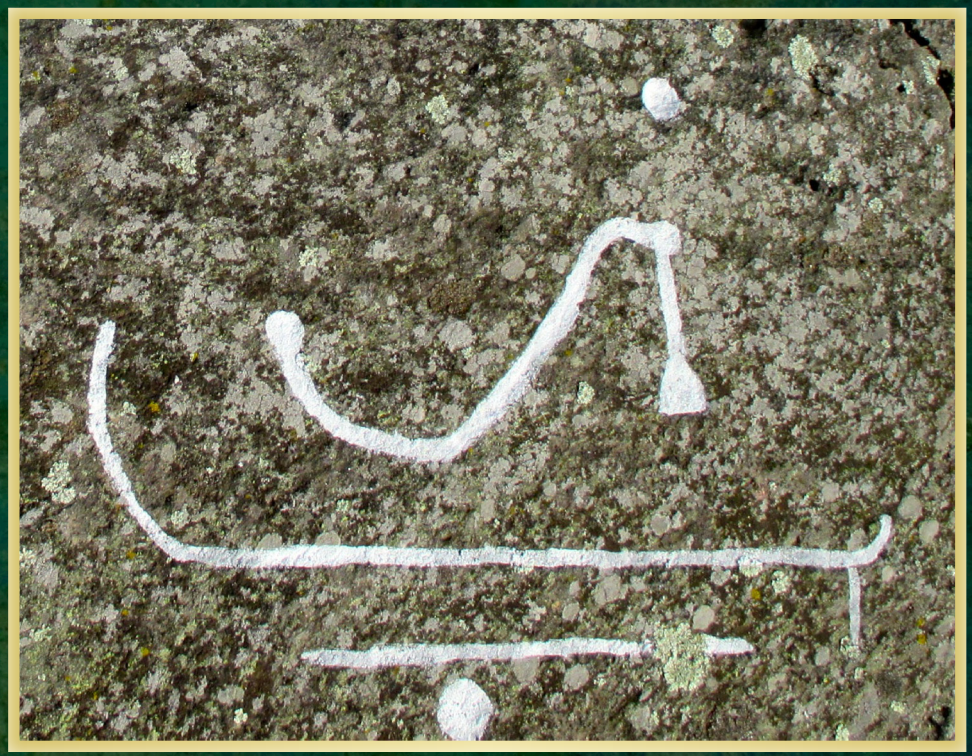
MARTIN RUNDKVIST

In the Landscape and Between Worlds



Bronze Age Deposition Sites Around Lakes Mälaren and Hjälmaren in Sweden

ARCHAEOLOGY AND ENVIRONMENT 29

Bronze age settlements and burials in the Swedish provinces around Lakes Mälaren and Hjälmaren yield few bronze objects and fewer of the era's fine stone battle axes. Instead, these things were found by people working on wetland reclamation and stream dredging for about a century up to the Second World War. Then the finds stopped because of changed agricultural practices.

The objects themselves have received much study. Not so with the sites where they were deposited. This book reports on a wide-ranging landscape-archaeological survey of Bronze Age deposition sites, with the aim to seek general rules in the placement of sites. How did a person choose the appropriate site to deposit a socketed axe in 800 BC?

The author has investigated known sites on foot and from his desk, using a wide range of archive materials, maps and shoreline displacement data that have only recently come on-line. Over 140 sites are identified closely enough to allow characterisation of their Bronze Age landscape contexts. Numerous recurring traits emerge, forming a basic predictive or heuristic model. Bronze Age deposition sites, the author argues, are a site category that could profitably be placed on contract archaeology's agenda during infrastructure projects. Archaeology should seek these sites, not wait for others to report on finding them.

MARTIN RUNDKVIST is an archaeologist who received his doctorate from Stockholm University in 2003. He has published research into all the major periods of Sweden's post-glacial past. Rundkvist teaches prehistory at Umeå University, edits the journal *Fornvännen* and keeps the internationally popular *Aardvarchaeology* blog.

COVER IMAGE: detail of a rock-art panel at Hemsta in Boglösa, Uppland (site Raä 128). An axe with its characteristic s-shaped haft, an incomplete ship and two cupmarks. According to Johan Ling, the panel's ship types and the level above the sea indicate a date in Per. II, about 1400 cal BC. The closest known Early Bronze Age deposition site is Hjältängarna at Grop-Norrby in Vårfrukyrka, about 14 km to the NNW. An axe was deposited there a century or two after the Hemsta carvings were made. Photograph by Sven-Gunnar Broström.

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Parishes with certain or potential Bronze Age depositions.
Bold face denotes parishes with at least three depositions.
Map by Lars Östlin.

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PREFACE

I BEGAN WORK on this book in the autumn of 2009. After 15 years of mainly studying Late Iron Age elite burials and small finds, I wanted to do something new. The themes I decided to explore were the Bronze Age, landscape and wetlands. My choice of study area was dictated by where I live: in order to do landscape archaeology you need to wander about in the landscape, and I did not want to drive too far. I believe the main influences on my thinking have been work by Richard Bradley and David Fontijn, though others will no doubt also be easy to spot.

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Martin Rundkvist
Fisksätra, 9 January 2015

"For some time it has been obvious that metal detectorists have been extraordinarily fortunate in locating previously unrecorded hoards. The same people have found them on a number of different occasions. Discussions with the finders have made it clear that this did not happen by chance. Long before prehistorians had realized that the siting of hoards might follow topographic 'rules', metal detectorists had reached the same conclusion. Their ability to make new finds is the clearest indication of the usefulness of taking a fresh approach to this material." *(Yates & Bradley 2010a:30)*

"... hardly any attention was paid to the find spots of hoards, and so a large portion of the hoards have no topographic context. The recontextualisation of hoards by means of archive studies, evaluation of old maps, site inspection and new image processing tools is an important contribution to the continued study of hoards." *(Hansen 2012:42, transl. MR)*

"Classifying reconstructed find spots into types and investigating their temporal and spatial distribution, as well as juxtaposing them with other aspects of the hoards, have given strong indications that the picture is at least partly determined by a patterned choice of deposition location. Thus it appears that not only the hoard contents but also their deposition sites display regularities." *(Scholz 2012:87, transl. MR)*

1. Introduction

THIS IS A STUDY of sites in their landscapes: places where Bronze Age metalwork and stone implements have been found in non-settlement, non-burial contexts. The study's goals are a) to take inventory of these sites in the area around Lakes Mälaren and Hjälmaren in Sweden, b) to investigate recurring traits in the siting of deposition, and thereby c) to develop a heuristic tool kit that may aid archaeologists in finding undisturbed Bronze Age deposition sites.

Field of Study

Archaeological sites are commonly sorted into three main categories: settlements, burials and deposits (e.g. Malmer 2002). To these, the Bronze Age of southern Scandinavia adds abundant rock art sites and a far rarer class of hilltop sanctuaries. In the study area, all except the deposition sites and the hilltop enclosures are readily identified in the field when well preserved – and vegetation permitting. While the spatial relationship between settlements, burials and rock art has long been rather well understood (Kjellén & Hyenstrand 1977; Damell 1985; Wigren 1987; Johansen 1993), the depositions are harder to tie into the wider landscape context of the society that produced them.

Several authors have published general province-wide overviews of Bronze Age settlement in the study area:

- Uppland (Up) and Västmanland (Vs): Jensen 1986; 1987; 1989; Apel et al. 2007
- Södermanland (Sö): Damell 1987; Wigren 1987
- Närke (Nä): Karlenby 2003

All but one of the main categories of Bronze Age site around Lake Mälaren and the adjoining province of Östergötland have received monographic treatment in recent decades:

- Settlements: Ullén 1997; Borna-Ahlkvist 2002; Artursson et al. 2011; Karlenby 2011
- Burials: Victor 2002; Thedéen 2004
- Rock art: Hauptman Wahlgren 2002; Ling 2012
- Hilltop sanctuaries: Olausson 1995

The deposition sites form the exception. The bronzes themselves received solid study long ago

(Ekholm 1921; Baudou 1960; Bohlin 1968; Oldeberg 1974–76; Willroth 1985; Larsson 1986), and since hardly any new finds have been forthcoming, scholars have not pursued that avenue of research further. Sonja Wigren (1987:53–62) and Susanne Thedéen (2004:68–82) have however published brief overviews for Södermanland province.

The empirical distinction between Bronze Age settlement sites, cemeteries and rock art sites has become somewhat blurred in recent years with the excavations of e.g. Sommaränge skog in Viksta (Forsman & Victor 2007), Ryssgärdet in Tensta (Hjärthner-Holdar 2008) and Nibble in Tillinge (Artursson et al. 2011; Karlenby 2011), all in Uppland. The B.A.W. is strong there: Bronze Age Weirdness (Price 2008). Yet this blurring has not touched much on the site category under study here. The only real examples I have come across are an Early Bronze Age sword pommel found in a small boggy patch at Sommaränge skog, between a cupmark boulder and the foundation of an apparently mundane coeval farmhouse, and possibly the 1902 hoard from Lilla Härnevi in Härnevi (Up: see the gazetteer). As we shall see in the following, deposition concentrates emphatically in landscape locations where it would be difficult or impossible to either live or bury the dead.

A 2001 preliminary study by John Coles of the relationship between bronzes recovered from wetlands and Swedish rock art motifs offers interesting avenues of research that have not yet been explored to any greater extent. The theme of Christina Fredengren's useful 2011 preliminary paper coincides more closely with that of this book, as it covers Late Bronze Age wetland deposition in the Lake Mälaren area. The most important differences in our approaches to the material are her *a priori* concentration on wetlands rather than the landscape at large, and her emphasis on bones – human and animal – whose dating is ambiguous. Fredengren's blanket statement that most Late Bronze Age deposition sites "have connections with rivers or other waterways" (p. 113) appears to be an artefact of the map scale she works on. Everything in the Lake Mälaren area is near water if you map the entire lake basin on a computer screen (as seen for instance in Fredengren's characterisation of the Härnevi hoard's siting, pp. 115–117, which I believe to be mistaken). In any case, although we share considerable material, our goals differ. Her paper aims to study a) "what role the link between depositions and the watery landscape would have had [during] the transition between the Late Bronze Age and the Early Iron Age" but also (like this book) b) "in what type of water the various deposits were placed" (p. 110).

Research in this field is severely hampered by the facts that a) deposited objects are hardly ever found any longer, and b) during the period when they were found, scholars were hardly ever involved in their retrieval. This is because Swedish

Bronze Age deposition sites are not identifiable on the surface: most are in bogs, lakes and streams, where few archaeologists have been able to do any directed large-scale fieldwork. Also the main era of wetland reclamation for agriculture in Sweden ended before World War II (Runefelt 2008). This happened about the time when tractors replaced horses, placing the farmer in front of the plough where he can no longer see what it turns out of the ground. Finally, Swedish law effectively prevents the growth of any significant metal-detector hobby (Rundkvist 2008; Svensson 2014). To my knowledge, the last time a multi-object non-grave bronze deposit surfaced in the study area was in 1986 (at Sigridsholm in Lunda, Up).

Furthermore, data coverage is patchy, inconsistent and difficult to map. Digging or dredging in various landscape situations can be seen as a kind of experiment as to whether a Bronze Age deposit will be found. Yet we have information about only a small subset of the cases where something was in fact found, and none about the innumerable experiments that have turned out negative.

Goals and Methods

This book is intended as a piece of landscape archaeology, a field and practice that has been recognised under a name of its own since the 1970s in Northern Europe (Aston & Rowley 1974) and thrives to this day (Wagstaff 1987; Ashmore & Knapp 1999; David & Thomas 2008; Rippon 2012; see also the journals *Landscape Research*, 1976 onward; and *Landscapes,* 2000 onward). I seek knowledge on the landscape scale: not on the artefact level, not on the level of the province-wide distribution map, but on a scale of hundreds of metres, where you can see from one studied landscape feature to another and walk between them in an hour or two. Rather than treating the find context as an attribute of each find, I view finds as attributes of the places under study. This means that I am primarily interested in finds with a reasonably detailed spatial provenance, those that can be tied securely to a place. And I aim beyond the anecdotal, to identify regularities, Bronze Age rules of landscape.

Ultimately, I envisage a predictive model, being a set of analytical tools that would allow archaeologists to go out into the landscape like homing missiles, as it were, and find Bronze Age deposition sites without the aid of farmers, peat cutters or dredging crews. Then we could learn what sort of materials and structures those finders of great-grandfather's generation left on site when they selected the objects they handed in to the authorities. And we could get a solid palaeoecological background for deposition events. With such knowledge, we would be in a much better position to say how Bronze Age deposition was performed. One of the most recently found major hoards from Sweden, 15 shields

unearthed in 1985 at Fröslunda in Västergötland province (Hagberg 1988; Hansson 1990), was lifted by archaeologists and turned out to have been deposited along with only some grass, if even that. But Fröslunda is just one find.

Reading debate pieces on methods in landscape studies, I have found myself siding with Andrew Fleming (1999; 2006; 2007) rather than Christopher Tilley (1994; 2010). Personal "phenomenological" impressions are a) impossible to communicate clearly, b) of indeterminate relevance to ancient personal impressions, and so should not in my opinion be afforded any central place in scientific discourse. But as Fleming and Tilley both agree, this is not to say that a landscape archaeologist can stay indoors. In order to understand a landscape well enough to speak clearly about its characteristics and formulate testable hypotheses, an archaeologist must traverse it, preferably on foot. As we shall see further on, I have identified over 140 land parcels that have yielded relevant finds, and that can be visited. For reasons of time constraints, I have walked the landscape around only 18% of these, but that taught me a lot.

In a sense, this is also a study of structured deposition. But as Duncan Garrow (2012) points out, that term is mainly used for the differential (and possibly meaningful) distribution of various find categories across settlements and monumental sites. Garrow's study (p. 94) sets Bronze Age metalwork deposition aside as a field of its own, and I too avoid the term "structured deposition" here. So also with the expression "placed deposition", which has a similar meaning but is redundant, deposition after all meaning "placement".

Previous Work In Other Regions

Northern Europe's metalwork hoards and single finds are in themselves perennial subjects of inquiry and publication, as are individual find spots and their regional or province-wide distribution. But the literature about their landscape-level siting, as studied in this book, is of quite manageable size.

The field can be said to open with Walter Torbrügge's seminal 1971 study of river finds in Central and North-Western Europe. He demonstrated that most of that area's innumerable Bronze Age river finds must have been as intentionally placed as any find from a bog or a spring. One of his primary arguments was that certain widespread object types concentrate in certain river stretches in a manner that chance losses cannot. Torbrügge argued in terms of *Deponierungsregeln*, "rules of deposition", although on the regional scale rather than on the landscape scale pursued here. Still, he was fully aware of "motive[s] for deposition that must be understood with reference to the qualities of the site" (p. 21). He commented at length on springs, river mouths, islands, fords and bridges (pp. 61

–71), and more briefly on off-river deposition sites including wells, ponds, lakes, sea inlets, bogs and various dry site types (pp. 77–90).

Wolf Kubach (1983; 1985) looked at the landscape siting of find spots in Lower Saxony, Westphalia and Hesse, again largely in or near rivers. He found (1985) that in some periods the composition of hoards is more consistent than their siting, and argued that regardless of siting the deposition custom has a "non-secular, in the widest sense religious or magical background" (1983:149). Kubach (1985) also notably suggested that the interesting divide in his study area is not between the single find and the multiple-object hoard, but between finds of one to three complete objects on one hand, and large scrap metal depositions on the other, particularly considering that every stray single object in the museum collections may originally have been deposited along with a few additional ones.

In his influential 2002 book on the southern Netherlands and northern Belgium (summarised in Fontijn 2008), David Fontijn documents the various kinds of mainly wet deposition site (p. 212) in that area, and studies what sort of objects were deposited where and when (p. 216 ff). He finds that while swords and foreign jewellery is found only in the main rivers away from settlement, local jewellery is found at the settlement sites themselves.

Heiko Scholz (2012) offers a classification scheme for deposition sites in Mecklenburg-Vorpommern, mainly covering various types of wet location, and studies the different emphases on the various site categories over the periods of the Bronze Age. For instance, hoards of Per. IV are particularly frequent in post-glacial kettle holes and other small bogs.

Regine Maraszek (2012) examines the landscape situation of Late Bronze Age hoards in Saxony-Anhalt and Thuringia. She agrees (p. 114) with Kubach that deposits of single and multiple objects must be viewed in the same context. The find spots include wet environments, banked enclosures and settlements, but no clear rules of deposition have as yet been identified.

Denmark's various landscapes are very different from the study area in terms of the topography and shoreline displacement. Karl-Heinz Willroth's 1985 study of Early Bronze Age deposits on the Danish isles and in Sweden south of Svealand (an area adjacent to the present one) mainly operates on a high, regional scale level. But Willroth also looked at a simple classification of find spots, documenting the varying proportions of grave finds, wetland finds and dryland deposits across time and space. One local landscape parameter that he looked at briefly was the (generally rather large) distance between deposition sites and burial mounds (e.g. p. 98).

All later relevant work regarding Denmark that I have found deals with northern Jutland. Lise Frost (2008a), taking her inspiration from the same writers as myself, Bradley and Fontijn,

has blazed a trail here with her studies of Late Bronze Age deposition sites on the local level. She demonstrates that they are generally dispersed in wet environments but also form concentrations in certain parts of river systems, large bogs or clusters of small bogs. No generally applicable landscape rules emerged from Frost's work. But see her comments on landscape in papers on individual hoards (Frost 2003; 2008b; 2010). Boddum et al. 2011 provide an anthology of similar case studies.

In England and elsewhere, Richard Bradley's 1990 book *The Passage of Arms* (2nd ed. 1998) has proved influential with scholars thinking about deposition and landscape, even though it operates primarily on a high, Europe-wide scale level. Looking at south-east England, David Yates & Richard Bradley (2010a) find that the deposition sites cluster along watercourses and near settlement indicated by lithics scatters (cf. Dunkin 2001). In another paper (2010b) they look at the Fenland in Cambridgeshire, noting that just like in the Netherlands many whole weapons were deposited in rivers while fragmented ones are found singly on dry land. Here, hoards are often found in wetlands away from the rivers. Deposition is particularly dense near coeval settlements along the fens' edges and the causeways across them to the Isle of Ely.

In Poland, Wojciech Blajer has documented (2001) and re-tested with newer data (2008) the variation across time and space of wetland metalwork deposition. It is particularly common in northern Poland from the 16th century BC onward. Marcin Maciejewski (2013) has researched and analysed the find spots of north Polish hoards from the 13th century and onwards in greater detail. He notes a tendency for them to occur on the edges of settlement clusters, about a kilometre from the nearest known coeval settlement. He thus interprets the deposition sites as boundary markers.

In Scotland, Trevor Cowie (2004) has looked at the find spots of flat and flanged axes. Unlike the Scandinavian sites, the Scottish ones are attracted by mountaintops, with many depositions made on or next to spots with a commanding view of the surrounding landscape.

In Ireland, Katharina Becker (2013) has looked at landscape siting as one facet of a wide-ranging study of metalwork deposition. She finds that wet contexts predominate, with i.a. the weaponry particularly favouring rivers. In line with the aims of this book, she concludes that "Type-specific depositional patterns reflect rules that were in place for different types of object" (p. 31).

As for other more nearby regions in Sweden and its neighbouring countries Norway and Finland, I have not found any published studies of this kind. For central Norway, Merete Moe Henriksen (2014:152–153) comments only briefly on landscape location. In Finland bronze is just generally rare in the period under study.

Sacrifice? Retrievable and Irretrievable Deposits

Until now, I have spoken only of "deposits", avoiding the word "sacrifice". Scholars have long distinguished retrievable deposits, "hoards", from irretrievable permanent deposits, "sacrificial/votive offerings" (see Berggren 2009; 2010 ch. 2 for overviews). The idea is that dry-land hoards are buried secretly and temporarily for mundane functionalist reasons, while wetland offerings are disposed of permanently to communicate with the gods and often for reasons of ostentatious display. (Rychner 2001 and Needham 2001:290–291 offer a caveat regarding deposition in shallow water whence objects could be retrieved.) While this dichotomy is an empirical reality (Levy 1982:17–25, 43–44), it is doubtful if the two classes of find should really be seen as exponents of two different modes of thought when we are dealing with a pre-monetary prestige economy and a pre-scientific world-view (Karsten 1994:30–31; Bradley 2005:145–164; Rundkvist 2011a:61–62). In other words: it is true that some of these finds could have been retrieved, and it is true that we often see different object types in those contexts than we do in bogs and rivers, but it is uncertain (and possibly untestable) whether the two classes of find were really deposited for very different reasons. As Katharina Becker (2013:32) puts it, "It is only by breaking through the artificial boundary between the profane and ritual concepts that a coherent interpretation of the [type-specific deposition] practice in general … becomes possible."

As the following study will show, dry-land deposition was rare in the area we are dealing with here, which makes the issue of retrievability less interesting. Nevertheless pursuing that point, I have yet to see a convincing argument for why we should interpret a given retrievable pre-monetary, pre-state-society metal hoard as mundane from a modern perspective. Hans-Jürgen Hundt (1955) argued extensively against the idea. Bradley (1987) compared Late Bronze Age and Viking Period metal deposition customs and found them to be largely similar. He did not touch upon people's motivations for depositing metal in either period, but emphasised that during its use life an object could play a number of different roles in both periods, indicated particularly by find combinations and degree of fragmentation. Making the same inter-period comparison, Christoph Huth (2009) agrees that the two periods' metal depositions are similar in most respects but points out that they have been interpreted quite differently. Huth hints that he favours a mercantile interpretation for the use and deposition of both classes of finds (cf. Huth 1996). I disagree when it comes to the deposition, and thus I take what is in fact the long-accepted position on the issue in Scandinavian archaeology (Worsaae 1866:313 ff; Will-

roth 1985:219–243; Bradley 1998:15–16). Little metal – Bronze Age or Viking Period – was buried for mundane reasons, and even less was allowed to remain underground for such reasons. For instance, the fact that every single farmer on 11th century Gotland seems to have left silver under the floor boards (Östergren 1989) cannot be explained with reference to sudden death or senile dementia in the owners. Hiding silver and never retrieving it was a cultural norm on the island.

Klavs Randsborg (2002) points out that precious metal was quite often cached in wet contexts in Denmark during the wars of the 17th century, and obviously for reasons that had nothing to do with the supernatural. To my mind however this milieu – a monetised proto-capitalist state ravaged by repeated large-scale military invasion – is too different from e.g. Bronze Age Svealand for any comparison to be very illuminating.

If we learn how to find undisturbed deposition sites, then the debate over sacrifice versus mundane safe-keeping may one day become transformed by detailed information on how people placed these things. As Stuart Needham (1989:232) has noted, the few cases where information survives about bronze objects placed in intricate arrangements, and sometimes along with other less collectible materials, suggest "that deposition was not only deliberate, but intended to be permanent".

It is in any case important to keep separate the interpretation of why hoards were *assembled* and why they were ultimately buried or sunk into water. This distinction is not to my knowledge ever made in the literature. Following on a long debate about "founder's hoards", Bradley (1998:118) believes that the casting jets and fragments of slag found in certain hoards would most likely not have been accumulated for sacrificial purposes. And indeed I see no reason to question the idea that scrap metal was collected for recasting. But bear in mind that much of the collected scrap did demonstrably become recast, as seen from the alloy composition of Bronze Age metalwork (Northover et al. 2001; Bray & Pollard 2012). Bronze Age people probably did not associate scrap metal primarily with holes in the ground. This means that the buried scrap-metal hoards that we know of are ones that received unusual treatment and were not allowed to take the normal path of their kind. Scrap metal was one kind of valuable that one might part with to communicate with supernatural powers. The owner of an unremarkable, haphazardly put together bag of scrap might just one day decide to sacrifice it.

But perhaps scrap for deposition was sometimes in fact carefully selected. Scrap metal hoards by definition contain many fragmented objects, but the pieces rarely add up to complete artefacts. Needham (2001:288) argues that this may be due to a custom similar to one known

from ancient Greece, where an animal was sacrificed and only certain parts that make poor eating were burnt as offerings to a god (a sleight of hand taught to humanity by Prometheus the trickster). Perhaps most scrap metal hoards from Northern Europe contain the gods' share of a much larger collection of objects that were recast for renewed use. And Svend Hansen (2012:27) agrees, pointing out that at Greek sanctuaries of the Geometric period (9th and 8th centuries BC), tripod cauldrons dedicated to the divinity were often re-cast, with only a few selected cut-off pieces taken aside and deposited in sacrificial wells or middens (Kyrieleis 2006:97). Though this sacral metal recycling is not mentioned in Greek writing, the ideas behind the animal sacrifice that took place at the same sites are well documented in coeval written sources. The Per. VI hoard from Hassle in Glanshammar (Nä) was housed in a tripod cauldron from the Pontic Greek area, thus documenting contact at least through intermediaries between the very milieu Hansen refers to and our present study area. But although several of our hoards contain a few incomplete objects among the complete ones, none is dominated by scrap.

Then we have the unfinished objects, often found as collections of identical pieces and seen by scholars as stock parked temporarily by the bronze workers themselves. Anja Endrigkeit (2010:93) notes that the objects' unfinished status actually need not indicate that they were deposited temporarily for mundane reasons. She does however (echoing the founder's hoard concept) believe that no casting moulds, metal bars or casting jets were parted with for supernatural reasons. And there I disagree. Either way, the study area's deposition sites have not to my knowledge yielded any unfinished objects, although quite a few are in mint condition.

Joanna Brück (2001:157) suggests that the dry-land deposits represent metal given to the earth in return for goods taken from the earth, including grain. Whether or not the earth was envisaged as a personified deity here would be difficult to tell. Joakim Goldhahn (2010) offers a similar interpretation where metalwork would have been deposited to compensate for the taking of clay to make pots and casting moulds. This may be so. Note, however, that in Scandinavia it cannot have been evident to most people that metal had subterranean origins. Bronze came from the packs of seafarers, not from the earth like clay and grain did.

On the Continent there are interesting object types that must be seen as specialised votive forms of a common depositional item, such as the Geistingen type of socketed axe that is too thin-walled for use and often impossible to fit with a haft (Fontijn 2002:160–161). Fontijn suggests that their introduction means that ideas about the proper use history of an object for deposition have changed: no longer must the axe thrown into the lake come with memories at-

tached. I would go further: such finds can be taken to mean that our currently fashionable ideas about artefact biography were never really that important in those cultural contexts. Perhaps the important thing was always simply to deposit a (commoditised) axe. We should reserve interpretations about the importance of use histories for cases where we can document a strong correlation between geographical origin and the state of wear of an object type on the one hand, and the manner and location of its deposition on the other.

Finally, on the subject of sacrifice, I do not observe the distinction made by Henri Hubert and Marcel Mauss ([1898] 1964:11–12) between that term and "offering". Here sacrifice is simply "the act of giving up something valued for the sake of something else more important or worthy", to quote the *Concise Oxford Dictionary* (1990).

Ritual and Rationality

The debate about retrievable and irretrievable deposits is intimately connected to the distinction between ritual and functionalist or mundane or domestic behaviour. As Richard Bradley has argued at length (2005), these terms are not very helpful when dealing with prehistoric societies. One may easily think that "ritual" equals "irrational" and thus "functionally inexplicable". Conversely, "domestic" would then equal "functionalist". But it is impossible to be more rational than your level of knowledge about the world allows. This has nothing to do with the once-fashionable epistemological relativism where there was talk of "different ways of knowing". Simply put, in the pre-scientific era that makes up almost the entire history of human culture, people did not know very well what was real and not. It was – and to some extent still is – extremely difficult for us to determine what sort of actions will produce reliable effects. Most likely, people during prehistory believed that everything they did was functional. (Joanna Brück 1999 offers a fuller treatment of this issue that is oddly hostile to rationalism but nevertheless reaches similar practical conclusions for scholars.)

If everyone believes in the Lady of the Lake and atheism is unheard of, then it will appear entirely rational to make sacrifices to her. In fact, doing so may produce solidly beneficial effects – not thanks to any divine intervention, but because it impresses the neighbours. This view coexists easily with some level of modern-style economic rationality where rare imported goods such as bronze would be valuable and prestigious and thus appropriate as sacrificial gifts. And conversely, it means that when we see evidence of people acting in mundane, sensible ways that we can easily explain from a modern functionalist perspective, then we are nevertheless probably not dealing with behaviour that prehistoric people saw as belonging to any separate category

of its own. If you really believe in gods, then sacrificing to them looks as sensible and/or ritual as digging deep post-holes to keep your house from collapsing. With the exception of people clinging to old belief systems, every age acts upon its best available knowledge.

My own interpretation of why the deposits were made and left in place is that all were certainly left for reasons that appeared rational to people at the time. But very few were left for reasons that would make any functional sense to someone with a scientific world view. A belief in the supernatural was clearly involved, and so the deposits may rather blithely be termed "sacrificial". We will most likely never know whether modern scholars would classify the fictional entities to which the sacrifices were directed as gods, demons, spirits or ancestors. Thus Hansen (2012) speaks simply of "gifts to the imaginary powers".

Accepting an argument by Knut Stjerna based on Old Norse literature and adding an interpretation of recent folklore about elves, Gunnar Ekholm (1916) was emphatically convinced that the deposits were intended as gifts to the ancestors. He believed that objects were deposited in wetlands because the mists there were seen as shades of the dead. Hundt (1955) was similarly convinced that many deposits in Mecklenburg are *Totenschätze*, "treasures of the dead"; that is, basically grave goods deposited elsewhere than with the bodies of their owners. Although Hundt documented that graves became poorly equipped in his study area at the same time as deposition sites became rich, I am not as convinced by this interpretation as either Ekholm or Hundt.

But Tacitus tells us that people believed in gods in 1st century AD Northern Europe, and the Mediterranean written evidence for godly beliefs at the time of the Scandinavian Bronze Age is extensive indeed. Several scholars have in fact argued recently that Bronze Age depositions in the area were directed to gods known from the Norse pantheon of the Late Iron Age and/or surviving theophoric place names (Zachrisson 2004; Forsgren 2008; 2010; Fredengren 2011). I am more skeptical about oral tradition's ability to maintain divine characters with recognisable traits over such a long time span. I believe that Bronze Age gods were worshipped in Scandinavia but that Snorri would not have recognised them.

Note that "ritual" does not mean "random". Rituals, while irrational to someone with a scientific world-view, are in fact anything but random. It is part of the term's definition that a ritual is structured, even scripted, and proceeds according to rules that allows it to be repeated in a recognisable form that the participants and audience accept as traditional (cf. papers in Kyriakidis 2007). And for this reason, archaeologists should not dispense with the concept of ritual action. As I have argued above, almost all human

action during prehistory was very likely perceived as rational in its time. But much of it is nevertheless likely to have been ritualised.

In any case, for the purposes of this study, the rationale behind the deposition of metalwork and stone implements is not a central issue. The custom began long before our period and ended long after it. Indeed, at a few sites within the area of study (such as Hyndevad on River Eskilstunaån, Sö) we have continuity of deposition from the Neolithic though the Bronze Age and on afterwards. Yet none of the Continental written sources from the end of the deposition era comment on the custom, even though it was current in Spain and Italy (Bianco Peroni 1980; Ruiz-Gálvez-Priego 1995; van Rossenberg 2003 w. refs) as well as across Northern Europe. The ubiquity and longevity of the custom stand as a silent conundrum. In all likelihood though, people did not think about deposition in exactly the same way over those millennia or indeed over the twelve centuries of the Scandinavian Bronze Age. Nor across the geographical range of the South Scandinavian Bronze Age Culture, at any given time. As indicated by this book's title, however, I tend to see the deposits as remains of acts intended as communication with another world. Whether this interpretation holds is not actually an important issue here given my landscape-archaeological heuristic goal.

[An aside: as mentioned before, the earliest narrative writers in Europe, Homer and Hesiod and their immediate successors in Greek literature, appear unaware of the idea of wetland sacrifice. But at about the same time, King Sennacherib of Assyria is making occasional sacrifices in water and commenting on them in cuneiform inscriptions (Dalley 2013:99–101). In c. 688 BC, the king inaugurates a major set of canals and aqueducts designed to bring mountain-stream water to Niniveh. In the project's main commemorative rock inscription at the source near Bavian he describes offering precious stones, gold figurines of stream-living animals and perfumes to Ea and Enkidu, the two appropriate gods. And once while on campaign in the marshes of southern Mesopotamia, Sennacherib suddenly finds his army's camp disastrously flooded. He responds by sacrificing a boat, a crab and a fish of gold to Ea by way of dropping them into the water, as his annals record. Note that the king mentions neither tools, weaponry nor jewellery, which makes the Assyrian custom a poor parallel to what we see in Scandinavia. But it does document that during Per. VI there was a Mesopotamian belief that the gods of water could usefully be interacted with though sacrifice in water.]

Artificial Scarcity and Individual Agency

Colin Burgess (1979:275–276) suggested that the many hoards from the end of England's Bronze

Age are a symptom of low demand for bronze after the adoption of iron working. "The only sensible thing for a bronze-worker to do with his stock would be to bury it until it was needed or demand picked up." Regarding the last peak of bronze-sword deposition in English rivers, he argued that "For craftsmen struggling to cope with the collapse of the bronze market, this [bronze swords made mainly for display and votive purposes] would have been one way of staying in business and using some of their massive bronze surplus." (1979:278).

At about the same time a similarly economic mode of thought led Michael Rowlands (1980:44) and Kristian Kristiansen (1981:245) to suggest a more general model for such peaks in bronze deposition, involving the concept of *artificial scarcity*. The Bronze Age elite's social position very likely rested on control of trade (be it mercantile or prestige gift-based) in scarce commodities, notably bronze. The artificial scarcity model notes that the system would break down and the elite lose their advantage if bronze became easy to come by. And so it suggests that permanent deposition in graves and hoards was a way to keep the bronze supply down and ensure the continued scarcity – and value – of bronze. Thus Rowlands (1980:44; 1998:176), "Burying large quantities of it [bronze] may have been the only means of maintaining some kind of scarcity value", and Kristiansen (1981:245), "By removing scarce and prestigious goods from circulation their value could be regulated and controlled ...", and Kristiansen again (1998:79), who suggests that it could be that "hoarding represented a ritualised way of getting rid of seasonal overproduction, to prevent inflation ...".

I find this model lacking in explanatory power. Irretrievable deposition in lakes and rivers did of course have the described effect on the economic system to some extent, though it is difficult to gauge what percentage of the available metal left circulation in such a manner. But it is in my opinion out of the question that people had that goal in mind when they deposited bronze. To the individual aristocrat who controlled bronze, scarcity was only desirable when it happened to *somebody else*. No-one would ever let go of their own bronze for the common abstract good of the aristocratic system. Bradley (1998:38) offers similar criticism.

It is not clear from my reading whether Rowlands and Kristiansen believed that this system-hygienic effect was consciously intended or just emerged somehow. Bradley (1982; 1984:105) suggested that people's motivation was in fact *potlatch*-like competitive destruction of wealth. And Kristiansen agrees: on the subject of certain huge Late Bronze Age axe deposits in France, for example, he writes (1998:150), "This destruction of wealth is so remarkable that we must assume overproduction and inflation, leading to a spiral of desperate internal competition and ritual destruction." To paraphrase, then, people sacrificed

many axes because axes had become common and it no longer impressed the neighbours much if you only sacrificed a few.

This is a Marxist perspective where a society's economy lives a life of its own and people are cogs in the machinery. But the artificial scarcity model cannot explain the conscious reasons that people chose to deposit bronze in the first place (Fontijn 2002:278). If we asked Bronze Age people *why* they made sacrifices, they would not reply "To make bronze scarcer" or "To impress the neighbours". I believe that the most common answer would in all likelihood be something along the lines of "Because it pleases the Lady of the Lake".

Site Continuity vs. Continuity of Site Selection Criteria

David Fontijn (2002:260) points out that repeated deposition in the same bog or stretch of river over centuries presents something of a conundrum since the deposits would not have left any visible traces to attract subsequent groups of ritual celebrants. He argues that the explanation would be oral traditions about deposition sites: they may not have looked like much, but people told and re-told stories about what had once happened there. With Stijn Arnoldussen, Fontijn has later suggested another explanation that appears more likely given the long periods involved: the traditions may not have conveyed specific memories of individual sites, but instead transmitted general landscape rules governing deposition (Arnoldussen & Fontijn 2006; cf. Fontijn 2007). These are what this study seeks to identify.

In this view, a person who sought an appropriate place to deposit objects might not know whether or not anyone had done so before at a given site, but might find that it fulfilled traditional ritual demands. The idea might not be "This is a known place where the Lady of the Lake has been contacted before", but "This is the *kind* of place where She may be contacted". Such a perspective might explain the pattern Fontijn (2002:260–263; 2012) sees in Limburg, where Bronze Age deposits are found in unspecific and rather extensive zones in the landscape, not at discrete places. If the landscape rules of deposition are not strongly determinant, then deposits will tend to spread out. But as Fontijn points out (2002:275), the rule cannot have been as simple as "Any wet place will do". And as I argue below, in the landscape of the study area there were apparently a few long-lived attractors, notably river rapids, that received repeated depositions.

Deposit Diversity

Beyond the baseline wetland theme Bronze Age deposition sites in the study area are highly diverse. We cannot make general statements about all Bronze Age deposition sites. There are many

kinds, and it is highly likely that they follow different landscape rules (cf. Bradley 2000:53; Fontijn 2002). The study area is not very rich in finds of this kind compared for example to Denmark and Scania, and so we cannot operate with too many categories. But the following distinctions are in my opinion indispensable.

Single vs. multiple episodes of deposition. Accumulated finds represent sites that have attracted deposits repeatedly. I view them as key to the issue at hand.

Single vs. multiple objects. As a rule, the finds that mark the sites under study are single objects. Multi-object single-episode deposits are rare and tend to contain unusual object types.

Chronology. The Swedish Bronze Age lasted for almost twelve centuries. We must allow for change over this time span and make good use of the typo-chronology established by earlier research.

Functional and material categories. Weaponry, jewellery, tools and metalworking debris; bronze and stone.

Chronology and Typological Terminology

The chronological backbone of this study is Oscar Montelius's 1885 division of the Scandinavian Bronze Age into six periods (cf. Montelius 1917; Åström 1985), as later elaborated by Evert Baudou (1960) and Andreas Oldeberg (1974–76) for the study area. As with most archaeological chronology, the relative sequence of types and periods established in the 19th century still stands with small corrections, while the absolute dates have become much clearer thanks to radiocarbon dating. I accept the dates suggested by Karen Margrethe Hornstrup et al. in a 2012 paper (tab. 1:1), based on a Bayesian analysis of radiocarbon dates for cremated bone and dendro dates for Danish oak log coffins. Period shifts may have occurred somewhat later in the relatively peripheral study area than in Denmark, but this is probably on the scale of decades, not quarter centuries. To aid comprehension, tab. 1:2 offers a glossary of the most common artefact types involved.

Table 1:1. Bronze Age absolute chronology according to Hornstrup et al. 2012
Early Bronze Age (EBA). 1700–1100 cal BC (600 years)
Per I. 1700–1500 (200 years)
Per. II. 1500–1330 (170 years)
Per. III. 1330–1100 (230 years)
Late Bronze Age (LBA). 1100–530/20 cal BC (575 years)
Per. IV. 1100–950/20 (165 years)
Per. V. 950/20–800 (135 years)
Per. VI. 800–530/20 (275 years)

Table 1:2. Glossary of the most common artefact categories

ENGLISH	SWEDISH	SWEDISH 19TH C.	GERMAN	DATE
Flanged axe	Kantyxa	Skaftcelt	Randbeil	Per. I
Shaft-hole axe	Skafthålsyxa	Skafthålsyxa	Schaftlochbeil	Per. I–II
Palstave	Avsatsyxa	Pålstav	Absatzbeil	Per. II
Socketed axe	Holkyxa	Hålcelt	Tüllenbeil	Per. II–VI
Sloping-butt stone axe	Nackböjd yxa		Nackengebogene Steinaxt	LBA
Orthogonal stone axe	Rombyxa		Rechtwinklige Steinaxt	Per. IV–V
Rhomboid stone axe			Rhombische Steinaxt	Per. V–VI
Reverse-twisted torque	Wendelring	Wendelring	Wendelring	Per. VI

2. Overview of the Data in Context

Scope and Delimitation

As we have seen, deposits form a slightly fuzzy category that is at heart defined in negative terms: not found in graves, not found in culture layers formed by daily life at settlement sites. Thus here too: this study treats specialised deposition sites, not depositions made at settlements (cf. Borna-Ahlkvist 2002:91–98), at grave monuments or at hilltop enclosures. When known more specifically, the environment tends to be wet; often lakes, streams, bogs and damp meadows. These sites deserve separate treatment as they stand out from other contexts through the types and quality of the objects found here, suggesting that Bronze Age people saw the deposition sites as a distinct category of place – or as several.

Data collection required that I face the problem of stray finds. Most Bronze Age items in the museum stores retain only the names of a hamlet and a parish to identify where they were found. They cannot be disregarded. And so I have followed a simple rule. I only study object categories that have been found in a wet context or a multi-object hoard in the study area. Thus, for instance, I do not comment on stray bronze tweezers or razors, whose find contexts when documented are exclusively dry and almost exclusively graves. But I do keep track of Late Bronze Age stone axes despite the fact that most are stray finds. As Kubach (1985:179) put it, and I translate: "If for instance certain find categories occur only as single finds or predominantly in watery contexts, it seems reasonable in cases where no other information is at hand to classify all finds of these categories as depositions." And as Hundt (1955:97) noted, if we study stray finds "... it is possible that a few inadvertently lost pieces will incorrectly be classified as deposits, but this would skew the general picture of deposits in bogs and on dry land less than if all single finds were set aside" (my translation).

