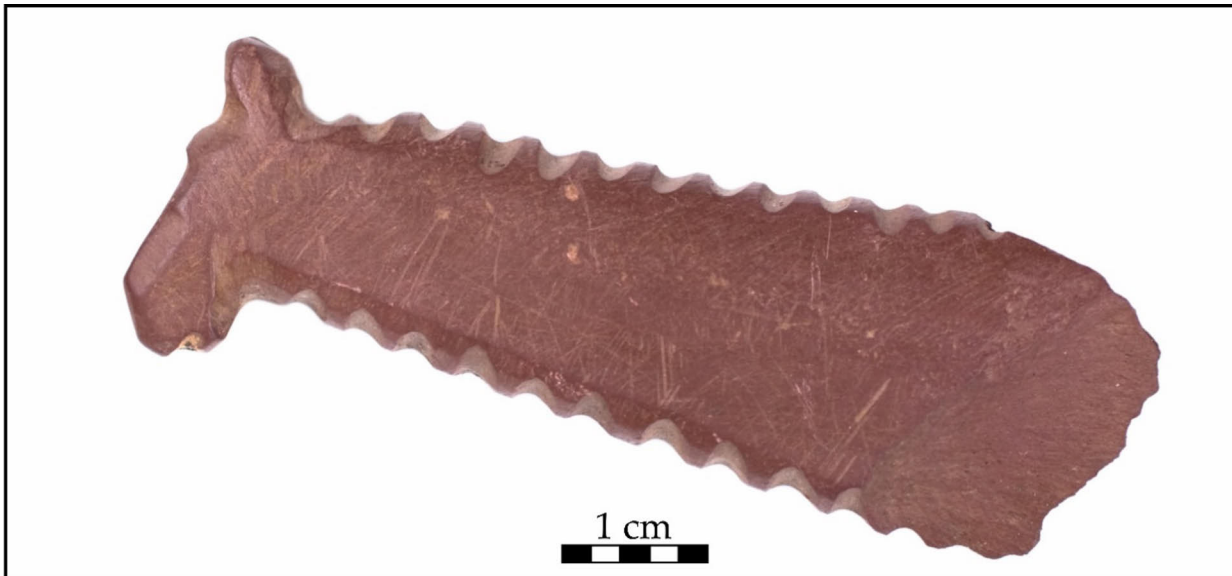


Figure 184. Elk-headed slate dagger handle from Åre. SHM 32415:1. Swedish History Museum. Photo: Jamtli.

Find site	Klocka, Åre, Jämtland (1975)
Coordinates	63°17'44"N 12°30'48"E (526 masl)
Inventory no.	SHM 32415:1 (Swedish History Museum)
Find type	Slate dagger
Description	Elk-headed slate dagger (handle); made of brown slate; polished; fragment; both sides serrated; naturalistic elk depiction
Length	7 cm
Dating	4200–1500 calBC
Find context	Settlement find; found during archaeological field survey together with some quartz flakes; the find location is a Stone Age settlement site located on the northwestern shore of Lake Ånnsjön near the Norwegian border
Notes	
Reference(s)	http://catview.historiska.se/catview/index.jsp , Inventarienummer 32415, Stenålderskatalog; Jamtli, report of inventory number 32415
Classification	1

S12. Laxviken, Laxsjö



Figure 185. Elk(?) -headed slate dagger from Laxsjö. JLM 15154. Jamtli. Photo: Jamtli.

Find site	Laxviken, Laxsjö, Jämtland (1935)
Coordinates	63°48'17"N 14°44'15"E (c. 350 masl)
Inventory no.	JLM 15154 (Jamtli)
Find type	Slate dagger
Description	Elk(?) -headed slate dagger; made of (striped) brown-yellowish slate; polished; broken blade and finial
Length	11 cm
Dating	4200–1500 calBC
Find context	Stray find; found at a depth of 75 cm during gardening works
Notes	
Reference(s)	Meinander 1965: 26; Jamtli museum report of inventory number 15154
Classification	2

S13. Hoting, Tåsjö

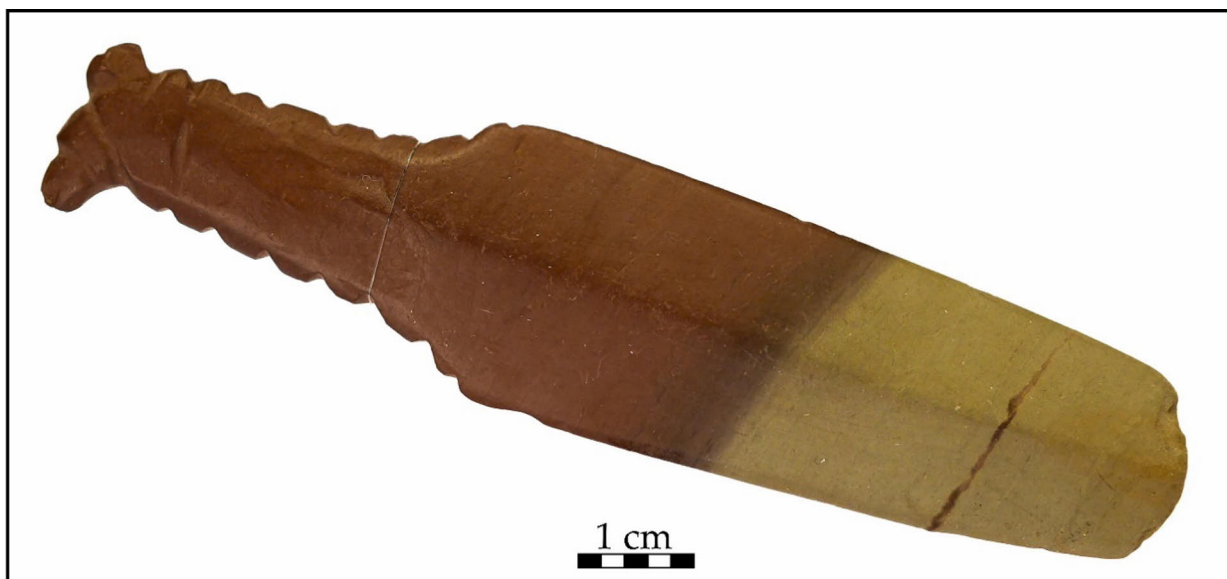


Figure 186. Elk(?)-headed slate dagger from Tåsjö. SHM 21949:B4. Swedish History Museum. Photo: Ville Mantere.

Find site	Hoting, Tåsjö, Ångermanland (1938)
Coordinates	64°07'04"N 16°12'35"E (c. 248 masl)
Inventory no.	SHM 21949:B4 (Swedish History Museum)
Find type	Slate dagger
Description	Elk(?)-headed slate dagger; made of (striped) red-brownish and green-greyish slate; polished; thick serrated handle; blade broken
Length	10.1 cm
Dating	4200–1500 calBC
Find context	Settlement find; found together with several other stone artefacts on the shore of Lake Hoting; later a Stone Age settlement site was detected in the area
Notes	Found only 1 km from the find site of S14
Reference(s)	Meinander 1965; http://catview.historiska.se/catview/index.jsp , Inventarienummer 21949, Huvudkatalog A, p. 3; Översiktskatalog
Classification	2

S14. Hoting, Tåsjö



Figure 187. Elk(?) -head slate dagger finial from Tåsjö. SHM 25138:D61. Swedish History Museum. Photo: Ville Mantere.

Find site	Hoting, Tåsjö, Ångermanland (1953)
Coordinates	64°06'32"N 16°12'40"E (c. 238 masl)
Inventory no.	SHM 25138:D61 (Swedish History Museum)
Find type	Slate dagger
Description	Elk(?) -headed slate dagger (finial); made of red-brownish slate; polished
Length	2.3 cm
Dating	4200–1500 calBC
Find context	Settlement find; found during archaeological excavations at the Stone Age settlement site of Valåviken (at the lakeshore of Lake Hoting)
Notes	Found only 1 km from the find site of S13
Reference(s)	http://catview.historiska.se/catview/index.jsp , Inventarienummer 25138, Huvudkatalog A, pp. 42–43
Classification	2

S15. Hälla, Åsele



Figure 188. Elk-head slate dagger finial from Åsele. SHM 31083: 485 AL. Swedish History Museum. Photo: Ville Mantere.

Find site	Hälla, Åsele, Västerbotten (1966)
Coordinates	63°57'07"N 17°16'12"E (c. 285 masl)
Inventory no.	SHM 31083: 485 AL (Swedish History Museum)
Find type	Slate dagger
Description	Elk-headed slate dagger (finial); made of red-brownish slate; serrated
Length	2.7 cm
Dating	Radiocarbon date from find layer 1890–1430 calBC ³⁶³
Find context	Settlement find; found together with other stone finds during archaeological excavations; settlement site situated on the eastern bank of Ångerman River
Notes	Almost identical with the find from Kornsjövägen (S9); two other animal-head slate dagger finials were also found at Hälla (see Appendix 2)
Reference(s)	http://catview.historiska.se/catview/index.jsp , Inventarienummer 31083, Huvudkatalog A, p. 118
Classification	1

³⁶³ 3340±100 BP (St-2707).

S16. Åsele by, Åsele



Figure 189. Elk(?) -headed slate dagger from Åsele. SHM 10332. Swedish History Museum. Photo: Ville Mantere.

Find site	Åsele by, Åsele, Västerbotten (1897)
Coordinates	c. 64°09'30"N 17°21'00"E
Inventory no.	SHM 10332 (Swedish History Museum)
Find type	Slate dagger
Description	Elk(?) -headed slate dagger; made of (striped) brown-yellowish slate; polished; finial broken; serrated handle
Length	15.7 cm
Dating	4200–1500 calBC
Find context	Unknown (stray find?)
Notes	The engraving on the side of the blade was probably used for fastening the dagger to a cord of some sort (see Meinander 1965: 24)
Reference(s)	Meinander 1965; http://catview.historiska.se/catview/index.jsp , Inventarienummer 10332, Huvudkatalog B
Classification	2

S17. Stornäs, Vilhelmina

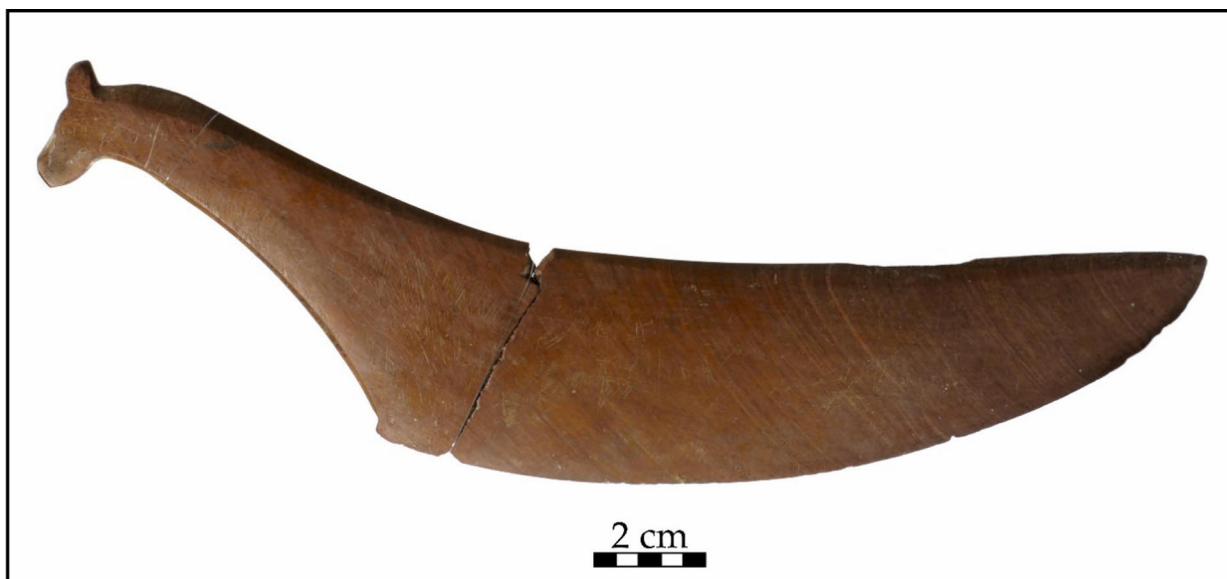


Figure 190. Elk(?)-headed slate knife from Vilhelmina. SHM 13600. Swedish History Museum. Photo: Ville Mantere.

Find site	Stornäs, Vilhelmina, Västerbotten (1908)
Coordinates	c. 65°01'54"N 15°09'40"E (c. 542 masl)
Inventory no.	SHM 13600 (Swedish History Museum)
Find type	Slate knife
Description	Elk(?)-headed slate knife; made of red-brownish slate; thoroughly polished
Length	23.2 cm
Dating	4200–1500 calBC
Find context	Stray find/settlement(?); found during cultivation works, some 60 metres from the shore of Lake Kultsjön; knife unearthed in two pieces from soil, rich in charcoal; a reddish slate spearhead found previously on the lakeshore
Notes	One of the largest animal-headed slate knives; the finial probably represents an elk but also bear a resemblance to horse-head finials on bronze knives (e.g. SHM 3765 and SHM 9822:793)
Reference(s)	http://catview.historiska.se/catview/index.jsp , Inventarienummer 13600, Huvudkatalog B, p. 6
Classification	2

S18. Tjikkiträsk, Stensele



Figure 191. Elk-head slate finial from Tjikkiträsk. SHM 26716: F94. Swedish History Museum. Photo: Ville Mantere.

Find site	Tjikkiträsk, Stensele, Västerbotten (1961)
Coordinates	64°59'27"N 17°42'17"E (264 masl)
Inventory no.	SHM 26716: F94 (Swedish History Museum)
Find type	Slate dagger/knife
Description	Elk-headed slate (dagger/knife?) finial; made of greyish slate; broken neck; naturalistic three-dimensional elk depiction
Length	2.6 cm
Dating	Probably 4200–1500 calBC(?); a cooking pit situated right next to the hut ground was radiocarbon dated to around 5560–5130 calBC ³⁶⁴ (Meschke 1967: 51; cited in Lundberg 1997: 39); a larger cooking pit also located next to the hut structure yielded three Mesolithic radiocarbon dates in the period 7040–5720 calBC ³⁶⁵ (Lundberg 1997: 39); however, the connection between the cooking pits and the hut ground remains unclear (cf. Hallgren 2014: 40; see also Carpelan 1977: 17–21); see also footnote 296
Find context	Settlement find; found inside a large hut ground together with five other animal(bird?)-head slate figurines during archaeological excavations; settlement site located at the end of a headland on Lake Stora Tjikkiträsk
Notes	The find context is similar to S15 (several unusually shaped animal-heads but no unbroken animal-head slate knives/daggers)
Reference(s)	Meschke 1967; http://catview.historiska.se/catview/index.jsp , Inventarienummer 26716, Huvudkatalog A, p. 1
Classification	1

³⁶⁴ 6398±90 BP.

³⁶⁵ 7830±100 BP (St 1750); 7058±90 BP (St 1751); 7005±100 BP (St 1752).

S19. Strömvik, Stensele

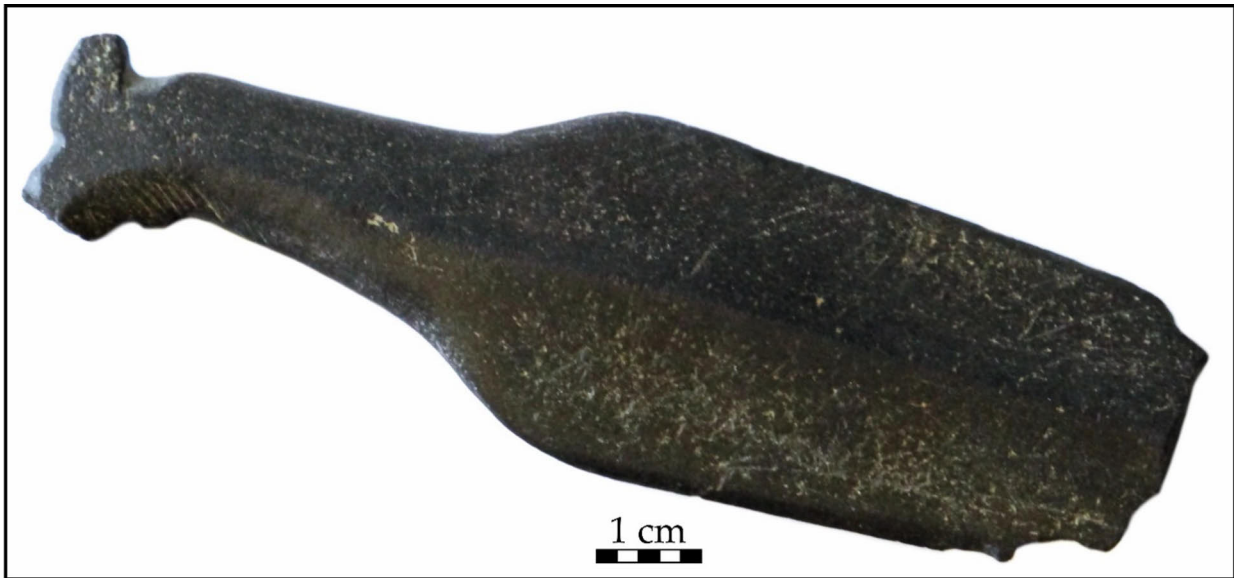


Figure 192. Elk(?)-headed slate dagger from Stensele. Vbm 6882. Västerbottens museum. Photo: Susanne Sundström.

Find site	Strömvik, Stensele, Västerbotten (1935)
Coordinates	65°01'48"N 17°45'22"E
Inventory no.	Vbm 6882 (Västerbottens museum)
Find type	Slate dagger
Description	Elk(?)-headed slate dagger; polished; blade and finial broken
Length	10.9 cm
Dating	c. 3300–2350 calBC
Find context	Stray find; found in a potato field in Strömvik, some 50 metres from the Juktån River in mid-Västerbotten
Notes	Slight protuberance on the throat suggests elk depiction
Reference(s)	http://utv.sofie.vbm.se/svn/items/show/105565
Classification	2

S20. Åmsele, Degerfors



Figure 193. Elk(?) -headed slate dagger from Degerfors. Vbm 10141:1. Västerbottens museum. Photo: Petter Engman.

Find site	Åmsele, Degerfors, Västerbotten
Coordinates	64°33'07"N 19°22'41"E (213 masl)
Inventory no.	Vbm 10141:1 (Västerbottens museum)
Find type	Slate dagger
Description	Elk(?) -headed slate dagger; made of (striped) red-yellowish slate; polished
Length	12.3 cm
Dating	c. 3300–2350 calBC
Find context	Settlement find; found at a Middle Neolithic settlement site on the northwestern shore of Lake Hjuken
Notes	The abstract head portrayed untypically as if drooping (cf. S8)
Reference(s)	http://utv.sofie.vbm.se/svn/items/show/105559
Classification	2

S21. Skråträsk, Skellefteå

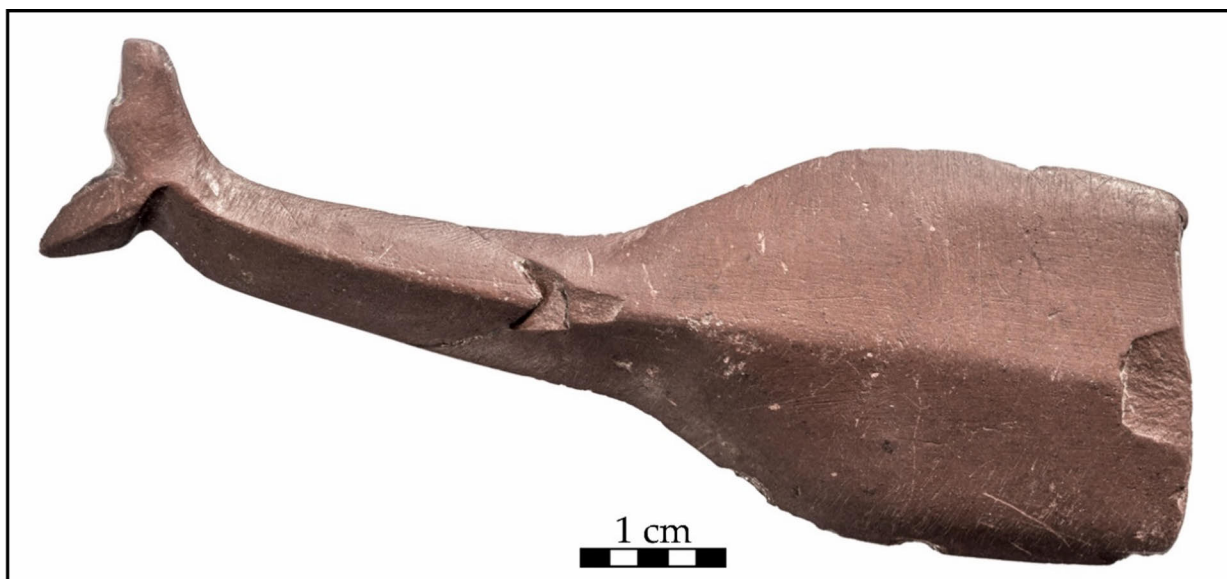


Figure 194. Elk(?) -headed slate dagger from Skråträsk. SM 29. Skellefteå museum. Photo: Krister Häggglund.

Find site	Skråträsk, Skellefteå, Västerbotten
Coordinates	64°41'00" N 20°36'00" E
Inventory no.	SM 29 (Skellefteå museum)
Find type	Slate dagger
Description	Elk(?) -headed slate dagger; made of brown slate; broken blade; polished; ambiguous animal-head with triangular ears and short muzzle
Length	8 cm
Dating	c. 4200–1500 calBC
Find context	Unknown (stray find?)
Notes	Depiction of an elk calf(?)
Reference(s)	http://www.kulturarvasterbotten.se/getitem-record?PID=SE_Vbm_FM_Sm_29
Classification	2

S22. Kusmark, Skellefteå



Figure 195. Elk-headed slate dagger from Kusmark. SM 7789. Skellefteå museum. Photo: Krister Häggglund.

Find site	Kusmark (Boåkern), Skellefteå, Västerbotten (1961)
Coordinates	64°52'57"N 20°50'42"E (59 masl)
Inventory no.	SM 7789 (Skellefteå museum)
Find type	Slate dagger (chisel)
Description	Elk-headed slate dagger; made of dark, grey slate; polished; serrated handle and finial; blade tip broken; re-shaped into a chisel
Length	14.6 cm
Dating	c. 4200–1500 calBC
Find context	Stray find; found in clayish soil at a depth of 20–30 cm; the find site has originally been a sea bay; the Kusmark area has yielded numerous prehistoric artefacts of different kinds (see Westerlund 1963: 84–85)
Notes	cf. F13
Reference(s)	Westerlund 1963: 84–85
Classification	1

S23a. Bjurselet, Byske



Figure 196. Elk-headed slate finial(?) from Byske. SM 9600:1. Skellefteå museum. Photo: Krister Häggglund.

Find site	Bjurselet, Byske, Västerbotten (1965)
Coordinates	64°59'57"N 21°03'18"E (c. 50 masl)
Inventory no.	SM 9600:1 (Skellefteå museum)
Find type	Slate dagger/chisel(?)
Description	Elk-headed slate (dagger?) finial; made of reddish slate; polished; fragment; re-shaped into a chisel (cf. F13 and S22); engraving under the ear
Length	4 cm
Dating	c. 2350-1800 calBC
Find context	Settlement find; found next to a hearth during archaeological excavations; Late Neolithic settlement site situated along Byske River
Notes	Depicting an elk calf(?) (Sander 1993: 140)
Reference(s)	Sander 1993: 140
Classification	1

S23b. Bjurselet, Byske

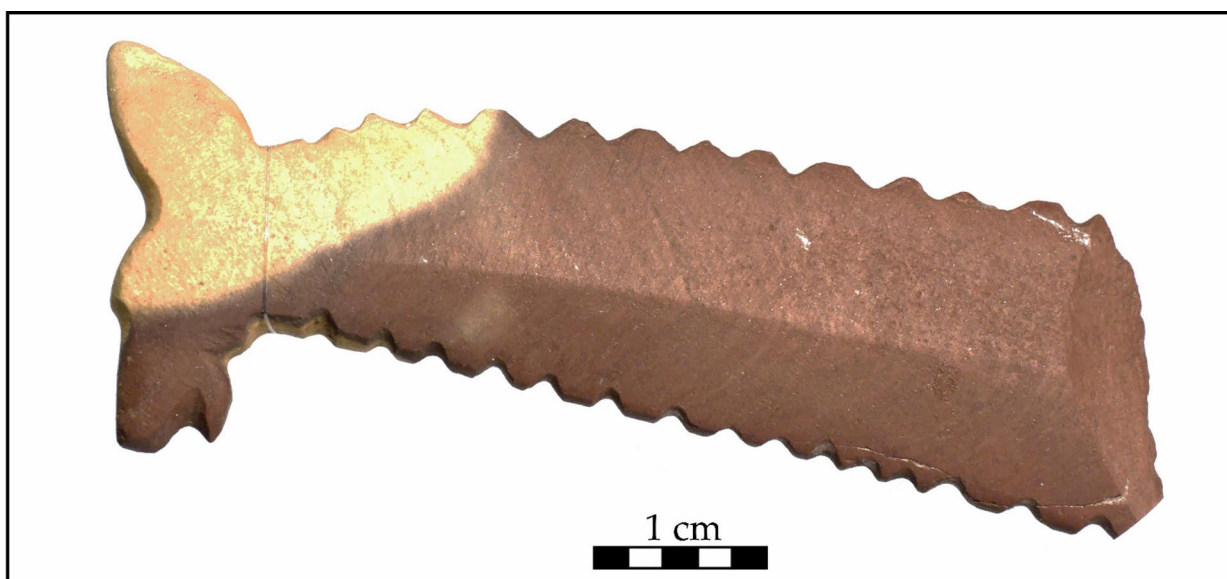


Figure 197. Elk(?) -headed slate dagger handle from Byske. SHM 17536. Swedish History Museum. Photo: Ville Mantere.

Find site	Bjurselet, Byske, Västerbotten (1924)
Coordinates	c. 64°59'57"N 21°03'18"E (c. 50 masl)
Inventory no.	SHM 17536 (Swedish History Museum)
Find type	Slate dagger
Description	Elk(?) -headed slate dagger (handle); made of red-brownish (striped) slate; polished (only on the other side); fragment; serrated handle
Length	6 cm
Dating	c. 2350–1800 calBC
Find context	Unknown; sold to SHM in 1924 with no find details
Notes	Probable elk-head (Hellqvist 2009: 29); depicted mouth open
Reference(s)	http://catview.historiska.se/catview/index.jsp , Inventarienummer 17536, Huvudkatalog B
Classification	2

S24. Älvsby, Norrbotten



Figure 198. Elk(?)-headed slate dagger from Älvsby. Nbm 15 332. Norrbottens museum. Photo: Staffan Nygren.

Find site	Älvsby, Norrbotten (area between Nygård and Högheden) (late 1970s)
Coordinates	c. 65°39'01"N 21°03'28"E (c. 50 masl)
Inventory no.	Nbm 15 332 (Norrbottens museum)
Find type	Slate dagger
Description	Elk(?)-headed slate dagger; made of (striped) red-brownish and green-greyish slate; thoroughly polished; highly stylized animal-head; exaggerated ear(s)
Length	14 cm
Dating	c. 2350–1800 calBC
Find context	Settlement find; found initially as a stray find in a sandpit; later a prehistoric settlement site was discovered at the find site; investigations by Norrbottens Museum in 2014 resulted in no new archaeological information (Frida Palmbo, archaeologist, Norrbottens museum, email correspondence 8.1.2016)
Notes	Depiction of an elk calf(?)
Reference(s)	http://norbottensmuseum.se/de/arkiv-samlingar/foeremaalssamlingar/ur-samlingarna/foeremaal-2014/september-skifferdolk.aspx
Classification	2

S25. Nederkalix, Norrbotten



Figure 199. Elk-headed slate dagger from Nederkalix. SHM 19370:1. Swedish History Museum. Photo: Ville Mantere.

Find site	Nederkalix, Norrbotten (1929)
Coordinates	c. 65°53'00" N 23°08'00" E (c. 46 masl)
Inventory no.	SHM 19370:1 (Swedish History Museum)
Find type	Slate dagger
Description	Elk-headed slate dagger; made of (striped) red-brownish and greyish slate; polished; characteristic elk muzzle; large ears
Length	12.2 cm
Dating	c. 4200–1500 calBC
Find context	Stray find; found during gravel collection c. 3 km north of Nederkalix church
Notes	Protuberance on the mandible marking the dewlap
Reference(s)	Santesson 1941: 31; http://catview.historiska.se/catview/index.jsp , Inventarienummer 19370, Huvudkatalog B
Classification	1

S26. Åby, Kvilleinge



Figure 200. Elk(?) shaped clay figurine from Åby. SHM 20866. Swedish History Museum. Photo: Ville Mantere.

