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*Published in:*  
Lund Archaeological Review

2007

[Link to publication](#)

*Citation for published version (APA):*

Jennbert, K. (2007). Sites and the mental landscape : Stone Age in the Kullen district, North-western Scania, Sweden. *Lund Archaeological Review*, 11/12, 47-58.

*Total number of authors:*  
1

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# Sites and the Mental Landscape

Stone Age in the Kullen district, North-western Scania, Sweden

BY KRISTINA JENNBERT

## Abstract

*Jennbert, Kristina. 2005. Sites and the Mental Landscape. Stone Age in the Kullen district, North-western Scania, Sweden. Lund Archaeological Review 11-12 (2005-2006), pp. 47-58.*

The approach of the mental landscape enlarges the perspectives for interpreting sites and settlements. In the Kullen district sites and settlements is theorized by breaking down the dichotomies of Mesolithic and Neolithic and the archaeologically constructed borderline between the periods. The terminology and the interpretation of *site* and *settlement* need to be extended by including the materiality of landscape, and the long-term utilization independent of presumed dominating subsistence strategies.

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## Entering into the landscape

The Kullen district has a striking geographical scenery and a multitude of cultural settings and locales constructed during thousands of years. Thus, the approach of the mental landscape enlarges the perspective for interpreting archaeological sites and human life-ways. You have to enter into this landscape. As a rambler (Swedish *promenör*), I am familiar with the surroundings and convinced through my personal ramblings that this landscape must always have functioned as a kind of material category. The landscape is a metaphorical reality, active in the production and usage of objects (e.g. Bradley 2000) and important in the networking between people in the past, as

it is today. Obviously, there is a mental landscape in the physical settings.

The personal experience of a specific landscape is as important as the traditional archaeological work with analysis of the archaeological fragments from excavated or surveyed sites. Personal familiarity is the entry to knowledge, and as the material culture this is the basis for perceiving the practical and symbolic values in past landscapes (Jennbert 2000). The perspective has been challenged frequently within archaeology, especially in Stone Age research (e.g. Tilley 1994; Ingold 2000; Nilsson 2003a) and in a few cases in Bronze Age studies (e.g. Gröhn 2004).

## Landscape and materiality

Mesolithic *sites* and *settlements* are parts of such an enculturated landscape, and must be understood within the relationship between people and landscape (Zvelebil 2003). Landscapes are part of the material culture that is the object of the archaeological profession. Landscapes are active and integrated elements in the creation of human beings and social settings, between practical function and symbolic value. People mould their landscape, and the landscape moulds people. The materiality affects the mind and possesses great authority on identities and social conditions, as shown in research on modern landscapes (*e.g.* Schama 1995). The visible physical evidence acts, as do the known invisible structures in memories and stories. Landscapes are involved in deep-lying structures of human practices. Thus, material culture and landscape are parallel phenomena that together create a physical and mental environment important to people.

The significance of materiality has been given more importance within the field of archaeology during the last few years (*e.g.* Meskell 2005). In terms of materiality, the Kullen area could be described like a theatrical stage, a social platform and a product, and everything that happens in it is charged with human relations with all the dimensions. The fragments from the past and the landscape itself are parts of the scenography. The artefacts and the sites are cultural residues. The actors are of course far away and we cannot ask them about their intentions.

Nevertheless, we can conclude that people in the past acted according to their norms and world-views in the physical and mental landscape. Hence, the archaeological remains from the Stone Age include the physical environment. Presumably, sites and settlements had several meanings, where persons and kindred acted on the stage, and had main characters in

relation to life-ways and special intensions.

## The Kullen landscape

The geomorphology of the Kulla peninsula is peculiar. Kullaberg itself, a gneiss rock, rises from the sea to the northwest. Öresund and Skälderviken, a bay of Kattegatt, surround the peninsula. The adjoining hilly country blends into the levelled countryside. A single day's walk through various biotopes and topographies is enough to cross what was a post-glacial island during the Mesolithic and Neolithic.