Given these criteria and the need for secure Bronze Age dates, I have covered only objects made of bronze and stone, with an additional few gold and tin finds. Pottery, quartz and quern rubbers mainly feature at settlement sites. Sven-Gunnar Broström and Roger Wikell have pointed out three sites to me in Södermanland where great numbers of quern rubbers have been collected next to settlements on the edges of

drained wetland (at Söderby in Salem, Hässlingby in Österhaninge and Gärtuna in Östertälje). But I have not pursued that find category more closely.

As for geography, we are dealing with four of Sweden's Medieval *landskap* provinces: Uppland (where Uppsala is), Västmanland (where Västerås is), Närke (where Örebro is) and Södermanland (where Eskilstuna and Södertälje are). The country's capital Stockholm sits on the border between Uppland and Södermanland. This study area equals the current *län* provinces of Uppsala, Stockholm, Västmanland, Örebro and Södermanland. Excluding a few outliers, the sites I have been able to pinpoint for the purpose of landscape study are all within a 175 km (W–E) by 160 km (N–S) rectangle.

Avoiding Late Neolithic Axes and Daggers

The Late Neolithic's characteristic flint daggers and stone shaft-hole axes may have survived for some time into the Early Bronze Age. No distinct type of stone axe in the Late Neolithic tradition has so far been assigned a firm, exclusive and widely accepted Bronze Age date, though many scholars have tried. Following Per Lekberg (2002:85–86), I have disregarded such axes here.

As for the daggers, Jan-Elof Forssander's (1936) and Ebbe Lomborg's (1975) type VI is a fairly good Bronze Age candidate. But apart from Early Bronze Age find combinations it also has several secure combinations with dagger type V which is diagnostic of the later Late Neolithic. Torsten Madsen (1978) placed most of type VI's production in the Late Neolithic as well. Jan Apel (e-mail 11 October 2012) on the other hand places the type entirely in the Early Bronze Age (cf. Apel 2001, where this is left somewhat ambiguous). The present study area was peripheral both to the dagger production centres and to the bronze sources and so can be expected to have lagged behind Denmark and Scania in the type repertoire. Thus following Apel I have placed type VI flint daggers in Per. I–II of the Bronze Age.

Apel has kindly given me a copy of his dagger database. I rely entirely on his classification. He lists 55 daggers from the study area. None is in a closed find combination with any Bronze Age object. The only stone implements reported to have been found in closed deposition contexts with Bronze Age metalwork in the study area are a flint sickle in a Per. II hoard from Oskarsborg in Ärentuna (Up), and, oddly enough, a Middle Neolithic battle axe found with a Per. I flanged bronze axe under a boulder at Frommesta in Ekeby (Nä).

There is little information about find contexts for the 55 flint daggers. 40 are in the Swedish History Museum's online inventory database. 34 of the 40 retain no context information whatsoever beyond the names of the hamlet and parish. As

flint is not reliably changed by a wet environment, we cannot know if those daggers are relevant to us here. But five retain information about having been found on reclaimed wetland or lake beds, one from Grindstugan in Ludgo (Sö) "at a depth of 4–5 feet, where there were also black oak trunks". This shows that flint daggers were in fact deposited in the area during the Early Bronze Age, and so I have used the six SHM daggers with context information in this study.

Overview of the Database and Data Collection

I have disregarded finds recorded no closer than to province or parish. This left me with about 370 named hamlets or crofts that have each yielded at least one relevant documented find. These properties have produced 143 finds that are recorded at least to the level of a land parcel within a hamlet, forming the core material of the study. 73 finds are from Uppland, 41 from Södermanland, 17 from Västmanland and 12 from Närke. Of these 143 finds, finally, 51 have recorded find spots within a land parcel to an accuracy of a few tens of metres or better.

87% of the finds with hamlet-level or better provenance are comprised of only one object, usually a socketed axe, usually from the Late Bronze Age. There are only 30 hoards of more than two objects, plus six accumulated multi-episode sites, mainly river rapids.

Most of the find provenances used in this study come down to the present day as names of hamlets in parishes, and occasionally land parcels in hamlets. A crucial requisite for the work, and probably an important part of the explanation why such a study has not been undertaken decades ago, is the recent availability of online databases with scanned and digitised archive materials. Until recently, it would have taken a scholar days of travel between archives in different cities just to pinpoint a single find spot for an early museum acquisition. Moving on from there to locate relevant nearby rock art etc. and place that single find spot in relation to shoreline displacement would have taken additional days. And this presupposes that we were dealing with the era of the photocopier, when scholars can easily bring map copies with them from archive to archive. In the age before that technology's widespread availability, the task would have been even more difficult.

I have been able to do most of the data collection from my desk, which allowed me to pinpoint and classify several sites a day. I have used the following online resources, and my gratitude goes out to the people who have created the sites, update them and keep them online.

- The Swedish History Museum's inventory. mis.historiska.se/mis/sok/sok.asp
- The Heritage Board's sites and monuments register. www.fmis.raa.se

- The (now sadly defunct) nationwide shared map engine of the County Administrations. www.gis.lst.se/lanskartor
- The Survey Office's historical maps. lantmateriet.se/Kartor-och-geografisk-information/Historiska-kartor/
- The Survey Office's current place-name map engine. kso.lantmateriet.se/kartsok/kos/index.html
- The Geological Survey's shoreline displacement and deglaciation map engine. maps2.sgu.se/kartgenerator/maporder_en.html
- The Institute for Language and Folklore's place name archive. www.sofi.se/ortnamnsregistret
- Swedish Wikipedia. sv.wikipedia.org
- Eniro telephone directory. eniro.se
- Google. Surprising things can be learned simply by googling the name of the parish and hamlet where something was found. www.google.com

In addition I have travelled to museum stores in Uppsala and Hallstahammar to read off-line inventory ledgers and card files. Staff at museums in Örebro, Västerås, Enköping, Uppsala, Stockholm, Södertälje and Nyköping have kindly answered e-mail queries. Several local historical societies (Sw. *hembygdsförening*) have also been very helpful in locating places whose names are in the museum ledgers but not on the maps.

Shoreline Displacement, Site Classification and Bronze Patina

Since deglaciation about 8000 cal BC, the entire study area has risen continuously due to rebound of the dent formed by the weight of the inland ice. The rate of this rise has not been uniform but has decreased over time. And the north-west edge of the study area rises faster than the south-east edge, because it is closer to the centre of gravity of the inland ice. Thus the whole area is tilting slowly to the south-east over the centuries. Meanwhile, the sea level fluctuates independently of the land's behaviour. The sum of these motions is a rather intricate history of shoreline displacement that forms a classic field of study within quaternary geology (recently, Plikk 2010; Sund 2010; Risberg & Alm 2011; Katrantsiotis 2013).

Rather than attempting an amateur landscape reconstruction for each site in the various periods of the Bronze Age, I have used three of the Swedish Geological Survey (SGU)'s detailed online nationwide ancient shoreline maps to characterise them. These maps deal not only with the sea but also with the likely behaviour of inland basins (modern lakes, bogs and river valleys) as the land has risen and tilted. During the Bronze Age, Lake Mälaren was an inlet of the Baltic Sea filled with a dense inland archipelago. Lake Hjälmaren was already a lake, as it remains today.

The Geological Survey offers maps with 1000-year intervals. For Per. I (1700–1500 cal BC), I have used the SGU map for 2050 cal BC. For Per. II–VI (1500–520), I have used the map for 1050 cal BC. And for Per. VI, I have additionally looked at the map for 50 cal BC in cases where I have needed to gauge whether or not a given basin is likely to have become isolated from the sea at that time. The online maps do not supply a perfect overall reflection of the research consensus in Swedish quaternary geology (Jan Risberg, e-mail 11 August 2014), being better in some areas and worse in others. But they are the only viable access point for an archaeologist who needs to understand over a hundred sites in relation to the seashore and lakes of their time and cannot himself become a quaternary geologist.

When classifying the landscape location of a site, I have paid little attention to whether the finds look as if they have spent a lot of time under water or peat, and much more to how far the find spot was from water at the time of deposition. Most sites are in Bronze Age water or so close to the shore that it is difficult to tell. And though the vertical distance between the deposition site and the water's surface was in a few cases considerable – e.g. at Oxbroberget in Helgesta (Sö) and Marielund in Funbo (Up) – I have classified these as lake sites rather than setting them apart as a small class of lakeshore hilltop site.

Bronzes that retain a metallic sheen with black or brown staining are known to have been in a low-oxygen wetland environment from deposition until recovery. But the corroded green ones cannot be seen as indicating dry-land deposition with such certainty. This is because a) shoreline displacement drained many wet sites after deposition, b) people in the study area began draining and ploughing wetlands on a large scale in the 19th century, giving verdigris ample time to form on previously pristine bronzes in the ground before recovery.

3. Grouping and Characterising the Sites

STUDYING THE LANDSCAPE locations of the area's Bronze Age deposition sites, it soon becomes apparent that the most common class of landscape feature involved is water in all its forms: still and flowing, fresh and brackish. This emerges particularly clearly if we look at the Bronze Age state of things rather than the modern, uplifted and drained landscape. Beyond that, my studies have convinced me that the second-most important attractor in the landscape is simply settled spaces, as seen in the distribution of burnt mounds and rock art. Not all settlement sites of the time have any preserved burnt mounds, and some of the mound sites may have been reserved for rituals, not everyday settlement. Nor does all the rock art seem to mark places where people actually lived. But these caveats are unimportant to the present study. Burnt mounds and rock art are restricted to the settled parts of the landscape more generally, and so they serve well to help us understand the relationship between deposition sites and settlement, when the houses that people lived in have left no traces above ground.

Early in my work (Rundkvist 2011b; in press) I saw an affinity among the deposition sites for sublime and dramatic landscape locations. This tendency in a small sample of particularly rich find spots has not been borne out by study of the whole material. Some locations are indeed dramatic, but most are not, and the dramatic ones conform to the general placement pattern.

So seek the bronze axe in the watery parts of the settled Bronze Age landscape. But before delving into details, let us orientate ourselves at the opening of this chapter with a summary of its main results (tab. 3:1). Note three things.

a. 59% of the find spots are in or on the shores of Bronze Age lakes or sea inlets. This may be a low estimate if some of the apparent bogs were in fact lakes at the time.
b. The 13% that are dry-land locations probably include several unrecognised burial and settlement sites; that is, deposition events that are not really relevant to the study's theme.
c. Thus the figure of 87% wet locations represents a minimum.

Tab. 3:1. Location types for Bronze Age deposition, by frequency.

Location	No of sites	%
In/at Bronze Age lake	47	33%
In/at Bronze Age sea inlet	37	26%
In/at Bronze Age river/stream	23	16%
Dry land	19	13%
In Bronze Age bog	11	8%
Multi-trait, wet	5	4%
Sum total	142	100%
Sum wet	123	87%
Sum dry	19	13%

Multi-Episode Sites: Accumulated Deposits

Let us begin our close look at the landscape preferences of the people involved with sites that have yielded accumulated deposits. This term refers to a series of deposition events, not to hoards whose contents have accumulated over time and then been buried in a single event. When a site has proved attractive enough that people have returned to it, then it is particularly important for us to study its characteristics here. I am aware of only six multi-episode sites (tab. 3:2). All were wet locations in settled areas, 1–4 kilometres from registered burnt mounds and rock art. These, as we shall see, are common traits among the deposition sites under study.

Four of the six locations share some further important traits. During the Bronze Age, each was in or next to a river at the point where it entered and/or exited major bodies of water. At least three sites were whitewater gorges with rapids or waterfalls. This offers an explanation for how people could stage so many deposition events so accurately at these same sites over so long a time. Three of the six sites saw deposition starting in the Middle or Late Neolithic. I have argued above that the constant here is not any oral tradition about previous deposition *events*, but a long-lived set of *rules* for where deposition is appropriate.

A stretch of river rapids is dramatic to the senses, easy to find, small in its dimensions and long-lived (prior to modern hydraulic engineering). This, I believe, is why the whitewater sites are so over-represented among the accumulated deposits in comparison to e.g. the Bronze Age lakes. A stretch of rapids is always there and always attractive, even if the celebrants of each event through the centuries believe that they are the first ever to carry out deposition there. Conversely, even though certain Bronze Age lakes may have been seen as appropriate for deposition for centuries, there was no similarly distinctive point on most lakeshores that could steer the depositions, allowing an identifiable accumulation of objects to form. When modern-day archaeology becomes aware of depositions in such a lake, it is usually a question of only one object, while we see the deposition made 150 years previously across the lake as a separate site, if indeed we are aware of it at all.

Table 3:2	Bronze Age landscape situation	Date range	Distance from burnt mound (km)	Distance from rock art (km)
Nä, Glanshammar, Storsicke	Multi-trait: wetland on peninsula next to the mouth of River Äverstaån on Lake Hjälmaren – gorge?	Per. I, II, LBA	2.6	3.8
Sö, Bärbo, Täckhammarsbro	River: in whitewater gorge, beginning of rapids between Lake Långhalsen and the sea (River Nyköpingsån)	MNEO, LNEO, Per. I, II, IV, and later	2.6	1.3
Sö, Eskilstuna, Hyndevads dammar	River: in whitewater gorge where Lake Hjälmaren emptied into the sea (River Eskilstunaån)	LNEO, Per. I, II, IV-V, V, VI, and later	1.3	1.4
Sö, Vrena, Vrenaån	River: in whitewater gorge between Lakes Hallbosjön and Långhalsen	Per. I, IV-V	1.6	1.5
Up, Skogs-Tibble, Ingla/Vicarage	Lake: in/at inland lake	Per. IV, VI	c. 0.1	c. 1.0
Up, Vårfrukyrka, Grop-Norrby	River: in/at short stream between coastal lakes	LNEO, Per. III	c. 0.8	c. 0.1

Single-Episode River Sites

The characteristics of the multi-episode sites lead us to river sites where we know of only one object or hoard, or finds of only one Bronze Age period that may have been deposited at a single event. I am aware of 19 such sites (tab. 3:3). All or none of them may in fact be as rich and long-lived as the multi-episode sites treated above: we know only what finders have told us. As to the landscape character of these sites, note that even the largest rivers in the area are little more than streams a few tens of metres across. This is reflected in the names of the water courses with deposition sites, all but one of which are Sw. *åar*, which are not large. At one or two sites we are actually dealing with little streamlets, *bäckar*. Some finds made in modern rivers turn out to originate in ancient lakes or sea inlets when checked against the Geological Survey's landscape history model, and are dealt with in the following sections. And conversely, a few other basins probably held Bronze Age streams where there are now bogs.

Table 3:3	River/stream, Bronze Age landscape situation	Date	Objects	Distance from burnt mound (km)	Distance from rock art (km)
Nä, Edsberg, Löten	In Fjugestaån/Ruggebäcken, a small tributary of Svartån, inland	Per. V-VI	Axe	>5	3.3
Nä, Glanshammar, Hassle	In Äverstaån, short river stretch between small lakes, 3.8 km upstream from river mouth at Storsicke	Per. VI	Mixed hoard	2.9	0.2
Nä, Karlskoga	In Svartälven where the river emptied into Lake Möckeln	Per. V-VI	Axe	>5	>5
Nä, Kumla, Blacksta	Near Ralaån, close to its confluence with Kumlaån, inland	Per. III	Axe	>5	>5
Nä, Örebro, Skebäck	In Svartån where the river emptied into Lake Hjälmaren	Per. V-VI	2 axes	City	City
Sö, Barva, Bjurkärrsäng	In/at small stream	Per. III	3 axes	>5	c. 2.5
Sö, Helgona, Kristineholm	In Nyköpingsån: whitewater gorge, end of rapids between Lake Långhalsen and the sea, 1.4 km downstream from Täckhammar bridge	Per. IV-V	Axe	1.2	1.0
Sö, Lid, Lilla Lundby	In/at stream that drains Lake Lagerlundssjön	Per. II-III	Axe	c. 0.4	c. 0.4
Sö, Näshulta, Kråksten	In/at Sjöängsrändeln stream near where it emptied into Lake Näshultasjön	Per. IV-V	Stone axe	>5	>5
Sö, Torsåker, Harlinge	At mouth of short stream between lakes	Per. I	Spear	3.9	2.6
Up, Altuna, Drävle	In short stream near where it emptied into coastal lake	Per. I	Axe	2.2	2.7
Up, Simtuna/Torstuna, Forsby bridge	In Örsundaån, short river stretch with rapids between a lake and another lake or inlet of the sea	LBA	Stone axe	0.5	1.2
Up, Skogs-Tibble, Lillsjön/ Stensmyran	In/at short stream between an inland lake and a lake or sea inlet, currently Stensmyran bog	Per. I	Axe	0.9	1.8
Up, Skogs-Tibble, Ulvansvad	In/at short stream between lake and sea, currently Sävaån	Per. I-II	Flint dagger	c. 0.3	c. 3.6
Up, Ärentuna, Gammelängen	Near Lissån, under **boulder** next to end of short stream between inland lakes	Per. II	Spear	3.0	3.0
Up, Österunda, Täppdammen	In/at short tributary of Skattmansöån	?	Spear	c. 1.1	c. 1.5
Vs, Arboga, Kråkdiket/Vinbäcken	In Kråkdiket/Vinbäcken where it emptied into the sea	LBA	Stone axe	c. 1.9	>5
Vs, Tortuna, Fors	In rapids where a lake system emptied into the sea, currently Tillbergaån/Lillån	Per. I	2 axes	1.0	0.1
Vs, Västerås, Tunby	In/at short stream between lake and sea	Per. II	Axe, 3 sickles	0.1	0.4

The accumulated finds treated above demonstrate that rapids were important. And so we might begin our study of the river sites by noting that two are at hamlets named something including *fors*, denoting rapids: Forsby in Torstuna (Up) and Fors in Tortuna (Vs) (the two parish names, though similar, are not in fact cognate). And more generally, the rule seems to be that river deposition was seen as appropriate at sites where a river *changes state*. Only a few finds have been made where the river apparently just flowed past and did nothing in particular. Most sites are where rivers entered or exited bodies of still water, often with rapids. As Fredengren (2011:116) puts it, "... metalwork depositions were placed at exits of waters such as river mouths and the confluence (meetings) of different waters, sweet and salt". Note though that the meeting of fresh water and the brackish Baltic does not in fact seem to have been very important when seen in the light of my larger sample. All sites except three are in the settled landscape near registered burnt mounds or rock art.

Lake Sites

Many of the river sites are near the lakes these watercourses drain or replenish. And deposits were made in the lakes as well – in fact, overwhelmingly commonly. Identifying Bronze Age lakes is largely contingent on the Geological Survey's model, as the situation is in many cases very different today. Many of the era's lake basins have

- silted up into bogs
- dried out through land uplift, becoming river valleys
- recently been artificially drained and cultivated

And conversely, many current lakes were inlets of the sea during the Bronze Age. But any current body of open water was open water during the Bronze Age too, though often at a higher level in relation to its basin. As it turns out, Bronze Age lakeshores and lakes form the most common category of deposition site of all: I am aware of 47 (tab. 3:4) including one of the multi-episode sites discussed above.

Table 3:4	Lake, Bronze Age landscape situation	Date	Objects	Distance from burnt mound (km)	Distance from rock art (km)
Nä province	In Lake Hjälmaren, south-west part	Per. I	Axe	?	?
Nä, Asker, Bystad	In/at Lake Sottern, on island or peninsula, near mouth of stream on north-facing shore	Per. IV-V	Axe	>5	>5
Nä, Ekeby, Mosjön	In Lake Mosjön, south-east part	Per. I-II	Flint dagger	>5	>5
Nä, Glanshammar, Sticksjö	In Lake Hjälmaren among small islands	Per. I-II	Flint dagger	>5	c. 4.4
Nä, Lännäs, Tunäs/vicarage	In Lake Hjälmaren next to the mouth of river Täljeån on east-facing shore	Per. II	Spear	>5	>5
Nä, Lännäs, Djursnäs	In/at Lake Hjälmaren next to a stream mouth on north-facing shore	Per. V-VI	Spear, knife	>5	>5
Sö, Björkvik, Edeby	In/at Lake Yngaren on south-facing shore of island	Per. I	Axe	0.6	0.7
Sö, Frustuna, Hållsta	In coastal lake or sea inlet, currently the drained Lake Igelsjön	Per. I	Axe	1.4	0.3
Sö, Frustuna, Hällesta	In/at lake, currently drained farmland	Per. II	Axe	1.9	1.7
Sö, Helgesta, Frändesta, Oxbroberget	On high promontory on south-facing shore of island above narrows in Lake Båven	Per. III	Spear	c. 0.5	>5
Sö, Huddinge, Solgård	On hillside above stream's entry point into west end of long narrow lake, under **boulder**	Per. V	Dagger	>5	1.1
Sö, Husby-Oppunda, Tärnö	In Lake Långhalsen among small islands	Per. II	Axe	3.7	3.2
Sö, Husby-Rekarne, Årby	In small inland lake	Per. IV-V	Axe	c. 0.6	c. 1.0
Sö, Kila, Villa Solbacken	In Lake Bålsjön	Per. II	Axe	>5	>5
Sö, Lista, Vingsleör	In Lake Apalsjön	Per. I-II	Flint dagger	c. 1.5	c. 3.7
Sö, Torsåker, Torsnäset	In/at Lake Sillen, below high promontory	Per. III-IV	Axe	c. 0.5	c. 1.7
Sö, Torsåker, Tuna	In Lake Sillen	?LBA	Axe	0.8	1.1
Sö, Turinge, Ekudden	In/at Lake Norra Yngern, on south-west-facing shore of promontory	Per. III	Mixed hoard	0.2	>5
Sö, Tveta, Rophäll	In Lake Långsjön	Per. IV-V	Axe	2.9	1.5
Sö, Vårdinge, Nådhammar	In Lake Långsjön	Per. III	Axe	c. 0.2	c. 1.4

Table 3:4	Lake, Bronze Age landscape situation	Date	Objects	Distance from burnt mound (km)	Distance from rock art (km)
Sö, Västerhaninge, Prästängen	In/at inland lake, on west-facing shore	Per. IV-V	Axe	>5	c. 3.4
Sö, Österåker, Maren	In/at Lake Hjälmaren near the mouth of River Forsån, "Rapids Stream", on west-facing shore	Per. IV-V	Stone axe	>5	>5
Up, Björklinge, Kambo	In/at Lake Långsjön, on west-facing shore	Per. V	Axe	c. 2.3	c. 2.8
Up, Fasterna, Grindtorpet	In Lake Skedviken near mouth of stream on north-east-facing shore	Per. V-VI	Axe	c. 1.1	c. 4.4
Up, Funbo, Marielund	On high promontory on south-east-facing shore of Lake Trehörningen	Per. V	Belt dome	0.8	5.0
Up, Järfälla, Säby	In Lake Säbysjön, located on an island in the sea	Per. IV	Neck ring, 2 gold spirals	1.0	0.8
Up, Knutby psh	In Lake Långsjön, located on an island in the sea	Per. VI	Weapon hoard	c. 1.9	c. 4.4
Up, Kårsta, Lilla Sunnarby	In lake on island in dense archipelago, currently Mysingsån stream	Per. IV	Neck ring	1.8	2.3
Up, Lunda, Sigridsholm	In coastal lake or sea inlet, currently Lake Sigridsholmssjön	Per. VI	Mixed hoard	3.9	4.8
Up, Läby, Håmö, Frosshögarna	In Lake Läbyträsk	LBA	Stone axe	c. 0.7	c. 0.8
Up, Nysätra psh	In/at Lake Hålsjön	Per. V-VI	Axe	c. 3.2	c. 4.1
Up, Rasbo, Västerberga	In coastal lake	Per. IV-V	Axe	c. 1.1	c. 0.7
Up, Rasbokil, Årby	In/at lake, currently Årbymyran bog	Per. IV-V	Axe	c. 2.1	c. 2.2
Up, Ramsta, Bragby	In small lake on island in sea	Per. I	Sword	c. 0.6	c. 1.5
Up, Skogs-Tibble, between Vrå and church	In coastal lake or sea inlet, currently River Sävaån	Per. I	Axe	0.9	0.5
Up, Skogs-Tibble, Ingla-Långmyran	In inland lake, currently Långmyran drained bog	Per. IV-V	Axe	c. 1.2	c. 2.0
Up, Skogs-Tibble, Långmyran	In inland lake, currently Långmyran drained bog	Per. II-III	Axe	c. 2.2	c. 2.6
Up, Vendel, Holvarbogärde	In/at small inland lake	Per. V	Axe	>5	c. 1.7

Table 3:4	Lake, Bronze Age landscape situation	Date	Objects	Distance from burnt mound (km)	Distance from rock art (km)
Up, Vittinge, Ösby	In/at small inland lake	Per. III-IV	Axe	>5	c. 4.1
Up, Vänge, Bärby	In Lake Rönningen, at narrows	Per. V-VI	Axe	1.7	3.2
Up, Vänge, Bärby	In lake, currently River Sävaån	LBA	Stone axe	0.6	c. 1.3
Up, Österunda, Domta vad	In lake, currently bog	Per. V	Belt domes, rings	>5	2,1
Up, Österunda, Oxsjön	In/at Lake Oxsjön	Per. II-III	Sword chape	2.3	3.5
Up, Österunda, Pukberget	At narrows in inland lake, in **cave**	Per. V-VI	Spear	>5	2.5
Vs, Björksta, Vida/Högtorp	In/at inland lake on south-west-facing shore	Per. III	Axe	c. 0.2	c. 0.3
Vs, Fellingsbro, Eke	In Lake Sällingsjön	Per. III	Dagger	>5	>5

Lakes named Långsjön, "the long lake", have yielded many finds. It would be difficult to calculate the percentage of the area's Bronze Age lakes that currently bear this common name. But they do appear over-represented among the deposition sites, which would suggest that Bronze Age people were attracted to relatively long and narrow waters when depositing objects – as we have already seen from the many river finds. Note also the two finds from the Långmyran former bog ("the long bog") in Skogs-Tibble (Up), and the many locations at long narrow sea inlets as documented below. Narrows in lakes are clearly attractive too. Perhaps we are seeing something similar to how people behaved around rivers and streams: lake deposition was deemed particularly appropriate at spots where the lake *did something*. In a few other cases, lakes have been selected that were on islands in the sea at the time of deposition, demanding that people travel across brackish water with the objects in order to reach the freshwater lake for the deposition event. People do not seem to have favoured any particular facing for deposition on or just off the lakeshores.

As argued above, the reason that so few lake sites have yielded accumulated finds attesting to multiple deposition episodes is probably as follows. Even if a group of people agree for many generations that a certain lake is appropriate for

depositions, then they will only rarely happen to select the same spot along the lakeshore for such events more than once. This is because they have no written record of where the last deposition event was enacted, and the lake itself offers no hint.

Inlets of the Baltic Sea

Some finds from current lakes are difficult to date in relation to each lake basin's isolation from the Baltic Sea. They may have been deposited in brackish sea water with all its communicative potential, before the isolation phase, or in fresh water after it. There are however many sites without this ambiguity, where objects have clearly been deposited in or at inlets of the sea. I know of 38.

An association with islands is far more common here than among the lake locations. This is because of the Mälaren basin's topography: a great deal of its surface area was (and is) taken up by islands rather than by water. In order to deposit an object in the open sea far from any island, a person would have to travel quite a long way from settled parts, which we have seen that they usually did not do for that purpose. Also, an object deposited in the deep sea would be highly unlikely to come to our attention. In any case, it appears that for most kinds of object, the distinction between the freshwater of lakes and rivers and the brackish water of the Baltic was not decisive for whether a given location was acceptable as a deposition site. As we have seen though, in a few cases a freshwater lake located on an island in the sea was chosen.

With the sea inlet sites, there is a clear 5:2 preference for deposition near south-facing shores over north-facing ones.

Table 3:5	**Sea, Bronze Age landscape situation**	**Date**	**Objects**	**Distance from burnt mound (km)**	**Distance from rock art (km)**
Sö, Brännkyrka, Årsta	On/at north-facing shore near narrow mouth of inlet	Per. II	Axe	City	c. 1.7
Sö, Eskilstuna, Tunavallen	On/at north-facing shore next to the mouth of River Eskilstunaån	Per. IV-V	Axe	2.0	2.5
Sö, Grödinge, Sibble	On south-facing shore of an island	Per. III	4 sickles	c. 0.1	c. 0.9
Sö, Sorunda, Fituna, Mörkarfjärden	In an inlet, between the Södertörn mainland and a small island	Per. IV-V	Stone axe	>5	c. 1.8
Sö, Spelvik, church hill	On/at south-facing shore of sheltered inlet, under a **boulder**	Per. VI	Mixed hoard	0.6	0.5
Sö, Strängnäs, Sundby	At inlet on south-facing shore of an island, under a **boulder**	Per. VI	Jewellery hoard	>5	c. 2.4

Table 3:5	Sea, Bronze Age landscape situation	Date	Objects	Distance from burnt mound (km)	Distance from rock art (km)
Sö, Tunaberg, Bråten	At south-facing shore, inner end of protected inlet	Per. II	Axe	c. 4.5	c. 0.8
Up, Alsike, Krusenberg	South-facing shore of major island in dense archipelago	Per. V-VI	Axe	>5	c. 3.7
Up, Bromma, Norra Ängby	In a narrow inlet off a west-facing promontory between two islands	Per. II	Axe	4.1	0.7
Up, Börje, Brunnby	In an inlet among small islands	Per. I	Axe	c. 0.4	c. 0.9
Up, Ekerö, Skärvik	South-facing shore of island	Per. V-VI	Stone axe	c. 3.4	c. 1.3
Up, Fröslunda, Noppsgärde	Off south-west-facing shore of an island	Per. I	Spear	1.6	0.1
Up, Gryta, Säva	South-facing shore of small island in dense archipelago	Per. I	Axe	c. 0.3	c. 1.1
Up, Gryta, Grängesberg/ Eningsberg	At north-facing shore, inner end of protected inlet	Per. I	Axe	c. 0.2	c. 0.2
Up, Dalby, Gräna	In wide inlet, currently Lake Ekoln	Per. I	Axe	c. 2.0	c. 0.1
Up, Dalby, Tuna	South-facing shore of inlet	Per. V	Axe	c. 0.3	c. 0.3
Up, Edsbro, Smaranäs	Off a north-facing promontory in a long canal-like inlet acting as inland communication route, currently Lake Sottern	Per. IV-V	Axe	3.4	>5
Up, Gamla Uppsala, Sanda	On east-facing slope of **short gravel ridge** island	Per. V	Axe	c. 1.3	c. 2.0
Up, Hagby, Focksta	On/at east-facing shore of sheltered inlet, currently Sävaån	Per. II	Spear	c. 0.1	c. 0.3
Up, Hammarby, Ekebo	East-facing shore of inlet on small island in dense archipelago, beside a **boulder**	Per. V	Axe	3.7	3.7
Up, Husby-Sjutolft, Ekolsundsviken	Between two large islands in dense archipelago, currently an inlet	Per. IV-V	Axe	3.4	2.9
Up, Jumkil, Ubby	In inlet, currently a tributary of River Jumkilsån	Per. I	Axe	c. 0.4	c. 2.5
Up, Lagga, Morby	Cove on north-facing shore of large island	LBA	Stone axe	c. 3.1	c. 3.6
Up, Lena, Edshammar	West-facing shore of long narrow inlet of the sea, currently Fyrisån	Per. VI	Spear, axe	c. 0.6	c. 0.7
Up, Skepptuna, Ånsta	In narrow closing inlet between two recently joined islands in dense archipelago	Per. VI	Sword	c. 3.2	c. 1.4
Up, Solna, Råsunda	South-facing shore of island	Per. VI	Sword, dagger	4.3	2.0
Up, Solna, Ulriksdal	On/at north-east-facing shore of Edsviken inlet	Per. I	Axe	>5	c. 2.3

Table 3:5	Sea, Bronze Age landscape situation	Date	Objects	Distance from burnt mound (km)	Distance from rock art (km)
Up, Spånga, Oljeberget	South-facing shore of small island or peninsula	Per. V-VI	Axe	3.3	0.8
Up, Stockholm, Hammarby/ Mårtensdal	In long canal-like inlet acting as communication route through dense archipelago	Per. V-VI	Stone axe	City	2.2
Up, Stockholm, Karlbergsvägen	South-facing shore of small island	Per. I	Axe	City	c. 2.1
Up, Stockholm, Värtahamnen	Between two small islands	Per. II	Axe	City	c. 1.8
Up, Söderby-Karl, Norrmarjum	Among islands	Per. I	Axe	c. 1.1	>5
Up, Uppsala, Tingshögsgatan	Near small islands	LBA	Stone axe	c. 1.8	c. 2.0
Up, Uppsala-Näs, Skärfältens	In long canal-like inlet acting as inland communication route, currently Sjökärret Bog	Per. I	Spear	c. 0.5	c. 0.6
Vs, Fellingsbro churchyard	South-facing shore of small island or peninsula	Per. I	Axe	c. 2.4	c. 3.3
Vs, Kärrbo, Skyttebo	South-facing shore of promontory on island at protected inlet	Per. II	Axe	c. 4.4	c. 2.9
Vs, Odensvi, Kumla	East-facing shore of promontory	Per. I	Axe	0.9	0.6
Vs, Skultuna, Åkesta	On/at south-west-facing shore of long canal-like inlet acting as inland communication route, currently Svartån, just downstream from rapids at Forsby	Per. IV-V	Stone axe	c. 0.4	c. 0.5

Bronze Age Bogs/Other Wetland

This site location category involves modern-day bogs that are not sea inlets or lakes on the Geological Survey's landscape reconstructions for the Bronze Age. If we look far enough back in time up until deglaciation, all bogs in the study area are actually silted-up former lakes and/or inlets of the sea. But the apparent Bronze Age bogs are difficult to interpret because sediment drill cores for environmental history have been analysed for only very few. For each of these basins it is in fact uncertain if there was any open water at the time of an individual Bronze Age deposition event. The question boils down to whether finds from apparent Bronze Age bogs represent people throwing objects into water (irretrievably), burying them in pits in the peat (retrievably) or leaving them on top of the peat (even more retrievably). Luckily these sites are rather few.

Table 3:6 does not cover finds where only the name of the hamlet owning the land and the mention of a bog are known. In those cases we cannot judge whether a given find belongs in this category or is in fact from a Bronze Age sea inlet, lake or stream.

Table 3:6	Bog, Bronze Age landscape situation	Date	Objects	Distance from burnt mound (km)	Distance from rock art (km)
Nä, Edsberg, Karaby	Nondescript bog, near a **boulder**	Per. I-II	Flint dagger	>5	3.6
Sö, Björnlunda, Mosstugan	Nondescript bog	Per. I	Sword	1.5	1.1
Sö, Eskilstuna, Kälby	0.9 km from the Hyndevad rapids in River Eskilstunaån	Per. II	2 display axes, dagger	0.5	1.5
Sö, Svärta, Kråknäs/Kråkstugan	Nondescript bog	Per. IV-V	Axe	c. 1.9	c. 0.2
Sö, Svärta, Kråknäs/Kråkstugan	Nondescript bog	Per. VI	Sword, neck ring	1.8	0.1
Sö, Vårdinge, Hjortsberga	Bog next to settlement with graves and cup-marks	Per. VI	Neck ring	c. 0.2	c. 0.3
Sö, Östra Vingåker, Skiringstorp	Nondescript inland bog	Per. II	Sword	>5	>5
Up, Nysätra, Stockmossen	Nondescript inland bog	Per. V	Axe	c. 4.1	c. 4.1
Up, Sparrsätra, Gångmossen	Inland bog next to small lake in separate basin	Per. V-VI	Pin	c. 0.8	c. 2.5
Up, Spånga, Backlura	Inland bog on large island	Per. II-III	Sword	2.6	3.1
Vs, Svedvi, Berga I-II	In/at lake below the Svedvi vicarage ridge site	Per. V-VI	2 jewellery hoards	c. 0.5	c. 0.5

Multi-trait Locations

Having identified some categories of landscape location that attracted Bronze Age deposition in and of themselves, we can now look at sites that combine two or more of these categories (tab. 3:7). They deviate distinctly from the norm in several respects.

Unusually, all four sites are on gravel ridges. The two sites in Lena parish are only c. 800 m apart and may be close in time as well. Torslunda in Tierp is a lone northern outlier in the macro-scale distribution of the sites across the study area. These multi-trait sites are not only exceptional in terms of their Bronze Age topography, but also of what people chose to deposit there: weapons and multi-object hoards.

Table 3:7	Bronze Age landscape situation	Date	Objects	Distance from burnt mound (km)	Distance from rock art (km)
Sö, Vårdinge, Långbro	Next to **small cairn** in small **bog** on top of **short gravel ridge** above **lakeshore**	Per. VI	Mixed hoard	c. 0.9	c. 1.6
Up, Lena church	On **south gravel ridge terminal** above **whitewater gorge** where Vattholmaån entered a long narrow inlet of the sea, currently Vendelån-Fyrisån	Per. II-III	Sword	0.5	0.3
Up, Lena, Vattholma	On **south gravel ridge terminal** above **whitewater gorge** where Vattholmaån entered a long narrow inlet of the sea, currently Vendelån-Fyrisån	Per. IV	Weapon hoard	0.8	0.8
Up, Tierp, Torslunda	On **south gravel ridge terminal** at south-east-facing **shore of long sea inlet**	Per. I	2 axes, spear	c. 2.4	c. 1.9

Dry Land: Gravel Ridges and Settlements

As seen above, a few finds can be pinpointed to eskers, the gravel ridges that cross the study area in a NNW–SSE direction. (They map the slow movement across the land of the mouths of meltwater rivers under the inland ice during deglaciation.) All such sites are either on the southern terminal of a longer stretch of ridge or on a short ridge where no real terminal can usefully be distinguished. Another handful of finds with location information only on the hamlet level are reported to have come to light during gravel extraction, suggesting that gravel ridges may have been attractive in themselves as deposition locations. But not all gravel pits are on ridges. And in the cases where we can pinpoint a find accurately on an esker, the tendency is for the site to have other characteristics that have proved attractive in far more numerous cases – see the multi-trait sites above. There is in fact only one accurately pinpointed esker site that has none of the usual watery associations documented above: Hökåsen in Hubbo (Vs). A burnt mound and a cup-mark boulder suggest nearby settlement.

This is not a study of depositions made among the buildings of active settlements, such as the sword pommel from Sommaränge skog in Viksta (Up) mentioned in Ch. 1 (Forsman & Victor 2007) or the spearhead found near burnt mounds at Orreboda in Uppsala-Näs (Up; Raä 116-118; UMF 4826). But one of the very largest hoards from the study area, from Lilla Härnevi in Härnevi (Up), was found on the outskirts of a likewise very large settlement site. Most likely however this Late Per. VI deposition was made centuries after the settlement had been aban-

doned. Radiocarbon dating places the only excavated burnt mound there at about 900 cal BC, in Per. V (Karlenby 1998:27–28), and by the time of the hoard's deposition the site had long lost contact with the receding seashore that was generally decisive in settlement siting. Speculating about the rationale behind this unique find's placement, I believe the people behind it recognised the site with its many prominent burnt mounds as an ancestral dwelling place.

In the study area, we do not see anything like the Lilla Härnevi deposit even at major well-excavated settlements such as Hallunda in Botkyrka, Apalle in Övergran or Pryssgården in Östra Eneby (Jaanusson 1981; Ullén 1997; Borna-Ahlkvist 2002). But in south-east England, Bronze Age hoards are sometimes found on the edges of settlement-indicating flint scatters (Dunkin 2001).

Dry Land: Nondescript Locations

Table 3:9 lists finds from dry locations where I know to good accuracy where a find has been made but cannot see anything distinctive about the place. Common characteristics among these 14 sites are that most have yielded *Late* Bronze Age finds and are located only a few hundred metres from burnt mounds and rock art. This suggests that we are dealing mainly with finds from unrecognised settlements. A few of the objects may nevertheless have been deposited ritually according to landscape rules that I have not picked up on, or placed in unrecognised graves, or simply lost to happenstance.

Table 3:8	**Bronze Age dry land landscape situation**	**Date**	**Objects**	**Distance from burnt mound (km)**	**Distance from rock art (km)**
Up, Härnevi, Lilla Härnevi	Edge of abandoned settlement site, inland	Per. VI	Mixed hoard	0	0.4
Vs, Hubbo, Hökåsen	South gravel ridge terminal	Per. VI	2 jewellery hoards	0.8	1.4
Vs, Svedvi vicarage	South gravel ridge terminal above the Berga I-II lakeshore site	Per. VI	Neck ring	0.6	0.5

Table 3:9	Bronze Age landscape situation	Date	Objects	Distance from burnt mound (km)	Distance from rock art (km)
Sö, Sorunda, Petterslund	On low ridge, 0.4 km east of Fagersjön lakeshore, major Late Mesolithic settlement site	Per. V-VI	Dress pin	4.5	4.5
Sö, Sorunda, Södra Rangsta	W foot of ridge, 0.6 km north of seashore	Per. V-VI	Spear	0.2	0.2
Sö, Överjärna, Järna rwy stn	Between two ridges, 0.7 km from seashore and lakeshore	Per. I-II	Flint dagger	c. 0.8	c. 0.7
Up, Bondkyrka, Grindstugan	E of low ridge on large island in dense archipelago	Per. III-IV	Axe	c. 1.0	c. 2.7
Up, Börje, Altuna	Upland, 0.7 km west of seashore	Per. VI	Mixed hoard	c. 0.2	c. 0.6
Up, Dalby, Tuna	Flat ground 0.3 km from south-facing shore of sea inlet	Per. V	Axe	c. 0.3	c. 0.3
Up, Lena, Flugtorpet	E foot of low inland hill, 1.1 km from lakeshore	Per. V	Axe	c. 1.8	c. 1.3
Up, Skogs-Tibble, Lundbacka	Upland, 0.6 km from lakeshore	Per. VI	2 neck rings	c. 0.4	c. 0.3
Up, Spånga, Sundby	Flat ground on island between Flystaberget Hill and seashore, c. 0.1 km from shoreline	Per. VI/IA	2 armlets	3.3	0.4
Up, Vårfrukyrka, Hällstigen	Upland, 0.5 km from lakeshore	Per. V-VI	Stone axe	c. 0.2	c. 0.3
Up, Ärentuna, Storvreta rwy stn	Upland, 1.0 km from seashore	Per. II	Mixed hoard	0.5	0.5
Vs, Hubbo, Mälby	Upland, 0.2 km from lakeshore	Per. V	Axe	3.1	0.2
Vs, Malma, Åsby	South-facing hillside, 0.6 km from lakeshore	Per. VI	Neck ring	0.2	0.2
Vs, Västra Skedvi, Klockarkilen	Between low hills, 2.5 km from lakeshore	Per. IV-V	Stone axe	>5	>5

Strong Place Features: Boulders, a Cave, a Spring, Rock Crevices

So far each site has been mentioned in only one table. But in table 3:10 some sites are mentioned a second time because they had *strong place features*. On this study's landscape scale level and considering the somewhat forgiving accuracy I have demanded for positioning, these are features that should in my opinion be seen more on the level of site detail than as landscape *locations* in the usual sense. Most are simply boulders, but here I also count the Pukberget cave in Österunda (Up) that I have classified as a lakeshore

location and the Norrbacken spring in Husby-Långhundra (Up) that is to my eye an otherwise nondescript location. Both the cave and the spring are unique place features among the studied sites, and so they are difficult to interpret. But both in my opinion carry a strong timeless suggestion of the numinous.

