In the study of the distant human past, certain events and periods have come to represent decisive passages from one human state to another. From a global perspective, the characteristic feature of the last ten thousand years is that people in different parts of the world, and at different points in time, started to grow plants and domesticate animals. The rise and dissemination of agriculture were crucial factors for the continued existence of humankind on earth.
Neolithic Diversities

Perspectives from a conference in Lund, Sweden

Editors:
Kristian Brink, Susan Hydén,
Kristina Jennbert, Lars Larsson & Deborah Olausson
Contents

Preface 7

I. PERSPECTIVES ON PEOPLE, IDENTITY AND PRACTICE

Paleodemography of maritime hunter-gatherers and the quest for forager baseline demography 11
  Torbjörn Ahlström

Neolithic depositional practices at Dösemarken – a discussion of categorization 21
  Åsa Berggren

New insights into early farming practice and diet from stable isotope analysis of crop assemblages 33
  Amy Bogaard

Growth and decline?
Population dynamics of Funnel Beaker societies in the 4th millennium BC 43
  Martin Hinz

The cultural encounters of neolithization processes 52
  Anders Högberg

A discussion of different ways to understand plurality

Creolization processes in the later south Scandinavian Neolithic 58
  Rune Iversen

An approach to cultural heterogeneity

Cultural identity?
The Middle Neolithic Pitted Ware complex in southern Scandinavia 66
  Kristina Jennbert

Agency, creolization and the transformation of tradition in the constitution of the earliest Neolithic in southern Scandinavia 75
  Mats Larsson

Animal husbandry and social identities during the Neolithic in southern Sweden 80
  Ola Magnell

The Neolithic house as a procurement, production and consumption unit 89
  The case of the Late Neolithic at Çatalhöyük
  Arkadiusz Marciniak

Burial in the Swedish-Norwegian Battle Axe Culture: questioning the myth of homogeneity 98
  Deborah Olausson

A tale of the tall 107
  A short report on stature in Late Neolithic–Early Bronze Age southern Scandinavia
  Anna Tornberg
II. PERSPECTIVES ON MONUMENTS

Frydenlund – Early Neolithic settlement and “barkaer” structures in the Sarup area

Niels H. Andersen

117

Megaliths and timber structures in northeast Scania, Sweden

Anders Edring

128

The Hamremoen enclosure in southeastern Norway

An exotic glimpse into the process of Neolithization

Håkon Glørstad and Steinar Solheim

139

Occupy time!

The construction of design and monuments in Tiefstich central Europe

Johannes Müller

153

Transforming place and architecture through cremation

Cremation traditions at the third millennium BC monument complex at Forteviot, central Scotland

Gordon Noble and Kenneth Brophy

164

The proper way of dwelling at the Early Neolithic gathering site of Almhov in Scania, Sweden

Elisabeth Rudebeck and Stella Macheridis

173

The diversity of settings

Ritual and social aspects of tradition and innovation in megalithic landscapes

Almut Schülke

188

News from Frälsegården

Aspects of Neolithic burial practices

Karl-Göran Sjögren

200

III. PERSPECTIVES ON MATERIAL CULTURE

An ABC of lithic arrowheads

A case study from southeastern France

Kevan Edinborough, Enrico R. Crema, Tim Kerig and Stephen Shennan

213

The scent of sandstone – exploring a TRB material

Susan Hydén

224

Fragmentation during the Neolithic

Transformation and enchainment from a south Swedish perspective

Lars Larsson

233

Michelsberg and Oxie in contact next to the Baltic Sea

Doris Mischka, Georg Roth and Katrin Struckmeyer

241
Preface

In the study of the distant human past, certain events and periods have come to represent decisive passages from one human state to another. From a global perspective, the characteristic feature of the last ten thousand years is that people in different parts of the world, and at different points in time, started to grow plants and domesticate animals. The rise and dissemination of agriculture were crucial factors for the continued existence of humankind on earth. The incipient agriculture is often regarded as the very beginning of human culture, as it has traditionally been perceived in western historiography, that is, as control over nature and the “cultivation” of intellectual abilities.