Find site	Åby, Kvilleinge, Östergötland (1934)
Coordinates	58°39'49"N 16°10'38"E (26–29 masl)
Inventory no.	SHM 20866 (Swedish History Museum)
Find type	Clay figurine
Description	Elk(?) shaped clay figurine; forepart of ambiguous animal; broken; elongated neck; open mouth
Length	3.6 cm
Dating	c. 3500–2300 calBC; radiocarbon dates in the period 3600–2200 calBC (see Larsson 2003: 121–122)
Find context	Settlement find; Pitted Ware settlement site originally of maritime character; other clay figurines are also known from the site (see Wyszomirska 1984: 241)
Notes	Interpreted also as a boar (Wyszomirska 1984: 241) and a pig (Janzon 1983: 3)
Reference(s)	Janzon 1983: 3; Wyszomirska 1984: 241
Classification	2

S27. Fagervik, Krokek

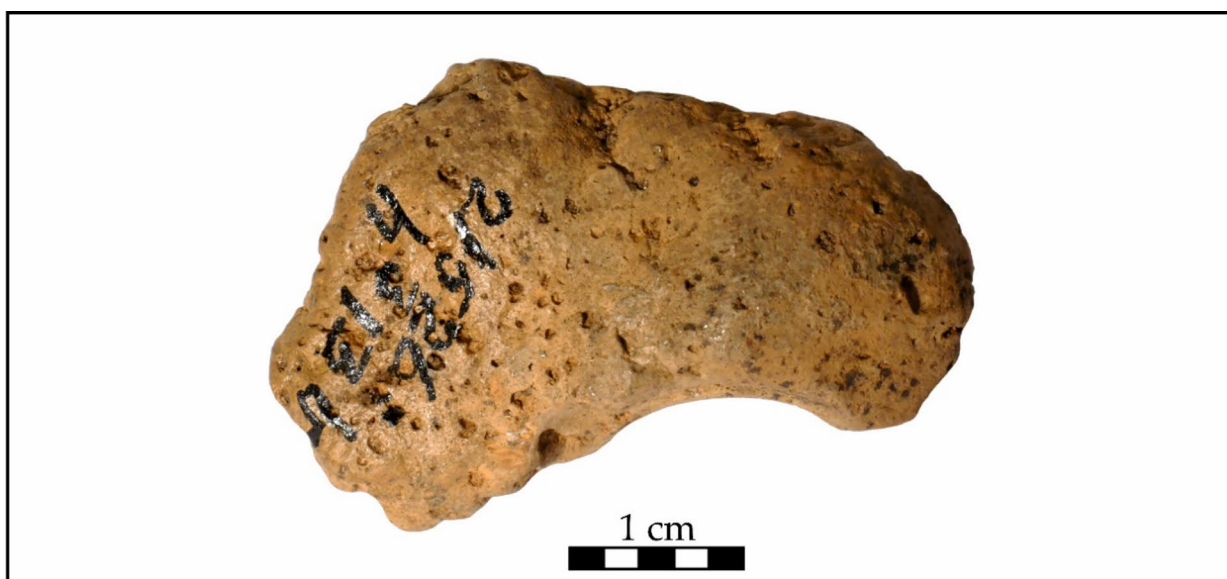


Figure 201. Elk-head(?) clay figurine from Fagervik. SHM 21526:h³1³b. Swedish History Museum. Photo: Ville Mantere.

Find site	Fagervik, Krokek, Östergötland (1935?)
Coordinates	58°39'45"N 16°24'52"E (40 masl)
Inventory no.	SHM 21526:h ³ 1 ³ b (Swedish History Museum)
Find type	Clay figurine
Description	Elk-head(?) clay figurine; fragment; reminds of an elk muzzle
Length	4 cm
Dating	c. 3500–2300 calBC; Säter III pottery (Wyszomirska 1984: 56)
Find context	Settlement find; Pitted Ware settlement site situated at the Bråviken fjord, only a few kilometres from the Åby site (S26); other hardly recognizable zoomorphic figures were also found at Fagervik
Notes	Identified as an uncertain seal figure by Janzon (1983: 2–3); possibly the same figurine that Wyszomirska (1984: 241) interpreted as an elk
Reference(s)	Janzon 1983: 2–3; Wyszomirska 1984: 241
Classification	2

S28. Överåda, Trosa



Figure 202. Elk-head(?) clay figurine from Överåda. SHM 30097:283/607. Swedish History Museum. Photo: Ville Mantere.

Find site	Överåda, Trosa, Södermanland (1969)
Coordinates	58°53'14"N 17°29'23"E (29 masl)
Inventory no.	SHM 30097:283/607 (Swedish History Museum)
Find type	Clay figurine
Description	Elk-head(?) clay figurine; fragment; mouth open
Length	2.8 cm
Dating	c. 3500–2300 calBC; Pitted Ware settlement site
Find context	Settlement find; found during archaeological excavations; three other animal figurines (bull, bird, quadruped) were found at the same site
Notes	The figurine bears some resemblance to F15
Reference(s)	Welinder 1971: 75–77
Classification	2

S29. Korsnäs, Grödinge



Figure 203. Elk(?) -head clay figurine from Korsnäs. SHM 32990:C. Swedish History Museum. Photo: Ville Mantere.

Find site	Korsnäs, Grödinge, Södermanland (early 1970s)
Coordinates	59°09'16"N 17°48'07"E (15–35 masl)
Inventory no.	SHM 32990:C (Swedish History Museum)
Find type	Clay figurine
Description	Elk(?) -head clay figurine; fragment; forepart of animal; both ears and muzzle marked out
Length	2.5 cm
Dating	Radiocarbon dates from the site are positioned in the period 3350–2640 calBC (Fornander 2010: 6)
Find context	Settlement find; settlement site with graves; a stylized human figurine made of bone (SHM 32990:B 72) was also found at the site
Notes	Classified as an uncertain pig in the collections of the SHM; according to Änggård (2015: 14) the item may have anthropozoomorphic appearance
Reference(s)	Wyszomirska 1984: 240
Classification	2

S30. Åloppe, Nysätra



Figure 204. Elk-shaped clay figurine from Åloppe. SHM 11730:122877. Swedish History Museum. Photo: Ville Mantere.

Find site	Åloppe, Nysätra, Uppland (1902)
Coordinates	59°48'42"N 17°12'10"E (37 masl)
Inventory no.	SHM 11730:122877 (Swedish History Museum)
Find type	Clay figurine
Description	Elk-shaped clay figurine; forepart of an elk; characteristic elk muzzle; ears marked out; backpart not sculpted; front legs broken(?)
Length	3.9 cm
Dating	c. 3500–2300 calBC
Find context	Settlement find; Pitted Ware settlement site originally of maritime character; figurine found in the deepest cultural layer during archaeological excavations; other zoomorphic figurines were also found (see Appendix 2)
Notes	Naturalistic elk depiction; possibly a calf or foetus (see section 7.9)
Reference(s)	Almgren 1906: 112
Classification	1

S31. Ängsta, Fors



Figure 205. Elk(?) -shaped stone sculpture from Ängsta. JLM 17683. Jamtli. Photo: Jamtli.

Find site	Ängsta, Fors, Jämtland (1946)
Coordinates	62°57'31"N 16°39'31"E (c. 70 masl)
Inventory no.	JLM 17683 (Jamtli)
Find type	Stone sculpture
Description	Elk(?) -shaped stone sculpture; made of brown-yellowish stone; ambiguous and disproportional body shape; incomplete legs(?); both ears marked out
Length	23.3 cm
Dating	Stone Age(?)
Find context	Stray find/settlement(?); found in sand at a depth of c. 12 cm during roadworks; another stone item interpreted as a net sinker or a loom weight was unearthed only six metres apart, possibly indicating a settlement site
Notes	No evident parallels; function unknown; head indicating elk depiction
Reference(s)	Westin 1948: 38; Janson 1962: 66
Classification	2

S32. Gullrum, Näs

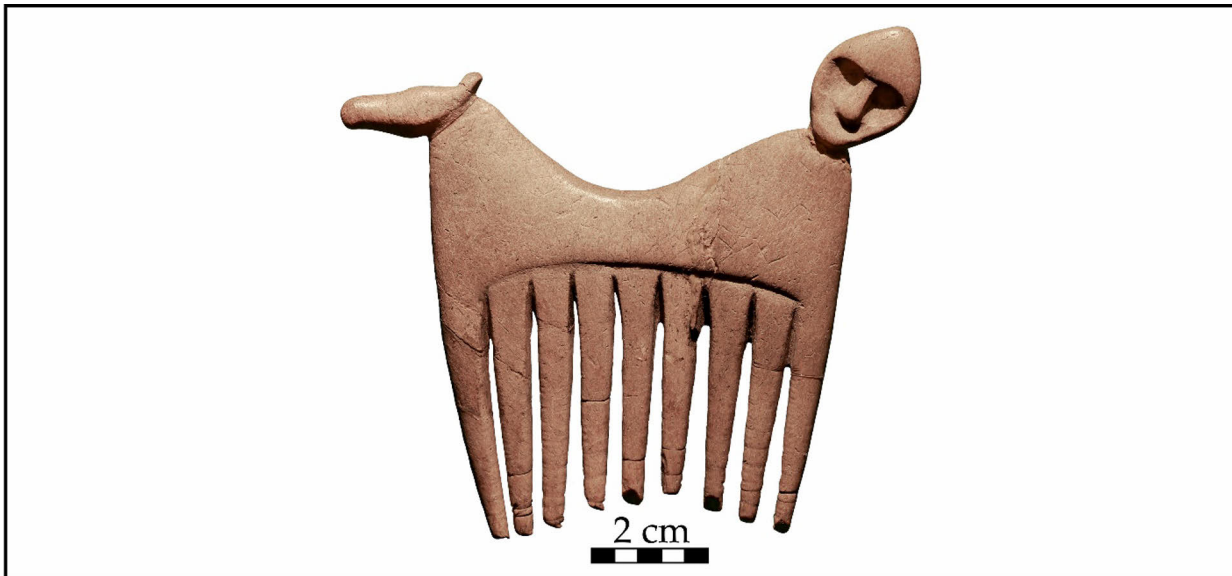


Figure 206. Elk(?) -headed comb from Gullrum. SHM 10055. Swedish History Museum. Photo: Ville Mantere.

Find site	Gullrum, Näs, Gotland (1893)
Coordinates	57°07'59"N 18°16'48"E (11 masl)
Inventory no.	SHM 10055 (Swedish History Museum)
Find type	Bone comb
Description	Elk(?) -headed bone comb; bicephalous; nine comb tines; zigzag decorations on both sides; elongated animal-head
Length	9.7 cm
Dating	c. 3500–2300 calBC
Find context	Settlement find; found during archaeological excavations; Wyzomirska (1984: 242) mentions another elk figure made of clay found at Gullrum but such a figure is not mentioned in other works (e.g. Hansson 1900; Lithberg 1914; Nihlén 1927)
Notes	Varyingly interpreted as a horse (Hansson 1900: 12), dog (Almgren 1907: 115; Montelius 1917: 27) and elk (Gjessing 1945: 204; Price 2015: 192)
Reference(s)	Hansson 1900: 12
Classification	2

S33. Sätra, Ovansjö

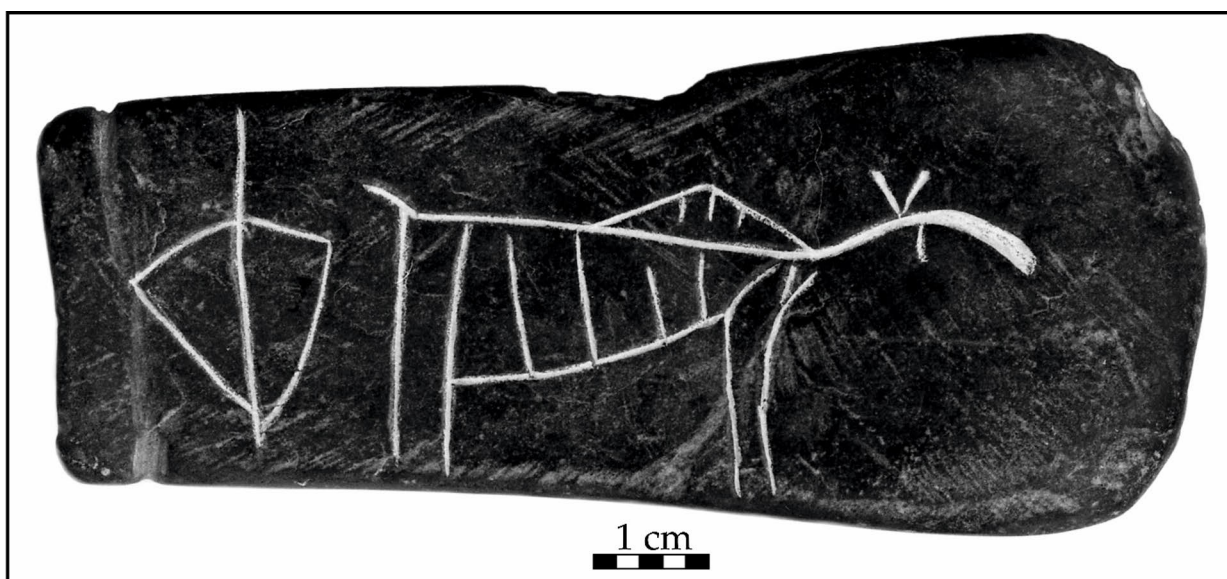


Figure 207. Carving of elk on a stone pebble from Sätra. GF 1845. Länsmuseum Gävleborg. Photo: Länsmuseum Gävleborg.

Find site	Sätra, Ovansjö, Gästrikland (c. 1918)
Coordinates	c. 60°36'50"N 16°43'00"E (c. 80–90 masl)
Inventory no.	GF 1845 (Länsmuseum Gävleborg)
Find type	Engraved slate stone
Description	Slate pebble with two engravings; evident elk figure and a hunting bow/human figure; a shallow incision (probably used for fastening the item) encircles the narrower end of the stone
Length	10.1 cm
Dating	c. 2500–1500 calBC
Find context	Stray find; found at a depth of 20 cm during ploughing works in a ridge 2 kilometres west of the Sandviken railway station; a slate projectile point was found by the same finder in immediate vicinity to the find site
Notes	
Reference(s)	Rydh 1921: 61–62; Länsmuseum Gävleborg, Report on inventory number GF 1845
Classification	1

S34. Bondsjöhöjden, Säbrå

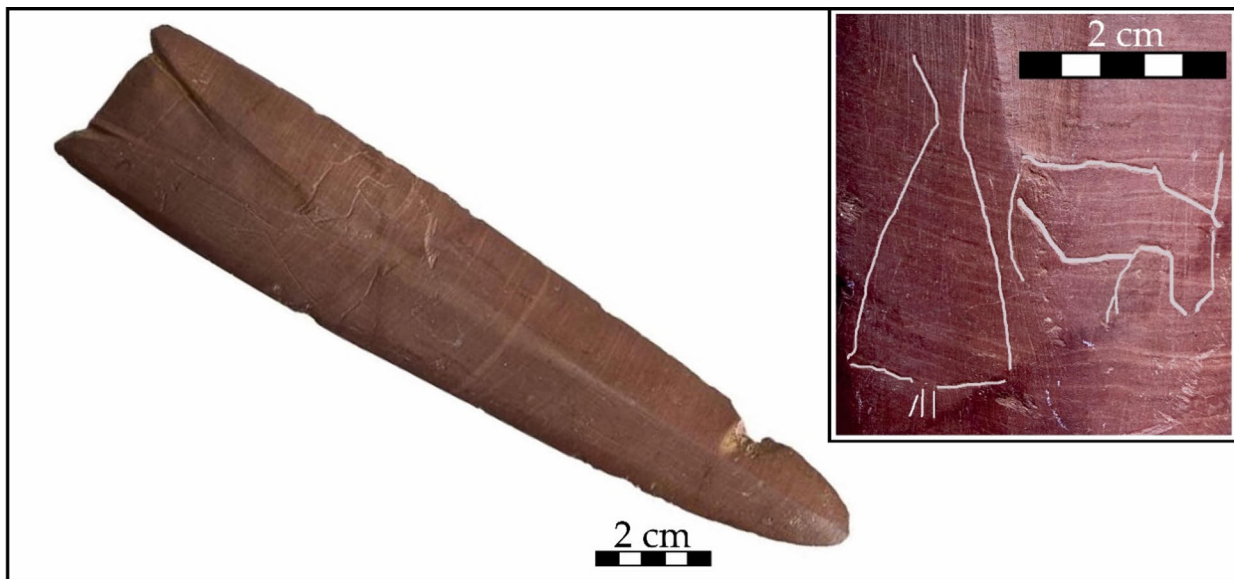


Figure 208. Carved elk(?) figure on a slate head from Säbrå. M13899. Västernorrlands museum. Photos: dagger from Hellqvist 2009: 60, fig. 105; detail: Björn Grankvist. Compilation: Ville Mantere.

Find site	Bondsjöhöjden, Säbrå, Ångermanland (1951)
Coordinates	62°38'48"N 17°54'14"E (c. 50 masl)
Inventory no.	M13899 (Västernorrlands museum)
Find type	Engraved slate head
Description	Red-brownish slate head with two engravings; a likely elk figure and a possible anthropomorph
Length	15 cm
Dating	c. 2500 calBC
Find context	Stray find; found at a depth of c. 50 cm during construction works; the find site was a sandy seashore around 2500 calBC
Notes	The vertical line on the animal figure's head possibly represents the antlers of an elk (?)
Reference(s)	http://www.murberget.se/se-och-goera/inomhus/fasta-utstaellningar/moeten-mellan-aelvorna/pilspets.aspx ; http://www.murberget.se/upptack/foremalspost.aspx?invnr=M13899&litt=-&nr=2
Classification	2

S35. Notön, Ådals-Liden

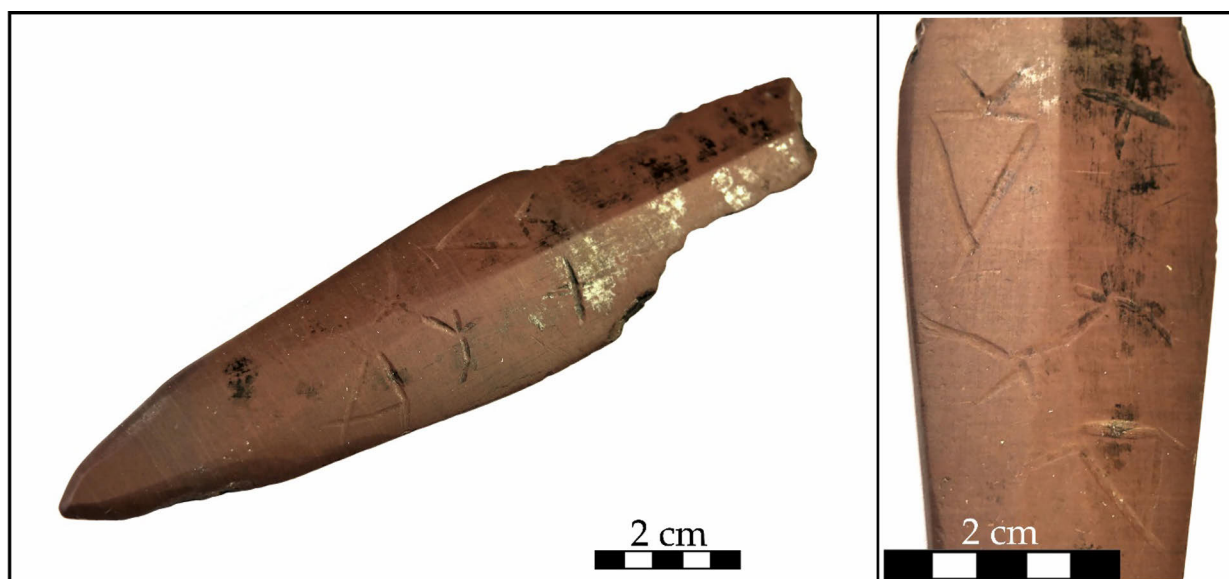


Figure 209. Carved elk(?) figure on a slate head from Notön. SHM 19122:58. Swedish History Museum. Photos and compilation: Ville Mantere.

Find site	Notön (Nämforsen), Ådals-Liden, Ångermanland (1927)
Coordinates	63°26'26"N 16°53'13"E (c. 73–79 masl)
Inventory no.	SHM 19122:58 (Swedish History Museum)
Find type	Engraved slate head
Description	Reddish slate head with abstract geometrical carvings on both sides; elk figure (?) and anthropomorphic figure(s)?; broken handle
Length	9.7 cm
Dating	c. 2500–1500 calBC
Find context	Stray find; found at Nämforsen; apparently connected to the nearby settlement site on the southern bank of the Ångerman River
Notes	On the other side of the blade there are traces of some kind of black substance, probably used for fastening the item
Reference(s)	Wennstedt Edvinger 1993: 17; Hellqvist 2009: 42; http://catview.historiska.se/catview/index.jsp , Inventarienummer 19122, Huvudkatalog (B), pp. 55–56; Stenålderskatalog, p. 86
Classification	2

S36. Rå-Inget 1, Ådals-Liden

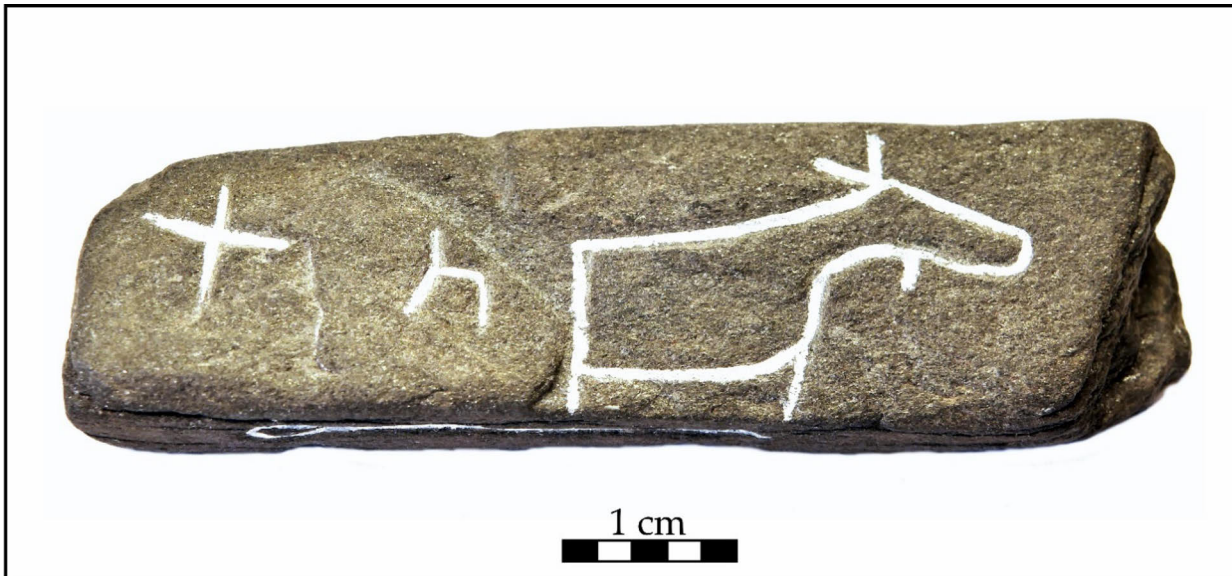


Figure 210. Carved elk figure on a slate pebble from Rå-Inget 1. SHM 23740:1:972. Swedish History Museum. Photo: Ville Mantere.

Find site	Rå-Inget 1 (Nämforsen), Ådals-Liden, Ångermanland (1946)
Coordinates	63°28'02"N 16°51'20"E (c. 90 masl)
Inventory no.	SHM 23740:1:972 (Swedish History Museum)
Find type	Engraved slate stone
Description	Slate stone with engravings on three sides; largest figure depicts an evident elk; other figures consist of a simple cross, a salmon, three long paralleling curvy lines, an anthropomorphic figure and a probable spear
Length	6.4 cm
Dating	c. 2500-1500 calBC
Find context	Settlement find; found during archaeological excavations at the Rå-Inget 1 settlement at Nämforsen on the eastern shore of Ångerman River
Notes	
Reference(s)	Baudou 1977: 83; 1992: 88; Wennstedt Edvinger 1993: 17; Käck 2009: 127-128
Classification	1

S37. Volmvattnet, Bodum

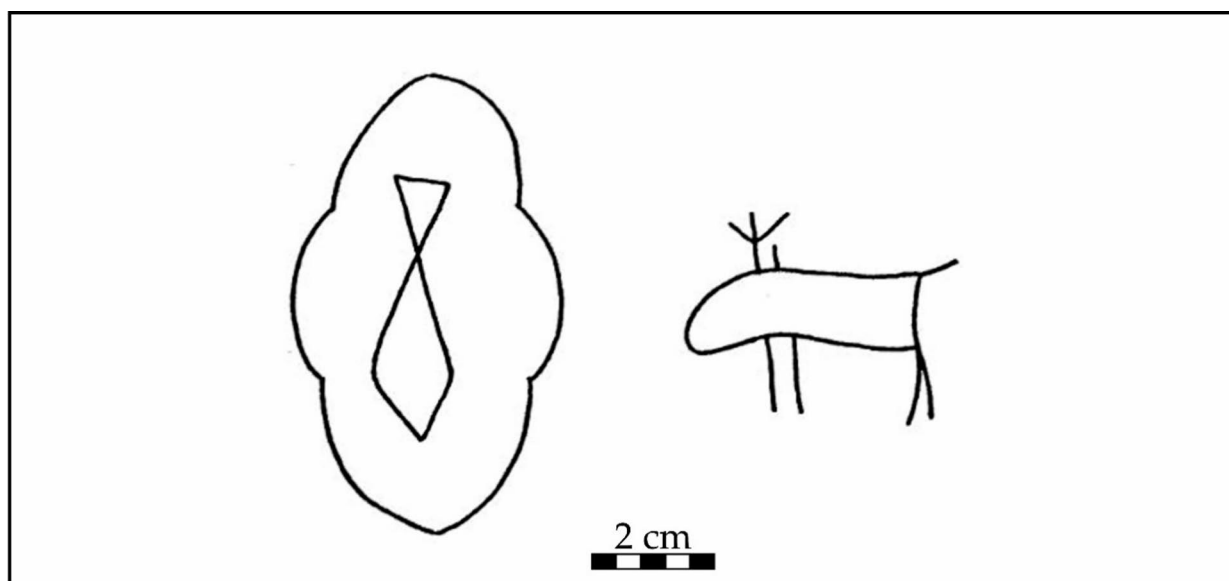


Figure 211. Carved elk(?) figure on a stone plate from Bodum. Stenåldersmuseet i Rossön. Drawing: Britta Wennstedt Edvinger (1993, p. 19, fig. 5).

Find site Volmvattnet, Bodum, Ångermanland

Coordinates c. 64°03'36"N 16°34'20"E

Inventory no. Unknown (kept in the Stone Age museum at Rossön, Bodum)

Find type Engraved slate stone

Description Dark-greyish stone plate with two engravings; a possible fish illustration and a conceivable elk figure on the opposite side

Length Unknown

Dating c. 2500–1500 calBC

Find context Unknown

Notes Despite requests, I have not been able to obtain any photographs or details about the item

Reference(s) Wennstedt Edvinger 1993: 17–19

Classification 2

S38. Hoting, Tåsjö



Figure 212. Carved elk figure on a slate head from Tåsjö. Photo: Britta Wennstedt Edvinger. Drawing: Britta Wennstedt Edvinger & Marianne von Essen (from Wennstedt Edvinger 1993, p. 18, fig. 4).

Find site	Hoting (Aspnäset), Tåsjö, Ångermanland (c. 1990)
Coordinates	64°06'48"N 16°07'08"E (c. 237 masl)
Inventory no.	Unknown (item in private ownership)
Find type	Engraved slate head
Description	Yellow/ochre-coloured slate head with barely visible engravings; a small elk-figure with two legs and two ears; two abstract figures (anthropomorphs?) on the opposite side
Length	12.3 cm
Dating	c. 2500–1500 calBC
Find context	Settlement find(?); found together with a piece of burnt bone and two quartzite flakes some three metres from the shoreline of Lake Hoting; probably related to nearby Stone Age settlement sites (see S13 and S14)
Notes	Situated only a couple of kilometres away from Lake Rörström (S39)
Reference(s)	Wennstedt Edvinger 1993: 18; Britta Wennstedt Edvinger, archaeologist, email correspondence, 3.–5.2.2016
Classification	1

S39. Rörström, Tåsjö

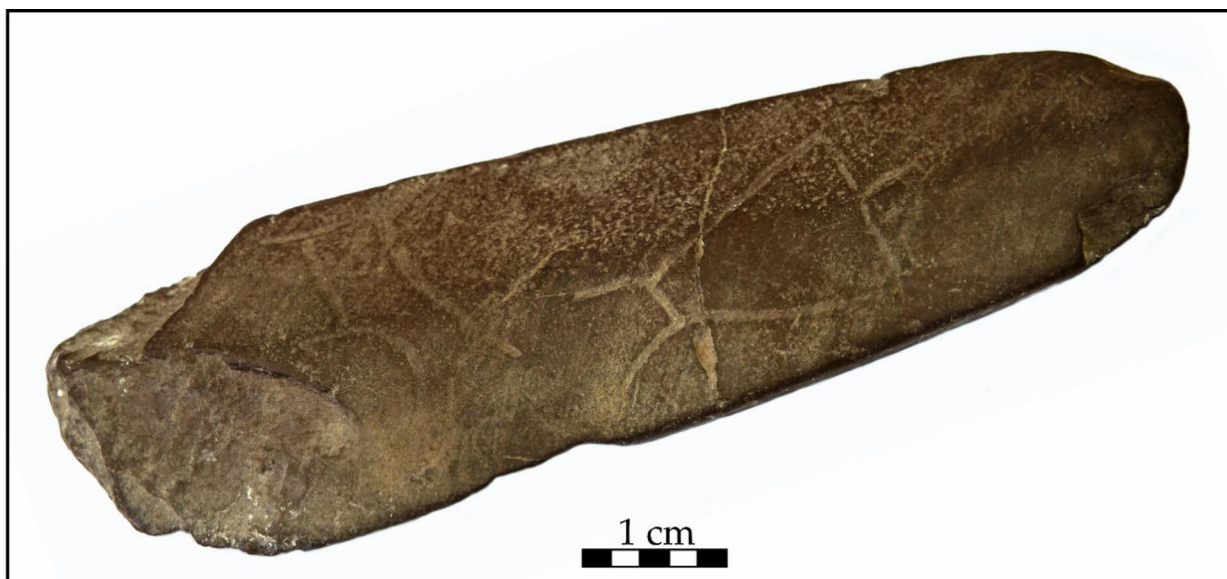


Figure 213. Carved elk figure on a slate head from Tåsjö. SHM 29472. Swedish History Museum. Photo: Ville Mantere.

