

■ **PUTTING STRAY FINDS IN CONTEXT**  
■ **– WHAT CAN WE READ FROM THE**  
■ **DISTRIBUTION OF STONE AXES**

■ **Kristiina Johanson** ■

The article presents the results of a study of numerous stone shaft-hole axes collected as stray finds in southern Estonia. The spread of the axes is observed (1) on the geographical landscape (in connection with natural conditions: lakes-rivers and highlands-lowlands) and (2) on the cultural landscape (in connection with already known settlement sites). The distribution of the axes shows the gradual shift of settlements from lowlands to higher areas and from the shores of larger waterbodies to the neighbourhood of marginal streams and the ramification areas of rivers, thus pointing to the supposed repositioning of settlement that in southern Estonia probably took place mostly during the Bronze Age and partly already in the Late Neolithic. The article also reflects on the possible functions of the stone shaft-hole axes, regarding the axes as practical tools, weapons and ritual (prestige) items. The different find contexts of the axes – graves, hoards, settlement sites – are also observed.

*Key words:* Late Neolithic, Bronze Age, distribution, function and context of stone shaft-hole axes.

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### **Introduction**

Stray finds make up a significant proportion of the artefacts of all prehistoric periods. Sometimes, however, stray finds appear to be more or less the only category of finds that we know from a certain period. In Estonia this is the predominant situation in the investigation of the Early Bronze Age and the time directly preceding it – the period of the transition from the Stone Age to the Bronze Age. Therefore, in order to learn more about settlement history as a whole, one cannot overlook the inevitability of studying and trying to interpret those numerous items that are found without a specific context.

The following article deals with stone shaft-hole axes in Estonia, the manufacture and use of which is mostly dated to the second half of the Neolithic and the first half of the Bronze Age, without excluding later periods, i.e. the Bronze Age

and Iron Age. The history of the axes found in Estonia begins with the various types of boat axes and continues with Late Neolithic and late shaft-hole axes (for a more detailed typology see below). The majority of these have been collected as stray finds, with the exception of some boat axes from the Corded Ware Culture burials (Jaanits et al. 1982, 107), and just a few examples from the Late Neolithic and Bronze Age settlement sites (see Johanson 2003, 42). The first and most judicious thing to do in terms of understanding stray finds and explaining the repositioning of settlement is to try to locate them on maps in order to examine their pattern on the landscape, for example in connection with general or more specific topographical features (e.g. highlands, lowlands, lakes, rivers, wetlands). In addition to studying the axes with regards to geographical features, another direction can be followed, i.e. observing the position of stray finds on the

cultural landscape (in connection with already known settlement sites, both from the current as well as the previous and following periods).

The "physically present context" of the shaft-hole axes unearthed as stray finds would offer answers to the problems of settlement history – when, where and why certain places were inhabited. These questions are best answered if the axes are placed on maps and their overall distribution is viewed. Another aspect of studying stray finds, however, is to look at each of them individually, reflecting on their possible functions and symbolic meaning for the people who owned them, thus trying to (re)construct the situation in which the axes ended up when reaching the soil. As material objects alone are mute and it is context that provides clues to their meaning (Hodder 1986, 4), hence the present article is an attempt to see as much as possible behind the vague or missing contexts of otherwise silent stray finds.

### The present state of research into the Estonian Late Neolithic and the Early Bronze Age

In Estonia we know of a little more than 50 settlement sites from the Late Neolithic Corded Ware Culture. More than half of the settlements have been found during the last decade. Most of them have been discovered quite by chance in the course of excavating other sites, so they are usually mixed with finds from either earlier or later periods. The number of burial sites, on the other hand, has grown by only one or two during the last twenty years, and most of them were found as early as the first half of the 20<sup>th</sup> century. As they have been discovered while digging for gravel, they are often partly destroyed and have hardly ever been correctly and scientifically researched. The Corded Ware Cul-

ture sites cannot easily be located, as they do not offer many finds, and have a weak cultural layer (Jaanits 1966, 63). One reason for not being able to find them definitely lies behind their changed strategy of location on ground, as they are situated differently from the more water-dependant sites of the Mesolithic, as well as from those of the Early and Middle Neolithic. While the people of the previous Combed Ware Culture lived very close to water, now inhabiting the vicinity of a water-body lost its importance, and new sites were orientated more towards inland areas. They did, however, maintain their connection with the fertile soils of the surroundings of river valleys, lakes and the coast. However, in spite of the absence of a permanently-operating system for the location of Corded Ware Culture settlement sites, their number has nevertheless increased during the last decades and as a result the period has earned the adjective "revolutionary" when discussed in conversations or presentations.

