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ELK-HEAD STAFFS IN PREHISTORIC NORTH-EASTERN EUROPE AND NORTH-WESTERN RUSSIA – SIGNS OF POWER AND PRESTIGE?

Summary. Around 30 axe-shaped staffs sculpted as elk heads at the upper end have been found from burials and settlement layers across a widespread area, extending from the Baltic region to the Urals. These enigmatic items made of antler were in use for a considerably long period from the Late Mesolithic to the Early Metal Period, and depictions of elk-head staffs are also known from Stone Age rock art sites. Using two previously misidentified elk-head staff fragments from the Stone Age settlements of Zvidze in Latvia and Veretye in Russia as examples, the authors examine the role and function of elk-head staffs. Special emphasis is put on the fragmentation of the artefacts: the authors point out that elk-head staffs found in burials have been intact, whereas those found in settlement layers have mostly been deliberately broken and discarded. The authors thus interpret the elk-head staffs as private items that were closely associated with the undertakings of their owners.

INTRODUCTION

One of the most thought-provoking archaeological find categories in prehistoric north-eastern Europe and north-western Russia is a group that is usually labelled as elk-head ‘staffs’ or ‘rods’ (Zhulnikov and Kashina 2010; Kashina and Zhulnikov 2011). These zoomorphic pieces of portable art are basically items of an axe-shape, usually made of antler, whose upper part has been sculpted into the shape of an elk’s (*Alces alces*) head. Such artefacts have been found in numerous burials and settlements in the northern boreal forest zone and date back to the Stone Age and the Early Metal Period.¹ Depictions of elk-head staffs are also discernible in the rock art of Fennoscandia.

In this article, we use two previously unidentified staff fragments to shed new light on this perplexing group. These two items stem from Latvian and Russian Stone Age sites and provide new insights into the function and meaning of elk-head staffs. We focus on questions regarding their

1 By the Early Metal Period, we refer to the period covering the Eneolithic and the Bronze Age in the north-east European boreal forest zone, where metal items were introduced noticeably later than in other areas of the forest zone.

fragmentation, a recurring feature shared by the majority of elk-head staffs that have been found. In our study, we especially examine why, in some places, the elk-head staffs were used as grave goods, while elsewhere the very same kind of items were simply thrown away at settlement sites. Our findings suggest that some of the staffs were considered valuable even as broken artefacts and that broken elk-head staffs could also sometimes be repaired. As seen in the following discussion, the evidence suggests that these elk-head staffs were not shamans' paraphernalia as some have suggested, but rather were closely related to mature individuals in the community.

Elk-head staffs have been well-known artefacts since the publication of Nina Gurina's renowned monograph (1956) on the Yuzhniy Oleniy Ostrov (hereafter referred to as YOO) burial ground (see for example O'Shea and Zvelebil 1984; Tilley 1991; Zvelebil 2008). However, this category of findings has grown in numbers very slowly, which is probably the most significant reason the artefacts have not received more attention by scholars, especially outside of Russia. With a few exceptions (Studzitskaya 1997; Iršėnas 2000; Zhulnikov and Kashina 2010; Kashina and Zhulnikov 2011; Kolpakov 2018), studies focusing specifically on elk-head staffs are conspicuous by their absence. Another explanation for the scarcity of Western studies on this topic is probably related to the language barrier. As the majority of elk-head staffs come from present-day Russia, many have likely gone unnoticed by Western scholars. For this reason, we find it important not only



Figure 1

Map showing the distribution of elk-head staffs in north-eastern Europe and north-western Russia. An asterisk after the site name signifies that both large and small staffs have been found from the same site. Meaning of symbols: circles = rock art sites; squares = large elk-head staffs; stars = small elk-head staffs. (Map: Ville Mantere). [Colour figure can be viewed at wileyonlinelibrary.com]

to present the two new items belonging to this group, but also to make the magnitude of the phenomenon better known.

We begin our study with a general overview of the elk-head staffs found in burials and settlement layers in the northern boreal forest zone, whereupon we then discuss the depictions of elk-head staffs in the Fennoscandian rock art. In the second part of the paper, we present two previously unidentified elk-head staff fragments from the Stone Age settlements of Zvidze and Veretye. Lastly, we discuss the fragmentation of elk-head staffs in detail and offer an explanation for the frequency of finding them as broken and discarded items at settlement sites.

ELK-HEAD STAFFS IN NORTH-EASTERN EUROPE AND NORTH-WESTERN RUSSIA

Elk-head staffs are found in a widespread geographical area that extends from the Baltic region in the west to the Middle Trans-Urals in the east and from the Barents Sea in the north to the forest-steppe zone of the Orenburg region in the south (Fig. 1). Although not in the scope of this paper, it should be noted that possible equivalents to elk-head staffs are known also outside this area. In the Cis-Baikal region in Siberia, a number of elk-shaped antler items including elk-headed rods and detached elk-head figures, possibly once mounted on rods, have been unearthed as grave goods in burials belonging to the Early Neolithic Kitoi Culture (7500–7000 cal BP) (Ponomareva and Taçon 2019, 26–9, tab. 2). In northern hunter-gatherer rock art, depictions of what appears to be representations of elk-head staffs are, in turn, found in large rock art sites in Norway, Sweden and north-western Russia. In addition to their vast spatial distribution, the elk-head artefacts also show a considerable continuity in time: their use seems to have lasted for more than four millennia, from the Late Mesolithic period to the Early Metal Period.