Find site	Rörström, Tåsjö, Ångermanland (1972)
Coordinates	c. 64°13'15"N 16°12'00"E (c. 260 masl)
Inventory no.	SHM 29472 (Swedish History Museum)
Find type	Engraved slate head (spearhead/dagger?)
Description	Grey slate stone (spearhead?) with engravings; elk and abstract human figure
Length	8 cm
Dating	c. 2500–1500 calBC
Find context	Settlement find(?); found on the lakeshore of Lake Rörström
Notes	Situated only a couple of kilometres away from Lake Hoting (S38, S13, S14)
Reference(s)	http://catview.historiska.se/catview/index.jsp , Inventarienummer 29472, Huvudkatalog B, pp. 1–2
Classification	1

Norway

N1. Solbakken, Idd

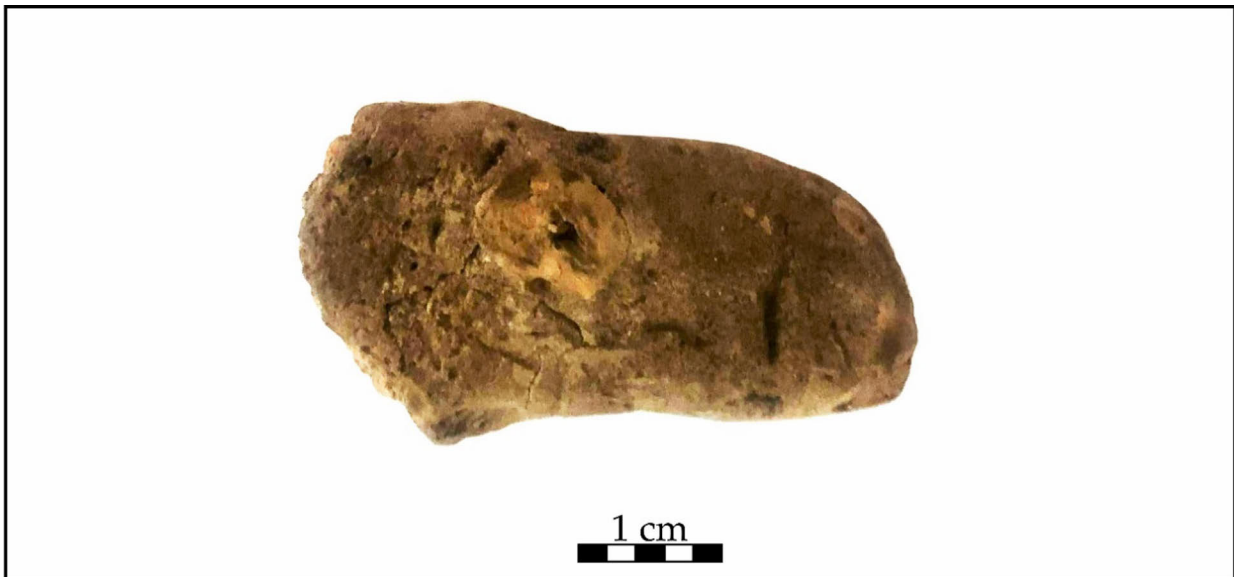


Figure 214. Elk-head(?) clay figurine from Solbakken. C 52637 047. The archaeological collections, Museum of Cultural History (University of Oslo). Photo: Hanne Lovise Aannestad.

Find site	Solbakken 3, Idd (Halden), Viken (2001)
Coordinates	c. 59°04'10"N 11°24'50"E (29 masl)
Inventory no.	C 52637 047 (Museum of Cultural History)
Find type	Clay figurine
Description	Elk-head(?) clay figurine; fragment; originally part of a larger figurine (?)
Length	4.3 cm
Dating	c. 2900–2800 calBC
Find context	Settlement find; found during archaeological excavations; the Solbakken 3 settlement is located on the eastern side of Iddefjorden; four additional (small and badly fragmented) clay figurines were also found at Solbakken
Notes	Elongated shape of the muzzle suggests elk depiction
Reference(s)	Østmo 2004: 43
Classification	2

N2. Tømmervåg, Aure

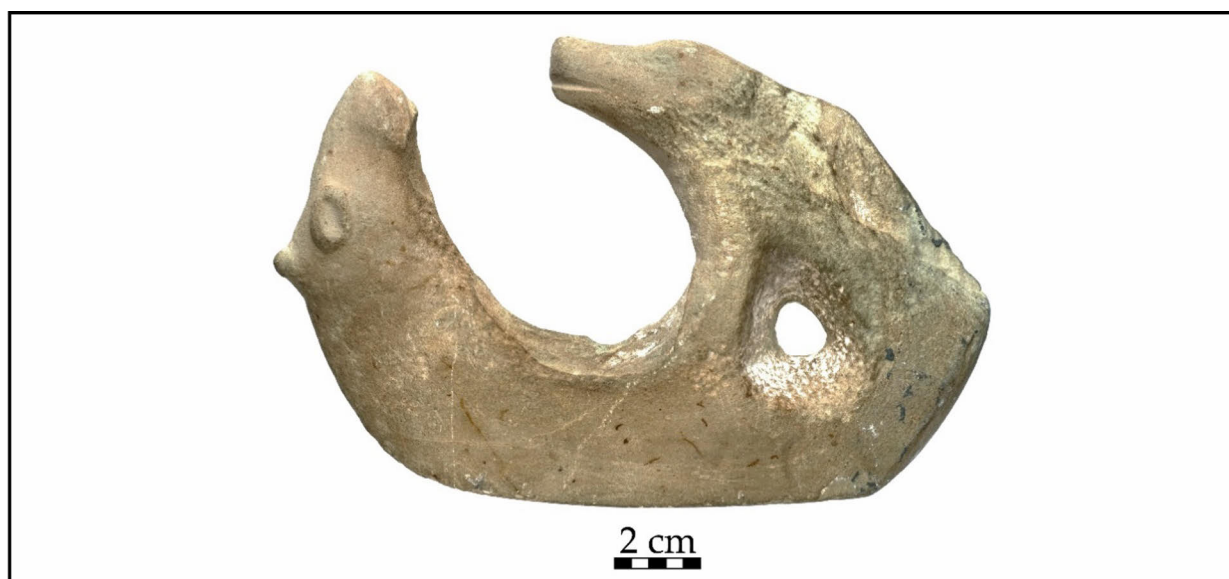


Figure 215. Elk(?) -headed stone sculpture from Tømmervåg. T 6328. The archaeological collections, NTNU University Museum. Photo: Kari Dahl.

Find site	Tømmervåg, Aure, Møre og Romsdal (early 1900s)
Coordinates	c. 63°09'23"N 07°57'47"E (10–15 masl)
Inventory no.	T 6328 (NTNU University Museum)
Find type	Stone sculpture
Description	Elk(?) -headed stone sculpture (sinker? weight?); made of greyish shale; pierced hole made with piketage technique; bicephalous; the two animal-heads represent different animal species (probably bear and elk)
Length	16.4 cm
Dating	Stone Age
Find context	Stray find; found in a bog at a depth of c. 30 cm; find site c. 80 metres from the seashore; a slate head was later found in vicinity to the find spot
Notes	Interpreted as an elk by Petersen (1920: 31), Nordman (1944: 76) and Carpelan (1977: 47–48)
Reference(s)	Petersen 1920: 31
Classification	2

N3. Brekken, Røros

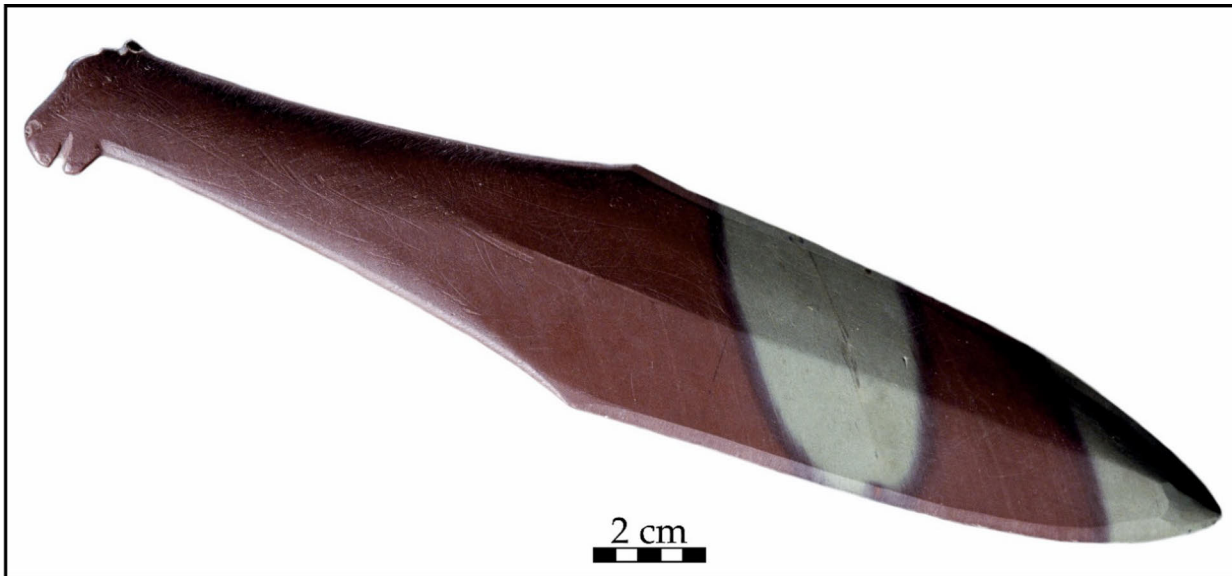


Figure 216. Elk-headed slate dagger from Røros. T 5012. The archaeological collections, NTNU University Museum. Photo: Per E. Fredriksen.

Find site	Brynhildsvoldvollen, Brekken (Røros), Trøndelag (late 1800s)
Coordinates	c. 62°41'08"N 11°44'45"E (c. 700 masl)
Inventory no.	T 5012 (NTNU University Museum)
Find type	Slate dagger
Description	Elk-headed slate dagger; made of (striped) red-brownish slate; polished
Length	22 cm
Dating	4200-1500 calBC
Find context	Stray find
Notes	Elk depicted with open mouth
Reference(s)	Rygh 1897: 20; Gjessing 1942: 126, footnote; Simonsen 1954: 305
Classification	1

N4. Sørheim, Alstahaug

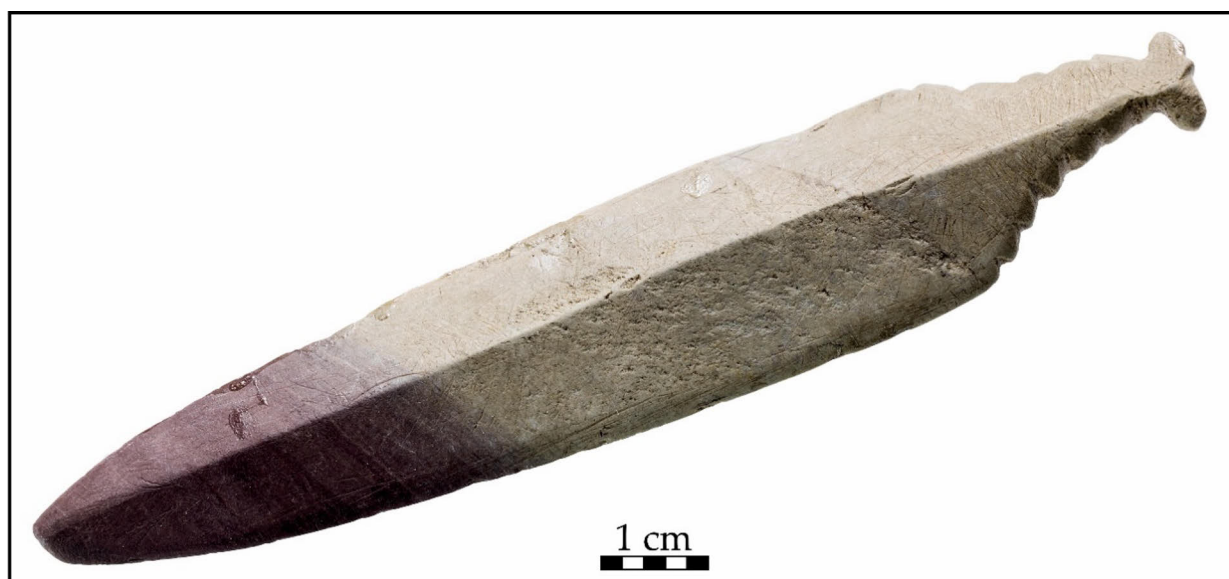


Figure 217. Elk-headed slate dagger from Sørheim. T 15513a. The archaeological collections, NTNU University Museum. Photo: Åge Hojem.

Find site	Sørheim (Tjærstad, Leirfjord), Alstahaug, Nordland (early 1930s)
Coordinates	c. 66°03'53"N 12°56'44"E
Inventory no.	T 15513a (NTNU University Museum)
Find type	Slate dagger
Description	Elk-headed slate dagger; made of (striped) grey-violet slate; polished; serrated handle
Length	11.4 cm
Dating	4200–1500 calBC
Find context	Settlement find(?); surface find during earthworks; found together with spearheads and two slate knives (indicating a Stone Age settlement site)
Notes	Only animal-headed slate dagger/knife from Norway with serrated handle
Reference(s)	Simonsen 1954: 305
Classification	1

N5. Hellarvikjæ, Træna



Figure 218. Elk-headed slate dagger finial from Træna. Ts. 4182a. The archaeological collections, UiT Arctic University Museum of Norway. Photo: Ville Mantere.

Find site	Hellarvikjæ II (Sande), Træna, Nordland (1939)
Coordinates	c. 66°30'09"N 12°03'31"E (17.5 masl)
Inventory no.	Ts. 4182a (UiT Arctic University Museum of Norway)
Find type	Slate dagger
Description	Elk-headed slate dagger finial; made of brownish slate; broken handle
Length	2.8 cm
Dating	c. 2350–1500 calBC
Find context	Settlement find; unearthed inside a rectangular house structure (no. VII) during archaeological excavations at the Hellarvikjæ II settlement site
Notes	
Reference(s)	Gjessing 1943: 64, 136
Classification	1

N6. Risvik, Meløy



Figure 219. Elk-headed slate knife handle from Risvik. Ts. 3500a. The archaeological collections, UiT Arctic University Museum of Norway. Photo: Ville Mantere.

Find site	Risvik, Meløy, Nordland (1932)
Coordinates	c. 66°49'41"N 13°31'05"E (c. 15 masl)
Inventory no.	Ts. 3500a (UiT Arctic University Museum of Norway)
Find type	Slate knife
Description	Elk-headed slate knife handle; made of yellow-greyish slate; broken blade; polished
Length	9 cm
Dating	c. 2500–1500 calBC
Find context	Settlement find(?); found together with asbestos-ceramics at a depth of 10–15 cm during investigations carried out by amateur archaeologist E.J. Havnø
Notes	Elk-head sculpted with unusual precision and realism
Reference(s)	Gjessing 1934: 3
Classification	1

N7. Hjelstad, Gildeskål



Figure 220. Elk(?)-headed slate dagger from Gildeskål. Ts. 3195. The archaeological collections, UiT Arctic University Museum of Norway. Photo: Ville Mantere.

Find site	Hjelstad, Gildeskål, Nordland (1920s)
Coordinates	c. 67°00'50"N 14°02'25"E (c. 5 masl)
Inventory no.	Ts. 3195 (UiT Arctic University Museum of Norway)
Find type	Slate dagger
Description	Elk(?)-headed slate dagger; made of (striped) red-brownish and green slate; broken animal-head finial and blade tip; both sides of the handle engraved with small horizontal lines (for enfolding?)
Length	13.6 cm
Dating	4200–1500 calBC
Find context	Stray find
Notes	
Reference(s)	Simonsen 1954: 305
Classification	2

N8. Sørøya, Hasvik

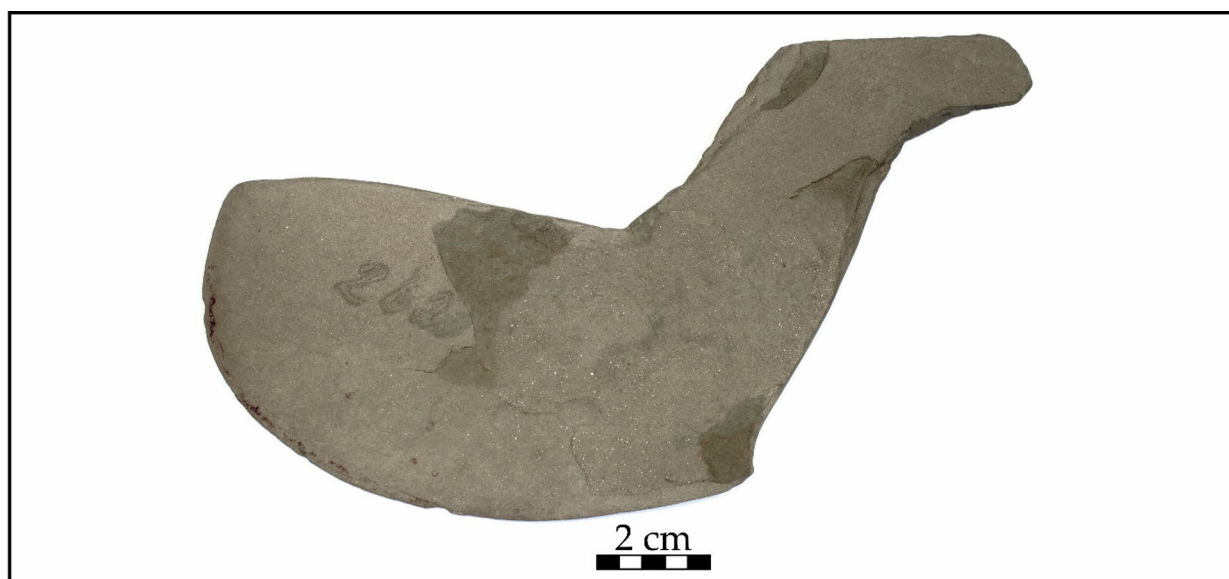


Figure 221. Elk(?)-headed slate knife from Sørøya. Ts. 2620. The archaeological collections, UiT Arctic University Museum of Norway. Photo: Ville Mantere.

Find site	Sørøya (Bredvik), Hasvik, Troms og Finnmark (1920s)
Coordinates	c. 70°35'50"N 22°06'00"E
Inventory no.	Ts. 2620 (UiT Arctic University Museum of Norway)
Find type	Slate knife
Description	Elk(?)-headed slate knife; made of grey slate; polished on both sides
Length	14 cm
Dating	4200–1500 calBC
Find context	Stray find; found during ploughing works
Notes	Elongated and abstract head has the characteristics of an elk's muzzle
Reference(s)	Simonsen 1954: 307
Classification	2

N9. Storbukta, Kjelvik



Figure 222. Elk-headed(?) slate knife fragment from Kjelvik. Ts. 3877a. The archaeological collections, UiT Arctic University Museum of Norway. Photo: Ville Mantere.

Find site	Storbukta (Honningsvåg), Kjelvik, Troms og Finnmark (1930s)
Coordinates	c. 70°59'50"N 25°58'00"E
Inventory no.	Ts. 3877a (UiT Arctic University Museum of Norway)
Find type	Slate knife
Description	Elk(?)-headed slate knife fragment; made of brownish slate; polished; handle and schematic finial broken
Length	4.9 cm
Dating	4200–1500 calBC
Find context	Settlement find; found from the Storbukta settlement together with some other slate items
Notes	
Reference(s)	Simonsen 1954: 307; http://www.unimus.no/arkeologi/resources/musitmoreinfo.php?museum=TMU&id=5556&museumsnr=Ts3877
Classification	2

N10. Sirdagoppe, Karlebotn

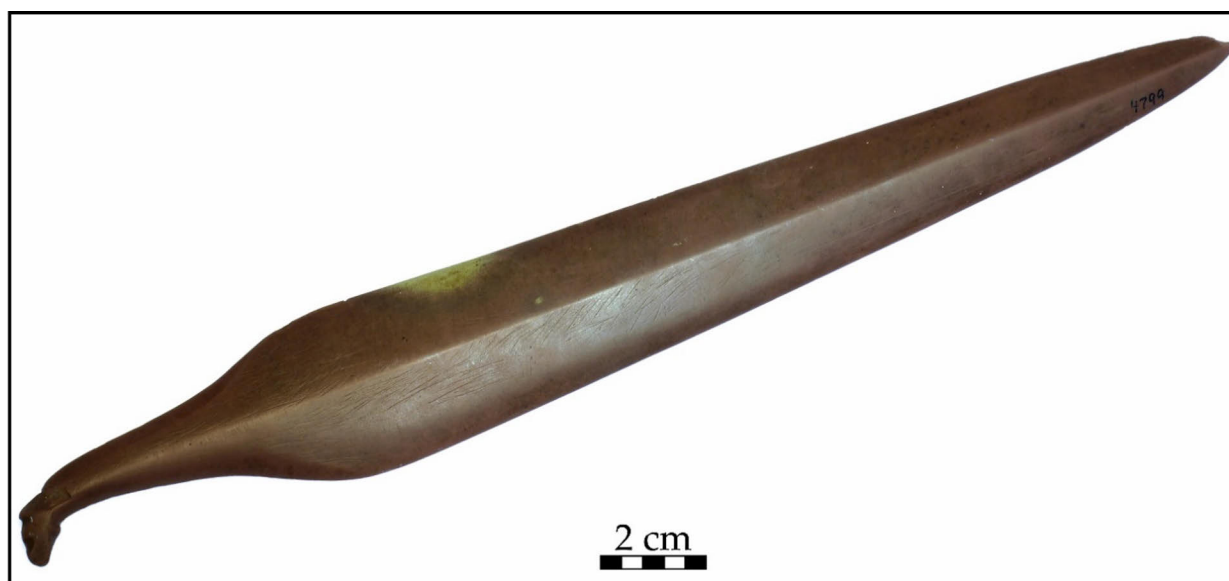


Figure 223. Elk-headed slate dagger from Sirdagoppe. Ts. 4799. The archaeological collections, UiT Arctic University Museum of Norway. Photo: Ville Mantere.

Find site	Sirdagoppe (Gropbakkeengen), Karlebotn (Nesseby), Troms og Finnmark (1940s)
Coordinates	c. 70°06'24"N 28°35'42"E (26 masl)
Inventory no.	Ts. 4799 (UiT Arctic University Museum of Norway)
Find type	Slate dagger
Description	Elk-headed slate dagger; made of reddish slate; thoroughly polished
Length	25 cm
Dating	c. 4000–3300 calBC (age of the settlement site) (Fredrik Hallgren, PhD, archaeologist, email correspondence 23.3.2016)
Find context	Settlement find(?); found in a potato field immediately outside the excavation area of a Neolithic settlement site
Notes	Unusually small handle (6 cm) and finial (1.2 cm) compared to the long blade
Reference(s)	Simonsen 1954: 304
Classification	1

N11. Gressbakken, Nesseby



Figure 224. Elk(?) head bone figurine from Gressbakken. Ts. 5526 eæ. The archaeological collections, UiT Arctic University Museum of Norway. Photo: Ville Mantere.

Find site	Gressbakken Nedre Vest (Varangerfjord), Nesseby, Troms og Finnmark (1956–1957)
Coordinates	c. 70°04'28"N 28°48'17"E (c. 14 masl)
Inventory no.	Ts. 5526 eæ (UiT Arctic University Museum of Norway)
Find type	Bone finial (comb?)
Description	Elk(?) head (comb?) finial; made of (elk) bone; broken at the neck where the bone splits in two
Length	7.8 cm
Dating	Radiocarbon date 2580–2030 calBC ³⁶⁶ obtained from house no. 4 (Helskog 1980: 53; 1984: 47, cited in Melsæther 2011: 112)
Find context	Settlement find; found together with several other zoomorphic figurines inside house structures (no. 3 & 4) during archaeological excavations of a Neolithic settlement site; other figurines depict birds (Ts. 5526 ez; Ts. 5525 lo) and bears/dogs (Ts. 5526 hy, Ts. 5525 lp) (see Simonsen 1961: 314; 331–339; Carpelan 1977: 48, 67)
Notes	Two ears and characteristic muzzle suggest elk depiction
Reference(s)	Simonsen 1961: 335, 337
Classification	2

³⁶⁶ 3850±100 BP (T-234).

N12. Skjåvika, Båtsfjord

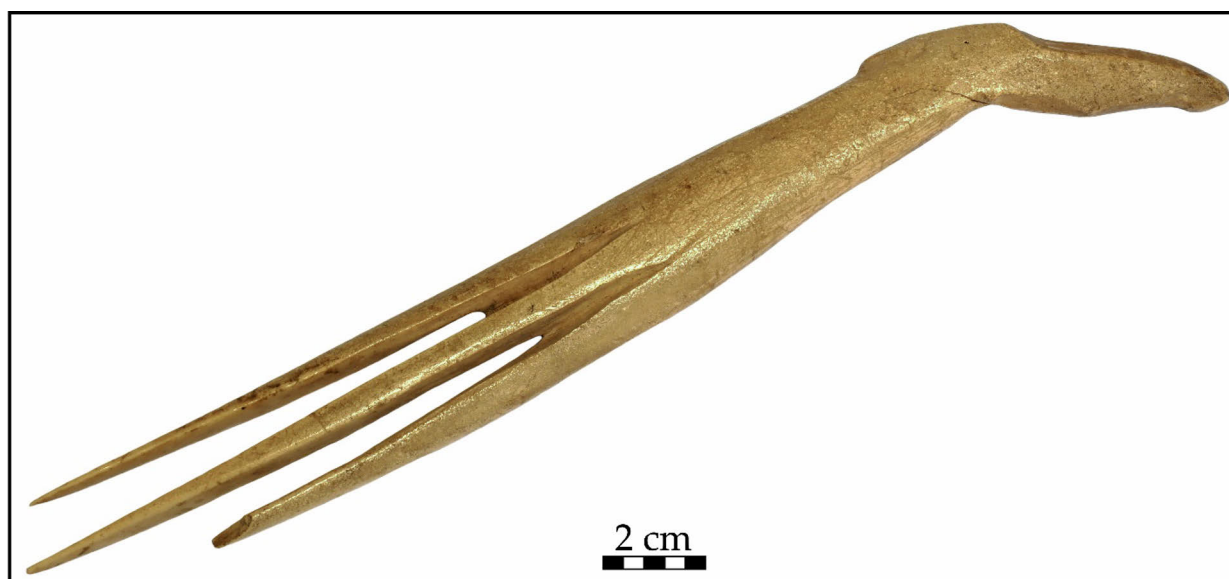


Figure 225. Elk(?)-headed bone comb from Skjåvika. Ts. 3880a. The archaeological collections, UiT Arctic University Museum of Norway. Photo: Ville Mantere.

Find site	Skjåvika (Hamningberg), Båtsfjord (Vardøy), Troms og Finnmark (1937)
Coordinates	c. 70°32'33"N 30°35'33"E (12.5 masl)
Inventory no.	Ts. 3880a (UiT Arctic University Museum of Norway)
Find type	Bone comb
Description	Elk(?)-headed bone comb; three tines; schematic but characteristic elk-head
Length	23.1 cm
Dating	Sample of shell midden radiocarbon dated approximately to 3370–2300 calBC ³⁶⁷ (see Melsæther 2011: 113)
Find context	Settlement find; found together with some other bone artefacts from the Skjåvika settlement site
Notes	The closest parallel to the Skjåvika comb is the bird- or (rein)deer-headed bone comb from Nyelv Nedre Vest at Varangerfjord (see Gjessing 1942: 246; Simonsen 1961: 402; Carpelan 1977: 35), dated to the period 3320–2720 calBC (Helskog 1980: 53; 1984: 47, cited in Melsæther 2011: 112)
Reference(s)	Gjessing 1938a: 179–180
Classification	2

³⁶⁷ 4220±190 BP (Ts-3880z).

Denmark

D1. Egemark, Sjælland

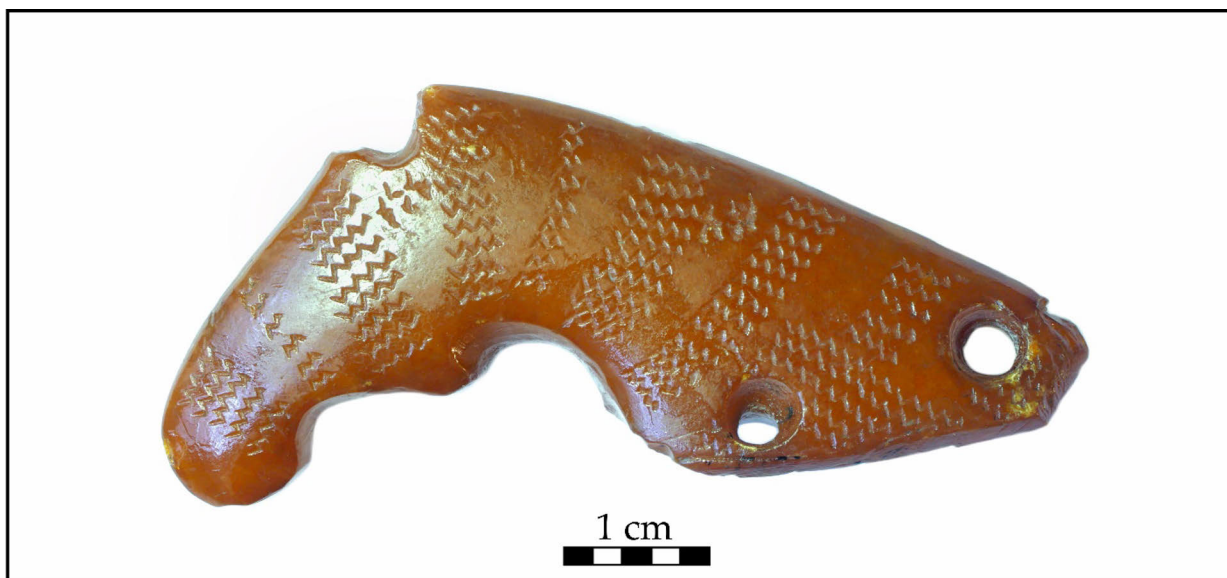


Figure 226. Elk-head amber figurine from Egemark. A 44897. National Museum of Denmark. Photo: Ville Mantere.

