LUND UNIVERSITY

Flint use in ritual context

Larsson, Lars

Published in:
Megaliths, Societies, Landscapes

2019

Document Version:
Publisher's PDF, also known as Version of record

Link to publication

Citation for published version (APA):
Larsson, L. (2019). Flint use in ritual context. In *Megaliths, Societies, Landscapes: Early monumentality and social differentiation in Neolithic Europe* (pp. 789-801). (Early Monumentality And Social Differentiation; Vol. 18). Verlag Dr. Rudof Habelt.

Total number of authors:
1

General rights
Unless other specific re-use rights are stated the following general rights apply:
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.
• Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
• You may not further distribute the material or use it for any profit-making activity or commercial gain
• You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: https://creativecommons.org/licenses/

Take down policy
If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117
221 00 Lund
+46 46-222 00 00

Flint use in ritual contexts

Lars Larsson

ABSTRACT

In South Scandinavia as in other areas, flint had a special position as a raw material for making a variety of tools. Flint was not only an important element in daily activities; moreover, it also became a catalyst of exchange and ritual. Flint became a very important element in marking the relationship between people and their conceptions of a different world populated by deities and dead ancestors. Flint axes played a very special role in this relationship. The deliberate deposition of axes in southern Scandinavia chiefly occurs in wetland but also at megalithic graves. The transformation of flint tools could also involve changing the material through heating. A small number of sites have a large amount of material, while the majority of other sites – such as megalithic graves – have a smaller number of objects altered by fire, primarily axes.

INTRODUCTION

Flint was not only an important element of daily activities, but it was also the material that provided the foundation for what was almost industrial-scale mining and specialised flint knapping. Therefore, flint represented an important economic basis for the prosperity of certain societies, becoming an extremely significant commodity for contact between societies. Its distribution was so extensive that flint became a very important part of the goods that were exchanged as well as the knowledge about the manufacture and repair of more advanced flint tools.

Especially the flint axe – an object that was produced in large numbers – became a catalyst of exchange, function and ritual.

The linkage of rituals to depositions of flint and flint artefacts also helped to maintain the demand for flint as a raw material or finished tool forms.

It is necessary to highlight that there may be rational explanations for the deposition of objects; for example, the intention many have been to hide valuable possessions in times of uncertainty. Nonetheless, the fact that there are so many depositions – chiefly in wetland – suggests deliberate action related to ideas of a ritual character (BRADLEY 2005; SWENSON 2015). This is even clearer when it comes to repeated depositions within a limited area over a long space of time. The occurrence of the same type of tool – the flint axe – also strengthens the assumption that the depositions are related to well-established ideas and traditions in Neolithic societies in southern Scandinavia.

In this context, the term »axe« denotes axe heads, both axes and adzes.

AXES AND MEGALITHS

The deposition of flint – and especially flint axes – is a ritual use that holds major interest in South Scandinavia. However, the intensity of depositions and the intention behind them vary both geographically and chronologically.

In southern Sweden, the number of dolmens is about 100 and the figure for passage graves is about 300, of which about 200 are found in Falbygden, western Sweden (MALMER 2003; SJÖGREN 2003). There are about 7,000 megalithic tombs today in Denmark, of which about 700 are passage graves (JENSEN 2002; EBBESEN 2008, 23; 2011, 122 ff.).

Despite divergences concerning the destruction of tombs, they can hardly make any major changes to the disproportional relations. Indeed, the disproportion might be even greater between Zealand – with the majority of dolmens (JENSEN 2002) – and nearby Scania, the southernmost part of Sweden. It should

be considered that whereas megalithic graves are scattered over almost all of Zealand, the same form of grave occurs in Scania along the coast, with a few exceptional cases inland. This means that geological conditions with good agricultural districts comparable to Zealand are only found in half the area of Scania. With this situation in mind, the relation between Scania and Zealand might be as much as 1:50 (ERIKSEN/ANDERSEN 2014). The ratio of passage graves in Denmark and Sweden is only about 1:2 (JENSEN 2002; EBBESEN 2011, 214).

The marked difference in dolmens can be related to the number of axe hoards with thin-butted axes, which means depositions with two or more finds. In the whole of Denmark, 171 hoards (one per 250 km²) with a total of about 500 axes are known (NIELSEN 1977). This may be compared to 122 hoards from Scania (one per 90 km²), with a total of 316 axes (KARSTEN 1994). It may be thought that the recovery procedure for the hoards was not very different between these two areas, nor that the difference in time between the publications led to any great number of new finds; rather, this shows that the intensity of axe deposition was greater in southernmost Sweden compared with Denmark. The interest in building megalithic tombs – especially dolmens – seems to have been much greater in Denmark compared with southernmost Sweden. Here, the deposition of valuable parts of the material culture such as flint axes took priority over the creation of monuments for the deceased.

However, we also find that the number of axes per deposition was larger in Denmark compared with Scania. Likewise, in the later part of the Neolithic, the number of axes is larger in Denmark compared with southernmost Sweden (NIELSEN 1977; KARSTEN 1994).

One possible explanation for this considerable difference between the two areas is that in the more densely populated Zealand there was a greater need for the rulers to mark their position by building grave structures as a visual marker of the significance of the ancestors to maintain a continuous power position. Depositing flint tools in wetlands marks the relationship to higher beings. A larger number of objects per deposition may mean that it was important to mark one's control of the flint supply, even through such activities.

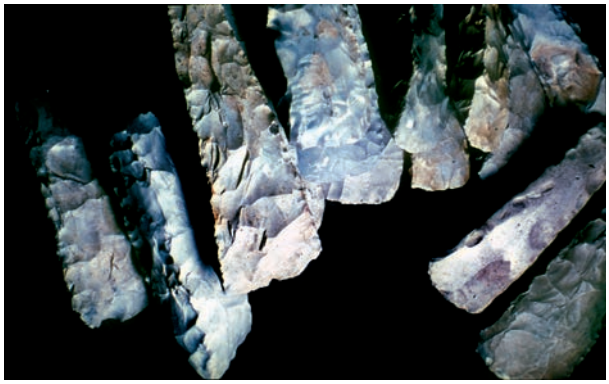

Fig. 1. Flint axes from the ritual depositions at Bjurselet, northern Sweden. (photo: Archive of the Swedish National Heritage Board).

Nonetheless, these numbers are relatively low compared to the northern Swedish hoards such as Kusmark – with more than 50 axes – or Bjurselet, with the richest finds, with approximately 200 axes dated to late in the Middle Neolithic and early in the Late Neolithic (BECKER 1952; KNUTSSON 1988) (Fig. 1). At Bjurselet, thirteen hoards have been found where the axes were deposited in different constellations in the form of a circle or placed radially. Despite having been found in dry land, the method of deposition indicates that they are actually ritual depositions. On the other hand, finds of flint axes on settlement sites are very limited (LARSSON (In print)).

