A New World

Cultural Links and Spatial Disposition – The Early Mesolithic Landscape in Östergötland on the Basis of the Storlyckan Investigations

BY MATS LARSSON AND FREDRIK MOLIN

Abstract

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The article discusses the relationship between man and landscape in the Early Mesolithic in Östergötland on the basis of the Storlyckan settlement site, which was excavated in 1997. Besides a rich and varied amount of finds, the site also revealed a hut structure. Close to the hut there was also a small area used for working quartz, where waste from tool manufacture was excavated. The finds from the site are considered in the article, but the main concern is an analysis of the internal structure of the site. Completely different patterns are found in the distribution of quartz and flint, with these different types of material being related in different ways to the hut. This leads to a discussion of pioneers in a new landscape and how they may have related both to the "new" world and to the "old" one. Using terms such as "microspace" and "macrospace", we interpret and discuss paths of contact and the structuring of the landscape.

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Introduction

At different places in Scandinavia and around the southern shores of the Baltic Sea, remains have been found of a strange, ancient culture, still essentially shrouded in mystery, a culture which in many ways bears the stamp of the Palaeolithic era and which Stjerna has therefore called the Epipalaeolithic ... It is from this Epipalaeolithic culture that the first traces of human culture in Östergötland derive. They are not numerous. (Nerman 1912)

Until just a few decades ago, the Mesolithic was a weakly represented period in the archaeological material from Östergötland. The only finds were a small number of harpoons and points of bone and antler from the Norrköping area and around Lake Tåkern (Nerman 1912, pp. 4 ff.). A few settlement sites were known, such as Åby Fyrbondegård near Ödeshög and Borgsmon south of Norrköping (Arne 1905; Nordén 1932). The closest parallels to the harpoons and points were the characteristic finds of the Maglemose culture from southern Scandinavia, but these sites in Östergötland were dated to the latter part of the Mesolithic. It is interesting that flake axes were found at Åby Fyrbondegård, while Borgsmon yielded both flake axes and Limhamn axes, types that are normally associated with Late Mesolithic culture groups in southern Scandinavia, such as the Ertebølle. The first attempt at a chronological division of the Mesolithic in eastern central Sweden was undertaken by Stig Welinder in the 1970s. Based on investigations in Östergötland and elsewhere, he proposed the names Flint Group and Quartz Group, the former existing between 5000 and

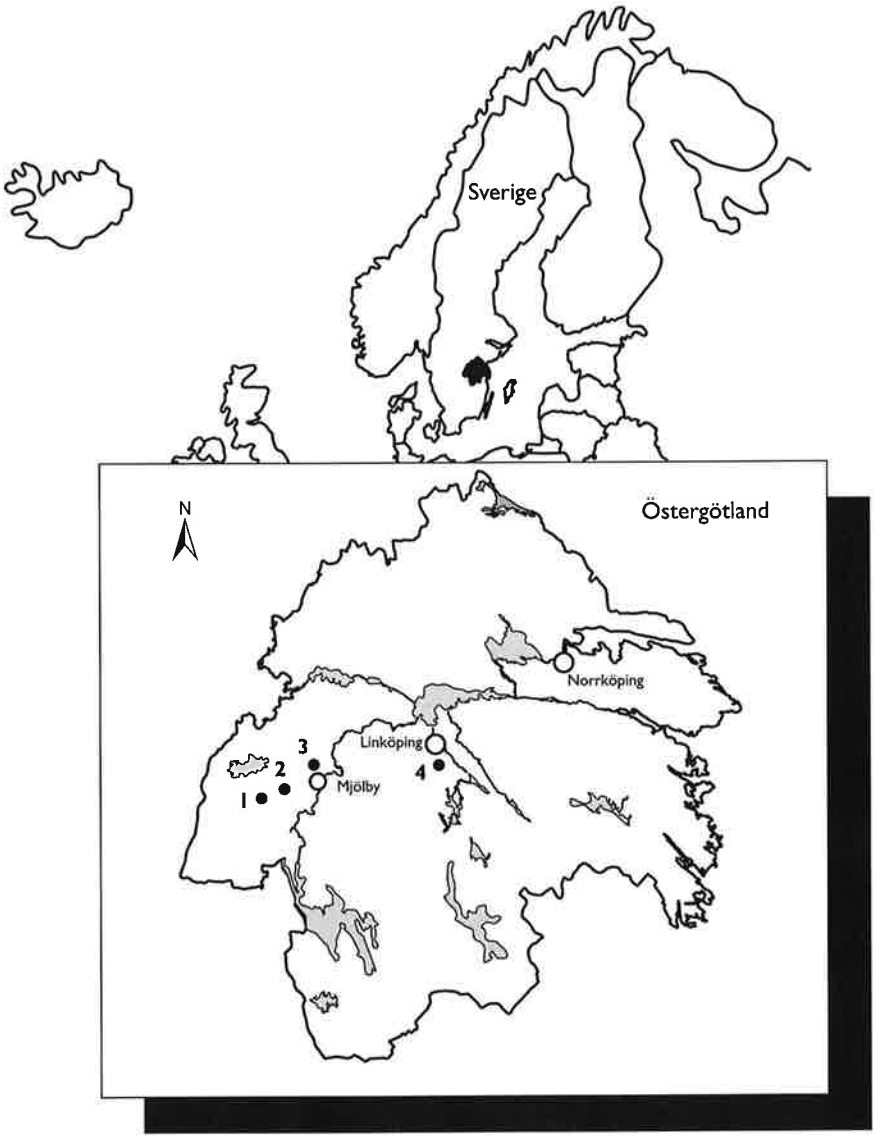

Fig. 1. Map of Östergötland showing the settlement sites discussed in the text: 1 Storlyckan, 2 Mörby, 3 Högby, 4 Lilla Åby. Graphics: Lars Östlin.