Only ten of these sites have sufficient location information to classify their landscape location. The most eye-catching difference from the general distribution (tab. 3:1) is that among sites with strong place features, dry sites are twice as common. This probably largely reflects the simple fact that it is difficult to hide anything under an underwater boulder. But it may also have to do with retrievability: if people wanted to be able to retrieve a deposition, burying it under a boulder on dry land was the most dependable alternative. It should thus not surprise us to find hoards greatly over-represented in the boulder category.

Mention should also be made of a rare but recurring association between spears and rock crevices. At Oxbroberget in Helgesta (Sö), a site I have classified above as a lake location, a spearhead had been left in a fissure on a hillside. Similarly, the spearhead found next to a stream at Gammelängen in Ärentuna (Up) was described by the finder as having been thrust below a boulder. And the spearhead from the Pukberget cave in Österunda (Up) had obviously entirely entered a hill. Looking for a moment at a nearby region, a bronze spearhead was found "wedged into the rock face" at Hassli on the limestone island of Stora Karlsö, Eksta parish, Gotland (SHM 8343). These finds, although separated by centuries, suggest a custom where spears were seen to belong inside bedrock. They invite speculation about the goings-on between Father Sky and Mother Earth, or about sacrifices to some deity of high places. Looking at jewellery, a crevice at Väster-vad in Simtuna (Up) has yielded a Per. VI brooch and dress pin (SHM 4288). Similar finds in crevices and caves have been made in Lower Saxony (Kubach 1983:140-142 w. refs) and southern Germany (Maier 1977; Schauer 1996:382 note 3 w. refs).

Table 3:10	Strong Place Feature	Site type	Date	Objects	Distance from burnt mound (km)	Distance from rock art (km)
Up, Husby-Långhundra, Norrbacken	In inland **spring**	Nondescript	Per. IV	Axe	c. 1.3	c. 0.8
Up, Österunda, Pukberget	At narrows in inland lake, in **cave**	Lake	Per. V-VI	Spear	>5	2.5
Nä, Edsberg, Karaby	Boulder	Bog	Per. I-II	Flint dagger	>5	3.6
Nä, Ekeby, Frommesta	Boulder	?	Per. I	Bronze axe, stone axe	?	?
Nä, Ekeby, Högtorp	Boulder	?	Per. II-III	Axe	?	?
Nä, Ekeby, Torsta	Boulder	?	Per. I	Axe	?	?
Nä, Stora Mellösa, Dömmesta	Boulder	?	Per. III	Axe	?	?
Sö, Botkyrka, Tullinge	Boulder	?	Per. III	Mixed hoard	?	?
Sö, Gillberga, Åsby	Boulder	?	Per. I	Axe	?	?
Sö, Huddinge, Solgård	Boulder	Lake	Per. V	Dagger	>5	1.1
Sö, Kila, Ålberga	Boulder	?	Per. II	Axe	?	?
Sö, Spelvik, church hill	Boulder	Sea	Per. VI	Mixed hoard	0.6	0.5
Sö, Strängnäs, Sundby	Boulder	Sea	Per. VI	Jewellery hoard	>5	c. 2.4
Up, Hagby, Filke	Boulder	?	EBA	Spiral arm ring	?	?
Up, Hammarby, Ekebo	Boulder	Sea	Per. V	Axe	3.7	3.7
Up, Simtuna, Möllersta	Boulder	?	Per. I-II	Axe	?	?
Up, Ärentuna, Gammelängen	Boulder	Stream	Per. II	Spear	3.0	3.0
Up, Ärentuna, Storvreta rwy stn	Boulder	Dry nondescript	Per. II	Mixed hoard	0.5	0.5
Vs, Hubbo, Hökåsen	Boulder	Gravel ridge	Per. VI	2 jewellery hoards	0.8	1.4

What Was Deposited Where And When?

Above we have largely looked at deposition as a single kind of act that took place at different kinds of location. But there is reason to believe that the blanket category of deposition covers a range of acts that were construed quite differently. Let us therefore investigate what was deposited where and when at these different kinds of location, in the manner of David Fontijn (2002:212 ff; 2008).

Table 3:11

A: EBA	Lake	Sea	Stream	Bog	Dry non-desc	
Bronze axe	11	15	10	1	-	37
Spear	2	3	3		1	9
Sword/ dagger	3	-	1	4	-	8
Jewellery	-	-	-	-	-	0
Mixed hoard	1	-	-	-	-	1
Flint dagger	3	-	1	1	1	6
Sum	20	18	15	6	2	61

B: EBA	Lake	Sea	Stream	Bog	Dry non-desc
Bronze axe	30%	41%	27%	3%	0%
Spear	22%	33%	33%	0%	11%
Sword/ dagger	38%	**0%**	13%	**50%**	0%
Jewellery	-	-	-	-	-
Mixed hoard	100%	0%	0%	0%	0%
Flint dagger	50%	0%	17%	17%	17%

C: LBA	Lake	Sea	Stream	Bog	Dry non-desc	
Bronze axe	13	8	7	2	3	33
Spear	2	-	-	-	1	3
Sword/ dagger	1	2	2	-	-	5
Jewellery	4	1	1	3	4	13
Mixed hoard	2	2	-	-	1	5
Stone axe	3	6	3	-	2	14
Sum	25	19	13	5	11	73

D: LBA	Lake	Sea	Stream	Bog	Dry non-desc
Bronze axe	39%	24%	21%	6%	**9%**
Spear	67%	0%	0%	0%	33%
Sword/ dagger	20%	40%	40%	0%	0%
Jewellery	31%	**8%**	8%	23%	31%
Mixed hoard	40%	40%	0%	0%	20%
Stone axe	**21%**	43%	21%	0%	**14%**

Tables 3:11 ABCD only cover categories of object and location that have more than a few examples each, and disregard the few ambiguous multi-trait locations I have identified (such as Torslunda in Tierp). I count deposition events (that is, sites and object categories) as on/off for the EBA and LBA respectively, not the number of objects or deposition events within the EBA or LBA. For example, the number 11 regarding EBA bronze axes in lakes means that I know of 11 sites in or at EBA lakes where "bronze axe" is "on" at least once.

"Mixed hoards" are those that combine the categories in the tables; e.g. the weaponry, tools and jewellery in the hoard from Ekudden in Turinge. On the other hand, the successive accumulation of various objects at Hyndevad counts as four sites in the tables, one EBA (axe) and three LBA (axe, dagger, jewellery).

The percentages are more interesting than the absolute figures. For the EBA (tab. 3:11 B), one class of find behaves differently from the rest: swords and daggers. They are never found in Bronze Age sea inlets where axes and spears are common. Instead they concentrate in Bronze Age bogs, which have yielded no spears and hardly any axes. This looks intentional. (And it suggests, importantly, that we can actually largely rely on the Geological Survey's ability to tell Bronze Age lakes and bogs apart on their maps.) But what does it mean? That people wanted their swords to be more retrievable than their axes after deposition? Or that the sea god did not appreciate being given swords? Anyhow, other patterns in the percentages for the EBA are too poorly grounded in the numbers to bear much interpretation.

For the LBA, the most interesting and most firmly data-supported percentages (table 3:11 D) pertain to the bronze and stone axes and the jewellery. Both kinds of axes are disproportionately rare on nondescript dry sites (probably unrecognised settlements): people very determinedly saved them for deposition at wet locations. The stone axes, though, are also exceptionally rare in lakes, but exceptionally common in sea inlets. The jewellery, conversely, is exceptionally rare in sea inlets and exceptionally common on nondescript dry sites. (Similar patterns have been documented for the southern Netherlands – Fontijn 2002:216; 2008; and southern Germany – Falkenstein 2005). An obvious way to interpret this dichotomy is in terms of gender and mobility: men depositing axes in the sea on voyages abroad, women depositing jewellery at home. The interpretation suffers from the fact that we do not know which gender of people, if any, actually travelled more than the other. Also it is difficult to understand why, at sea, stone battle axes were treated so differently from bronze axes, some types of which were probably likewise designed more as weapons than as tools.

Deposition Sites in the Settled Landscape

Table 3:12		
Median distances (km)	**Burnt mound**	**Rock art**
Lake EBA (n=19)	1.5	3.2
Lake LBA (n=24)	2.2	2.4
Sea EBA (n=19)	1.0	0.9
Sea LBA (n=19)	3.3	2.0
Stream EBA (n=10)	1.6	2.6
Stream LBA (n=7)	2.9	3.3
Nondescript dry LBA (n=11)	0.4	0.3
Multi-episode (n=6)	1.5	1.4
Boulder EBA + LBA (n=8)	3.4	1.9
Bog EBA + LBA (n=11)	1.8	1.5
All sites (n=140)	1.8	1.7

Simply put, in the study area burnt mounds mark settlements and rock art does not. The picture is slightly fuzzy: there are known settlements without preserved burnt mounds, and occasionally we find a few cupmarks (but no figurative rock art) at a settlement. But both categories of site congregate in the settled landscape. Table 3:12 presents the median distance from deposition sites of various categories to burnt mounds and rock art. To put these figures into perspective, note firstly that all categories of deposition site are typically only 1.7 or 1.8 km from those two other types of site. Most deposition sites were not liminal secret locations in the woods halfway to the neighbouring tribe's area: they were in the settled home territory. (I have not looked at the relationship to burial sites, because the eye-catching Early Bronze Age cairns are simply and uniformly on coastal hilltops, while the known Late Bronze Age cremation cemeteries keep a low profile and are too few to support any significant conclusions.)

Secondly, Bronze Age people in all likelihood did not think of the distance between their settlements and rock art sites and the area's deposition sites in lakes and sea inlets primarily in terms of the depositions, but in terms of how far they had to walk to the lakes and the sea themselves.

Thirdly, we do not have dates for most of the burnt mounds and rock art to which I have measured the distances. (Most of the rock art is cupmarks which are not stylistically datable.) There must be many cases where a spot did not receive any burnt mounds or rock art until the LBA, and so was completely nondescript (or still below sea level) during the EBA. We must not over-interpret the figures. But it may be useful to compare them to one another. An interesting pattern emerges.

A comparison of the figures for the EBA and the LBA in tab. 3:12 reveals that the great majority of deposition events – those in lakes, sea inlets and streams – move away from burnt mounds over the course of the Bronze Age, most

dramatically in the case of the sea sites. Conversely, the deposition events in lakes and streams approach rock art sites over time – probably because most of the rock art is created at the same time as the LBA depositions, and by the same people. Only the deposition events in sea inlets move away from rock art as well as from burnt mounds, for some reason. Meanwhile, LBA nondescript dry sites are usually exceptionally close to both burnt mounds and rock art. I have already suggested that many of them are probably simply unrecognised settlement sites and thus not quite relevant to this study's theme.

We know that when LBA people went away from their settlements to deposit objects, they rarely travelled far. But table 3:12 shows that they were thinking differently from their EBA forebears and moving farther afield. Most burnt mounds in the study area probably mark LBA settlements, and these certainly do not avoid lakes or seashores. I believe this evidence carries some weight. Did deposition events become more private affairs with the LBA, at the same time as jewellery became more common in the deposits? This would explain why LBA people were willing to walk or paddle a longer distance from settlement to deposit objects than had their EBA forebears.

4. Conclusions: A Heuristic Procedure For Finding Unknown Deposition Sites

AS DAVID YATES AND Richard Bradley put it, "Analysis of the findspots can shed light on the character of metalwork deposits themselves, but it is equally important to predict where further discoveries will occur" (2010a:4). For reasons of funding constraints and the dramatic damage to wetlands entailed in any comprehensive fieldwork, most deposition sites in the study area are probably not accessible to research-driven investigation without land-developer funding. Cases like the Per. I bronze spearhead from Harlinge in Torsåker (Sö), which was found under two metres of bog peat on an ancient stream bed, are all too instructive. Our best chances lie in taking metal detectors to promising sites that have been thoroughly drained and ploughed, causing the organic sediments to rot away and collapse. But contract archaeology has good opportunities for this kind of work. Road and rail projects have ample budgets for archaeology and routinely cross various kinds of wetland. This also goes to some extent for peat quarrying operations – indeed, many important Mesolithic lake sites in southern Sweden have become accessible to archaeology only after several metres of later peat were quarried away for commercial purposes.

This chapter forms a kind of summary of the study's results. It is written as a heuristic procedure intended for archaeologists involved in large-scale land development in the study area that touches to some extent upon former or current wetlands. It should be useful throughout the current process in contract archaeology, from evaluation through trial excavations to final open-area excavations.

Step 1. Is this a productive parish?

A good first shorthand step is to simply look at whether any Bronze Age depositions are previously known from the parishes you are working with or one of their neighbours. Settlement (and deposition) concentrates in a wide belt between the sea and the elevated inland, and beyond that belt to either side there is little reason to expect sites of this kind. Table 4:1 lists parishes with at least three deposition sites, and the full list is at the back of the book, also sorted by parish. In Uppland a dense belt of rich parishes stretches from Enköping to Uppsala and centres upon Skogs-Tibble parish, while in Södermanland the richest area centres on Lake Sillen and Torsåker

parish. In Västmanland and Närke, only the lowlands bordering Lakes Mälaren and Hjälmaren appear worthwhile in this kind of search.

Table 4:1. Parishes with at least three deposition sites

Parish	Sites	Parish	Sites
Nä, Ekeby	6	Up, Litslena	3
Nä, Glanshammar	4	Up, Lohärad	3
Nä, Lännäs	4	Up, Nysätra	5
Sö, Björkvik	4	Up, Rasbokil	3
Sö, Björnlunda	4	Up, Simtuna	7
Sö, Eskilstuna	7	Up, Skepptuna	3
Sö, Frustuna	4	Up, Skogs-Tibble	9
Sö, Hölö	4	Up, Sparrsätra	3
Sö, Sorunda	4	Up, Spånga	3
Sö, Torsåker	3	Up, Stockholm	3
Sö, Tunaberg	3	Up, Tensta	3
Sö, Turinge	4	Up, Tierp	5
Sö, Vårdinge	6	Up, Tillinge	3
Sö, Västerhaninge	3	Up, Torstuna	7
Sö, Ytterenhörna	3	Up, Uppsala-Näs	4
Sö, Ärla	3	Up, Vårfrukyrka/Enköping	9
Sö, Överjärna	3	Up, Vänge	4
Up, Altuna	3	Up, Ärentuna	3
Up, Bred	6	Up, Österunda	5
Up, Bälinge	3	Vs, Björksta	4
Up, Fröslunda	3	Vs, Fellingsbro	5
Up, Gamla Uppsala	5	Vs, Hubbo	4
Up, Gryta	3	Vs, Munktorp	3
Up, Hagby	5	Vs, Svedvi	6
Up, Lena	9	Vs, Tortuna	3

Step 2. Where were the Bronze Age lakes and sea inlets?

Only 13% of potential deposition sites with good location data are on land that was dry and distant from water in the Bronze Age. And in choosing between different types of Bronze Age wet environment, freshwater lakes and sea inlets and their shores are the most productive. Streams show intermediate numbers. Apparent Bronze Age bogs are not very productive. At the time of writing, the most comprehensive, consistent and accessible way to get access to quaternary geology's ideas about shoreline displacement and drainages over time in the study area is the Swedish Geological Survey's online map service. This will of course be superseded as research in that field advances, and a future reader of this book may no longer have access to it. I trust that with time even better data sources will become available to archaeologists who wish to know where Bronze Age lakes, sea inlets and streams were.

Step 3. Where did the water do something interesting?

Look for the entrypoints and exits of streams, for rapids (or farmsteads named something involving *-fors-*), for narrows in lakes and sea inlets, indeed for long narrow lakes and inlets in general (such as the many *Långsjön*), for the sunlit

south side of islands and promontories in the sea. Also keep an eye open for the southern terminals of gravel ridges immediately above Bronze Age waters.

Step 4. Is your candidate basin the right distance from Bronze Age settlement?

Make note of where the area's burnt mounds and rock art are. Deposition sites are typically located 1.8 km from the nearest burnt mound and 1.7 km from the nearest rock art – usually cupmarks but sometimes figurative engravings as well.

Step 5. Auger the basin, then machine strip while metal detecting

Following the corridor of a projected highway across the landscape, steps 1–4 above will allow the contract archaeologist to identify promising basins in the terrain. Those that have long been drained and ploughed can immediately be evaluated with the aid of a metal detector. But basins with preserved wet sediments will demand machine stripping as well, for two reasons: augering will often prove the sediments to be thicker than the range of a metal detector, and wet sediments preserve organics that cannot be sensed remotely with current technology. Where a highway project crosses a promising basin, machine strip the sediments in layers of no more than 20 cm while metal detecting, and be prepared to call in a quaternary geologist and palaeobotanist to document and sample the stratigraphy if you come across a deposit.

I believe that if this procedure is adopted by contract archaeologists in the study area, we will not have to wait another 30 years for our next Bronze Age hoard. And with luck, it will be found by people who can document and sample its find context.

5. Gazetteer

THE HEADERS IN this section of the book are on the format Province, Parish, Hamlet, Parcel/Place. The entries offer detailed information on a selection of interesting deposition sites where we have good location information. In the cases of Ekeby (Up), Eklunda/Mossen (Up), Rimbo (Up) and Mobergsudden (Nä) I have been unable to translate that information into grid coordinates due to lack of access to local historical sources, but I have no doubt that it could be done. Balingsnäs (Sö), Avhulta (Vs) and Jacksbo/Häljebo (Vs) are discussed here because their location information is not actually as good is it seems. Sunnersbol/Bokaren (Up) and Rickebasta (Up) are included because they have been ascribed a Bronze Age date in the literature, although this is most likely not correct.

Nä, Askersund, Norra Algrena, Mobergsudden
In 1893 the Swedish Historical Museum accessioned the archaeological collection of district veterinarian Fredrik Alexius Nordeman in Vadstena. It includes a Per. IV socketed axe of Baudou's type A1a *mit seitlichen Blenden* (SHM 9170:1227), found at Mobergsudden on the land of Norra Algrena hamlet. The place name suggests a promontory on a lakeshore associated with a person or a hill named Moberg, "hill with barren sandy soil". The issue is complicated by the fact that Algrena hamlet is located between no less than three lakes. Despite telephone conversations with knowledgeable members of the local historical society, I have not been able to identify Mobergsudden, so this find spot is not included in the book's core database of known sites. I leave the identification of the site to future researchers with access to local historical sources and maps.

Nä, Glanshammar, Hassle
After an uncommonly strong spring flood in 1936, a Pontic bronze cauldron was found poking out of the bank of River Äverstaån, immediately downstream from a ford (Raä 53). It contained two Etruscan or Eastern Alpine ribbed buckets (*ciste a cordoni, Rippenzisten*), two Mindelheim swords of Hallstatt-culture design, one matching sword pommel, two small bronze hooks and twelve decorative discs with iron fittings and rivets (Waldén & Gustawsson 1937; Ekholm 1943; Baudou 1960 hoard #162). Regarding the discs, Jørgen Jensen (1997:180) points to parallels from

Moravia and suggests that they were intended as *cardiophylakes*, armour plates worn on the bandolier, one on the chest and one on the back. The finds date the deposition to late Per. VI, when the site was on a short river stretch between small lakes, 3.8 km upstream from the river mouth at Storsicke. Recent fieldwork near the site revealed interesting evidence for later wetland rituals but shed no light on the Late Bronze Age (Karlenby 2007).

Nä, Glanshammar, Storsicke

A boggy field at Storsicke hamlet has yielded an accumulation of axes: a flanged axe (Per. I; Oldeberg 2682), a palstave (Per. II; Oldeberg 2683), a rhomboid stone axe (LBA) and various Neolithic shaft-hole axes (Raä 50 & 70; SHM 13376; Örebro 14274; private collection; Karlenby 2003). About 1050 cal BC the site was a bog on a peninsula next to the mouth of River Äverstaån on Lake Hjälmaren. The last stretch of the river here may have been gorge-like before modern dredging changed its bed.

Sö, Bärbo, Täckhammar bridge

Täckhammar manor is on the shore of Lake Långhalsen next to where River Nyköpingsån drains the lake through a narrow gorge. A 13th century property document refers to rapids here (Böklin 1961:27), and prehistoric finds have been made during work on hydraulic engineering to calm those rapids, as well as on the various versions of the Täckhammar bridge across the river. The first finds that came to archaeology's attention were dredged up in 1856 (Raä 80) and the latest ones saw daylight when the current bridge was built in 1939 (Raä 85). It is an accumulation of objects from the Middle and Late Neolithic, the Early and Late Bronze Age, and even a 17th century copper coin hoard (SHM 2273, 4177, 22228; Nyköping 2595 / Strängnäs 1083; Strängnäs 1085, M 156). The Bronze Age objects are four flanged axes, two socketed axes, two spearheads and a sword (Berg 2006). Another socketed axe was found 1.4 km downstream in the river, during dam building at Kristineholm manor in 1938 (Raä Helgona 173).

About 1050 cal BC the river gorge opened up into a shallow sea inlet covering much of what is now a somewhat boggy field on the left, eastern river bank. In April of 2011 I directed metal-detecting (14 person hours) and fieldwalking (10 person hours) across this field. Our idea was that since the gorge had attracted repeated deposits over millennia, maybe the inlet had as well. But all we found was a respectable amount of fire-cracked stone, one piece of fired clay and a collection of lithics. Roger Wikell kindly classified the latter and identified only three certainly modified pieces: a bipolar core, a scraper and an unclassifiable piece, all of quartz. These observations most likely indicate riverside settlement.

Sö, Eskilstuna, Hyndevad and Kälby

The hamlet of Hyndevad ("Ford of the Hind") is on the left bank of River Eskilstunaån at the Ryngsberg pass where the river breaks through the Strömsholm gravel ridge. Eskilstunaån drains Lake Hjälmaren, and thus indirectly much of the province of Närke, into Lake Mälaren (an inlet of the sea at the time under study). These two lakes are among Sweden's largest. In 1878 a major land reclamation project began which resulted in Lake Hjälmaren's mean surface level being lowered by 1.3 metres (Waldén 1940; Lennqvist 2008). This new level was first measured in the winter of 1885–86, at which time Lake Kvismaren to the south-west had also been all but drained.

Before the lowering of the lake there was a series of four waterfalls or rapids in the river downstream from the Hyndevad ford, romantically described in his journal *Runa* by a visibly stirred Richard Dybeck (1842:32f, and I translate).

> From a tall cliff, by woods and clamouring waters surrounded, at the Hyndevad waterfall one enjoys a truly enrapturing view. At the foot of the cliff, a mobile darkness, into which the waterfall incessantly splashes clear droplets; tall spruce-trees, extending beneedled boughs over the surge, as if they wanted to veil its disquiet, or exhort it to calm; the still water above the fall, much like a placid lake, with projecting leafy groves, by lush rushes and proud yellow iris wreathed; farthest off across the limpid water's surface, on a rising ridge, among verdant linden trees, Husby's ancient church, and next to it dark forest eaves, transporting the viewer, the prospect of lovely Ryningsberg manor. Reader! If you require a sky over the painting, then paint it yourself!

One of the first interventions the project engineers made in 1878 was to blast a side channel past the rapids, close off the river's main course at both ends, drain it and deepen it, a task performed by workers with shovel in hand under the direction of geologist Otto Gumaelius. He was interested in possible past variations in the surface level of Lake Hjälmaren. During the digging, a large number of ancient artefacts were found in the exposed sediments on the bed of the uppermost rapids (Raä 587), and many were painstakingly plotted in three dimensions. Gumaelius also drew a detailed plan of the riverbed, noting that it descended six Swedish feet (1.78 m) over a distance of c. 600 feet (178 m). Then a river dam was built across the find spot. In 1885 Gumaelius published a detailed account of his work at Hyndevad in a geology journal, using the artefact finds to date geological events. He was convinced that the artefacts had ended up in the rapids when boats had overturned there, because the river had been an important transport route.

Long after the initial work on the land reclamation project ended in 1885, the project organisation continued to function as a company in order to fulfil its agreed-upon maintenance duties. A simplified copy of the Hyndevad plan and

finds from that site and others were kept in the company office in Örebro until February of 1909. Then the company overturned an earlier negative decision and decided to grant a request from the Custodian of Ancient Monuments to have the finest objects and the plan sent to the SHM in Stockholm (SHM 8234:15, 13671). The humbler items were retained in Örebro's museum (ÖrLM 3608). At this time, over 30 years had passed since the river was laid dry, and little surrounding information about the finds was available to enter into the museum inventory notes. The simplified plan sent to the museum is impossible to fix on the ground, as it shows no buildings and has neither scale bar nor compass arrow. The key to understanding the Hyndevad finds is Gumaelius's 1885 paper.

The Hyndevad rapids had apparently seen repeated deposition events over millennia starting in the Late Neolithic. For our present purposes, the following Bronze Age objects are of interest: a Per. I flanged axe (Oldeberg 2739), a Per. II palstave, a tanged dagger blade (O 2740), two Per. IV–V socketed axes, a Per. VI or later spiral-head pin, a scroll-head pin of similar date, and an unusual belt hook adorned with two large spiral discs, being of similar date as the two pins (Damell 1971:71–80; 1985; 1999). Torun Zachrisson (2002:24f) has noted that spatially speaking, the bronze axe heads were found in pairs that may have been deposited together, as may the spiral pin and the belt hook.

Looking at the site's Bronze Age landscape situation, it was a stretch of rapids then as well. But River Eskilstunaån was far shorter at the time and debouched into an arm of the sea little more than a kilometre downstream from the deposition site.

The river dam project and a nearby railway yard have remodelled the landscape around Hyndevad dramatically. But the site of the famous paired votive axe find of 1864 at Kälby (Raä 558; SHM 3573, 6759; private collection Cavalli-Holmgren; Oldeberg 2729), known as the "Skogstorp axes", is well preserved and located in a small bog next to a roundabout only c. 900 m to the north (Damell 1971:81–83; Beckman-Thoor 2002). The site was apparently a bog at the time of the deposition event as well. It saw fruitless metal detecting and test-pitting under David Damell's direction in 1974 (report in ATA). Karin Beckman-Thoor has suggested that a low curved natural ridge near the find spot might have functioned as the seating tiers of an amphitheatre where people could watch rituals involving deposition. This does not strike me as very illuminating. There is only evidence for one ritual event at the site. Perhaps someone watched it from the ridge, perhaps not. This does not make the ridge an amphitheatre. (For a summary of the debate about the dating of the axes, see Sjöberg 2008.)

Sö, Helgesta, Frändesta, Oxbroberget

In 1937 Count Eric von Rosen donated a bronze spearhead to the SHM. It had been found in "a crevice under a flaked-off slab in Oxoberget [now Oxbroberget, "Ox Bridge Hill"]". The spearhead is of type Gundslev and dates from Per. III (SHM 21687; Oldeberg 2737). The crevice was 150 m from the road between Nyköping and Sparreholm, which allows good pinpointing. At the time of deposition the site was on a high promontory on the south shore of an island at a narrows in Lake Båven.

Sö, Huddinge, Balingsnäs

This apparent bronze hoard find is poorly documented and the objects are in the hands of unknown private owners. But the site is in the sites and monuments register (Raä 276) and there is a slight paper trail in the ATA. The finds are described as a spearhead, a socketed axe, a shaft-hole axe and a number of hollow bronze spheres – a decidedly odd find combination – all found within a 40 metre diameter area. My colleague Roger Wikell and modern runestone artist Kalle Dahlberg know the finder and have told me something about the case.

In about 1980 a teenage boy from the area was using a metal detector and found some ancient objects at a site in Sorunda parish. When submitting them to the Swedish History Museum he got a severe talking to and lost all interest in further contact with the museum staff. He continued metal detecting for some time, and when he found the Balingsnäs hoard he took it to a coin dealer instead, where one imagines that he got a warmer welcome. In 1992 however Kalle Dahlberg, who had been shown the site, reported the find to the National Heritage Board.

In 2013 Dahlberg pointed out a spot to me that is 200 m east of the one registered in 1992. Both spots are however situated in a similar position in relation to a Bronze Age lake. In 1050 cal BC, they were on or very near the south shore of Lake Trehörningen, which though smaller is still there today. In view of the many uncertainties around this find, I have not included it in this study's core database.

Sö, Spelvik, church hill

In 1838 a major Per. VI bronze hoard was found after a boulder had been blasted apart near Spelvik church (SHM 813; Raä 98). It was one of the first bronze hoards acquired by the SHM. It consists of twelve complete *Wendelring* reverse-twisted torques, fragments of at least six similar ones, one likewise twisted torque with wide end plates, two spearheads, two socketed axes and a belt box. In 1050 cal BC the site was on an isthmus near the south-facing shoreline of a sheltered sea inlet.

Sö, Svärta, Kråknäs/Kråkstugan

The Kråknäs hoard from Per. VI was found in 1933–34 after bog drainage for arable *på hagslät-*

ten, "on the flat pasture land" (Raä 146:1; Baudou 1960 hoard #160). It consists of an antenna sword and a *Wendelring* reverse-twisted torque – an unusual combination. The sword, comprised of a separately cast bronze hilt and blade, is repaired with an iron rivet and has a close parallel in a bronze-hilted iron sword found in Pomerania (Arbman 1934). The find spot was apparently a nondescript bog location even at the time of deposition. About 200 m from the hoard, a type Mälaren socketed axe of Per. IV–V has been found, likewise in a Bronze Age bog location (Raä 146:2).

Sö, Turinge, Nykvarn, Ekudden

This lakeshore location (Raä 328) has not changed appreciably since the Bronze Age. In 1885 J.A. Larsson dug a pit to bury a calf that had died, and he came upon a mixed bronze hoard of Per. III (Schnell 1937). It is the largest known from the study area in terms of how many objects it contains: 58. It consists of 30 decorative tubes for a string skirt, seven tutulus bosses, seven saw blades, four small spiral rings, three socketed gouges, two palstaves, two spiral arm rings, a long tapered button, a spearhead and a socketed axe (Oldeberg 2759; SHM 7774). In other words, jewellery, tools and a weapon. A 1931 investigation of the site turned up only some knapped flint.

Sö, Vrena, Dalby, Vrenaån

The Vrenaån stream is only 700 m long and drains Lake Hallbosjön through a cut in a ridge into Lake Långhalsen. In the Bronze Age this was a whitewater gorge. During damming and digging to improve the passage, a type Mälaren socketed axe (SHM 2417) of Per. IV–V was found here. In 1857 it was donated to the SHM by the military hydraulic engineer Major E.C. Leijonanckar. In 1875 two Per. I flanged axes (SHM 5659) from the same site were donated by local landowner Oscar Baker. These had come to light many years previously during river improvement, probably during Leijonanckar's work at Vrena. These two axes were reportedly found close together on the riverbed.

Sö, Vårdinge, Hjortsberga, Höglund

On Hjortsberga manor's land, in the woods near the croft Höglund, is an outfield. The land is a former bog which has been drained, farmed for a time, then turned to pasture, and finally in recent years deprived of its fence and left as grass fallow. It has largely reverted to wetland. In 1907, shortly after the original drainage work, a *Wendelring* reverse-twisted torque from Per. VI was found here (Raä 59; SHM 13117). Often, several such rings have been found together. In April and May of 2011 I therefore directed 9.5 person-hours of metal detecting across the outfield. We found nothing dating from before the 20th century.

Only a few hundred metres north down slope

from the find spot is a cluster of burnt mounds, low burial cairns and cupmark boulders at the 1050 cal BC lakeshore. The torque was apparently deposited in a bog just uphill from a coeval settlement and ritual site.

Sö, Vårdinge, Långbro

In 1859 railway workers broke through a short section of gravel ridge at Långbro in Vårdinge, removing a small peat bog that had formed in a basin on top of the ridge. In the peat they found many preserved trees and a metalwork hoard (SHM 2674) placed at a depth of four to five feet. This was five feet from the edge of a stone cairn that was itself five feet in diameter, lying bedded into the bog at the same depth as the hoard. Bror Emil Hildebrand later found part of a fine-grained sandstone whetstone (SHM 2842) in a spoil dump at the site.

The hoard consists of 21 pieces: seven reverse-twisted torques, four spiral wire arm rings, two spectacle brooches, two disc-headed pins, a hollow sheet armring, a sheet collar, two socketed axes, a socketed chisel and a faceted ring of tin broken into seven parts. It dates from Per. VI.

The break-through point of the railway at Långbro is easily found today. No sign of the bog remains. About 1050 cal BC the site was above a steep slope into a lake. This placement of a hoard in a bog on a ridge top subverts the symbolic dichotomy suggested by Birgitta Johansen (1993): high and dry vs. low and wet.

Up, Alsike, Rickebasta

At Rickebasta in Alsike (Raä 52) a large collection of animal bones, a steering oar and a part of a wooden boat of Late Iron Age type (Larsson 2007:240) were found in 1961 during drainage work when a streamlet through a bog was straightened and deepened. Ulf Erik Hagberg surveyed the site in 1963–64 (Hagberg 1967:77; reports in ATA; finds SHM 28410). According to studies by Bengt Lundholm, the bones represent three fairly complete horses and sundry parts of a cow and a pig. Years after the find many animal teeth could still be seen in the ploughsoil at the site. Today the property has reverted to wetland.

A horse bone gave a radiocarbon date of about 800 cal BC, the Late Bronze Age (St-2350). I have however disregarded the site in this study. There are four important reasons to question the Bronze Age date*.

The find spot is located at a level between 5 and 10 m a.s.l. and was thus on the sea bed until the mid-1st millennium AD. It appears unlikely that animal carcasses dropped into an inlet of the sea would stay together in one spot in this manner.

The boat part dates from the Late Iron Age.

There is no sign of any Bronze Age activity in the vicinity: no burnt mounds, no rock art, no hilltop cairns, no stray finds. The landscape situation (within sight of the Tuna in Alsike boat burials) rather suggests a Late Iron Age date for the animal sacrifices.

* During proofreading I learned from Fredengren's paper in *Fornvännen* 2015:2 that recent radiocarbon analyses of bones from Rickebasta have given dates in 790–410 cal BC (cattle), 720–620 cal BC (horse), 410–570 cal AD (horse) and 1640–1960 cal AD (pig). Late Bronze Age and later.

Radiocarbon sample preparation methodology was not very well developed in the 1960s.

Up, Bred, Eklunda, Mossen

In 1963 a socketed axe (Västerås 11863) was found in a bog named Mossen, "the bog", on the land of Eklunda hamlet in Bred parish, Uppland. Despite attempts to contact knowledgeable local people I have not been able to identify the bog, and so this find spot is not included in the book's core database of known sites. I leave the identification of the site to future researchers with access to local historical sources and maps.

Up, Härnevi, Lilla Härnevi

The hamlet of Lilla Härnevi ("Little Sanctuary of Hörn") is in the Örsundaån river valley near Enköping in Uppland. In 1902 during ditch digging on the hamlet's land a major bronze hoard was found, partly packaged in a belt box and wrapped in a leather garment decorated with bronze discs. It contains c. 50 objects – jewellery, weaponry, tools and more – some possibly dating from Per. IV, most of them certainly from Per. V and VI (Baudou 1960 hoard #171). The hoard was most likely deposited in the late Per. VI. Due to a high degree of fragmentation, the varied functional and chronological character of the contents and the inclusion of two casting jets, the hoard has often been interpreted as a metalworker's non-ritual scrap cache (Stenberger 1964:288; Hjärthner-Holdar 1993:164; Karlenby 1998:7). Magdalena Forsgren (2007) argues against the idea. One notable feature of the hoard is that the belt boss has traces of iron struts being used when it was cast (Hjärthner-Holdar 1993:164f).

The preservation of the leather and the ditch digging might suggest that the site was quite wet in 1902, but the bronzes have distinct green dryland patination. The find spot's location is known to an accuracy of a few tens of metres (Raä 69 – the register point is actually located between the two identified by A. Gottfrid Eriksson and Erik Floderus respectively). It is near the 25 m a.s.l. contour curve and two burnt mounds (Raä 83), both being traits typical of Late Bronze Age settlement sites in the area. Indeed, there are many preserved burnt mounds in the vicinity despite extensive cultivation, and much fire-cracked stone and quartz can be seen in the ploughsoil. Small parts of a Bronze Age settlement have been excavated less than 400 m to the north, producing the foundation of a three-aisled post-built house, a burnt mound dated to about 900 cal BC, unusually large amounts of fine pottery and fragments of casting moulds (Karlenby 1998; Eriksson 2009). At the time of the hoard's deposition, the find spot would have been located between 1 and 1½ km from the seashore. All in all, the hoard appears to have been buried on dry land next to a most likely abandoned Bronze Age settlement.

In April and August of 2011 I directed metal

detecting (19 person hours) and fieldwalking (2 person hours) over the find spot and its immediate surroundings. The oldest datable find was a 17th century copper coin of Queen Christina, but we also found a quern rubber (weight 397 g, diameter 55–64 mm, a characteristic find at Bronze Age settlement sites), two pieces of knapped imported flint and three pieces of copper alloy. In December myself and Inga Ullén compared the three fragments with the Härnevi hoard at the SHM. We found that though two fragments have the right thickness, curvature, surface texture and colour to be part of the spectacle brooch and the belt box, neither of them have breaks or any decoration that fit with the Bronze Age jewellery items.

Forsgren (2008) has studied the find's landscape situation, pointing out its proximity to an important routeway crossing where River Örsundaån breaks through the Enköping gravel ridge. In Per. VI the river mouth was actually near the breakthrough point, 2 km north of the find spot. A problem with Forsgren's study is that neither the 20 m nor the 15 m a.s.l. elevation contour she has had access to is likely to represent the seashore at the time of the deposition. Another is that as the hoard is so late within the Bronze Age, many sites of that period that she plots on her landscape map were probably not in continued use by then. And with the beginning of the Iron Age, visible field monuments disappear from the area for several centuries. Forsgren's idea of a small natural amphitheatre used to seat the audience of a ritual drama performed at the find spot (credited to Beckman-Thoor 2002, who suggested it for the votive axe deposit at Kälby in Eskilstuna, "the Skogstorp axes") appears untestable, and to my mind the topography does not suggest anything of the kind.

Up, Lena church/Vattholma

The environs of Lena church, on a gravel ridge terminal above the confluence where Rivers Vendelån and Vattholmaån join to form River Fyrisån, have produced two finds: an eight-piece Period IV weapon hoard found in 1833 and a Period II-III sword found in 1915 (SHM 612 and Uppsala 4565). Gunnar Ekholm (1921:42) reproduces a map sketch of the hoard's find spot made two weeks after it surfaced, offering a very good idea of where it was. Information about the single sword's find spot suggests that it would have been unearthed near the registered Late Iron Age cemetery Raä 90. The two finds were made only about 800 m apart.

About 1050 cal BC, the valley of Rivers Vendelån and Fyris was still a long narrow arm of the sea, while Vattholmaån was a short whitewater gorge draining a lake into this sea inlet. The two find spots overlooked the rapids.

Up, Lunda, Sigridsholm

The last time a multi-object deposition site was identified in the area under study was in 1986.

Having repeatedly found bronze objects during ploughing in a certain part of a field north of Lake Sigridsholmssjön (Raä 232), the owners of Sigridsholm manor alerted the authorities. In July of 1986 Birgitta Sander directed metal detecting and machine stripping of c. 400 sqm on the site, finding four scattered bronze fragments, some of which fitted with objects found by the landowners. All finds went to the SHM for conservation and documentation, but then in early 1989 the objects found by the landowners were returned to them. Apparently this was done because these copper-alloy finds had not been made at the same time or at exactly the same spot, which meant that according to the 1986 legal situation, it was not mandatory for the finder to offer them to the state. The hoard thus remained in private hands and was still kept at the manor in September of 2013.

All in all, there are ten or eleven objects. Looking at their dates, all may have been deposited together during Per. VI. But the type Mälaren axe is anachronistic and might be interpreted as evidence for an earlier deposition event. I have not however done so, because of the lack of detailed find context. The incomplete type C1a axe is coeval with the type Mälaren axe and may have been included as a piece of more or less antique scrap.

In Per. V and VI the basin with the find spot was either still a sea inlet or a recently isolated coastal lake. The finds are as follows, with Baudou's 1960 type codes.