The following period – the Early Bronze Age – is extremely poorly represented by settlements and burial sites. People undoubtedly continued living in previously inhabited places, and thus in several sites early textile-impressed pottery has been found together with the corded ware. Only in a few locations has a settlement site lacking Neolithic origin been supposed, but it is definitely noteworthy that no burial sites have been found that dated to the Early Bronze Age. Thus the numerous stray finds make up an overwhelming majority of the material culture that is familiar to us from that period. Moreover, the amount of stray finds gives the author reason to assume that we could easily talk about a revolutionary stage in settlement, also as concerns the beginning of the Bronze Age, as it was only 10–15 years ago that we hardly knew of any settlement sites from the Corded Ware Culture either.

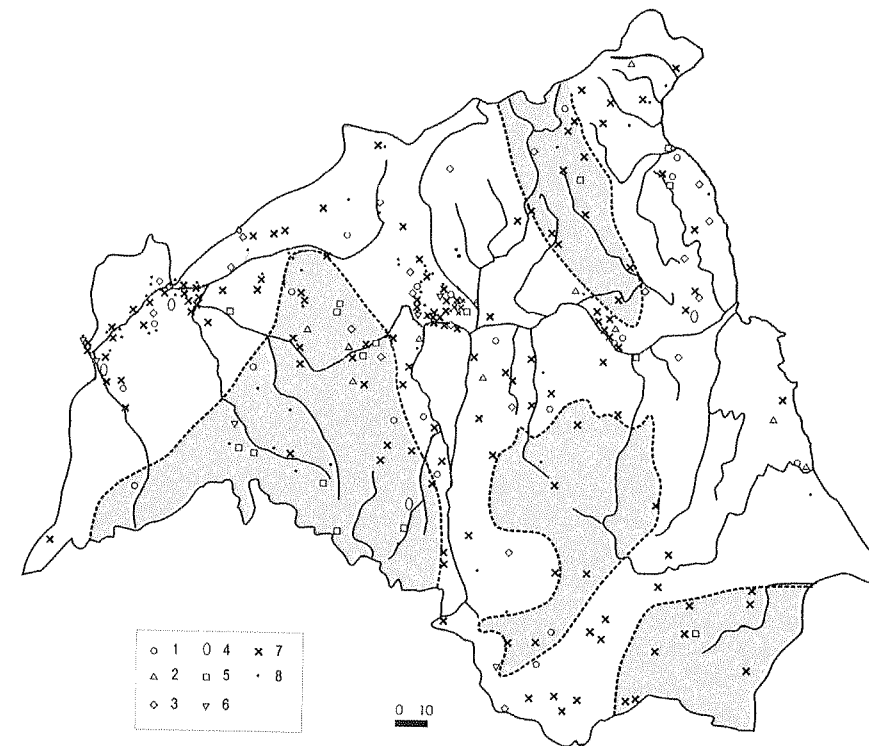


Fig. 1. The spread of shaft-hole axes in southern Estonia (1- *Külase*-type, 2- *Karlova*-type, 3- sharp-butted, 4- sharp-oval, 5- axes with straight back, 6- late boat-axes, 7- late shaft-hole axes, 8- unknown type; grey areas stand for uplands).

### The project

The present article is based on a research project that comprised boat-formed axes, Late Neolithic shaft-hole axes and late stone-axes that have been found as stray finds in the southern part of Estonia. During this study I was able to examine a considerable part of the 310 axes found in southern Estonia. Of these, 278 (90%) could be located on a map (fig. 1). The type could be ascertained in the case of 247 axes (80%): 68 (28%) of these were boat axes, 30 (12%) Late Neolithic and 149 (60%) late shaft-hole axes.

The classification of the axes has been performed by many researchers (Soikkel 1912, 283–305; Tallgren 1922, 62–65; Äyräpää 1952; Jaanits 1973; Jaanits 1982,

111–116), resulting in the distinguishing of three main types of **boat axes**: *Külase* (fig. 2), *Karlova* (fig. 3) and sharp-butted axes (fig. 4). In contrast to the boat axes, the typology of all the other stone-axes that have been found as stray finds is only rarely and insufficiently dealt with (Lõugas 1970, 80–83; Jaanits et al. 1982, 116–118, 132–133). Two main groups were distinguished in the above-mentioned study: under the group of the **Late Neolithic shaft-hole axes**, the axes that do not resemble any boat axe, though they have certain distinct features that differentiate them from late shaft-hole axes and at the same time they do not have a quadrangular cross-section as is customary with late shaft-hole axes. Among the Late Neolithic axes, three subtypes were separated: sharp-

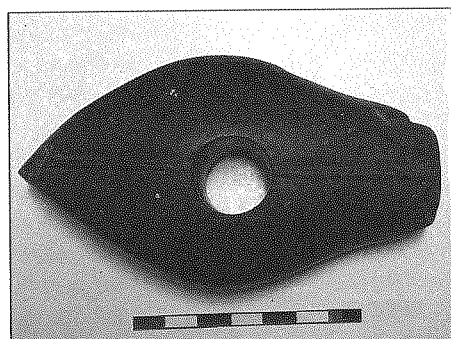


Fig. 2. A *Kulasema*-type axe from Tori, Pärnu County (AI 2629: 6).