Find site	Egemark, Særslev, Holbæk, Sjælland (1952)
Coordinates	c. 55°43'58"N 11°21'49"E (14 masl)
Inventory no.	A 44897 (National Museum of Denmark)
Find type	Amber figurine
Description	Elk-head figurine; made of reddish amber; broken; both sides decorated with small geometrical zigzag-lines, engraved in belts covering the entire elk-head; underside pierced with two holes (for fastening the figurine after fragmentation?); holes and the fragmented surface bear traces of black adhesive substance; broken hole also on the top (later addition drilled in order to use the item as a pendant?); characteristic elk dewlap
Length	6.3 cm
Dating	c. 11 800–11 000 calBC (similarities to G1)
Find context	Stray find; found during draining works; unearthed at a depth of 2 metres, either in sandy mud or under peat (see Mathiassen 1952: 167); a survey undertaken in 2012 by P.V. Petersen yielded no signs of human occupation connected to the amber figurine but a provisional geological investigation revealed late-glacial lacustrine deposits beneath the peat (Petersen 2013: 228)
Notes	The Egemark elk-head has probably belonged to a larger sculpture, comparable to the amber elk from Weitsche (G1) (Petersen 2013: 228–229)
Reference(s)	Mathiassen 1952: 167; Petersen 2013: 228–229; Michaelsen & Petersen 2016: 5
Classification	1

D2. Næsby Strand, Knolden



Figure 227. Elk(?) -shaped amber sculpture from Næsby Strand. A 54499. National Museum of Denmark. Photo: Ville Mantere.

Find site	Næsby Strand, Knolden, Sjælland (2015)
Coordinates	c. 55°23'50"N 11°12'53"E (-0.5 masl)
Inventory no.	A 54499 (National Museum of Denmark)
Find type	Amber sculpture
Description	Elk(?) -shaped sculpture; made of slightly transparent, red-yellowish amber; thoroughly engraved with geometrical ornamentations (zigzag-lines possibly representing fur?); remnants of three perforations (one unfinished and made by drilling, two other hourglass-shaped and apparently made by means of a cord); originally hanging on a strap or a belt (?); ears, eyes, nostrils and mouth marked out but animal species still unclear due to the abstract head shape
Length	7 cm
Dating	c. 11 800–11 000 calBC (similarities to G1)
Find context	Stray find; found by an amber collector on the coast of the Great Belt in the middle of seaweeds some 50 cm below the surface; the intact surface and the reddish colour indicate that the sculpture was until recently situated in a wet and oxygen-free environment (i.e. flooded bog) (Vang Petersen 2016: 16)
Notes	The back part of the animal bears more resemblance to an elk than to a horse; Petersen (2016: 17) suggests that the figure represents an elk kneeled down for grazing, which could explain the fact that the back part of the animal is slightly higher than the shoulder part
Reference(s)	Jessen 2016: 18; Petersen 2016: 16
Classification	2

Germany

G1. Weitsche, Niedersachsen



Figure 228. Elk-shaped amber sculpture from Weitsche. Niedersächsisches Landesmuseum. Photo: Ursula Bohnhorst.

Find site	Weitsche, Landkreis Lüchow-Dannenberg, Niedersachsen (1994–2004)
Coordinates	c. 53°01'30"N 11°07'40"E (c. 10–15 masl)
Inventory no.	Unknown (Niedersächsisches Landesmuseum)
Find type	Amber sculpture
Description	Elk-shaped sculpture; made of amber; broken; geometric ornamentations; eyes, ears, nostrils and mouth marked by small symmetrical holes; forelegs missing; highly naturalistic elk-head (cow?)
Length	9 cm
Dating	11 800–11 680 calBC (two radiocarbon dates from calcined bones in the same layer as the amber fragments) (see Veil et al. 2012: 661–664)
Find context	Settlement find; first amber fragment found in 1994 at the large Weitsche settlement in the Elbe Valley; during following years, additional sculpture pieces were discovered intermittently (head unearthed in 2004); all amber fragments found in the same layer with calcined bones and flint objects of the Federmesser tradition, at a depth of c. 25 cm in plough soil, preserved because of a “thin layer of fluvial loam” (Veil et al. 2012: 661)
Notes	The legs have originally been jointed by a bridge (cf. D2 & P1)
Reference(s)	Veil et al. 2012: 661–664
Classification	1

G2. Oberkassel, Bonn



Figure 229. Elk(?) shaped antler sculpture fragment from Oberkassel. LVR-LandesMuseum Bonn. Photo: Jürgen Vogel (image obtained from: <http://donsmaps.com/oberkassel.html#reference>).

Find site	Oberkassel, Bonn, Nordrhein-Westfalen (1914)
Coordinates	50°42'40"N 07°10'00"E (99 masl)
Inventory no.	Unknown (LVR-LandesMuseum Bonn)
Find type	Antler sculpture
Description	Elk(?) shaped sculpture fragment; made of antler; broken; thoroughly incised with grooves (representing fur?)
Length	8,5 cm
Dating	12 200–11 600 calBC (AMS dates obtained from human and faunal bones in the burial) (Baales & Street 1998: 78–79, 83 and cited references)
Find context	Burial find; unearthed in double burial
Notes	The (elk) head of the sculpture apparently disappeared soon after discovery; the ear of the animal is similar to the ear depicted on the elk-sculpture from Weitsche (G1); the slightly elevated shoulder part also gives the impression of an elk's mane (see Veil et al. 2012: 667)
Reference(s)	Baales & Street 1998: 78–84
Classification	2

G3. Windeck, Rhein-Sieg-Kreises

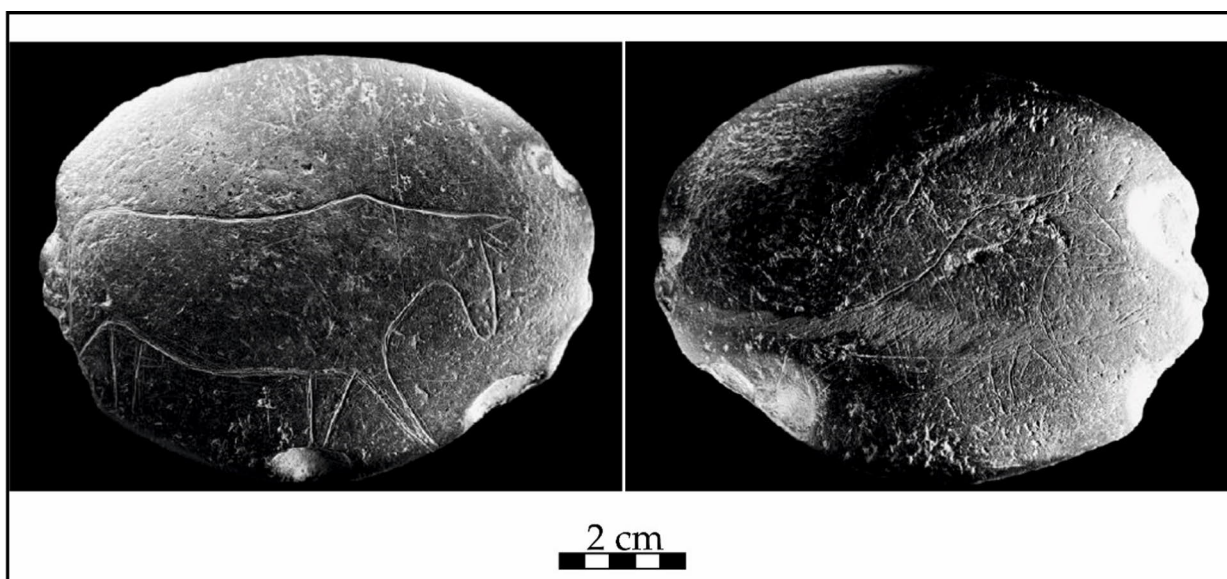


Figure 230. Carved elk(?) figure on a slate stone from Windeck. Leibniz-Zentrum für Archäologie. Photo from Heuschen et al. 2006a, abb. 3.

Find site	Windeck, Rhein-Sieg-Kreises, Nordrhein-Westfalen (2005)
Coordinates	c. 50°47'55"N 07°34'10"E (c. 120 masl)
Inventory no.	Unknown (Leibniz-Zentrum für Archäologie)
Find type	Engraved slate stone
Description	Oval, greyish stone retoucher with two animal carvings (cervids?) on both sides; made of slate; larger animal figure significantly better visible and easier to interpret; further abstract incisions partly overlap the animal figures
Length	8.7 cm (animal figures measure 6.8 cm and 5.5 cm respectively)
Dating	c. 12 000–10 800 calBC; cores found adjacent to the engraved stone indicate a Federmesser cultural context (Wolfgang Heuschen, archaeologist, Römisch-Germanisches Zentralmuseum, email correspondence 16.-17.3.2016)
Find context	Settlement find(?); discovered as a surface find in the central Sieg valley by a private collector; small-scale archaeological investigations carried out at the find site (OV 06-174) revealed cores, flakes and blades in the humus and sediment layers (see Heuschen 2007: 50–52)
Notes	The elongated muzzle and characteristic withers of the larger figure point towards an elk (Heuschen et al. 2006a: 8); the smaller figure is more ambiguous (elk? bovine? horse?)
Reference(s)	Heuschen et al. 2006a: 17–27; 2006b: 31–34
Classification	2

Poland

P1. Dobięgniew, Strzelce-Drezdenko

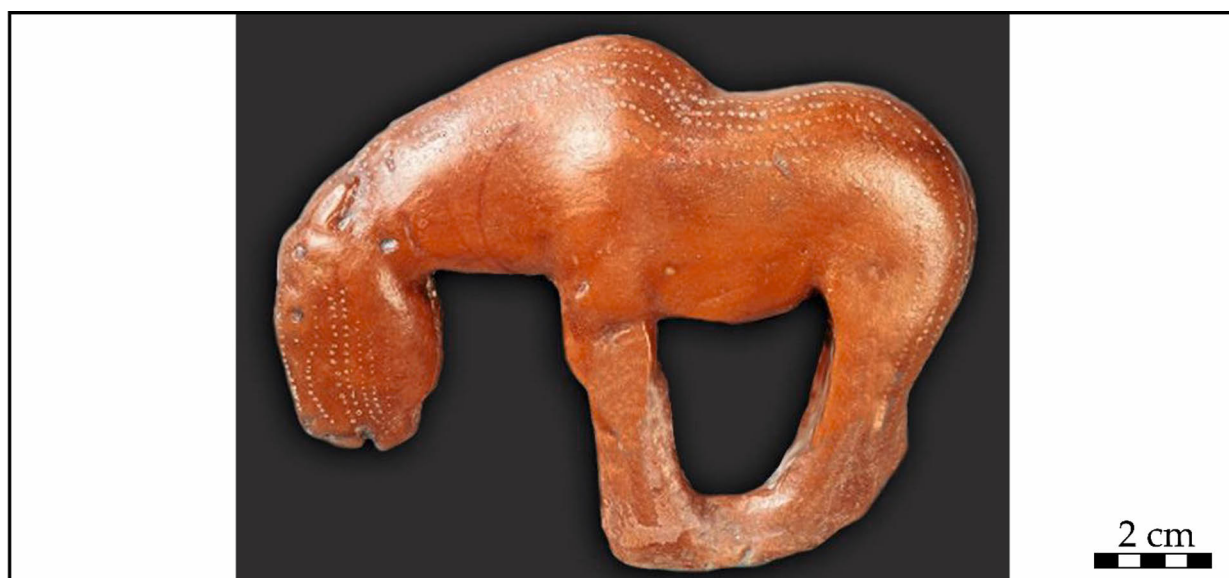


Figure 231. Elk(?) -shaped amber sculpture from Dobięgniew. Photo obtained from: <https://i.pinimg.com/originals/7d/c6/3a/7dc63a64ca04267f7a9f55077e7ff624.jpg>.

Find site	Dobięgniew (Woldenberg), Strzelce-Drezdenko, Lubusz (1858)
Coordinates	c. 52°56'00"N 15°46'00"E (c. 50–70 masl)
Inventory no.	Unknown (The State Hermitage Museum)
Find type	Amber sculpture
Description	Elk(?) -shaped sculpture; made of reddish amber; jointed legs; dotted ornamentations; drilled holes representing eyes, antler stubs and nostrils
Length	12 cm
Dating	c. 11 800–11 000 calBC; evident stylistic similarities to G1 and D2 (e.g. geometric decorations made by means of a trihedral stone tool; see Veil et al. 2012: 664)
Find context	Stray find; found by a worker when shovelling a ditch
Notes	Sometimes comprehended as a horse depiction but the body shape (erected withers) and antler stubs suggest elk (Petersen 2016: 17); in several respects similar to the Weitsche elk (G1) (Veil et al. 2012: 664)
Reference(s)	Gandert 1924: 17–26
Classification	2

Lithuania

Lt1a. Šventoji 3B, Palanga City Municipality



Figure 232. Elk-head antler staff from Šventoji 3B. LNM EM 2132:396. National Museum of Lithuania. Photo: Ville Mantere.

Find site	Šventoji 3B, Palanga City Municipality, Klaipėda County (1972)
Coordinates	c. 56°01'30"N 21°04'40"E (c. 0.7–2 masl)
Inventory no.	LNM EM 2132:396 (National Museum of Lithuania)
Find type	Elk-head staff
Description	Elk-head staff; made of elk antler; well-preserved; carefully polished; end of handle pierced; highly naturalistic elk-head with skilful details; muzzle and ear (other ear broken) engraved with geometrical ornamentations
Length	44 cm (elk-head 14 cm)
Dating	c. 3600–3400 calBC; the staff is most probably contemporary with the more abstract elk-head staff found in the same layer (see below)
Find context	Settlement find; found during archaeological excavations; Šventoji 3 is one of the over 40 known Neolithic settlement sites located on the shores of an ancient lagoonal lake (later Pajūris bog) on the northwestern coast of Lithuania; staff unearthed at a depth of c. 140 cm in a peat layer; probably originally washed away from the shoreline
Notes	Interpreted as a female elk with ritual and cosmological significance (see e.g. Rimantienė 1992a: 374; Straičys & Klimka 1997: 58; Antanaitis 1998: 60)
Reference(s)	Rimantienė 1979: 106
Classification	1

Lt1b. Šventoji 3B, Palanga City Municipality



Figure 233. Elk-head(?) antler staff from Šventoji 3B. LNM EM 2132:397. National Museum of Lithuania. Photo: Ville Mantere.

Find site	Šventoji 3B, Palanga City Municipality, Klaipėda County (1972)
Coordinates	c. 56°01'30"N 21°04'40"E (c. 0.7–2 masl)
Inventory no.	LNM EM 2132:397 (National Museum of Lithuania)
Find type	Elk-head staff
Description	Elk-head(?) staff; made of antler; abstract (incomplete?) (see Iršėnas 2000: 94)
Length	42 cm (elk-head 23 cm)
Dating	3640–3380 calBC ³⁶⁸ (direct radiocarbon date; Iršėnas et al. 2018, 136)
Find context	Settlement find; found during archaeological excavations; approximately ten metres away from Lt1a; at a depth of 80 cm in the bottom layer of the ancient lake sediment
Notes	The abstract animal-head has elk characteristics (ears, forehead, and chin)
Reference(s)	Rimantienė 1979: 106
Classification	2

³⁶⁸ 4766±31 BP (KIA-51366).

Lt1c. Šventoji 4B, Palanga City Municipality



Figure 234. Elk(?) head staff (miniature) from Šventoji 4B. LNM EM 2136: 160. National Museum of Lithuania. Photo: Ville Mantere.

Find site	Šventoji 4B, Palanga City Municipality, Klaipėda County (1989)
Coordinates	c. 56°01'30"N 21°04'40"E (0.7 masl)
Inventory no.	LNM EM 2136: 160 (National Museum of Lithuania)
Find type	Elk-head staff (miniature)
Description	Elk(?) head staff; made of (elk) rib bone; broken at the (pierced) shaft
Length	14 cm
Dating	Probably c. 3600–3400 calBC (contemporary with Lt1a and Lt1b); horizon 4B is one of the oldest at Šventoji with radiocarbon dates in the broad period 4230–2490 calBC ³⁶⁹ (Stančikaitė et al. 2009: 118; Piličiauskas et al. 2012, fig. 5)
Find context	Settlement find; unearthed during archaeological excavations from layer 4B
Notes	Large ears and short muzzle indicate deer or elk calf depiction
Reference(s)	Rimantienė 1992b: 112; Iršėnas 2010: 175
Classification	2

³⁶⁹ 5110±110 BP (Vs-811); 4145±80 BP (T-11004).

Latvia

Lv1. Sārnate, Užava Parish



Figure 235. Elk-head amber figurine from Sārnate. NML A 11422: 191, 192. National History Museum of Latvia. Photo: Ville Mantere.

Find site	Sārnate, Užava Parish, Ventspils Municipality (1957)
Coordinates	57°06'50"N 21°27'35"E (2–3 masl)
Inventory no.	NML A 11422: 191, 192 (National History Museum of Latvia)
Find type	Amber figurine
Description	Elk-head figurine; made of reddish amber; fragment; highly naturalistic
Length	3 cm
Dating	c. 3950–3500 calBC (figurine discovered in a Typical Comb Ware setting (see Vankina 1970: 78–81, 111))
Find context	Settlement find; found during archaeological excavations; discovered in three fragments inside house ground no. 3 at the Sārnate bog settlement on the western coast of Latvia
Notes	A broken hole on the elk's neck suggests that the figurine was used as a pendant (Iršēnas 2001: 79); perhaps originally part of a larger elk-sculpture (Carpelan 1974: 72)
Reference(s)	Vankina 1970: 78–81, 111; Loze 2010: 5
Classification	1

Lv2a. Zvejnieki (57), Večate Parish



Figure 236. Elk(?) -head staff (miniature) from Zvejnieki. NML VI 93: 71. National History Museum of Latvia. Photo: Ville Mantere.

Find site	Zvejnieki (grave no. 57), Večate Parish, Burtnieki Municipality (1970s)
Coordinates	c. 57°46'34"N 25°13'34"E (c. 42–47 masl)
Inventory no.	NML VI 93: 71 (National History Museum of Latvia)
Find type	Elk-head staff (miniature)
Description	Elk(?) -head staff; made of bone; broken; schematic animal-head with hanging muzzle (probable elk)
Length	24 cm (elk-head 7 cm)
Dating	5840–5620 calBC ³⁷⁰ (radiocarbon date of burial 57) (see Iršēnas 2006: 303; Zagorska 2008: 120)
Find context	Burial find; found during archaeological excavations at the large Zvejnieki burial ground near Lake Burtnieks in northern Latvia; unearthed in an exceptional (deepest and richest) female burial (no. 57) on the inner side of an elderly woman's left leg; grave goods consisted of a bone spearhead, animal tooth pendants, stone artefacts, and ochre (see Zagorska 2000: 88; 2008: 120)
Notes	Zagorskis (1987: 76) interpreted the item as a dagger
Reference(s)	Zagorskis 1987: 27; Zagorska 2008: 117, 120
Classification	2

³⁷⁰ 6825±60 BP (Ua-3636).

Lv2b. Zvejnieki (277), Večate Parish



Figure 237. Elk-head staff (miniature) from Zvejnieki. NML VI 93. National History Museum of Latvia. Photo: Ville Mantere.

Find site	Zvejnieki (grave no. 57), Večate Parish, Burtņieki Municipality (1970s)
Coordinates	c. 57°46'34"N 25°13'34"E (c. 42–47 masl)
Inventory no.	NML VI 93 (National History Museum of Latvia)
Find type	Elk-head staff (miniature)
Description	Elk-head staff; made of antler; detailed and naturalistic elk-head; handle bent
Length	10 cm
Dating	4540–4260 calBC ³⁷¹ (radiocarbon date from burial 277; see Iršēnas 2006: 303; Zagorska 2008: 119, fig. 5)
Find context	Burial find; found during archaeological excavations; unearthed inside grave no. 277, next to the left leg of a young male's skeleton; belonged to a larger collective burial (no. 274–278) of six individuals, rich in grave goods
Notes	Animal-head also interpreted as a horse (Zagorska et al. 2018: 110) but encompasses all characteristic features of an elk's head (Zagorskis 1987: 76–77); the staff was probably fastened to a body or a shaft of some sort (Zagorska et al. 2018: 110) (cf. Figure 94)
Reference(s)	Zagorskis 1987: 57, 76–77; Iršēnas 2000: 99; 2006: 306; Zagorska 2008: 118; Zagorska et al. 2018: 110
Classification	1

³⁷¹ 5545±65 BP (Ua-19810).

Lv3. Riņņukalns, Večate Parish



Figure 238. Elk-headed bone tool handle from Riņņukalns. AI 1368:64. Tartu University Archaeological Research Collection. Photo: Ville Mantere.

Find site	Riņņukalns, Večate Parish, Burtnieki Municipality (1870s)
Coordinates	c. 57°47'40"N 25°08'55"E (c. 42 masl)
Inventory no.	AI 1368:64 (Tartu University Archaeological Research Collection)
Find type	Bone tool handle
Description	Elk-headed tool handle (dagger/ladle?); made of bone; broken
Length	6.3 cm
Dating	Probably c. 4000–2500 calBC; some of the Riņņukalns finds are dated to the Mesolithic, but most stem from the Middle Neolithic (Bērziņš et al. 2014: 722)
Find context	Shell midden find; found in the Riņņukalns shell midden on the bank of Salaca River, northwest of Lake Burtnieks in northern Latvia
Notes	Probably the handle of a dagger (Loze 1970: 27) or a ladle (Carpelan 1977: 22, 36); animal-head interpreted initially as a horse (Katalog Rīga 1896: Plate 1: 15) but later as an elk (e.g. Loze 1970: 27, table 2; Ozols 1972: 61; Wyszomirska 1984: 256; Kashina 2005: appendix 1, no. 357)
Reference(s)	Katalog Rīga 1896: Plate 1: 15; Loze 1970: 27, table 2
Classification	1

Lv4a. Malmuta, Varakļāni Parish



Figure 239. Elk-shaped antler plate from Malmuta. NML VI 101. National History Museum of Latvia. Photo: Ville Mantere.

Find site	Malmuta, Varakļāni Parish, Varakļāni Municipality
Coordinates	c. 56°40'30"N 26°46'10"E (c. 90–93 masl)
Inventory no.	NML VI 101 (National History Museum of Latvia)
Find type	Antler pendant
Description	Elk-shaped plate; made of antler; partly broken; pierced in the middle (probable pendant); overemphasized head
Length	4.2 cm
Dating	Probably c. 4000–2300 calBC; archaeological finds from different periods have been mixed up at Malmuta due to flooding (see Ozols 1972: 94)
Find context	Settlement find; found during archaeological excavations in the Malmuta river estuary in the Lake Lubāns lowland in eastern Latvia
Notes	Interpreted as an elk (see e.g. Loze 1970: 27, tab. 2; Ozols 1972: 94, tf. 70:1; Wyszomirska 1984: 255; Kashina 2005: appendix 1, no. 362)
Reference(s)	Loze 1970: 27
Classification	1

Lv4b. Malmuta, Varakļāni Parish



Figure 240. Elk-head antler staff fragment from Malmuta. NML VI 101: 146. National History Museum of Latvia. Photo: Ville Mantere.

Find site	Malmuta, Varakļāni Parish, Varakļāni Municipality
Coordinates	c. 56°40'30"N 26°46'10"E (90–93 masl)
Inventory no.	NML VI 101: 146 (National History Museum of Latvia)
Find type	Elk-head staff
Description	Elk-head staff (fragment); made of antler; broken at the neck; characteristic elk muzzle (mouth, eyes and ears marked out)
Length	12.5 cm
Dating	Probably c. 3500–1500 calBC; the deposit has yielded findings that date from the Typical Comb Ware to the Early Bronze Age (c. 3950–1100 calBC)
Find context	Settlement find; found during archaeological excavations at the Malmuta settlement site in a deposit that had collapsed due to erosion (see Carpelan 1974: 72, 86 and cited references)
Notes	
Reference(s)	Loze 1970: 13
Classification	1

Lv5a. Abora 1, Indrān Parish



Figure 241. Elk-headed bone tool handle from Abora 1. NML VI 76: 1762. National History Museum of Latvia. Photo: National History Museum of Latvia.

Find site	Abora 1, Indrān Parish, Lubāna Municipality (1960s / 1970s)
Coordinates	c. 56°55'40"N 26°51'36"E (c. 95–100 masl)
Inventory no.	NML VI 76: 1762 (National History Museum of Latvia)
Find type	Bone tool handle
Description	Elk-headed tool handle (dagger/knife/ladle?); made of bone; broken
Length	9 cm
Dating	Radiocarbon dates from cultural layers at Abora 1 are positioned approximately in the period 2600–2000 calBC ³⁷²
Find context	Settlement find; found during archaeological excavations at the Abora settlement in the Lake Lubāns lowland in eastern Latvia
Notes	Schematic but evident elk-head finial; similar to Lv3
Reference(s)	Loze 1979: 112
Classification	1

³⁷² 3860±100 (Le-749); 3870±70 (Le-670); 3770±60 BP (TA-394).

Lv5b. Abora 1, Indrān Parish



Figure 242. Elk-headed bone tool finial from Abora 1. NML VI 76: 1205. National History Museum of Latvia. Photo: Ville Mantere.

Find site	Abora 1, Indrān Parish, Lubāna Municipality (1960s/1970s)
Coordinates	c. 56°55'40"N 26°51'36"E (c. 95–100 masl)
Inventory no.	NML VI 76:1205 (National History Museum of Latvia)
Find type	Bone tool finial
Description	Elk-headed tool finial (dagger/knife/ladle?); made of bone; fragment
Length	8.4 cm
Dating	c. 2600–2000 calBC (see Lv5a)
Find context	Settlement find; found during archaeological excavations; additional highly abstract finds sometimes interpreted as elk depictions are also known from Abora (see e.g. Loze 1970: 27, table 2; Loze 2000: 74–75; Iršēnas 2000: 95, fig. 8)
Notes	
Reference(s)	Loze 1983: 87
Classification	1

Lv6. Zvidze, Ošupe Parish



Figure 243. Elk(?) head antler staff fragment from Zvidze. NML VI 188: 1377. National History Museum of Latvia. Photo: Ville Mantere.

Find site	Zvidze, Ošupe Parish, Madona Municipality (1974)
Coordinates	c. 56°50'30"N 26°51'45"E (93–95 masl)
Inventory no.	NML VI 188: 1377 (National History Museum of Latvia)
Find type	Elk-head staff
Description	Elk(?) head staff; made of antler; fragment; neck and back part of head remaining; protuberant eye and prominent chin very similar to R1f; neck and jaw ornamented with rows of small dots; two perforations on the hollow neck (one circular, one shaped as a hook)
Length	10.5 cm
Dating	Probably c. 6500–3500 calBC; the Zvidze settlements date from the Middle Mesolithic to the Middle Neolithic; bone and antler tools and ceramics found in adjacent layers indicate an Early Neolithic date (see Loze 1988: 20, 48, 71); stylistic similarities to R1a and R1f could indicate a Mesolithic date
Find context	Settlement find; found during archaeological excavations at the Zvidze settlement north of Lake Lubāns (layer 9 in the sequence Zvidze C)
Notes	Interpreted initially as the head of an otter (<i>Lutra lutra</i>) (Loze 1988: 71–72); later as an elk head (Mantere & Kashina 2020: 7–9)
Reference(s)	Loze 1988: 71–72; Mantere & Kashina 2020: 7–9
Classification	2

Lv7. Piestiņa, Lazdukalns Parish



Figure 244. Elk(?) head antler figurine from Piestiņa. NML VI 90: 26. National History Museum of Latvia. Photo: Ville Mantere.

Find site	Piestiņa, Lazdukalns Parish, Rugāji Municipality (1960s)
Coordinates	c. 56°54'30"N 26°58'25"E (c. 96 masl)
Inventory no.	NML VI 90: 26 (National History Museum of Latvia)
Find type	Antler figurine
Description	Elk(?) head figurine (tool finial?); made of antler; fragment; eyes and nostrils marked out
Length	4.1 cm
Dating	The Piestiņa site has yielded Middle and Late Neolithic radiocarbon dates in the range 3760–2140 calBC ³⁷³ (Dolukhanov et al. 1976: 191)
Find context	Settlement find; found during archaeological excavations at Piestiņa near the village Liepaiņi in the Lake Lubāns lowland, eastern Latvia
Notes	Interpreted as an elk-head (e.g. Loze 1970: 13; Ozols 1972: 43; Wyszomirska 1984: 255; Kashina 2005: 111, appendix 1, no. 360)
Reference(s)	Loze 1970: 13
Classification	2

³⁷³ 4670±150 BP (LE-750); 3880±80 BP (LE-865).

Lv8. Lagaža, Lazdukalns Parish



Figure 245. Elk(?)-headed bone tool handle from Lagaža. NML VI 118: 426. National History Museum of Latvia. Photo: Ville Mantere.

Find site	Lagaža, Lazdukalns Parish, Rugāji Municipality
Coordinates	c. 56°55'51"N 26°56'50"E (c. 90 masl)
Inventory no.	NML VI 118: 426 (National History Museum of Latvia)
Find type	Bone tool handle
Description	Elk(?)-headed tool handle; made of bone; broken; elongated muzzle; lower part engraved with three parallel rows of small cuts; two protuberances possibly indicating eyes or ears; few striations carved on the animal-head
Length	8 cm
Dating	The Lagaža settlement has yielded radiocarbon dates in the period 2340–1320 calBC ³⁷⁴ (Dolukhanov et al. 1976: 191–192; Loze 1979: 121; Liiva & Loze 1994: 156)
Find context	Settlement find; found from the Lagaža settlement in the Lake Lubāns lowland
Notes	No evident stylistic parallels
Reference(s)	Loze 1970: 15, 27, tab. 2
Classification	2

³⁷⁴ 3685±80 BP (TA-749); 3240±70 BP (LE-868).

Estonia

E1. Riigiküla III, Narva-Jõesuu Urban Municipality



Figure 246. Elk-head antler staff from Riigiküla III. AI 4198:83. Tallinn University Archaeological Research Collection. Photo: Ville Mantere.