Over the millennia the geomorphologic features in the peninsula underwent considerable changes.<sup>1</sup> During the deglaciation around 16,000 BP the marine limit was as high as 85 metres over today's sea level. Kullaberg emerged as a small arctic island in the Kattegatt Sea. In a small fen, a bone of a polar bear was found, first described by Sven Nilsson (1860), and later analysed and radio-carbon-dated to 14,500 BP (Berglund *et al.* 1992). Due to the land upheaval a larger peninsula was formed 12,000 BP and the shore level was situated 10 metres below the present



Fig. 1. The post-glacial island with key names mentioned in the text.

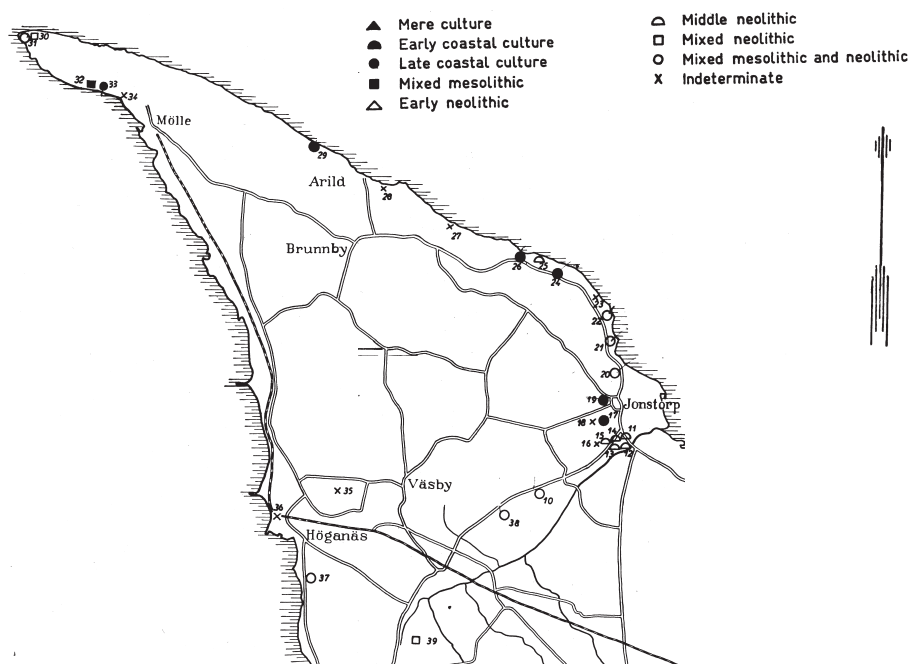


Fig. 2. Carl-Axel Althin's map of Stone Age sites in the Kullen district (Althin 1954, p. 9).

shoreline. Around 11,000 BP the climate changed very fast, and it took less than a hundred years for the summer temperature to rise from 10 °C to 15–16 °C. The shore was roughly 20 metres lower than today.

In the Mesolithic around 9000 BP the shoreline was 5 metres lower than today. About 7000 BP the shoreline rose up to 10 metres over the present shore as a consequence of the Littorina transgressions. But still the climate was favourable and the Kullen area was transformed to a post-glacial island isolated from the mainland by a wide strait between the present-day Höganäs and Jonstorp (fig. 1). During the Neolithic the island continued to alter and around 5000 BP the shore sank to roughly 6 metres over the present sea level. As time passed, the waterway became smaller and shallower, and in the Viking Age shallow-draft boats could still pass. The wide strait was drained as late as in the mid-19th century into what is now an extremely flat cultivated area, today called *Oceanen* (the Ocean).

## Mesolithic and Neolithic sites in the Kullen area

The modern landscape is certainly constructed, and the remains of Mesolithic and Neolithic material culture are mostly to be found in the plough-soil, as few excavations have been done in the Kullen district.