Altogether, around 30 elk-head staffs made of antler have been found from north-eastern Europe and north-western Russia (see Zhulnikov and Kashina 2010, 72 for a listing of the items). The exact number is difficult to determine, however, as most of the known staffs are more or less fragmented, which also prevents a detailed comparison of these items. In some cases, the staffs seem to depict reindeer (*Rangifer tarandus*) instead of elk (*Alces alces*), especially the small-sized staffs from the Oleneostrovskiy burial ground on the Kola Peninsula (Murashkin and Shumkin 2007). The elk-heads sculpted on staffs are typically carefully polished and skilfully shaped with lifelike anatomical accuracy, but they often have certain features that are not true to life. Sometimes the handles, too, are polished, which is probably due to frequent holding in the hands (Gurina 1956, 215). In some instances, the elk-heads have a shape that suggests that these were originally attached to separate handles.

It is possible to divide the elk-head staffs into two groups according to size, although their precise dimensions are often mere estimations due to their fragmentation (Zhulnikov and Kashina 2010, 72). The intact staffs from YOO (Gurina 1956), Šventoji 3B (Rimantienė 1979) and Tok River (Bogdanov 1992) are very similar in size (41–47 cm in length), and it seems probable that they were made according to an established canon. Equally, most of the fragmented elk-head staffs have dimensions that suggest that they were originally of comparable size. The large staffs can thus rather confidently be ascertained to have had a total length of 40–50 cm. It seems rather obvious that in most cases the size of the large elk-head staffs was determined by the dimensions of the available raw material, i.e. the natural elk antler. Including the two new items presented in this paper, 20 large elk-head staffs are now known from the area west of the Middle Trans-Urals.

The group of small staffs, on the other hand, consists of 10 items measuring 10 to 25 cm in length. Enigmatically, whilst many of these staffs resemble miniature versions of their larger-sized paragons, others have handles of a peculiar shape (Zvejnieki, Mayak 2). Just like the large staffs, most of the small rods also depict accurately sculpted elk- or reindeer-heads, and they have a long chronological continuity from the Late Mesolithic (YOO, Zvejnieki) to the Early Metal Period (Oleneostrovskiy). In two sites (YOO and Šventoji), both small and large elk-head staffs have been discovered, whereas at other sites (Oleneostrovskiy, Mayak 2 and Zvejnieki), the small staffs have been found without any presence of the large ones. Notably, the spatial distribution of the small staffs is more limited than that of the large ones. In sum, it looks as if the large staffs and the small staffs might have had somewhat different functions and/or connotations, even if the two groups are indisputably closely related.

The contexts of the staff finds are also noticeably varied. Approximately one-third of the staffs come from burials, whereas the rest have been discovered in settlement sites. Staffs found in burials come from solitary graves (Tok River) as well as from cemeteries (YOO, Zvejnieki, Oleneostrovskiy), where the staffs have been encountered in single, double and collective burials (see Zhulnikov and Kashina 2010, 73). With one possible exception, the large staffs have been discovered adjacent to adult male skeletons.² Some of the small staffs have also been found in male burials, but in two or three other cases (Zvejnieki, Oleneostrovskiy), these have been unearthed from graves belonging to older female individuals.³ It thus appears that elk-head staffs – at least the small ones – were not exclusively connected to masculinity, as suggested earlier (cf. Zhulnikov and Kashina 2010, 73). Similarly, the elk-head staffs themselves do not merely depict female elks, even if the vast majority are shown without antlers. Four of the small staffs from Oleneostrovskiy have antlers and the fragmented staff from Annin Ostrov has stubs that indicate shed antlers (Zhulnikov and Kashina 2010, 72–3). That said, however, it is probably not a coincidence that most of the staffs have been found in male burials and that they predominantly represent hornless animals. The intentionality of these regular patterns is further supported by the observation that in the rock art the elk-head staffs are depicted without antlers and often in connection to alleged male individuals.

The fact that numerous elk-head staffs have been encountered in settlement layers indicates that these items were not solely related to death or the afterlife. Moreover, as Zhulnikov and Kashina (2010, 73) have pointed out, the majority of the staffs found at settlements are fragmented. As this latter aspect holds true for the two new elk-head staffs presented below as well, we shall shortly return to the question of fragmentation more closely. Next, however, we briefly discuss the elk-head staffs as portrayed in northern rock art.