Find site	Riigiküla III, Narva-Jõesuu Urban Municipality, Ida-Viru County (1950s)
Coordinates	c. 59°25'45"N 28°07'30"E (c. 11–13 masl)
Inventory no.	AI 4198:83 (Tallinn University Archaeological Research Collection)
Find type	Elk-head staff
Description	Elk-head staff; made of antler; broken; neck cut off; three small paralleling lines carved on the neck (cf. F3)
Length	10.2 cm
Dating	Early/Middle Neolithic(?); the pottery found from Riigiküla III consists predominantly of the Narva-type (c. 5500–3900 calBC); Typical (c. 4200–3500 calBC) and Late Comb Ware (c. 3100–1900 calBC) ceramics were also found but in less significant quantities (see Kriiska 1996b: 374; 1999, table 2; for dating of pottery styles, see e.g. Kriiska et al. 2013: 334)
Find context	Settlement find; found during archaeological excavations from the Riigiküla III settlement on the western bank of Narva River in northeastern Estonia; the site belongs to a series of Neolithic settlement sites
Notes	Cut-off handle indicates deliberate fragmentation (e.g. Mantere & Kashina 2020: 11–16)
Reference(s)	Loze 1970: 27; Jaanits et al. 1982: 96; Kriiska 1996a: 363–364, table 1
Classification	1

E2. Villa, Võru Parish



Figure 247. Elk-head antler staff from Villa. AI 4037:1491. Tallinn University Archaeological Research Collection. Photo: Ville Mantere.

Find site	Villa, Võru Parish, Võru County
Coordinates	c. 57°52'00"N 27°02'20"E, (c. 70–72 masl)
Inventory no.	AI 4037:1491 (Tallinn University Archaeological Research Collection)
Find type	Elk-head staff
Description	Elk-head staff; made of antler; broken; naturalistic elk muzzle with mouth and dewlap marked out
Length	9.8 cm
Dating	Neolithic(?); elk bones from Villa have been radiocarbon dated to 2620–1320 calBC ³⁷⁵ ; the site has yielded ceramics that range from the Typical Comb Ware to the Early Bronze Age (Liiva et al. 1966: 434, see also Ozols 1972: 22–23; Carpelan 1977: 9 and cited references)
Find context	Settlement find; found during archaeological excavations from the Villa settlement, situated on the bank of Võhandu River in southeastern Estonia
Notes	
Reference(s)	Loze 1970: 27
Classification	1

³⁷⁵ 3570±240 BP (TA-20).

Russia

R1a. Yuzhniy Oleniy Ostrov (56), Medvezhyegorsky District



Figure 248. Elk-head antler staff from grave no. 56 at YOO. MAE 5716-180 (Sculpture of the head of an elk). From the collection of the Peter the Great Museum of Anthropology and Ethnography (Kunstkamera), Russian Academy of Sciences. Photo: Ville Mantere. ©MAE RAS 2022.

Find site	Yuzhniy Oleniy Ostrov (grave no. 56), Medvezhyegorsky District, Republic of Karelia (1936–1938)
Coordinates	c. 62°02'50"N 35°21'40"E (c. 40 masl)
Inventory no.	MAE 5716-180 (Peter the Great Museum of Anthropology and Ethnography)
Find type	Elk-head staff
Description	Elk-head staff; made of elk antler; partially broken; left part of muzzle decorated with a row of dots and two lines narrowing towards the neck
Length	42.5 cm (elk-head 16 cm)
Dating	c. 6500–6250 calBC; an osprey bone from the grave was radiocarbon dated to 6570–6250 calBC ³⁷⁶ (Mannermaa et al. 2008: 18) and a human bone to 6460–6250 calBC ³⁷⁷ (Schulting et al. 2022, extended data fig. 5); comparable radiocarbon dates from adjacent graves 55 and 57 (Mannermaa et al. 2008: 18, Schulting et al. 2022, extended data, fig. 5 & 9; see also Price & Jakobs 1990: 851; Carpelan 1999: 151, tab. 1)
Find context	Burial find; collective burial (no. 55–57) in which two female adults were buried on both sides of an elderly man (no. 56); staff placed next to the man's skull; burial had a thick ochre layer and rich grave goods; the extensive YOO burial ground is situated on an island in Lake Onega; 177 burials were excavated but the burial ground may have consisted of more than 500 graves; nearly all burials placed in an east-west orientation; the majority of the graves included red ochre and animal tooth pendants; pierced elk incisors (4372) most common, beaver incisors (1155) and bear canines (170) rarer
Notes	14 sculptural finds are known from YOO, seven of which depict unmistakable elks or elk-heads
Reference(s)	Gurina 1956: 302, fig. 27; Mannermaa et al. 2008: 10
Classification	1

³⁷⁶ 7570±60 BP (Hela-1374).

³⁷⁷ 7520±40 BP.

R1b. Yuzhniy Oleniy Ostrov (61), Medvezhyegorsky District



Figure 249. Elk-headed bone dagger from grave no. 61 at YOO. MAE 5716-220 (Knife). From the collection of the Peter the Great Museum of Anthropology and Ethnography (Kunstkamera), Russian Academy of Sciences. Photo: Ville Mantere. ©MAE RAS 2022.

Find site	Yuzhniy Oleniy Ostrov (grave no. 61), Medvezhyegorsky District, Republic of Karelia (1936–1938)
Coordinates	c. 62°02'50"N 35°21'40"E (c. 40 masl)
Inventory no.	MAE 5716-220 (Peter the Great Museum of Anthropology and Ethnography)
Find type	Bone dagger
Description	Elk-headed dagger; made of (elk?) bone; ears partially damaged; evident elk-head finial with eyes, ears and mouth marked out
Length	27.5 cm
Dating	c. 6500–6000 calBC; no dates from burial 61, but other radiocarbon dates from YOO indicate the latter half of the 7 th millennium calBC (Schulting et al. 2022)
Find context	Burial find; single burial (no. 61) of an adult (unidentifiable sex); dagger apparently placed on the chest of the buried individual; grave contained red ochre and extensive grave goods (bird bones, animal tooth pendants, a slate knife and fragmentary bone artefacts and spearheads)
Notes	The glossy surface of the dagger suggests frequent use (Gurina 1956: 106–107)
Reference(s)	Gurina 1956: 106–107, 306–309, fig. 29; Mannermaa et al. 2008: 10
Classification	1

R1c. Yuzhniy Oleniy Ostrov (64), Medvezhyegorsky District



Figure 250. Elk(?) -shape antler sculpture fragment from grave no. 64 at YOO. MAE 5716-720 (Sculpture of the body of an elk). From the collection of the Peter the Great Museum of Anthropology and Ethnography (Kunstkamera), Russian Academy of Sciences. Photo: Ville Mantere. ©MAE RAS 2022.

Find site	Yuzhniy Oleniy Ostrov (grave no. 64), Medvezhyegorsky District, Republic of Karelia (1936–1938)
Coordinates	c. 62°02'50"N 35°21'40"E (c. 40 masl)
Inventory no.	MAE 5716-720 (Peter the Great Museum of Anthropology and Ethnography)
Find type	Antler sculpture
Description	Elk(?) -shaped sculpture; made of antler; flat; broken (head and three legs missing); unnaturally long back; probable elk depiction
Length	9.5 cm
Dating	c. 6500–6000 calBC (see above)
Find context	Burial find; single burial (no. 64) of a young individual (unidentified sex); sculpture unearthed close to the skull; grave strewn with red ochre; other grave goods consisted of bones and teeth of animals and birds, as well as of tools and pendants made of bone and stone (Mannermaa et al. 2008: 10–11)
Notes	
Reference(s)	Gurina 1956: 218, 308, fig. 30
Classification	2

R1d. Yuzhniy Oleniy Ostrov (81a), Medvezhyegorsky District



Figure 251. Elk-head bone finial fragment from grave no. 81 at YOO. MAE 5716-326 (Sculpture of the head of an elk). From the collection of the Peter the Great Museum of Anthropology and Ethnography (Kunstkamera), Russian Academy of Sciences. Photo: Ville Mantere. ©MAE RAS 2022.

Find site	Yuzhniy Oleniy Ostrov (grave no. 81), Medvezhyegorsky District, Republic of Karelia (1936–1938)
Coordinates	c. 62°02'50"N 35°21'40"E (c. 40 masl)
Inventory no.	MAE 5716-326 (Peter the Great Museum of Anthropology and Ethnography)
Find type	Elk-head bone finial
Description	Elk-headed (dagger?) finial; made of bone; broken handle; ears, mouth, antler stubs and dewlap marked out; easily recognizable elk-head
Length	6.5 cm
Dating	c. 6480–6080 calBC ³⁷⁸ ; human bone from grave 81 (Schulting et al. 2022, extended data, fig. 9)
Find context	Burial find; double burial (no. 80–81) of a middle-aged man (no. 81) and a child (no. 80; badly preserved skeleton); elk-head found on top of the man's left femur; both graves had an intense red ochre layer; child grave contained a bone awl and an elk cutter tooth; the man's grave included bone points, a sandstone slab, a chert flake, numerous elk and beaver incisors, and two elk-head finials made of bone (see R1e)
Notes	cf. R1e; R1b
Reference(s)	Gurina 1956: 322
Classification	1

³⁷⁸ 7469±103 (A: 89).

R1e. Yuzhniy Oleniy Ostrov (81b), Medvezhyegorsky District



Figure 252. Elk-head bone finial fragment from grave no. 81 at YOO. MAE 5716-347 (Sculpture of the head of an elk). From the collection of the Peter the Great Museum of Anthropology and Ethnography (Kunstkamera), Russian Academy of Sciences. Photo: Ville Mantere. ©MAE RAS 2022.

Find site	Yuzhniy Oleniy Ostrov (grave no. 81), Medvezhyegorsky District, Republic of Karelia (1936–1938)
Coordinates	c. 62°02'50"N 35°21'40"E (c. 40 masl)
Inventory no.	MAE 5716-347 (Peter the Great Museum of Anthropology and Ethnography)
Find type	Elk-head bone finial
Description	Elk-headed (dagger?) finial; made of bone; broken handle; stylized but easily recognizable elk-head; cf. R1d
Length	3.8 cm
Dating	c. 6480–6080 calBC (see above)
Find context	Burial find; unearched in adult male grave 81 (see above); the figurine's exact location in the grave unknown (found when bones were washed)
Notes	Elk-head finial interpreted by Gurina (1956: 218) as an elk calf
Reference(s)	Gurina 1956: 218, 322, fig. 41
Classification	1

R1f. Yuzhniy Oleniy Ostrov (153), Medvezhyegorsky District



Figure 253. Elk-head antler staff from grave no. 153 at YOO. MAE 5716-691 (Sculpture of the head of an elk). From the collection of the Peter the Great Museum of Anthropology and Ethnography (Kunstkamera), Russian Academy of Sciences. Photo: Ville Mantere. ©MAE RAS 2022.

Find site	Yuzhniy Oleniy Ostrov (grave no. 153), Medvezhyegorsky District, Republic of Karelia (1936–1938)
Coordinates	c. 62°02'50"N 35°21'40"E (c. 40 masl)
Inventory no.	MAE 5716-691 (Peter the Great Museum of Anthropology and Ethnography)
Find type	Elk-head staff
Description	Elk-head staff; made of elk antler; curved shape; stylized but easily recognizable elk-head; exaggerated eyes, nostrils, and mane
Length	41 cm (elk-head 13 cm)
Dating	6400–6060 calBC ³⁷⁹ ; radiocarbon date from human bone in grave 153 (Schulting et al. 2022, extended data, fig. 9; see also Oshibkina 1989: 403)
Find context	Burial find; found in double burial (no. 152–153) of an elderly male (no. 153) and a female (no. 152); staff placed near the man's skull; burial strewn with ochre; other grave goods included animal teeth and bone points
Notes	Overstated nostrils perhaps signify the elk's alertness (Gurina 1956: 215)
Reference(s)	Gurina 1956: 215, 378–381, fig. 76
Classification	1

³⁷⁹ 7340±86 BP (A: 111).

R1g. Yuzhniy Oleniy Ostrov, Medvezhyegorsky District



Figure 254. Miniature elk-head staff from unknown grave at YOO. MAE 5716-240/1 (Sculpture of the head of an elk). From the collection of the Peter the Great Museum of Anthropology and Ethnography (Kunstkamera), Russian Academy of Sciences. Photo: Ville Mantere. ©MAE RAS 2022.

Find site	Yuzhniy Oleniy Ostrov (unknown grave), Medvezhyegorsky District, Republic of Karelia (1936–1938)
Coordinates	c. 62°02'50"N 35°21'40"E (c. 40 masl)
Inventory no.	MAE 5716-240a (Peter the Great Museum of Anthropology and Ethnography)
Find type	Elk-head staff (miniature)
Description	Elk-head staff; made of antler; broken handle; naturalistic elk-head
Length	16 cm (elk-head 10 cm)
Dating	c. 6500–6000 calBC (see above)
Find context	Burial find; exact find location in the burial ground unknown
Notes	Small-sized counterpart to the large staffs from graves no. 56 and 153
Reference(s)	Gurina 1956: 216–217
Classification	1

R2. Vis 1, Knyazhpogostsky District



Figure 255. Elk-headed sledge runner(?) from Vis 1. КП 7012/4-22. National Museum of the Komi Republic. Photo: National Museum of the Komi Republic.

Find site	Vis 1, Knyazhpogostsky District, Komi Republic (1964)
Coordinates	c. 62°29'00"N 51°35'00"E
Inventory no.	КП 7012/4-22 (National Museum of the Komi Republic)
Find type	Sledge runner/ski
Description	Elk-headed sledge runner/ski(?); made of wood (pine); broken; polished surface; evident elk-head with ear(s), eyes, nostrils and mouth marked out; two miniature holes on both sides of the elk-head; edges lack rim; wavy ridge shaped on the surface in order to make it stronger
Length	27.3 cm
Dating	Five radiocarbon dates in the range 7330–5760 calBC were obtained from wooden items stemming from Vis 1 (see Burov 1989: 392; 2012: 361) ³⁸⁰
Find context	Settlement find; found during archaeological excavations; the long-termed peat bog settlement Vis 1 is located by Lake Sindor in the Vychegda River basin in the Komi Republic; the Vis site is renowned for its extraordinary assemblage of Mesolithic organic artefacts, including sledge runners and various paraphernalia related to hunting and fishing
Notes	Commonly interpreted as a ski (but see discussion in section 7.6)
Reference(s)	Burov 1989: 393–397
Classification	1

³⁸⁰ 8080±90 BP (LE-776); 7820±80 BP (RUL-616); 7150±60 BP (LE-684); 7090±80 BP (LE-685); 7090±70 BP (LE-713).

R3. Ivanovskoe 3, Pereslavsky District



Figure 256. Elk-headed sledge runner(?) from Ivanovskoe 3. AMY №7/3943. Ivanovo State University Museum. Photo: Aija Macāne.

Find site	Ivanovskoe 3, Pereslavsky District, Yaroslavl Oblast (1981)
Coordinates	c. 56°48'30"N 39°00'25"E (c. 140 masl)
Inventory no.	ИВГУ, АМУ №7/3943 (Ivanovo State University Museum)
Find type	Sledge runner
Description	Elk-headed sledge runner(?); made of wood (pine); annual rings of the tree run vertically across the item; broken; stylized but recognizable elk-head
Length	12 cm
Dating	The layers in which the sculpture was unearthed are dated approximately to the period 6000–5050 calBC (Dolukhanov et al. 2005: table 11, 12; for a thorough absolute chronology for Ivanovskoe 3, see Krainov et al. 1990)
Find context	Settlement find; unearthed during archaeological excavations at the multi-layered peat bog settlement Ivanovskoe 3 in the Yaroslavl region some 150 km northeast of Moscow; elk-head was discovered in the Mesolithic layers of the site (Butovo Culture of the Upper Volga region)
Notes	The lower part of the muzzle has a protuberance used for fastening(?) (see Krainov et al. 1995: 43–44; Kostyleva & Utkin 2007: 3–4)
Reference(s)	Krainov et al. 1995: 43–45; Kostyleva & Utkin 2007: 3; http://amu.ivanovo.ac.ru/fonds.php?do=11&id=51
Classification	1

R4a. Zamostje 2, Sergiyev-Posadsky District



Figure 257. Elk(?) head antler staff from Zamostje 2. SPSHAM no. 1060 arkh 16148 kp. Sergiev Posad State History and Art Museum. Photo from Lozovski 2020, fig. 2.9.

Find site	Zamostje 2, Sergiyev-Posadsky District, Moscow Oblast (1989)
Coordinates	c. 56°40'38"N 38°00'46"E (c. 126 masl)
Inventory no.	no. 1060 arkh 16148 kp (Sergiev Posad State History and Art Museum)
Find type	Elk-head staff
Description	Elk(?) head staff; made of antler; other ear broken; oval shafthole behind the eyes; abstract animal-head shape; eyes marked out as circular protuberances; elongated profile and prominent ear suggest elk depiction
Length	27.8 cm
Dating	Radiocarbon dates from Zamostje 2 site are placed approximately in the period 7320–4270 calBC ³⁸¹ (Lozovski et al. 2014a: 149–150, table 1; Lozovski et al. 2014b: 63–64); all elk-shaped artefacts from Zamostje 2 have been found in the Late Mesolithic upper layers of the site, dated to 6400–6000 calBC (Olga Lozovskaya, PhD, IHMC RAS, email correspondence 2.8.2016)
Find context	Settlement find; found during archaeological excavations; Zamostje 2 is located in the marshy Dubna river valley, north of Moscow; long-term site originally situated on a cape in the midst of two freshwater lakes; subject for extensive, multidisciplinary research since 1989 (see Lozovski 1996: 31–35; Lozovski & Lozovskaya 2013: 6–15; Lozovskaya & Lozovski 2016: 63)
Notes	Zhilin (2010: 137) suggests that the muzzle part resembles the beak of a bird (raven) and that the ear protuberance would represent the wing of a bird; both avian and mammalian elements are possibly merged in the sculpture (cf. discussion in section 7.3; footnote 290); cf. R4b
Reference(s)	Lozovski 1996: 76–77; Zhilin 2010: 137
Classification	2

³⁸¹ 7900±180 BP (GIN-6197) and 5544±51 BP (CAN-1083).

R4b. Zamostje 2, Sergiyev-Posadsky District

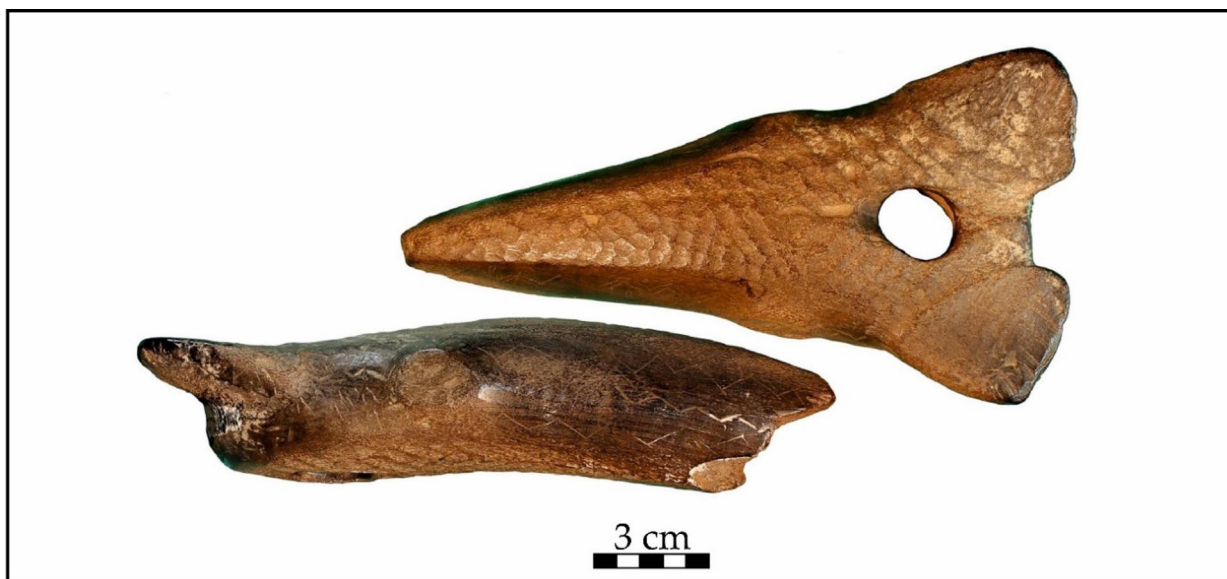


Figure 258. Elk(?) head antler staff from Zamostje 2. SPSHAM no. 1061 arkh 16149 kp. Sergiev Posad State History and Art Museum. Photo from Lozovskaya 2021, fig. 2.8.

Find site	Zamostje 2, Sergiyev-Posadsky District, Moscow Oblast (1990)
Coordinates	c. 56°40'38"N 38°00'46"E (c. 126 masl)
Inventory no.	no. 1061 arkh 16149 kp (Sergiev Posad State History and Art Museum)
Find type	Elk-head staff
Description	Elk(?) head staff; made of antler; largely analogous to R4a; broken, slightly bent nose; three paralleling zigzag lines engraved on both lateral sides; small triangular incisions on lower and upper side; shafthole similarly positioned but more circular than on the other staff
Length	17.2 cm
Dating	6400–6000 calBC (see above)
Find context	Settlement find; found during archaeological excavations (see above)
Notes	Lozovski (1996: 76) interpreted the item as an elk depiction; Zhilin (2010: 137) likens it with the larger sculpture and takes it as a “fantastic creature” that comprises features of several animals (cf. R4a)
Reference(s)	Lozovski 1996: 76–77, fig. 44; Zhilin 2010: 135–137
Classification	2

R4c. Zamostje 2, Sergiyev-Posadsky District

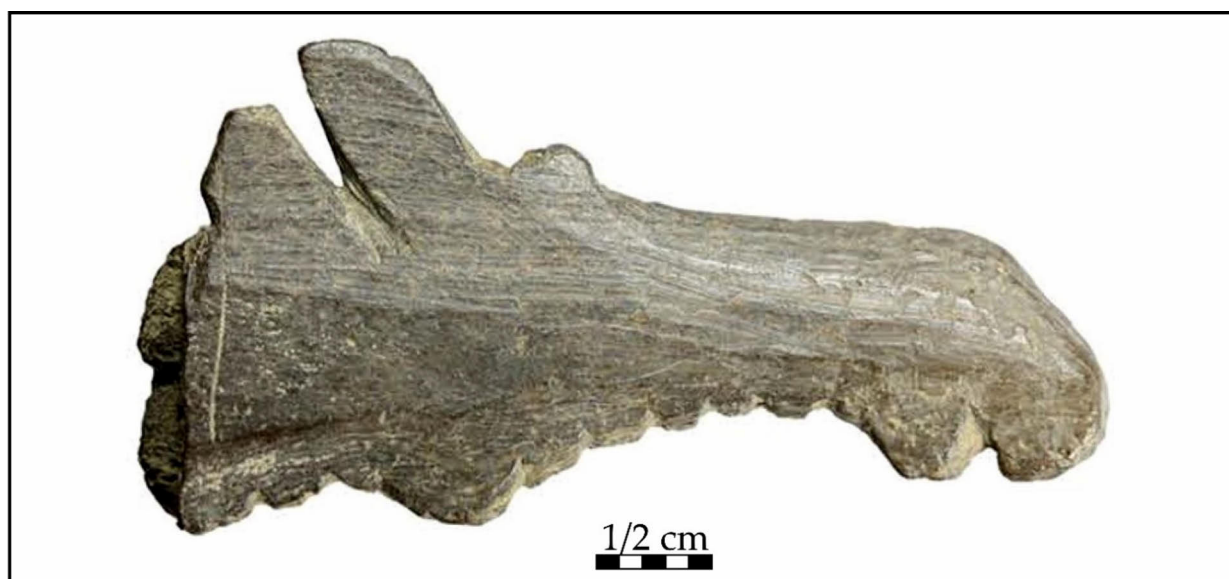


Figure 259. Elk-headed bone tool finial from Zamostje 2. Sergiev Posad State History and Art Museum. Photo from Lozovskaya 2021, fig. 6:8.

Find site	Zamostje 2, Sergiyev-Posadsky District, Moscow Oblast (1997)
Coordinates	c. 56°40'38"N 38°00'46"E (c. 126 masl)
Inventory no.	Unknown (Sergiev Posad State History and Art Museum)
Find type	Bone tool finial
Description	Elk-headed (knife?) finial; made of bone; broken handle; serrated lower part (for fastening?); naturalistic elk depiction
Length	4.1 cm
Dating	6400–6000 calBC (see above)
Find context	Settlement find; found during archaeological excavations (see above)
Notes	
Reference(s)	Lozovskaya 2018: 214; O. Lozovskaya, email correspondence 2.8.2016
Classification	1

R4d. Zamostje 2, Sergiyev-Posadsky District

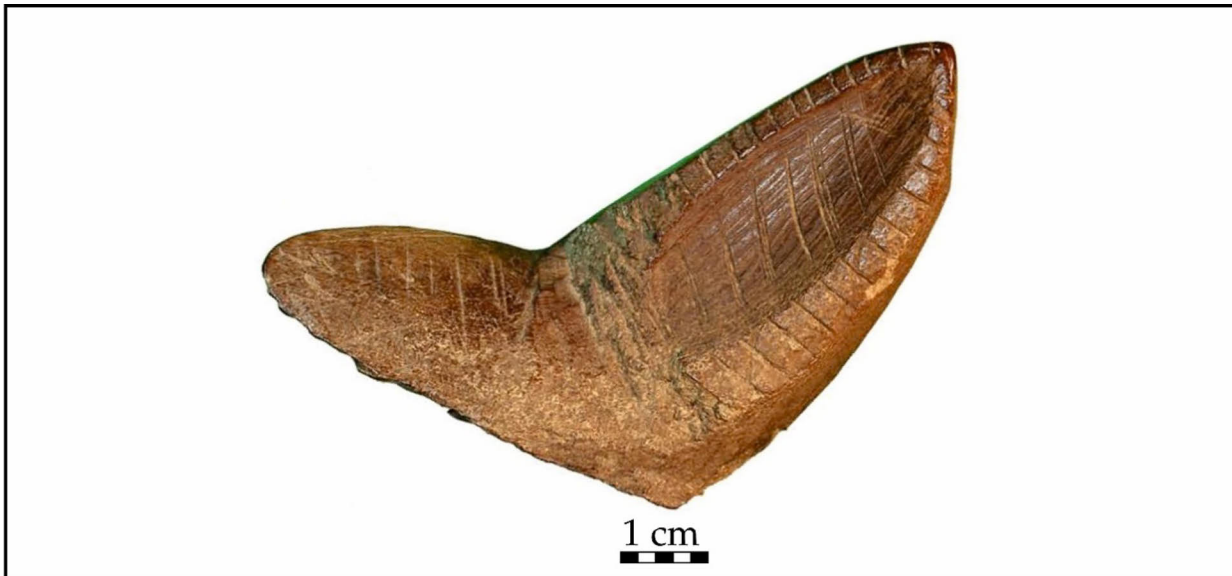


Figure 260. Ear fragment of an elk-head antler staff(?) from Zamostje 2. SPSHAM no. 1411 arkh 16741 kp. Sergiev Posad State History and Art Museum. Photo from Lozovskaya 2021, fig. 2:5.

Find site	Zamostje 2, Sergiyev-Posadsky District, Moscow Oblast
Coordinates	c. 56°40'38"N 38°00'46"E (c. 126 masl)
Inventory no.	no. 1411 arkh 16741 kp (Sergiev Posad State History and Art Museum)
Find type	Elk-head staff (fragment)
Description	Elk(?) head staff(?); made of antler; ear fragment; decorated with small lines; pointed ear shape suggests elk depiction
Length	8.2 cm
Dating	6400–6000 calBC (see above)
Find context	Settlement find; found during archaeological excavations (see above)
Notes	
Reference(s)	Lozovskaya 2018: 214
Classification	2

R4e. Zamostje 2, Sergiyev-Posadsky District



Figure 261. Ear fragment of an elk-head antler staff(?) from Zamostje 2. SPSHAM no. 97-83 7-B12-379. Sergiev Posad State History and Art Museum. Photo from Lozovskaya 2021, fig. 2:6.

Find site	Zamostje 2, Sergiyev-Posadsky District, Moscow Oblast
Coordinates	c. 56°40'38"N 38°00'46"E (c. 126 masl)
Inventory no.	97-83 7-B12-379 (Sergiev Posad State History and Art Museum)
Find type	Elk-head staff (fragment)
Description	Elk(?) head staff(?); made of antler; fragment portraying animal ear and eye; visible tool marks
Length	4 cm
Dating	6400–6000 calBC (see above)
Find context	Settlement find; found during archaeological excavations (see above)
Notes	The shape of the eye is comparable to the broken elk-head staff from Annin Ostrov (R8d)
Reference(s)	Lozovskaya 2018: 214
Classification	2

R4f. Zamostje 2, Sergiyev-Posadsky District

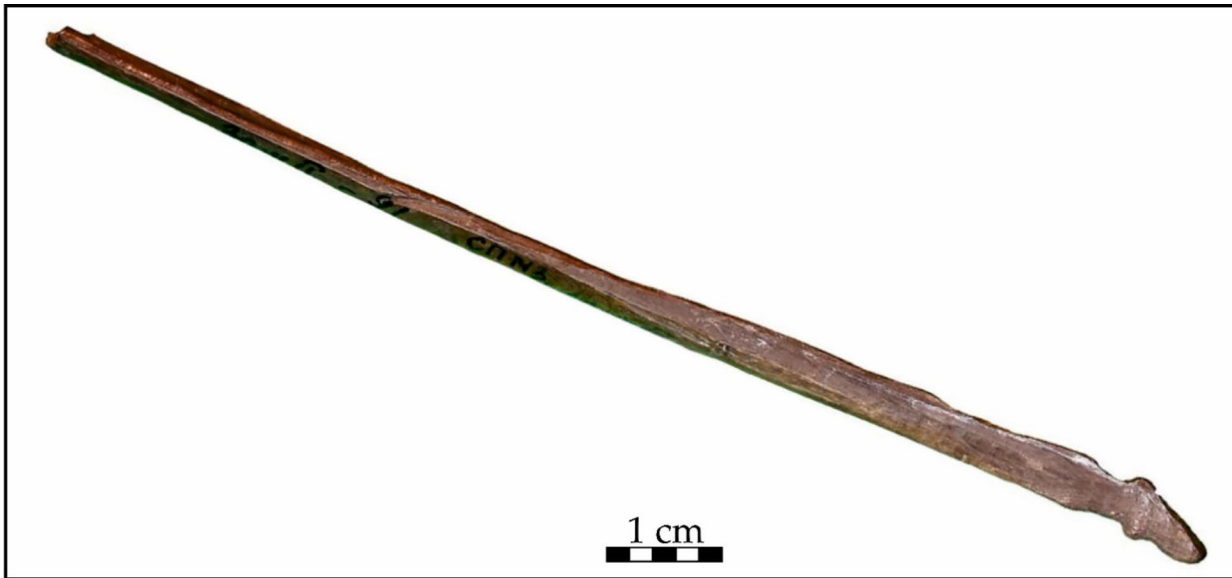


Figure 262. Elk-headed bone pin from Zamostje 2. Sergiev Posad State History and Art Museum. Photo from Lozovskaya 2021, fig. 7: 23.