4000 BC, the latter between 5000 and 2500 BC (Welinder 1977).

In the last fifteen years, however, our picture of the Mesolithic in Östergötland, and for that matter the whole of eastern central Sweden, has changed (M. Larsson *et al.* 1997; Molin 2000). Field surveys around Tåkern have yielded many new and valuable discoveries, in the form of both stray finds and settlement sites (Browall 1980; Browall 1999). New settlement sites that may be mentioned include Högby, Mörby, Storlyckan, Motala and Lilla Åby south of Linköping (Appelgren 1995; M. Larsson 1996; Kaliff *et al.* 1997; Carlsson *et al.* 1999; Molin & Larsson 1999; Carlsson *et al.* 2001). At the first three of these sites, remains of post-built huts have been found, along with occupation layers and hearths. The oldest dated house remains hitherto found in Sweden were excavated at the Mörby site (Kaliff *et al.* 1997, pp. 22 ff.). It is important to point out that all the above cases were rescue excavations. It is not possible or necessary to discuss these investigations

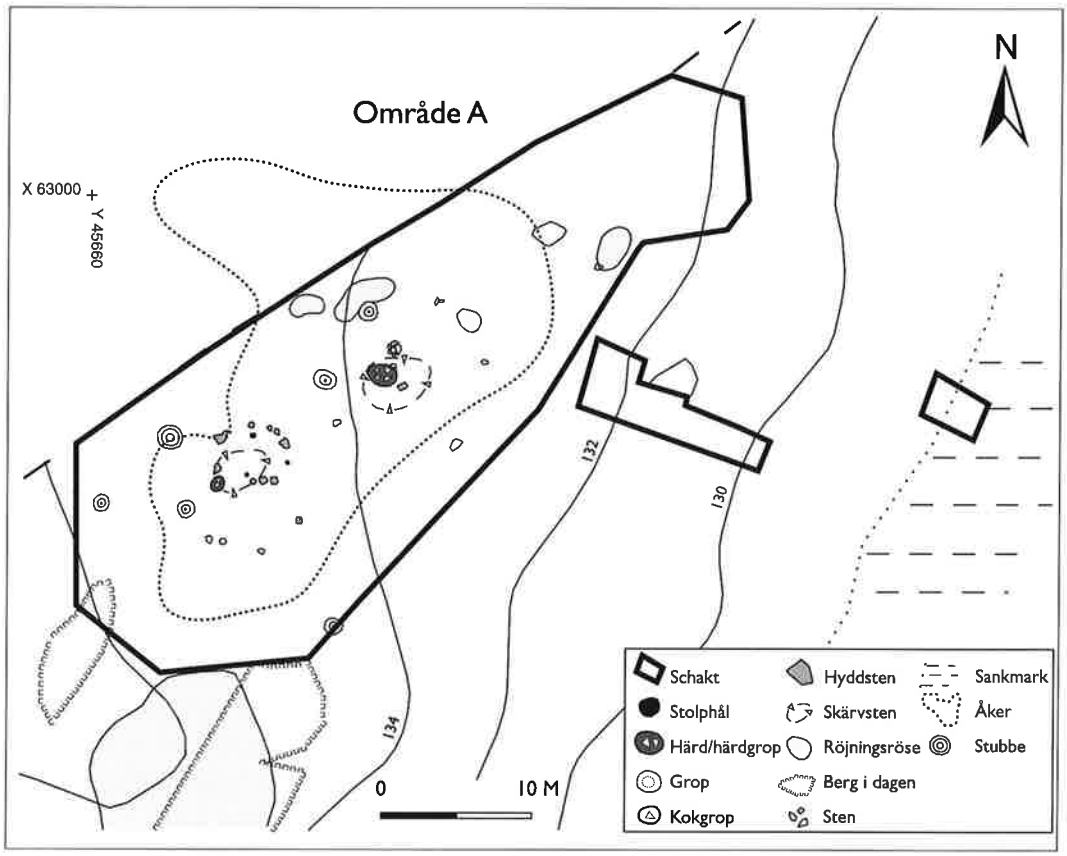

Fig. 2. Survey plan of the settlement area with the hut. Graphics: Lars Östlin.

in detail here, but they will of course be included in the interpretative discussion of man and the Mesolithic landscape.

In the following text we shall also discuss the occurrence and significance of stable, timeless, unchanging aspects of people's lives and the societal structure. The aspect of time is therefore important. The discussion proceeds from excavations of recent years, mainly in the central and western parts of Östergötland. Based above all on the settlement site at Storlyckan, interpretations of settlement structure and the relationship between man and landscape in the Mesolithic will be discussed. The localization of settlements affects the utilization of the surrounding landscape and the form taken by the flow of material and artefacts between settlements and between regions. The density and location of settlement sites influenced all aspects of life. An important topic to discuss is the colonization of a new landscape. We may regard the first settlement in an area as the opening of new spatial and social relations (Gosden 1994, p. 24; Boaz 1999, pp. 138 f.).

The Mesolithic landscape

As a backdrop to the ensuing discussion, let us begin by briefly examining the physical landscape. As yet no coastal settlements from the Yoldia period have been found in Östergötland, although the conditions should have been good for them. On the other hand, it is clear that the upper limit of the former Yoldia Sea created good conditions for settlement locations in later periods as well. The oldest excavated settlement sites in Östergötland are dated to c. 9000–7500 BP (8300–6500 BC), in other words, a phase when the ice had long receded from the landscape. The

Ancylus Lake at this time covered a large part of the province, forming a wide bay leading towards the present-day Lake Vättern. In the district around Linköping the former Ancylus shore is found at 75 m above sea level (Fromm 1976, pp. 53 f.; Agrell 1979, p. 230).

The early settlement sites around Mjölby, which serve as the basis for the discussion in this article, lie on sandy soil in the transition zone between glaciofluvial deposits and finer clay soils. The transition zone from what was mainland and islands in the period of the Yoldia Sea gave attractive locations for Mesolithic settlements. The majority of the wetlands and shallow lakes beside which settlements were once located were established as the Yoldia Sea gradually retreated. It is evidence of a well-developed settlement strategy that Mesolithic people chose to live beside shallow lakes and watercourses. The sites are in wetland zones allowing optimum utilization of resources, where different biotopes provided the basic necessary food intake. The combination of wetlands/lakes/flowing water and forest, usually with a pronounced hill close to the settlements, was crucial for the choice of location. The wetlands and the shallow lakes, especially those beside the clay soils of the plains, were high in nutrients. Unfortunately, little osteological material has been preserved from the early Mesolithic sites, which makes it difficult to analyse the economy in any detail. No fish bones at all have been found, for example. This may be blamed on taphonomic conditions. In the sandy and acid soil on the sites, very few bones are preserved, and even the burnt bones are very few. Water sieving was performed at both the Mörby and Storlyckan sites, but with poor results. Burnt bones, however, have been identified to species level from the sites at Högby and Storlyckan. The finds from Högby consisted of beaver and red deer, with a clear predominance of the former, indicating that beaver was more attractive as game. The burnt bones from Storlyckan consist exclusively of wild boar, which shows that this animal was hunted in Östergötland around 8000 BP.