The Danish kitchen midden commission inspired modern research in prehistoric Kullen area. The landlord Carl Gyllenstjerna of Krapperup Manor and the researcher Nils Gustaf Bruzelius excavated mollusc heaps and house ruins down by the lighthouse at the outermost point of Kullaberg, which they dated to the Stone Age (Steenstrup 1854). Unfortunately, they did not discover the expected finds from the Stone Age but remnants of modern fishing with metal fish hooks and late medieval pottery.

However, the region is rich in Stone Age finds and sites (Althin 1954, pp. 9 ff.). In his

corpus, Carl-Axel Althin collected all available material from museums and private collections. He categorized sites belonging to different culture groups (fig. 2). Even today Althin's important and fundamental compilation guides studies in archaeology in southern Sweden, and even though his terminology has changed his classification of material culture still has its value. In 1969 and 1986 the Ancient Monument Survey of the Swedish National Heritage Board confirmed Althin's mapping of Stone Age sites in the Kullen district, but in certain areas a lot more finds and sites were discovered. The finds and the sites were located all over the former post-glacial island, and especially Stone Age artefacts were located on past shorelines. However, several implements of flint and stone were also registered in the inland areas. Unfortunately, many of those stone artefacts are so indifferent in character that no close dating is possible. Especially the inland indeterminate stone and flint materials could just as well belong to later prehistoric periods and not to the Stone Age. The more distinctive Mesolithic and Neolithic sites are placed near former shorelines.

Our knowledge of Neolithic sites in the Kullen district is important for the discussion of sites and settlement and the mental landscape. The extension of chronology gives important perspectives on Mesolithic sites. The localization of sites and the kind of material culture in the Neolithic unites rather than separates our foundations for interpreting the archaeological remains in the area. Taken together the Mesolithic and Neolithic archaeological evidence strengthens the discussion of the character of the archaeological sites, and the importance of integrating mental landscapes into the interpretation of past remains.

Thus, the landscape itself and the sites in the Kullen district could be a good example of how to theorize about archaeological terminology, and how to break down the dichotomies of Mesolithic and Neolithic and the established polarization of subsistence strategies



Fig. 3. View from the outermost point at Kullen (Photo Kristina Jennbert 2004).

connected to the two periods. Several arguments from the evidence in this area could be raised against the archaeologically constructed borderline between the Mesolithic and the Neolithic, as well as in the contemporary field of research between subsistence strategies and life-ways (e.g. Jennbert 1984).

## Touring the former post-glacial island

The difficulties in our interpretations of the archaeological artefacts, the sites and the landscape become obvious by touring in person at the former post-glacial island. The archaeology of today is involved with the Stone Age past.

Let us start the tour at the outermost point at Kullaberg, close to the lighthouse where the archaeologist Knut Kjellmark excavated a Stone Age site in the early 20th century. The site is situated in a rather exposed position up the cliffs. Transverse arrowheads, Limhamn axes and pottery date the site to the Late Mesolithic and the Neolithic. Rough and cold in a visit in early spring AD 2004. In August the same year, the site is quite wonderful, especially at sunset. Surely this was a site used in special situations and not all the year round (fig. 3). At Ablahamn a few hundred metres northeast of the outermost point the archaeologist Bengt Salomonsson excavated Stone Age

remains in the 1950s. This site was located on a small cliff ledge, in a sheltered position expect when the winds blew from the north-west. It is a peaceful place in good weather. The occupation layer consisted of mixed Mesolithic and Neolithic finds, flint tools, transverse arrowheads, blade arrowheads, and one Late Neolithic arrowhead, potshards of Funnel Beaker and Pitted Ware (Kjellmark 1905; Althin 1954; Askman & Schön 1980). Was it really for practical reasons that people used the site? It is an extremely nice place with a lovely view. Could that be a reason why people visited the place?