Most scholars define depositions as two or more tools found together (NIELSEN 1977; RECH 1979; EBBESEN 1983). However, what prevents single axes from having been ritually deposited if they show features such as bog patina indicating deposition in wetland? The notion that single axes were intentionally deposited is evident from an excavation at Långåker on the south coast of Scania. During an excavation of a Funnel Beaker site from the Middle Neolithic, an intact flint axe was found in a thin peat layer below the site, indicating the former shoreline of a lagoon (LARSSON 1992) (Fig. 2). Judging by the typology, this point-butted axe belongs to an early part of the Early Neolithic. No other finds were made in the peat. Just about 100 m further along the former shore, a thick-butted axe dating to the late part of the Funnel Beaker culture and a flint stone were found in a similar position, with no other finds of the same date.

AXES AND THE DECEASED

Flint axes in mortuary practices can also be included as part of ritual use. The relationship between axes used as grave goods and those deposited also shows some interesting differences. From the Early Neolithic, about 50 thin-butted axes have been recorded in Danish megalithic graves, compared with about 500 in depositions. During the late stage of the Funnel Beaker culture of the Middle Neolithic, the number increases to more than 500 axes in Danish megalithic tombs but less than 100 in depositions (NIELSEN 1977; EBBESEN 2011, 320 ff.). The use of axes as grave goods shows a conspicuous increase during this period. Most of the axes

found in megalithic graves show signs of intensive use, with several examples of reshaping (EBBESEN 2011, 319). However, the majority of axes in depositions show no sign of use or only limited traces.

The status of research on the late Funnel Beaker culture provides much more detailed knowledge about the deposition of material culture than about the deposition of humans. We actually know more about how axes were treated and placed in megalithic tombs than about the mortuary practices relating to humans in tombs of the same type. Most human remains in megalithic tombs have been dated to an early stage in the use of the tomb or a much later stage of use, during the Late Neolithic (PERSSON/SJÖGREN 1996), whereas almost nothing is known about how human remains were deposited during the middle part of the Neolithic (EBBESEN 2011, 337).

Axes found in connection with tombs but located outside the chamber – most probably indicating that they were not directly intended as grave goods – exemplify a relationship between megaliths and depositions. Even among these finds, a marked chronological difference is observed. Axes of the thin-butted type have only been located at three dolmens, in comparison with 29 Danish megaliths having axes of the late Funnel Beaker culture (EBBESEN 2011, 284). The intentional fragmentation of axes in tombs is rather rare. Edge or butt fragments have been found, albeit rarely parts of the same axe (EBBESEN 2011, 285). However, some have parts of one edge knapped off in a way that is regarded as an act of ritual importance.

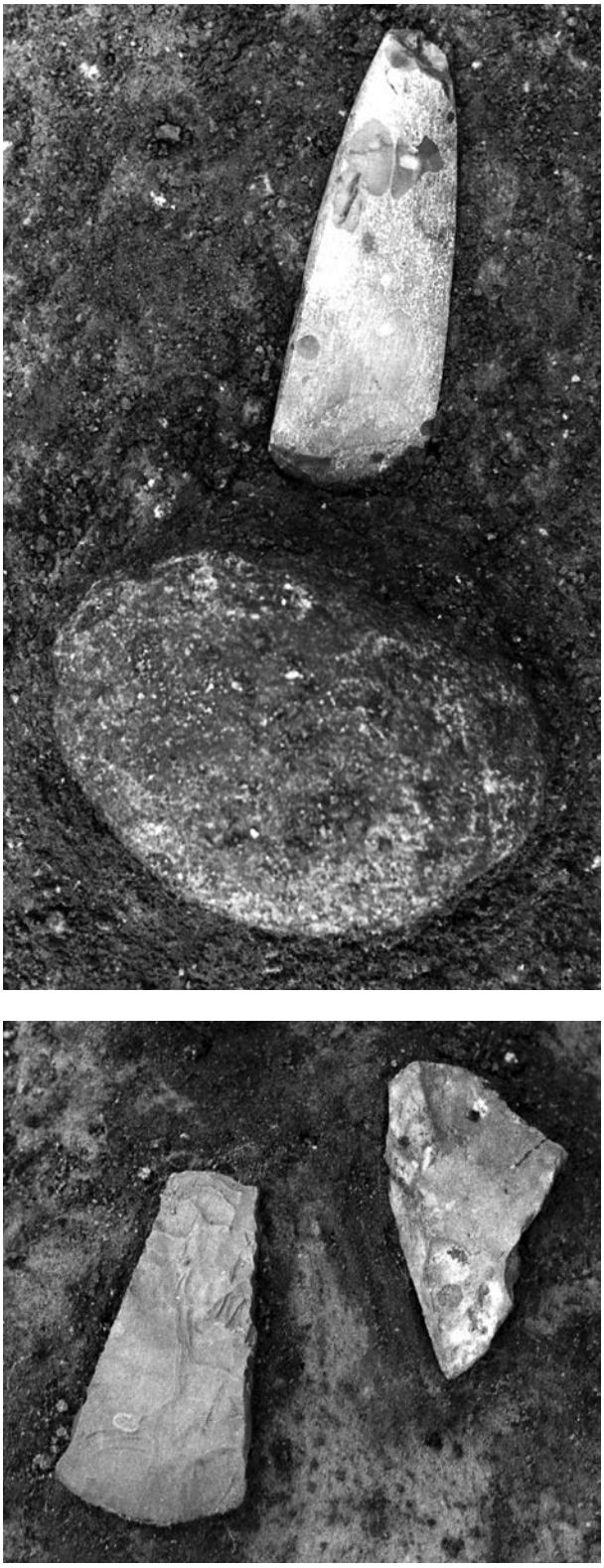

Fig. 2. Two axe finds interpreted as ritual depositions at the Långåker site, southern Scania, southern Sweden. Top: A thin-pointed axe found below the central part of the site. Bottom: An unworked piece of flint was found next to an unpolished thick-butted axe just outside the site (photo: L. Larsson).

THE BIOGRAPHY OF AXES

The biography of an axe comprised different stages (STRASSBURG 1998, 2000). The question is how early in its lifetime its destiny was decided. In some cases, the axe had only been roughly shaped, while in other cases it had undergone advanced knapping when it was transformed into a ritualised object. In some instances, it was shaped into its final form, while in other cases it was actually used – or even heavily used – before it ended its life as an object that seems to have held symbolic importance (OLAUSSON 1983; WENTINK 2005).

Only one – indeed, a most uncertain find – out of a total of 63 thin-butted flint axes from graves in Denmark is not polished (NIELSEN 1977, Fundliste II). Unpolished axes have been found at tombs, although in these cases as finds in connection with the frame of stones outside the chamber (NIELSEN 1977).