The Storlyckan site

The settlement site at Storlyckan will now be analysed with the emphasis on the internal structure. In the area around Storlyckan there were no previously known settlement sites; as so often before, this site was discovered by a rescue excavation occasioned by the construction of a new stretch of road, in this case the E4. The finds and the chronology will only be outlined here; for a more detailed analysis we refer to the published report (Molin & Larsson 1999).

The settlement has an optimum location in a sheltered spot on a natural terrace below the highest coastline, about 135 m above sea level. The terrace is naturally demarcated to the west, east, and south in the form of the swash zone of the highest coastline and by a steep slope down towards a fen. To the north the terrace continues a further ten metres or so to the foot of a rock formation which must have been well suited as a lookout hill. The stratigraphy was complex, mainly because of the nature of the subsoil. In the untouched bottom layer four distinct features were documented and excavated: a hearth pit and three stone-lined post-holes. The hearth pit was oval, measuring 1.05 by 0.70 m, with a rounded bottom profile, 0.20 m deep. A large quantity of fire-cracked stone was found in both the plan and the section. The post-holes were round, between 0.25 and 0.30 m across and 0.20–0.30 m deep, with rounded bottom profiles. All these features were observed at a higher level in the layer but could not be fully documented until the untouched bottom layer was reached.

The features coincided with an area that had obviously been cleared of stones, which was mostly lined by a number of large moraine boulders lying in a semicircle. The bottom level of the trench was otherwise full of stones. The area was interpreted at an early stage as the site of a hut. It appeared as if stone had been thrown up against a wall which had been supported by the kerb of boulders. The hut opened to the east, and here too the area seemed to have been cleared of stones. When viewed in this way, the three post-holes

would be the remains of the roof-bearing structure. The hearth pit was either on the edge of the hut or just outside it. Calculated from the boulder kerb, the hut measures about 4.70 by 3.75 m, thus giving an area of about 15 m^2.

About ten metres down the slope, an oval hearth pit was found, measuring 2.00 by 1.50 m, 0.30 m deep, with a rounded bottom profile. The filling contained a large quantity of fire-cracked stone and a concentration of soot and charcoal. Close to the hearth pit was a grindstone of granite, almost rectangular, deliberately cut to shape and with a roughly ground surface. It was assumed that this bedstone was an artefact with several functions. Parts of the stone were removed to give samples for a silica fossil analysis (Risberg 1999). The aim was to determine how the stone had been used. Three parts of the surface were chosen for study: the actual grinding surface, one of the hollows, and an area on the side of the stone. The result shows that phytoliths, resting spores, and diatoms were common in all the samples.

Two Mesolithic features from Storlyckan have been ^{14}C-dated. The samples (Ua-8945 and Ua-8946) were from charcoal found in hearth pits both in the hut and in the activity area with the grindstone. The charcoal comes from pine. The dates agree, placing the settlement site between 7905 and 7865 BP, or 7000–6550 BC, with 1 sigma calibration. This corresponds to the chronological placing of the artefacts, with microblades and small scrapers with rounded shapes. Fire-cracked stones from the hearth pit with the grindstone were dated by thermoluminescence to 6593 ± 536 BC (RFTL98 Storl), showing good agreement with the radiocarbon dates (Kresten & Goedicke 1998).

The finds

The analysed stone consists of flint, hälleflinta, and quartz, comprising a total weight of 4,665 kg and 241 items. Hälleflinta is a local stone which in some ways looks like Baltic flint. The proportion of definable artefacts is moderate. Apart from a large quantity of microblades there were in all thirteen scrapers, eight of flint, three of quartz, the other two of hälleflinta. Flint and quartz items are most numerous. The distribution of the artefacts is as follows: 43% are of quartz, 47% of flint, and 10% of hälleflinta. In terms of weight, quartz shows an overwhelming dominance, 80% as against 15% flint and 5% hälleflinta. The majority of the microblades have a straight profile, which indicates that they were pressed from conical cores (e.g. Bille Henriksen 1976). They also show traces of having been pressed, in the form of small platforms and bulbs of percussion. All in all, this indicates that at least some of the blades originated from conical microblade cores.

The analysed finds are summed up in the accompanying table.

Table 1. Classification of the artefacts from Storlyckan.

Category	Material	Number	Weight, g
Drills	Flint	1	0.5
Scrapers	Flint	8	8.5
Blades/fragments	Flint	69	38.5
Cores/fragments	Flint	10	16.0
Flakes/fragments	Flint	13	9.0
Debris	Flint	25	11.5
Scrapers	Hälleflinta	2	7.5
Blades/fragments	Hälleflinta	5	2.5
Cores/fragments	Hälleflinta	3	7.5
Flakes	Hälleflinta	1	2.5
Debris	Hälleflinta	14	4.0
Scrapers	Quartz	3	10.5
Blades	Quartz	1	0.5
Cores/fragments	Quartz	12	89.5
Flakes/fragments	Quartz	56	143.0
Debris	Quartz	75	20.0

It is interesting that the proportion of flint (including hälleflinta) is so high. This means that Storlyckan differs significantly from the majority of excavated sites in eastern central Sweden. However, the distribution is similar to that at the nearby settlement site of Högby (Åkerlund 1996, pp. 37 f.). The vast majority of the flint material con-