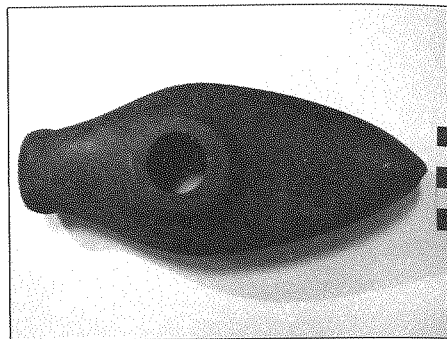


Fig. 3. A *Karlova*-type axe from Hageri, Harju County (AI 2643: 27).

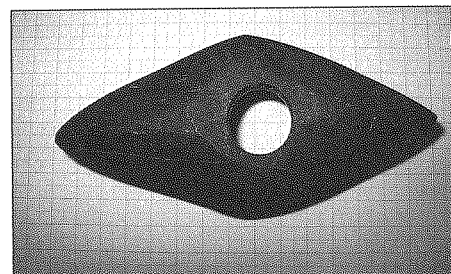


Fig. 4. A sharp-butted axe from Vaibla, Viljandi County (ViM 3771 A 22).

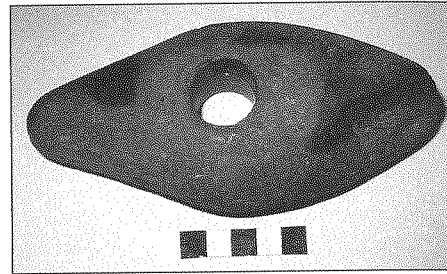


Fig. 5. A sharp-oval axe from Puista, Pärnu County (PäMu 3 A 532).



Fig. 6. An axe with a straight back from Vandjala, Saaremaa (AI 3731).

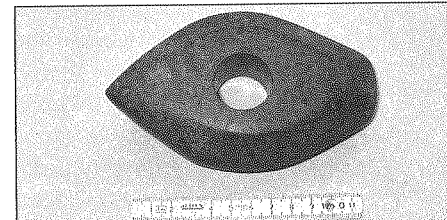


Fig. 7. A late boat axe from Kerna, Läänemaa County (AI 2490: 29).



Fig. 8. A Hageby-type axe from Tsooru, Võru County (AI 2490: 47).



Fig. 9. A pentagonal axe from Vtroja village, northeastern Estonia (presently in the Russian Federation) (AI 3868).



Fig. 10. A rhomb-shaped axe, find-place unknown (AI 2490: 74).

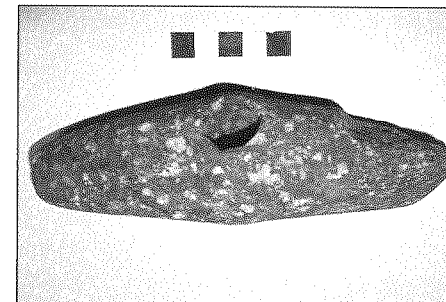


Fig. 11. An axe with bent butt from Hirmuste, Hiiumaa (AI K 91: 49).



Fig. 12. A triangular axe from Lobodka, Võru County (AI 2671: 32).

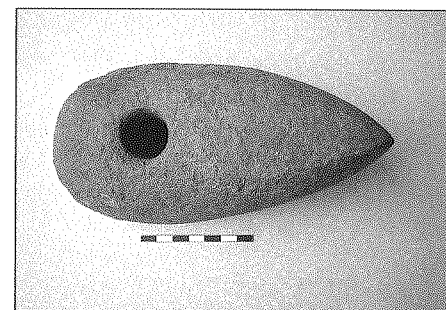


Fig. 13. A raindrop-shaped axe from Kalvi, Viru County (AI 2490: 36).



Fig. 14. An oval axe from Vaibla, Viljandi County (TÜ 500).



Fig. 15. An axe with a secondary hole drilled in it, find-place unknown (AI 2643).

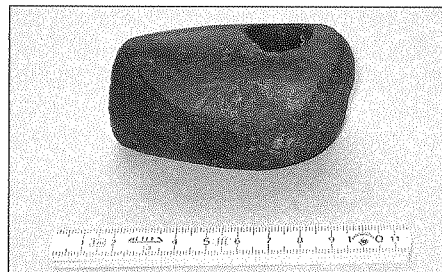


Fig. 16. An axe reworked from a boat-axe, probably a *Kulasema*-type axe, found in Kuusalu, Harjumaa (AI 2671: 36).