At the upper part of Kullaberg the mapping by the landlord Carl Gyllenstjerna shows indications of stone finds and sooty spots, but presumably these observations are traces from the medieval period when the lighthouse used wood as energy (Gustavsson 2003). There is no certain identification of Stone Age remains at the higher levels on Kullaberg. For a non-golfer, rambling in this part of Kullen is quite dangerous due to the modern golf course built in the 1960s.

It is quite impossible, due to steep slopes, ravines, and broken terrain, to climb down the cliffs, or to walk along the water's edge. At certain spots you can climb down to visit some of the 20 caves that are situated around Kullaberg, although, several of them can only

be reached from the sea. Most of the caves are located on the northern side of the mountain, and they are really difficult to access via steep paths and sheer cliffs. This is a dangerous and thrilling landscape open for adventurers more than for the old aged or families with children.

It is taken for granted that the caves were used during the Stone Age. However, archaeological excavations in four of them yielded only very few finds from the Stone Age, but more finds from the Iron Age and modern times. The Lahebia cave is situated on the southern side of the outermost point, near today's water level. The cave is rather deep inside a cliff. The opening faces the west. In the summer the sun shines into the cave just a few hours in the late afternoon. A small amount of flint waste and medieval pottery, iron nails and animal bones were found in the Lahebia cave. The cave was mainly used during the Late Iron Age and post-medieval time. In Fredrik VII's cave stone artefacts and animal bones suggest that people could have visited the cave during the Late Mesolithic. Both Fredrik VII's cave and the Mindre Josefinelust cave are exposed towards the inner part of Skälderviken, and turned to small bays surrounded by rocky mountains (fig. 4). In a few hours in the morning the sun reaches the caves. Later in the day they are placed in the shadow of the mountain. The artefacts in the



Fig. 4. The view to the east from Fredrik VII's cave to the Josefinelust cave (Photo Kristina Jennbert 2005).



Fig. 5. Looking back at Kullen when walking to the south. (Photo Kristina Jennbert 2005).







for adventures. The caves are not just some remnants from a Stone Age, when in fact most of them were flooded (Jennbert forthcoming).

Walking southwards from the Kullen lighthouse you have to negotiate the rocks before entering the smooth meadows and heath-lands belonging to the village Lerhamn. This is a place with a lot of archaeological remains, and with a very long history. Traces from the Kongemose period, the Ertebølle period, the Neolithic, and the Bronze Age are found within a limited area by surface surveying (Stentorp 2003). Situated in a small bay and inside a small bog, the area is placed on the slope along a now drained stream. Further up the hill ancient field systems, a Roman Iron Age settlement, the medieval village of Krapparp, and the Krapperup Manor are situated (Carelli 2003).

Further south along the Öresund coast you reach Höganäs, and you can walk on sandy beaches all the way, and behind you there is a wonderful view of Kullen (fig. 5). The town marks the south-western cape on the former postglacial island, and the Kulla strait estuary towards Öresund. Today the built-up area of Höganäs has developed the former landscape, and a large factory and a harbour are located on the former headland. Sites with Ertebølle character have been found around the neck. The most well-known find is the ornamented antler axe of a red deer. The ornamentation of the axe in combination with the level in which it was found makes it possible to date the axe to the Kongemose period (Rydbeck 1929; Althin 1954; Andersen 1975).<sup>2</sup>

Today, a rather long walk eastwards in a heavily drained and cultivated landscape leads you to the village of Jonstorp. You walk along the former passage of the Kulla strait from Öresund to Skälderviken. It is a very low-lying environment, and former shorelines are impossible to secure. In the area between Höganäs and Jonstorp several indeterminate finds have been located but also artefacts from Mesolithic and the Neolithic. The area is very

flat and was drained not long ago, in the 1840s. Very few artefacts in ploughed-up thin occupation layers, a few hearths, but no other structures have so far been unearthed. However, Neolithic artefacts are scattered along the former shores of the island. Very few indications are found on the other side of the strait to the south, on the mainland. Probably no long-term sites are apparent in this region.