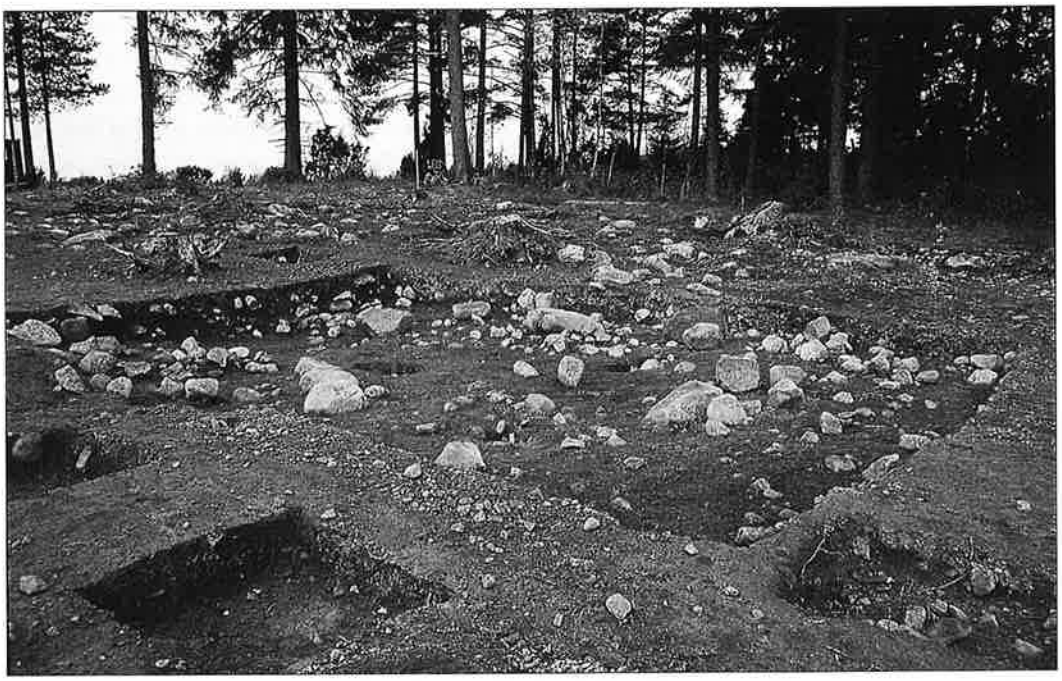

Fig. 3. The excavated area at the hut, from the east. The hut is lined by large boulders surrounding a cleared surface. The post-holes are marked with three sticks. In the background can be seen the swash zone of the highest coastline. Photo: Fredrik Molin.

sists of blades and blade fragments (approx. 41%). The scrapers made from flakes are small, 16–20 mm in size and semicircular in shape, while the blade scrapers have a rectangular shape and are generally smaller.

The flint cores consist of ten heavily fragmented pieces, the biggest measuring only 21 by 11 by 14 mm. The cores are thus difficult to classify in detail. In occasional cases it is possible to discern possible conical shapes, but not with any certainty.

If we then turn to the quartz, we see that the material comes from both veined quartz and collected stray nodules. Quartz occurs in relatively rich amounts in the area, both in loose till and in the bedrock. The cortex is extant on some of the material (cf. Lindgren 1996, p. 359). The reduction methods for quartz working represented on the site can be studied mainly from the cores and flakes. Both bipolar knapping and reduction by means of the platform method are represented. They probably represent different stages in the working of the quartz. It has previously been claimed that a bipolar reduction method occurs frequently at Mesolithic sites in eastern central Sweden (Lindgren 1994; 1996).

The collected flakes consist of almost equal shares of whole and fragmented flakes. For over 60% of the flakes it is also possible to identify the reduction method. Platform flakes account for roughly 21% of the material. These show a clear platform, are thicker than the bipolar flakes, and in some cases show a curved shape or a bulb of percussion. The bipolar flakes are thin and straight, often looking like blades, and they often have a thin "crushed" platform (e.g. Callahan 1987, pp. 30 f.). About 39% of the flakes can be identified as the bipolar type. Debris and waste account for about 54% of the material.

The cores, which number twelve, can mostly be classified into two groups: platform cores and bipolar cores, the latter being very small, only 11–21 mm. The quartz scrapers may all be designated as flake scrapers with clear retouching, mostly on the long sides.

The spatial distribution of the finds

The flints are virtually confined to the hut. The largest quantity of waste is concentrated in the probable wall lines of the hut and an area to the north, beside the entrance. The distribution of flint cores and scrapers also agrees with this picture. One interpretation of this is that the hut was deliberately cleared of waste, which was deposited around the walls and at the entrance. Another probable explanation of the concentration of waste, and of the accumulation of cores and artefacts inside the entrance, is that this area was a knapping place where the primary working of the flint was carried out. The analysis of microdebitage showed the occurrence of flint debitage at this probable knapping place and also outside the hut. This might also support the view that waste was cleared out of the hut or its opening (Geijerstam 1999). The flint microblades, on the other hand, show a completely different picture, almost all of them being inside the hut, with a large concentration in the middle. Here it is obvious that the material was deposited in connection with a specific activity inside the hut. Interestingly enough, the distribution of the few whole microblades does not agree with this picture. These were instead found around the hearth pit in the hut, probably along the wall, and outside the hut. Three whole microblades were found close together in what was obviously a closed deposit beside the hearth pit. The three blades are of the same type of flint and were in all probability pressed from the same flint core.

The quartz objects were also found beside the hut and within an area just south of it where a probable anvil stone was located. The anvil stood upright. The top of it consisted of a worked circular area. Five bipolar cores of quartz and one core of hälleflinta were scattered around the anvil stone. In addition, there was an even distribution of mainly flakes, flake fragments, and debris. A large proportion of quartz microdebitage likewise corroborates the hypothesis that the anvil stone and the area around it was a knapping place.

The distribution of the quartz shows both similarities and differences with respect to the distribution of flint. The similarity is seen in the fact that the hut appears to have been cleared of waste, which, like the flint waste, was accumulated around the wall of the hut. On the other hand, there was no noticeable concentration in the front of the hut, around the entrance; instead the material was found more towards the back of the hut, particularly outside the assumed line of the wall, with a clear concentration around the hearth pit. This coincides with the distribution of the quartz cores which also lay at the back of the hut. It is obvious that quartz was also worked inside the hut, but at the back around the hearth. The quantity of microdebitage is also large. The analysis corroborates to some extent the assumption that the hut was cleared of waste. Quartz was probably not worked beside the entrance to the hut.

Burnt bones were distributed only in and just inside the hut, once again with the greatest concentration in the area around the hearth pit and also in the area inside and beside the opening. The biggest concentration was found beside the hearth pit, where the identifiable bones also occurred. If the bones are a reflection of consumption, then this coincides with the obvious activity zone just inside and just outside the entrance. It is interesting that this could not be detected from the phosphate mapping of the hut and its immediate vicinity (Molin & Larsson 1999).