More than half of the thin-butted axes in hoards from Denmark (54%) are unpolished (NIELSEN 1977: Fundliste I). One can identify an interesting change, with the lowest percentage of unpolished axes in hoards with axes of the earliest types (24%) and the highest

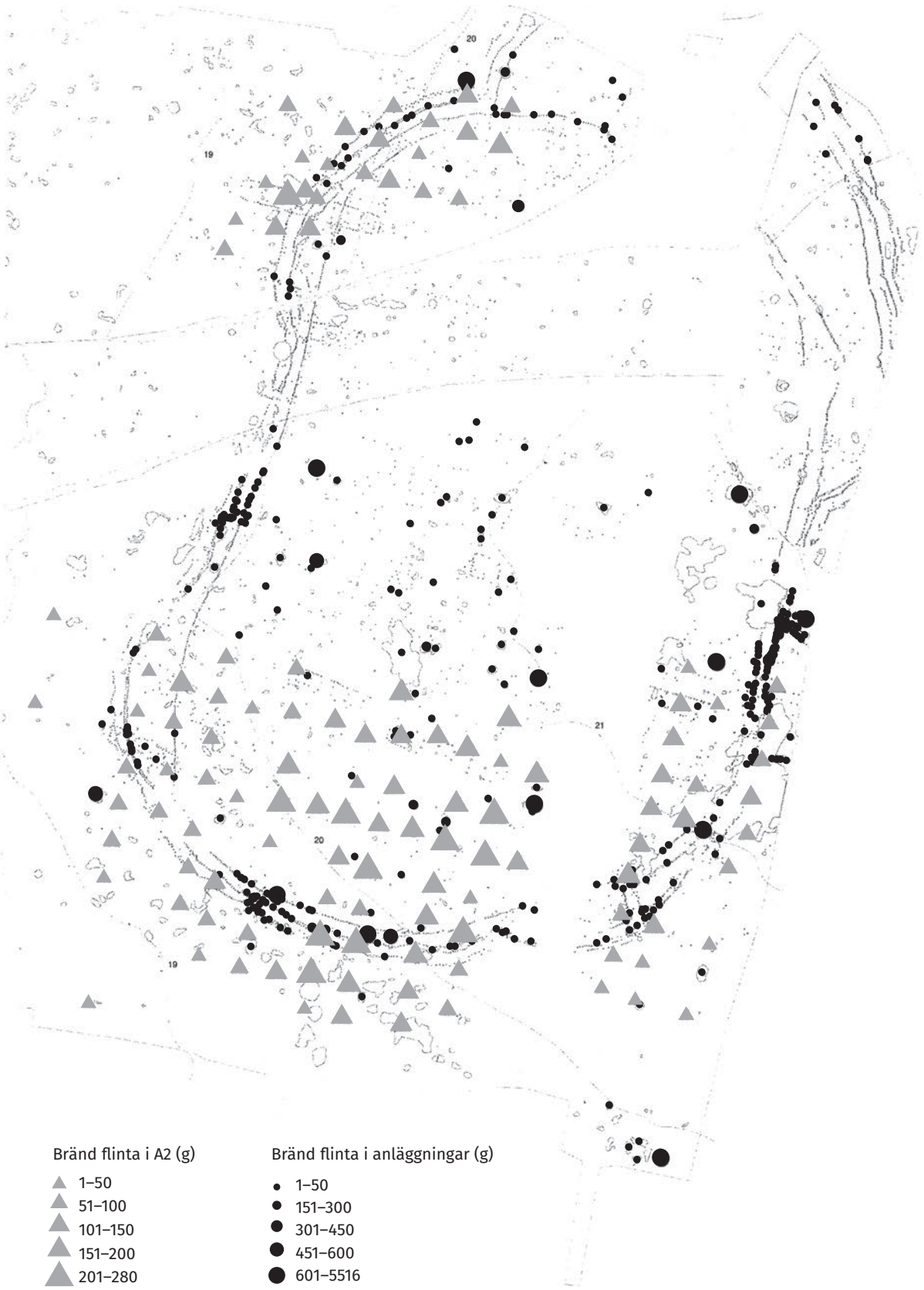

Fig. 3. A palisade at Hindby, southern Sweden, dated to an early part of the late Middle Neolithic (MN B). The triangles mark the intensity of flint affected by fire in the topsoil and dots the same kind of flint from features (Brink/Hydén 2006).

percentage among the youngest axes (87 %). The hoards of thin-butted axes from Scania show the same percentages of unpolished axes as in Denmark (KARSTEN 1994).

The norm for selecting polished axes as grave gifts can also be acknowledged in the later Single Grave culture of Jutland and northernmost Germany. Out of 174 axes from 161 graves, only one is unpolished; indeed, it is just a preform (EBBESEN 1983). However, in depositions the unpolished thick-butted axes account for 47 % and among the thick-butted gouges the figure is as high as 76 % (EBBESEN 1983).

In Sweden, all grave gifts of thick-bladed flint axes are polished, reflecting a total of 142 (MALMER 1962). Most of these are concave-edged and thereby used as adzes. In hoards, 65 % are unpolished (KARSTEN 1994).

These numerical exercises demonstrate a major difference in how polished and unpolished axes were handled. Never – or very rarely – was an unpolished axe deposited in a grave, while it was completely accepted as part of a deposition. There may be a subtle meaning behind the relationship of polished and unpolished axes in one and the same deposition. The fact that the number of polished axes in depositions discovered in firm ground is much higher than those in wetland hints at similarities to the practices of depositing axes in graves, where polished axes are the norm (KARSTEN 1994). However, the most important standpoint is that the main norms for axes were the same in 3400 BC as in 2400 BC.

AXE PRODUCTION IN A RITUAL ENVIRONMENT

Nonetheless, indications of the ritual use of flint axes are not restricted to finished axe heads. During rescue excavation in a valley at Dösjebro in western Scania, a Neolithic ritual complex was revealed on both sides of a small river. It included an enclosure, graves from the Battle Axe culture as well as an area with intensive flint axe production (LAGERGREN 2008; SVENSSON 2008; RUNCIS 2008). In this case, there is a close relationship between the manufacture of axes and a site of seemingly ritual use. Debris from axe production was found in a number of the post-holes of the palisade enclosure. The area in question does not have flint nodules useful for axe manufacture, meaning that the raw material had to be brought from the south-west, at least 20 km away. The palisade enclosure structure is dated to the transition from MNA to MNB and the axes produced seem to be of the same age (SVENSSON 2002).

A similar connection is evident at another palisade enclosure – in this case, partly excavated – at Järavallen in the very south-west of Scania (SVENSSON 2002). The palisade enclosure is located just a few hundred metres from a beach where flint nodules are numerous. A large number of axe preforms have been found along the beach. At two other palisade enclosures in the same region, a large quantity of burnt debris – mostly from axe fabrication – was found in post-holes (BRINK 2009; 2014) (Fig. 3).