Turning to Jonstorp, and the eastern cape of the former postglacial island, in the inner part of Skälderviken, several Ertebølle sites and Middle Neolithic Pitted Ware sites have been found (fig. 5; Lidén 1938, 1940; Althin 1954; Malmer 1969). At several sites both Mesolithic and Neolithic implements are recorded (fig. 6). The sites were located on the shorelines at the time, around 6 metres over the present sea level, and our knowledge is not complete concerning the shoreline displacement. The Ertebølle sites consist of stray finds of stone artefacts. Archaeologists have excavated some of the Pitted Ware locales. Hearths and pits were found and a large amount of flint axes, flint artefacts and pottery. The preservation of organic material is not very good. However, bones are preserved and the analysis shows that bones of seals dominate, but bones from cattle, pig, sheep/goat and fish are also documented. Impressions of grains, wheat and emmer, in pottery show that farming had been practised (Helmqvist 1979; Malmer 2002, p. 123 f.; Jennbert & Wihlborg forthcoming).

The Jonstorp sites were located on a cape. Clearly, fishing and seal hunting were important, and an osier basket with remains of a cod was excavated in the 1940s, dated to the Late Mesolithic (Petersson & Olausson 1952). The sites of the excavated Neolithic Pitted Ware have a special character. The flint artefacts and pottery are found very close to the shore. The material culture reflects practices on a former beach. Perhaps people came sporadically for fishing and seal hunting or to meet and exchange with other people now and then, in a period of great changes?

A large number of Ertebølle and Pitted Ware sites are situated on the shores of Skälderviken. They are mainly registered by surface collection, and by a few excavations in the hilly countryside before the mountain of Kullaberg increases in monumentality. The different chronological periods are very often located at the same spot, according to results from the restricted excavations and the survey collections (Lidén 1938, 1940; Löfgren 1986).

To get back to the lighthouse and outermost point of Kullaberg you have to go by sea or walk along the upper part of Kullaberg. In places it can be a strenuous walk on cliffs, but you can also choose more convenient routes for an easier walking pace, or just go by boat.

## Sites and landscapes

What was going on during thousands of years on this small island? How did people arrange their lives and constrain environmental conditions? Were they survivors or *bon vivants*? Did they struggle for subsistence or did they have a pleasant life? Were they conscious that the nature here was being transformed? What about life-ways? And, how can we modern citizens grasp whatever questions we have? One of the hardest matters is to find analytical tools, and a set of terminology that could be representative for people that lived thousands of years ago. Clearly, the concepts *site* and *settlement* used in archaeology are by no means obvious analytical categories. Generally, they are used in such a way that all kinds of functional and symbolic actions can be classified in a few categories. From ethnographic analogies a range of sites with different function and meaning is known (Grøn & Kutzenov 2003).

Excavations of remains, structures, and activity areas, and knowledge about archaeological, botanical, and osteological material are important, as well as geophysical and chemical analysis. Facts and knowledge of the material culture are fundamental in archaeology.

Nevertheless, the analogies with ethnoarchaeological excavations show that a settlement consists not only of huts and houses. The habitation area is extended into a larger zone around the site with a lot of practices in different localities. A range of types of platforms, storage pits, shelters for humans and animals, working areas, outdoors hearths etc. are parts of the settlement area. The ritual practices involved in the handling of material culture such as waste and clothes, or humans and animals, enrich our understanding of the complicated archaeological task to define a settlement site. The archaeological implication is the realization that ritual practices and settlement behaviour reflect the cosmology and are in many ways connected to the landscape (Grøn & Kutzenov 2003, pp. 219 ff.). Another illustrative example is the camp systems of the caribou hunters in West Greenland, and their perception of the landscape (Odgaard in press).