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- 2 Recently, two elk-head sculptures made of antler were unearthed in a burial ground on Ekaterinovskiy Mys in the Bezenchuksky district, Samara region (Middle Volga region), dated to the Early Metal Period. These pieces stem from burials 17 and 46 and possibly represent elk-head staffs lacking handles. Burial 17 is apparently a single grave of a mature man, whereas milk teeth discovered from grave 46 could indicate a child burial. The bone material from the burial ground is, however, still under study and it is therefore not yet possible to relate the two elk-head items to buried individuals with certainty (Arkadiy Korolev, 2018, personal communication).
- 3 In the Kola Oleneostrovskiy burial ground, elk- or reindeer-head staffs have been found apparently from two female burials, 16-2 and 19-4, respectively (Kolpakov 2018, 176). The latter grave, however, had earlier been interpreted as a male burial because of the grave goods that are characteristic of male burials (Anton Murashkin, 2018, personal communication).

ELK-HEAD STAFFS IN FENNOSCANDIAN ROCK ART

Scholars have long drawn parallels between physical elk-head staffs and the depictions of seemingly similar staffs in northern hunter-gatherer rock art (e.g. Hallström 1960, 315; Carpelan 1974, 39; 1977, 7–8). Interestingly, the petroglyphic representations of elk-head staffs are almost solely limited to the large rock art concentrations in Fennoscandia. More or less evident images of elk-head staffs are found at Alta, Nämforsen, Kanozero and Zalavruha, whereas somewhat different types can be discerned in the rock art at Lake Onega. At all of these sites, the elk-head staffs are a sporadic motif, constituting only around 1% of the total amount of figures at the most. In addition to these large locations, there are in our opinion three staff depictions at the Slettnes site in northern Norway, which are reminiscent especially of the staff depictions at Alta (see Hesjedal 1993, 25).⁴ The depictions of elk-head staffs at rock art sites can broadly be dated to the interval of 5500–2000 BC (Gjerde 2010, 246–55, 291–300, 327–33, 351–8).

Petroglyphic representations of elk-head staffs appear to occur in rock art panels without any comprehensible rationality. These staffs have been varyingly depicted in isolation, in the hands of humans, and occasionally inside boats. Sometimes the staffs are held by confronting humans, as if they were battling each other, while in other scenes, they seem to be related to hunting events. Equally, there is great variation in how the anthropomorphic figures carry the staffs, with either one or two hands, vertically or horizontally, etc. These differences are discernible at the individual sites, but they also especially seem to reflect locally distinct characteristics. In Alta, for instance, the most common way to depict the elk-head staff is in the hands of an anthropomorphic figure holding the staff above his head horizontally (see for example Kolpakov 2018, 168). At Nämforsen, in turn, elk-head staffs are mainly depicted so that an anthropomorph holds the staff at his side with one hand and in a vertical position (Hallström 1960, 313).

Although many staffs depicted in the rock art can be interpreted rather precisely as elk-head staffs, there is one important difference between the actual elk-head staffs and those portrayed at the rock art sites: their size. Virtually all the elk-head staffs in rock art have been depicted as items of considerable size in relation to the anthropomorphs carrying them. In several scenes, the staffs are actually larger than the anthropomorphs, and overall, there are very few depictions where the staffs would be as small as the items found in settlements and burials. For this reason, it is possible, as Hallström (1960, 313–14) proposed, that real elk-heads were carried atop of poles. The rock art depictions would thus not be referring to sculpted elk-head staffs, but to actual elk-heads, which would make sense of their large size. A different explanation is that the staffs in the rock art do not refer to real-life artefacts of any kind, but rather represent some type of imaginary objects. On the other hand, the proportions of staffs depicted in the rock art are more or less similar to the real elk-head staffs, so it is also possible that the larger size on most of the petroglyphic representations is merely an artistic amplification. If this last reading is correct, as we believe it is, the same explanation probably holds true for the protuberances depicted on the ends of the muzzles of some of the elk-head staffs in the rock art (cf. Zhulnikov and Kashina 2010, 74).

4 It is also worth mentioning that at the Late Mesolithic rock art site Vingen in Western Norway, more than 500 crooked figures have been carved, constituting as much as 23.9% of all figures depicted at that site (Lødøen and Mandt 2012, 42, 107). The possible staff depictions at Vingen, however, do not occur in relation to human figures but solely in connection to red deer, wherefore it seems likely that these staffs are not actual depictions of elk-head staffs.

PREVIOUSLY UNIDENTIFIED ELK-HEAD STAFFS

Having presented an overview of the elk-head staffs as both tangible items and petroglyphic representations, we now wish to present two previously unidentified elk-head staffs. Both items are antler fragments that were found several decades ago, but as of yet have not been understood as actual elk-head staff fragments. The pieces, originating from settlement layers at the sites of Zvidze (Latvia) and Veretye (Russia), are briefly described below with a reference to their appearance, find context and estimated age. After this introduction of the artefacts, we will look more closely at the subject of fragmentation and study how the two newly discovered fragments relate to other known elk-head staffs.