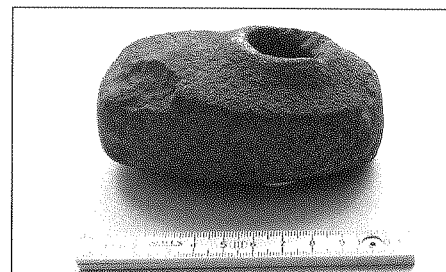


Fig. 17. A *Karlova*-type axe with blunted blade and butt, found in Paistu, Viljandimaa (AI 2671: 33).

oval axes (fig. 5), axes with straight backs (fig. 6) and late boat axes (fig. 7). Under the group of **late shaft-hole axes**, six sub-types were distinguished: pentagonal axes (fig. 9), rhomb-shaped axes (fig. 10), axes with bent butts (fig. 11), triangular axes (fig. 12), raindrop-shaped axes (fig. 13) and oval axes (fig. 14). There are also a few Habegy-type axes (fig. 8) that have been found in the research area, probably import from Sweden.

The dating of the stray finds is difficult or even impossible. Although we will probably never be able to conclusively date occasionally deposited axes, it has been suggested that boat axes were made and mostly used during the Corded Ware Culture period. As concerns the rest of the shaft-hole axes, even their very broad dating seems impossible, although their most intensive use was probably concentrated in the end of the Stone Age and the first half of the Bronze Age. All around the Baltic, however, stone shaft-hole axes are dated to at least the Late Bronze Age or even early Iron Age. It is only possible to reckon with one definite date, obtained from the remains of a wooden shaft in the shaft-hole of a late oval axe found in Vaibla near Lake Võrtsjärv. The date is 1520–1052 (cal) BC (with a probability of 95.4%), giving an average of 1300 BC (Kriiska 1998, 154). A few axes can also be dated by context, for example the five late shaft-hole axes from the fortified settlement of Asva can be connected with the Late Bronze Age (Lõugas 1970, 79), and the two fragments of late shaft-hole axes from Kullamägi probably belong to the last settlement stage of the site, i.e. the beginning of the Bronze Age (Jaanits 1953, 257).

### The spread of shaft-hole axes in connection with relief

First it is important to observe the spread of the stray finds in connection with high-

lands. In the 1960s and 1970s the moving of settlements to higher areas was considered to be quite a late phenomenon – it was dated to somewhere in the middle of the 1<sup>st</sup> millennium AD (see for example Moora 1966). This can hardly be the case in actual fact. It is true, of course, that the vast majority of the axes have been found outside highland areas. Those axes that can be connected with higher altitudes have mostly been collected from the Sakala, Karula and Vooremaa uplands, which have lower, flatter and more “peaceful” areas. The distribution of axes shows that some human activity took place there even during the Late Neolithic, as sharp-butted boat axes and also Late Neolithic axes with straight backs have occasionally been obtained. Mostly different types of late shaft-hole axes and one axe with a straight back from Haanja have been found in the steeper, higher and hillier areas of Otepää and Haanja heights, which refers to the sporadic development of the settlement and its gradual distribution here, starting from the Late Neolithic or at least the beginning of the Early Bronze Age. It is noteworthy that the earliest pollen of *Hordeum* (barley) and *Avena* (oats) from the Haanja highland area is also dated to this period (1700 BC), (Laul & Kihno 1999). At this point we should also pay attention to the fact that a Mesolithic settlement site was recently discovered under an Iron Age stone-grave in Tsiistre in the area of Haanja heights (Konsa 2005). Some Stone Age items (tools made of flint and quartz, flint and quartz debris) have also been found in other places previously regarded as “impossible” for Stone Age habitation: three flint flakes from the Viljandi Castle of the Teutonic Order (Haak 2003, 75) and a place where quartz was worked (habitation site?) on Kirikumägi in Siksali, on a high bank of Lake Hino, which is on the Haanja heights, discovered during the excavations of 2004 (Heiki Valk, pers. comm.). This clearly demonstrates

that there is no possible justification to state that a certain place was uninhabited in the Mesolithic because it was not suitable enough. Thus what is left is the possibility of deducing more or less potential habitation areas.

As the settlements of the farmers of the period were small and possessed a weak cultural layer that had probably been destroyed anyway, a single axe could be an indicator of a possible area of human activity (Lang 1999, 333). On the Haanja and Otepää uplands the alternation of hills and small lakes is the most characteristic feature of the landscape. Thus the best places for potential human inhabitation could be those with small lakes and rivers nearby, probably on the slope of a hill. The soil there is usually quite difficult to cultivate, but the ethno-archaeological parallels demonstrate that there are no absolutely unfit areas or means for cultivation (Orme 1981, 69–70).