As a result of the increasing national and international interest in the northern European Neolithic (4000–2000 BC), combined with large-scale archaeological excavations which helped to nuance and modify the picture of the period, senior researchers and research students formed a Neolithic group in 2010. The Department of Archaeology and Ancient History at Lund University served as the base, but the group also included collaborators from Linnaeus University and Södertörn University, and from the Southern Contract Archaeology Division of the National Heritage Board in Lund and Sydsvensk Arkeologi in Malmö and Kristianstad.

Meetings and excursions in the following two years resulted in the holding of an international conference in Lund in May 2013 entitled “What’s New in the Neolithic”. Invitations to this conference were sent to two dozen prominent Neolithic scholars from northern and central Europe.

The conference was a great success, with presentations and discussions of different aspects of innovative research on the Neolithic. The members of the Neolithic group took an active part in the discussions following the presentations.

It was decided before the conference that the papers would be published. The members of the Neolithic group also had the opportunity to contribute current research to this publication.

After the conference an editorial group was set up, consisting of Dr Kristian Brink, PhD student Susan Hydén, Professor Kristina Jennbert, Professor Lars Larsson and Professor Deborah Olausson.

A grant was received from Riksbankens Jubileumsfond for the meetings and excursions of the Neolithic group 2010–2013. We would like to thank The Royal Swedish Academy of Letters, History and Antiquities and Berit Wallenbergs Stiftelse for grants which enabled us to hold the conference “What’s New in the Neolithic”. Grants from The Royal Swedish Academy of Letters, History and Antiquities, and Stiftelsen Elisabeth Rausings Minnesfond financed the layout and printing of this publication.
II. PERSPECTIVES ON MONUMENTS
Megaliths and timber structures in northeast Scania, Sweden

Anders Edring

Abstract

In 2010 an area with several megalithic monuments and timber structures was excavated on the Kristianstad plain in northeast Scania. The stone and timber structures were part of a large Neolithic burial site located at the edge of a large ridge. The architectural design of the site shows that the structures had been spatially separated, which can be seen as an indication of diverse functionality. It is suggested that different generations of timber structures evolved from single structures and semicircles into more traditional timber circles during the Neolithic. The site of Skepparslöv is seen as a miniature of a larger Neolithic landscape where activities of ritual character were closely connected to natural features in the surrounding landscape.

Introduction

The landscape of northeast Scania, in the southern part of Sweden, is characterized by a plain with several lakes and rivers. Large ridges and highland areas to the north and south delimit the area. A number of hills of bedrock are significant features in the landscape, and large stones and boulders cover the hillsides and the hills of bedrock. During thousands of years the transgressions and regressions of the Baltic Sea have made a significant impact on the landscape. In the Neolithic period the sea rose approximately 5–7 metres above the present sea level and a large bay divided the plain. Modern agriculture and drainage projects during the nineteenth and twentieth centuries have changed the landscape dramatically.

The Kristianstad plain has shown that the Neolithic monuments are situated below the ridges and the bedrock hills (Edring 2005).

In 2010 an archaeological excavation took place on the slopes of the Nävlinge ridge (Edring 2011). This archaeological site, Skepparslöv, is situated immediately below the ridge, in an area with several megalithic monuments.

The megaliths

The megaliths were situated along the slope of the ridge (Fig. 1). Stones and impressions of removed stones were frequent in the area. The first construction to be located and excavated was a stone circle with a central large boulder which had traces of modern breakage. The stone circle was about ten metres in diameter. Most of the stones were preserved and traces of the missing stones were clearly visible. Imprints of larger stones were documented and a segment of smaller stones was interpreted as the preserved
parts of a floor in a megalithic chamber. Several stones and traces of removed stones, forming a north–south orientated rectangular structure (36 x 12 metres), surrounded the chamber and the stone circle.

Thirty metres to the south, a second accumulation of stones was detected. This structure was orientated east–west and had a rectangular form. The length was approximately 16 metres and the width 6 metres. In the centre of the structure there were some larger stones and several stone impressions.