Zvidze, Madona, Vidzeme (56°51'00"N 26°54'00"E)

The first of the two assumed elk-head staffs was discovered during archaeological excavations in 1974 at the settlement site of Zvidze, located north of Lake Lubāns in Eastern Latvia. The zoomorphic piece is made of antler and measures approximately 11 cm in length (Fig. 2). The badly fragmented item was initially interpreted as a portrayal of an otter's (*Lutra lutra*) head (Loze 1988, 71–2). However, the item has several traits that suggest that it is actually a broken elk-head staff. In our opinion, the remaining part of the Zvidze staff represents the neck of an elk, including the back part of the head. The left side of the item is so fragmented, however, that no details of the muzzle can be distinguished. However, on the right side of the item, a protuberant eye and the outline of a prominent chin can be discerned. These traits are both very similar to those on the famous elk-head staff from burial 153 at YOO (Fig. 3).

In the uppermost part of the Zvidze item, two small protuberances signifying the broken ears can be detected. In all likelihood, the ears were originally somewhat similar in shape to those on the item from YOO. Moreover, the back part of the Zvidze staff is hollow, just like the elk-head staff from YOO. In fact, this characteristic is shared by several elk-head staffs and is apparently caused by a naturally softer zone in this specific area of the antler. However, it is still conceivable



Figure 2

Elk-head staff from Zvidze. NML VI 188: 1377. Latvian National History Museum. (Photo: Ville Mantere. Reconstruction: Ekaterina Kashina). [Colour figure can be viewed at wileyonlinelibrary.com]



Figure 3

Elk-head staff from burial 153 at Yuzhniy Oleniy Ostrov. MAE collection number 5716-691. Peter the Great Museum of Anthropology and Ethnography (Kunstkamera), Russian Academy of Sciences. (Photo: Ville Mantere). [Colour figure can be viewed at wileyonlinelibrary.com]

that the hollow part served some unknown purpose for the staff-bearers. The YOO staff has a carved ridge, and it is possible that the corresponding hollow part on other staffs may have been filled with hair to imitate the ridge of such on the live animal and thus make the staff look more realistic.

The neck of the Zvidze staff is ornamented with a superficial row of small dots, discernible on both sides of the item. In addition, another barely visible row of dots can be distinguished on the lowermost part of the broken jaw. Though the abovementioned elk-head staff from burial 153 at YOO lacks this type of ornamentation, the other large elk-head staff found in burial 56 at the same site shows a strikingly similar row of four dots depicted on top of the jaw (Fig. 4). Unfortunately, this staff is so badly fragmented that it is not possible to say whether the ornamentations on the



Figure 4

Elk-head staff from burial 56 at Yuzhniy Oleniy Ostrov. MAE collection number 5716-180. Peter the Great Museum of Anthropology and Ethnography (Kunstkamera), Russian Academy of Sciences. (Photo: Ville Mantere). [Colour figure can be viewed at wileyonlinelibrary.com]



Figure 5

Handle of an elk-head staff from Veretye. A138/231. State Historical Museum. (Photo: Ilya Seden'kov). [Colour figure can be viewed at wileyonlinelibrary.com]

jaw are also depicted on the opposite side, although this scenario does seem likely. The short neck of the Zvidze elk has two drilled perforations, the upper being shaped as a circular hole and the lower made into a hook. We find it probable that these perforations were made after the staff handle was broken, plausibly to re-fasten the elk-head to a separate handle of some sort. The fact that the other hole was formed as a hook and has signs of hard polishing could even suggest that the handle was broken twice. In our view, it is possible that both holes were initially similar, but the lower hole was reshaped into a hook after a secondary fragmentation.

The Zvidze settlement has yielded dates that range from the Middle Mesolithic to the Middle Neolithic. The elk-head staff was unearthed from the ninth layer in the sequence Zvidze C, which has not been radiocarbon dated. Nevertheless, bone and antler tools, as well as ceramics found in the adjacent layers, suggest an Early Neolithic age for the item (Loze 1988, 20, 48, 71). On the other hand, the abovementioned stylistic similarities to the staffs from YOO could indicate a more or less concurrent age for the Zvidze staff. Radiocarbon dates obtained from burials 55–57 and 152–153 at YOO, where the two staffs were found, are positioned approximately in the interval of 6570–5730 cal BC⁵ (Oshibkina 1989, 403; Mannermaa *et al.* 2008, 18). It then follows that a Late Mesolithic date for the Zvidze item cannot be ruled out.

Veretye, Kargopolsky District, Arkhangelsk Region (61°16'12"N 38°55'58"E)

The second item, which we interpret as a fragmented elk-head staff, measures 42 cm in length and has probably been made of elk antler (Fig. 5).⁶ The end of the curved and partially polished handle has an oval hole measuring 1.5 cm in length. The fragment was discovered in 1930 during excavations led by Maria Foss at the Veretye site, which is located about 130 km east of Lake Onega. However, only recently was attention drawn to the similarity between this piece and the handle of the well-known elk-head staff from Šventoji 3B (Fig. 6). The Šventoji 3B staff has not been radiocarbon dated directly, but another large abstract elk-head staff found from the same layer recently yielded the date 3640–3384 cal BC⁷, and there is every reason to believe that the more

5 7570±60 BP (Hela-1374) (osprey bone from grave 56): 6568–6257 cal BC at 95.4% probability; 7140±140 BP (GIN-4452) (human bone from burial 152–153): 6347–5730 cal BC at 95.4% probability. Dates calibrated using OxCal v. 4.3.2, based on IntCal13 atmospheric curve (Reimer *et al.* 2013).