Four or five rings

A complete deeply flanged *Wendelring* torque, type D2, Per. VI

Two pieces of a shallowly flanged early *Wendelring* torque, type D1, Per. (V-) VI

Five pieces of a thin unadorned torque with round cross section

Nine pieces of a flat hollow armlet or anklet with groups of four ribs, width c. 2.5 cm, Per. VI. Better-preserved rings of this type are known from hoards at Ingla in Skogs-Tibble (Up) and Hökåsen in Hubbo (Vs).

A small oval unadorned ring, possibly of later date

Three socketed axes

One type B1a Mälaren, length c. 10.0 cm, Per. IV-V

One type B2a Scania, length c. 8.5 cm, Per. V-VI

One incomplete type C1a with three cuffs, original length c. 4.5 cm, Per. IV-V

Two dress pins

The heads of two type B2d trefoil dress pins, Per. VI

Deposition in or at the northern part of the lake continued after the Bronze Age. Finds include the bones of various animals, two small wooden boats and a Viking Period sword (SHM 6742; Larsson 2007:149).

Up, Ramsta, Bragby, Mönemossen
In 1912 a Per. I *vollgriff* bronze sword was found at a depth of seven inches in the Mönemossen bog on land belonging to Bragby hamlet in Ramsta parish (SHM 14759). Gunnar Ekholm (1916) published the find in *Fornvännen*. But knowledge of the find spot was then lost. Mönemossen is on no modern map and is not remembered locally. Ekholm stated that it was 2 km south of the hamlet, but that would be in the neighbouring parish and not on Bragby's land and so must be an error. Current landowner Hans Wigenfeldt showed me an 18th century map of the hamlet's land with a bog named *Mönmossen*, located 1 km south-east of Bragby's home plots. This is 2 km south of Ramsta church, which may explain Ekholm's error, and should be the find spot. About the time when the sword was made, Mön(e)mossen was a small lake on an island in the sea.

Up, Rimbo, Rimbo
In 1912 J. Broberg had workers dig for the foundation of his new house in the small town of Rimbo. They found a type Mälaren socketed axe (SHM 14586). I have not been able to identify Broberg or his house, and so this find spot is not included in the book's core database of known sites. I leave the identification of the site to future researchers with access to local historical sources and maps.

Up, Skogs-Tibble, Ingla/Vicarage
This site has yielded two finds a few metres apart near the *stensättning* grave superstructure Raä 64.

In 1910 three Per. VI arm rings were found in a small potato patch at the Mellgrind farm labourer's dwelling (SHM 14105; Ekholm 1921 #131; Baudou 1960 hoard 177). They were at a depth of 20 cm, lying flat in a row on the subsoil sand next to a smallish boulder which was rooted in the subsoil and covered by earth. In 1929, a Per. IV socketed axe with arched edge ribs (Uppsala 5529) surfaced nearby on the edge of a field. About 1050 cal BC the site was near the shoreline of an inland lake.

Up, Stavby, Sunnersbol (Lake Bokaren)
Lake Bokaren is surrounded by boggy shores after having been partly drained. In 1939, during drainage digging several hundred metres north of the current lakeshore, bones were found. This prompted excavations that documented the remains of a wooden platform where large amounts of flax and many bones had been deposited (Raä 137; Lundholm 1947; documents in ATA). The bones were from humans, horses, cattle and pigs and included six skulls: two human and four from horses. The site has been ascribed a Bronze Age date on the strength of a pollen analysis, but this is a weak dating method and so the single small artefact found carries greater weight. The artefact is a bone lance head

like those from the Hjortspring find, indicative of the Iron Age's first few centuries. A boat's rib was also found (Larsson 2007:240), likewise suggesting an Iron Age or later date*.

Up, Söderbykarl, Ekeby

A type Mälaren socketed axe in the local historical society's collection (no 261) was, according to Ekholm (1921 #70), found in 1914 at Ekeby "during harrowing in a field north of Lake Bordsrudssjön". The only lake on whose northern shore Ekeby hamlet seems to have had land is Lake Brosjön. I have found no other mention of Bordsrudssjön in the sources available to me. I leave the identification of the site to future researchers with access to local historical sources and maps.

Up, Vårfrukyrka, Grop-Norrby, Hjältängarna

Hjältängarna, "Hero Meadows", is a drained and cultivated wetland between Grop-Norrby and Rönna in Vårfrukyrka parish. It has yielded numerous finds of human and animal bones*, several Late Neolithic shaft hole axes, a Per. III socketed axe (SHM 21183, Oldeberg 2858, type D) and several quern rubbers (Raä Vårfrukyrka 505:1; Raä Härnevi 113:1). A rock outcrop in the wetland bears cupmarks and there are many burnt mounds nearby. In 1050 cal BC the site was a fen through which a small stream passed between two lakes near the coast.

Up, Österunda, Domta vad

In about 1910, a bronze jewellery hoard was found during ploughing of a drained bog near Domta in Österunda (Raä 83; Uppsala 5690; Arwidsson 1939; Baudou 1960 hoard #181). The site had in modern times been a fordable point across an extensive wetland. The finds consist of two finely wrought Per. V belt domes and three simple open rings made of bent bronze rods. The site has also yielded two Late Neolithic shaft-hole axes and a steatite spindle whorl most likely of Viking Period date. In 1050 cal BC the site was in a lake on whose shore the Pukberget cave, described below, was located. The property has reverted to wetland.

Up, Österunda, Pukberget cave

Pukberget, "Devil's Hill", is a steep-sided outcrop whose north-western side has collapsed into a pile of enormous blocks. Boulders the size of houses have rolled far onto the flat land below. And among the blocks stacked closest to the hillside is a generously proportioned talus cave (Raä 62). In 1946 archaeologist Erik Floderus visited the area and met an old man named Emil Ek. He told Floderus that perhaps fifteen years previously he had been inside the cave and, fumbling about in the dark, had got his hands on a couple of loose objects on a ledge. He put them in his pocket and found his way out, whereupon he realised he was holding a small bronze spearhead and a large animal tooth. Floderus per-

* During proofreading I learned from Fredengren's paper in *Fornvännen* 2015:2 that recent radiocarbon analyses of bones from Lake Bokaren have given dates in 700–800 cal AD (human), 970–1160 cal AD (human) and 1220–1380 cal AD (pig). Late Iron Age and later.

Bones from Hjältängarna have given dates in 1280–1050 cal BC (pig) and 1110–900 cal BC (cattle). Bronze Age.

suaded Ek to donate the finds to the SHM, and there they remain (SHM 23674; Floderus 1946). The tooth is from a horse and the spearhead dates from Per. V or VI. At that time the cave was on the shore of a narrows in an inland lake, and on the other side of the narrows, we find the Domta vad hoard described above.

I wondered if there might be more traces of Bronze Age activity in Pukberget cave. With Margareta Boije and Magdalena Forsgren I spent three days in August of 2011 digging and sieving two metre-square test pits in the cave's larger south gallery and half a square metre in the crevice outdoors below the south rock shelter (Rundkvist 2012). We found only traces of recent visits (aluminium tea candle cups, pieces of electric torches, bottle glass shards, superficial remains of several camp fires), overlying clean post-glacial sediments inside the cave.

Vs, Dingtuna, Stora & Lilla Jacksbo and Skerike, Häljebo

The information about these finds, three almost identical neck rings from the turn of Per. VI into the Iron Age (Claesson 1936; cf. Olsén 1934; Stjernquist 1956), looks highly suspect. Ostensibly the rings were found at three different nearby spots during ploughing and roadworks in 1933–35. The sites pointed out by two finders are a few hundred metres apart near the Dingtuna-Skerike parish boundary, between the hamlets of Stora Jacksbo and Häljebo, to either side of a wooded ridge. It would seem far more likely that the rings were found together, perhaps at one of the three indicated spots. I have not used these sites in this study.

The rings' green patination suggests a dry find spot. Looking at the three spots in the Bronze Age landscape though, we find that they are all in or near water: one at a stream's entry point into a small lake west of the ridge, one at another stream's entry point into a similar lake east of the ridge and finally one spot in that latter lake.

Vs, Munktorp, Avhulta

This site is in the sites and monuments register (Raä 403), marked among the buildings of Avhulta hamlet at a level of only c. 13 m a.s.l., corresponding to a depth of 5-10 m in the Late Bronze Age sea. The register lists three finds from the site. Two of similar LBA date are early acquisitions that entered the SHM through the intermediary of Major Sigge B. Ulfsparre's collection: a type Mälaren socketed axe (SHM 7571:102) and an unadorned leaf-shaped socketed spearhead (SHM 7571:164). Both are provenanced to Munktorp parish in the inventory notes, but only the axe is attributed specifically to Avhulta hamlet. The third find is a flanged copper axe (SHM 10322:14), most likely of Late Neolithic date and possibly a thousand years older than the other two objects. The museum inventory only gives Munktorp parish as provenance.

The find spot in the sites and monuments register most probably just marks the hamlet in which the objects were kept before Ulfsparre acquired them. The find combination is highly unlikely to be real, and in any case it is completely undocumented. For these reasons I have not used the Avhulta site for the present studies.

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APPENDIX A Maps, field photographs and finds images

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Nä, Lännäs, Djursnäs	5		
Sö, Björnlunda, Mosstugan	6		43
Sö, Bärbo, Täckhammar bridge	7		
Sö, Eskilstuna, Hyndevad		33	
Sö, Eskilstuna, Tunavallen	8		
Sö, Helgesta, Oxbroberget	9		
Sö, Helgona, Kristineholm		34	
Sö, Huddinge, Solgård	10		44
Sö, Sorunda, Södra Rangsta	11		
Sö, Spelvik church	12		
Sö, Torsåker, Harlinge	13		
Sö, Turinge, Ekudden		35	
Sö, Vårdinge, Hjortsberga	14		
Up, Bred, Eklunda			45
Up, Bromma, Norra Ängby	15		
Up, Dalby, Gräna	16		
Up, Edsbro, Smaranäs	17		
Up, Fasterna, Grindtorpet	18		
Up, Hagby, Focksta		36	

	Location map	Field photograph	Finds image
Up, Hammarby, Ekebo	19		46
Up, Husby-Sjutolft, Ekolsund	20		47
Up, Kårsta, Lilla Sunnarby	21		
Up, Lena church	22		
Up, Lena, Vattholma	22		
Up, Lunda, Sigridsholm	23		48
Up, Simtuna/Torstuna, Forsby	24		
Up, Skogs-Tibble, Stensmyran		37	
Up, Solna, Råsunda	25		
Up, Spånga, Backlura	26		
Up, Uppsala-Näs, Skärfältens		38	
Up, Vänge, Bärby		39	
Up, Vänge, Bärby/Sävaån		40	
Up, Ärentuna, Gammelängen			49
Up, Ärentuna, Storvreta rwy stn	27		
Up, Österunda, Domta vad	28		
Up, Österunda, Pukberget	28	41-42	
Vs, Björksta, Vida/Högtorp	29		
Vs, Hubbo, Hökåsen	30		
Vs, Malma, Åsby	31		
Vs, Västerås, Tunby	32		

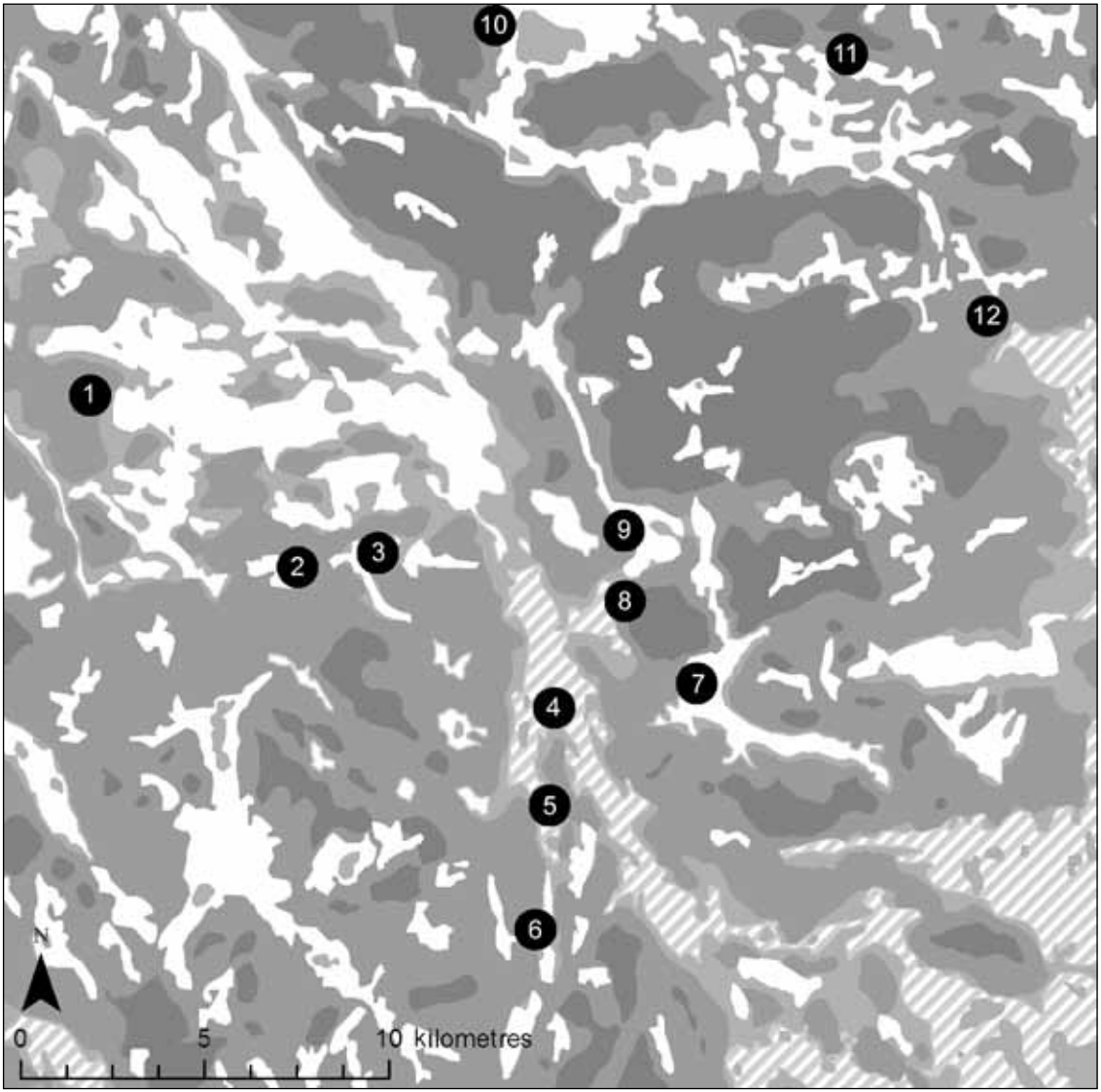

Fig. 1. Södermanland's densest site cluster. Shoreline 1050 cal BC. Hatching represents the sea.

1. Mosstugan in Björnlunda
2. Hällesta in Frustuna
3. Hållsta in Frustuna
4. Torsnäset in Torsåker
5. Tuna in Torsåker
6. Harlinge in Torsåker
7. Nådhammar in Vårdinge
8. Hjortsberga in Vårdinge
9. Långbro in Vårdinge
10. Ekudden in Turinge
11. Rophäll in Tveta
12. Järna rwy stn in Överjärna

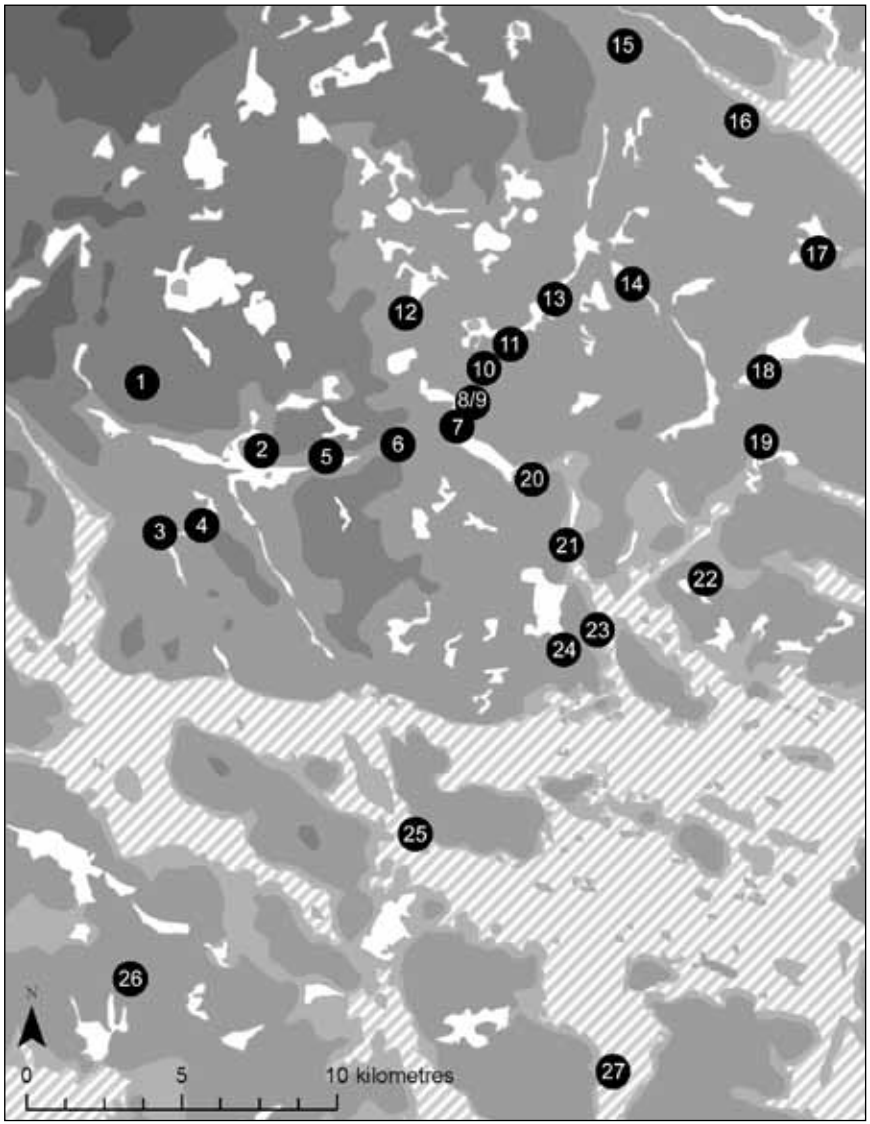

Fig. 2. Uppland's densest site cluster. Shoreline 1050 cal BC. Hatching represents the sea.

1. Lake Oxsjön in Österunda
2. Stockmossen in Nysätra
3. Domta vad in Österunda
4. Pukberget in Österunda
5. Lake Hålsjön in Nysätra
6. Stensmyran in Skogs-Tibble
7. River Sävaån in Skogs-Tibble
8. Ingla in Skogs-Tibble
9. Skogs-Tibble Vicarage
10. Ingla-Långmyran in Skogs-Tibble
11. Långmyran in Skogs-Tibble
12. Ulvansvad in Skogs-Tibble
13. Bärby in Vänge
14. Bärby/Sävaån in Vänge
15. Ubby in Jumkil
16. Altuna in Börje
17. Brunnby in Börje
18. Frosshögarna in Läby
19. Skärfältens in Uppsala-Näs
20. Lundbacka in Skogs-Tibble
21. Focksta in Hagby
22. Bragby in Ramsta
23. Säva in Gryta
24. Grängesberg/Eningsberg in Gryta
25. Noppsgärde in Fröslunda
26. Skälby in Vårfrukyrka
27. Ekolsundsviken in Husby-Sjutolft

Figs 3–32. Map legend. 5 m contour lines above modern sea level unless stated otherwise. White is freshwater. Hatching represents the sea. Single large dots are depositions. Triangles are burnt mounds. Small-dot triplets are rock art, mainly cupmarks. For Per. II-VI, the Geological Survey's shoreline for 1050 cal BC is shown. For Per. I, the shoreline for 2050 cal BC is shown. Streams are the modern ones. All maps by Tove Stjärna.

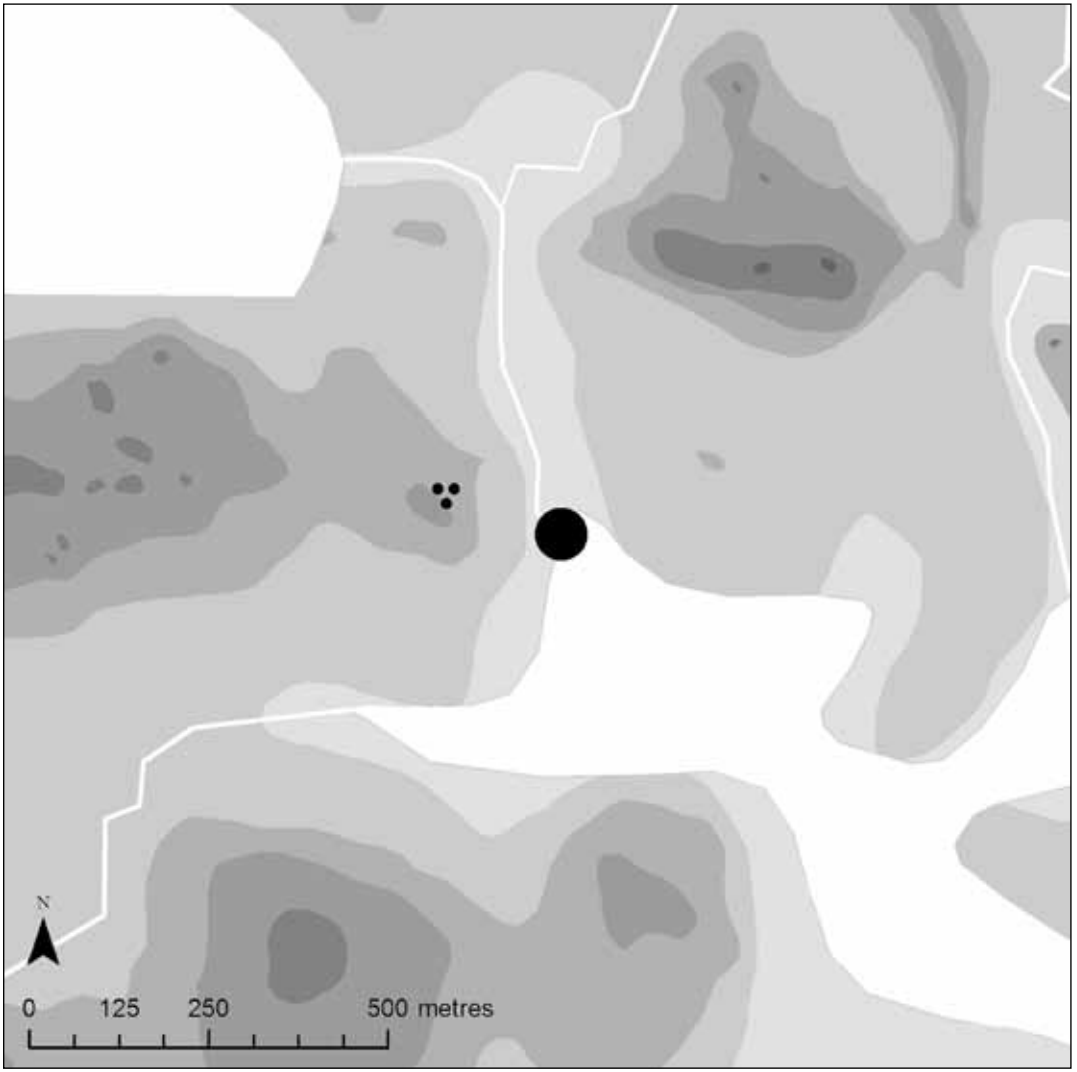

Fig. 3. Hassle in Glanshammar (Nä). River location. Per. VI mixed hoard.

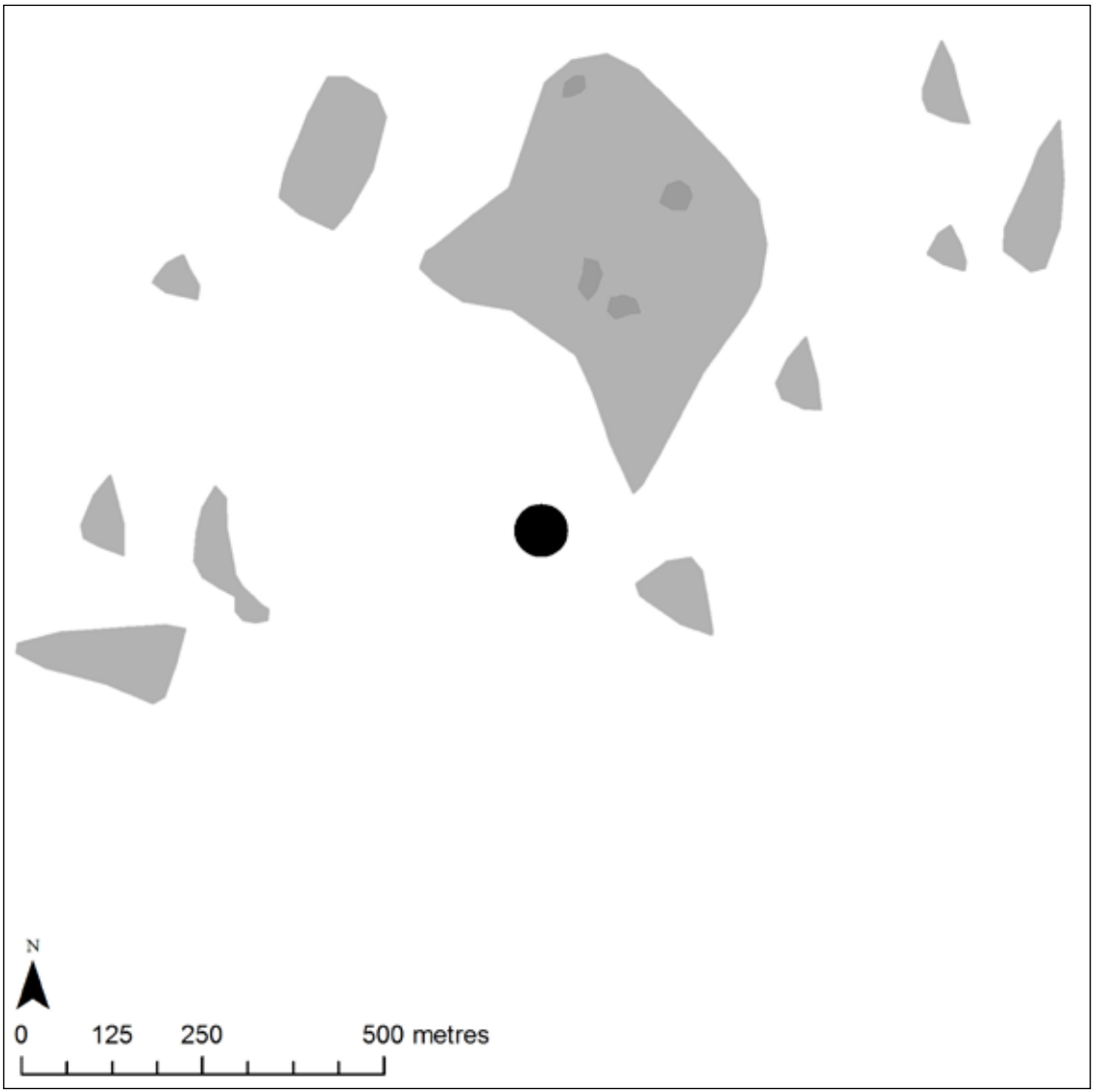

Fig. 4. Sticksjö in Glanshammar (Nä). Lake location. Per. I-II flint dagger.

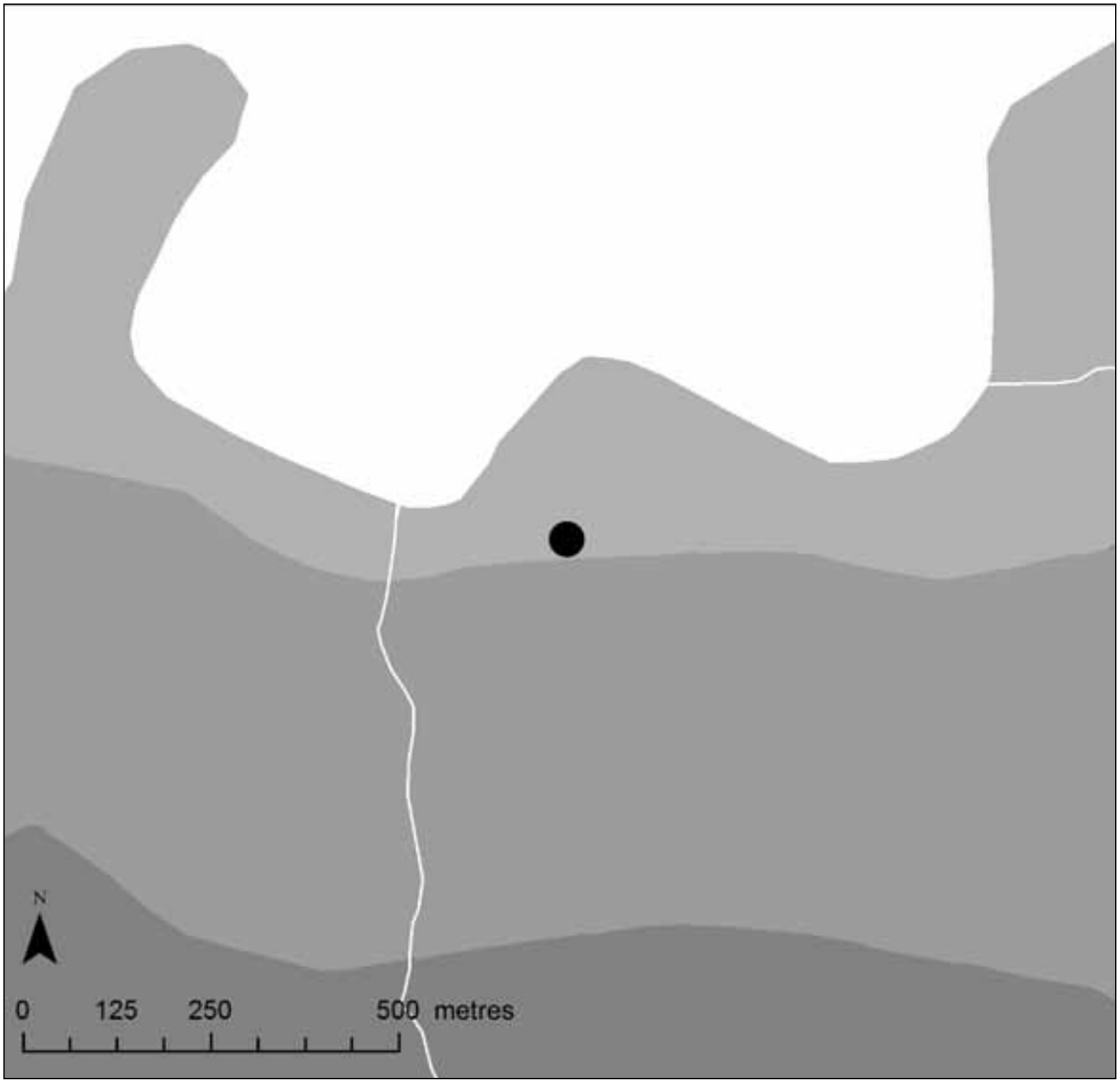

Fig. 5. Djursnäs saw mill in Lännäs (Nä). Inland lake location. Per. V-VI spearhead and a knife fragment deposited in/at Lake Hjälmaren.

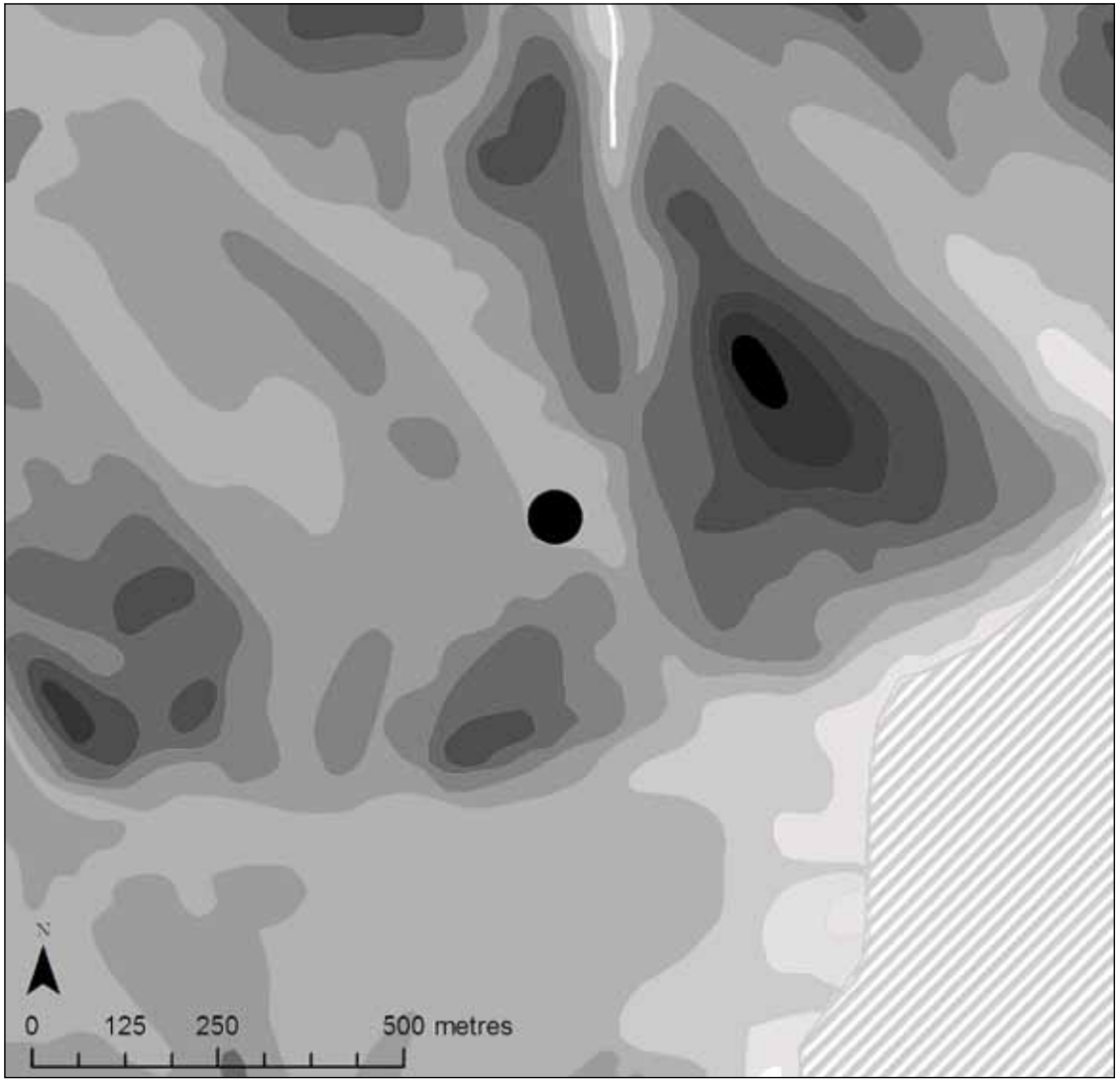

Fig. 6. Mosstugan in Björnlunda (Sö). Nondescript Bronze Age bog location. Per. I sword. A flanged axe of similar date (SHM 14872) has been found somewhere nearby.

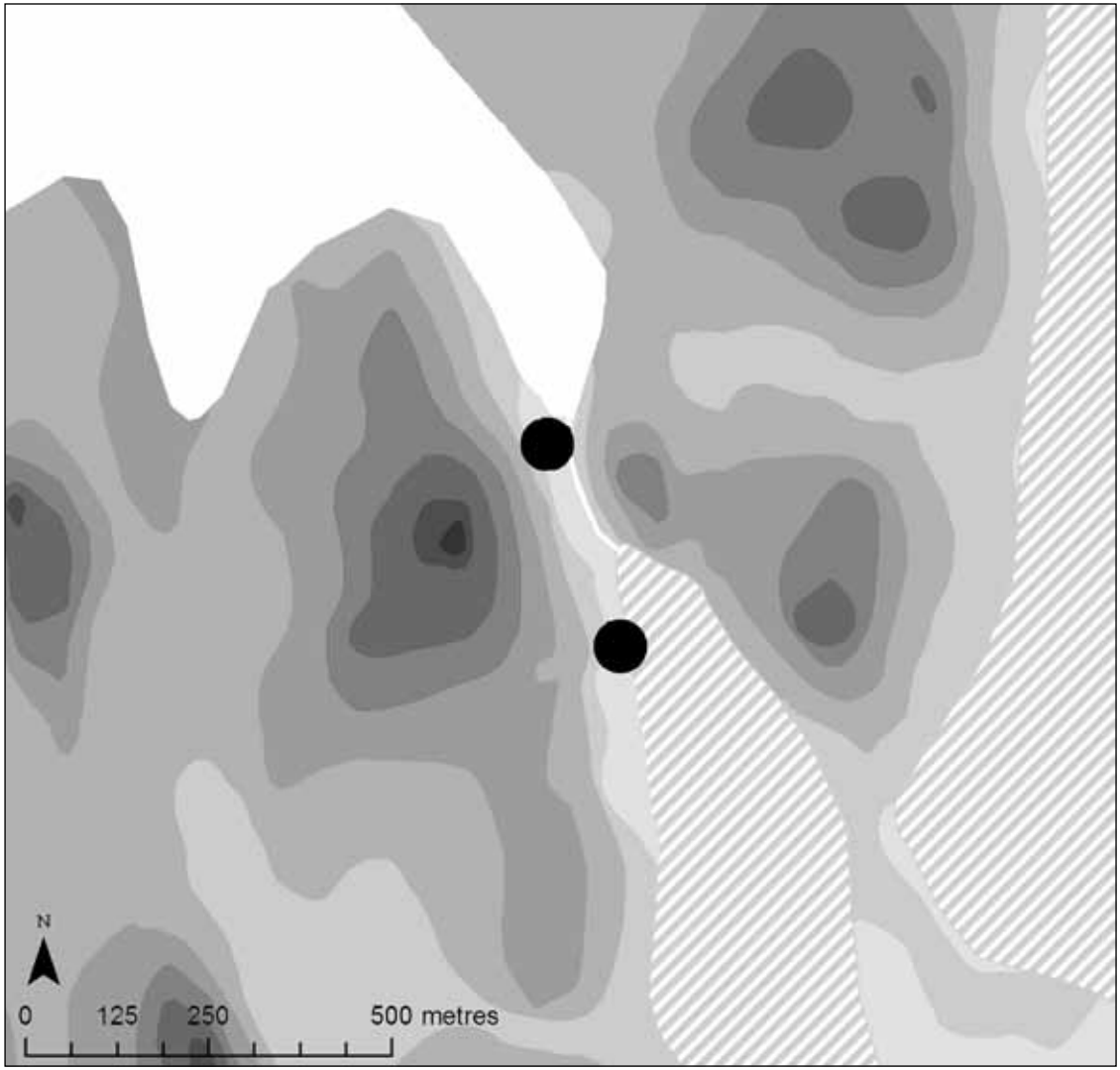

Fig. 7. Täckhammar bridge in Bärbo (Sö). River location. Many deposition events in the river rapids that drained Lake Långhalsen into an arm of the sea. Shoreline shown c. 1050 cal BC.

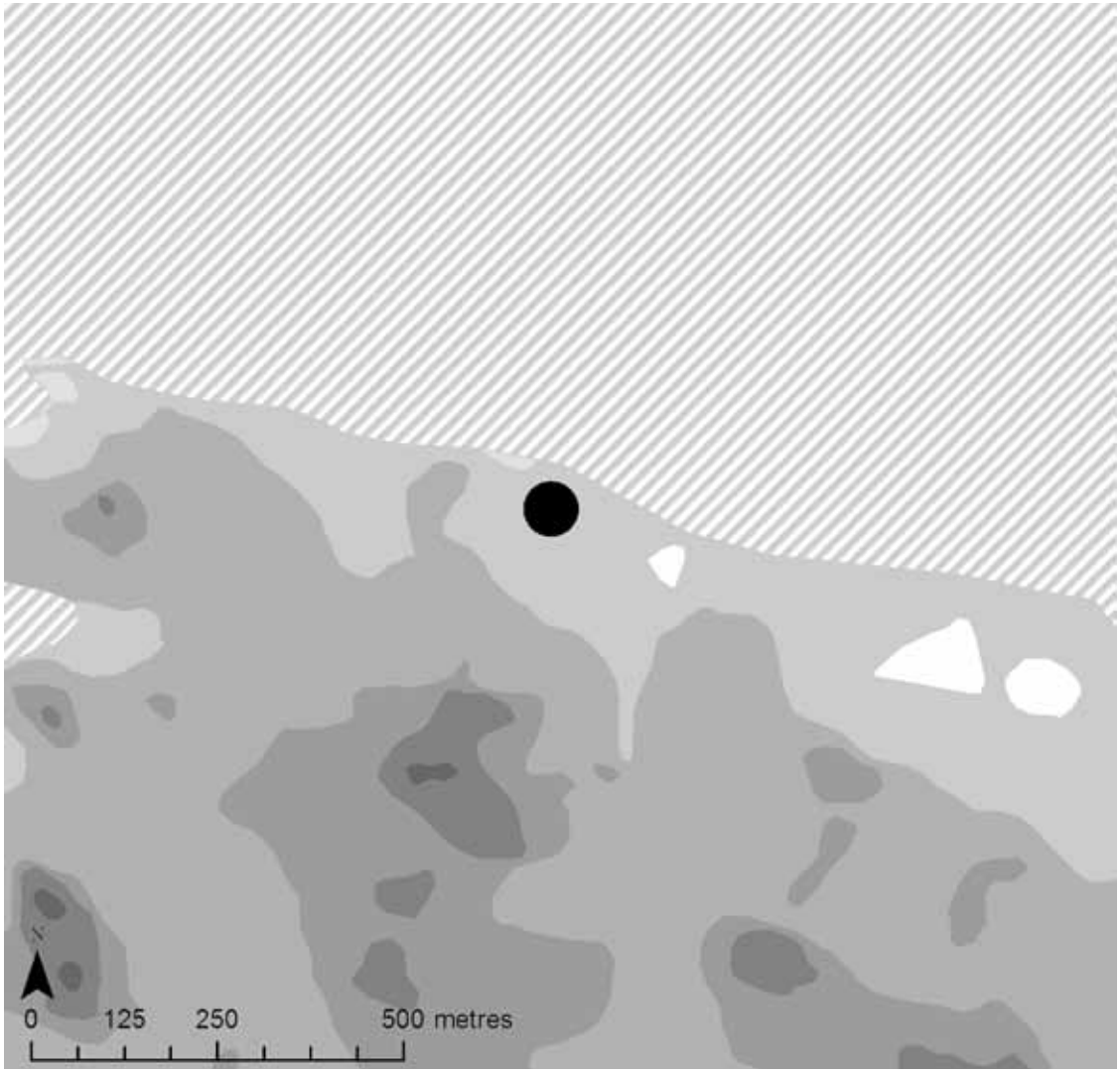

Fig. 8. Tunavallen in Eskilstuna (Sö). Sea location. Per. IV-V axe.