Find site	Zamostje 2, Sergiyev-Posadsky District, Moscow Oblast
Coordinates	c. 56°40'38"N 38°00'46"E (c. 126 masl)
Inventory no.	Unknown (Sergiev Posad State History and Art Museum)
Find type	Bone pin/dagger
Description	Elk-headed pin/dagger; made of bone; identifiable elk muzzle (dewlap)
Length	11 cm
Dating	6400–6000 calBC (see above)
Find context	Settlement find; found during archaeological excavations (see above)
Notes	Around 50 bone knives/daggers with figured heads have been found at Zamostje 2, some of which have ears slightly resembling those of elk
Reference(s)	Lozovskaya 2021: 63–64
Classification	2

R5a. Sakhtysh I, Teykovsky District



Figure 263. Elk(?) head antler staff from Sakhtysh I. Inv. no. 2827-92. The State Hermitage Museum, St. Petersburg. Photo: Ville Mantere.

Find site	Sakhtysh I, Teykovsky District, Ivanovo Oblast (1973)
Coordinates	c. 56°46'20"N 40°27'00"E
Inventory no.	2827-92 (The State Hermitage Museum, St. Petersburg)
Find type	Elk-head staff
Description	Elk(?) head staff; made of antler; partially broken (unfinished?); pointed ears; mouth marked out
Length	19 cm (elk-head 13.3 cm)
Dating	c. 3700–2300 calBC; the staff is attributed to the Volosovo culture (for the Volosovo chronology, see e.g. Kostyleva et al. 2014: 40; Macāne et al. 2019: 9)
Find context	Settlement find; found during archaeological excavations at the large and long-term settlement site of Sakhtysh I; the Sakhtysh archaeological complex consists of a series of prehistoric peat bog settlements and cemeteries situated by an ancient lake along River Koika in the Ivanovo district, around 250 km northeast of Moscow (see Piezonka et al. 2013: 58–59; Kostyleva & Utkin 2014: 181–183)
Notes	
Reference(s)	Krainov 1992: 91; Mazurkevich & Polkovnikova 2009: 239
Classification	2

R5b. Sakhtysh II, Teykovsky District

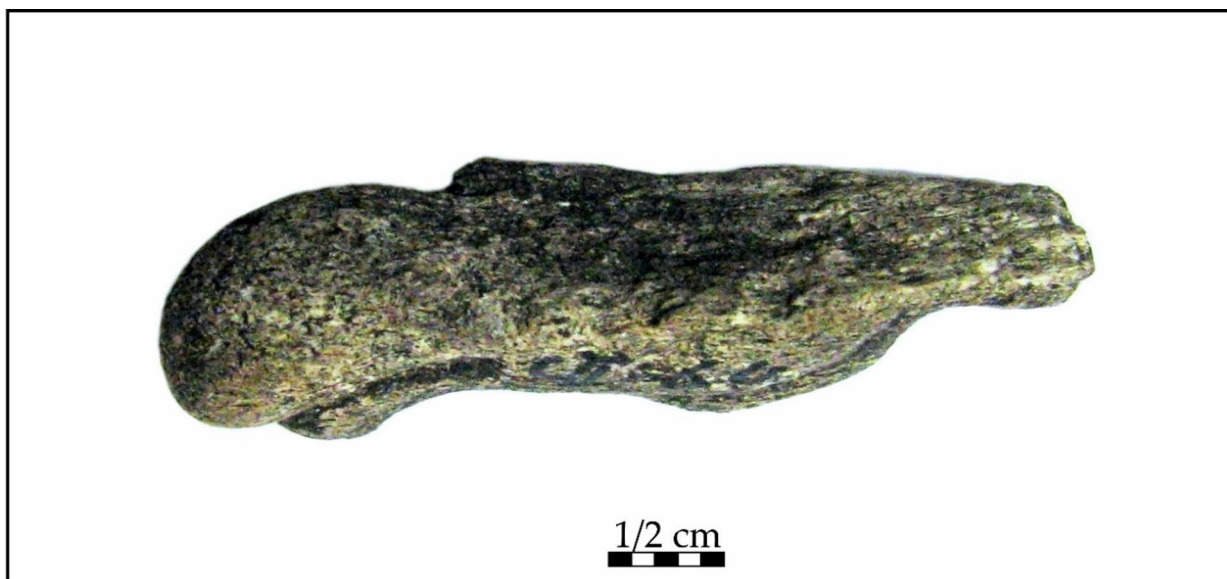


Figure 264. Elk-head bone finial from Sakhtysh II. AMY №59/080. Ivanovo State University Museum. Photo: Elena Kostyleva.

Find site	Sakhtysh II, Teykovsky District, Ivanovo Oblast (1964)
Coordinates	c. 56°46'20"N 40°27'00"E
Inventory no.	ИВГУ АМУ №59/080 (Ivanovo State University Museum)
Find type	Bone pin
Description	Elk-headed (pin?) finial; made of bone; evident elk-head with pendulous muzzle; mouth marked out
Length	4 cm
Dating	The burial ground at Sakhtysh II is connected to the Volosovo culture and can, based on a series of radiocarbon dates, be dated approximately to the period 3600–2700 calBC (see Macãne et al. 2019: 8–9)
Find context	Burial find; unearthed from the upper layer at the Sakhtysh II burial ground during archaeological excavations led by D. Krainov
Notes	Stylistic similarity to the bone pin from Volodary (R7b)
Reference(s)	Gadzyatskaya 1966: 26; Elena Kostyleva, PhD, Ivanovo State University, email correspondence 3.11.2016
Classification	1

R6. Modlona, Kirillovsky District



Figure 265. Elk(?) head antler staff from Modlona. ГИМ 106121 Оп.А 2071/1. © State Historical Museum, Moscow. Photo: State Historical Museum, Moscow.

Find site	Modlona, Kirillovsky District, Vologda Oblast (1930s?)
Coordinates	c. 60°23'30"N 38°57'00"E
Inventory no.	ГИМ 106121 Оп.А 2071/1 (State Historical Museum, Moscow)
Find type	Elk-head staff
Description	Elk(?) head staff; made of antler; broken ears and muzzle; protuberant eyes; the curved neck forms a short handle; three-pointed sign (solar symbol?) carved on the elk's throat
Length	11 cm
Dating	c. 3500–3000 calBC; wood samples taken from a test pit at Modlona yielded radiocarbon dates that fall into the period 3940–2040 calBC (Dolukhanov et al. 1976: 195–196) ³⁸² ; Volosovo-like ceramics were also discovered from the site (E. Kashina, email correspondence 31.5.2020)
Find context	Settlement find; found during archaeological excavations at the Modlona pile-dwelling, located by Lake Vozhe at the Modlona River, southeast of Lake Onega
Notes	Two other zoomorphic artefacts (wooden head of dog and a bear-head of clay) were also discovered at Modlona
Reference(s)	Oshibkina 1992b: 57; Krainov 1992: 91
Classification	2

³⁸² 4850±120 BP (LE-994), 4360±130 BP (LE-993) and 3960±150 BP (LE-992).

R7a. Volodary, Volodarsky District



Figure 266. Elk-head antler staff(?) from Volodary. ГИМ 102382/1523 Оп.А 1829/1523-2. © State Historical Museum, Moscow. Photo: State Historical Museum, Moscow.

Find site	Volodary, Volodarsky District, Nizhniy Novgorod Oblast (1971–1972)
Coordinates	c. 56°13'00"N 43°11'30"E
Inventory no.	ГИМ 102382/1523 Оп.А 1829/1523-2 (State Historical Museum, Moscow)
Find type	Elk-head staff (miniature)
Description	Elk-head staff(?); made of antler; highly naturalistic elk muzzle; nostrils, ears and mouth marked out; eyes depicted as circular perforations; deep hole under the ears (for fastening to a separate handle?)
Length	10.6 cm
Dating	c. 3700–2300 calBC; the Volodary site belongs to the Volosovo culture (for chronology, see e.g. Macāne et al. 2019: 9)
Find context	Settlement find; found during archaeological excavations at the Neolithic Volodary settlement, located by Oka River in middle Russia; discovered in an area where animal (elk) bones were dispersed around a hearth
Notes	The elk-head was probably originally fastened to a rounded rod
Reference(s)	Tsvetkova 1973: 424
Classification	1

R7b. Volodary, Volodarsky District



Figure 267. Elk-headed bone pin from Volodary. ГИМ 102597/2479 Оп.А 1835/2479. © State Historical Museum, Moscow. Photo: State Historical Museum, Moscow.

Find site	Volodary, Volodarsky District, Nizhniy Novgorod Oblast (1972)
Coordinates	c. 56°13'00"N 43°11'30"E
Inventory no.	ГИМ 102597/2479 Оп.А 1835/2479 (State Historical Museum, Moscow)
Find type	Bone pin
Description	Elk-headed pin; made of bone; tiny hole drilled under the ears (for fastening?); characteristic elk-head; muzzle; ears and mouth marked out
Length	11.9 cm (elk-head 3.1 cm)
Dating	c. 3700–2300 calBC (see above)
Find context	Burial hoard; strewn with a thick layer of red ochre; other finds in the hoard included flint tools and pendants made of animal teeth, slate and amber
Notes	In Tsvetkova's opinion (1973: 424–427), the elk-head depicts a cautious animal
Reference(s)	Tsvetkova 1973: 425–427, fig. 3–4; Kashina & Khramtsova 2016: 30–33
Classification	1

R8a. Shigir, Kirovgradsky Urban Okrug



Figure 268. Elk-head antler staff from Shigir. Inv. no. 5546-365. The State Hermitage Museum, St. Petersburg. Photo: Ville Mantere.

Find site	Shigir, Kirovgradsky Urban Okrug, Sverdlovsk Oblast (early 1900s)
Coordinates	c. 57°21'00"N 60°08'00"E (c. 250 masl)
Inventory no.	5546-365 (The State Hermitage Museum, St. Petersburg)
Find type	Elk-head staff
Description	Elk-head staff; made of elk antler; carefully polished; highly naturalistic elk-head; V-shaped recess below the muzzle (analogous to the elk-head items from Seima and Säkkijärvi; see e.g. Tallgren 1915: 15; Carpelan 1974: 74, 76)
Length	19.5 cm
Dating	c. 2500-1500 calBC; carved by means of iron tools (analysis undertaken by Mikhail Zhilin) (Svetlana Savchenko, PhD, chief research scientist, Sverdlovsk regional museum, email correspondence 18.8.2016)
Find context	Settlement find(?); stray find from the Shigir peat bog, located in the western Urals, some 90 km north of Yekaterinburg; the artefacts from Shigir (totalling 68 different archaeological sites) have a span of several millennia, from the Early Mesolithic to the Medieval period (on radiocarbon dates, see Zaretskaya et al. 2012); stratigraphical data regarding the finds is lacking due to gold mining in the area (see Chairkina et al. 2013: 419; Zaretskaya et al. 2014: 634; Savchenko et al. 2015: 266-268)
Notes	The Shigir peat bog is well-known for its sculptural and organic artefacts
Reference(s)	Eding 1940: 53
Classification	1

R8b. Shigir, Kirovgradsky Urban Okrug



Figure 269. Elk-head antler staff from Shigir. CM 8985 AIII-1178. Sverdlovsk Regional Museum. Photo: Sverdlovskiy Oblastnoy Kraevedcheskiy Muzey, Jekaterinburg.

Find site	Shigir, Kirovgradsky Urban Okrug, Sverdlovsk Oblast (early 1900s)
Coordinates	c. 57°21'00"N 60°08'00"E (c. 250 masl)
Inventory no.	CM 8985 AIII-1178 (Sverdlovsk Regional Museum)
Find type	Elk-head staff
Description	Elk-head staff; made of elk antler; polished; end of muzzle broken after discovery; elongated muzzle; rounded protuberant eyes
Length	19 cm
Dating	Probably c. 2500–1500 calBC; carved by means of iron tools (analysis undertaken by M. Zhilin) (S. Savchenko, email correspondence 18.8.2016)
Find context	Settlement find(?); unearthed as a stray find during gold mining works from the Shigir peat bog (cf. R8a)
Notes	It seems likely that the elk-head originally had a similar handle at the neck than the better-preserved staff from Shigir (see Carpelan 1977: 9)
Reference(s)	Eding 1940: 53
Classification	1

R8c. Shigir, Kirovgradsky Urban Okrug



Figure 270. Elk-headed ladle from Shigir. CM 8985 A-31. Sverdlovsk Regional Museum. Photo: Sverdlovskiy Oblastnoy Kraevedcheskiy Muzei, Jekaterinburg.

Find site	Shigir, Kirovgradsky Urban Okrug, Sverdlovsk Oblast (late 1800s)
Coordinates	c. 57°21'00"N 60°08'00"E (c. 250 masl)
Inventory no.	CM 8985 A-31 (Sverdlovsk Regional Museum)
Find type	Wooden ladle
Description	Elk-headed ladle (sieve); made of wood; partly broken; two rows of furrows in the middle; highly realistic elk-head handle
Length	35.5 cm
Dating	3 rd -2 nd millennium calBC; the Shigir ladle can be dated roughly to the Early Metal Age because of stylistic similarities to other wooden animal-headed ladles found from the nearby Gorbunovo peat bog
Find context	Settlement find(?); stray find from the Shigir peat bog (see above)
Notes	According to an analysis made by M. Zhilin, the ladle was made by stone tools (S. Savchenko, email correspondence 18.8.2016)
Reference(s)	Eding 1940: 49-51
Classification	1

R8d. Annin Ostrov (Shigir), Kirovgradsky Urban Okrug



Figure 271. Elk(?) head antler staff from Annin Ostrov. ГИМ 73322/133-134 Оп.А 386/133-134. © State Historical Museum, Moscow. Photo: State Historical Museum, Moscow.

Find site	Annin Ostrov (Shigir), Kirovgradsky Urban Okrug, Sverdlovsk Oblast (1930)
Coordinates	c. 57°21'00"N 60°08'00"E (c. 250 masl)
Inventory no.	ГИМ 73322/133-134 Оп.А 386/133-134 (State Historical Museum, Moscow)
Find type	Elk-head staff (fragments)
Description	Elk(?) head staff(?); made of antler; fragments; two pieces portraying opposite sides of an elk(?) head; ears, eyes, and antler stubs marked out
Length	14.5 and 14.7 cm
Dating	3 rd millennium calBC(?); a test pit near the site yielded radiocarbon dates in the broad period 8200–2670 calBC ³⁸³ ; the different cultural layers in the core contained traces of Mesolithic, Neolithic and Chalcolithic age (see Zaretskaya et al. 2014: 636, 638–639, table 1); the elk-head most likely dates back to the younger phases of the site (E. Kashina, email correspondence 14.11.2016)
Find context	Settlement find; two parts found separately during excavations led by D. Eding; Annin Ostrov is located on the western side of the Shigir peat bog
Notes	The only large elk-head staff depicted with antlers; the stubs seemingly portray the growing antlers of the elk, thus representing an elk in springtime (Zhulnikov & Kashina 2010b: 73)
Reference(s)	Eding 1940: 55–57
Classification	2

³⁸³ 8620±130 BP (GIN-13872) and 4280±60 BP (GIN-13869).

R8e. Shigir, Kirovgradsky Urban Okrug



Figure 272. Elk-shaped wooden vessel from Shigir. Inv. no. 2958-1. The State Hermitage Museum, St. Petersburg. Photo: Ville Mantere.

Find site	Shigir, Kirovgradsky Urban Okrug, Sverdlovsk Oblast (1986)
Coordinates	c. 57°21'00"N 60°08'00"E (c. 250 masl)
Inventory no.	2958-1 (The State Hermitage Museum, St. Petersburg)
Find type	Wooden vessel
Description	Elk-shaped vessel; made of wood; broken; head and all legs missing; back shaped as a bowl; characteristic and robust elk body with tail and raised withers (male elk?)
Length	38.5 cm
Dating	c. 4000–2000 calBC
Find context	Settlement find(?); unearthed from the 2 nd cut mine at the Shigir peat bog
Notes	Deliberately broken?
Reference(s)	Mazurkevich & Polkovnikova 2009: 280; Piotrovsky 2013: 31; Serikov 2014: 81
Classification	1

R9a. Gorbunovo (6th Quarry), Prigorodny District

Figure 273. Elk-shaped wooden vessel from Gorbunovo. HTM-452/15. Nizhniy Tagil Museum. Photo: Olga Mishchenko.

Find site	Gorbunovo (6 th Quarry), Prigorodny District, Sverdlovsk Oblast (1928)
Coordinates	c. 57°49'00"N 59°57'00"E (c. 220 masl)
Inventory no.	HTM-452/15 (Nizhniy Tagil Museum)
Find type	Wooden vessel
Description	Elk-shaped vessel; made of wood (<i>Alnus</i>); naturalistic elk (cow?) depiction; somewhat exaggerated head; ears missing (made of some other material?); eyes marked as circular hollows (possibly filled with some kind of mass?); nostrils and mouth marked out; back moulded as a recess (for placing food?)
Length	23.5 cm
Dating	Probably 3 rd -2 nd millennium calBC; the sculpture was shaped by metal tools (Eding 1940: 45); the Sixth Quarry is still debatable in terms of stratigraphy and chronology (see Kashina & Chairkina 2012: 46-47)
Find context	Settlement find; found during archaeological excavations from the 6 th Quarry at Gorbunovo from the lowermost cultural layer between peat and sapropel at a depth of 2.39 metres (Eding 1940: 44; Chairkina 2004: 118; Olga Mishchenko, curator of archaeological collections, Nizhniy Tagil Museum, email correspondence 29.9.2016); the famous Gorbunovo peat bog with over 35 archaeological sites is situated next to the city of Nizhniy Tagil, c. 50 km north of the Shigir peat bog; numerous artefacts dating from the Mesolithic to the Early Iron Age have been unearthed from the Gorbunovo area (see e.g. Chairkina et al. 2013: 421)
Notes	Serikov (2014: 82) also mentions a plausible (unpublished) elk-head sculpture that would have been found from the 6 th Quarry at Gorbunovo
Reference(s)	Eding 1940: 44-45; Oborin & Chagin 1988: 22
Classification	1

R9b. Gorbunovo (6th Quarry), Prigorodny District



Figure 274. Elk(?) shaped wooden vessel from Gorbunovo. ГИМ 75905/100 Оп.А 383/100. © State Historical Museum, Moscow. Photo: State Historical Museum, Moscow.

Find site	Gorbunovo (6th Quarry), Prigorodny District, Sverdlovsk Oblast (1929)
Coordinates	c. 57°49'00"N 59°57'00"E (c. 220 masl)
Inventory no.	ГИМ 75905/100 Оп.А 383/100 (State Historical Museum, Moscow)
Find type	Wooden vessel
Description	Elk(?) shaped vessel; made of wood; broken; head and front legs missing; characteristic elk hind legs; rounded belly (elk cow?); hollowed back
Length	29.6 cm
Dating	Probably 3 rd or 2 nd millennium calBC; see above
Find context	Settlement find; unearthed during archaeological excavations
Notes	Deliberately broken?
Reference(s)	Eding 1940: 45–48
Classification	2

R9c. Gorbunovo (6th Quarry), Prigorodny District

Figure 275. Elk-shaped wooden vessel from Gorbunovo. HTM-8720. Nizhniy Tagil Museum. Photo: Olga Mishchenko.

Find site	Gorbunovo (6 th Quarry), Prigorodny District, Sverdlovsk Oblast (1979)
Coordinates	c. 57°49'00"N 59°57'00"E (c. 220 masl)
Inventory no.	HTM-8720 (Nizhniy Tagil Museum)
Find type	Wooden vessel
Description	Elk-shaped vessel; made of wood; back part missing; right front leg broken; large, elongated elk-head; mouth marked out; eyes portrayed as circular hollows; small holes on top of the head (for fastening ears made of some other material?); hollow shaped under the muzzle; back formed as a bowl
Length	23 cm
Dating	Probably 3 rd or 2 nd millennium calBC; see above
Find context	Settlement find; unearthed during archaeological excavations
Notes	Deliberately broken?
Reference(s)	Oborin & Chagin 1988: 22
Classification	1

R10. Kalmatskiy Brod, Verkhnyaya Pyshma Urban Okrug

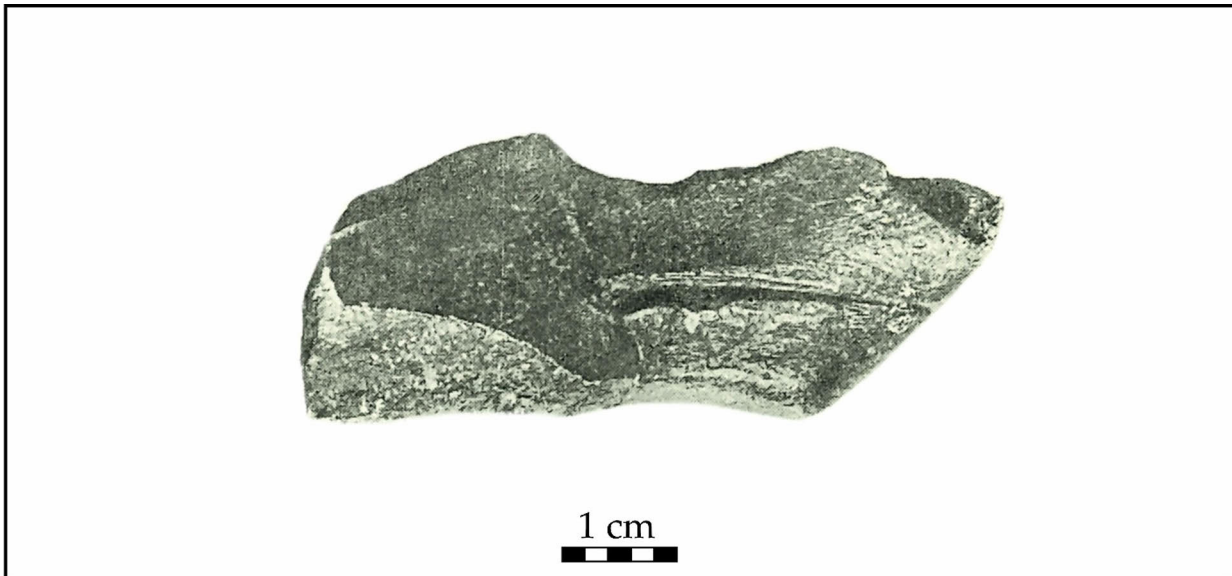


Figure 276. Elk(?) head antler staff fragment from Kalmatskiy Brod. Photo from Eding 1940, p. 57, fig. 50.

Find site	Kalmatskiy Brod, Verkhnyaya Pyshma Urban Okrug, Sverdlovsk Oblast (1934)
Coordinates	c. 56°56'30"N 60°26'00"E
Inventory no.	GIM A401 (State Historical Museum, Moscow) (item lost)
Find type	Elk-head staff (fragment)
Description	Elk(?) head staff(?); made of antler; fragment; identifiable elk mouth and muzzle tip
Length	6 cm
Dating	Probably c. 3000–1500 calBC; Kalmatskiy Brod has yielded materials mostly from the Stone Age and the Bronze Age but even from the Early Iron Age (E. Kashina, email correspondence 14.11.2016)
Find context	Settlement find; unearthed during excavations led by P.A. Dmitriev; Kalmatskiy Brod is located immediately northwest of Yekaterinburg, south of the Shigir and Gorbunovo peat bogs.
Notes	In Eding's opinion (1940: 57), the fragment resembles the elk-head staff from Shigir (R8b)
Reference(s)	Eding 1940: 57; 101
Classification	2

R11. Chernaya Gora, Klepikovsky District

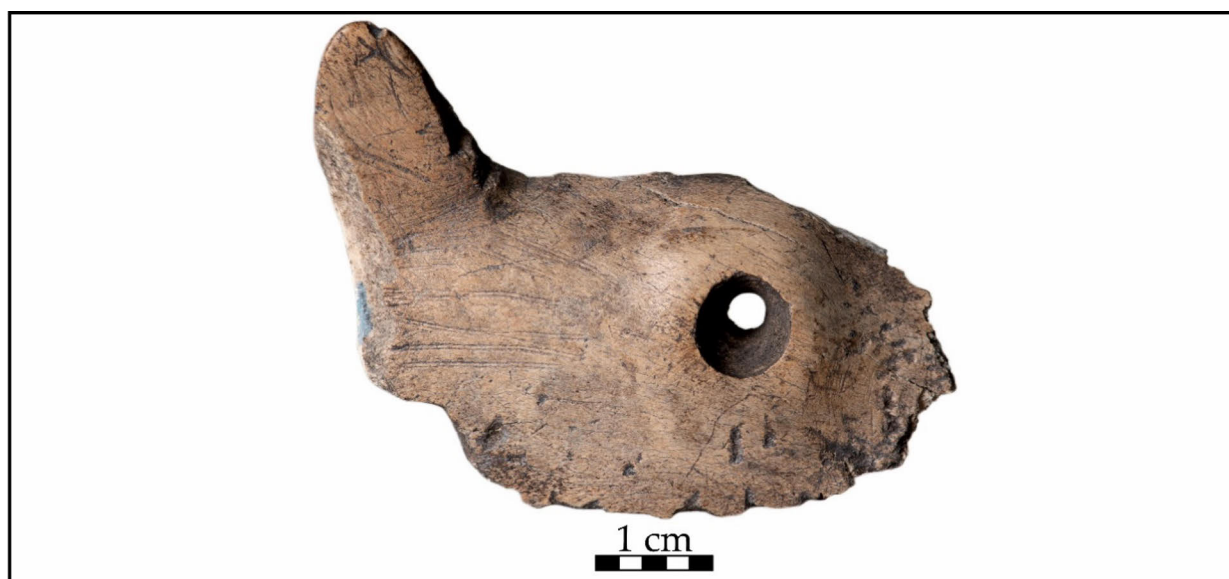


Figure 277. Elk-head antler staff fragment from Chernaya Gora. ГИМ 101179/2453 Оп.А 1735/2453. © State Historical Museum, Moscow. Photo: State Historical Museum, Moscow.

Find site	Chernaya Gora, Klepikovsky District, Ryazan Oblast
Coordinates	c. 55°06'30"N 40°01'30" E
Inventory no.	ГИМ 101179/2453 Оп.А 1735/2453 (State Historical Museum, Moscow)
Find type	Elk-head staff (fragment)
Description	Elk(?) head staff(?); made of antler; fragment; ear and circular drilled eye (cf. R7a) recognizable
Length	5.5 cm
Dating	c. 3700–2300 calBC; the Chernaya Gora settlement is attributed to the Volosovo culture (see e.g. Piezonka et al. 2013: 68; Macãne et al. 2019: 9)
Find context	Settlement find; found from the Chernaya Gora settlement, located in the Ryazan region some 100 km southeast of Moscow
Notes	
Reference(s)	Kashina & Zhulnikov 2011: 21
Classification	2

R12a. Ekaterinovskiy Cape (17), Bezenchuksky district



Figure 278. Elk-head antler staff from Ekaterinovskiy Cape. Photo from Dmitry Stashenkov.

Find site	Ekaterinovskiy Cape (burial 17), Bezenchuksky district, Samara Oblast (2013–2018)
Coordinates	c. 53°05'05"N 49°28'00"E
Inventory no.	Unknown
Find type	Elk-head staff
Description	Elk-head staff; made of antler; broken; characteristic elk muzzle; mouth marked out
Length	13 cm
Dating	c. 5250–5500 calBC (Early Eneolithic Samara culture) (Korolev et al. 2019: 396)
Find context	Burial find; discovered during archaeological excavations from burial no. 17; Ekaterinovskiy Cape in the Middle Volga region is a burial ground containing more than 100 graves; staff found in the grave of a mature male; unearthed between the humerus and the rib bones of the buried individual; item perhaps placed in the hand of the deceased; the “extraordinary” grave also included items made of antler and plates and beads made of bone and shells
Notes	In addition to two elk-head staffs, some other zoomorphic items were also unearthed from Ekaterinovskiy Cape; some of these have a comparable staff-shape, such as the ornitomorphic rod made of elk antler discovered in burial no. 45 (Korolev et al. 2019: 391)
Reference(s)	Korolev et al. 2017: 210; Korolev et al. 2019: 392
Classification	1

R12b. Ekaterinovskiy Cape (46), Bezenchuksky district

Figure 279. Elk-head antler staff from Ekaterinovskiy Cape. Photo from Korolev et al. 2019, p. 395, fig. 14.

Find site	Ekaterinovskiy Cape (burial 46), Bezenchuksky district, Samara Oblast (2013–2018)
Coordinates	c. 53°05'05"N 49°28'00"E
Inventory no.	Unknown
Find type	Elk-head staff
Description	Elk-head staff; made of antler; broken at the neck; characteristic elk muzzle; drilled eyes resemble those of R7a and R11
Length	18.2 cm
Dating	c. 5250–5500 calBC; see above
Find context	Burial find; unearthed in adult burial no. 46 (sacrificial complex) together with knives and stone sceptres; one adult tooth was discovered from the burial (Arkadii Korolev, archaeologist, Samara State University of Social Sciences and Education, email correspondence 4.11.2020)
Notes	The staff has traces of red ochre
Reference(s)	Korolev 2017: 208–210; Korolev et al. 2019: 392–393
Classification	1

R13. Tok River, Buzuluksky District



Figure 280. Elk-head antler staff from Tok River. KP № 17346. Orenburg Museum. Photo: Sergey Bogdanov.