The close chorological and chronological connection between a structure of ritual use and axe production indicates that manufacture – or part of the manufacturing process – was included in communal ceremonies related to a sacred area from a late stage of the Middle Neolithic Funnel Beaker culture or an early part of the late Middle Neolithic.

In this case, the fabrication or birth of axes was connected to wooden structures. This suggests a special perspective on the biography of axes. Axes occupied major importance when building the palisade enclosure, which incorporated thousands of posts.

The relationship between wood as a relatively soft material and stone as a harder material has been presumed to encapsulate an important dualism between birth and death, when the human body grows harder with time and is transformed into stone after death (PARKER PEARSON/RAMILISONINA 1998a, 313; 1998b).

The relationship between axe manufacture and structures that have been interpreted as places of ritual character can be followed back to an earlier stage of the Neolithic. In certain cases, causewayed enclosures in Denmark are located close to areas rich in flint (SØRENSEN 2014, 173). With one exception, palisades are located in the most south-westerly part of Scania where flint was easily available (RUDEBECK 1998). By linking axe manufacture to central structures, the manufacture became involved in a system that had both practical and ritual connections.

AXES, FRAGMENTS AND HUMANS

We will continue to concentrate on something that could be seen as the death or passage of axes (BRADLEY 1990). Like humans, axes became integrated into the part of the conceptual world that concerned those who had physically left the community, despite still being active as agents between worlds.

Most axes – like humans – ended up in anonymity: the former as raw material for other tools; some of

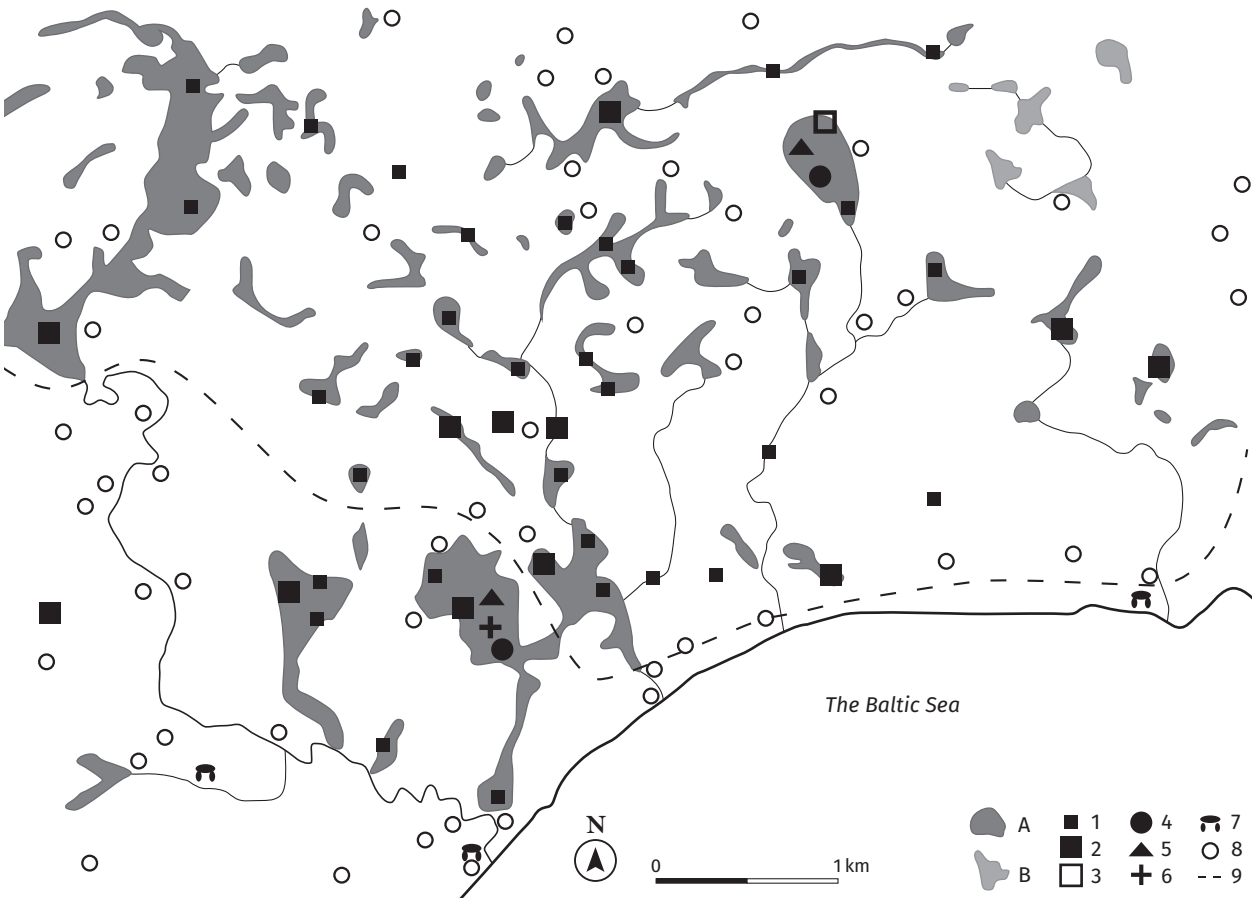

Fig. 4. Wetland depositions from the Neolithic within a research area in southernmost Scania, southern Sweden. Legend: 1. deposition of a single object; 2. deposition of at least two objects; 3. deposition of several objects; 4. deposition of objects made of antler or bone; 5. depositions from the Bronze Age; 6. depositions from the Iron Age; 7. megalithic tombs, know destroyed; 8. Neolithic settlement; 9. the extent of the hummocky area; A. wetlands and B. present lakes.

the latter – at best – as fragments within megalithic tombs, causewayed enclosures or other sites of ritual importance (ANDERSEN 1997; MALMER 2003).

Humans – like axes – were deposited in their entirety or as fragments in wetlands (KOCH 1998). Some bog finds include depositions of axes as well as humans (BENNIKE/EBBESEN 1986). Our knowledge of fragmented finds of humans and axes in wetlands is scanty. One example might offer a hint that they were more common than previously considered. An excavation of the small bog of Hindby in south-western Scania presents the same situation: remains of votive practice were found running through the Late Mesolithic, most of the Neolithic and into the Bronze Age (BERGGREN 2007). While there are examples of axes deposited in pairs, it is more common to find combinations of tools – in some cases broken up before deposition – as well as bones of animals and humans, such as a deposition comprising a burnt fragment of an axe, two human bones and three canines of pig (BERGGREN 2007). These indicate fragmentation by cracking and burning, followed by sorting, before deposition.

Since depositions with fragmented objects are the most difficult to recognise, they may well have been much more common. The simplicity of the artefacts makes it difficult for the layman to identify objects as belonging to intentional votive depositions.