Another megalithic structure was excavated in the northern part of the area. This rectangular structure stretched outside the excavation area and was destroyed during the building of a road over 50 years ago. The original length of the structure could not be established; however, it must have been at least 20 metres long and 13 metres wide. The remaining parts of the structure consisted of larger stones at the edges and in the centre of the structure. After the removal of a foot of shifting sand, an accumulation of smaller stones was discovered. In this area three large stone impressions were documented, possibly traces of a megalithic chamber.

The three megalithic structures were all rectangular. All three constructions had large stones or clearly visible traces of removed stones in their central parts. The meagre amount of artefacts and the absence of burials were common features in all three features. The shape of the structures, the construction of large stones in the central part and the artefacts, although
scarce, indicate that the megalithic structures were the remains of dolmens.

An enclosure and a fen
South of the megalithic structures, several man-sized pits were arranged in two parallel rows, forming an oblong arch-like shape (Fig. 2). Soil and charcoal samples were collected from the features, and an analysis of charcoal of pine-tree from one of the pits was dated to 7906±98 BP (Ua-42084, 7100–6500 2σ cal. BC). This result does not correlate with the Early Neolithic pottery found in the pits. The pits had been dug at the foot of the ridge and they seemed to follow the outline of the rectangular stone structure of the dolmens.

Soil studies revealed that the pits almost exactly surrounded an area with clayey soil. There were some small accumulations of occupation deposits, pits and postholes in the enclosed area, but these features did not seem to form any recognizable pattern. The excavation of the layers and the pits did not result in any artefacts or other materials that gave any clues as to what kind of activity took place within the enclosed area.

To the east there was a large dried-up fen where a part of a burnt flint axe indicated ritual activities in and around the fen.

Fig. 2. The enclosure, the megaliths and the fen in area 1. Note the two rows of pits enclosing the area with clayey soil.
Timber structures

Approximately one hundred metres south of the megalithic structures, a number of large pits and postholes were concentrated in two small areas with sandy soils (Fig. 3). In the eastern part there was an oval area with occupation deposits. An analysis of the flint technology found in the deposits shows that it can be dated to the Early or Middle Neolithic (Högberg 2011). The flint material corresponds well with the pottery that dates to the Early Neolithic or the transition between the Early and the Middle Neolithic. Bones from the deposit were scarce and mostly burnt, but the few identified fragments are from cattle and sheep/goat/roe deer (Boëthius 2010).

Soil samples were analysed from the deposits and a carbonized hazelnut was dated to 4761±36 BP (Ua-42086, 3640–3380 2σ cal. BC) and a piece of charcoal of hazel from the bottom of the deposit was dated to 8207±56 BP (Ua-42091, 7450–7060 2σ cal. BC).

When the layers had been removed, several postholes became visible. They formed a pattern similar to an Early Neolithic type of house called “Mossby houses”. These houses were two-aisled structures with two to eight roof-bearing posts (Artursson et al. 2003, p. 116). The posts in the walls formed an oval structure with a length that varied from 9 to 18 metres and a width varying from 4 to 7.5 metres. There are some differences in the pro-
portions between Mossby houses and the current structure. Unlike the Mossby houses, the latter had been recessed into the ground in a large pit or a natural recessed area. Outlining the central timber structure (that of the shape of a Mossby house), there were some postholes forming a larger oval structure. These posts symmetrical position indicates that they are part of a construction coherent with the central timber structure.

Forty metres to the west of the recessed timber structure, in another sandy part of the area, there were several oval pits and postholes. One of the pits, 2 x 2.8 metres in size, was surrounded by several postholes. In the centre of the pit, below 0.5 metres of filling, was a posthole with a depth of 0.3 metres. A polished flint flake and an Early or Middle Neolithic pottery sherd were found in the pit.