6 In the initial publication by Foss (1941, 37), it was stated that the Veretye handle was made of deer antler. However, we are skeptical about this designation based on the item's dimensions, and instead we find it more likely that this item is actually made of elk antler.

7 4766±31 BP (KIA-51366) (direct sample from antler staff) at 95.4 % probability. Date calibrated using OxCal v. 4.3.2., based on IntCal13 atmospheric curve (Reimer *et al.* 2013).



Figure 6

Elk-head staff from Šventoji 3B. LNM EM 2132:396. Lithuanian National Museum. (Photo: Ville Mantere). [Colour figure can be viewed at wileyonlinelibrary.com]

detailed staff is also of the same age (Iršėnas *et al.* 2018, 136). The items from Šventoji and Veretye are not only shaped but also pierced in a similar manner. In all probability, the items were sculpted from corresponding antler parts. Moreover, the two items have a comparable ornamentation. Whereas the muzzle and the ear of the Šventoji 3B staff have a net-shaped decoration, the Veretye handle is comprehensively ornamented with a rather similar net pattern that consists of thin, crossing carved lines.

Initially, the Veretye item was interpreted by Foss (1941, 37–8) as an arrow-shaft straightener in accordance with some Upper Palaeolithic finds, although this interpretation was later questioned (see Oshibkina 2012, 332). Considering their size and bent shape, the items from Šventoji 3B and Veretye remain largely analogous, and in our view, it seems likely that the piece from Veretye was also the handle of an elk-head staff, despite the fact that the alleged head part



Figure 7

Fragmented elk-head staff from Annin Ostrov. (Photo: Ekaterina Kashina). [Colour figure can be viewed at wileyonlinelibrary.com]

is entirely missing. It should also be noted that the handle of the Šventoji 3B staff seems to have been broken approximately in the middle, although the item is otherwise remarkably well preserved.

The age of the Veretye handle is uncertain. In Oshibkina's view (2012, 332), the decoration style is akin to the finds attributed to the Veretye culture (named after the neighbouring site of Veretye I, excavated by Oshibkina), wherefore she dates the antler fragment to the latter half of the Boreal period. However, although the Veretye item was unearthed from a lower peat layer that contained almost no ceramics, some Boreal items, such as microblades and their bone frames (arrowheads), are described as being found in the upper layer, indicating that some mixing of materials between the upper and lower finds layers did occur (Foss 1941, 49). Overall, the find material at Veretye consists of finds ranging from the Mesolithic to the Iron Age, and the precise age of the staff handle cannot be determined. In our opinion, however, it most likely dates to the Late Mesolithic or Neolithic.

FRAGMENTATION OF ELK-HEAD STAFFS

We have discussed elk-head staffs at a general level and have presented two previously unidentified items, which we believe should be classified as elk-head staffs. Looking at these artefacts as a whole, one cannot fail to notice that the vast majority are more or less fragmentary. In our opinion, this extent of fragmentation suggests that there may be other than merely accidental or post-depositional causes for the broken elk-head staffs. The fragmentation of elk-head staffs is a recurring feature that has not been given much attention, so we find it worthwhile to address this aspect more thoroughly.

The elk-head staffs have been fragmented in various ways. Some items, such as the staff fragments from Villa, Malmuta, Kretuonas 1D and Kalmatskiy Brod, merely represent the remaining parts of animal-heads, and their handles are entirely missing. Of the elk-head staff fragments in this group, the find from Annin Ostrov, located west of the Shigir peat bog, is worth a separate mention. This find stands out from the others not only because the elk-head has stubs indicating shed antlers, but also because the item consists of two more or less analogous fragments that were found in adjacent excavation sectors. These two pieces are almost identical in size (14.5 cm and 14.7 cm in length, respectively) and represent the opposite sides of the muzzle, both portraying the eye, the ear and the antler knob of an elk (Fig. 7). As the two parts are so similar, we find it conceivable that this might not be a coincidence, but rather the result of a planned breaking of this item.

Other elk-head staffs, such as the items from Sakhtysh I, Modlona and Riigiküla III, also represent broken staffs, on which at least a part of the handle is present, but the muzzle part is fragmented. The staff from Zvidze also belongs in this category. Of special interest in this group of fragmented staffs is the item from Riigiküla III, as its handle has been deliberately sawn off (Kashina and Zhulnikov 2011, 20, fig. 2). Together with the find from Annin Ostrov, this seems to prove that at least some of the elk-head staffs were intentionally broken.