Find site	Tok River, Buzuluksky District, Orenburg Oblast (1982)
Coordinates	c. 52°47'00"N 52°26'00"E
Inventory no.	KP № 17346 (Orenburg Museum)
Find type	Elk-head staff
Description	Elk-head staff; made of elk antler; curved handle; elongated but evident elk-head; characteristic elk muzzle
Length	47 cm (elk-head 16.5 cm)
Dating	Probably c. 3000–1500 calBC; stylistic similarity to the Shigir elk-head staffs; Morgunova (2020: 19) associates the staff with the Early Neolithic Elshanka culture but this date seems too early
Find context	Burial find; single burial discovered and dug out by local residents by the Tok River (outflow of the Samara River in northwestern Orenburg region); according to the finders, an adult had been buried in the grave in a (rare) crouched, sitting position with the staff placed near the pelvic bone; the burial had traces of ochre, but no signs of grave structures were observable; apparently, no other paraphernalia was placed in the grave; the bones of the deceased belonged to a 40–50-year-old male; the find site was later surveyed, but no other graves could be discerned in the adjacent region
Notes	Elk-head interpreted earlier as an elk (Bogdanov 1992) and a horse (Morgunova 2020: 19)
Reference(s)	Bogdanov 1992: 195–196; Morgunova 2020: 14–21
Classification	1

R14a. Rybino-Strelka 1, Palekhsky District

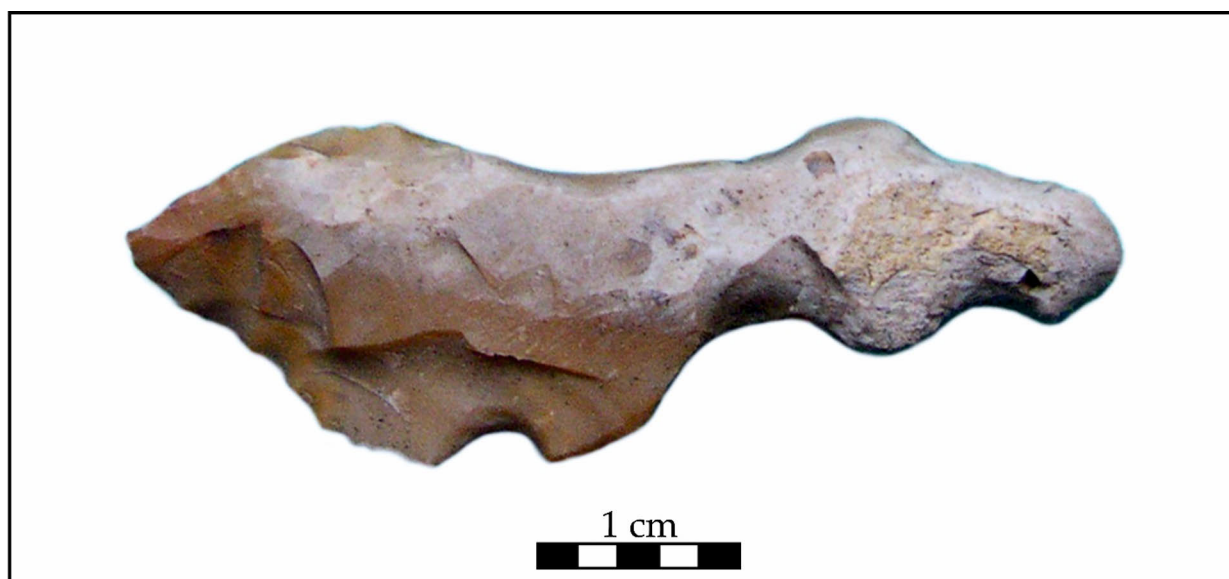


Figure 281. Elk-shaped flint sculpture from Rybino-Strelka 1. 69627/2067. Ivanovo State University Museum. Photo: Ekaterina Kashina.

Find site	Rybino-Strelka 1, Palekhsky District, Ivanovo Oblast (1968)
Coordinates	56°46'40"N 42°13'19"E
Inventory no.	No. 69627/2067 (Ivanovo State University Museum)
Find type	Flint sculpture
Description	Elk-shaped sculpture; made of flint; broken; back part and legs missing; characteristic elk muzzle
Length	5 cm
Dating	Probably 3 rd millennium calBC (Volosovo culture)
Find context	Settlement find; located some 200 km northeast of Moscow
Notes	A number of additional partially broken flint sculptures are known from Rybino-Strelka 1
Reference(s)	Mazurkevich & Polkovnikova 2009: 250–251
Classification	1

R14b. Rybino-Strelka 1, Palekhsky District



Figure 282. Elk(?) shaped flint sculpture from Rybino-Strelka 1. ИвГУ АМУ 83927/27. Ivanovo State University Museum. Photo: Ekaterina Kashina.

Find site	Rybino-Strelka 1, Palekhsky District, Ivanovo Oblast (1970)
Coordinates	56°46'40"N 42°13'19"E
Inventory no.	ИвГУ АМУ 83927/27 (Ivanovo State University Museum)
Find type	Flint sculpture
Description	Elk(?) shaped sculpture; made of flint; characteristic elk head
Length	6.2 cm
Dating	Probably 3 rd millennium calBC (Volosovo culture)
Find context	Settlement find; found from the Strelka 1 settlement
Notes	Body shape somewhat atypical for an elk (cf. D2)
Reference(s)	Mazurkevich & Polkovnikova 2009: 250–251
Classification	2

R15. Zimniaya Zolotitsa, Primorsky District

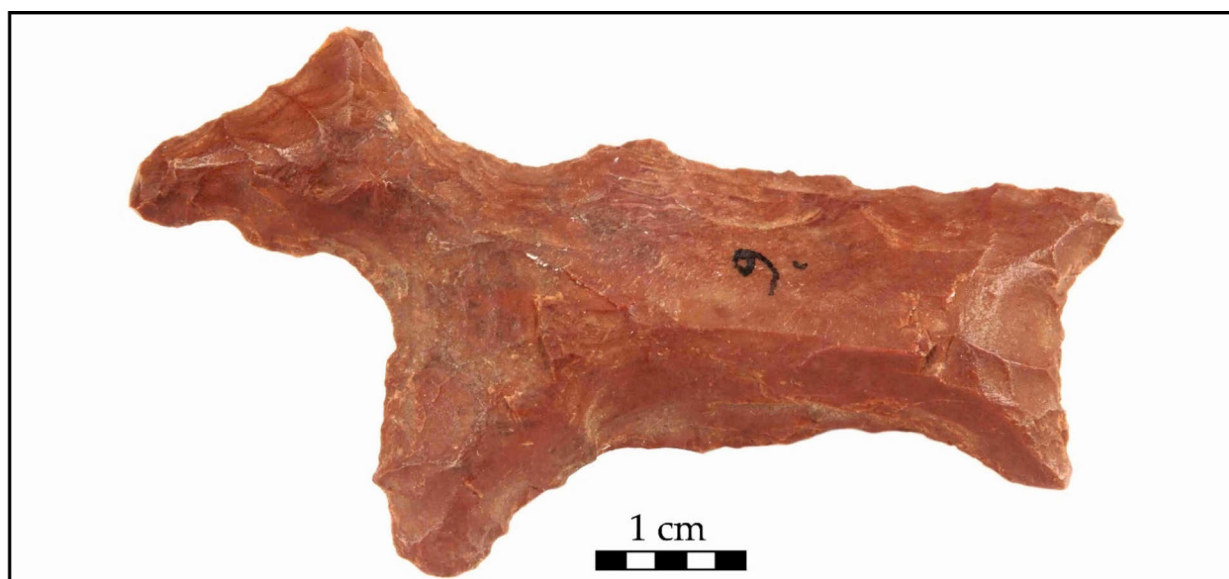


Figure 283. Elk-shaped flint sculpture from Zimniaya Zolotitsa. SHM 15313: A9. Swedish History Museum. Photo: Ville Mantere.

Find site	Zimniaya Zolotitsa, Primorsky District, Arkhangelsk Oblast (1910)
Coordinates	c. 65°41'35"N 40°11'00"E
Inventory no.	SHM 15313: A9 (Swedish History Museum)
Find type	Flint sculpture
Description	Elk-shaped sculpture; made of flint; pendulous muzzle and prominent dewlap
Length	6 cm
Dating	Probably 3 rd millennium calBC (Volosovo culture)
Find context	Settlement find(?); discovered in the Zolotitsa River estuary during expeditions led by G. Hallström along with other zoomorphic sculptures, numerous flint artefacts, ceramics and amber
Notes	
Reference(s)	Zamyatnin 1948: 90; http://catview.historiska.se/catview/index.jsp , Inventarienummer 15313, Huvudkatalog A
Classification	1

R16. Maksimovka 1, Bogatovsky District

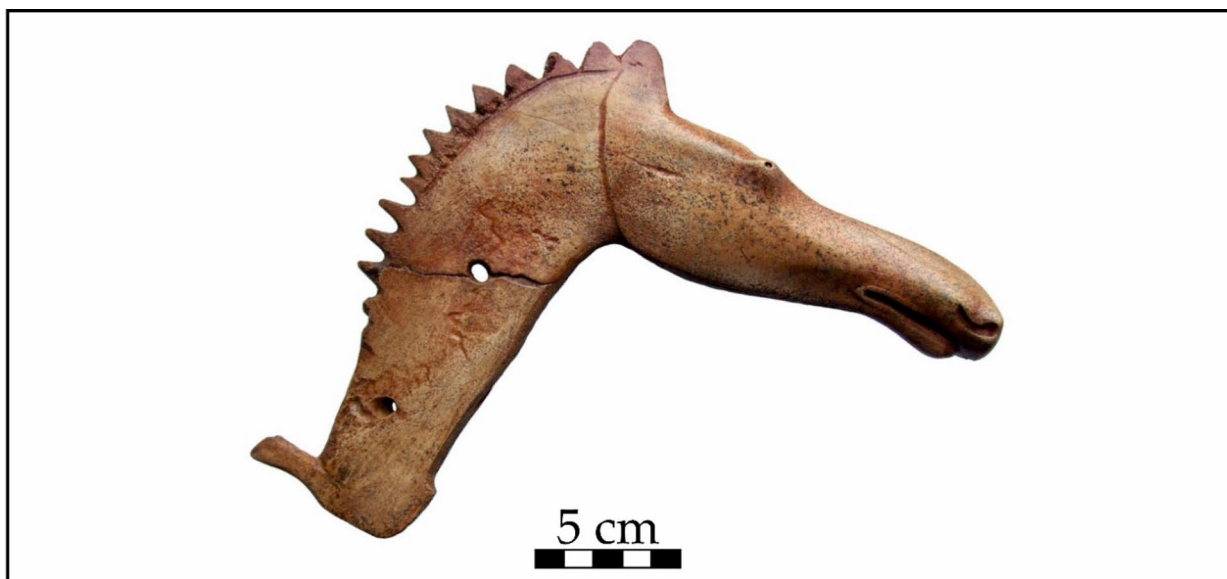


Figure 284. Elk-head antler staff from Maksimovka 1. Photo from Andreeva et al. 2020, p. 12, fig. 1.

Find site	Maksimovka 1 (burial 35), Bogatovsky District, Samara Oblast (2020)
Coordinates	c. 52°59'00"N 51°08'00"E
Inventory no.	Unknown
Find type	Elk-head staff
Description	Elk-head staff; made of antler; polished; characteristic elk muzzle; protuberant eyes; mouth and nostrils marked out; two holes for fastening (cf. Lv6) on the handle; extension at the end of the handle
Length	24 cm
Dating	c. 5000-4000 calBC
Find context	Burial find; unearthed in single adult burial no. 35 with rich grave goods (dagger, bone handles, points, stone adzes, plates, numerous animal incisors etc.) and abundant red ochre; multi-period burial ground Maksimovka 1 in the Trans-Volga region
Notes	Ridge part similar to the staff from YOO burial 153 (R1f)
Reference(s)	Andreeva et al. 2021: 12-14; Korolev & Shalapinin 2023: 149-155
Classification	1

R17. Gornaya Talitsa, Dobryansky District

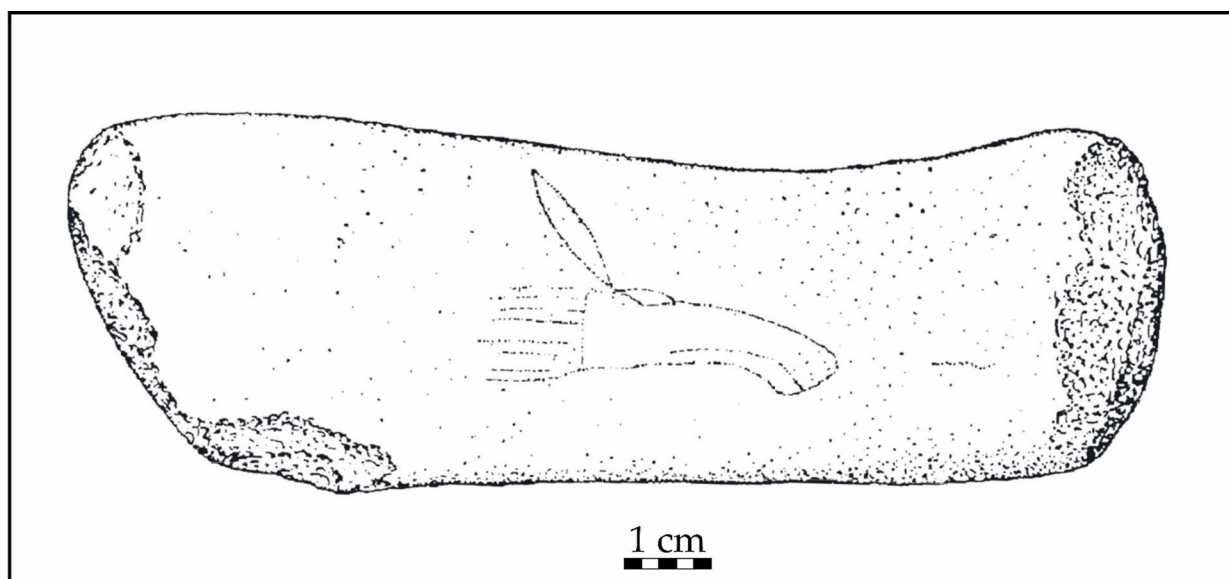


Figure 285. Elk-head carving on a slate stone from Gornaya Talitsa. Drawing from Serikov 2014, p. 203, fig. 1.1.

Find site	Gornaya Talitsa, Dobryansky District, Perm region
Coordinates	c. 58°10'30"N 56°37'00"E
Inventory no.	Unknown
Find type	Engraved slate stone
Description	Pebble; made of greenish slate; carved image of an elk head
Length	12.5 cm
Dating	Probably c. 9200–7000 calBC; an Early Mesolithic or even an Upper Palaeolithic age seems most probable as the Gornaya Talitsa site is stratigraphically homogenous and clearly of an early age (Yuri Serikov, Professor, Russian State Vocational Pedagogical University, email correspondence 9.4.2021 via E. Kashina)
Find context	Settlement find; Upper Palaeolithic and Early Mesolithic settlement site Gornaya Talitsa by the Chusovoy River in the Perm region
Notes	Somewhat bewilderingly the elk-head bears stylistic similarity to significantly later (Bronze Age) elk depictions in Siberian rock art
Reference(s)	Melnichuk & Pavlov 1987: 14–15; Serikov 2014: 44, 86
Classification	1

R18. Padozero, Kondopozhsky District



Figure 286. Elk-headed stone axe from Padozero. Photo (of replica) from: <http://kgkm.karelia.ru/site/exhibit/291>.

Find site	Padozero (<i>Paatjärvi</i>), Kondopozhsky District, Republic of Karelia (mid-1800s)
Coordinates	c. 62°03'30"N 34°11'30"E
Inventory no.	Unknown
Find type	Stone axe
Description	Elk-headed stone axe; made of soapstone; polished; curved; oval shafthole
Length	30 cm
Dating	c. 3000–2000 calBC
Find context	Stray find; found in a field in the village of Padozero
Notes	Stylistic similarities to F3, F4 and S2
Reference(s)	Uvarov 1881: 31; Ailio 1905: 5; Nordman 1944: 75
Classification	1

R19. Petrozavodsk, Petrozavodsk District



Figure 287. Elk-head stone club from Petrozavodsk. ГИМ 54746/983 Оп.А 924/1. © State Historical Museum, Moscow. Photo: State Historical Museum, Moscow.

Find site	Petrozavodsk, Petrozavodsk District, Republic of Karelia (1800s)
Coordinates	c. 61°46'00"N 34°20'00"E
Inventory no.	ГИМ 54746/983 Оп.А 924/1 (State Historical Museum, Moscow)
Find type	Stone club
Description	Elk-head stone club; made of sandstone; circular shafthole; unrealistic ears and eyes marked out as protuberances; broader than other elk-headed stone clubs; profile of an evident elk-head
Length	14 cm
Dating	c. 3000–2000 calBC
Find context	Stray find; discovered at a depth of approximately 75 cm in a peat bog in the district of Petrozavodsk
Notes	Interpreted earlier as the head of a sheep (Uvarov 1881: 33) and a bear (Carpelan (1974: 41; 1977: 57, plate II)
Reference(s)	Uvarov 1881: 33; Nordman 1944: 75
Classification	1

R20. Medvezhya Gora, Medvezhyegorsky District



Figure 288. Elk-headed stone axe from Medvezhya Gora. Inv. no. 1518-2. The State Hermitage Museum, St. Petersburg. Photo: Ville Mantere.

Find site	Medvezhya Gora (<i>Karhumäki</i>), Medvezhyegorsky District, Republic of Karelia (mid-1800s)
Coordinates	c. 62°55'00"N 34°28'00"E
Inventory no.	1518-2 (The State Hermitage Museum, St. Petersburg)
Find type	Stone axe
Description	Elk-headed stone axe (handle); made of granite; fragment; characteristic elk (calf?) muzzle and rounded ears; re-shaped into present form after fragmentation
Length	11.7 cm
Dating	c. 3000–2000 calBC
Find context	Unknown; most probably a stray find from Medvezhya Gora on the northern shore of Lake Onega
Notes	The Medvezhya Gora and Säkkijärvi (F3) sculptures have an almost identical V-shaped recess on the bottom side of the animal-head, a feature seemingly adapted from metallic objects (see Carpelan 1974: 73 and cited references)
Reference(s)	Mazurkevich & Polkovnikova 2009: 274
Classification	1

R21. Yevstu'nikha 1, Prigorodny District

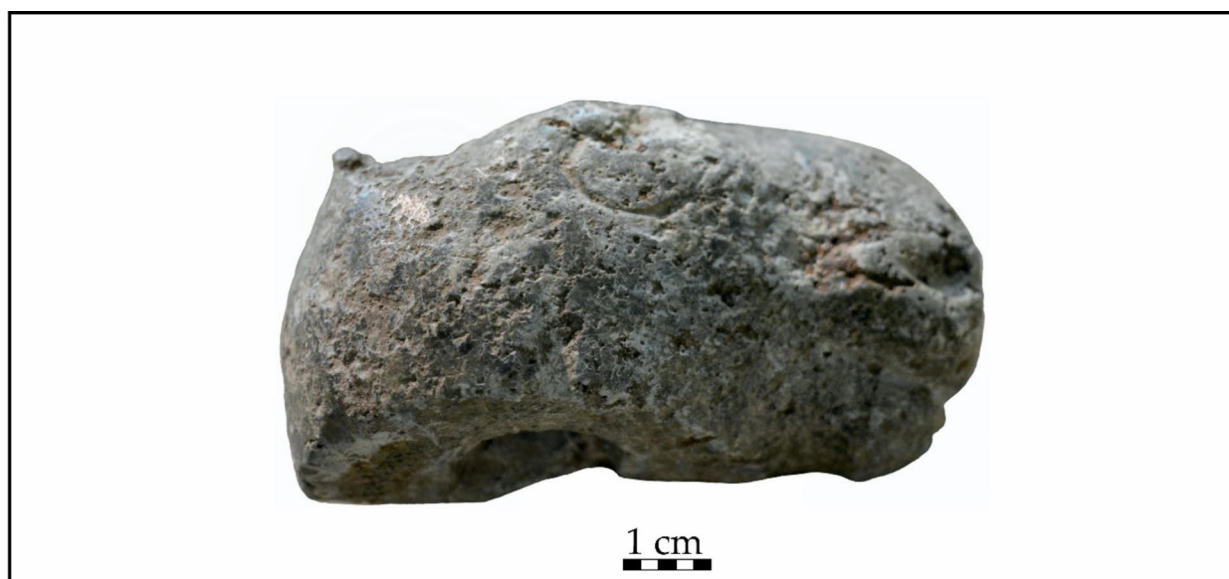


Figure 289. Miniature elk-head stone club from Yevstu'nikha 1. NTM-5337. Nizhniy Tagil Museum. Photo: Olga Mishchenko.

Find site	Yevstu'nikha 1, Prigorodny District, Sverdlovsk Oblast (1973)
Coordinates	c. 57°59'00"N 59°51'00"E
Inventory no.	NTM-5337 (Nizhniy Tagil Museum)
Find type	Stone club (miniature)
Description	Elk-head stone club (finial?); made of talc; drilled shafthole (1.4–1.8 cm in diameter); characteristic elk muzzle with nostrils and pendulous lower lip marked out; broken ears; exaggerated eyes depicted as oval, abstract grooves
Length	8 cm
Dating	Uncertain; probably 3 rd or 2 nd millennium calBC
Find context	Stray find; discovered by a local resident in a field near the village Yevstu'nikha, some 6 km north of Nizhniy Tagil in the Sverdlovsk region; the find site is located in the same region as the destroyed Neolithic settlement Yevstu'nikha 1 (O. Mishchenko, email correspondence 3.10.2016)
Notes	The miniature club has probably functioned as a finial of some sort
Reference(s)	Chenchenkova 2004: 252
Classification	1

R22. Fershampenuaz, Nagaybaksky District



Figure 290. Elk-headed stone finial from Fershampenuaz. Arkaim Center. Photo: Arkaim Center.

Find site	Fershampenuaz, Nagaybaksky District, Chelyabinsk Oblast (2001)
Coordinates	c. 53°31'00"N 59°49'00"E
Inventory no.	Unknown (Arkaim Center)
Find type	Stone finial
Description	Elk-head finial; made of green-brownish stone; drilled, biconical shafthole; lower lip broken; elk eyes marked as small oval bulges; small dots carved below the large ears; two symmetrical rings encircle the neck
Length	15 cm
Dating	Uncertain; probably 3 rd or 2 nd millennium calBC
Find context	Stray find; discovered during an archaeological survey near the village of Fershampenuaz in the southern Urals
Notes	
Reference(s)	Chenchenkova 2004: 260
Classification	1

R23a. Mayak II, Lovozero District



Figure 291. Miniature elk-head antler staff from Mayak II. MOM ОФ 19103/411. Murmansk regional museum. Photo: Eugen Kolpakov.

Find site	Mayak II, Lovozero District, Murmansk Oblast (1979)
Coordinates	c. 68°20'00"N 38°24'00"E
Inventory no.	MOM ОФ 19103/411 (Murmansk regional museum)
Find type	Elk-head staff (miniature)
Description	Elk-head staff; made of reindeer antler; sharply curved handle; largely exaggerated ears; characteristic elk muzzle
Length	11.8 cm
Dating	c. 2500–1500 calBC; all elk-headed artefacts from Mayak II stem from a cultural layer that has yielded radiocarbon dates in the period 2570–1430 calBC ³⁸⁴ (Vladimir Shumkin, PhD, Head of the Kola archaeological expedition, email correspondence 10.10.2016); the occupation at the Mayak II settlement lasted from the Early Neolithic to the Early Metal Age (radiocarbon dates are placed roughly in the period 4700–1400 calBC) (see Gurina 1997: 138; Murashkin & Carpelan 2013: 204, table 1)
Find context	Settlement find; discovered from horizon 1 during archaeological excavations (see Gurina 1987: 43); Mayak II is located on the left bank of Drozdovka River on the northern coast of the Kola Peninsula
Notes	The sculptor utilized the natural shape of a reindeer antler very skillfully when moulding the item (see Gurina 1997: 115, fig. 59)
Reference(s)	Gurina 1997: 115
Classification	1

³⁸⁴ 3930±40 (Le-1496) = 2570–2290 calBC; 3437±32 (Hela-2397) = 1880–1630 calBC; 3330±40 (Le-1495) = 1740–1510 calBC and 3235±33 BP (Hela-2396) = 1610–1430 calBC.

R23b. Mayak II, Lovozero District



Figure 292. Elk(?) -headed bone pin from Mayak II. MOM ОФ 19103/417. Murmansk regional museum. Photo: Murmansk regional museum.

Find site	Mayak II, Lovozero District, Murmansk Oblast (1978–1983)
Coordinates	c. 68°20'00"N 38°24'00"E
Inventory no.	MOM ОФ 19103/417 (Murmansk regional museum)
Find type	Bone pin
Description	Elk(?) -headed pin; made of bone; stylized elk-head finial
Length	4.9 cm
Dating	c. 2500–1500 calBC; see above
Find context	Settlement find; see above
Notes	
Reference(s)	Gurina 1997: 115
Classification	2

R23c. Mayak II, Lovozero District



Figure 293. Elk(?) -headed bone pin from Mayak II. MOM ОФ 19103/416. Murmansk regional museum. Photo: Murmansk regional museum.

Find site	Mayak II, Lovozero District, Murmansk Oblast (1978–1983)
Coordinates	c. 68°20'00"N 38°24'00"E
Inventory no.	MOM ОФ 19103/416
Find type	Bone pin
Description	Elk(?) -headed pin; made of bone; broken; stylized elk-head finial; dewlap marked out
Length	4.5 cm
Dating	c. 2500–1500 calBC; see above
Find context	Settlement find; see above
Notes	
Reference(s)	Gurina 1997: 115
Classification	2

R23d. Mayak II, Lovozero District

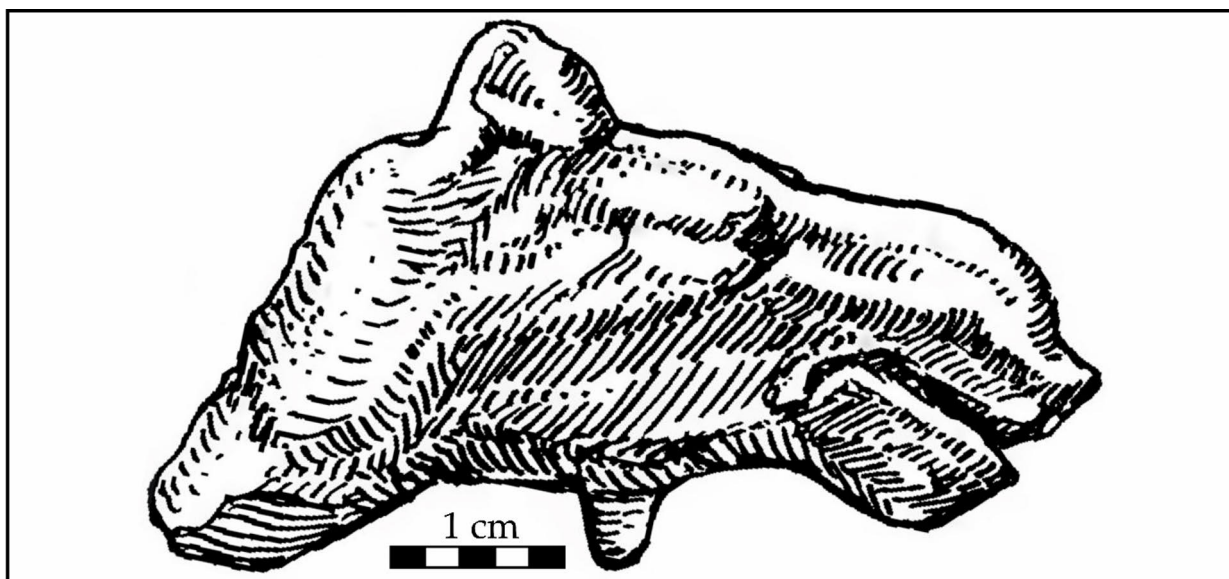


Figure 294. Elk-head stone figurine from Mayak II. Drawing from Gurina 1997, fig. 58.1.

Find site	Mayak II, Lovozero District, Murmansk Oblast (1978–1983)
Coordinates	c. 68°20'00"N 38°24'00"E
Inventory no.	Unknown (item lost)
Find type	Stone figurine
Description	Elk-head figurine; made of soapstone; naturalistic elk-head; prominent muzzle and dewlap; eyes, ears and mouth marked out
Length	5,5 cm
Dating	c. 2500–1500 calBC; see above
Find context	Settlement find; see above
Notes	Possible anthropozoomorphic appearance; according to Gurina (1997: 116) the figurine depicts a human face when seen from a certain angle
Reference(s)	Gurina 1997: 116
Classification	1

R23e. Mayak II, Lovozero District



Figure 295. Elk(?) -headed bone pin from Mayak II. MOM ОФ 19103/412. Murmansk regional museum. Photo: Eugen Kolpakov.

Find site	Mayak II, Lovozero District, Murmansk Oblast (1978–1983)
Coordinates	c. 68°20'00"N 38°24'00"E
Inventory no.	MOM ОФ 19103/412 (Murmansk regional museum)
Find type	Bone pin
Description	Elk(?) -headed pin; made of bone; abstract zigzag-shape; elongated muzzle with mouth marked out; vertical striations
Length	8 cm
Dating	c. 2500–1500 calBC; see above
Find context	Settlement find; see above
Notes	
Reference(s)	Gurina 1997: 115
Classification	2

R23f. Mayak II, Lovozero District



Figure 296. Elk-headed bone dagger from Mayak II. MOM ОФ 19103/94. Murmansk regional museum. Photo: Konstantin Kotkin.