### The distribution of shaft-hole axes in connection with water bodies

The importance of fresh water in the vicinity of areas where people stay for longer or shorter periods cannot be overestimated. Although during the Late Neolithic and following periods, when the economy was at least to some extent based on farming and animal husbandry, and “fishing waters” were no longer so crucially important, nevertheless fresh water, whether small streams or marginal springs, remains absolutely necessary every day. The distribution of the stone axes reflects this necessity quite vividly. At this point we should look at two different areas that demonstrate two distinct patterns. First, the shores of Lake Peipsi (the largest lake in Estonia) and the river deltas on the banks of the lake – out of 9 axes collected there, 5 are boat axes, 1 Late Neo-

lithic and only 3 late shaft-hole axes. This number could point to the gradual disappearance of settlement from the shores of large lakes since the Corded Ware Culture. Actually, the spread of stray finds from the surroundings of the river deltas of Lake Võrtsjärv (which is the second largest lake in Estonia) is indicative of the same trend, in which the majority of the axes found are boat-axes.

Next to large water bodies, smaller lakes, rivers, streams and springs are probably just as important. The ramification areas of different rivers seem to be especially significant, showing a picture that is entirely different from that of lakes Peipsi and Võrtsjärv. Out of 22 axes that are definitely connected with the ramification of two rivers there are only 4 boat axes, but more than half of these – 12 – are late shaft-hole axes.

The two situations described above refer to the gradual repositioning of settlements during the Late Neolithic and the Early Bronze Age. It can be supposed that in the first place, the immediate shores of lakes-rivers and river deltas were abandoned, as they could not offer enough resources for the changed settlement strategy (which was probably more or less orientated towards farming, at least more to farming than to fishing). The ramification areas of rivers with continuously favourable conditions were later abandoned after they had been exhausted.

### The distribution of stray finds in connection with settlement and burial sites

As mentioned above, the distribution of stray finds indicates the presence of human activity. The find spot of an axe could be a place where people stayed for longer or shorter periods, using it as dwelling area, burial site or for ritual purposes. The axe might of course have been lost accidental-



ly on a hunting or military campaign. It is important to compare the sites with stray finds from the same period, in order to determine to what extent the single items refer to a certain place that was significant to people. In other words – what should be the concentration of stray finds in an area in order to be indicative that there is an archaeological site in the neighbourhood, and is a single accidentally found item connectable to a given site at all?

The comparison of the find spots of stray finds and known settlement and burial sites reveals that in some areas plenty of stray finds are found in the vicinity of a site, whereas in others there are only a few or none. It appears that the concentration of stray found shaft-hole axes is considerably limited in the neighbourhood of the settlement sites that have been continuously inhabited from the Mesolithic or the Early or Middle Neolithic, whereas axes are clearly more numerous in areas that only became more suitable for living since the Late Neolithic.

The above-mentioned phenomenon is supported by another tendency – namely stray finds are more connected to flowing streams of water and smaller lakes, whereas settlement sites are often situated by bigger lakes. This also results from the fact that the majority of the known settlements have been used continuously from at least the Middle Neolithic, when the shores of bigger water bodies were preferred.

Although one should accept that the distribution of stray finds refers unambiguously to habitation areas, it cannot be stated by the present situation in the research that the settlement and burial sites would be concentrated in the areas rich in stray finds. It could be suggested instead that in Estonia the overwhelming majority of the Late Neolithic and the Early Bronze Age sites remain undiscovered, and those that have been studied more carefully are situated above an earlier site, where favourable conditions for both original farming

and foraging appeared, for example Valma (Jaanits 1959) by Lake Võrtsjärv in central Estonia, Akali and Kullamägi (Jaanits 1953) near Lake Peipsi in eastern Estonia, Kivisaare (Kriiska et al. 2003) north of Lake Võrtsjärv in central Estonia, Narva Joaoru and Riigiküla I, II and IV (Kriiska 2000, 61–63) in north-eastern Estonia, Tamula I and Kääpa (Jaanits 1976) and Villa III (Jaanits 1951) in south-eastern Estonia. A few of the known Corded Ware Culture sites are, on the other hand, located in new regions where the absence of fishing waters indicates the marginal position of foraging and the dominance of agricultural activity, for example Madi (Konsa 2003) in central Estonia. At this point one should also consider the places that had once been abandoned for having become too far from the sea or lake, but were inhabited again during the Late Neolithic, for example Siimusaare in central Estonia, Võhma I in Saaremaa, and the settlement sites at Kõpu in Hiiumaa (Kriiska 2000, 72). The south-eastern part of the Riigiküla lagoon was also re-inhabited at this time (Kriiska 1999, 180), including one of the few culturally pure Corded Ware Culture settlement sites, Riigiküla XIV, in Estonia (Kriiska 2000). The Late Bronze Age and following Iron Age sites demonstrate a settlement pattern suitable for agricultural economy, for example several Late Neolithic Corded Ware Culture settlement sites are located under a stone grave from the Iron Age (Võhma X *tarand*-grave, a stone-cist grave among Rebala Children's Cairns, Lagedi III stone-cist grave, Late Iron Age stone grave of Madi) (Johanson 2003, 73). Thus it can be alleged that the contrast between the location of sites from the Stone Age and Iron Age refers to the above-mentioned repositioning of settlement that in southern Estonia took place mostly during the Bronze Age, and partly already in the Late Neolithic. Thus the generally accepted system for locating the sites from these periods is