The staff fragment from Veretye does not fit into the two abovementioned categories as it consists only of a broken handle part. It seems likely, however, that there are more items in archaeological collections that have not been recognized as broken elk-head staff handles. Indeed, one possible, yet uncertain, item is known from the Mesolithic layers of the Osa settlement, located north-east of Lake Lubāns in Eastern Latvia. This piece (NML 967), a 17 cm-long antler fragment with net-like ornamentation, is bent in the same way as the staff handles from Šventoji 3B and

Veretye, and could therefore be analogous to these items. However, as the Osa piece is broken at both ends, its interpretation still remains problematic, so we have decided not to include it in the earlier presentation alongside the items from Zvidze and Veretye.

In several cases, staffs have been found in settlement layers, seemingly discarded as waste. The staffs from Sakhtysh I and Shigir, for instance, have traces of rodent bites, indicating that they were indeed abandoned. This choice seems highly peculiar since the items, especially the latter piece, belong to the most skilfully shaped pieces of portable art in prehistoric Eurasia. It is bewildering that the very same kinds of elk-head staffs that were abandoned at settlements were elsewhere placed as seemingly valued grave goods and are also depicted in the rock art, thereby indicating their symbolic value. In addition, the staffs have without a doubt had a more concrete function. The holes in the lower ends of the Šventoji 3B and Veretye staff handles suggest that both staffs were carried about by their owners. The handles of the YOO staffs, in turn, have traces that signify that these items were extensively held in human hands (Gurina 1956, 215). In other words, it is evident that we are dealing with artefacts that were more than just adornments or grave goods intended only for the afterlife. With this focus in mind, we now turn to discuss the underlying reasons for the fragmentation of the majority of the elk-head staffs.

FRAGMENTATION – ACCIDENTAL OR INTENTIONAL?

As discussed above, fragmentation can almost be considered a characteristic feature of elk-head staffs, and the staffs have clearly been broken in different ways. How then, should the recurring fragmentation of elk-head staffs be understood? In his influential study, Chapman (2000, 23–7) offers five different, archaeologically documented explanations for fragmentation: accidental fragmentation, burying of broken items, ritual breaking or ‘killing’ of artefacts, dispersal of intentionally broken fragments for ritualistic fertility purposes, or intentional breaking of artefacts for use in social exchanges or so-called enchainment processes. In short, Chapman’s (2000) argument for enchainment is that deliberately broken fragments can be recognisable and significant as such, thereby involving various meanings that associated people with the objects. Having been applied to various contexts, the concept of enchainment has also been criticized, and it has, for instance, been pointed out that enchainment needs not necessarily be linked directly to fragmentation (Brittain and Harris 2010).

In terms of the closed contexts such as graves, Chapman and Gaydarska (2006, 3, 5) suggest that the missing parts of a broken item can indicate that the fragmentation was intentional, and that only the processes related to enchainment can explain the absence of the fragments. However, when it comes to more open contexts, the situation is not as straightforward. Indeed, for the elk-head staffs, there seems to be a fundamental difference between the items placed in graves and those abandoned at settlements. Whereas almost all of the staffs found in settlement layers (open contexts) are broken, the same scenario does not (as of yet) apply to the staffs unearthed from burials (closed contexts). Rather, it seems to be the case that the staffs found in graves were intact when they were placed as grave goods.

It accordingly follows that none of the five causes listed by Chapman can be regarded as valid for the entire artefact category of elk-head staffs. The fragments from Annin Ostrov and especially Riigiküla III show that not all of the broken elk-head staffs were fragmented accidentally. The many seemingly abandoned finds from settlement layers in turn indicate that not all the staffs were buried because of their fragmentation. Equally, the intact staffs found in burials seem to

contradict the ritual ‘killing’ of artefacts, and the explanations related to the dispersal of fragments or enchainment processes appear invalid, as these staff fragments are not always missing or separated from each other (e.g. Šventoji 3B).

Although it looks unlikely that the fragmentation of elk-head staffs can be elucidated by a single explanation, we still find it likely that many of the broken elk-head staffs were fragmented deliberately. Drawing from an experimental fragmentation study conducted using ceramic replica figurines, Chapman and Gaydarska (2006, 8) stated that it is possible ‘that accidental breakage of objects in the past was not as easy or as normal as is widely suspected’. While recognizing the many uncertainties behind this kind of reasoning, we still find the statement noteworthy. With regard to the elk-head staffs, it can be pointed out that antler as a raw material is not particularly fragile, and as the finds from YOO show, staffs could be extensively held in human hands without being fragmented (Gurina 1956, 215). This is not to say that all fragmented elk-head staffs would have been deliberately broken necessarily; however, in our opinion, the total number of broken elk-head staffs found at the settlements is too large to have been caused purely by accident.

The Zvidze staff fragment adds an interesting dimension to the discussion, as its handle bears traces, as mentioned above, of repair. This detail can quite likely be understood to show that the elk-head staff was considered to be of importance despite being broken, and precious enough to be repaired at least once, perhaps even twice. As for what might have caused the initial fragmentation of this item, there are no clear-cut answers at this time. One possible explanation is that the staff was used as in some of the rock art scenes, i.e. as a striking and bludgeoning weapon. If one were to accept such an explanation, however, the question that still remains is what exactly was being hammered by the Zvidze staff and its broken counterparts?