A new world

We shall now discuss the Storlyckan site and interpret it from a landscape perspective. In the first part of this discussion some recent views on mans use of the landscape are reviewed. In much of today's archaeological research there is often a focus on how people shaped and reshaped the landscape for different activities which may have been of both a sacred and a secular nature. The landscape is viewed as an active part of people's lives, both living and dead, and thus as a meaning-bearing medium. People's active participation in the landscape, for example, through places for stone quarrying, manipulation of the forest, paths, and so on are important components of the

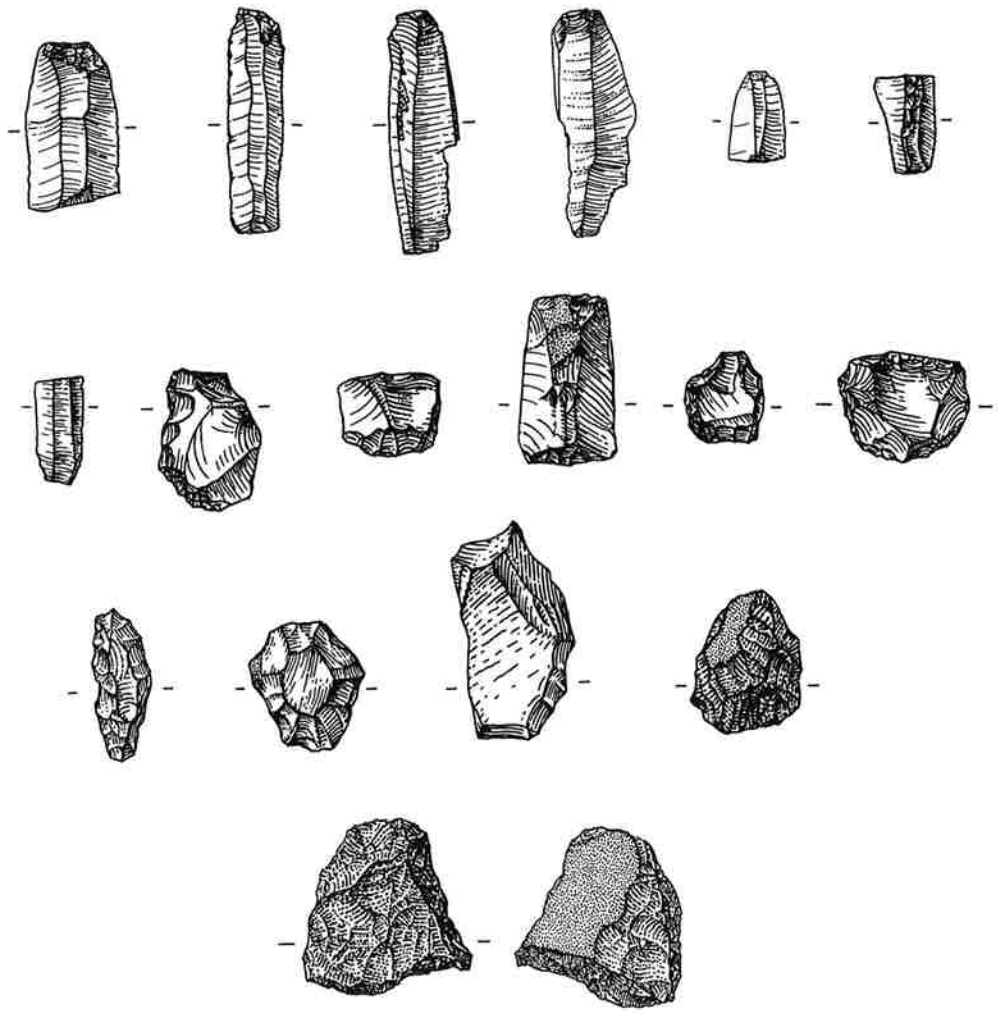

Fig. 4. Some of the finds from Storlyckan. Flint microblades, flint scrapers, flint drill and scrapers of hälleflinta and quartz. Scale 1:1. Illustration: Richard Holmgren, ARCDOC.

discussion (Edmonds 1999). The Mesolithic world was created by kinship and ancestors, with a special meaning ascribed to time and place. It has been pointed out that people distinguish themselves from natural objects by being equipped with a memory, a "living past" (Nordin 1996, p. 95). The significance of time for social and spatial changes, that is, how people create a world filled with meaning over time, is an interesting and relevant starting point which links up with Nordin's living past. This has been discussed in recent years, for example, by Gosden (1994), who stresses the significance of time for the interpretation of changes in settlement and in the perception of space. What we call settlement sites are places in the landscape where repeated activities took place (Gosden 1994, p. 35). The perceived landscape, with its weave-like structure of interlinked elements, may be regarded as an extremely important part of Mesolithic man's view of his place in the world. "The interpretation of place is a struggle for position within the meaningful world" (Tho-

mas 1996, p. 91). The different parts of the landscape are interwoven to make a comprehensible whole. The people who moved in the landscape in the period we call the Mesolithic, the names, places, and myths created a structure that may be described as a history of the landscape (Thomas 1993, p. 81). Recurrent visits to the same places or areas created a cultural and mental landscape that was ordered according to the group's outlook on the world around it.

A fruitful way to start a discussion of Mesolithic society and its use of the landscape could be to study how the settlement sites were organized and structured. This means studying and analysing the structure of the individual site, that is, how people organized their immediate environment and home, and also discussing the placing of the settlement site in the landscape and its interaction with the surrounding land and with other nearby settlements. The historian Dick Harrison (1998, pp. 50 f.), in his research into medieval man's spatial perception, has used the terms "microspace" and "macrospace", the former referring to the empirically known world, that is, the world known to the individual, while the latter represents a cosmological category which can include everything from religion to cultural contacts between people in a geographical context (Harrison 1998, p. 51). The terms are to be viewed as conceptual and not just spatial. In our subsequent discussion we shall proceed from these two concepts.

Through the analysis of the Storlyckan site we have been able to shed light on questions such as how the site was organized and how it has been possible to distinguish different activity areas. This spatial structuring also comprises a mental dimension, whereby the surroundings and reality of the inhabitants were made comprehensible. A conscious relationship to the space thus creates different areas for different functions, reflected, for instance, in the distribution of features and artefacts. The remains of the hut are an expression of a home, but can also be divided up into different physical and mental activity zones, thus making up the microspace. Judging by the finds, the area just inside the entrance, especially the northern half, seems to have been a knapping place, mostly for working flint, combined with a more general activity area. The back of the hut, beside the hearth pit, seems to have been used for working quartz. The distribution of flint microblades reflects an activity associated with the blades, concentrated in the centre of the hut. Another interesting observation on the basis of the distribution and proportions of quartz and flint was that it was possible to see in the hut itself how the majority of the flint was found in a limited part of the hut, whereas the vast majority of the quartz was found outside or in the peripheral parts of the hut.