apparently problematic, and yet to be discovered or elaborated. However, the system might not let itself to be found at all, as the repositioning of settlements cannot plausibly be explained by a single regularity, but by different co-existing patterns.

### The study of stone axes with an emphasis on their possible use

In order to see as much as possible behind the distribution maps of the axes, one should take time to reflect on the possible functions of the artefacts under discussion. Otherwise all the stray finds that cannot be connected to any specific site or to a singular activity remain only objects that lack a context. At the same time, we know that every one of those axes has reached the earth for some reason, and in some connection with human activity. It is very likely that most of the stray artefacts were deposited consciously (Lekberg 2002, 105–106), so in a strict sense we should not regard them as inferior to *real* artefacts that are found in settlements, burial sites, camp places etc. They have just as much value, all we have to do is to elucidate the situation in which the *living* items were deposited. How can this be done?

In the present study I used the example of Scandinavian research into late stone shaft-hole axes performed by Per Lekberg (Lekberg 2002). It can, of course, be argued whether his statements can be applied to Estonian material, as the situation is quite different. But since in the Baltic countries we do not have a study of this kind, the ideas are definitely worth examining, and the following discussion represents an attempt to do just that.

The interpretation of a stray find is definitely not an easy task, because it mostly involves multifunctional items. The find context can be of some help here (e.g. a burial, a workshop, a ritual deposition),

but considering the different possibilities for using an artefact, it only allows us to make cautious suggestions (Tvauri 2001, 166). It generally goes without saying, for example, that a grave good was initially used in some practical way (and presumably not produced just in order to accompany a dead body). While trying to interpret an artefact, its final context before discovery, which would reveal its relationship to a certain site, is considered to be most important (Tvauri 2001, 167). Unfortunately the stray finds lack a relationship with a specific site, and thus interpreting them in that manner would be a real challenge.

Things have functions, manners of use. In addition to a function, however, every artefact has probably possessed a symbolic value. It is important to note that function and symbolic meaning are not mutually exclusive (Hodder 1986, 126), in other words the practical usefulness of an artefact does not necessarily mean that it did not have a symbolic significance. In most cases the last context of an artefact combines both the practical function of an item and its symbolic meaning, so the three are intertwined and their separation is probably inappropriate, though convenient. An example: a stone axe could be produced to be a tool for cutting trees, a weapon, a cult object, and after having fallen out of practical use, it could have been placed in a grave, thrown into a sacrificial area, buried as a hoard or left among the rubbish. The last context is certainly revealing – for example the difference between hoard and sacrifice is usually seen in whether it was deposited into wet or dry land (Bradley 1990, 5) but this cannot be considered a must. Thus the last context may, but does not have to be, enlightening, and whereas with stray finds the last context is usually quite vague, then the interpreting of functions and symbolic values is difficult and in many respects relies on fantasy.

Stone axes have been interpreted in many different ways. The boat-formed

axes have been considered to be weapons, cult objects, items expressing the cultural identity or the status of the holder (carrier) of the axe in a given group, whereas their use as a practical tool has been doubted (see Kriiska & Tvauri 2002, 83). It seems that with later shaft-hole axes, the function is relatively easier to see. Nevertheless, various different possibilities have been pointed out. Most researchers agree that late shaft-hole stone axes have been used as practical tools, although some more beautiful examples have also been interpreted in analogous ways to the boat-axes: for fighting (for example Vasks 1994, 34), showing the owner's prestige, tribal affiliation, for cultic purposes (Huurre 1998, 322). Another example is provided by Lekberg (Lekberg 2002), who has studied the physical qualities (length, fragmentation, damage) of late shaft-hole axes and the potential manners of use that would correspond to those features. After having analysed thousands of axes from the end of the Neolithic and the beginning of the Bronze Age, Lekberg concluded that the length and quality of the axes are related to the way they appear on the cultural landscape, and this connection is contextually explainable. The researcher sees burial, sacrificial/hoard and settlement as possible contexts (Lekberg 2002, 172). Below I will discuss these more closely and try to connect them with the Estonian material where possible.