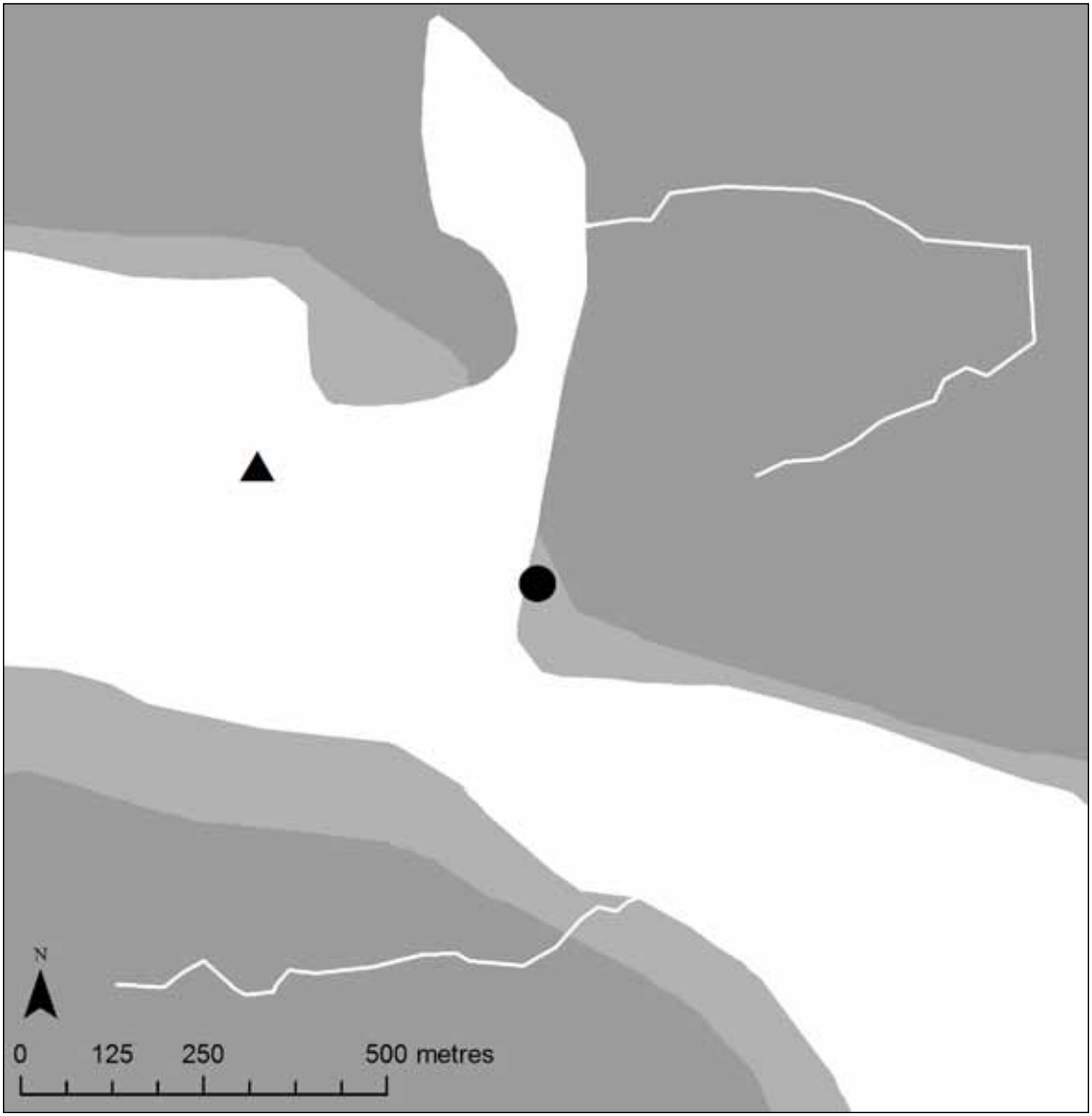

Fig. 9. Oxbroberget in Helgesta (Sö). Lake location. Per. III spearhead deposited in a crevice on a high promontory on the south shore of an island above a narrows in Lake Båven. Note that the burnt mound in the lake must be later than the shoreline situation shown on the map.

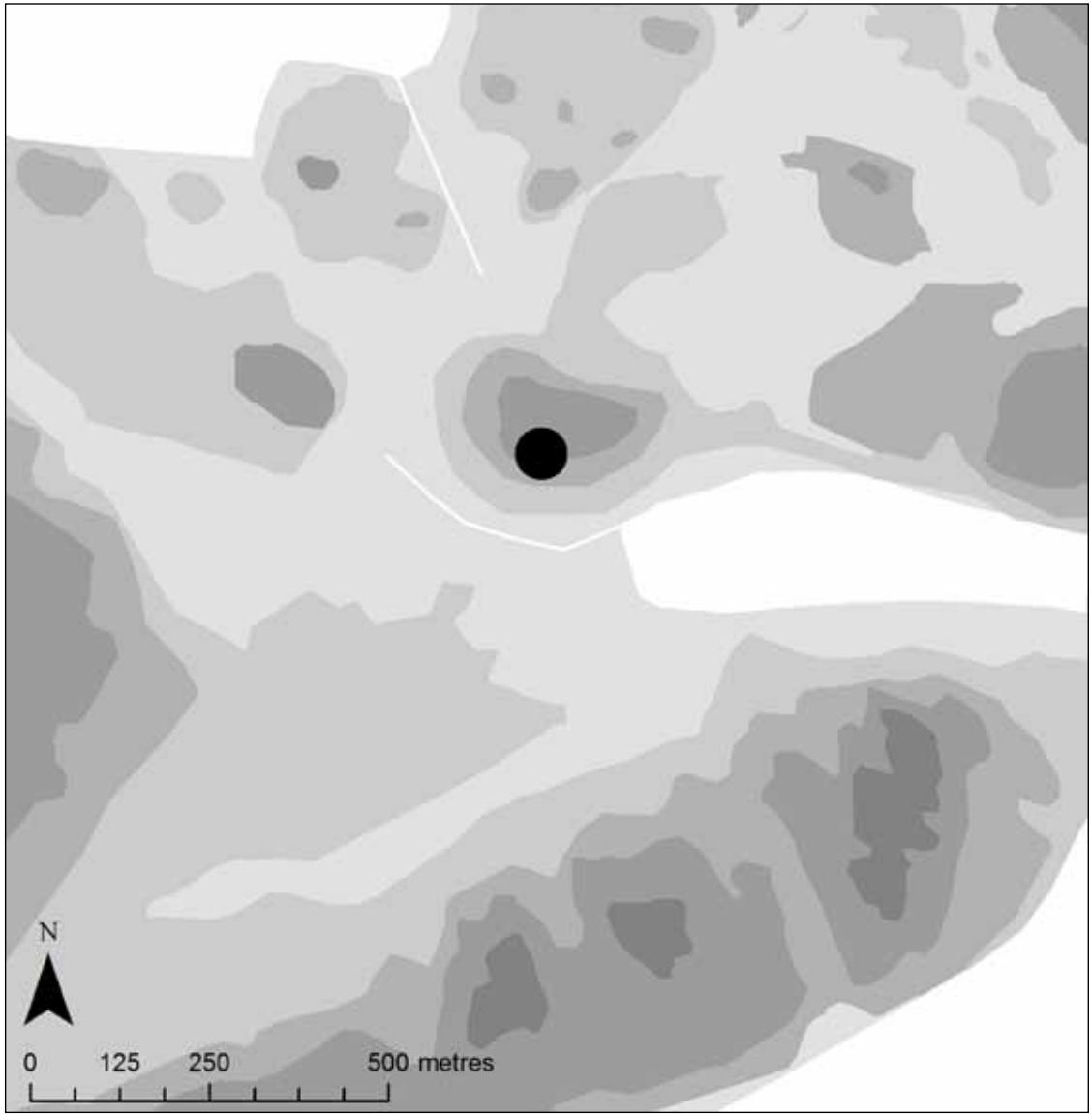

Fig. 10. Solgård in Huddinge (Sö). Lake location. Per. V dagger. 10 m contours because of high hills.

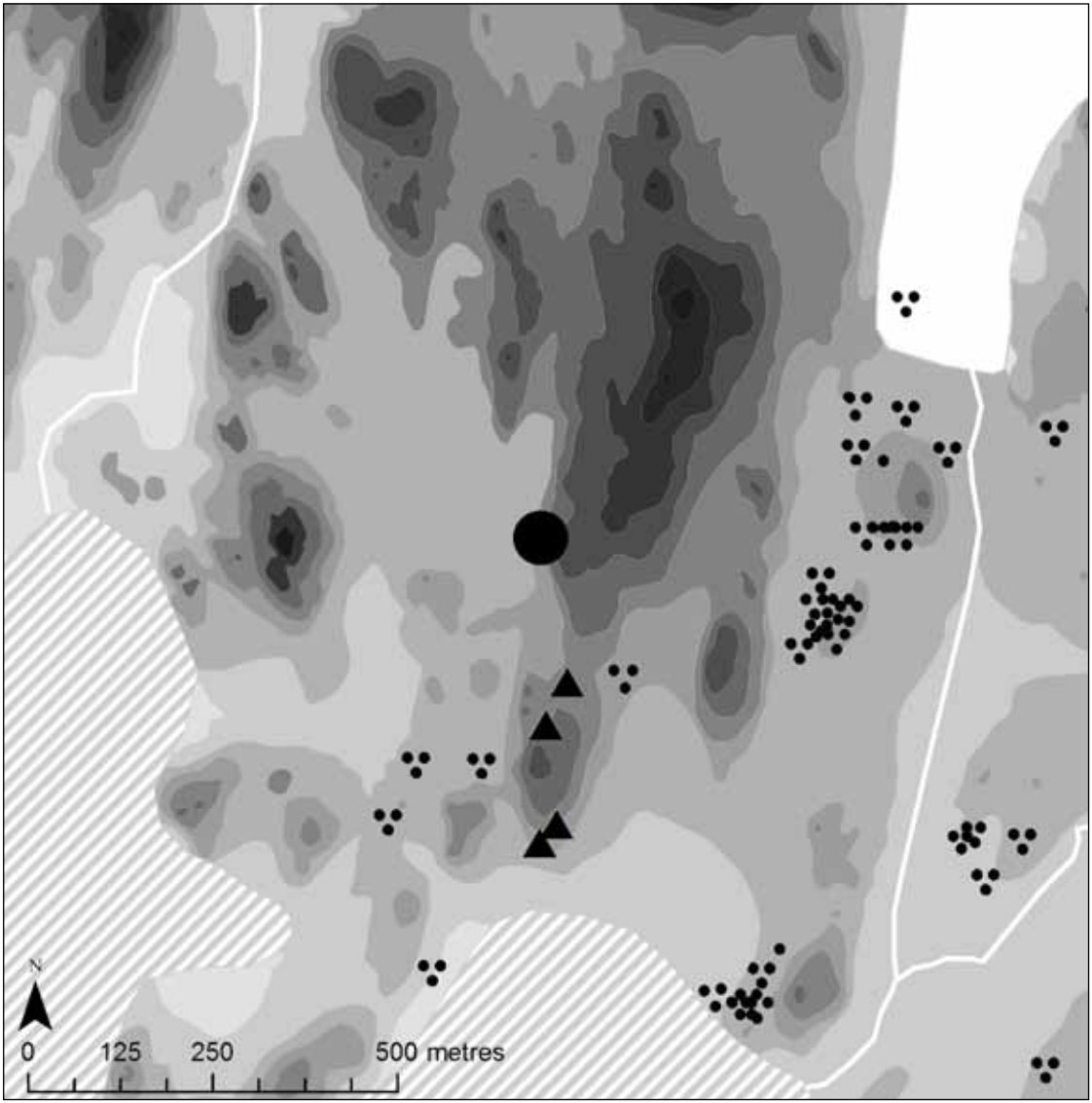

Fig. 11. Södra Rangsta in Sorunda (Sö). Nondescript dry location, 0.6 km from seashore. Per. V-VI spearhead.

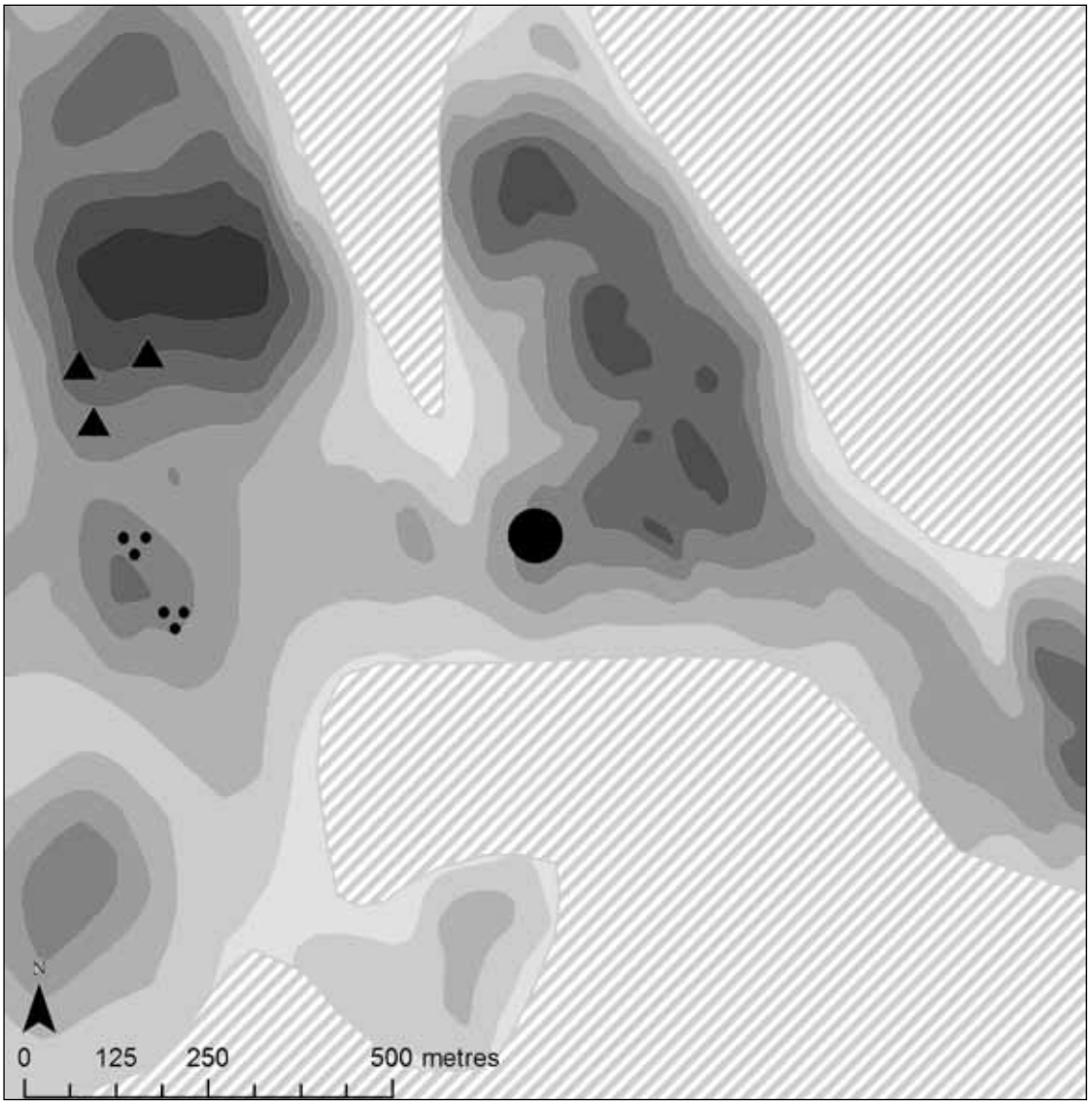

Fig. 12. Spelvik church (Sö). Sea location. Per. VI mixed hoard.

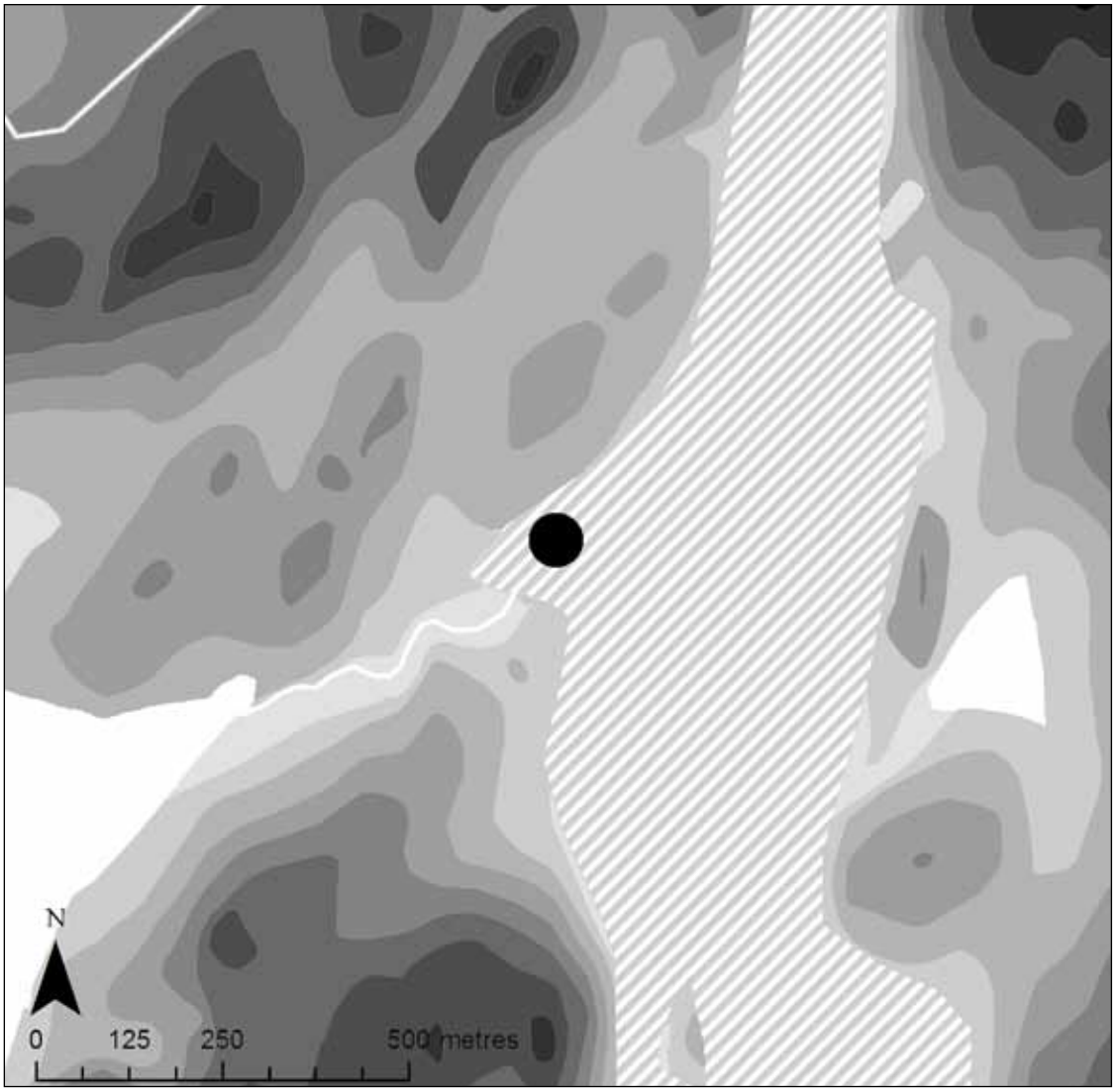

Fig. 13. Harlinge in Torsåker (Sö). River location. Per. I spearhead.

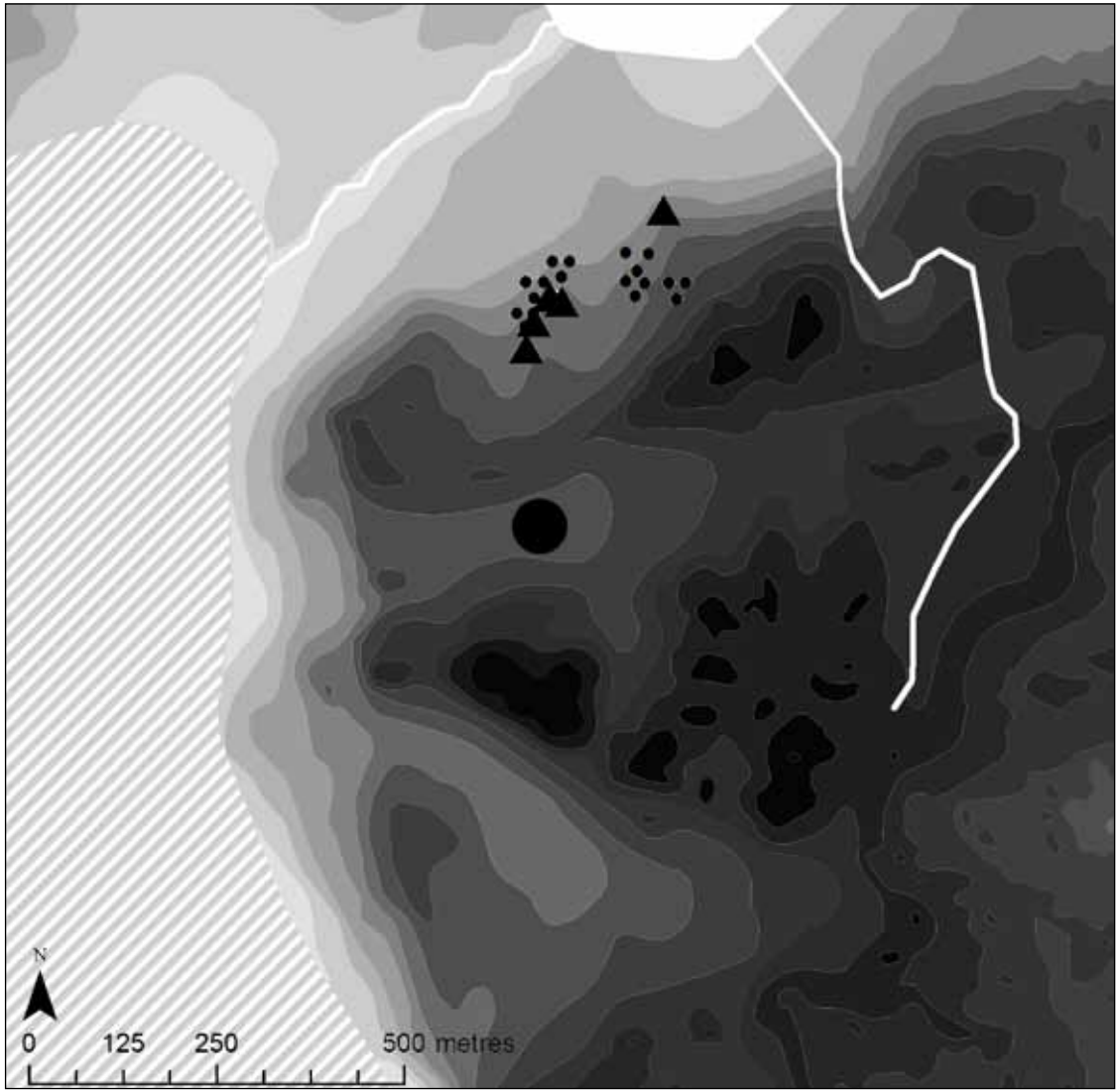

Fig. 14. Hjortsberga in Vårdinge (Sö). Nondescript Bronze Age bog location next to a major cluster of rock art and burnt mounds. Per. VI torque. The level above the sea of the burnt mounds and rock art suggests that the 1050 cal BC shoreline on the map differs considerably from conditions post-800 cal BC under which the torque was deposited.

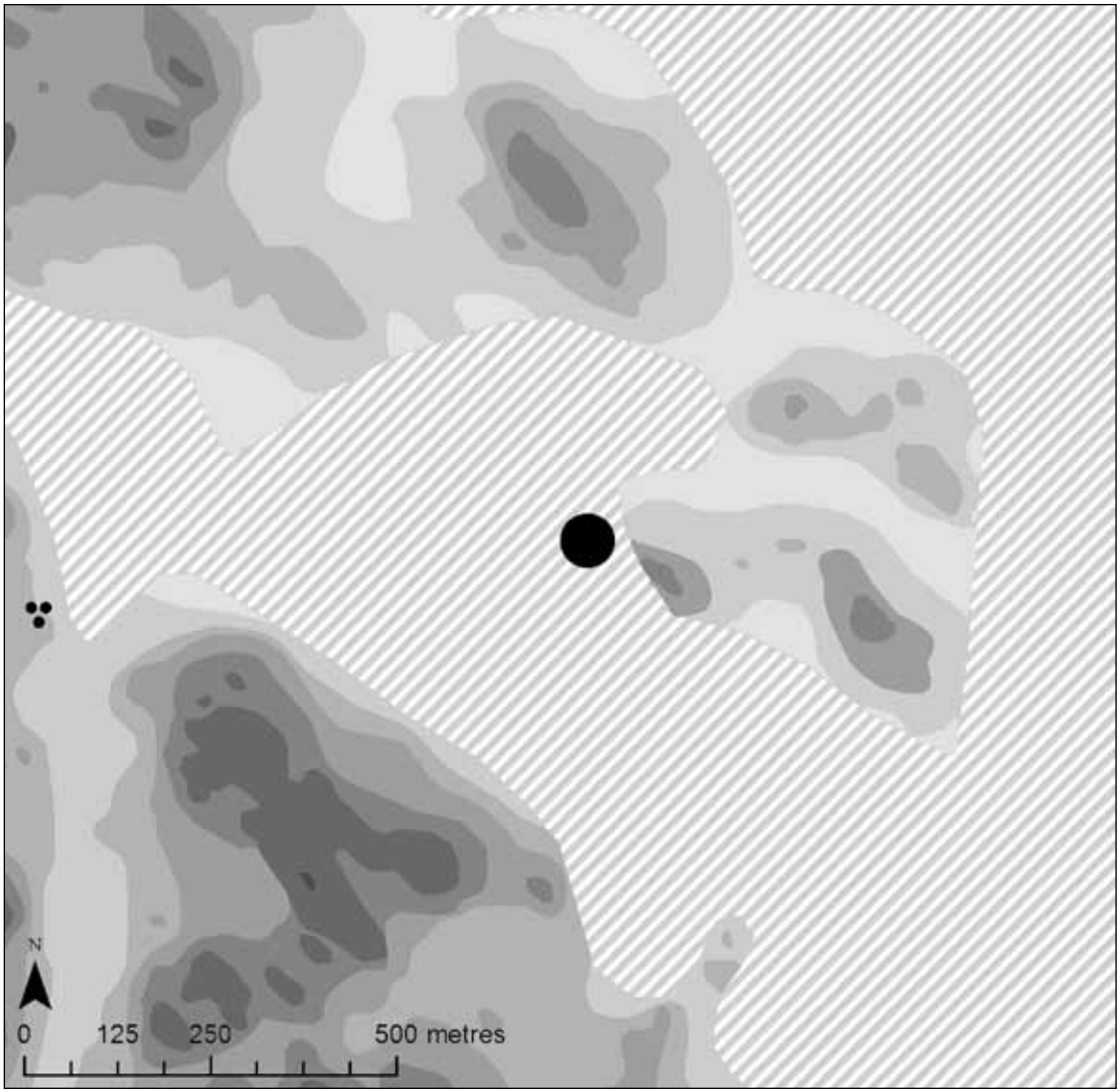

Fig. 15. Norra Ängby in Bromma (Up). Sea location. Per. II axe.

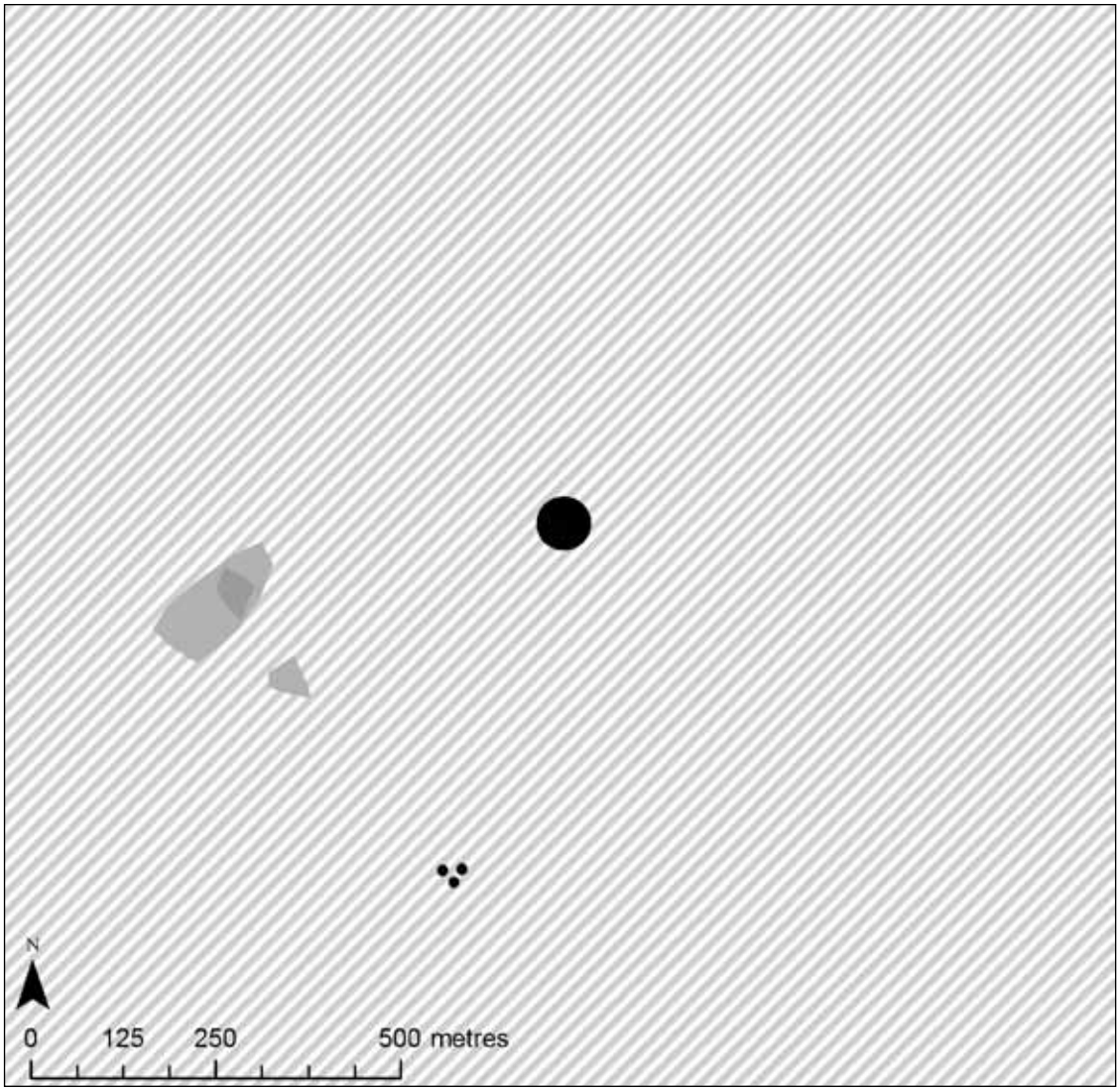

Fig. 16. Gräna in Dalby (Up). Sea location. Per. I axe.

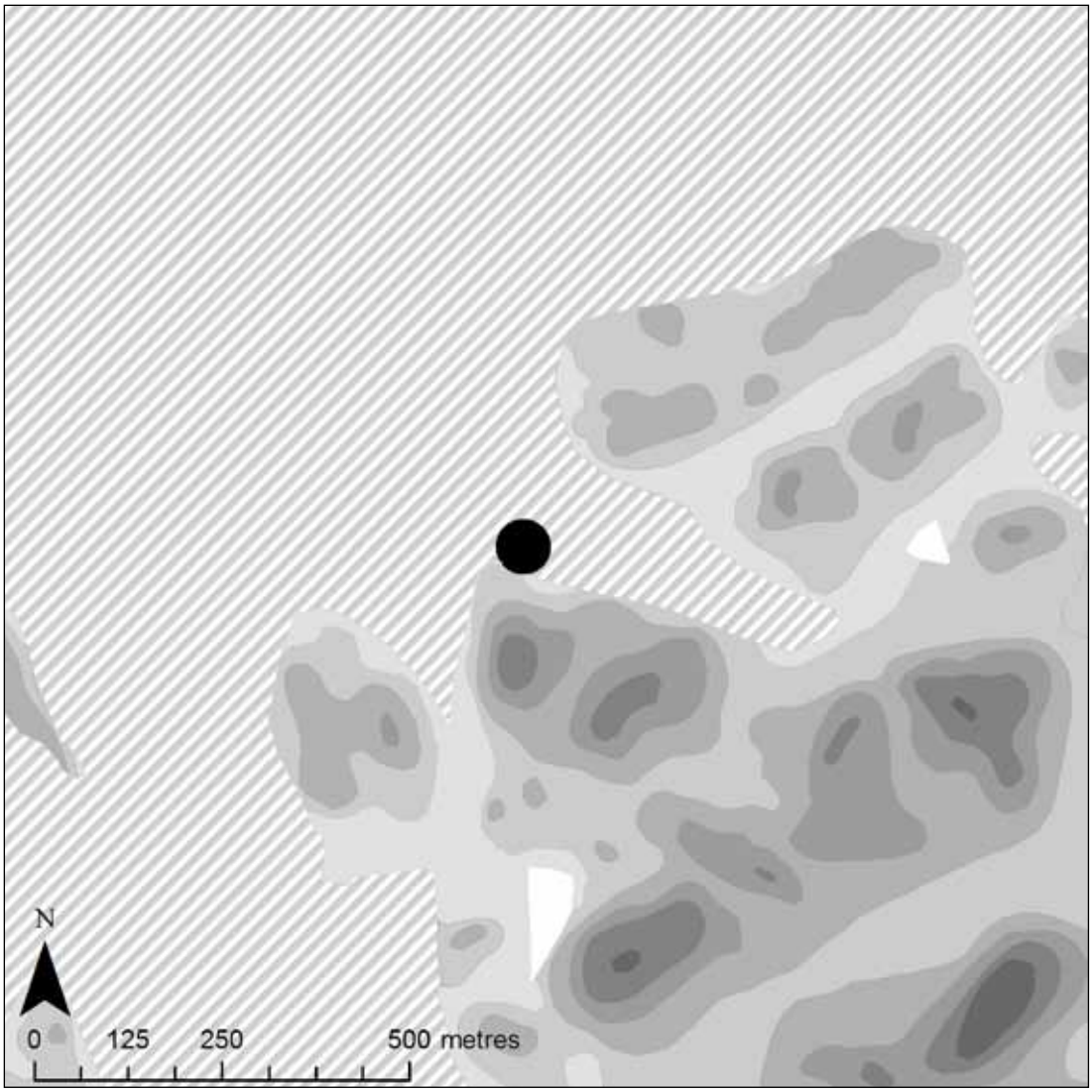

Fig. 17. Smaranäs in Edsbro (Up). Sea location. Per. IV-V axe.

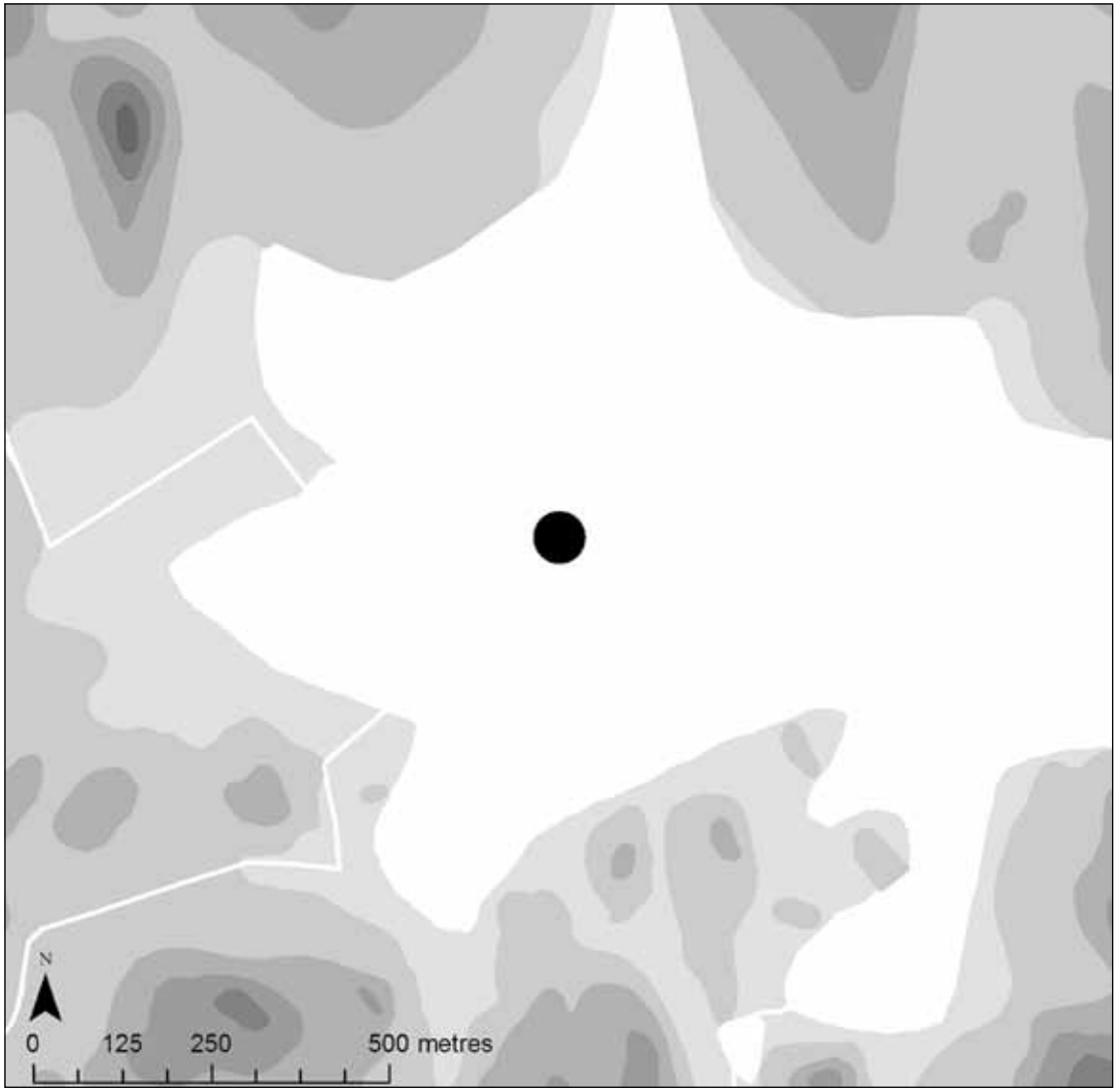

Fig. 18. Grindtorpet in Fasterna (Up). Lake location. Per. V-VI axe.