This brings us to questions of spatial disposition. There was an obvious division of the space of the hut into two areas, one of which may be interpreted as a place for work, the other as a place for rest. For comparison with the Storlyckan site, other similar sites will now be briefly discussed and then put in their cultural and historical context in which material culture and the contacts with the world outside will be considered, that is, the macrospace.

The characteristic mobile way of life in the Mesolithic was based on recurrent visits to specific places in the landscape. The significance of these places was incorporated in the common history of the group, not just as a potential source of livelihood but probably also as part of the group's identity and myths. This is of course an important part of how the outside – perhaps strange and wild – world was perceived as part of the macrospace.

From the part of the early Mesolithic discussed here, a characteristic settlement form has been identified in southern Scandinavia and adjacent areas. It comprised small habitation sites with little huts located beside lakes that were gradually being filled up with vegetation. Several such sites have been excavated in recent decades, such as Ageröd in Scania, Ulkestrup and Lundby II in Zealand, and Duvensee in Schleswig-Holstein (L. Larsson 1975; 1978; Bille Henriksen 1980; Bokelmann 1981). In a discussion of hut remains from the south Scandinavian Maglemose culture, Ole Grøn (1995) points out that the size of these

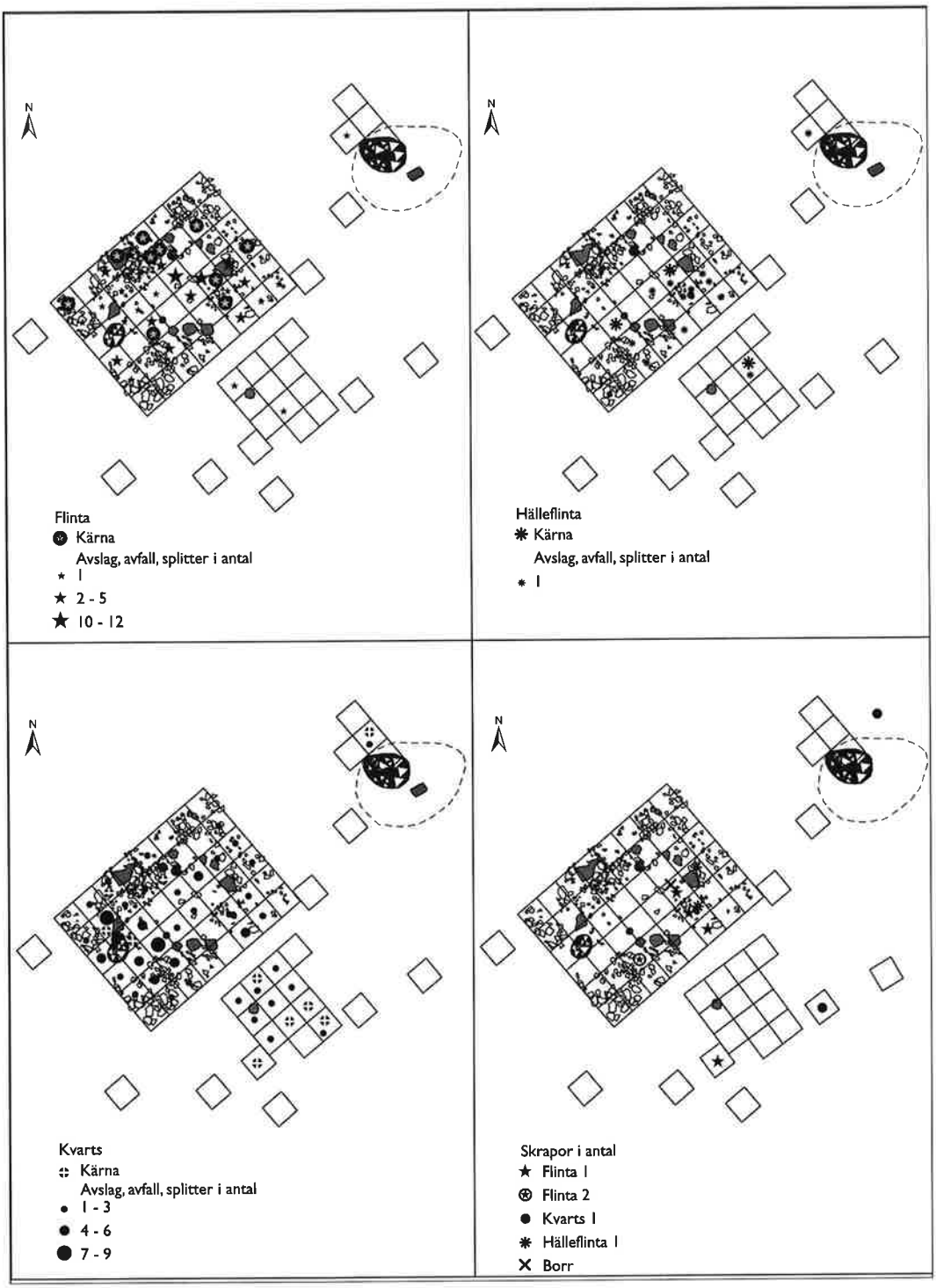

Fig. 5. Distribution of the finds: flint, hälleflinta, quartz, and tools. Graphics: Lars Östlin.