This can be supported by the results obtained from surveys of an area of about 20 km² in the southernmost part of Sweden, where about 80 combinations were recognised, most of them including flint axes (LARSSON 2007) (Fig. 4). Rarely have the objects been recovered together simultaneously; rather, they have been found at the same spot during ploughing or drainage activities over the course of several years. In several cases, former wetlands have produced tools from different periods.

Most of the artefacts were found in farm collections, some of which included broken tools, while objects of indeterminable type were identified during surveys. For example, a combination comprising a thick-butted flint axe of the late type, a fragmentary stone axe of the same type, a flint core with a shape resembling an axe and a small polishing stone were

recovered in a very small bog less than 10 m in diameter (Fig. 5). Another example is an accumulated deposition comprising a battle axe dated to the Early Neolithic and a flint axe from the Late Neolithic in a very small former well. An interesting insight concerning the intensity of deposition is that most wetlands – even the very small ones – contain tools that might be related to ritual actions. The majority of axes in farm collections were intact, while most axes found during the surveys were fragmentary.

When axes are deposited, they usually are of very similar or even identical form. This is easiest to identify in cases where axes were deposited in pairs (KARSTEN 1994), as well as cases in which more than two axes were deposited; for example, the thin-bladed axes in the largest hoard in the special area of survey mentioned above. These axes are so similar in form and raw material that they were most probably made by the same flintsmith. Accordingly, they belonged to the same delivery, from which all or a significant majority were directly chosen for deposition.

Fig. 5. A deposition of a thick-butted flint axe of type B, a fragmentary stone axe of the same type, a flint core with a shape resembling an axe and a small polishing stone recovered in a very small bog.

Fig. 6. Chisels and axe affected by fire from Kverrestad, south-eastern Scania, southern Sweden, dated to the late Battle Axe culture (photo: L. Larsson).

PASSAGE BY FIRE

A special form of fragmentation is the effect of fire. Fire alteration of tools is relatively frequent at sites throughout the Neolithic (KARSTEN 1994; MALMER 2003). At almost every site, axes are more affected than any other type. This phenomenon is independent of chronology, spanning the period from the earliest Early Neolithic to the latest Late Neolithic. However, alteration by fire seems to be most common during the Middle Neolithic and specifically during its latest part, including the late Funnel Beaker culture and the Single Grave culture.

A special and hitherto rare type of site with examples of fire-altered flints – including a large number of fragments of thin-butted and thin-bladed axes – is found on a prominent hill at Svartkylle, south-eastern Scania. In a survey of the area, at least three concentrations of fragments were found on the surface (LARSSON 1989). However, no features were found in a test excavation, possibly due to heavy ploughing. Two other sites with a large number of axes affected by fire have been identified, namely Strandby on Funen (ANDERSEN 2009) and Stensborg in central Sweden (LARSSON/BROSTRÖM 2014), close to Stockholm, dated to the Early Neolithic/early Middle Neolithic.

A similar kind of site but different in date was discovered only some 17 km from Svartkylle. Within an area of approximately 70 × 70 m at Kverrestad, south-eastern Scania, a large number of flints affected by fire were found (LARSSON 2000; 2014). Excavation revealed a number of pits of varying size and depth, in which flint artefacts affected by fire had been deposited together with a considerable amount of fragmentary

Fig 7. Fragments of flint axes affected by fire from Prinshaga, western Sweden (photo: L. Larsson).

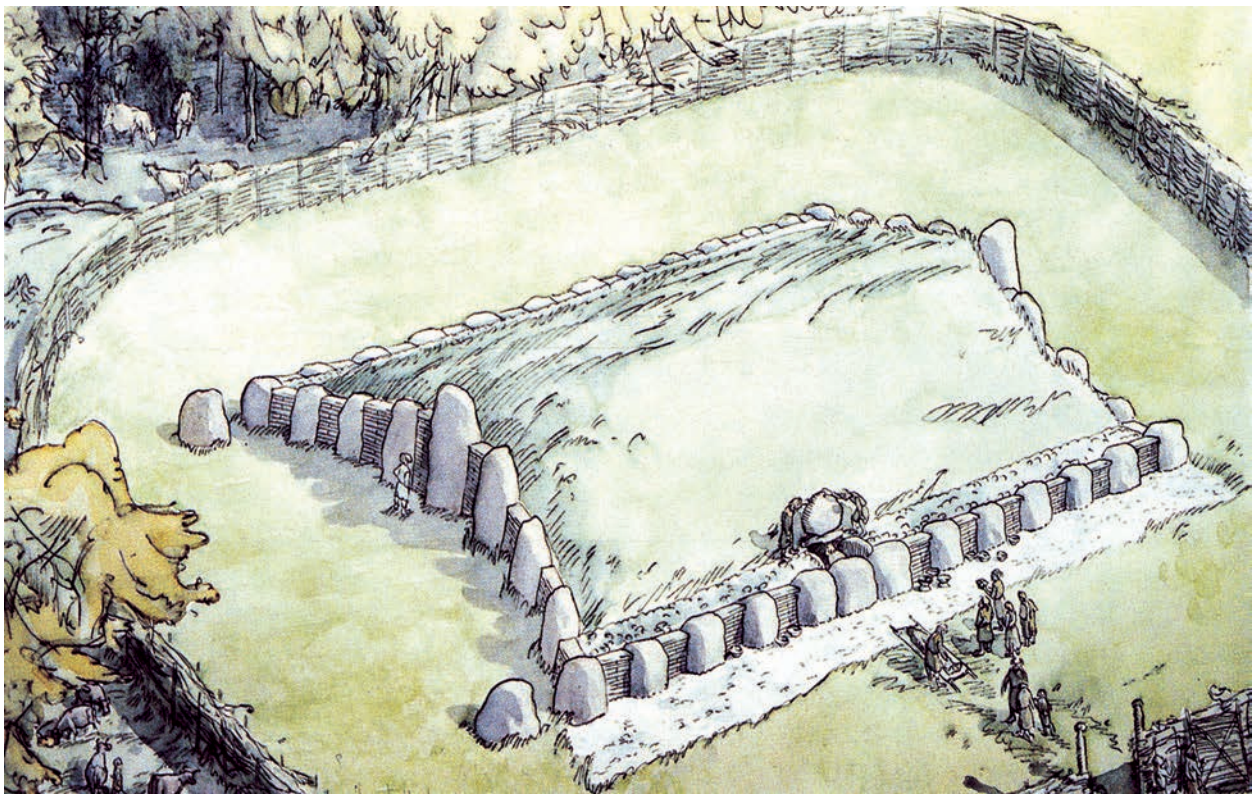

Fig. 8. A thick layer of burnt white flint covered the surface along the southern side of a passage grave at Kong Svends Høj on the Danish island of Lolland (Dehn et al. 1995).

pottery. The largest pit was about 4 m long, the shortest less than 0.5 m. Finds were made throughout the fill, which shows that the artefacts were deposited during the entire process of filling in the pits. Fragments from around 100 thick-butted, concave-edged axes and chisels have been found, as well as arrowheads and other flint and stone tools (Fig. 6). A small number of burnt human bones – intentionally broken into small pieces – were also found, providing another example of the combination of humans and axes. The finds are dated to the late stage of the Battle Axe culture.