The limited areas that are usually excavated by archaeologists do not give sufficient support to interpret all the kinds of activities that people really performed inside or outside their settlement site. Furthermore, the qualitative aspect of an area is just as important as all the functional practices that can be analysed with quantitative methods. For that reason, archaeologists should allow themselves to employ aesthetics in archaeological interpretations, for example to study the relations to the geophysical landscape, the choice of raw material in the making of tools or building tents, houses or other kinds of monuments (Hinnerson Berglund 2003; Nilsson 2003b).

Researchers have rather recently noticed that even hunter-gatherers intervene in their landscape, and enculturate their landscape in practical and mental ways. For the first time, the enculturation of the landscape by post-glacial hunter-gatherers formed a theme of a session at the international conference on the *Mesolithic in Europe* at Stockholm in 2000. Landscapes are understood as active elements

in their practical and symbolic use in past societies (Zvelebil 2003). The location of sites and the spatial relationship to the physical settings are of vital importance in networks between people. Obviously, archaeologists usually excavate limited areas with remains and fragments of functional and ritual practices. Thus, to understand a site or a settlement it is necessary to work on a landscape scale as people operate within larger spaces.

A better understanding of the archaeological terminology *site* and *settlement* can be obtained by integrating the landscape as an analytical category, its geophysical formation and use in the long term. As we cannot ask the people in the past about their relationship with nature and the landscape, it is necessary to use analogies. Therefore, the archaeological interpretation of sites and mental landscapes should be inspired by ethno-archaeological analysis of the production, use and deposition of material culture in a landscape context. Ethnographic analogies and interpretative methodologies bring opportunities to interpret the encultured landscapes (Jordan 2003; Zvelebil 2003).

## The imprinted landscape

Extensive source-critical problems exist in evaluating the scanty archaeological material on the Kullen peninsula. Firstly, we have sparse information about Palaeolithic and Early Mesolithic sites, as the coastlines were very low. However, off Ransvik, divers have found a rich amount of flint blades and flint nodules.<sup>3</sup> Secondly, as Althin wrote, it is very difficult to determine whether the artefacts really are settlement finds and what they really represent. Nevertheless the site locations in the landscape and the long-term perspective in which to integrate the landscape in fact offers possibilities to locate patterns of sites, and certain places in the landscape.

As the topography of the land was transfor-

med, the climate, the vegetation, and the fauna also changed. Geomorphologic and cultural evidence imprinted the Kullen district and was incorporated in the practical use as well in social relations, myth, and cosmology. The landscape abounds in qualities and characteristics, and in the long term people made use of, transformed, and experienced the landscape in various ways. The long-term changes in form, function, and significance are due to the inherent dynamics of the landscape.

The landscape can be described in many ways and ascribed with many meanings. People built their mental landscape on the basis of their knowledge and experiences, values and feelings. In the more recent past we know that acts, memories, names, symbols and legends are parts of such a mental landscape, an association of experiences and vital conditions (Tuan 1977; Smith 1987; Schama 1995; Brink 2001). Material culture as active memory production in events and in remembrance of past times was surely incorporated in the formation of practical and mental lifeways (Knutsson 2005).

Bearing in mind the use of memory as an analytical category, we know that the same places in the Kullen district have been exploited for thousands of years. This phenomenon implies the importance of the geophysics and enculturation of certain parts and places in the landscape.

People imprinted the landscape. The lower parts of the mountain and the coastlines around the former island were used during the Mesolithic and Neolithic, and marine resources must have dominated subsistence practices. The archaeological evidence of the location of artefacts and sites indicates that there was no clear spatial difference between the Mesolithic and the Neolithic use of the former island. In the Early Neolithic and Middle Neolithic a few deposits and signatures are documented in the inland areas. However, more significant is the use of the inland areas marked in the evidence of hoard finds in the

Late Neolithic (Karsten 1994). The abundance of megaliths and few indications of Funnel Beaker culture could be interpreted to show that people of that cultural tradition did not settle down in the Kullen area. Of course, the island was not in isolation, but rather in a good geographical position in relation to the Swedish west coast and Denmark. Perhaps other networks were important for people living on the Kullen island than with the megalithic area further south in Scania.