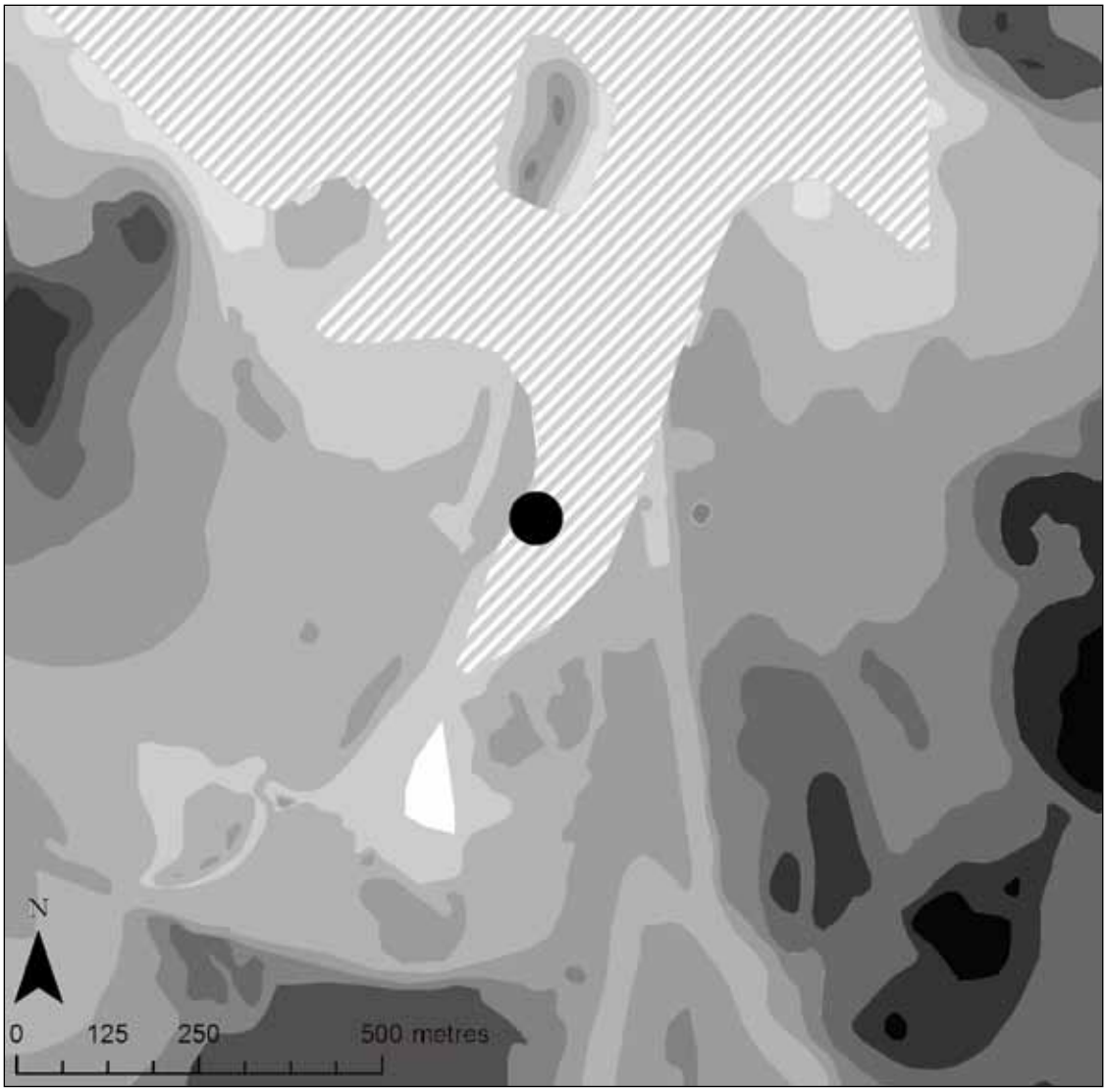

Fig. 19. Ekebo in Hammarby (Up). Sea location. Per. V axe deposited beside a boulder. The linear depressions in the south half of the map are 20th century highway cuts.

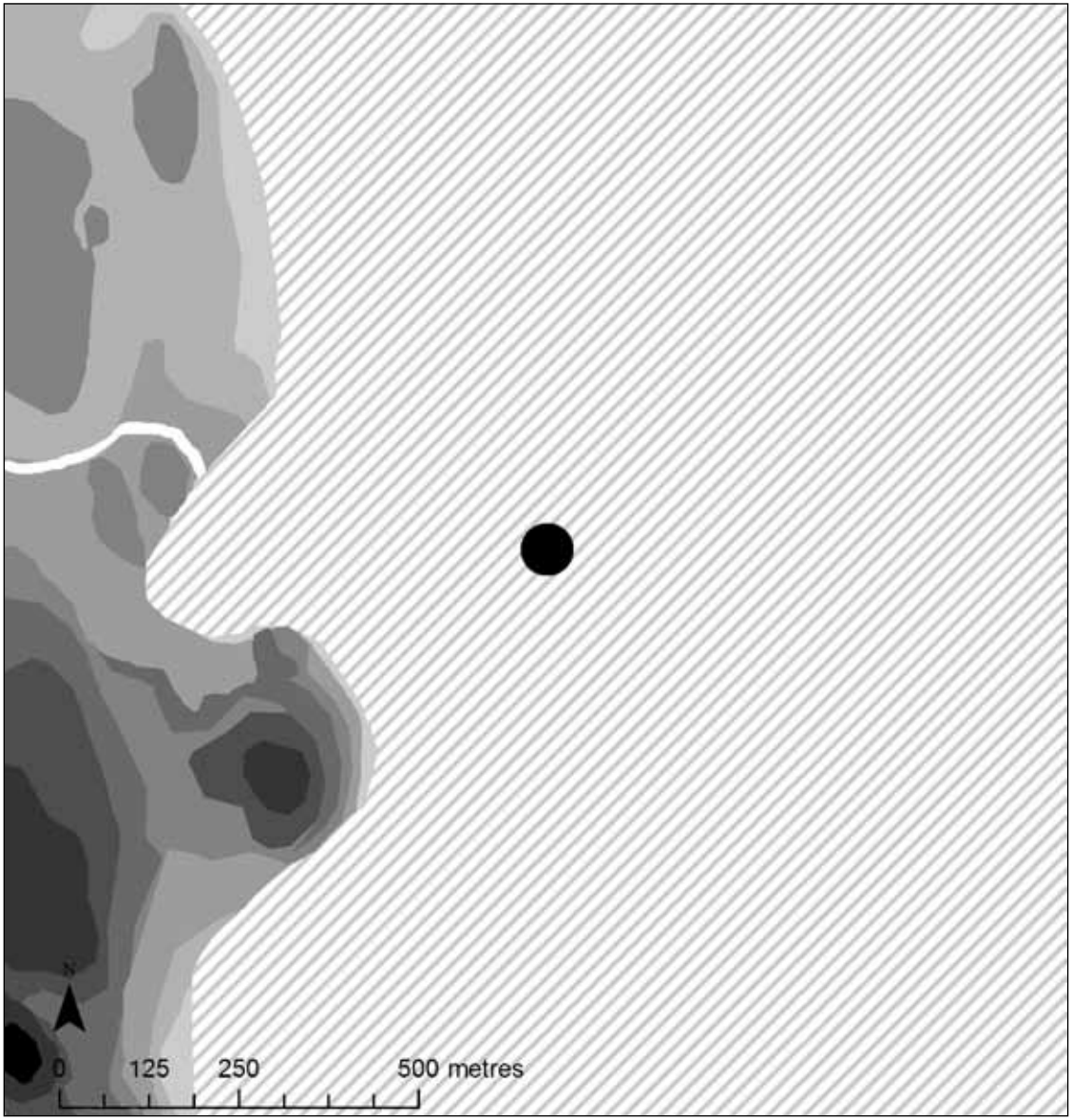

Fig. 20. Ekolsundsviken in Husby-Sjutolft parish (Up). Sea location. Per. IV-V axe.

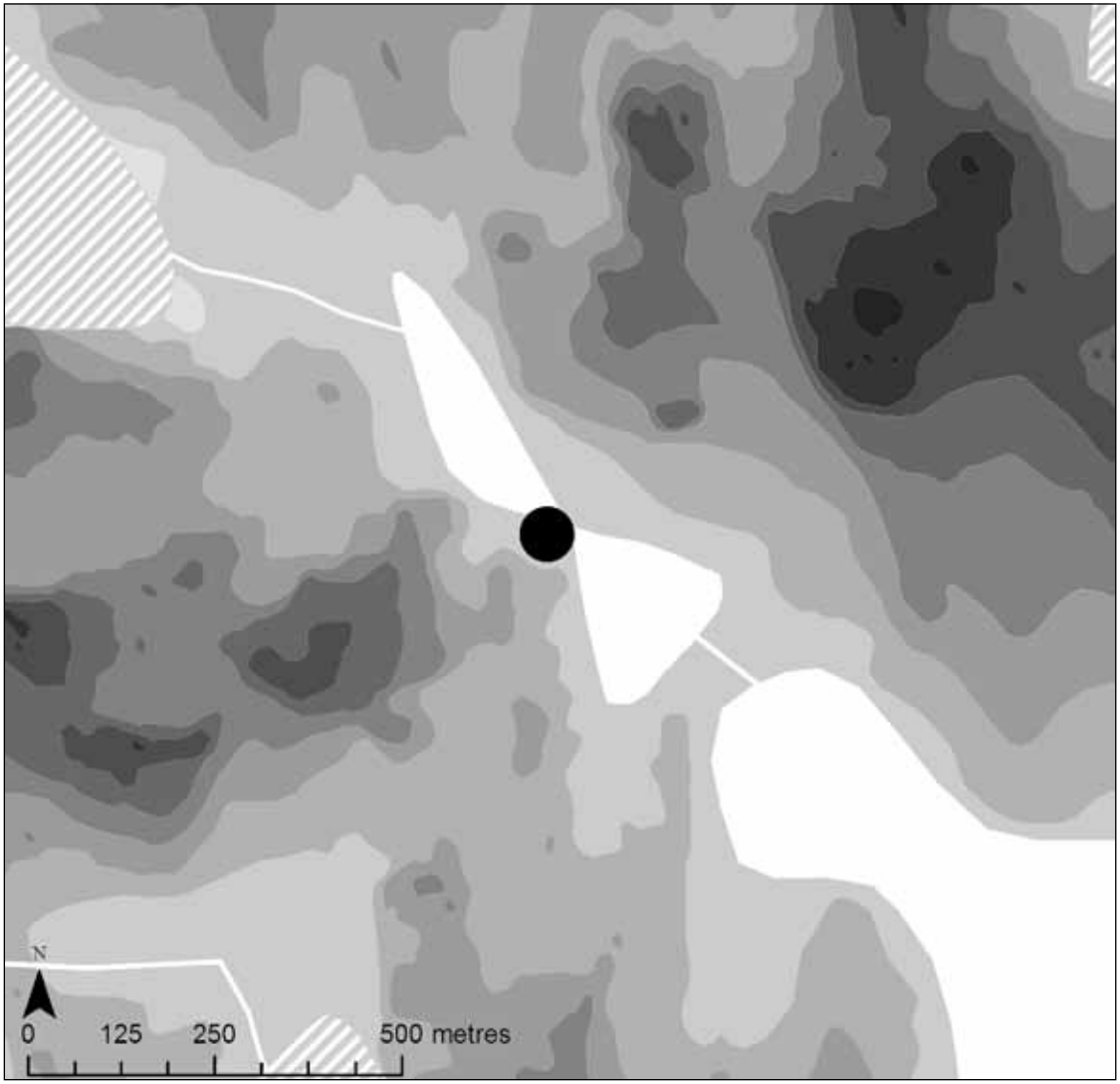

Fig. 21. Lilla Sunnarby in Kårsta (Up). Lake location. Per. IV torque.

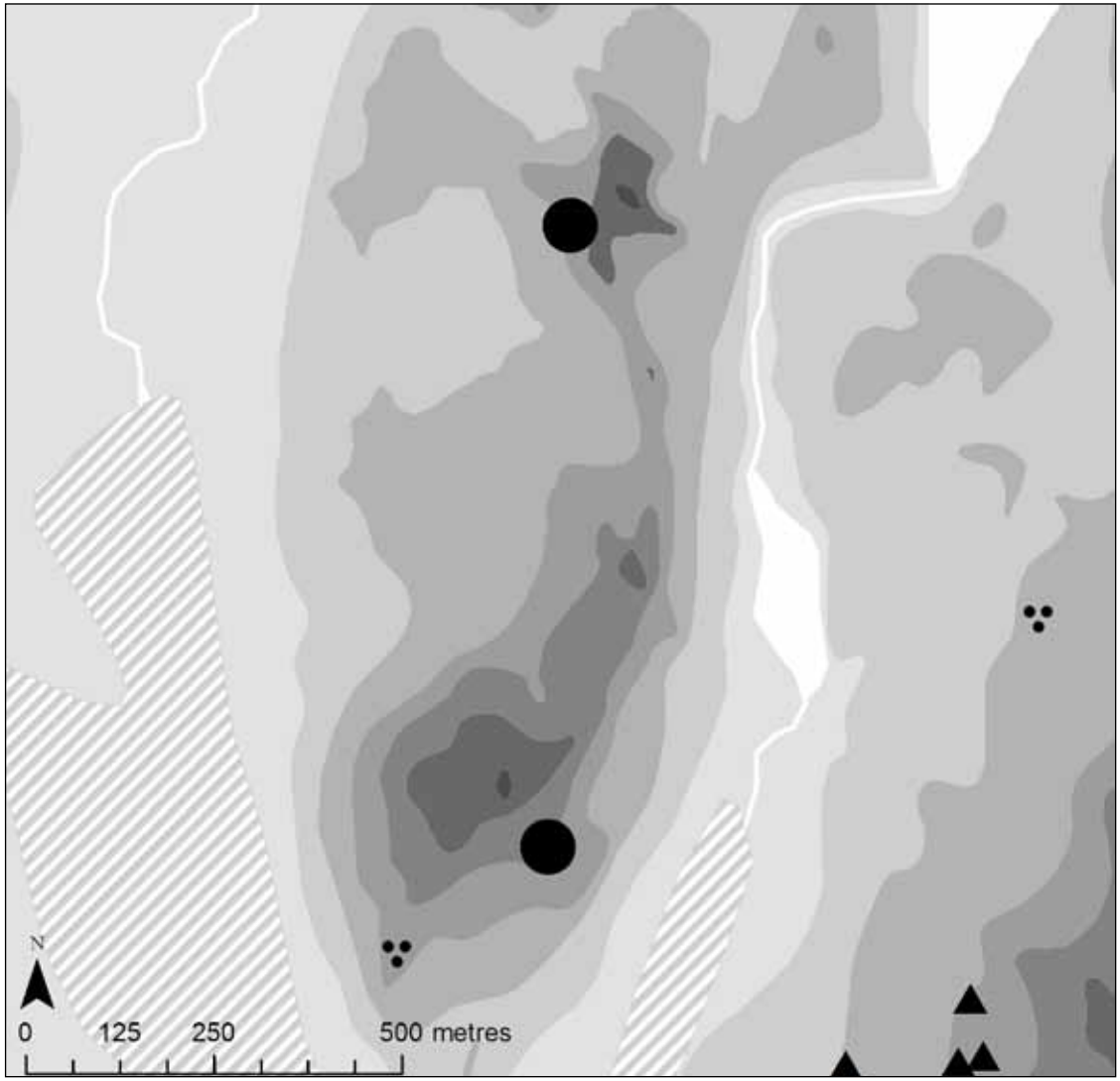

Fig. 22. Lena church and Vattholma in Lena (Up). Two multi-trait locations on a gravel ridge terminal above river rapids emptying into an arm of the sea. A Per. II-III sword (south) and a Per. IV weaponry hoard (north) c. 800 m apart.

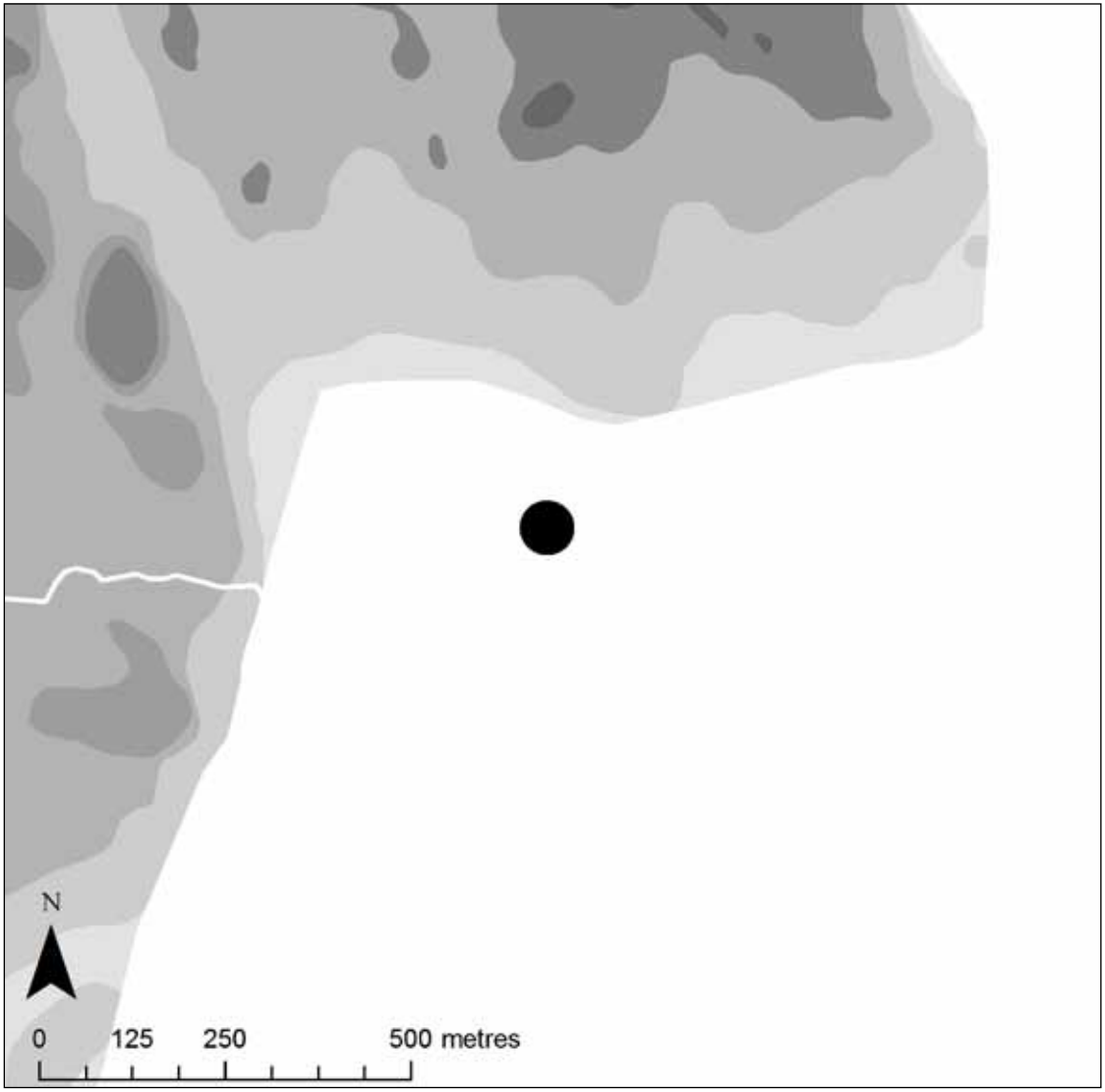

Fig. 23. Sigridsholm in Lunda (Up). Lake location. Per. VI hoard.

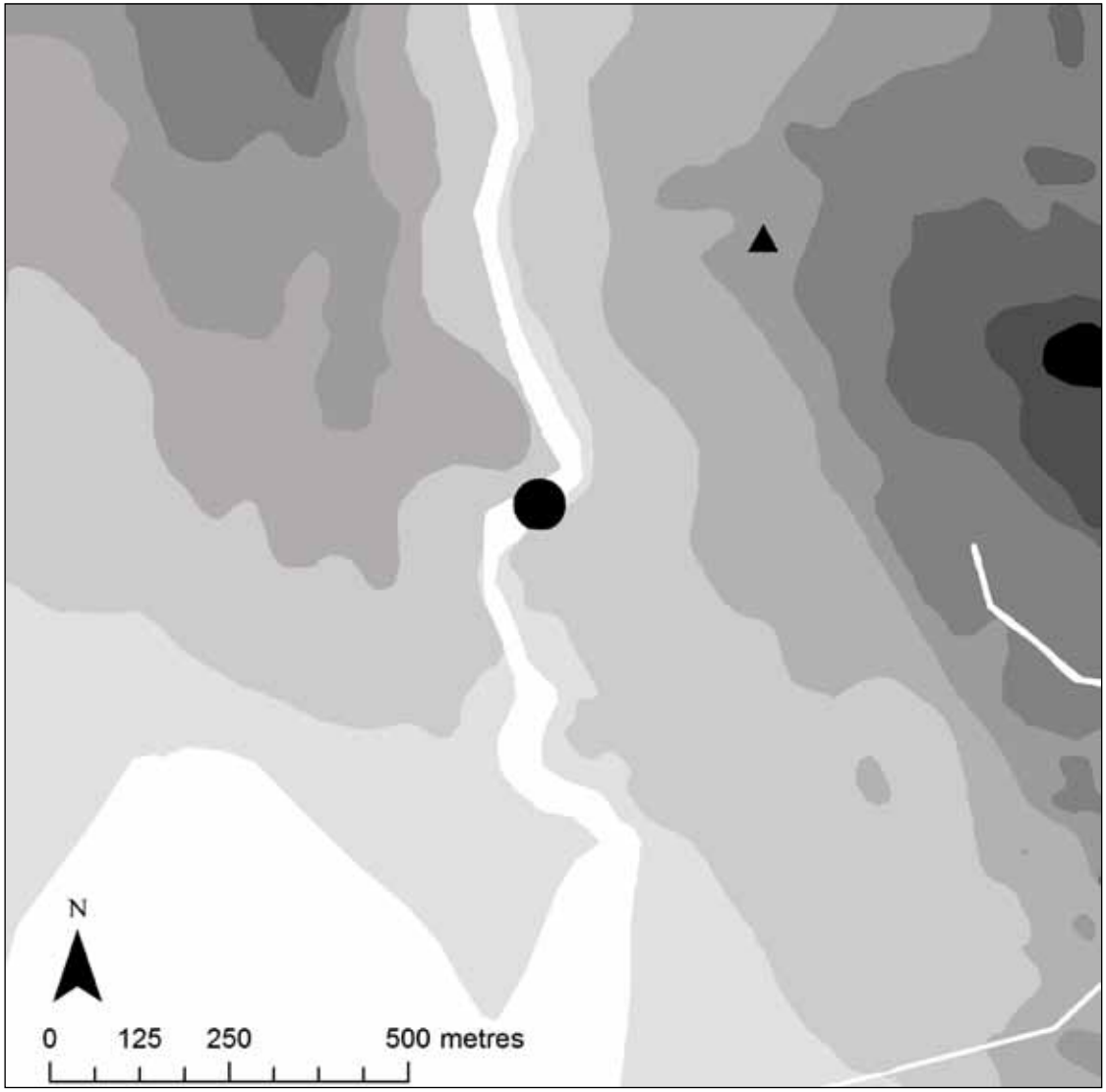

Fig. 24. Forsby bridge in Simtuna/Torstuna (Up). River location. LBA sloping-butt stone axe.

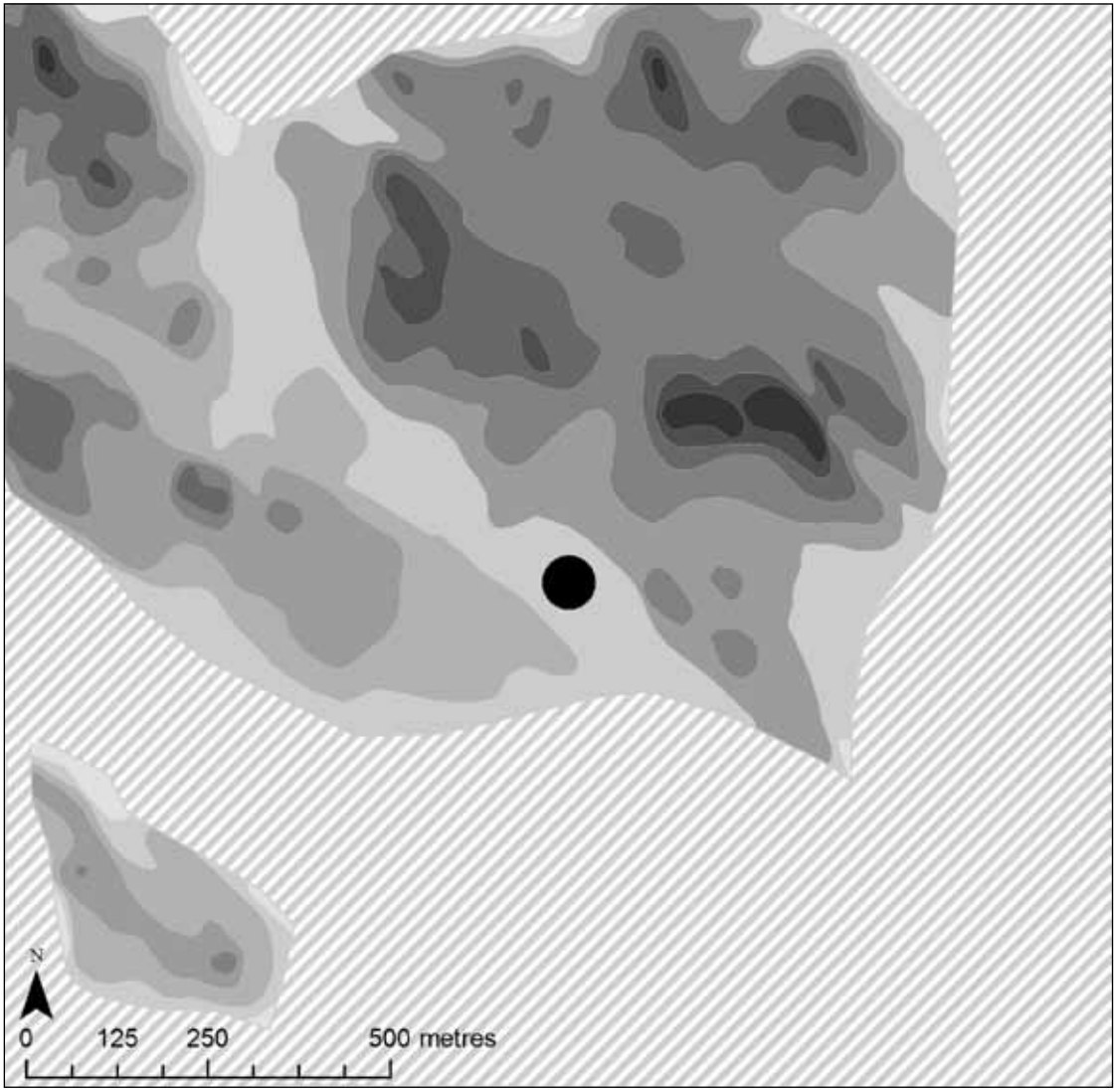

Fig. 25. Råsunda in Solna (Up). Sea location. Per. VI Gündlingen sword and dagger.

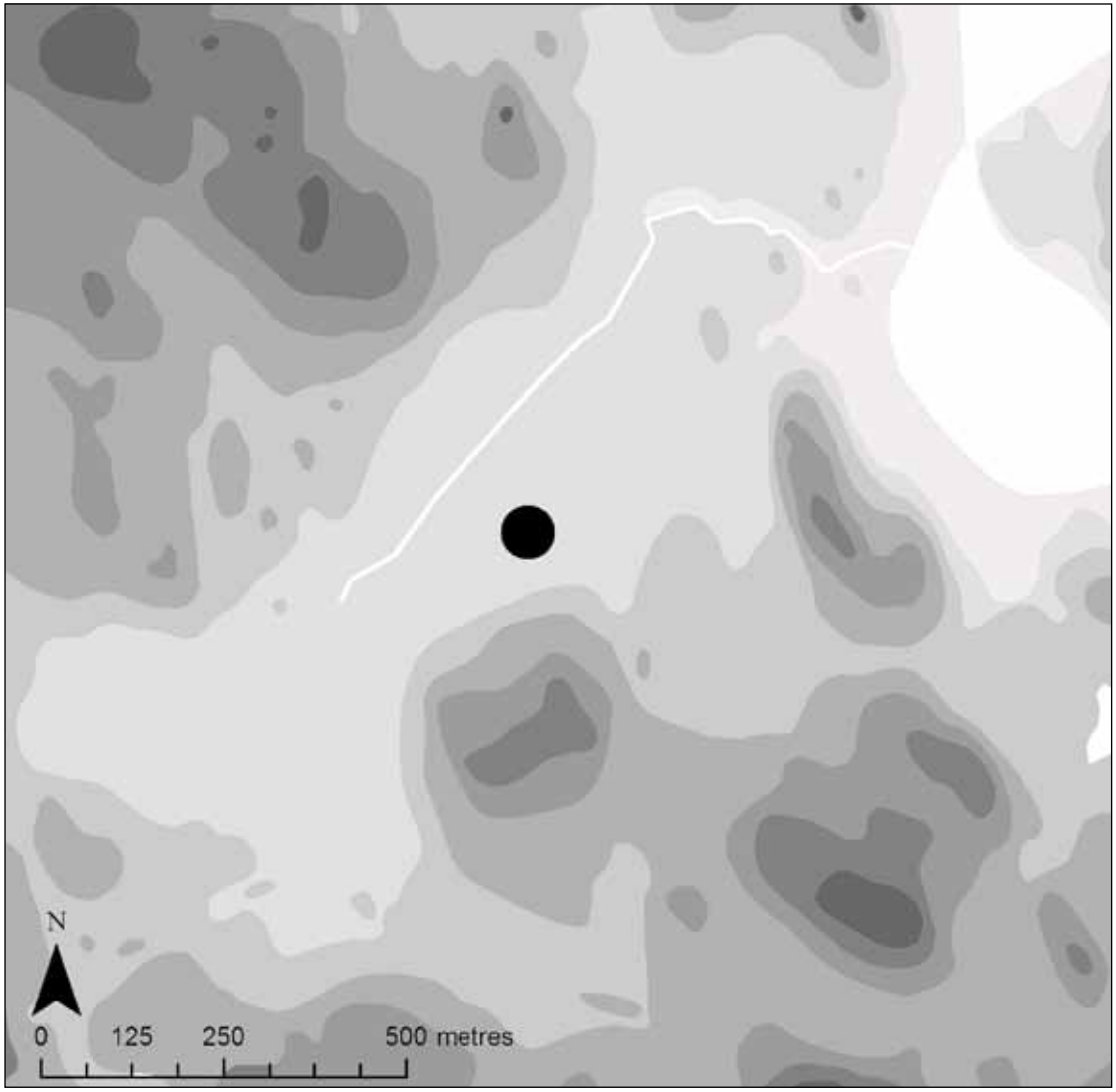

Fig. 26. Backlura in Spånga (Up). Nondescript Bronze Age bog location on a large island in the sea. Per. II-III sword.

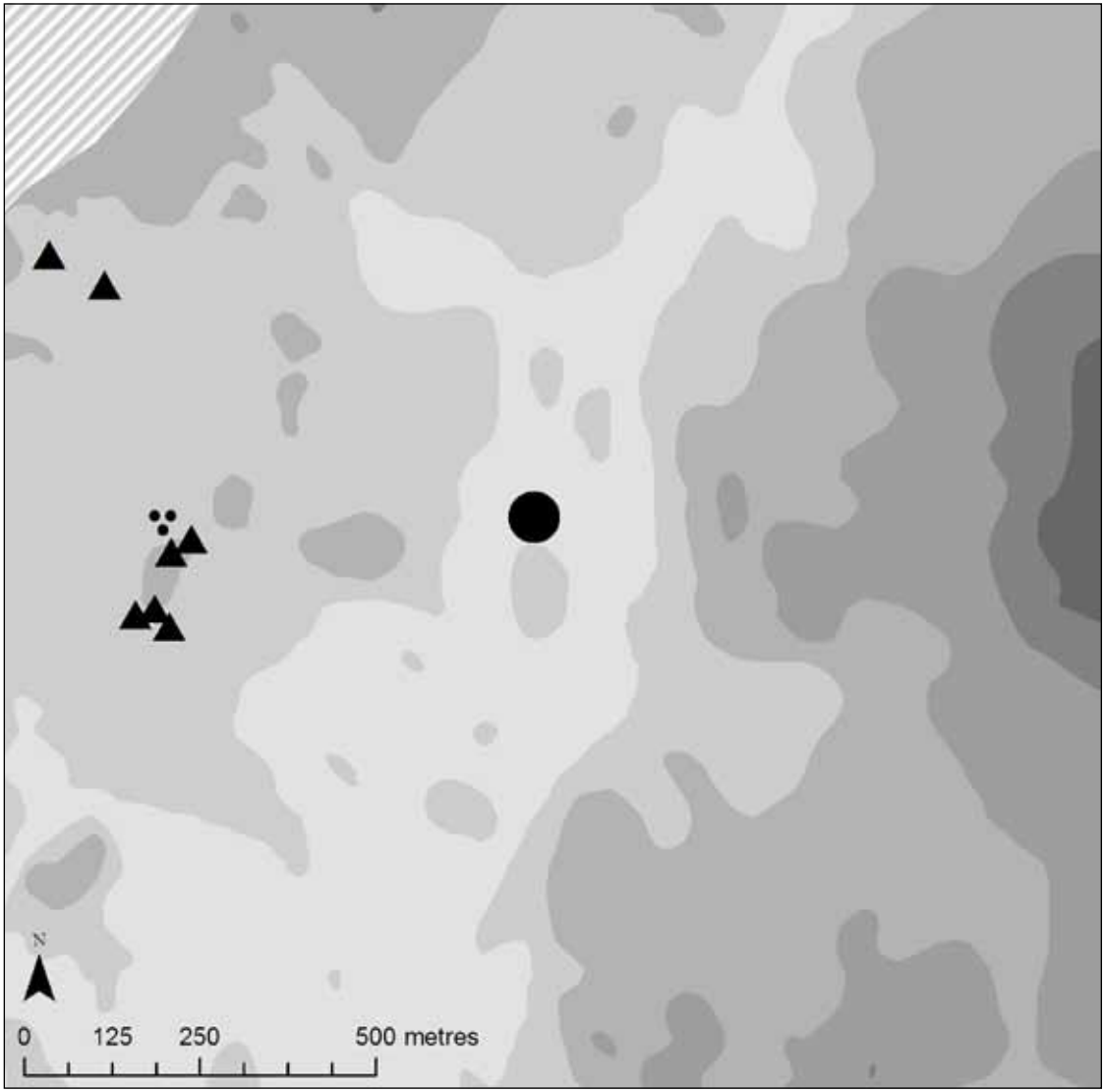

Fig. 27. Storvreta railway station in Ärentuna (Up). Nondescript dry location, 1.0 km from seashore. Per. II mixed hoard found under a boulder.

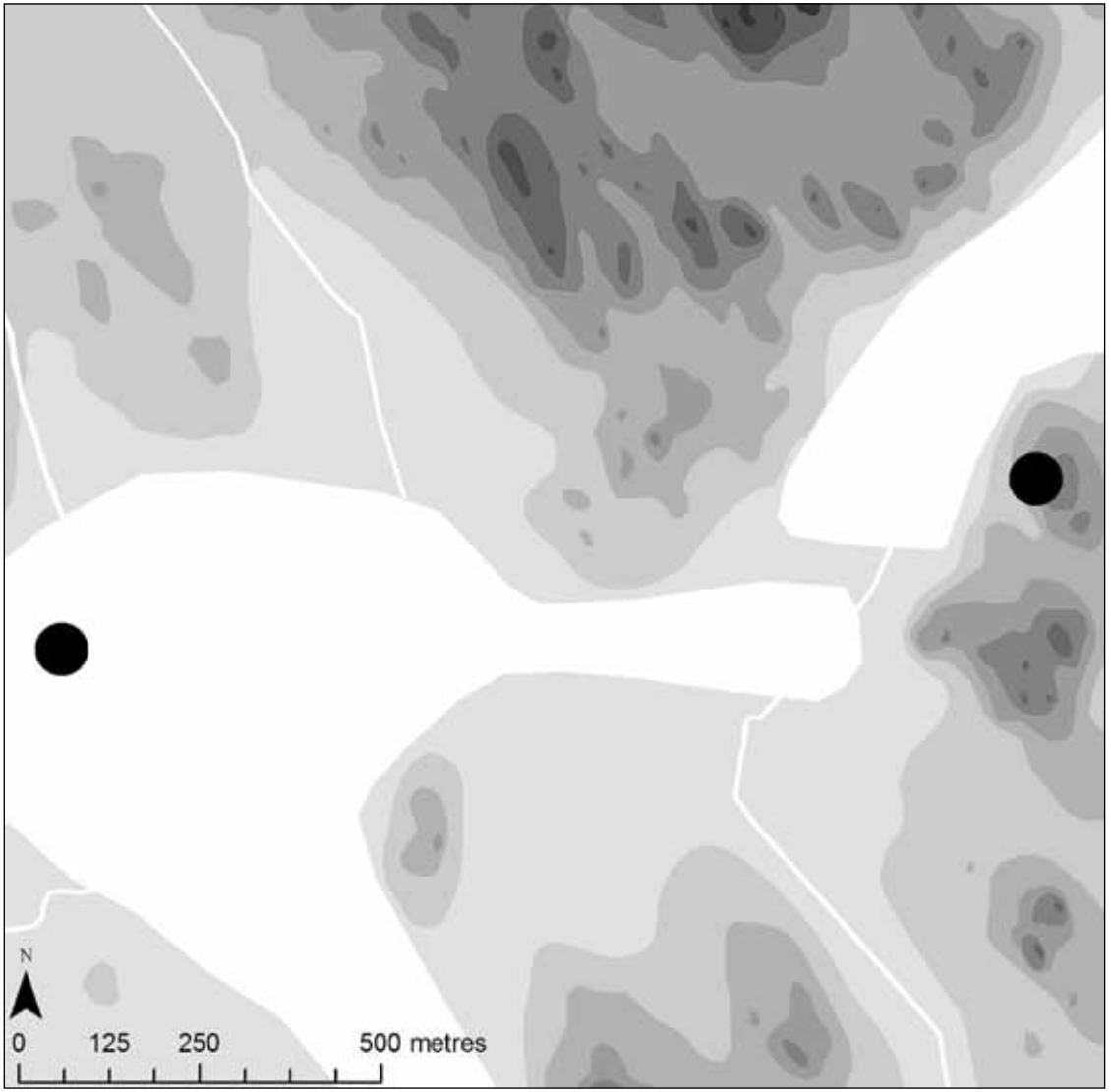

Fig. 28. Domta vad and Pukberget in Österunda (Up). Two lake locations. A Per. V jewellery hoard deposited c. 1.4 km from a Per. V-VI spearhead hidden in a cave on the lakeshore.

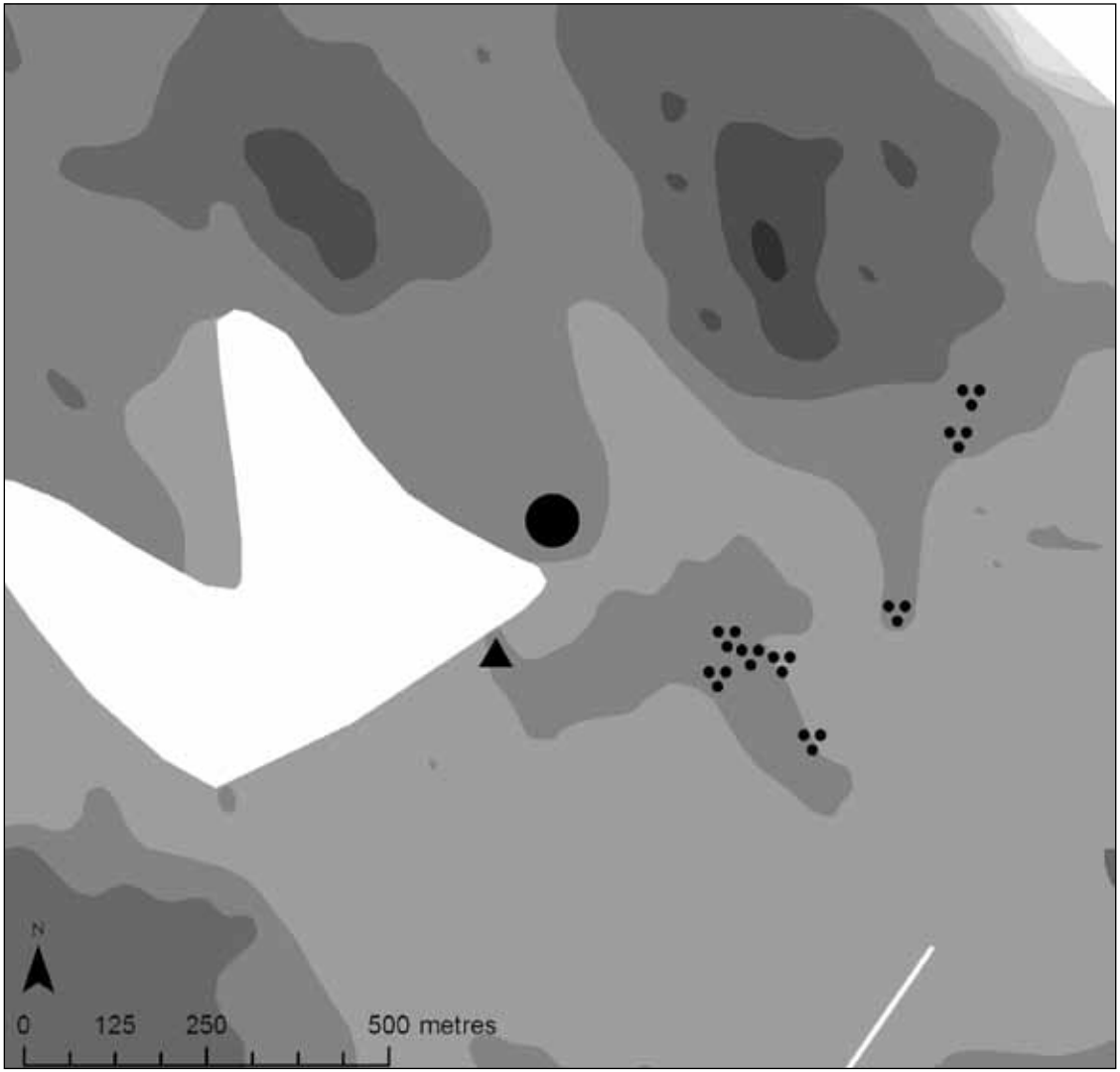

Fig. 29. Högtorp in Björksta (Vs). Inland lake location. Per. III axe.