As an interesting aspect of the ›life cycle‹ of axes, it should be stressed that the axes at Kverrestad included rough, unpolished examples, where only the form had been shaped, as well as examples with very well-executed polish of the entire body.

The choice of axes for destruction – or should we say transition – is also obvious among the finds at Kverrestad. While more than 90 % of the axe finds display changes by fire, two-thirds of the scrapers, half of the tanged arrowheads and one-third of the arrowheads made by pressure-flaking – an exotic artefact without parallels in Scania – exhibit the same kind of alteration by fire. These marked differences point to intentional selection regarding which tool types were to be put in fire and which were not.

Other find sites have a significant proportion of objects affected by fire, albeit not on the same scale as those mentioned above.

At Hansted Ådal, eastern Jutland, a number of fire-damaged thick-butted, thin-bladed axes, point-butted axes with hollow ground edges and chisels were found by surveys. As there is no indication of a megalithic tomb, they are regarded as a ritual deposition. The finds can be dated to the final part of the Funnel Beaker culture (information from T. Madsen, Århus).

Another similar place is Prinshaga in western Sweden, located on a rise that forms a headland in a small lake. A considerable proportion of fire-transformed flints have been found there (Fig. 7), as well as finds of intact flint axes not affected by fire. Judging by axe forms comprising thick-butted axes and thin-bladed axes, the site was used during the Battle Axe culture (information from Leif Arvidsson, Skara). It is unclear whether the activities on this site included large-scale deformation of axes in particular, in combination with other activities of settlement-like character, or whether we observe activities that were separated in time. No archaeological excavation has been undertaken.

None of these places has any artificial boundary corresponding to causewayed enclosures and palisades.

On the other hand, there are natural boundaries in the form of wetlands and ravines that could have influenced the choice of site. There are also places where a large number of people could assemble with a good view of what was taking place.

It should be stressed that it is not solely axes and other tools that were exposed to fire; rather, a significant number of the flakes from axe manufacture found in the post-holes of the palisades mentioned above were also affected by fire. The extent of the activity that caused the fire damage to the flakes is uncertain. However, a study of the ground surface conducted before the palisade at Hyllie was excavated showed that it was covered with fire-altered flakes (BRINK/HYDÉN 2006), highlighting it was hardly a random activity.

It should also be noted that alteration of flint by direct fire provides different products of fragmentation than those found at the sites mentioned above. Axes were heat-treated before being placed on the fire (LARSSON 2000); otherwise they would have been fragmented into small pieces, rather than the large parts that are normally found. Therefore, the intention was not to destroy the axes but rather to retain parts as large as possible, even after transformation by fire.

Flint tools affected by fire appear in many instances in relation to megalithic tombs. Burnt tools seem to be less common in burial contexts dated to the Early Middle Neolithic. However, during a late stage of the Funnel Beaker culture, axes destroyed by fire are frequently found outside the entrances of some tombs (TILLEY 1999).

The fact that axes and fire can be agents in various rituals connected with a wider aspect of mortuary practice is exemplified by finds in northern Jutland, where special types of individual graves – stone setting graves – were created. The majority are dated to a late stage of the Funnel Beaker culture (JØRGENSEN 1977; FABRICIUS/BECKER 1996). Despite a predominance of flint axes in the graves, none of these have been affected by fire. However, burnt axes of the same period as those in graves were found outside the entrances in megalithic tombs at Vroue Hede, showing a connection with stone setting graves (JØRGENSEN 1977). This indicates that axes were burned in ceremonies relating to collective manifestations, while axes connected with individual interments were buried unaffected.

While fire is the destroyer, it could also be regarded as the cleanser. The artefact undergoes remarkable changes during the act, whereby a colour transformation takes place from natural black or grey to white. Some changes are similar to the cremation of a human body, when the colour of the bones changes to white. Ritual burning might have a public, direct, evocative and even magical appearance. Fire as a medium for transformations connected with rites of passage has mainly been applied in mortuary practices, as well as being used in many other circumstances.

We see quite different contexts where large quantities of unworked flint are found in connection with megalithic tombs. In such cases, the flint was exposed to direct heating, but not such great heat that it broke into splinters. Burnt flint is found mixed with clay, which covers the orthostats and sometimes the entire chamber. A mixture of burnt flints and clay as floor cover is very common. In these cases, the flint has been interpreted as constituting a material with a special quality, namely the ability to absorb moisture to keep the chamber dry (STRÖMBERG 1971). Another purpose relates to the aesthetic quality of burnt flint, namely its white colour. A thick layer of burnt flint covered the surface along the southern side of a passage grave at Kong Svends Høj on the Danish island of Lolland. Based on the quantity of finds from some test pits, between 4 and 5 tonnes of burnt flint were used (DEHN et al. 1995) (Fig. 8). However, the relationship between fire, flint and cremation adds to the symbolic meaning of burnt flint in relation to the megalithic tomb, or even as an integral part of the tomb.

SOME COMMENTS

Ritual relations involving flint are not something that only concern the Neolithic. Depositions of fragmented microliths are dated to the Early Mesolithic (LARSSON 1978). Late Mesolithic flint axes occur in wetland contexts (KARSTEN 1994). Nonetheless, there is no doubt that flint acquired a greater significance as a ritual marker during the Neolithic.

We have a large number of objects – chiefly axes – deposited primarily in wetland. However, although the number of depositions and objects is very large – probably representing a five-figure number of axes – ritual deposition in wetlands is not exclusive to southern Scandinavia. In central parts of continental Europe such as eastern France and southern Germany, up to half of the examples of a particular early form of axe have been found in similar environments (SØRENSEN 2014, 162). The south Scandinavian finds of early copper axes – which are regarded as a model for the early south Scandinavian axe forms – were also deposited in the same way (SØRENSEN 2014, 164). During a late part of the Neolithic, the axe was replaced by the dagger as the

most common tool with an individual connection and the predominant object of deposition (APEL 2001). No find spot with a large number of fire-altered daggers has been discovered, although it does occur that occasional daggers show exposure to fire, so the custom did not disappear.

It is clear that different tools received varying attention during deposition and fire alteration, as axes have a special position. However, there are also depositions of only scrapers or blades, for example (SALOMONSSON 1956; STRÖMBERG 1982). These have sometimes been interpreted as deposits intended to be dug up later. Nonetheless, already during the Middle Mesolithic we find blade depositions where it is obvious that one blade or a couple were selected for a special function while the remainder were deposited with the intention that they should not be dug up again (LARSSON/SJÖSTRÖM 2011).

People's surroundings in their day-to-day work, in relations between different settlements and in different beliefs about contact with the ancestors and with supernatural beings were marked in different ways by flint, whereby one can certainly speak about a flintscape.