A composition in the rock art panel Bergbukten 4B in Alta (Fig. 8) has been interpreted by both Helskog (1988, 45, 80) and Gjerde (2015, 82–3) as a scene that represents the killing of an elk trapped in a pitfall. In our opinion, however, this interpretation seems highly unlikely. Even if a trapped elk could somehow have been reached by a staff, clubbing it to death would have required enormous impact energy, which could not have been produced by an elk-head staff made of organic material such as antler. We think the scene at Bergbukten 4B is not a killing scene. Instead, the



Figure 8

An anthropomorphic figure touching an elk with an elk-head staff at Bergbukten 4B, Alta, Norway. (Photo: Ville Mantere).
[Colour figure can be viewed at wileyonlinelibrary.com]

composition might represent some symbolic transmission of the elk's 'soul' or 'essence' to the staff (or vice versa), thereby making the staff more powerful or akin to a living elk, and subsequently more effective in ritual actions. Such an understanding could also explain the repairing of the Zvidze staff; the item was possibly 'loaded with power' to such an extent that it was considered worthy enough to repair instead of replacing it with a new and intact staff that would not have acquired the same level of 'power'. In the following discussion, we consider how this perspective relates to the earlier interpretations regarding the elk-head staffs.

MEANING AND FUNCTION OF ELK-HEAD STAFFS

Thus far, we have discussed elk-head staffs on a general level, we have presented two previously unknown elk-head staff fragments, and we have introduced a new and different viewpoint pertaining to the study of these artefacts, namely, their recurring fragmentation. Finally, we consider what this outlook can tell us about the function and meaning of elk-head staffs and how that perception relates to the previous explanations of these artefacts.

All the earlier interpretations of elk-head staffs have more or less focused on their role as symbolically significant items used in cult ceremonies or ritual performances. In Gurina's view (1956, 242), later adopted by Stolyar (1983, 157), these staffs were owned by a small group of men who held a special position in their community and were therefore permitted to perform 'magic rites' using the staffs. Gurina interpreted the elk as a patron of male hunters. Studzitskaya (1997, 103), in turn, also argued that the staffs can be regarded as a sign of social differentiation. In her opinion, elk-head staffs should be understood as totemic attributes of tribal power. The staffs in Studzitsakya's view were also owned by men with a high social status, who used them to perform religious rituals.

Zhulnikov's (2006, 177) interpretation, on the other hand, is more multidimensional. According to his initial understanding, the staffs were ultimately connected to 'productive magic', but were also symbolically associated with cosmogonic beliefs related to a dualistic Universe. Zhulnikov saw the staffs not as symbols of power, but as equivalent to shaman paraphernalia as mentioned in recent documentation. He also related the elk-head staffs to socially high-ranking men who were sacred authorities in their communities. In Zhulnikov's view (2006, 177), the rituals performed by the staffs could, for instance, have been associated with the reproduction of humans and animals, well-being or hunting luck. Finally, in their two latest articles, Kashina and Zhulnikov (Zhulnikov and Kashina 2010, 76–7; Kashina and Zhulnikov 2011, 27–8) maintain the previous explanations, namely, that the staffs were used for ritualistic purposes connected to reproduction and were used only by male individuals. However, in contrast to earlier interpretations, these authors suggest that every adult male in a community could have possessed a staff and that the staffs were related to a calendar symbolism that centred on the elk's shedding of its antlers, which takes place annually in the winter. In that way, there was an on-going semantic tie between mature men and male elks. Moreover, typically the male elk grows a new tine on its antlers each year, which was without doubt an appearance of importance for prehistoric hunters. Not only did it signify an animal's age, but probably it also made the male elks to be perceived as walking calendars that embodied the passing of time.

As reflected in the brief summary, scholars do seem to agree that elk-head staffs were connected to maturity, especially in the male gender, and that they were used for some kind of ritual purpose. Regardless of whether or not the staffs were possessed by all male individuals, there seems

to be an agreement that the staff-bearers had achieved a special role in their community. In our opinion, these understandings do seem well founded. However, it should not be forgotten that there are only a few elk-head staffs that can be associated with certain individuals. In terms of the large staffs, only five items have been found in burials (two from YOO, two from Ekaterinovskiy Mys and one from Tok River). Even if these staffs were apparently found in male burials and the elk-head staffs seem often to be connected to male figures in the rock art depictions, a certain degree of caution must be maintained when making any final assumptions about the staff-bearers.

As stated earlier, the small elk- or reindeer-head staffs have been found in female burials in two or three cases, thereby producing an exception to the alleged connection between masculinity and the elk-head staffs. There are essentially only two ways to explain this inconsistency. Either the staffs were not necessarily linked to the male gender, or this rule only applied to the large elk-head staffs, and the small staffs served a different function and/or meaning. While both explanations do seem feasible, we are inclined to take the first explanation as the more probable. In our view, the evidence seems to suggest that elk-head staffs were connected to certain activities or abilities of their owners that were more common in, but not restricted to, the male gender. The most apparent mutual factors here are the mature age of the individuals, as the male burials and the two female graves with elk-head staffs all belonged to elderly persons (Gurina 1956; Murashkin and Shumkin 2007; Zagorska 2006). It could thus be proposed that the life experience of old individuals was probably honoured, and one's mature age might have entitled a person to a special position in the community.