Find site	Mayak II, Lovozero District, Murmansk Oblast (1978–1983)
Coordinates	c. 68°20'00"N 38°24'00"E
Inventory no.	MOM ОФ 19103/94 (Murmansk regional museum)
Find type	Bone dagger
Description	Elk-headed dagger; made of bone; characteristic elk muzzle (cf. R1b)
Length	10.1 cm
Dating	c. 2500–1500 calBC; see above
Find context	Settlement find; see above
Notes	Alternatively a harpoon swivel (Natalia Viktorova, Deputy Director of Murmansk Museum region studies, email correspondence 9.2.2016)
Reference(s)	Gurina 1997: 115
Classification	1

R24a. Bolshoy Oleniy Ostrov (8), Severomorsk Urban Okrug

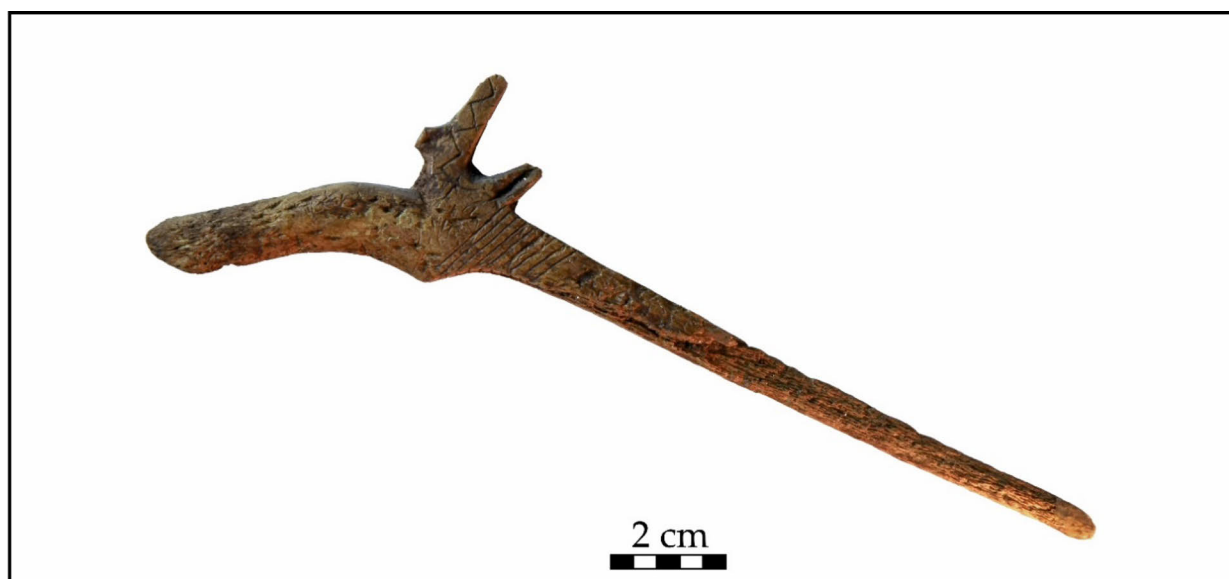


Figure 297. Miniature elk(?) head staff from burial no. 8 at BOO. MOM ОФ 3133/3. Murmansk regional museum. Photo: Eugen Kolpakov.

Find site	Bolshoy Oleniy Ostrov (Kola Oleneostrovskiy) (burial no. 8), Severomorsk Urban Okrug, Murmansk Oblast (1947-1948)
Coordinates	c. 69°13'30"N 33°29'00"E (c. 14-15 masl)
Inventory no.	MOM ОФ 3133/3 (Murmansk regional museum)
Find type	Elk-head staff (miniature)
Description	Elk(?) head staff; made of bone; broken antlers; stylized and elongated elk(?) head; pendulous muzzle; ears and eyes marked out; various geometric ornamentations
Length	16.7 cm
Dating	Probably c. 1500-1200 calBC; the BOO burial ground can be dated roughly to the period 1500-1100 calBC (Early Bronze Age) based on radiocarbon dates; some later contradicting radiocarbon dates have also been obtained from the site (Murashkin et al. 2016: 196, table 1)
Find context	Burial find; discovered during archaeological excavations led by N.N. Gurina; burial no. 8 was a single burial of an adult male; staff placed on the chest; burials at BOO belong to the so-called Kola Oleneostrovskiy grave field on the Kola Bay in northwesternmost Russia; excavated by archaeologists in the 1920s, 1940s and most recently in 2001-2004; 32 burials consisting of 43 individuals have been investigated; additional 25 burials were destroyed during sand quarrying in the 1930s (Murashkin et al. 2016: 188-189); most graves at BOO were inhumations placed at a depth of 0.5-1 metres
Notes	Most of the burials contained constructions made of stones and wood, and it seems likely that the deceased were buried in "funeral boats" (Murashkin et al. 2016: 190-191; see also Gurina 1953: 352); the male burials in particular contained rich grave goods such as harpoon heads and fishing hooks; bone and antler artefacts and animal bones were the most common grave goods (see e.g. Murashkin & Shumkin 2007: 71; Murashkin et al. 2016: 194-195)
Reference(s)	Gurina 1953: 375-376, 407
Classification	2

R24b. Bolshoy Oleniy Ostrov (13-1), Severomorsk Urban Okrug



Figure 298. Miniature elk(?)-head staff from burial no. 13-1 at BOO. ОФ 4941 APX. Photo: Polyarniy Museum.

Find site	Bolshoy Oleniy Ostrov (Kola Oleneostrovskiy) (burial no. 13-1), Severomorsk Urban Okrug, Murmansk Oblast (2002)
Coordinates	c. 69°13'30"N 33°29'00"E (c. 14–15 masl)
Inventory no.	ОФ 4941 APX (Polyarniy Museum)
Find type	Elk-head staff (miniature)
Description	Elk(?)-head staff; made of (rib) bone; elongated elk-head finial; ears and dewlap marked out
Length	24.2 cm
Dating	1530–1400 calBC ³⁸⁵ (radiocarbon dated patella of the deceased man in burial 13) (see Moiseyev & Khartanovich 2012: 147)
Find context	Burial find; discovered in double burial no. 13; a male in his fifties buried together with a child no older than two months; staff found in the abdomen area of the man, apparently placed in his left hand
Notes	It is difficult to determine whether the rods portray elks or (rein)deer, since some of them seem to encompass features of both animals (cf. Murashkin & Shumkin 2004; 2007: 72)
Reference(s)	Murashkin & Shumkin 2004: 99, 101; Murashkin 2007: 213–215; http://kae.rekvizit.ru/olen/olburial.htm#b13 (accessed on 9.11.2016)
Classification	2

³⁸⁵ 3195±39 BP (ORAU).

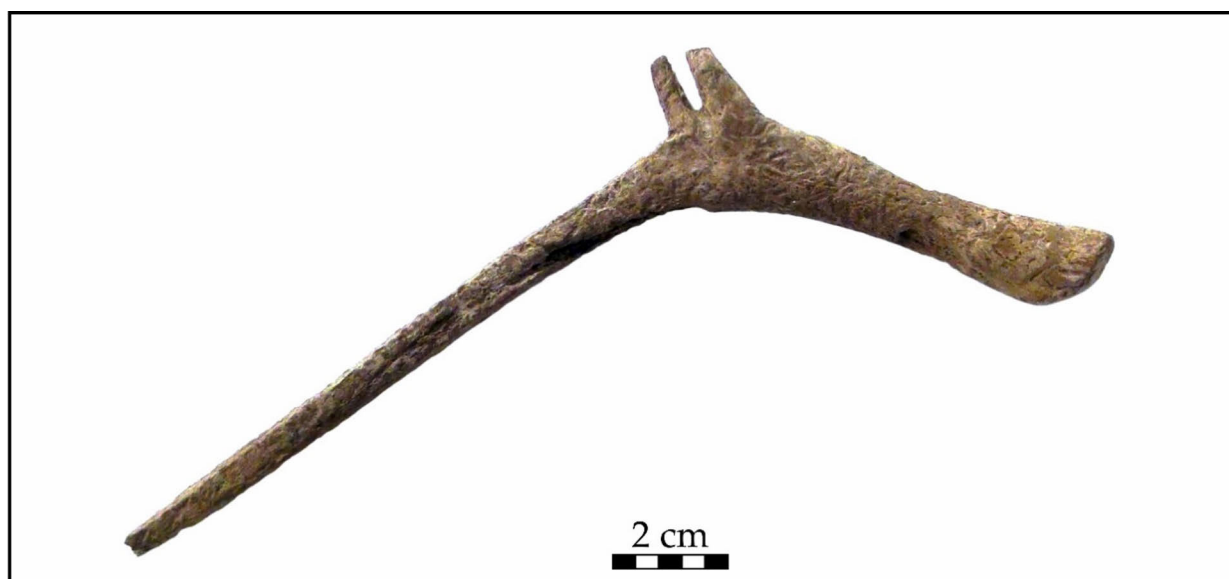
R24c. Bolshoy Oleniy Ostrov (16-2), Severomorsk Urban Okrug

Figure 299. Miniature elk(?) head staff from burial no. 16-2 at BOO. ОФ 8163 APX. Polyarniy Museum. Photo: Polyarniy Museum.

Find site	Bolshoy Oleniy Ostrov (Kola Oleneostrovskiy) (burial no. 16-2), Severomorsk Urban Okrug, Murmansk Oblast (2003)
Coordinates	c. 69°13'30"N 33°29'00"E (c. 14–15 masl)
Inventory no.	ОФ 8163 APX (Polyarniy Museum)
Find type	Elk head staff (miniature)
Description	Elk(?) head staff; made of bone; stylized elk muzzle; ears but no antlers
Length	16.5 cm
Dating	c. 1500–1200 calBC (radiocarbon date 1490–1220 calBC ³⁸⁶ obtained from grave 16-4 in the same collective burial) (Murashkin et al. 2016: 195, table 1)
Find context	Burial find; discovered from burial no. 16-2 (part of collective grave 16 consisting of four individuals); woman around 60 years of age
Notes	Mineralised tar from burial 16-2 produced an untrustworthy radiocarbon date around 2840–2350 calBC ³⁸⁷ (see Murashkin et al. 2016: 195–196, table 1)
Reference(s)	Murashkin 2007: 213–215; Kashina & Zhulnikov 2011: 23
Classification	2

³⁸⁶ 3090±50 BP (Le-6804).

³⁸⁷ 4010±45 BP (Le-6805).

R24d. Bolshoy Oleniy Ostrov (19-4), Severomorsk Urban Okrug

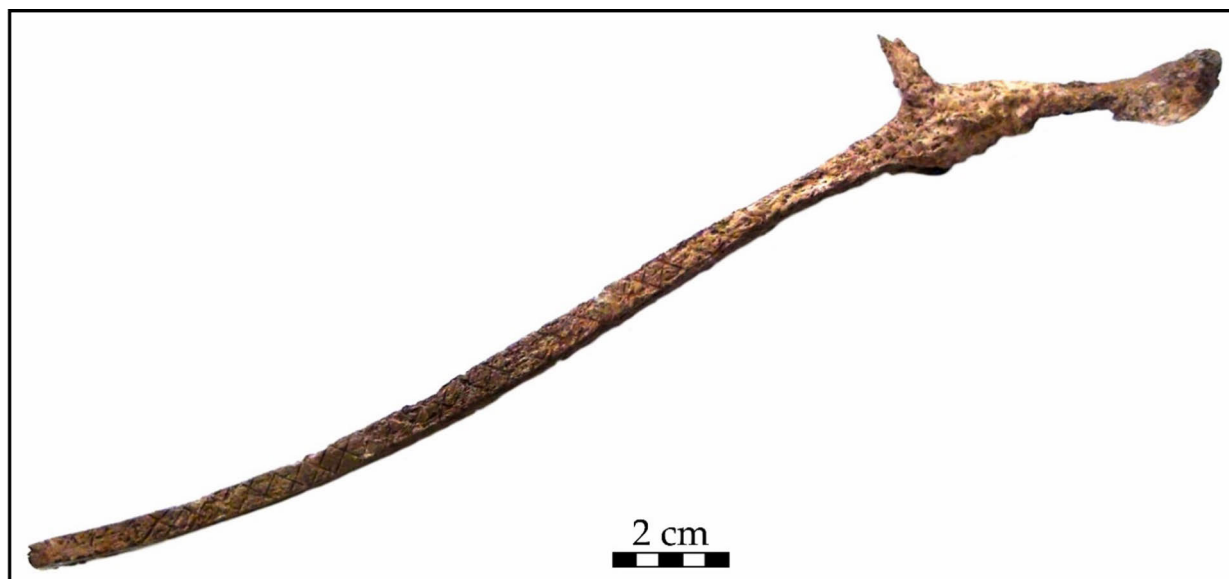


Figure 300. Miniature elk(?) -head staff from burial no. 19-4 at BOO. ОФ 8280 АРХ. Polyarniy Museum. Photo: Polyarniy Museum.

Find site	Bolshoy Oleniy Ostrov (Kola Oleneostrovskiy) (burial no. 19-4), Severomorsk Urban Okrug, Murmansk Oblast (2003)
Coordinates	c. 69°13'30"N 33°29'00"E (c. 14–15 masl)
Inventory no.	ОФ 8280 АРХ (Polyarniy Museum)
Find type	Elk-head staff (miniature)
Description	Elk(?) -head staff; made of bone; handle thoroughly decorated with geometrical ornamentations; abstract animal-head finial; ears but no antlers
Length	22.8 cm
Dating	Probably c. 1500–1200 calBC; decomposed wood from burial 19 yielded a radiocarbon date 900–770 calBC ³⁸⁸ (Murashkin et al. 2016: 195, table 1) but such a date should be treated with caution as it is significantly younger than the presumed overall age of the burial ground with regard to the typological and geomorphological data as well as the other radiocarbon dates obtained from the site (see Murashkin et al. 2016: 196)
Find context	Burial find; discovered together with two more abstract staffs in female grave 19-4, part of the largest burial at BOO (collective burial no. 19 consisting of six individuals); apparently the grave initially consisted of three deceased, and three more individuals (19-1, 19-2 and 19-5) were later buried in the grave (Murashkin et al. 2016: 191)
Notes	Burial 19-4 was first thought to belong to an adult male based on grave goods that were typical for a male individual (Murashkin et al. 2016: 195); later, however, it was realized that the grave actually belonged to a female (Anton Murashkin, archaeologist, Saint-Petersburg State University, email correspondence via E. Kashina, 4.4.2018)
Reference(s)	Murashkin 2007: 213–215
Classification	2

³⁸⁸ 2635±35 BP (Le-8183).

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ID	Find site	Coordinates (c.)	Inventory no.	Find type	Description	Length	Dating	Find context	Reference(s)
UF1	Järvensuo 1, Humppila	60°54'39"N 23°17'49"E	KM 214931	Wooden ladle	Ladle fragment; made of pine; broken animal-head	10.7 cm	c. 2300–1200 calBC	Settlement	Immonen 2002
UF2	Paavola, Siikajoki (Ruukki)	64°39'30"N 25°04'32"E	KM 154461	Stone club	Broken stone club; ambiguous animal-head shape	15 cm	c. 3000–2000 calBC	Stray find	Carpelan 1977
UF3	Äijö, Konnitsa, Pyhäjärvi (Priozerskij r.)	60°51'05"N 29°56'24"E	KM 105281	Stone club	Broken stone club; ambiguous animal-head shape	14 cm	c. 3000–2000 calBC	Unknown	Huurte 2003
UF4	Pitkämäki, Liuhitari, Lapua	62°59'05"N 23°06'45"E	KM 141171	T-shaped item	T-shaped slate artefact; unidentified animal-head (cf. S5)	10 cm	c. 4000–3200 calBC	Settlement	Kivikoski 1957
UF5	Jomala Iettböle, Åland	60°08'24"N 19°58'28"E	KM 5180:598	Clay figurine	Broken clay figurine; animal-head shape	2.7 cm	c. 3500–2300 calBC	Settlement	Cederhvarf 1912
UF6	Pörrimmökki, Rääkkylä, North Karelia	62°11'22"N 29°54'00"E	KM 29713: 2456, 2478	Clay figurine	Broken clay figurine; animal-head shape	4 cm	c. 3950–3500 calBC	Settlement	Pesonen 2000
UF7	Stenkulla, Hakkila, Vantaa	60°17'45"N 25°04'07"E	KM 29954889	Clay figurine	Broken clay figurine; animal-head shape	2.6 cm	c. 3950–3500 calBC	Settlement	
US1	Stora Vika, Sorunda, Södermanland	58°56'32"N 17°47'53"E	SHM 27988	Stone club	Animal-headed soapstone club; rounded eyes and broken ears	15 cm	c. 3000–2000 calBC	Settlement	Behr & Lindeberg 1968
US2	Vingåker, Södermanland	59°00'00"N 16°00'00"E	SHM 24489	Stone axe	Soapstone axe; stylized zoomorphic shape	14.4 cm	c. 3000–2000 calBC	Stray find	Carpelan 1977
US3	Träsk, Skog, Ångermanland	62°57'15"N 18°04'35"E	SHM 5400	Slate dagger	Red-brownish slate dagger; broken animal-head	12.5 cm	c. 4200–1500 calBC	Stray find	
US4	Lill-Jorm, Jämtland	64°42'36"N 14°03'00"E	Private owned	Slate item	Spatula-shaped slate item (re- modified dagger?); stylized animal- head	5.2 cm	c. 4200–1500 calBC	Stray find	Lindqvist 2002
US5	Vebomark, Lövånger, Västerbotten	64°24'12"N 21°00'30"E	SM 20	Slate dagger	Green-greyish slate dagger; broken animal-head	11.3 cm	c. 4200–1500 calBC	Stray find	Meinander 1965
US6	Åmträsket, Degerfors,	64°53'05"N	Vbm 14730:1	Slate knife	Single-bladed knife of red-brownish	15.2 cm	c. 4200–1500	Settlement	

UN6	Halsen, Kvalsund, Troms og Finnmark	70°30'37"N 24°00'52"E	Ts. 2837	Slate dagger	Broken, greyish slate dagger; broken animal-head	10.8 cm	c. 3000–2000 calBC	Settlement	Gjessing 1938b; Damm 2012
UN7	Gressbakken N.V., Nesseby, Troms og Finnmark	70°04'28"N 28°48'17"E	Ts. 5525df	Bone figurine	Abstract, broken animal-head bone (comb) finial	1.8 cm	c. 3000–2500 calBC	Settlement	Simonsen 1961
UN8	Grut, Meldal, Trøndelag	62°58'53"N 09°46'33"E	T 15165	Engraved stone	Red-brownish sandstone plate with carvings; geometric designs and five cervids	10.9 cm	Unknown	Stray find	Gjessing 1936
UG1	Twedt-Buschau, Schleswig-Holstein	54°36'40"N 09°40'30"E	Landesmuseum SH	Antler staff	Zoomorphic(?) staff made of shed red deer antler	53 cm	8540–8260 calBC	Settlement	Kabaciński et al. 2011
UG2	Verchen, Mecklenburg-Vorpommern	53°51'10"N 12°54'40"E	Unknown	Antler staff	Zoomorphic(?) ornamented staff made of shed red deer antler	22.8 cm	c. 8200–7700 calBC	Settlement	Kabaciński et al. 2011
UP1	Krzyż 7, Czarnków-Trzcianka, Wielkop.	52°52'00"N 16°00'00"E	Unknown	Antler staff	Zoomorphic(?) ornamented staff made of shed red deer antler	40.2 cm	8290–7960 calBC	Settlement	Kabaciński et al. 2011
UB1	Asaviec 2, Beshankovichy r., Vitebsk O.	54°54'57"N 29°32'42"E	National Historical Museum of the Republic of Belarus	Antler sculpture	Broken, headless animal sculpture made of elk antler	26 cm	2500–1500 calBC	Settlement	Charniauskis 2015; Charniauskis & Charniauskis 2010
ULT1	Šventoji (23;26;30), Palanga, Klaipėda C.	56°01'30"N 21°04'40"E	National Museum of Lithuania	Amber figurines	Abstract amber figurines possibly representing (unfinished?) elk-heads	1–5 cm	c. 3700–2000 calBC	Settlement	Rimantienė 1979; 2001
ULT2	Juodkrantė, Neringa M., Klaipėda C.	55°32'35"N 21°07'20"E	Unknown	Amber figurine	Numerous amber finds; one possible elk-figurine	5.7 cm	c. 3000–1500 calBC	Amber hoard (sacrifice?)	Klebs 1882; Loze 1970
ULT3	Kretonas 1D, Švenčionys D., Vilnius C.	55°14'00"N 26°05'30"E	Naišia museum	Antler staff	Possible elk-head antler staff fragment	8 cm	c. 2100–1500 calBC	Settlement	Zhulnikov & Kashina 2010b; Girininkas 2007
ULV1	Zvejnieki, Večate Parish, Burtnieki M.	57°46'34"N 25°13'34"E	NML VI 93	Antler sculpture	Abstract animal-head sculpture made of antler (elk/otter/marten/badger?)	6.5 cm	c. 5400–4100 calBC	Burial (271)	Zagorskis 1987; Zagorska 2000; Irišenas 2006

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ULv2	Riņņukalns, Večate P., Burtnieki M.	57°47'40"N 25°08'55"E	AI 1392:383	Bone sculpture	Ambiguous animal-head sculpture made of bear bone (similar to US11b)	23.7 cm	c. 4000–2500 calBC	Shell midden	Jaanits 1961
ULv3	Abora 1, Indrāņi P., Lubāna M.	56°55'40"N 26°51'36"E	NML VI 76	Bone finials	Three broken bone handles; abstract, possible elk-head finials	5–7 cm	c. 2600–2000 calBC	Settlement	Loze 1970
ULv4	Užava, Zīras P., Ventspilis M.	57°07'29"N 21°32'57"E	NML VI 109:5	Engraved dagger	Engraved dagger made of elk bone; abstract engravings (possible elk figure)	16 cm	c. 6000–4000 calBC	Stray find/ settlement?	Loze 1970; Ernits 2007; Bērziņš et al. 2016
ULv5a	Osa, Lazdukalns P., Balvi M.	56°54'55"N 27°01'37"E	NML 967	Antler staff	Possible elk-head staff	17 cm	c. 6000–4000 calBC	Settlement	
ULv5b	Osa, Lazdukalns P., Balvi M.	56°54'55"N 27°01'37"E	unkown	Bone dagger	Bone dagger; possible elk-head finial	Unknown	c. 5000–4000 calBC	Settlement	Ozols 1972
UE1a	Akali, Kastre P., Tartu C.	58°24'29"N 27°13'50"E	AI 3800: 404	Bone figurine	Small ear fragment made of bone (part of elk-head sculpture?)	2 cm	c. 4000–2000 calBC	Settlement	Jaanits 1959; Ozols 1972
UE1b	Akali, Kastre P., Tartu C.	58°24'29"N 27°13'50"E	Unknown	Clay figurines	Small zoomorphic fragments made in clay, possible elk-head shape	Unknown	c. 4000–2000 calBC	Settlement	Jaanits 1959; Ionuks 2009
UE2	Tamula, Võru P., Võru C.	57°50'40"N 26°58'40"E	II 3960:303	Amber pendant	Zoomorphic amber pendant (elk?); three diagonal grooves	7 cm	c. 3900–2600 calBC	Burial (12)	Jaanits 1959; Tõrv 2016
UR1a	YOO, Medvezhyegorsky D., R. of Karelia	62°02'50"N 35°21'40"E	MAE 5716-347	Bone figurines	Two possible elk-head figurines (knife finials?) made of bone	3.5 cm	c. 6700–5700 calBC	Burials (68, 82)	Gurina 1956
UR1b	YOO, Medvezhyegorsky D., R. of Karelia	62°02'50"N 35°21'40"E	MAE 5716-619	Antler figurine	Therianthropic figurine; anthropomorph with elk(?) feet (hoofs)	10.5 cm	c. 6700–5700 calBC	Burial (130)	Gurina 1956; Popova 2001
UR2a	Veretye 1, Kargopolsky D., Arkhangelsk O.	61°15'36"N 38°53'51"E	The State Hermitage Museum 2930/1	Bone dagger	Elk(?) head dagger made of polished elk rib	33.8 cm	c. 9240–6420 calBC	Settlement	Oshibkina 1992a; 2000; Mökkönen et al. 2007
UR2b	Veretye, Kargopolsky D., Arkhangelsk O.	61°15'36"N 38°53'51"E	GIM 76691, A139/74	Bone dagger	Bone dagger; zoo- or anthropomorphic finial	12 cm	c. 6500–6000 calBC	Settlement	Oshibkina 1992a; 2000
UR2c	Veretye, Kargopolsky D., Arkhangelsk O.	61°15'36"N 38°53'51"E	GIM 76792, A140/402	Sledge runner/ski	Broken wooden ski or sledge; zoomorphic shape	15 cm	c. 6500–6000 calBC	Settlement	Burov 1989
UR2d	Veretye, Kargopolsky D.,	61°15'36"N	A138/120	Antler	Ornamented antler handle; possible	42 cm	c. 6500–2500	Settlement	Foss 1941; Oshibkina

Arkhangelsk O.	38°53'51"E	elk-head staff (see Mantere & Kashina 2020)	staff	elk-head staff (see Mantere & Kashina 2020)	calIBC	2012
UR3	Kubenino, Kargopolsky D., Arkhangelsk O.	61°26'30"N 38°54'30"E	Unknown Antler figurine	Therianthrope antler figurine; anthropomorph with elk(?) feet (hoof)	c. 5500–4500 calBC	Burial (2) Foss 1938; Ahola et al. 2020
UR4	Shigir, Kirovgradsky UO, Sverdlovsk O.	57°21'00"N 60°08'00"E	CM 8985 ALL-1098 Antler staff	Abstract perforated zoomorphic staff made of elk antler	9265–8930 calBC	Stray find (settlement) Eding 1940; Zhilin 2010; Zhilin et al. 2018
UR5	Gorunovo, Prigorodny D., Sverdlovsk O.	57°49'00"N 59°57'00"E	GIM 78629, A387/599 Wooden sculpture	Wooden sculpture(?) in the shape of an elk antler	c. 3000–1000 calBC	Settlement Eding 1940
UR6	Chernaya Gora, Klepikovskiy D., Ryazan O.	55°06'30"N 40°01'30"E	GIM A1645/147 Antler axe handle	Axe handle made of elk antler; possible elk-head shape	c. 3700–2300 calBC	Settlement
UR7	Usvyaty IV, Usvyatsky D., Pskov O.	55°44'30"N 30°45'00"E	The State Hermitage Museum Bone ladle	Broken bone ladle(?); animal-headed shaft (marten? bear? elk?)	c. 3500–2500 calBC	Settlement Kashina 2005; Mazurkevich & Polkovnikova 2009
UR8	Rybino-Strelka 1, Palekhsky D., Ivanovo O.	56°46'40"N 42°13'19"E	69627(+2266, -157) Flint sculptures	Two flint sculptures possibly shaped as elks	c. 3000–2000 calBC	Settlement Krainov 1992; Kashina 2005
UR9	Vologda River, Vologdsky D., Vologda O.	59°12'00"N 39°57'00"E	BTM3-30850 A-122 Flint sculptures	Two flint sculptures possibly shaped as elks	c. 3000–2000 calBC	Stray find Nedomolkina 2007; Kashina 2005
UR10	Sukhoye, Kargopolsky D., Arkhangelsk O.	61°15'40"N 38°57'00"E	Private owned Flint sculpture	Zoomorphic flint sculpture; exaggerated head (elk? wolf?)	c. 3000–2000 calBC	Settlement Oshibkina 1992b; Kashina 2005
UR11	Dudenyovo, Kalininsky D., Tver O.	56°50'50"N 35°38'55"E	Unknown Flint sculpture	Zoomorphic (elk? bear?) flint sculpture with half-moon like character	c. 3000–2000 calBC	Settlement Zamyatnin 1948; Kashina 2005
UR12	Repische VI, Borovichsky D., Novgorod O.	58°25'53"N 31°14'05"E	Unknown Flint sculpture	Possibly elk-shaped flint sculpture	c. 3000–2000 calBC	Settlement Zimina 1992; Kashina 2005
UR13	Fofanovo XIII, Prionezhsky D., R. of Karelia	61°54'40"N 34°12'10"E	KGM 71367 Flint sculpture	Possibly zoomorphic sculpture (elk-head?) made of flint	c. 3000 calBC	Settlement Zhulinov & Spiridonov 2003; Tarasov & Stafeev 2014
UR14	Neluksa, Prionezhsky D., R.	61°40'30"N	KGM 3185 Stone club	Zoomorphic (elk?) club made of	c. 3000–2000	Stray find Mazurkevich &

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	of Karelia	34°33'30"E		sandstone		calBC		Polkovnikova 2009
UR15	Solomonnoye, Petrozavodsk D., R. of Karelia	61°51'00"N 34°20'00"E	KGM 544-2	Stone axe Animal-headed (seal? elk?) rhombic sandstone axe; traces of red ochre	21.4 cm	c. 3000-2000 calBC	Stray find	Shakhnovich 2002
UR16	Kondopoga, Kondopozhsky D., R. of Karelia	62°12'00"N 34°16'00"E	KGM 544-1	Stone axe Animal-headed (bear? elk?) diabase axe (unfinished)	14.9 cm	c. 3000-2000 calBC	Stray find	Shakhnovich 2002
UR17	Valdaysky D., Novgorod O. Karelia	57°59'00"N 33°15'00"E	The State Hermitage Museum 299/1	Stone axe Zoomorphic (bear? elk?) stone axe fragment	11.1 cm	c. 3000-2000 calBC	Stray find	Ravdonikas 1937; Tallgren 1938
UR18	Malyi Lipovyi VI, Argayashsky D. Chelyabinsk O.	55°25'00"N 60°22'00"E	Private owned	Talc Pierced animal-head (elk? horse?) miniature figurine made of talc	5.2 cm	c. 3000-1500 calBC	Settlement	Petrin & Usacheva 2004
UR19	BOO, Severomorsk U.O, Murmansk O.	69°13'30"N 33°29'00"E	OΦ 82(01,-81,- 95)/APX	Antler staff Three animal-headed miniature staffs made of antler (reindeer? elk?)	18-23 cm	c. 1500-1200 calBC	Burial (16-3, 19-4)	Murashkin & Shumkin 2004; Murashkin et al. 2016
UR20	Volokonnoye II, Yurinsky D., Mari El R.	56°30'00"N 46°06'00"E	Unknown	Engraved stone Broken slate pebble with carving of antlered cervid (deer? elk?)	Unknown	c. 3000-2000 calBC	Settlement	Serikov 2014



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