CONCLUSIONS

The occurrence of flint axes in contexts that can be described as being outside their day-to-day function as tools is extensive in southern Scandinavia. A look through farm collections gives the impression that only a share of the deliberate depositions has ended up in museums. Depositions of axes are of such a scale that they constituted a frequent activity with a ritual character, possibly with varying intentions and not always necessarily linked to religious beliefs. Ideas about the choice of place for deposition and the status of the object were extremely tenacious, in several cases persisting throughout the Neolithic. By contrast, there seem to have been considerable variations – both chronologically and probably also chorologically – in the outlook on the role of the axe in relation to megalithic graves. Regarding the intensity of deposition, likewise significant changes can be chiefly discerned in wetland.

What is expressed at sites with massive destruction by fire differs from the destruction of single artefacts by fire evidenced at settlement sites and graves. This type of public sacrifice of rare objects and with a direct effect may have been practised on special occasions, probably in connection with external or internal threats. In addition, this could be an act that was primarily meant to legitimate power by impressing representatives of another community. Despite their different settings, both Svartkylle and Kverrestad had a topography that made it feasible for a large crowd of people to watch the ceremonies.

The cosmology that dictated burning was active throughout most of the Neolithic. The change of colour of the flint artefacts from the natural black or grey to white might be connected to a *rite de passage,* possibly linked to the process when a human being is cremated. In this sense, the use of fire on axes could be regarded as the cremation of these flint objects, whereby the mortuary practice as well as rules related to votive depositions might have been interrelated.

REFERENCES

Andersen 1997: N.H. Andersen, The Sarup Enclosures. The Funnel Beaker Culture of the Sarup Site Including Two Causewayed Camps Compared to the Contemporary Settlements in the Area and Other European Enclosures. Jutland Archaeological Society Publications XXXIII:1 (Aarhus 1997).

Andersen 2009: N.H. Andersen, Sarupområdet på Sydvestfyn i slutningen af 4. Årtusinde f. Kr. In: A. Schülke (ed.), Plads og rum i tragtbægerkulturen. Nordiske Fortidsminder, Serie C, Bind 6. Det Kongelige Nordiske Oldskriftselskab (København 2009) 25–44.

Apel 2001: J. Apel, Daggers Knowledge & Power. The Social Aspects of Flint-Dagger Technology in Scandinavia 2350–1500 cal BS. Coas to Coast-book 3 (Uppsala 2001).

Becker 1952: C.-J. Becker, Die nordschwesischen Flintdepots. Acta Archaeologica 23, 1952, 31–79.

Bennike/Ebbesen 1986: P. Bennike/K. Ebbesen, The Bog Find from Sigersdal. Human Sacrifice in the Early Neolithic. Journal of Danish Archaeology 5, 1986, 85–115.

Berggren 2007: Å. Berggren, Till och från ett kärr. Den arkeologiska undersökningen av Hindbygården. Malmöfynd 17 (Malmö 2007).

Bradley 1990: R. Bradley, The Passage of Arms. An Archaeological Analysis of Prehistoric Hoards and Votive Deposits (Cambridge 1990).

Bradley 2005: R. Bradley, Ritual and Domestic Life in Prehistoric Europe (London/New York 2005).

Brink 2009: K. Brink, I palissadernas tid. Om stolphål och skärvor och sociala relationer under yngre mellanneolitikum. Malmöfynd 21 (Malmö 2009).

Brink 2014: K. Brink, Palisaded enclosures as arenas of social and political transformation in the late Middle Neolithic of southernmost Scandinavia. In: M. Furholt/ M. Hinz/D. Mischka/G. Noble/D. Olausson (eds.), Landscapes, Histories and Societies in the Northern European Ne-