*The boat-axe as a weapon* – how effective? Many researchers have considered the beautifully made boat-axes to be arms used by warlike Indo-Europeans in order to conquer lands for agricultural purposes (for example Jaanits et al. 1982, 101). On the other hand, Mats Malmer sees the boat-axes as absolutely unnecessary and ineffective on battle-fields, and argues that it would have been cheaper and more sensible to use bows and arrows (Malmer 1962, 661). Nevertheless, ethno-archaeological parallels demon-

strate that although present-day “natural” cultures do use bows and arrows, in close combat with an enemy, wooden clubs but also well-elaborated swords with obsidian cutting edges are employed (Driver 1970, 313, 326). Moreover, fighting was above all a means of gaining prestige, and was very important in order for a youngster to get his position accepted in society (Driver 1970, 320). Thus fighting could have been a ritual for which the time-demanding polishing of a stone-axe was not a waste of time and resources, but a necessary thing to do.

*The function of a boat-axe as a practical tool* has been cast into doubt by a majority of researchers. There even exists a clear terminological difference used by scientists, for example Ilze Loze has divided shaft-hole stone axes found in the Lubana valley into two categories: boat-axes and working axes (Loze 1979, 68). In the opinion of the author of this article, there is no way of telling that a boat-axe was not used as a practical cutting tool. Moreover, the blades of all the axes found in southern Estonia are damaged, thus revealing that they have been utilized in some way or other. There are boat-axes that have a second hole drilled in them (fig. 15), a common technique with late shaft-hole axes, and many examples of boat-axes which are so short and have apparently been reworked (a second, a third etc. hole) several times, but have nevertheless preserved some of their typical features, for example a round cross-section (fig. 16). Plenty of boat-axes have blades that are extremely blunt, a result that cannot be reached by using the axe as a weapon, and on several occasions the blade and butt have both been blunted (fig. 17). Of course one cannot rule out the possibility that the secondary (?) processing took place long after the actual time when the boat-axes were produced, even though the likelihood of boat-axes being used as practical objects is worth considering.

On the other hand, most researchers have accepted the function of the late shaft-hole axes as practical tools, for example mentioning the fact that no Bronze Age stone-axes can be definitively connected to a hoard or burial as proof for the statement (Bergström 1981, 18), or considering the stone-axes as the most important and necessary means for agricultural activity during the Bronze Age, a period relatively poor in metal (Stenberger 1977, 159; Lang 1999, 328).

As mentioned above, *the presence of an axe in a grave* does not rule out the possibility that it was used as a weapon or a tool, but it remains to be discovered how many of the stray stone axes can be regarded as lost working instruments and how many as intentionally deposited artefacts, including goods in potential burials. In Estonia a certain proportion of the stray boat-axes have been viewed as goods from an unnoticed or an unpreserved burial site (Jaanits et al. 1982, 107), whereas in Finland, where the preservation rate of bones is extremely poor, it is believed that grave-goods form a vast majority of all of the context-free boat-axes (Huurre 1998, 276). This approach is not supported by the fact that context-free axes are also common elsewhere (e.g. in Scandinavia 94% in 1962) (Malmer 1962, 670). As a result of his study of late shaft-hole axes, Lekberg presents a statement that mostly short, but also intact examples with severely damaged surfaces should be counted as burial-goods, many of which have been reworked after breaking and provided with a new hole. Thus the most plausible explanation here appears to be that grave-goods are those axes that have “lived their practical lives” and been buried with their owners (Lekberg 2002, 120). Hence it is very likely that items placed in

graves represent the implements used by the dead when they were still alive. On the other hand, grave-goods (e. g. axes) could also mark the social status of their dead owners inside a certain group. At the same time, long-used artefacts might be prestigious themselves, and were placed in graves for that reason (for example, provided that a person made more than one axe during his/her life, then the most prestigious accompanied him/her). In Estonia only boat-axes are known from definite burials, and most of these axes satisfy the requirements mentioned by Lekberg. This provides a promising belief that on the basis of the physical criteria of the axes and after inspection of their find places, we could be able to locate new burial sites (or at least traces of them).