## Persistent places and island sites

Without the tyranny of our terminology and classification, the foundation in archaeology is to pattern the material culture from the past. Typological systems and chronological schemes are fundamental for sorting things. However, the risk is that one becomes accustomed to link different types of material culture to separate groups of archaeological cultures, subsistence strategies, and a presumed character of a *site* or *settlement*.

The spatial and rich Mesolithic and Neolithic sites in the Jonstorp area suggest a similarity in the great amount of pottery, flint axes and flint assemblages with sites especially from the Late Mesolithic. I myself have an intuitive feeling of a likeness between the Löddesborg site further south in Öresund (Jennbert 1984) and the Jonstorp sites. They are located by the shore on a neck, strategically located with many physical possibilities in communication with people from elsewhere. The sites are open from the sea, not hidden behind natural boundaries. The open position in the landscape and the character of the material culture are alike. Is it possible that the meaning of these sites could be similar, and not bound to the traditional household with the daily-life practices? In their placement the sites could be locales for people with a need for social negotiations.

I have once suggested that the early far-

ming, whether Late Mesolithic or Early Neolithic, was not important for survival, and that farming products were mainly used for social prestige, as fertile gifts. The Neolithization process was interpreted as a slow, gradual process influenced by external and internal relations (Jennbert 1984). In the light of the Mesolithic and Neolithic Jonstorp sites I suggest that this is a process much longer than proposed before, a continuing process. The sites on the Kullen post-glacial island imply that life-ways were dependent on the regional background. The sites at Jonstorp must have been special locales with their own history. In fact, they could have become persistent places, important because of their own history of use (Barton *et al.* 1995; Pollard 2000; Cummings 2003).

The materiality of the landscape was important. The material culture on the top of Kullaberg is very scattered, and the dramatic and dangerous Kullaberg has no persistent places; at least not yet discovered. Perhaps the mountain was avoided or meant for special purposes, and archaeologically hidden? The more pleasant cape at Jonstorp, the Lerhamn sites, and perhaps the cape in Höganäs had a wide-ranging view over the landscape. The Kullaberg mountain itself, but also the sites, could have been as important as built monuments. The island and the Kullaberg were a kind of material categories, through which people oriented their world. Further discussions of the character of islands, and the specific ecology and fauna assemblages, would force the interpretation of settlement patterns and the encultured landscape (Woodman 2003).

It is obvious that a long-term view of the archaeological evidence in the landscape gives perspectives on the cultural settings in the landscape. The character of the island and the Kullaberg challenges a subjective interpretation towards the existence of an encultured and cosmological landscape. Of course, my romantic views of this past island also shape my narrative of the Mesolithic and Neolithic,

and my theorizing of the terminology *site* and *settlement*.

Maybe the Kullen district is representative of our knowledge of prehistoric material cultures and sites in many regions. The archaeological dream of excavating the package of the Mesolithic versus the Neolithic is doubtless a nightmare but it is also utopian. The terms *site* and *settlement* need to be extended to include the materiality of landscape, and the history of use independent of presumed dominating subsistence strategies.

## Notes

- 1 Many thanks to Björn E. Berglund for our discussions on shoreline displacement, vegetation and settlements in connection with research for an exhibition at the museum of the Krapperup Manor.
- 2 I am very grateful for the comments on the dating of the antler axe by Eric Brinch Pedersen, Copenhagen University.
- 3 Thanks to the archaeologist Arne Sjöström I received the information about the artefacts off Ransvik, and also that the sea bed is levelled in a way that is not clear from the nautical chart.

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