olithic. Frühe Monumentalität und soziale Differenzierung 4 (Kiel 2014) 57–64.
Brink/Hydén 2006: K. Brink/S. Hydén, Hyllie vattentorn – delområde 4 och Palissaden – delområde 5. Citytunnelprojektet, Rapport 42 (Malmö 2006).
Dehn et al. 1995: T. Dehn/S. Hansen/F. Kaul, Kong Svends Høj. Restaureringer og undersøgelser på Lolland 1991. Stenaldergrave i Danmark 1 (København 1995).
Ebbesen 1983: K. Ebbesen, Flint Celts from Single-Grave Burials and Hoards on the Jutlandic Peninsula. Acta Archaeologica 53, 1982, 119–181.
Ebbesen 2008: K. Ebbesen, Danmarks megalitgrave, Bind 2 – Katalog (København 2008).
Ebbesen 2011: K. Ebbesen, Danmarks megalitgrave. Bind 1, 1–2 (København 2011).
Eriksen/Andersen 2014: P. Eriksen/N.H. Andersen, Stendysser. Arkitektur og funktion. Jysk Arkæologisk Selskab (Aarhus 2014).
Fabricius/Becker 1996: K. Fabricius/C.J. Becker, Stendyngegrave og Kulthuse. Studier over Tragtbægerkulturen i Nord- og Vestjylland. Arkæologiske Studier XI (København 1996).
Jensen 2002: J. Jensen, Danmarks Oldtid. Stenalder 13.000–2.000 f. Kr. (København 2002).
Jørgensen 1977: E. Jørgensen, Hagebrogård – Vroue – Koldkur. Neolithische Gräberfelder aus Nordwest-Jutland. Arkæologiske Studier IV (København 1977).
Karsten 1994: P. Karsten, Att kasta ytan i sjön. En studie over rituell tradition och förändring utifrån skånska neolitiska offerfynd. Acta Archaeologica Lundensia, Series in 8o, No. 23 (Stockholm 1994).
Knutsson 1988: K. Knutsson, Making and Using Stone Tools. The Analysis of the Lithic Assemblages from Middle Neolithic Sites with Flint in Västerbotten, Northern Sweden. AUN 11 (Uppsala 1988).
Koch 1998: E. Koch, Neolithic Bog Pots from Zealand, Møn, Lolland and Falster (Copenhagen 1998).
Lagergren 2008: A. Lagergren, Stridsyxegravfält och kommunikation och den rituella platsen som länk mellan kulturer. In: P. Lagerås (ed.), Dösjöbro mötesplats för trattbägarkultur & stridsyxekultur. Skånska spår – arkeologi längst västkustbanan. Riksantikvarieämbetet. (Lund 2008) 54–124.
Larsson 1978: L. Larsson, Ageröd I:B - I:D. A Study of Early Atlantic Settlement in Scania. Acta Archaeologica Lundensia 4:12 (Lund 1978).
Larsson 1989: L. Larsson, Brandopfer. Der frühneolithische Fundplatz Svartskylle im südlichen Schonen, Schweden. Acta Archaeologica 59, 1989, 143–153.
Larsson 1992: L. Larsson, Neolithic Settlement in the Skateholm Area, southern Scania. Papers of the Archaeological Institute University of Lund 1991–1992, 1992, 5–43.
Larsson 2000: L. Larsson, The Passage of Axes: Fire Transformation of Flint Objects in the Neolithic of Southern Sweden. Antiquity 74, No. 285, 2000, 602–610.
Larsson 2007: L. Larsson, Wetland and Ritual Deposits during the Neolithic. A Local Study in a Micro-environment of a Macro-phenomenon. Lund Archaeological Review 2005–2006, 2007, 59–69.
Larsson 2014: L. Larsson, Neolithic Transformations. Relationships between Society and Landscape. In: M. Furholt/M. Hinz/D. Mischka/G. Noble/ D. Olausson (eds.), Landscapes, Histories and Societies in the Northern European Neolithic. Frühe Monumentalität und soziale Differenzierung 4 (Kiel 2014) 197–206.
Larsson (In print): L. Larsson, Amber and Flint – Commodities for Distant Distribution. Examples from Northernmost Europe. In: P.L. Cellarosi (ed.), The 2° International Conference for the Amber's Routes. San Marino (In print).
Larsson/Broström 2014: L. Larsson/S.-G. Broström, Stensborg – Mass Destruction of Axes and Cereals Reflecting Southern Contacts of the Funnel Beaker Societies in Southern Sweden. In: M. Furholt, M. Hinz, D. Mischka, G. Noble/D. Olausson (eds.), Landscapes, Histories and Societies in the Northern European Neolithic. Frühe Monumentalität und soziale Differenzierung 4 (Kiel 2014) 303–316.
Larsson/Sjöström 2011: L. Larsson/A. Sjöström, Bog sites and wetland settlement during the Mesolithic: Research from a bog in central Scania, Southern Sweden. Archäologisches Korrespondenzblatt 2011, Heft 4, 457–472.
Malmer 1962: M.P. Malmer, Jungneolithische Studien. Acta Archaeologica Lundensia, series in 8o, No. 2 (Lund 1962).
Malmer 2003: M.P. Malmer, The Neolithic of South Sweden. TRB, GRK and STR (Stockholm 2003).
Nielsen 1977: P.O. Nielsen, Die Flintbeile der frühen Trichterbecherkultur in Dänemark. Acta Archaeologica 48, 1977, 61–138.
Olausson 1983: D. Olausson, Lithic Technological Analysis of the Thin-butted Flint Axe. Acta Archaeologica 53, 1983, 1–87.
Parker Pearson/Ramilisonina 1998a: M. Parker Pearson/Ramilisonina, Stonehenge for the Ancestors: The Stones Pass on the Message. Antiquity 72, No. 276, 1998, 308–326.
Parker Pearson/Ramilisonina 1998b: M. Parker Pearson/Ramilisonina, Stonehenge for the Ancestors: Part two. Antiquity 72, No. 278, 1998, 855–856.
Persson/Sjögren 1996: P. Persson/K.-G. Sjögren, Radiocarbon and the Chronology of Scandinavian Megalithic Graves. Journal of European Archaeology 3, no. 2, 1996, 59–88.
Rech 1979: M. Rech, Studien zu Depotfunden der Trichterbecher- und Einzelgrabkultur des Nordens (Neumünster 1979).
Rudebeck 1998: E. Rudebeck, Flint Extraction, Axe Offering and the Value of Context. In: M. Edmonds/C. Richards (eds.), Understanding the Neolithic of North-Western Europe (Glasgow 1998) 312–327.
Runcis 2008: J. Runcis, Neolitisk yxtillverking. Produktion, organisation och kulturell context. In: P. Lagerås (ed), Dösjebro. Mötesplats för trattbägarkultur & stridsyxekultur. Skånska spår – arkeologi längs Västkustbanan. Riksantikvarieämbetet (Lund 2008) 127–153.
Salomonsson 1956: B. Salomonsson, A Closed Find of Fifteen Flint Blades. Meddelande från Lunds universitets historiska museum 1955–1956, 169–176.
Sjögren 2003: K.-G. Sjögren, »Mangfalldige uhrminnes grafvar…« Megalitgravar och samhälle i Västsverige. GOTARC, ser. B no. 27. Coast to coast-books no. 9 (Göteborg 2003).
Strassburg 1998: J. Strassburg, Let the »Axe« Go! Mapping the Meaningful Spectrum of the »Thin-butted Flint Axe«. In: A.-C. Andersson/Å. Gillberg/O.W. Jensen/H. Karlsson/M.V. Rolöf (eds.), The Kaleidoscopic Past. Gotarc series C, Arkeologiska skrifter 16 (Göteberg 1998) 156–169.

Strassburg 2000: J. Strassburg, Shamanic Shadows. One Hundred Generations of Undead Subversion in Southern Scandinavia, 7,000–4,000 BC. Stockholm Studies in Archaeology 20 (Stockholm 2000).

Strömberg 1971: M. Strömberg, Die Megalithgräber von Hagestad. Zur Problematik von Grabbauten und Grabriten. Acta Archaeologica Lundensia, Series in 8o, No 9 (Lund 1971).

Strömberg 1982: M. Strömberg, Specializes, Neolithic Flint Production. With a Hoard of Scrapers at Hagestad as an Example. Meddelande från Lunds universitets historiska museu 1981–1982, 49–64.

Svensson 2002: M. Svensson, Palisade Enclosures – The Second Generation of Enclosed Sites in the Neolithic of Northern Europe. In: A. Gibson (ed.), Behind Wooden Walls. Neolithic Palisaded Enclosures in Europe. BAR International Series 1013 (Oxford 2002) 28–58.

Svensson 2008: M. Svensson, Mellanneolitiska palissadanläggningar. Palissaden i Dösjöbro i ett nordeuropeiskt perspektiv. In: P. Lagerås (ed.), Dösjöbro mötesplats för trattbägarkultur & stridsyxekultur. Skånska spår – arkeologi längst västkustbanan. Riksantikvarieämbetet (Lund 2008) 20–53.

Swenson 2015: E. Swenson, The Archaeology of Ritual. Annual Review of Anthropology 44, 2015, 329–345.

Sørensen 2014: L. Sørensen, From Hunter to Farmer in Northern Europe. Migration and Adaptation during the Neolithic and Bronze Age. Volumes I–III. Acta Archaeologica Supplementa (Copenhagen 2014).

Tilley 1996: C. Tilley, An Ethnography of the Neolithic. Early Prehistoric Societies in Southern Scandinavia (Cambridge 1996).

Wentink 2006: K. Wentnik, Ceci N'est Pas Une Hache: Neolithic Depositions in the Northern Netherlands. Amsterdam 2006.

Lars Larsson
Department of Archaeology and Ancient History
Lund University
LUX
Box 192
SE-221 00 LUND
Sweden
Lars.Larsson@ark.lu.se