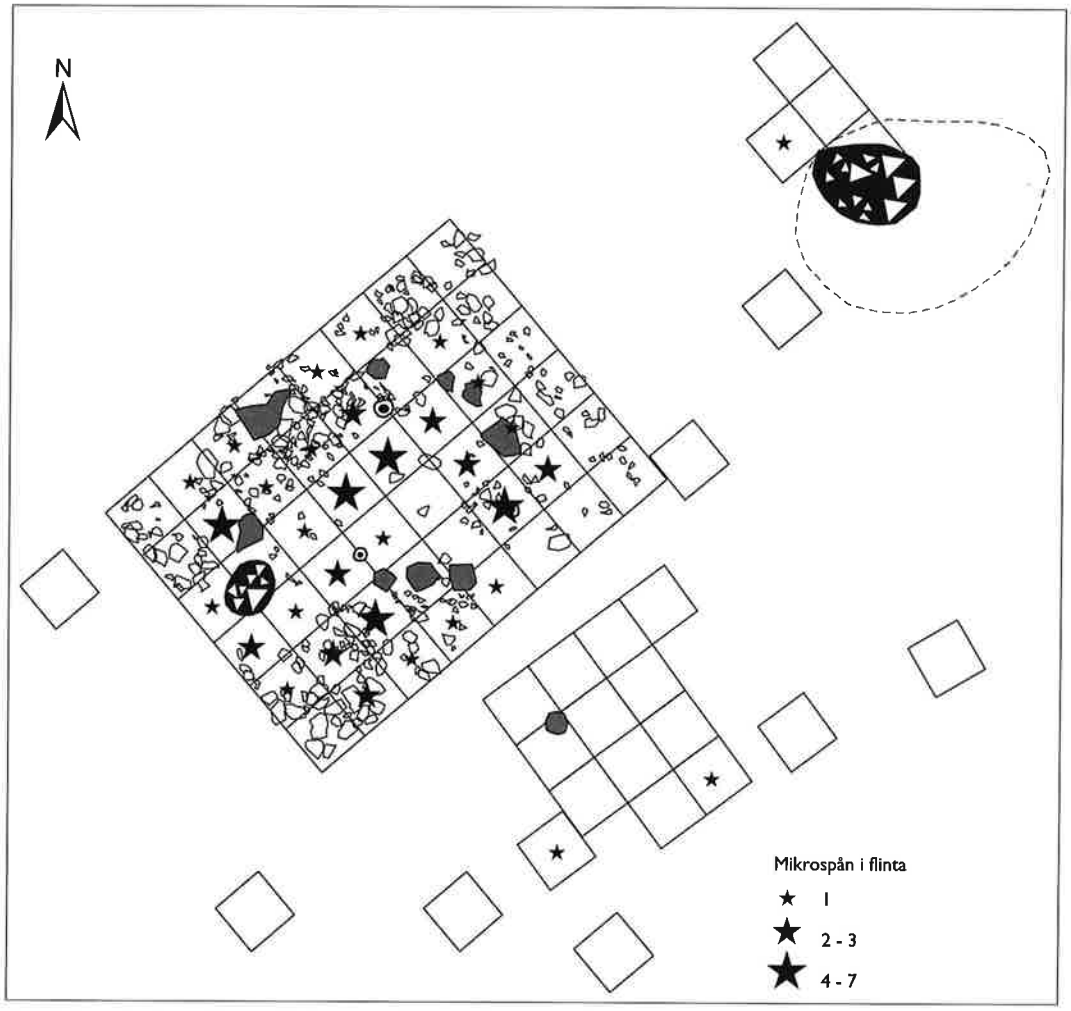

Fig. 6. Distribution of microblades at the hut. Graphics: Lars Östlin.

huts varies, not only from site to site but also within the same site. For example, the huts from Ulkestrup I vary between roughly 8 and 18 m^2 while those from Ulkestrup II are 20–56 m^2 (Grøn 1995, p. 42). The shape of the different excavated huts indicates that they were semi-oval structures. The walls were marked by post-holes or stake-holes. At the best-preserved sites there is also evidence of bark floors or traces of other organic material. Ole Grøn (1983; 1995) has also been able to document several cases of two concentrations of microliths occurring in the huts. This could indicate that two individuals, or two households, used the hut. The placing of the hearth, according to Grøn, may also indicate the presence of two different households. In a very detailed study of the settlement pattern and economy of the Maglemose culture, Blankholm (1995) has made a number of relevant observations. The houses, for example, are regarded as an activity area in which several activities can be distinguished, each with its extensive area of waste. It is also difficult, Blankholm says (1995, p. 133), to discern a clear and uniform pattern in the internal structure of the sites. Grøn and Blankholm obviously differ in their interpretation of the structure of the settlement sites.

There are obvious similarities between the Mesolithic huts excavated in Östergötland in recent years. They all share the round-oval shape,

Fig. 7. The excavated area at the hut. View from the west of the slope down towards the gully. Photo: Fredrik Molin.

for instance. There are admittedly minor differences as regards the size and constructional details, but the shared features predominate. The structures do show differences, however, in the spatial organization of activity areas. When different regions are discussed, on the other hand, the comparative perspective reveals differences in how people perceived and shaped their microspace. The variations in the function of the huts in relation to other activities indicate that space was arranged differently depending on where one was (e.g. Carlsson & Hennius 1998). This discussion shows how difficult it is to interpret and understand traces of human activity in that the material remains found by archaeological excavation were originally created and organized by people who were steered and influenced by social and cultural norms. When people feel "at home" in their surroundings and carry out their everyday tasks, we can, following Heidegger (1977) and Thomas (1996, p. 89), call it "being in the landscape" or "living". The building of a house or a monument involves an important change which significantly alters people's roles in the landscape and their view of it. "Building" means transforming a place; a "place for something" emerges. Myths are then woven about it and the place thus becomes historical. Seasonal moves, returning to favourable locations, should not be seen solely as an adaptive process. The landscape had a meaning-bearing function for the people who lived and moved in it. Information and stories about the landscape were woven together. This is how the mental space – macrospace – is created, in which myths, events, and experiences are tied together, in other words, the shaping of a meaningful world. By repeatedly performing certain acts, such as moves between different places, patterns are created in which recurrence becomes a cyclical history. What united these mobile groups was a material culture which enabled social relations with other groups and with the landscape. Similarities in material culture may thus be seen as a way to structure and order the surrounding world (Gosden 1994, p. 127). By changing parts of their material culture, the Mesolithic groups could create their own identity. This enabled both differentiation and union between different social groups. Here we can go back to what we said at the beginning about the colonization of a new area. Christopher Gosden (1994, p. 35) has pointed out that standardized material forms were a support for people in their dealing with a new world and the rapid changes that take place with colonization. By partly changing their material culture, the newcomers create their own identity but also forge associations with what they have left. In other words, there is a link between the new area and the old one (Boaz 1999). We shall now discuss how this may have been expressed.