It would be tempting to propose shamanism as an explanation, as it is known that both men and women acted as shamans in later times for instance in southern Siberia (see e.g. Dyakonova 2001, 63–4). That said, however, the large number of known elk-head staffs, especially from settlement layers, does not support the idea that we are dealing with shaman paraphernalia, as some have suggested (cf. Gurina 1956, 242; Stolyar 1983, 157; Zhulnikov 2006, 177). Neither do the noticeably varied rock art compositions involving elk-head staffs point towards such an interpretation. Rather than shamans, we find it more probable that the mature staff-owners were respected or highly ranking individuals in their communities who could nevertheless perform special rites using the staffs (see also Zhulnikov and Kashina 2010, 73).

In this context, it also should be remembered that the staffs represent elks, which were not only symbolically significant animals but also the most important animals of prey in the northern boreal forest zone. Hunting large animals is an example of a practice that has been strongly associated with the male gender by modern scholars; furthermore, 'the ethnographic evidence for women as hunters has had a negligible impact upon the archaeologists' interpretation of artefacts, features, and other residues recovered at prehistoric sites' (Brumbach and Jarvenpa 1997, 17–18). Without addressing this important aspect more thoroughly here, we do recognize the possibility that elk-hunting during prehistory might not have been solely a male endeavour. Perhaps the few small elk-head staffs found in female burials belonged to skilful women elk-hunters, who possibly were allowed to conduct rituals that centred on the elk.

The discrepancy between the buried intact staffs and their broken equivalents found in settlement layers still calls for an explanation. For some reason or another, the discarded and broken staffs do not seem to have been precious enough to be grave goods, nor worthless enough to be discarded without being broken. Perhaps the intentional breaking was thus, after all, a kind of 'ritual killing' of the staffs, even though the fragments were not left close to each other in most cases, as is characteristic of such practices (see Chapman 2000, 25 and cited literature). In our view, one possible interpretation is that the staffs were so closely related to their owners and their achievements that other members of the community were not allowed to use the staffs of others.

If, for example, an individual died before reaching a certain status within the community, that person's elk-head staff was not placed among his or her grave goods, even if that staff would have been 'loaded with power'. This item would neither be of any use for other community members, whose actions were not dependent on the other person's possessions. In such cases, we suggest that the elk-head staff was destroyed and discarded. This act was presumably also a way of releasing the owner's – or the elk's – symbolic 'power' from the staff. The elk-head staffs were, in other words, not inheritable items, but closely associated with their owners and their undertakings, a concept that is also clearly reflected in the different find contexts of these artefacts.

CONCLUSION

To summarize, we have presented two previously unknown elk-head staffs and suggested a new thesis for understanding the artefact category, namely, a deliberate fragmentation of these items. In doing so, we have also offered an explanation for the elk-head staffs that in many ways still corroborates the earlier interpretations. Elk-head staffs were private items that were strongly linked to the lives of their owners. They were used for rituals that most likely centred on the elk, and we also find it presumable that the staff-owners were, or had been, skilful elk hunters. In all likelihood, the elk was the single most important species of worship in the Eurasian boreal forest zone, starting at the end of the Upper Palaeolithic age. It was an animal that played an extraordinary role in the populations in this region for several millennia, both symbolically and economically. It is feasible that the vast geographical distribution of elk-head staffs involves locally distinct beliefs regarding their function and meaning, but some universal beliefs connected to the elk image obviously encompassed Northern Eurasia from the beginning of the Holocene. It is within this framework that elk-head staffs should be considered in future studies.

In our opinion, the elk-head staffs were fundamentally signs of power and prestige on two overlapping levels. Firstly, their role in rock art compositions, as well as the fact that some of the items show signs of repair, has led us to regard them as items that could be 'loaded with power'. This power undoubtedly was closely connected to the animal that is represented on these artefacts, that is, the elk. Secondly, as we have shown, the recurring fragmentation of the staffs found in settlement layers on the one hand, and their occurrence as valuable grave goods, on the other, illustrates the power and special status of their mature owners. Most probably, these powers – that of the elk and that of the staff-owner – were somehow conceived as interrelated in the past.

To be sure, there are still many questions regarding the enigmatic artefact category of elk-head staffs that need to be answered. More comparative studies are especially needed to fully understand the relationship between elk-head staffs and other prehistoric manifestations of portable zoomorphic art in Northern Eurasia. Nonetheless, we believe that the key to understanding the staffs and a good starting point for any upcoming studies related to them is the realization that they were fundamentally related to the elk's primary position as an economically and symbolically significant species for the Stone Age inhabitants of the Eurasian boreal forest zone.

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