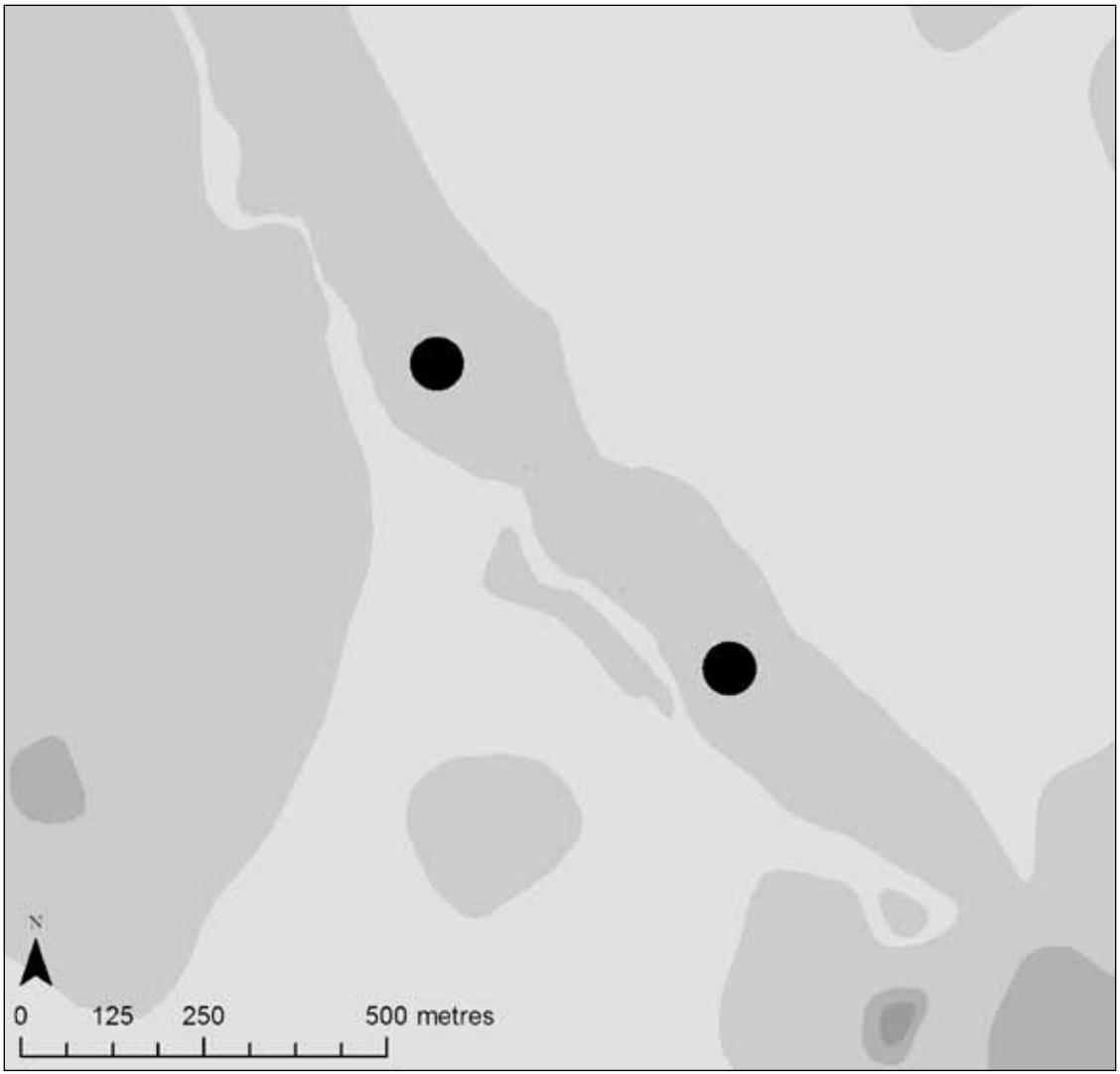

Fig. 30. Hökåsen in Hubbo (Vs). Gravel ridge terminal location. Two Per. VI jewellery hoards c. 580 m apart.

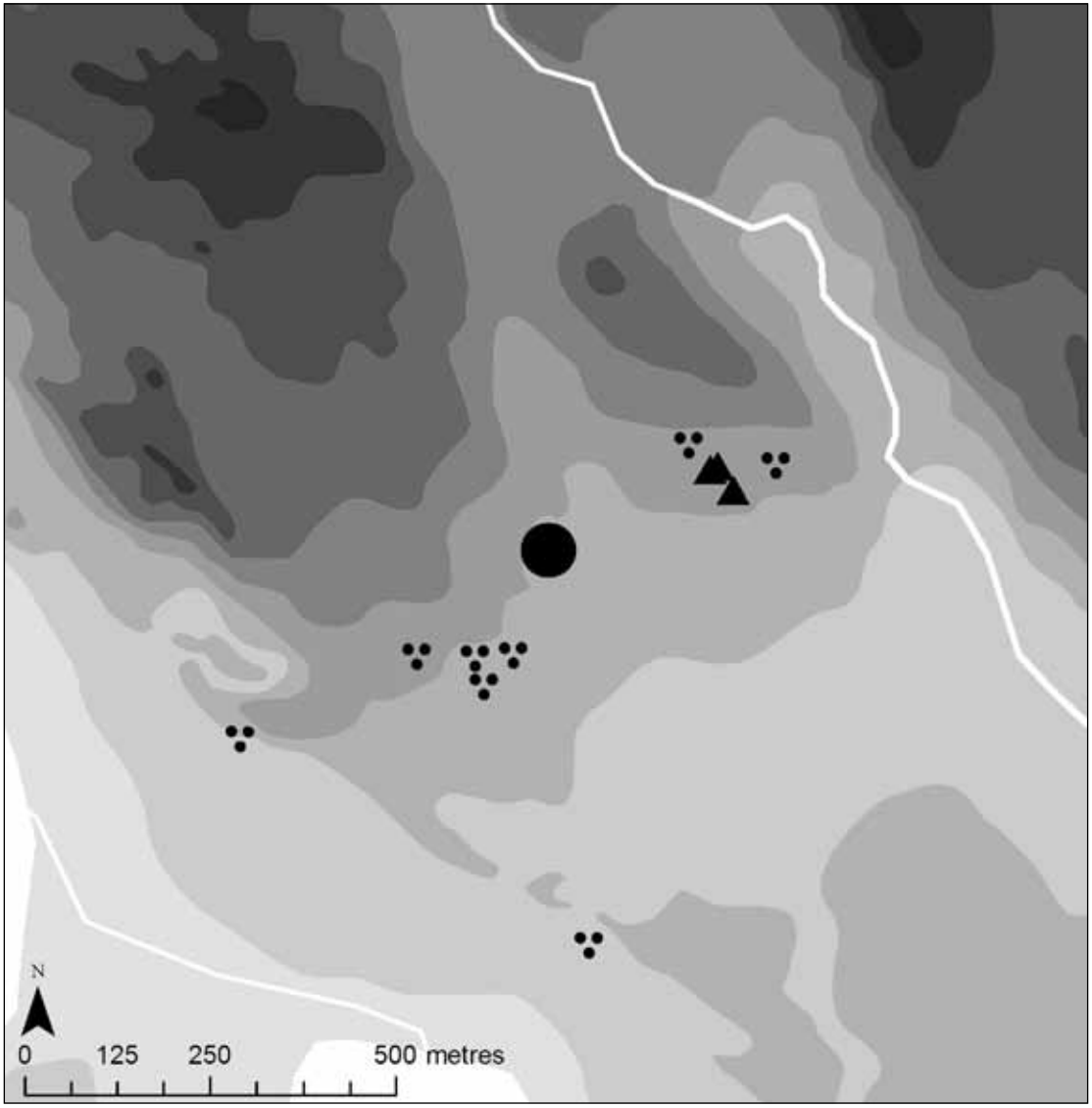

Fig. 31. Åsby in Malma (Vs). Nondescript dry location on a hillside, 0.6 km from a lakeshore. Per. VI torque.

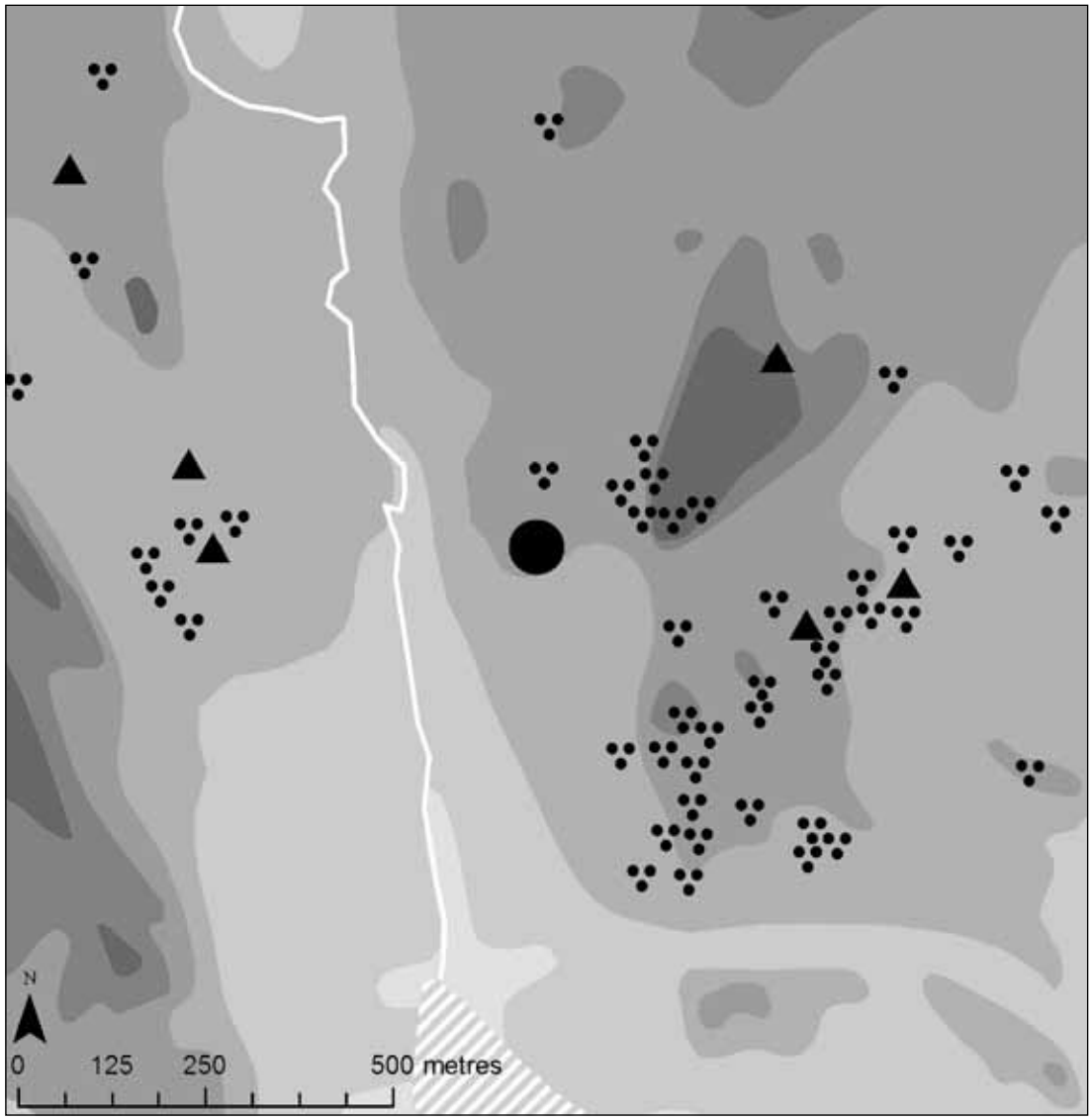

Fig. 32. Tunby in Västerås (Vs). River location. Per. II mixed hoard.

Fig. 33. Hyndevad in Eskilstuna (Sö). River location. Accumulated multiperiod depositions found when the dams were built in 1878. Photo May 2010. All photographs by author.

Fig. 34. Kristineholm in Helgona (Sö). River location. Per. IV-V axe found in a crevice on the river bank when the dam was built in 1938. Photo April 2010.

Fig. 35. Ekudden in Turinge (Sö). Lake location. Per. III hoard found in 1885. Photo April 2012.

Fig. 36. Focksta in Hagby (Up). Sea location. Per. II spearhead found in 1930. Photo April 2013.

Fig. 37. Stensmyran in Skogs-Tibble (Up). River location. Per. I axe found in bog in 1891. Photo July 2011.

Fig. 38. Skärfältens in Uppsala-Näs (Up). Sea location. Per. I spearhead found in 1928. Photo April 2013.

Fig. 39. Bärby in Vänge (Up). Lake location. Per. IV-V socketed bronze axe found in 1869. Photo April 2013.

Fig. 40. Bärby/Sävaån in Vänge (Up). Lake location. Per. IV-V orthogonal stone axe found in 1905. Photo April 2013.

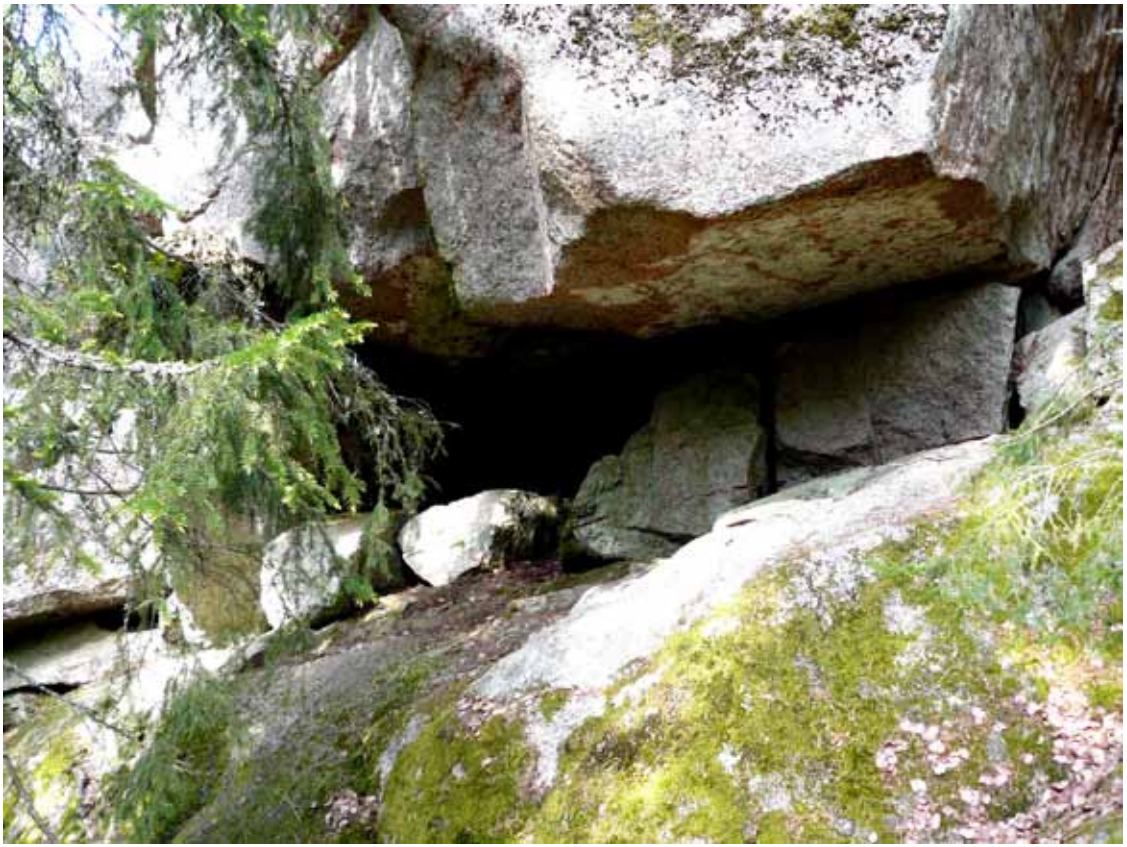

Fig. 41. Pukberget in Österunda (Up). Lakeside cave location. Per. V–VI spearhead found inside in c. 1930. Exterior photo of front rock shelter May 2010.

Fig. 42. Pukberget in Österunda (Up). Lakeside cave location. Per. V–VI spearhead found in c. 1930. Interior photo August 2011.

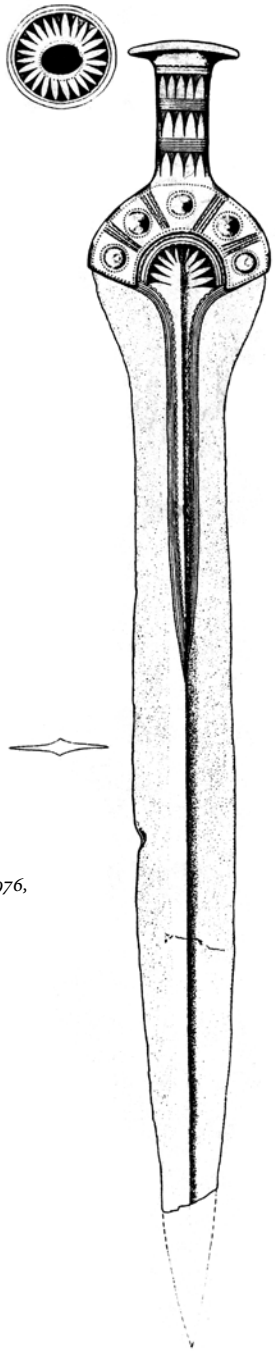

Fig. 43. Per. I sword. Found at Mosstugan in Björnlunda (Sö) in 1976, a Bronze Age bog location. Extant length 60 cm. Drawing by Bengt Händel. SHM 31115.

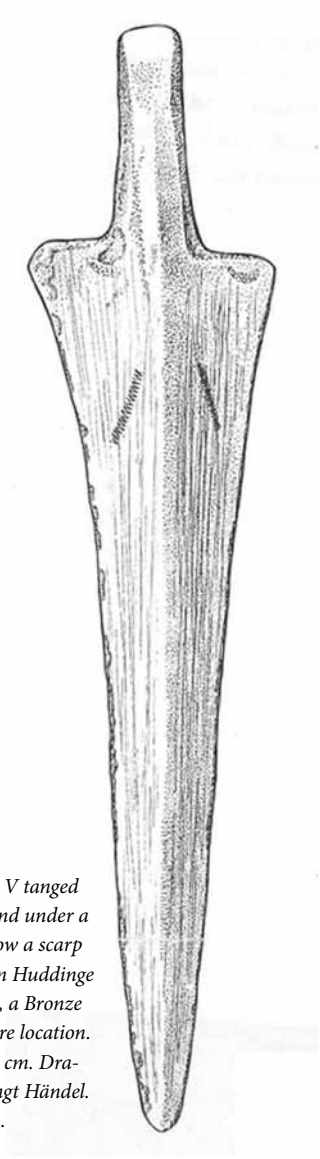

Fig. 44. Per. V tanged dagger. Found under a boulder below a scarp at Solgård in Huddinge (Sö) in 1954, a Bronze Age lakeshore location. Length 20.6 cm. Drawing by Bengt Händel. SHM 26909.

Fig. 45. Per. IV socketed axe, Baudou's type A2. Found in a bog at Eklunda in Bred (Up) in 1963. Undetermined Bronze Age location type. Photo Susanne Granlund. VLM 11863.

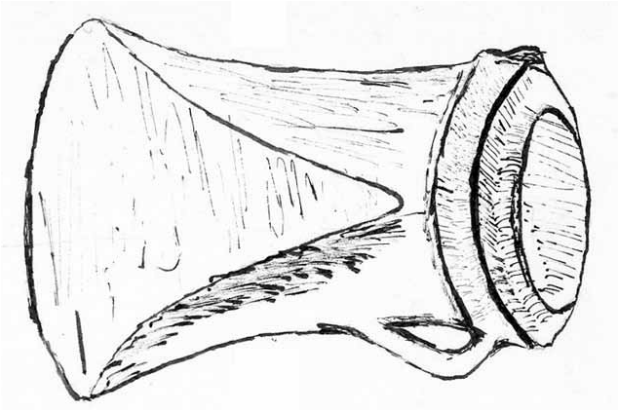

Fig. 46. Per. V socketed axe, Baudou's type C1a. Found edge-up next to a boulder during the excavation of an Iron Age cemetery at Ekebo in Hammarby (Up) in 1960. Bronze Age seashore location. Length 5.6 cm. Drawing by Bo Gräslund 1962 in the SHM Bronze Age catalogue. SHM 26840.

Fig. 47. Per. IV–V socketed axe. Type Mälaren, Baudou's type B1a. Found in the Ekolsundsviken inlet of Lake Mälaren (Husby-Sjutolft parish, Up) shortly before 1910. Bronze Age sea location. Length 13.6 cm. Photo SHM, inv. no 13991:4.

Fig. 48. Per. VI hoard found at Sigridsholm in Lunda (Up) in 1986. Bronze Age lake location. Photo ATA. Private collection.

Fig. 49. Per. II spearhead. Type Ullerslev. Found at Gammelängen in Ärentuna (Up) in 1976. River location: thrust beneath a large glacial erratic boulder next to the end of a short stream between BA inland lakes. Length 20.0 cm. Photo John Worley, Uppsala 6032.

APPENDIX B Site list, known locations

B: Baudou, E: Ekholm, O: Oldeberg, Minnen: Montelius 1917

#	Inv.no	Place	Accur	Types	No
1	SHM 2124	Nä, Asker, Bystad	parcel	Axe socketed type Mälaren	
2	SHM 9170:1227	Nä, Askersund, Norra Algrena, Mobergsudden	parcel	Axe socketed mit seitlichen Blenden A1a	
3	SHM 12803:1	Nä, Edsberg, Karaby, Raä 135	parcel	Dagger flint type VI	
4	SHM 13962	Nä, Edsberg, Löten, Fjugestaån	parcel	Axe socketed simple plain socket C3	
5	SHM 21513	Nä, Glanshammar, Hassle, Raä 53	coord	Ribbed bucket (3), sword Mindelheim (2), discs (12), cauldron	17
6	SHM 13295:4	Nä, Glanshammar, Sticksjö	parcel	Dagger flint type VI	
7	SHM 13376, Örebro 14274, private	Nä, Glanshammar, Storsicke, Raä 50 + 70	coord	Axe flanged, axe palstave, axe stone rhomboid, other stone shaft-hole axes	cumul
8	Örebro 3828	Nä, Karlskoga, Svartälven	parcel	Axe socketed simple plain socket C2a	
9	Örebro 17272	Nä, Kumla, Blacksta	parcel	Axe socketed type B	
10	SHM 17215:1	Nä, Lännäs, Djursnäs saw mill	coord	Spearhead pile dwelling type, knife frag	2
11	SHM 13097	Nä, Lännäs, Tunäs/vicarage	parcel	Spearhead	
12	Örebro 1370-1371	Nä, Örebro, Skebäck, Svartån	parcel	Axe socketed type Scania (2)	
13	SHM 8395	Sö, Barva, Bjurkärrsäng	parcel	Axe socketed (3)	3
14	Private	Sö, Björkvik, Edeby, Raä 276	coord	Axe flanged	
15	SHM 31115	Sö, Björnlunda, Mosstugan 2:1, Raä 292	coord	Sword vollgriff open thumb socket riveted grip	
16	SHM 8104	Sö, Brännkyrka, Årsta, Årsta meadow	parcel	Axe palstave	
17	SHM 2273, 4177, 22228; Nykpg 2595 / Strngns 1083; Strngns 1085, M 156	Sö, Bärbo, Täckhammar bridge, River Nyköpingsån, Raä 80, Raä 85	coord	Axe flanged (4), axe socketed (2), spear (2), sword	cumul
18	SHM 8234:15, 13671, ÖrLM 3608	Sö, Eskilstuna, Hyndevad ford, River Eskilstunaån, Raä 587:1	coord	Large varied accumulation: axe flanged, dagger tanged, etc.	cumul
19	SHM 3573, 6759, private Cavalli-Holmgren	Sö, Eskilstuna, Kälby, Raä 558	coord	Axe shaft-hole display (2), dagger griffplatte	3

Ref	Class	Context	Per	Year	CoordY	CoordX
	lake	On an island in Lake Sottern	IV-V		1483220	6547440
	indet	Mobergsudden not identified	IV		?	?
	bog	"found on land taken into cultivation 50 years ago straight W of the W-most farm in Grävsta hamlet (on the E edge of the W-most of the long N-S clayey depressions between Karaby and Grävsta) near a big rooted boulder"	I-II		1445260	6556100
	river	River	V-VI		1446660	6559890
B hoard 162	river	River	VI	1936	1476070	6580945
	lake	In a field near the shore of the lowered Lake Hjälmaren	I-II	1907	1480140	6575100
	cumul	Field near wetland	cumul		1475222	6577229
	river	River	V-VI	1911	1430620	6578800
	river	Near River Ralaån	II-III	1935	1463150	6554210
	lake	Digging for the foundation of the saw mill	V-VI		1496479	6557190
	lake	Found in blue clay at shore of Lake Hjälmaren near the vicarage, almost uncorroded	II		1488850	6561170
	river	River	V-VI		1467640	6572670
O 2711	river	Ditch digging	III		1558060	6572000
Wigren 1987:54	lake	Harrowing	I	1934	1545373	6523543
Report in ATA	bog	Harrowing on reclaimed bog	I	1976	1576568	6551549
	sea	Near Liljeholmen	II		1626690	6578230
O 2726	cumul	"found 5' under the river bed during dredging of Nyköpingsån in 1856", "100-200 m N of the bridge", "at the head of the river"	cumul		1564762	6523258
	cumul	River rapids at ford	cumul		1537653	6578182
O 2729	bog	Boggy woodland cultivation	II	1864	1537558	6579047

#	Inv.no	Place	Accur	Types	No
20	Eskilstuna numberless	Sö, Eskilstuna, Tunavallen, Raä 590:1	coord	Axe socketed type Mälaren	
21	Nyköping Flb 31	Sö, Frustuna, Hållsta	parcel	Axe flanged	
22	Gnesta hembygdsgård	Sö, Frustuna, Hällesta, Raä 183:1	coord	Axe palstave	
23	SHM 26138	Sö, Grödinge, Sibble 2:3	parcel	Sickle preform (4)	4
24	SHM 21687	Sö, Helgesta, Frändesta, Oxbroberget	parcel	Spearhead Gundslev	
25	Nyköping 266 Div	Sö, Helgona, Kristineholm, Nyköpingsån, Raä Helgona 173:1	coord	Axe socketed type Mälaren	
26	SHM 26909	Sö, Huddinge, Solgård 1:166, Marsvägen 10, Raä 211	coord	Dagger tanged	
27	Private	Sö, Husby-Oppunda, Tärnö, Raä 257	coord	Axe palstave	
28	SHM 14613	Sö, Husby-Rekarne, Årby, Årby bog	parcel	Axe socketed type Mälaren	
29	Nyköping 14061	Sö, Kila, near Lake Bålsjön, Villa Solbacken, Raä 139:1	coord	Axe palstave	
30	Nyköping 4472	Sö, Lid, Lilla Lundby	parcel	Axe socketed type B	
31	SHM 17019:6	Sö, Lista, Vingsleör, Apalsjön	parcel	Dagger flint type VI	
32	SHM 15259:5	Sö, Näshulta, Kråksten	parcel	Axe stone orthogonal	
33	SHM 6611:3	Sö, Sorunda, Fituna, Mörkarfjärden	parcel	Axe stone orthogonal	
34	SHM 29366	Sö, Sorunda, Grödby, Petterslund, Raä 754	coord	Pin disc-head	
35	SHM 26083	Sö, Sorunda, Södra Rangsta, Raä 542	coord	Spearhead plain convex	
36	SHM 813	Sö, Spelvik, church, Kyrkovallen, Raä 98	coord	Hoard	C. 24
37	SHM 12310, Strängnäs 1078-1082	Sö, Strängnäs, Tosterön, Sundby	parcel	Ring Wendelring (2), Ring arm (4)	6
38	Nyköping 18015 / 184-186	Sö, Svärta, Kråknäs/Kråkstugan, Raä 146:1	coord	Sword antenna, ring Wendelring	2
39	Nyköping 18015 / 184-186	Sö, Svärta, Kråknäs/Kråkstugan, Raä 146:2	parcel	Axe socketed type Mälaren	
40	Nyköping 4921	Sö, Torsåker, Harlinge, Raä 141:1	coord	Spearhead ?Ödeshög	
41	SHM 9275	Sö, Torsåker, Torsnäset, Lake Sillen	parcel	Axe socketed type F	
42	Nyköping 11751 / 264 Div	Sö, Torsåker, Tuna	parcel	Axe socketed	
43	SHM 17311	Sö, Tunaberg, Bråten, Raä 105	parcel	Axe palstave	

Ref	Class	Context	Per	Year	CoordY	CoordX
Copy SHM 24179	sea		IV-V	1939	1539193	6583528
	lake/ sea	Lake: drainage channel across former Lake Igelsjön between Givesta and Lake Långsjön	I	1881	1584370	6547260
	lake	Garden patch	II	1965	1582192	6546868
O 2736	sea	In modern house foundation immediately N of mounds Raä 138	III	1940	1611450	6556040
O 2737	lake	In crevice on Oxeberget / Oxbroberget hill, 150 m from the road between Nyköping and Sparreholm	III		1559750	6543430
	river	Crevice on river bank during dam construction	IV-V	1938	1565362	6521789
Report in ATA	lake	Under a boulder below a scarp	V	1954	1623053	6569124
O 2738; Wigren 1987:56	lake	C. 200 m N of the farmstead	II	1929	1554059	6528832
	lake		IV-V		1536920	6573090
	lake	Found under Forstmästare Collin's house	II	1916	1546578	6510790
	river	Ditch digging 500 m N of Lilla Lundby	II-III	1945	1566350	6532430
	lake	In boggy soil reclaimed from Lake Apalsjön	I-II		1526240	6580190
	river	Stray	IV-V		1529480	6562570
	sea	Sea	IV-V		1611950	6550890
Report in ATA	anon	Brown patina	V-VI	1970	1618237	6549835
	anon	Tree planting at base of hill	V-VI	1955	1613157	6543053
B hoard 158, Minnen 1225	sea	Under a boulder	VI	1838	1575321	6532729
B hoard 159, Mbl 1903-05	sea	"in a fallow field above Gammalsund Karlsstugan in Sundby gärde", "under a boulder during blasting for the new gymnasium".	VI		1570530	6585790
B hoard 160; Arbman 1934	bog	During harrowing after bog drainage for arable on "hagslätten"	VI	1933-34	1576488	6521765
	bog	Bog, c. 200 m from sword	IV-V		1576490	6521770
O 2755	river	Stream dredging / 500 m N or NE of vicarage at 2 m depth in bog	I	1940	1588657	6537027
	lake	Found at lakeshore but porous green patina	III-IV		1589160	6543040
	lake	200 m S of Tuna. Axe mislaid at museum.	?LBA	1968	1589040	6540410
	sea	3 km SSE of Tunaberg church, 450 m N of the cottage	II		1565900	6501130

#	Inv.no	Place	Accur	Types	No
44	SHM 7774	Sö, Turinge, Nykvarn, Ekudden, Raä 328:1	coord	Hoard mixed	58
45	Södertälje 4278	Sö, Tveta, Rophäll, Raä 187:1	coord	Axe socketed type Mälaren	
46	SHM 2417, 5659	Sö, Vrena, Dalby, Vrenaån	parcel	Axe flanged (2), axe socketed type Mälaren	cumul
47	SHM 13117	Sö, Vårdinge, Hjortsberga, Raä 59:1	parcel	Ring Wendelring	
48	SHM 2674, 2842	Sö, Vårdinge, Långbro	parcel	Hoard plus hone stone	22
49	SHM 11313	Sö, Vårdinge, Nådhammar, Lake Långsjön	parcel	Axe socketed type C	
50	SHM 12036 / Nyköp 2596 / Strängn	Sö, Västerhaninge, Hållsättra, Prästängen	parcel	Axe socketed type Mälaren	
51	SHM 13839:6	Sö, Österåker, Maren	parcel	Axe stone orthogonal	
52	SHM 14665	Sö, Östra Vingåker, Skiringstorp, Raä 33	coord	Sword riveted open thumb socket	
53	SHM 3672	Sö, Överjärna, Järna railway station	parcel	Dagger flint type VI	
54	Uppsala Emanuel Cederström 823	Up, Alsike, Krusenberg	parcel	Axe socketed type Scania	
55	SHM 15440	Up, Altuna, Drävle, Raä 79	coord	Axe flanged	
56	Uppsala 3184	Up, Björklinge, Kambo, Långsjön	parcel	Axe socketed simple plain socket C1b	
57	Private Rålamb	Up, Bondkyrka, Norby forest, Grindstugan	parcel	Axe socketed type F	
58	Västerås 11863	Up, Bred, Eklunda, Mossen	parcel	Axe socketed A2a L 80 mm	
59	SHM 20652	Up, Bromma, Norra Ängby, Jomsborgsvägen 7, Raä 110	coord	Axe palstave	
60	SHM 16018	Up, Börje, Altuna	parcel	Ring Wendelring, ring spiral (2), axe socketed, pins (3)	7
61	Uppsala 5452	Up, Börje, Brunnby	parcel	Axe flanged	
62	Uppsala 996 / Enköping	Up, Dalby, Gräna, near Lake Ekoln	coord	Axe flanged	
63	Uppsala 5771	Up, Dalby, Tuna	parcel	Axe socketed simple plain socket C2a	
64	Private, copy in SHM	Up, Edsbro, Smaranäs, Raä 49:1	coord	Axe socketed type Mälaren	
65	SHM 15382	Up, Ekerö, Skärvik	parcel	Axe stone rhomboid	

Ref	Class	Context	Per	Year	CoordY	CoordX
O 2759	lake	"During digging in the earth", re-investigation 1931 turned up flint	III	1885	1587549	6561594
	lake	Lake, shore of Lake Långsjön near the Turinge psh boundary	IV-V	1932	1597095	6560828
	cumul	River	I, IV-V	1857	1551850	6526590
	bog	Field	VI	1907	1591090	6545950
B hoard 161, Minnen 1193	multi	"during railroad work while digging in a small peat bog located up high in a small depression in a gravel esker ... At a distance of 5' was a stone cairn ... 5' diameter bedded down into the peat at the same depth. No remains of bones or ash."	VI		1591060	6547870
	lake	Lakeshore	III		1593040	6543730
	lake	Meadow, 4' deep	IV-V		1625960	6557880
	lake	Stray	IV-V		1505720	6559150
O 2768	bog	Cultivated bog	II		1512846	6538439
	anon	Found during railway building	I-II		1600920	6553690
	sea	Field between Källvreten and the upper farmstead near the stable.	V-VI		1604370	6626330
	river		I	1915	1564924	6633492
	lake	Near Lake Långsjön	V	1904	1598900	6658560
O 2848	anon	Gravel pit behind Grindstugan tavern. Haft frag remained when found.	III-IV	1882	1602710	6636930
	indet	Mossen not identified	IV	1963	?	?
	sea		II	1934	1619491	6582480
B hoard 169, E 1921 #130	anon	Small gravel pit 500 m W of Altuna hamlet	VI	1917	1593440	6644970
	sea	On surface during drainage work in field ESE of farmstead	I	1925	1595900	6640690
	sea	Ploughing at the SE corner of the barn, 23 m a.s.l.	I	1875	1598473	6626464
	anon	Easternmost farmstead in Tuna 3:2. NE of farmstead, 230 m NE of road, on a rise in a field, 21-22 m a.s.l.	V-VI	1948	1597660	6629970
	sea	Sea	IV-V	1944	1645256	6643789
	sea	Not identical to the axe Roshagen Raä 87, which is a simply designed LN axe.	V-VI	1914	1614750	6573530

#	Inv.no	Place	Accur	Types	No
66	SHM 14413	Up, Fasterna, Grindtorpet	parcel	Axe socketed simple plain socket C2a	
67	SHM 16381	Up, Fröslunda, Noppsgärde	coord	Spearhead	
68	SHM 17343:1444k	Up, Funbo, Marielund railway station	coord	Belt dome	
69	Private Johansson	Up, Gamla Uppsala, Sanda	parcel	Axe socketed no dec L 41 mm	
70	Uppsala 5686	Up, Gryta, Säva	parcel	Axe flanged	
71	Uppsala 2283	Up, Gryta, Säva, Grängesberg/ Gäddnäsberg/Eningsberg	parcel	Axe flanged	
72	Uppsala 5537:1	Up, Hagby, Focksta, Skvallerhagen	parcel	Spearhead	
73	SHM 26840	Up, Hammarby, Ekebo, Raä 29	coord	Axe socketed simple plain socket C1a	
74	Uppsala 5455	Up, Husby-Långhundra, Norrbacken	parcel	Axe socketed arched edge ribs	
75	SHM 13991:4	Up, Husby-Sjutolft, Ekolsundsviken, Ekolsund brick works	coord	Axe socketed type Mälaren	
76	SHM 11635, 12607:5, 16120	Up, Härnevi, Lilla Härnevi/vicarage, Raä 69	coord	Hoard	c. 50
77	Uppsala 4860	Up, Jumkil, Ubby	parcel	Axe flanged	
78	SHM 5790	Up, Järfälla, Säby, meadow near Lake Säbysjön	parcel	Ring neck, gold spiral (2)	3
79	Private Tersmeden	Up, Kårsta, Lilla Sunnarby, Norrvreten, Raä 91:1	coord	Ring neck open hooked	
80	SHM 13465	Up, Lagga, Morby	parcel	Axe stone sloping butt	
81	Uppsala 4565	Up, Lena church, Raä 90:1	coord	Sword tanged	
82	Private Poignant	Up, Lena, Edshammar	parcel	Axe socketed, spearhead	2
83	SHM 612	Up, Lena, Vattholma	coord	Spearhead (4), sword (2), sword grip (2)	8
84	Uppsala 3185	Up, Lena, Vattholma, Flugtorpet	parcel	Axe socketed simple plain socket C1b	

Ref	Class	Context	Per	Year	CoordY	CoordX
	lake	Between the church and the forest warden's place to the SW.	V-VI		1636030	6630040
E 1921 #22	sea	Found during extraction of fill for a building foundation, 2 m east of the house at Noppsgärde	I	1877	1582891	6621909
	lake	On high promontory on N shore of Lake Trehörningen, cut through by Uppsala-Länna railroad, less than 2000' E of the railway station.	V		1616513	6637867
E 1921 #96	esker	In gravel pit between Tunåsen and Galgbacken	V		1601740	6642310
	sea	Gravel pit west side of road towards Hagby, c. 100 m N of the crossroads W of Säva bridge	I	1938	1588770	6628510
	sea	Field edge c. 200 m WSW of croft, 25 m a.s.l.	I	1890	1587690	6627870
	sea	In pasture near Säva road, W of stream, tightly wedged between 2 stones	II	1930	1587770	6631240
	sea	Beside boulder, edge up, in Iron Age cemetery	V	1960	1619828	6600562
	anon	N of Norrbacken next to a spring	IV	1926	1623700	6628810
	sea	Sea bed	IV-V	1910	1589281	6614239
B hoard 171, E 1921 #77	settl	Ditch digging	VI	1902	1572235	6622785
	sea	Ploughing in former bog, 38 m a.s.l., S of village between a hill to the E and the road and a brook to the W	I	1918	1589660	6647390
B hoard 172, E 1921 #72	lake	Lake	IV	1876	1616890	6591330
	lake		IV		1635545	6618627
	sea	Field, angle between stream and road to Halmby, N of stream	LBA		1612130	6631330
	multi	During gravel extraction in former field on ridge c. 200 m NE of church, LIA cemeteries & undated settlement site	II-III	1915	1607090	6656403
B hoard 174, E 1921 #89	sea	Within 1000 feet S of the property, E of railroad	VI		1607270	6653350
B hoard 175, E 1921 #53	multi	Sand quarry on road from Lena church to Vattholma bruk, 500 fathoms (= 900 m) N of church, gravel ridge, prob. within cemetery Raä 85	IV	1833	1607120	6657230
	anon	Potato patch on the slope towards the stream at Flugtorpet	V	1904	1605950	6659900

#	Inv.no	Place	Accur	Types	No
85	SHM 34442, private Eriksson	Up, Lunda, Sigridsholm, Raä 232:1	coord	Ring Wendelring (2), axe socketed (3), dress pin (2), ring frags	10
86	Uppsala 4712	Up, Läby, Håmö, Frosshögarna/Lake Läbyträsk	parcel	Axe soapstone	
87	SHM 8101	Up, Nysätra, near Lake Hålsjön	parcel	Axe socketed simple plain socket C2a	
88	SHM 24782	Up, Nysätra, Åloppe, Stockmossen	parcel	Axe socketed simple plain socket C1b	
89	SHM 14759	Up, Ramsta, Bragby, Mönemossen	parcel	Sword vollgriff open thumb socket riveted grip	
90	SHM 18379	Up, Rasbo, Västerberga, Raä 622	parcel	Axe socketed type Mälaren	
91	Uppsala 2289	Up, Rasbokil, Årby, Damhagsåkrar	parcel	Axe socketed type Mälaren	
92	SHM 14586	Up, Rimbo, Rimbo	coord	Axe socketed type Mälaren	
93	SHM 18819	Up, Simtuna/Torstuna, Örsundaån, Forsby bridge, Raä 174:1	coord	Axe stone sloping butt	
94	Uppsala 2354	Up, Skepptuna, Ånsta	parcel	Sword Mindelheim	
95	Uppsala 3750	Up, Skogs-Tibble, Ingla, Ingla-Långmyran	parcel	Axe socketed type Mälaren	
96	SHM 14105	Up, Skogs-Tibble, Ingla, Raä 64:1	parcel	Ring arm (3)	3
97	Uppsala 2284	Up, Skogs-Tibble, Lillsjön/Stensmyran	parcel	Axe flanged	
98	Uppsala 5620	Up, Skogs-Tibble, Långmyran	parcel	Axe flanged ?Baltic	
99	Uppsala 2287	Up, Skogs-Tibble, River Sävaån	parcel	Axe flanged	
100	Uppsala 2541	Up, Skogs-Tibble, Ulvansvad	parcel	Dagger flint type VI	
101	Uppsala 5529	Up, Skogs-Tibble, Vicarage, Raä 64:1	parcel	Axe socketed arched edge ribs	cumul
102	Uppsala 5571, 5706	Up, Skogs-Tibble, Ångelsta, Lundbacka	parcel	Ring Wendelring (2)	2
103	SHM 13767	Up, Solna, Råsunda	coord	Sword Gündlingen, dagger	2
104	SHM 20308	Up, Solna, Ulriksdal, near Edsviken Inlet	parcel	Axe flanged	