During the Mesolithic, particularly the early Mesolithic, Östergötland occupied an interesting intermediate position between southern Scandinavia and eastern central Sweden, where artefacts such as flake axes, harpoons of bone and antler, Limhamn axes, barbed points, handle cores, and microblades indicate influences and contacts with southern and western Sweden (Carlsson *et al.* 2001. This dualism was pointed out some time ago by Welinder (1977). The flint group that he distinguished was associated with the Lihult culture of western Sweden, since the characteristic axe type has been found at the flint group settlement sites such as Dalkarlstorp and Vallby, whereas the quartz group sites are dominated by pecked axes (Welinder 1977, pp. 49 ff.). An east–west contact route is also confirmed by the barbed point from Lilla Åby in Slaka. The Mesolithic in southern

Fig. 8. A large hearth pit with the grindstone in the foreground. The photograph was taken from the south-west, in low, oblique light; small circular hollows are visible along the edge of the stone. Photo: Fredrik Molin.

Scandinavia has traditionally been divided into several different culture groups, each characterized by a distinct material culture, such as Maglemose, Hensbacka, and the Flint Group (e.g. Welinder 1977; L. Larsson 1990). The geographical boundaries are fluid, and various attempts have been made to identify them more exactly and to study contact routes between the different groups. Studies of the distribution of pecked axes and Lihult axes suggest fairly clearly demarcated regions, but with contacts between them (Kindgren 1991, pp. 58 ff.). Studies of social territories have been conducted in Scandinavia and elsewhere by several scholars. One of the latest is by Verhart (1990). He proceeds from the view that the most appropriate way to distinguish social territories is to use the stone. The problem is that it can often be difficult to determine the provenance of this material. Using studies of bone and antler points, however, Verhart thought that he could distinguish a number of distinct social territories. It is interesting that the territories decline in size over time (Verhart 1990, p. 149). In recent years, economic stress has been toned down as an explanatory model in the discussion, and factors such as contacts between people and such things as prestige have been emphasized (Verhart & Waansleben 1997). We can also see this in a study of the Mesolithic in southern and central Sweden, where regional differences, for example, in the form of variations in projectile points and axes, have been observed (M. Larsson *et al.* 1997, pp. 47 ff.). These variations have been interpreted in terms of social markers. Relations of exchange grow up between different regions, through which material culture reinforces a group's social identity.

If we return to the Mesolithic in Östergötland, the discussion of social territories can also be applied here. Several of the tool forms mentioned above indicate the contact channels that existed between different social groups in southern Sweden at this time. There are also clear distinguishing

features between, for example, Östergötland and southern Sweden. The most noticeable difference is that microliths are completely lacking in this part of Sweden. We have explicit evidence that, for example, microblades and different types of bone and antler harpoons were used, types indicating that parts of a material culture were adopted, or at least accepted. Interesting observations have been made in recent years in northern Scania and southern Småland (Karsten & Knarrström 1996). In this area it has been possible to see how people in the course of the Early Mesolithic increasingly replaced flint with local raw material. The same development can be seen in Östergötland, where the Mörby site, for instance, shows a wide range of local rock types. Some parts of the material culture were by all appearances shared, such as the microblades, whereas others, such as microliths, may be regarded as distinguishing attributes. Differences in the material culture may thus indicate the emergence of regionally developed social groups. This should above all be seen as a culturally conditioned group identity and not as ethnicity in the form of genetic heritage.

If we return for a moment to the microspace, that is, the huts, we can, as we have seen, distinguish a characteristic round-oval shape. This shape would then be culturally conditioned and, like the microblades, be one of the elements binding the material culture together. The striking differences between the Maglemose huts of southern Scandinavia and the huts from Högby and Mörby in Östergötland have previously been discussed. The differences are supposed to lie in the lack of a clear link between the artefacts and the hut (Kaliff *et al.* 1997, pp. 49 f.; Carlsson *et al.* 1999). The analysis of the Storlyckan hut shows that no such simple conclusion can be drawn. Unlike the other sites, Storlyckan shows a clear agreement between the hut and the artefacts. It may therefore be appropriate now to connect the macrospace with the microspace. With its function as social markers, material culture can be regarded as a form of language uniting different regions. The microblades may be viewed as an important part of the exchange between different regions. The form of the huts could also be one such link. The colonization of new land with which we are dealing here gradually created new constellations in which elements from the old area survived while certain other elements were reshaped to suit the new situation better. The first settlers in an area were confronted with a new problem: the landscape had no history or identity (Boaz 1999, p. 139). Existing ideological and mythological frameworks could be used to some extent, but mostly new frames of reference were needed. These first colonists mainly used flint, while quartz and other local rocks were gradually incorporated in the material culture. An interpretation of the microspace at the Storlyckan site from this perspective would be as follows: A clear difference in the use of flint and quartz was revealed by the analysis of the hut. The majority of the flint was found in the actual hut whereas the quartz was in more peripheral locations. The association of the flint with life in the hut, for example, the accumulation of microblades, may be seen as a link between the familiar, that is, the flint, and the hut. In contrast, the quartz, representing a new material, may have been regarded as an alien element and therefore potentially dangerous. As time passed, the alien element, the quartz, was gradually accepted, and it also became predominant in the future centuries. The proportion of flint declined, but microblades existed all the time. We may look upon these as the links with the past; in other words, they are part of the social relations in the form of the exchange of goods that survived and was developed throughout the Mesolithic. An interesting factor here is the traces of diatoms and phytoliths found on the grindstone at the Storlyckan site. These indicate brackish and salt water, which at this time could only be found on the west coast (Molin & Larsson 1999). Could these small traces indicate links with the North Sea?

There are no doubt gaps in the above argument. We do not know today how specific or general the Storlyckan site was. This settlement gives the impression of having been used for a relatively short time, and there is no evidence of later visits during the Mesolithic. In this the site differs

from Mörby and Högby, which both show longer continuity over time. In connection with the archaeological excavations occasioned by the work on the E4, a fair number of indications of other Mesolithic sites were discovered (e.g. Ericsson & Österström 1999). These mostly consist of only one or two hearths and hardly any finds to speak of. These scattered hearths may be seen as evidence of a mobile settlement pattern. The landscape was gradually influenced by humans, small clearances were made, and stone waste from tool manufacture was deposited in some places. Stories and myths were created about certain places in the landscape, which later became a part of the group's shared history, while others did not acquire this significance. People met at specific places or they met by pure chance. Information and perhaps goods would also have been exchanged at these meetings (Edmonds 1999, pp. 23 ff.).

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