It is common among the majority of researchers to regard *boat-axes as objects of prestige* (see Taffinder 1998, 89–90). Their beautiful form and polishing seems to be sure proof of their high value and attributing cultic purposes, sacrificing and hoarding to their possible uses is just a short step from there. The affirmation of prestige has usually been seen in the moulding seam on the back of the *Külase*-type axes, as attempts to imitate the first metal axes. Emulating desired items is a common human practice and known already from the Mesolithic period. The custom espouses another tradition – that of making amulets, miniature copies of valuable goods. For example several sites in Denmark, Poland and Sweden have revealed tiny ceramic boat-axes (Apel et al. 1997, 16), and we know of a tiny shaft-hole axe made of amber<sup>1</sup> from the Neolithic settlement site of Juodkrante on Curonia Split (fig. 2), five amber axes have been found at the Hørdum site in Denmark (Seegerberg 1975/77, 178). Prestige has also been as-

<sup>1</sup> I was unfortunately not able to see the catalogue of Juodkrante treasure myself, published by Richard Klebs in 1882 by the name “Stone Age Amber Adornments”; for picture and more information see web-page [http://www.ambergallery.lt/english/muziejus-archeologiniai\\_radiniai-jlobis.htm](http://www.ambergallery.lt/english/muziejus-archeologiniai_radiniai-jlobis.htm)

cribed to specific types. In Latvia, for example, Fatyanovo type axes have been seen as especially valuable, considering that there is no indication of use on their blades (Graudonis 2001, 162).

Although sacrificing and hoarding has been considered to be more connected with boat-axes, the same tradition is also assigned to late shaft-hole axes. Lekberg observed long undamaged examples and preforms as hoard finds and sacrifices, and thus the contrast with grave-goods is apparently enormous (Lekberg 2002, 135). Thus whereas an axe from a burial was valuable because of its *long-term use* (symbolic value), a hoard find or a sacrifice was valuable due to its unused potential (practical value). In Estonia we know of no confirmed hoard or sacrifice of stone axes, but there are long and quite undamaged examples among our stray finds (boat-axes as well as late shaft-hole axes), so once again the observation of the axes' physical features could point to the situation of their deposition.

Axes from settlement sites are mostly found as fragments or preforms, whereas intact examples are entirely absent (Lekberg 2002, 168, 171). Here the Lekberg study is supported by several other researches concerning both boat-axes and late shaft-hole axes (see, for example, Malmer 1962, 266; Loze 1979, 68–70). In Estonia only one Late Neolithic settlement site contains a boat-axe – a fragment from the Valma site near Lake Võrtsjärv in central Estonia, whereas it has been regarded as an axe from a burial on the territory of a settlement (Jaanits 1953, 108). We also have a Late Bronze Age fortified settlement at Asva with five fragments of

late shaft-hole axes (Lõugas 1970, 340). One fragment of a late shaft-hole stone axe has also been found at Lemmetsa I (Kriiska 2000, 16), and there are two fragments from the Kullamägi (Jaanits 1953, 257) settlement sites. Thus a piece or several pieces of axes, preforms or artefacts in the course of (secondary) processing can be definitely viewed as indicators of settlement sites and the places are definitely worth inspecting.

### Summary

The periods of the Late Neolithic and Early Bronze Age in Estonia are poor in settlement and burial sites. The numerous stone shaft-hole axes gathered as stray finds carry large potential as a source of knowledge, and attempts to explain and interpret their possible contexts can offer a valuable contribution to research. In this article an attempt was made to elucidate the settlement history of the two periods. To that end, the find-places of stray finds were observed on the geographical landscape in connection with water-systems and relief. After that, the locations of the artefacts were examined in relation with the known sites from the current, previous and following eras. In addition, the possible functions (axes as weapons, tools and cult objects) and the last contexts (i.e. deposition situation: grave good, settlement find, hoard/sacrifice find) of the axes were debated. The stray finds are a rather untested and enigmatic source material from prehistory, and attempts to contextualize them are definitely worthy of future research.

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## Abbreviations

### Museums

- AI** – Archaeological collections of the Institute of History (Tallinn).  
**AM** – Estonian History Museum (Tallinn).  
**LNMA** – Lithuanian National Museum, Department of Archaeology (Vilnius).  
**Pd** – Museum of Paide.  
**PäMu** – Museum of Pärnu.  
**RM** – Museum of Rakvere.  
**SM** – Museum of Saaremaa.  
**TLM** – City Museum of Tallinn.  
**TÜ** – Archaeological collections of the University of Tartu.  
**ViM** – Museum of Viljandi.

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**LVIŽ** - Latvijas Vēstures Institūta Žurnāls. Rīga.  
**LZAV** - Latvijas Zinātņu Akadēmijas Vēstis. Rīga.  
**MAGW** – Mitteilungen der anthropologischen Gesellschaft in Wien.  
**SMYA** – Suomen Muinaismuistoyhdistyksen Aikakauskirja. Helsinki.  
**TATÜ** – Eesti NSV Teaduste Akadeemia Toimetised, 1952–1955; Ühiskonnateaduste seeria, 1956–1966; Ühiskonnateadused, 1967–1989; Eesti Teaduste Akadeemia Toimetised. Ühiskonnateadused, 1990–1991; Humanitaar- ja sotsiaalteadused, 1992–1996. Tallinn.