Ref	Class	Context	Per	Year	CoordY	CoordX
	lake	Edge of Lake Sigridsholmssjön	LBA	1986	1624359	6618807
	lake	Field SW of Håmö between Hågaån and a ridge	LBA	1916	1594090	6636780
	lake	Cultivation	V-VI		1580000	6634110
	bog	Stump blasting	V		1577920	6634310
	lake	7 inches deep in bog	I	1912	1592260	6630150
	lake	20 cm deep in clay	IV-V		1614050	6649350
	lake	Cultivated bog 10 min WNW of Årby, prob. Årbymyran	IV-V	1882	1612550	6654770
	indet	Digging for J. Broberg's house foundation	IV-V	1912	?	?
	river	River	LBA		1565630	6629634
	sea	In pasture/boggy field/bog N of the farmstead	VI	1896	1627050	6624830
	lake	Canal digging in bog soil NE of Ingla	IV-V	1910	1585120	6636970
B hoard 177, E 1921 #131	cumul	"in a little potato patch at the farm labourer's home 'Mellgrind', close E of the road after its turns S, and a bit S of the dot on the Geological Map marking an abandoned farm." Next to UMF 5529.	VI	1910	1584740	6635860
	river	Bog E of Lake Lillsjön, 36 m a.s.l., near eaves of woods on S side of valley	I	1891	1582330	6634510
	lake	During drainage work in bog 3 km NE of church	II-III	1934	1585970	6637740
	lake/ sea	River dredging between Vrå and church, ancient lake or sea inlet	I	1886	1584240	6635080
	river	Ford	I-II		1582590	6638740
	cumul	Near boundary with Ingla, at edge of field scant meters from spot of arm rings SHM 14105	IV	1929	1584740	6635860
	anon	50 m apart in field c. 100 m from Old Svedjetorp towards NE, east of the road Ångelsta-Eka	VI	1930,41	1586670	6633370
B hoard 179, E 1921 #125	sea	1.5 m deep in clay during foundation digging for the south corner of the tram garage at Råsunda. Find spot 17-18 m a.s.l. Buildings torn down in 1985, within the streets Spårvägen, Hallgatan, Lövgatan and Råsundavägen.	VI	1909	1623735	6584498
	sea		I	1900	1625640	6587530

#	Inv.no	Place	Accur	Types	No
105	SHM 12412	Up, Sparrsätra, Hässelby, Gångmossen, Raä 117:5	parcel	Pin spiral-head	
106	SSM 16417	Up, Spånga, Backlura	coord	Sword tanged	
107	SHM 15833	Up, Spånga, Råcksta, Kanaan/Oljeberget, Raä 299	coord	Axe socketed simple plain socket C2a	
108	SHM 22026	Up, Spånga, Sundby, Spånga villastad, Syrenen nr 2, Raä 3:1	coord	Ring armlet (2)	2
109	SHM 19313	Up, Stockholm, Hammarby/Mårtensdal	parcel	Axe stone rhomboid	
110	SHM 9277	Up, Stockholm, Värtahamnen	parcel	Axe palstave	
111	Söderbykarl 261	Up, Söderbykarl, Ekeby	parcel	Axe socketed type Mälaren	
112	Söderbykarl 260	Up, Söderbykarl, Norrmarjum	parcel	Axe flanged	
113	SHM 10144	Up, Tierp, Torslunda, Raä 948	parcel	Spearhead, axe shafthole, axe flanged	3
114	Uppsala 5507	Up, Uppsala-Näs, Skärfältens, Sjökärret	parcel	Spearhead	
115	Uppsala 5697	Up, Uppsala, Tingshögsgatan	parcel	Axe stone sloping butt	
116	SHM 17343:1444n	Up, Vittinge, Ösby, Österängen	parcel	Axe socketed type E	
117	SHM 21183	Up, Vårfrukyrka, Grop-Norrby, Hjältängarna	parcel	Axe socketed type D	cumul
118	Uppsala 5430	Up, Vårfrukyrka, Skälby, Hällstigen	parcel	Axe stone rhomboid	
119	SHM 4287	Up, Vänge, Bärby, Raä 224	parcel	Axe socketed simple plain socket C3	
120	Uppsala 3266	Up, Vänge, Bärby, Vängeån	parcel	Axe stone orthogonal	
121	Uppsala 6032	Up, Ärentuna, Gammelängen	coord	Spearhead type Ullerslev	
122	SHM 17941	Up, Ärentuna, Storvreta rwy stn, Oskarsborg, Raä 240	coord	Spearhead (2), chisel socketed, sickle flint	4
123	Uppsala 5690	Up, Österunda, Domta vad, Raä 83:1	coord	Belt dome (2), ring (3)	5
124	Lost	Up, Österunda, Gustavsberg, Täppdammen, Raä 77	parcel	Spearhead	
125	Uppsala 4864	Up, Österunda, Lake Oxsjön	parcel	Chape sword rhomboid	

Ref	Class	Context	Per	Year	CoordY	CoordX
E 1921 #110	bog	On top of a tuft of grass in the bog	V-VI	1902	1561250	6622290
O 2831	bog	Bog. Currently Backlöksvägen 68-70 (once Ängsvägen 8, stadsäga 40)	II-III	1950-51	1614124	6587820
	sea	During stone clearing	V-VI		1617347	6583377
	anon	Gardening, spade depth	VI/IA	1938	1619689	6584884
	sea	Foundation digging 75 m S of General Motors' factory, sea?	V-VI	1930	1629950	6577860
	sea	Found during digging for earthworms at 15 cm depth some ways from the shore.	II	1892	1630870	6583330
E 1921 #70	indet	During harrowing in a field N of Lake Bordsrudssjön, not identified	IV-V	1914	?	?
	sea	20 m a.s.l.	I		1661030	6643860
O 2840; Renck 2007	multi	Gravel pit 2 rifle shots N of Torslunda farmstead, E of highway to Gävle	I	1892	1592960	6689120
	sea	Harrowing in Sjökärret bog between road and Lake Sätrasjön SW of Skärfälten	I	1928	1594070	6634600
	sea	Ploughing on town land N of town, left side of the road to Gamla Uppsala, c 100 to this side of "Bahrska granhäcken" and 200-300 m from road	LBA	1926	1602360	6641230
	lake	Drained sandy ground	III-IV	1894	1569640	6643380
O 2858	cumul	Ploughing N of farmstead	III		1569620	6621680
	anon	Gift from finder	V-VI	1925	1573680	6617240
	lake	Drainage, Lake Rönningen	V-VI	1869	1587400	6639190
	lake	Stream's edge	IV-V	1905	1589900	6639680
	river	Found thrust beneath a large glacial erratic in a boulder field, no other finds at subsequent excavation	II	1976	1608173	6648595
O 2866	anon	Under a boulder	II	1926	1606116	6650112
B hoard 181, Arwidsson 1939	lake	Ploughing, drained fen	V	c. 1910	1574656	6631649
	river		?	c. 1945	1570970	6635490
E 1921 #21 fig. 34:43	lake	Lake edge	II-III	1916	1574070	6636510

#	Inv.no	Place	Accur	Types	No
126	SHM 23674	Up, Österunda, Pukberget, Raä 62	coord	Spearhead plain convex	
127	Arboga 397	Vs, Arboga, Kråkdiket/Vinbäcken	parcel	Axe stone sloping butt	
128	Västerås 14643	Vs, Björksta, Vida/Högtorp	parcel	Axe socketed type D	
129	SHM 11267	Vs, Fellingsbro churchyard, Raä 170:3	parcel	Axe shaft-hole	
130	Örebro numberless	Vs, Fellingsbro, Eke, Sällingsjön, east shore	parcel	Dagger tanged	
131	Västerås 3174	Vs, Hubbo, Hökåsen, Raä 109	coord	Hoard	12
132	SHM 5533, 5534	Vs, Hubbo, Hökåsen, Raä 110	parcel	Ring Wendelring (2), ring ankle (2), belt dome (2), armlet wire (3)	9
133	SHM 15393:9	Vs, Hubbo, Mälby, Raä 100	coord	Axe socketed side-slots	
134	Västerås 147	Vs, Kärrbo, Frösåker, Skyttebo	parcel	Axe palstave	
135	Köping 3689	Vs, Malma, Åsby, Raä Kolsva 115	coord	Ring Wendelring	
136	Private Kumla	Vs, Odensvi, Kumla, Raä 137:1	coord	Axe flanged	
137	Västerås 3911	Vs, Skultuna, Åkesta	parcel	Axe stone orthogonal	
138	SHM 2503	Vs, Svedvi, Berga I	parcel	Belt dome, ring arm spiral, ring neck (2), pin disc	5
139	SHM 14908, 14992, Västerås 7163	Vs, Svedvi, Berga II	parcel	Ring Wendelring (4)	4
140	SHM 12534	Vs, Svedvi, Vicarage, Raä 239	coord	Ring neck	
141	SHM 6517:100, 15393:5	Vs, Tortuna, Fors, Tillbergaån/Lillån	parcel	Axe flanged	2
142	SHM 22775	Vs, Västerås, Tunbyvägen 74, Raä 377:1	coord	Axe shaft-hole display, sickle (3)	4
143	SHM 12651:31	Vs, Västra Skedvi, Klockarkilen	parcel	Axe stone orthogonal	

Ref	Class	Context	Per	Year	CoordY	CoordX
	lake	Cave	V-VI	c. 1930	1576003	6631885
	river	Stream	LBA		1501450	6585470
	lake	Peripheral field 800 m N of farm	III	1950	1556780	6618480
	sea		I		1486970	6593210
O 2644	lake	Lake	III		1483000	6599160
B hoard 164, O 1933 184f Abb 172	esker	Gravel extraction	VI	1922	1545120	6616053
B hoard 163; Minnen 1413, 1414, 1458	esker	Under and near a boulder on the Badelunda esker, railroad work	VI	1875	1544720	6616470
	anon		V		1545369	6618995
	sea		II		1552770	6602020
	anon	Next to clearance cairn in field	VI	1936	1505786	6604006
O 2656b	sea	Field	I		1511651	6604576
	sea	Next to road ditch c. 200 m S of Åkesta farmstead	IV-V	1923	1538000	6616530
B hoard 166; Minnen 1332, 1383	lake		V-VI	1858	1526510	6607778
B hoard 167	lake	"during ploughing in bog earth".	VI	1929	1526510	6607778
	esker	In gravel ridge	VI		1526329	6607906
	river	River, dredging	I		1550550	6618210
O 2668	river	Charcoal, burnt stone	II	1941	1541299	6612376
	anon		IV-V		1493330	6605080

APPENDIX C Finds list: poorly known locations

#	Inv.no	Place	Types
144	SHM 25177:B:68	Nä, Axberg, Dylta	Axe stone sloping butt
145	Örebro 432	Nä, Ekeby, Björka	Axe palstave
146	SHM 13142:3	Nä, Ekeby, Ekeby, Mosjön	Dagger flint type VI
147	SHM 8041	Nä, Ekeby, Frommesta	Axe flanged, axe stone MNA battle axe
148	Örebro Läns Folkhögskola	Nä, Ekeby, Högtorp	Axe socketed type B
149	SHM 13233:5	Nä, Ekeby, Torsta	Axe shaft-hole
150	Örebro 9075	Nä, Ekeby, Vallby	Dagger Griffplatte
151	Skara 62312	Nä, Glanshammar, Glanshammar	Axe flanged
152	SHM 7489	Nä, Gällersta, Ökna	Axe flanged
153	SHM 7591:3	Nä, Hallsberg, Hallsberg	Axe socketed type Mälaren
154	SHM 9170:1226	Nä, Hammar, Aspa	Axe socketed type Scania
155	Kävesta folkhögskola	Nä, Hardemo, Skyberga	Axe socketed simple plain socket C2a
156	Örebro 3607	Nä, Lake Hjälmaren, SW part	Axe flanged
157	Örebro 5096	Nä, Lerbäck, Essböle	Axe stone orthogonal
158	Örebro 119	Nä, Lännäs, Ingevaldstorp	Axe stone orthogonal
159	SHM 13123:8	Nä, Lännäs, Ingevaldstorp	Axe stone sloping butt
160	Örebro 433	Nä, Rinkaby, Lilla Åkerhagen	Axe socketed type C
161	Örebro 15119	Nä, Rinkaby, Solberga, Lövsta	Axe flanged
162	SHM 1658	Nä, Sköllersta, Kärr	Axe palstave
163	SHM 13233:7	Nä, Stora Mellösa, Dömmesta	Axe socketed
164	SHM 426	Nä, Stora Mellösa, Åkerby	Dagger Griffplatte
165	SHM 12903:22	Nä, Ödeby, Sunnarboda	Axe stone rhomboid
166	SHM 13649	Nä, Örebro, Ånsta, Aspholmen	Axe socketed type B
167	SHM 11495:734	Sö, Aspö, Husby	Cylinder tripartite end
168	SHM 4605	Sö, Björkvik, Danbyholm	Axe socketed type C
169	Private Ernst Hermelin	Sö, Björkvik, Hacksta	Awl
170	Private Weijber	Sö, Björkvik, Hagbyberga	Axe flanged
171	SHM 14872	Sö, Björnlunda, Ekhov, Skräddartorp	Axe flanged
172	Nyköping Flb 73 / Strängn	Sö, Björnlunda, Jakobsberg	Axe socketed
173	Nyköping Flb 31	Sö, Björnlunda, Ökna	Axe socketed

No	Ref	Context	Per	Year
		Lundin collection	LBA	
			II	
		On the bed of the drained Lake Mosjön	I-II	
2?	O 2679	Under a boulder	I	1875
	Copy SHM 15262:2	Under a boulder	II-III	
	M 813, O 2681	Under a boulder	I	
				1916
			I	
		Dredging wetland	I	
			IV-V	
			V-VI	
			V-VI	
		Lake	I	
			IV-V	
		Stray	IV-V	1864
			LBA	
		Baumbach collection	III	1887
			I	1929
		Bog	II	
		Beside boulder	III	
		Gravel pit		
			V-VI	
		Aspholmen is not an island	II-III	
		Stray		
		Marsh	III	
	Copy SHM 20843	Potato patch		
	O 2717	Bog	I	
		Skräddartorp N of Björnlunda church, prob near Mosstugan.	I	1913
		Stray		
		Stray		

#	Inv.no	Place	Types
174	SHM 10174:20	Sö, Bogsta, Norrby	Axe stone rhomboid
175	SHM 8520	Sö, Botkyrka, Riksten	Axe socketed type Mälaren
176	Uppsala 977-982	Sö, Botkyrka, Tullinge	Axe socketed (2), sickle (1), tutulus (2), ring (2)
177	SHM 13404	Sö, Dunker, Alm	Axe flanged
178	Nyköping 149 / 45	Sö, Dunker, Målarstugan	Axe flanged
179	SHM 23928	Sö, Eskilstuna, Gultbrunn	Axe shaft-hole undecorated
180	Eskilstuna 4832	Sö, Eskilstuna, Gultbrunn	Axe socketed
181	Eskilstuna 4715 / 7415	Sö, Eskilstuna, Gultbrunn	Axe socketed simple plain socket C2a
182	SHM 13814	Sö, Eskilstuna, Mesta	Spearhead
183	SHM 15260:1	Sö, Floda, Vegersberg	Axe stone orthogonal
184	SHM 7978:3	Sö, Fogdö, Bergshammar	Axe stone rhomboid
185	SHM 15787:9	Sö, Frustuna, Hållsta	Axe socketed type B
186	SHM 10105	Sö, Frustuna, Nytorpet	Axe palstave
187	Private Leander Karlsson	Sö, Gillberga, Åsby	Axe flanged
188	Grödinge	Sö, Grödinge, Kagghamra	Axe stone orthogonal (2)
189	Nyköping 288 Div	Sö, Helgesta, Rockelsta	Axe socketed type Mälaren
190	SHM 3748	Sö, Helgona, Bönsta	Dagger Vollgriff miniature
191	Nyköping	Sö, Husby-Oppunda, Torp	Axe flanged
192	SHM 740	Sö, Husby-Rekarne, Vicarage	Sword Hallstatt
193	SHM 13617	Sö, Hölö, Hejsta	Axe socketed type Scania
194	SHM 17343:705	Sö, Hölö, Malmen	Axe stone rhomboid
195	SHM 12902	Sö, Hölö, Tullgarn	Axe stone orthogonal
196	SHM 8439	Sö, Hölö, Tullgarn	Spearhead
197	Nyköping 18999 Flb 35-36	Sö, Kattnäs, Lebro	Ring Wendelring (2)
198	Private	Sö, Kila, Ålberga	Axe palstave
199	Private	Sö, Lista, Åsby	Axe flanged
200	SHM 8640:15	Sö, Ludgo, Grindstugan	Dagger flint type VI
201	SHM 17169	Sö, Mellösa, Yxtaholm, Fredsbacken	Dagger Griffplatte
202	Uppsala 990, 992	Sö, Mörkö, Mörkön, Väggberget	Axe socketed simple plain socket, chisel socketed
203	SHM 6782	Sö, Näshulta, Hedensö	Ring Wendelring
204	SHM 3748	Sö, Runtuna, Årsta	Dagger or miniature sword

No	Ref	Context	Per	Year
		Stray	V-VI	
		Stray	IV-V	
7	O 2720	Under a boulder on top of a barrow or hillock	III	1800
		Found among alder brush but green patina	I	
		Stray	I	1883
		Ploughing, parcel unknown, Raä 420 is not the spot	I	
		Stray		
		Stray	V-VI	
		Tree planting on an esker	III	
		Stray	IV-V	
		Stray	V-VI	
		Lake, unnamed	II-III	
		Ditch digging	II	
		Under a boulder	I	1850s
2?			IV-V	
		Stray	IV-V	
				1867
		Stray	I	
		Among stones in pasture	V	1836
		Stray	V-VI	
		Stray	V-VI	
		Stray	IV-V	
		Stray		
2	B hoard 156	During ploughing in a newly cleared field	VI	
	O 2744; Wigren 1987:56	Under a boulder	II	1916
	Wigren 1987:57	During stone clearing	I	1950s
		"digging at a depth of 4–5 feet, where there were also black oak trunks"	I-II	
		Ditch digging	I-II	
2	B hoard 157, ATS III 257	Under roots of a fallen tree	V	1822
		Ploughing in a wet meadow	VI	1881
		Ditch digging	II	1867

#	Inv.no	Place	Types
205	Södertälje	Sö, Sorunda, Frönäs	Axe stone sloping butt
206	Nyköping 46	Sö, Stigtomta, Viksberg	Spearhead
207	Södertälje 3491	Sö, Sättersta, Vreta/Vreten	Spearhead
208	SHM 13923:10	Sö, Taxinge, Näsby	Axe stone orthogonal
209	Private Claes Andersson	Sö, Taxinge, Prästtorp	Axe flanged
210	SHM 18025	Sö, Toresund, Odinsborg	Axe stone rhomboid
211	SHM 8640:318	Sö, Trosa, Herrberga	Axe socketed type Mälaren
212	Nyköping 187, Private	Sö, Tunaberg, Nävekvarn	Axe socketed arched edge ribs, axe socketed
213	Private	Sö, Tunaberg, Torskhuset	Knife
214	SHM 11495:886	Sö, Turinge, Hökmossen	Axe stone sloping butt
215	Södertälje 27:3	Sö, Turinge, Nykvarn	Axe palstave
216	Södertälje 4275	Sö, Turinge, Trångö	Axe socketed type Scania
217	SHM 21470	Sö, Tyresö, Karlberg	Axe socketed
218	Nyköping 183 (152?) Strängn	Sö, Vansö, Eneby	Pin
219	SHM 15483	Sö, Vårdinge, Nibble	Axe stone rhomboid
220	Södertälje 3958	Sö, Vårdinge, Römossen	Spearhead
221	SHM 14614:10	Sö, Vårdinge, Sjuenda	Axe socketed simple plain socket C2a
222	Strängnäs 165	Sö, Västerhaninge, vicarage	Axe socketed type Mälaren
223	SHM 1074	Sö, Västerhaninge, vicarage	Ring neck (4)
224	SHM 13025:13	Sö, Västermo, Vi	Axe flanged
225	SHM 20943	Sö, Ytterenhörna, Johannesdal	Spearhead
226	Södertälje 1367	Sö, Ytterenhörna, Lövsta	Arrowhead
227	Södertälje 1067	Sö, Ytterenhörna, Vinberga	Axe socketed simple plain socket
228	SHM 11319:3	Sö, Åker, Smedsby	Axe stone orthogonal
229	Strängnäs "12"	Sö, Ärla, Axnäs	Brooch (2)
230	Nyköping 159	Sö, Ärla, Gåsnäs	Spearhead
231	SHM 13625:4	Sö, Ärla, Rökärr	Axe stone rhomboid
232	SHM 13783:1	Sö, Östertälje, Gärtuna	Axe flanged
233	Södertälje 2401	Sö, Östertälje, Hall	Axe socketed arched edge ribs
234	SHM 10677	Sö, Österåker, Jenstorp	Axe stone rhomboid
235	Nyköping 584 Sjö	Sö, Östra Vingåker, Åkra	Axe stone sloping butt

No	Ref	Context	Per	Year
			LBA	
		Stray		
				1881
		Stray	IV-V	
	O 2754a; Wigren 1987:58	During agricultural work	I	1950
		Ploughing	V-VI	
		Ditch digging, in clay, crumbly green/grey surface	IV-V	
	Wigren 1987:58			
		Stray. Lake Norra Yngern?	LBA	
		Stray	II	1925
		Potato harvest	V-VI	1933
		Found on surface at road between Rundemar and Karlberg, swampy surroundings		
		Stray		
		Stray	V-VI	
		Stray, bog?		
		Stray	V-VI	
			IV-V	
4		Ditch digging in wet meadow		
		Found deep in clay during ditch-digging but green porous patina	I	
		Stray		
				1870s
		Stray	IV-V	
2		Found during digging		1875
		In stiff clay during the clearing of new arable -- in the 1860s?		
		Stray	V-VI	
		Stray	I	
		Stray	V-VI	
			LBA	

#	Inv.no	Place	Types
236	Södertälje 945	Sö, Överjärna, Hummelmora	Spearhead
237	SHM 11258	Sö, Överjärna, Kallfors	Spearhead
238	Uppsala 2348	Up, Almunge, ?Långbol	Axe socketed arched edge ribs
239	Uppsala 4885	Up, Altuna, Fnysinge	Axe socketed arched edge ribs
240	Västerås	Up, Altuna, Säva	Axe stone sloping butt
241	Alunda	Up, Alunda, Skyndeln	Razor bent-back spiral grip
242	SHM 15401:B	Up, Björklinge, Närlinge	Axe flanged
243	Enköping 3479	Up, Boglösa, Gådi no 1	Axe socketed simple plain socket C1b
244	SHM 16983	Up, Boglösa, Rickeby	Pin spiral-head
245	Uppsala 983	Up, Bondkyrka, Håga	Axe socketed type Mälaren
246	Private Nyström	Up, Bred, Gunsta, Krokby	Dagger Griffplatte
247	SHM 18603:2	Up, Bred, Snickaretorp	Axe flanged
248	SHM 10176	Up, Bred, Vreta	Axe greenstone
249	SHM 7899	Up, Bred, Ytterby	Axe flanged
250	Private Nyström	Up, Bred, Äsplunda	Axe flanged
251	SHM 8109	Up, Bro, Lejondal, Sveden	Axe socketed type Mälaren
252	Uppsala 997, 998, 1000-1003, 1006	Up, Bälinge, Forkarby	Ring Wendelring (5), ring neck, belt dome
253	Uppsala 2799	Up, Bälinge, Oxsätra	Axe stone sloping butt
254	Uppsala 2341-2342	Up, Bälinge, Åloppe	Axe socketed simple plain socket C3, axe stone plain shafthole
255	Uppsala 5524:2	Up, Fröshult, Ekeborg	Axe socketed simple plain socket C3
256	SHM 19012	Up, Fröslunda, Vicarage	Axe shaft-hole display
257	SHM 25177:B:67	Up, Fröslunda, Örsundsbro	Axe socketed
258	Uppsala 1410	Up, Gamla Uppsala, Bredåker	Axe stone rhomboid
259	Uppsala 984	Up, Gamla Uppsala, Gamla Uppsala	Axe socketed type Mälaren
260	Uppsala 972	Up, Gamla Uppsala, Gamla Uppsala	Dagger / mini sword Vollgriff
261	Uppsala 973	Up, Gamla Uppsala, Gamla Uppsala	Dagger tanged
262	Uppsala 2355	Up, Gryta, Eningbol	Axe stone orthogonal
263	SHM 12336	Up, Hagby, Filke	Ring arm spiral
264	SHM 8109:3	Up, Hagby, Hagby	Axe socketed simple plain socket C2a
265	Uppsala 2359	Up, Hagby, Möjbro	Axe flanged
266	SHM 16913:5	Up, Hagby, Vicarage	Axe flanged

No	Ref	Context	Per	Year
		During ploughing		
		Stray	V	
		At dwelling between Bastbol and Sågarbol		1895
			LBA	
			I	
			V	
		Ditch digging.	V	
		Lundeberg collection	IV-V	1801
	O 2779	Stray		
		Field	I	
		Stray	EBA	
			I	
	O 2778	Stray	I	
		Cultivation	IV-V	
7	B hoard 168, E 1921 #93	Schröder collection	VI	1823
		Stray	LBA	1901
2		Cultivation on a hill	V-VI	1894
		Stray	V-VI	1929
			II	
		Lundin collection		
		Stray	V-VI	1879
		Lundeberg collection	IV-V	1822
		Lundeberg collection	EBA	1820
		Lundeberg collection	EBA	1822
		Stray	IV-V	
		Beside boulder in forest meadow	EBA	
		Stray	V-VI	
			I	1898
			I	

#	Inv.no	Place	Types
267	Lund 13791	Up, Harg, Harg	Axe socketed simple plain socket C1b
268	SHM 6375	Up, Hjälsta, Myrby	Axe socketed side-slots
269	Enköping 899	Up, Hjälsta, Månskenet	Axe stone orthogonal
270	Västerås ?154	Up, Huddunge, Sillbo	Axe stone sloping butt
271	Uppsala 5436	Up, Husby-Långhundra, Lugnet	Axe socketed arched edge ribs
272	Uppsala 989	Up, Håtuna, Håtuna	Axe socketed simple plain socket C2b
273	Uppsala 5628	Up, Håtuna, vicarage	Axe stone orthogonal
274	SHM 16362:4	Up, Härkeberga, Malma	Axe socketed type Mälaren
275	Private	Up, Järfälla, Skällby	Axe stone sloping butt
276	Private Vinberg	Up, Kalmar, Väppeby	Axe flat
277	SHM 9716	Up, Knutby, Kumla	Axe socketed simple plain socket C2a
278	SHM 1563	Up, Knutby, Långsjön	Sword (3), sword handle, spearhead
279	SHM 11513	Up, Lagga, Norrby	Axe socketed simple plain socket C1b
280	SHM 17343:1441	Up, Lena, Edshammar	Spearhead
281	Uppsala 4568	Up, Lena, Koltorp	Axe socketed simple plain socket C1b
282	Uppsala 4566	Up, Lena, Salsta, Hummeltorp	Spearhead
283	Private Nilsson	Up, Lena, Stenby	Axe socketed type Scania
284	Uppsala 2789	Up, Lena, Årsta	Axe stone orthogonal
285	Enköping 1589	Up, Litslena, Tibble no 5	Axe stone orthogonal
286	SHM 12445	Up, Litslena, Vällinge	Spearhead
287	SHM 9168	Up, Lohärad, Himmene	Pin spiral-head
288	SHM 7742:32 & :114; Söderby-Karl hbf	Up, Lohärad, Himmene	Ring Wendelring (3)
289	SHM 12182:1	Up, Lohärad, Kristineholm	Axe socketed simple plain socket C3
290	SHM 16730:48	Up, Lovö, Kungshatt	Axe stone rhomboid
291	SHM 14177	Up, Lunda, Ängby	Axe stone rhomboid
292	Uppsala 2294	Up, Läby, Österby	Sickle
293	SHM 17343:1444g	Up, Länna, Mörtsunda	Axe flanged
294	Kalmar 425	Up, Markim, Ekeby	Axe stone sloping butt
295	Uppsala 5383	Up, Nora, Östa	Brooch spectacle
296	Västerås 82	Up, Norrby, Isätra	Axe stone sloping butt
297	Enköping 1244	Up, Nysätra, Mosta	Axe flanged

No	Ref	Context	Per	Year
			V	
		Stray		
		A. Valin's collection	IV-V	1911
			LBA	
		Dealer	IV	1926
		On a rocky hill	V-VI	1840
		Stray	IV-V	1871
		Ditch digging.	IV-V	
			LBA	
	O 2800	Cultivation of moraine hill		1910
		Stray	V-VI	
5	B hoard 173, E 1921 #114	Lake	VI	1849
		Stray	V	
		Stray		
			V	
			EBA	
			V-VI	
			IV-V	
			IV-V	1914
		Ploughing in a grassed-over field		1892
3	B hoard 176, E 1921 #117	Field during harrowing	VI	1885
		Stray	V-VI	
		Stray	V-VI	
		Tree planting	V-VI	
		Cultivation, under small stone	EBA	1887
		Ploughing	I	
			LBA	
			V	
			LBA	
		Bog cultivation	I	

#	Inv.no	Place	Types
298	Enköping 906	Up, Nysätra, Mosta	Axe socketed simple plain socket C2a
299	Uppsala Emanuel Cederström 340	Up, Nysätra, Nysätra church village	Axe flanged
300	SHM 2678	Up, Rasbokil, Edeby	Axe stone sloping butt
301	Uppsala 3334	Up, Rasbokil, Kölinge	Axe stone orthogonal
302	Västerås 11708	Up, Simtuna, Marby	Axe flanged
303	SHM 1477	Up, Simtuna, Möllersta	Axe shaft-hole
304	SHM 7843	Up, Simtuna, Sjömossen = Altuna, Sjöbo	Axe socketed simple plain socket C1b
305	SHM 21998	Up, Simtuna, Vicarage	Axe socketed type A
306	SHM 5973	Up, Simtuna, Vändersta	Axe flanged
307	SHM 4288	Up, Simtuna, Väster-Vad	Brooch spectacle, pin disc-head
308	SHM 7923	Up, Skepptuna, Litselby	Axe stone sloping butt
309	SHM 1333	Up, Skepptuna, Äspesta	Ring neck
310	Uppsala 5687:1	Up, Skogs-Tibble, Vicarage	Brooch spectacle
311	Uppsala Emanuel Cederström 513	Up, Skuttunge, Broddbo	Axe stone rhomboid
312	SHM 16687:5	Up, Skuttunge, Skuttunge	Axe flanged
313	SHM 23276	Up, Sollentuna, Edsberg, Rösjön	Ring Wendelring
314	SHM 22908	Up, Sollentuna, Helenelund, near Edsviken	Axe socketed arched edge ribs
315	SHM 9431	Up, Sparrsätra, Hässelby	Axe socketed simple plain socket C1b
316	SHM 11157	Up, Sparrsätra, Torgesta	Sword tanged
317	SHM 12237	Up, Stockholm, Karlbergsvägen	Axe flanged
318	Uppsala 2349	Up, Tensta, Björkgrind	Axe socketed arched edge ribs
319	Uppsala 3302-3303	Up, Tensta, Forsa	Axe stone orthogonal (2)
320	Uppsala 2344	Up, Tensta, Järsta	Spearhead
321	Uppsala 3119	Up, Tierp, Hall, ?Månshagen	Axe stone rhomboid
322	Uppsala 3175	Up, Tierp, Munga, Stensberg	Axe socketed type Scania
323	Uppsala 2352	Up, Tierp, Svanby	Axe flanged
324	Uppsala 5596	Up, Tierp, Ålfors	Axe socketed type F
325	SHM 16125:2	Up, Tillinge, Lundby	Axe flanged
326	SHM 12377:8	Up, Tillinge, Stora Järstena	Axe socketed simple plain socket C3
327	Uppsala 5453	Up, Tillinge, Örby	Axe socketed type Mälaren
328	SHM 11156	Up, Torstuna, Holmsta	Axe socketed side-slots

No	Ref	Context	Per	Year
		A. Valin's collection	V-VI	1911
		Ploughing	I	1874
		Stray	LBA	
		Harrowing on sandy rise	IV-V	1906
		Potato patch	I	1959
	O 2816	Beside boulder 30 cm deep in field	I-II	1847
		Bog. Sjömossen croft abandoned.	V	
		Ditch digging.	II	
			I	
2	B hoard 178, E 1921 #82	Crevice	VI	1869
		Stray	LBA	
			?V-VI	
			V-VI	
			I	
		Forest clearing 150 E of shore	VI	1944
		Foundation digging, 1 m deep, orig sea?		
		Stray	V	
		Field on drained bog	III	1883
		Pipe-laying	I	1903
		Stray		1895
2		Stray	IV-V	1902
		Stray		1894
			V-VI	
			V-VI	1902
		On a rise in a field	I	1891
		Ploughing	III-IV	1926
			I	
		Stray	V-VI	
			IV-V	1926
		Stray		1900

#	Inv.no	Place	Types
329	SHM 4899	Up, Torstuna, Jädra	Axe flanged
330	SHM 12451:1	Up, Torstuna, Torslunda	Axe socketed arched edge ribs
331	Private	Up, Torstuna, Vappeby	Ring oath
332	Private Winberg	Up, Torstuna, Vappeby, Åsen	Axe flanged
333	SHM 5424	Up, Torstuna, Åsby	Axe stone sloping butt
334	Uppsala 4168	Up, Uppsala-Näs, Söderby	Axe socketed simple plain socket C2a
335	Uppsala 5201	Up, Uppsala-Näs, Söderby	Axe socketed type Mälaren
336	Uppsala 3183	Up, Uppsala-Näs, Söderby	Spearhead
337	Uppsala 988	Up, Vaksala, Råby	Axe socketed simple plain socket C2a
338	Uppsala 5397	Up, Vendel, Holvarbogärde	Axe socketed simple plain socket C1b
339	SHM 16654:1	Up, Villberga, Grillby	Axe stone orthogonal
340	SHM 6375:9	Up, Vårfrukyrka, Ekeby	Axe stone orthogonal
341	SHM 7571:168	Up, Vårfrukyrka, Husby	Spearhead
342	Enköping 1773	Up, Vårfrukyrka, Myran	Axe stone rhomboid
343	Enköping 1268	Up, Vårfrukyrka, Södra Rekasta	Axe palstave, Axe socketed arched edge ribs
344	Enköping 3733	Up, Vårfrukyrka, Åhl	Axe socketed side-slots
345	SHM 12656	Up, Vårfrukyrka/Enköping, Annelunda	Axe flanged
346	SHM 11654	Up, Vårfrukyrka/Enköping, Åkersberg	Axe flanged
347	SHM 7871:163, U-a 2340, U-a 4718	Up, Vänge, Lilla Kil	Ring Wendelring (7)
348	SHM 5144	Up, Vänge, Lång-Tibble	Axe flanged, axe stone plain shafthole
349	Uppsala 5466	Up, Västerlövsta, Orvenbo	Axe socketed arched edge ribs
350	Private Pettersson, copy SHM 19373	Up, Västerlövsta, Röcklinge 1	Knife frame-handled
351	Uppsala 4160	Up, Västeråker, Björk	Axe stone sloping butt
352	SHM 17343:771	Up, Vätö, Harg	Axe stone sloping butt
353	Uppsala 2285-2286	Up, Åkerby, Utjorden	Axe flanged, stone disc
354	Uppsala 3194	Up, Ärentuna, Nyby	Axe socketed simple plain socket C2a
355	SHM 15836	Up, Österunda, Domta	Axe stone orthogonal
356	SHM 16106:9	Vs, Badelunda, Stora Hejarne	Axe socketed type Mälaren
357	Västerås 8495	Vs, Badelunda, Vedby	Axe flanged
358	SHM 17019:1	Vs, Berg, Förunda	Axe socketed type Scania
359	SHM 12196	Vs, Björksta, Berga	Axe socketed simple plain socket C1b

No	Ref	Context	Per	Year
		Gravel pit	I	
		Stray		1905
	E 1921 #75	In Vappeby gärde	V	1783
		Åsen not identified	I	
		Digging in a field	LBA	
			V-VI	
		Harrowing	IV-V	1922
		Wooded hill		1904
		On a rocky hill	V-VI	1823
		Ploughing	V	1924
			IV-V	
		Stray	IV-V	1879
			EBA	
			V-VI	
2		Ploughing		1911
		Gravel pit		
		Clearing a field in the woods	I	1894
			I	
7	B hoard 180, E 1921 #101	Drained bog between Lilla Kil and Tysktorpet, not far from forest eaves	VI	1880, 1893, 1914
2		Drained bog	I	
			IV	
		Potato harvest	III	1926-27
			LBA	
		Harrowing	LBA	
2			I	1893
		Found during drainage work, 1 m deep	V-VI	1908
		Muddy field below a mountain.	IV-V	1917
			IV-V	
		Bought from finder	I	
		Stray	V-VI	
		Stray	V	

#	Inv.no	Place	Types
360	Västerås numberless	Vs, Björksta, Kolmsta	Axe socketed simple plain socket C2a
361	Västerås numberless	Vs, Björksta, Orresta	Axe socketed
362	Västerås 518	Vs, Dingtuna, Stockkumla	Pin spiral-head
363	Västerås 7618	Vs, Dingtuna, Vångsta	Axe socketed type ?D
364	Fellingsbro hist soc	Vs, Fellingsbro, Hälla-Västvalla	Axe palstave
365	SHM 13155:1	Vs, Fellingsbro, Varn	Axe stone sloping butt
366	SHM 12827:6	Vs, Fellingsbro, Österhammar	Axe stone rhomboid
367	Västerås 1113	Vs, Hubbo, Mälby	Brooch
368	Private von Post	Vs, Irsta, Appala	Axe flanged
369	Västerås 146	Vs, Irsta, Marsta	Axe socketed type Mälaren
370	Västerås numberless	Vs, Kolbäck, Åby	Axe socketed type Mälaren
371	Tärna folkhögskola	Vs, Kumla, Ransta	Axe socketed type Mälaren
372	Västerås 148	Vs, Kungsåra, Råby	Axe flanged
373	SHM 13658	Vs, Kärrbo, Frösåker	Ring neck
374	SHM 7571:102	Vs, Munktorp, Avhulta	Axe socketed type Mälaren
375	Västerås 683	Vs, Munktorp, Munktorp	Axe flanged
376	Västerås 2558	Vs, Munktorp, Åsby	Axe flanged
377	Private	Vs, Möklinta, Vicarage	Axe stone rhomboid
378	SHM 16687:2	Vs, Odensvi, Rocklunda	Axe flanged
379	Västerås 521	Vs, Romfartuna, Frändesta	Axe stone rhomboid
380	SHM 12534:4	Vs, Romfartuna, Vagersta	Axe stone sloping butt
381	Västerås 2160 h 49	Vs, Romfartuna, Äs	Dagger Griffplatte
382	Private	Vs, Rytterne, Löt	Axe stone sloping butt
383	Västerås 2313-2315	Vs, Sankt Ilian, Åby	Ring (4)
384	Sevalla church school	Vs, Sevalla, Herrkvarn	Axe stone sloping butt
385	Västerås 62	Vs, Skultuna, Berga	Axe stone orthogonal
386	SHM 13549:1	Vs, Svedvi, Ekeby	Axe shaft-hole
387	Västerås 1866	Vs, Svedvi, Ekeby	Ring neck
388	Västerås 1052	Vs, Svedvi, Nibble	Ring Wendelring
389	Västerås 2375	Vs, Tillberga, Mycklinge	Sword slim tanged
390	Västerås 2160 h 31 b	Vs, Tortuna, Ekeby	Pin bowl-head
391	Västerås 2160 h 31 a	Vs, Tortuna, Ekeby	Tutulus

No	Ref	Context	Per	Year
			V-VI	
			IV-V	
		Gift from Captain Casparsson	VI	
			III	
	O 2643	Stray	II	
		Stray	LBA	
		Stray	V-VI	
		Found with other metal objects		
	O 2646		I	
			IV-V	
			IV-V	
			IV-V	
		Gravel pit	I-II	1873
		Berry picking, one end stuck out of ground	V	1908
			IV-V	
			I-II	
		Bought from vagrant K.J. Öberg	I	1923
			V-VI	
		Stray	I	
			V-VI	
			LBA	
			LBA	
4	B hoard 165, Arbman 1938 99f Abb 17	Ditch digging.	VI	1919
			LBA	
			IV-V	
		Pasture on drained bog	I	
		1 foot deep in boggy uncultivated ground	VI	
			V	
			V	
			II	