A similar structure was discovered ten metres to the south. This pit was 1.7 x 2.3 metres in size and surrounded by six postholes forming a rectangular structure. Several sherds decorated with vertical or horizontal lines of two-ply cord, dated to the Early Neolithic, and parts of a polished flint axe or chisel were found in the pit. In the bottom of the pit there was a posthole with an impression of a pointed pole. The pole penetrated layers of sand deep into the ground before reaching more stable clayey soil. The depth of the posthole suggests that the pole must have been of considerable height. A hypothesis is that the pits in these two features were dug in order to raise large timber-poles.

The flint from these two “post pits” consisted of two types of flint—one local type (Kristianstad flint) and one that was imported from the southern part of Scania or Denmark (Sennonian flint). The pits contained both types of flint, but one contained some polished pieces of flint and the other burnt flints. There were also some pieces of red flate stones in both pits. These red stones had been processed, but they were not tools or implements of production (Högberg 2011). A similar red stone was found in one of the other “post pits” in the semicircle. This other pit contained only single sherds of undecorated pottery and five of the eight pits contained burnt pieces of flint.

Soil samples from the fillings of the pit and from one posthole belonging to the structure were analysed. Charcoal of ash-tree from the filling was dated to 491 ± 33 BP (Ua-42094, 3770–3640 20 cal. BC) and a charred grain of naked barley (*Hordeum vulgare var. nudum*) from the posthole was dated to 4719 ± 31 BP (Ua-42090, 3640–3370 20 BC cal.). Charcoal of birch from one of the pits, interpreted as a large posthole, was dated to 5534 ± 44 BP (Ua-42088, 4460–4270 20 BC cal.).

The two first samples correlate with the pottery in the pits and with the results of the radiocarbon analyses from the recessed timber
structure to the east (4761±36 BP, Ua-42086, 3640–3380 2σ cal. BC), but also from a sample from the pit in one of the timber structures (4681±33 BP, Ua-42092, 3630–3360 2σ cal. BC). Though the radiocarbon datings from the site show that a Mesolithic “breeze” is continuously present, there are no artefacts or settlements known at the site or from the surrounding area. Most of the radiocarbon dates, the pottery and the worked flint indicate, however, that the semicircle dates to the Early Neolithic.

The architectural setting of the site

The archaeological remains of the megaliths and timber structures are a part of a larger Neolithic burial site. The existence of megalithic monuments in the area has been known for quite some time and in the 1940s, a passage-grave and a cist were excavated only a hundred metres to the north (Bagge & Kaelas 1952; Magnusson 1947).

In a meadow southwest of the excavated dolmens, there is a visible dolmen. The dolmen was built a few metres from a large boulder with several glacial potholes. Large stones, boulders and areas with outcrop dominate the hillsides of the Nävlinge ridge and some of the boulders have potholes.

Looking at the architectural design in a larger perspective, it is clear that the megalithic structures had been placed in an arched line below the Nävlinge ridge. The chamber of the passage-grave and two of the chambers of the excavated dolmens are aligned. This is probably not a coincidence, but not all the megalithic structures in the area correspond to this pattern. Below the ridge and the megaliths there is an area with dried-up fens and a number of pits and postholes. Two rows of pits enclosed an area of clayey soil. There are Neolithic sites in the south of Scandinavia with similar structures of pits and ditches (Larsson 1982; Andersen 1997; Thörn 2007). These sites have primarily been interpreted as gathering places with ceremonial functions or as places to prepare the dead before burial in megalithic tombs (Andersen 1997, p. 309; Svensson 2004, p. 224). On these sites there are also remains of what can be described as regular settlement activities, but also of activities of more ceremonial character (Nielsen 1999, p. 153 ff.; Svensson 2004, pp. 226 ff.). These sites could have been multifunctional, and were probably used for economic, administrative, social and spiritual purposes (Andersson 2003, p. 46).

There are only a few artefacts that can be used for interpreting the activities that took place at the site of Skepparslöv. A fragment of a burnt flint axe and potsherds deposited in the former fen indicate ritual activities. Axes or parts of axes and pottery deposited in fens and bogs are generally interpreted as evidence of ritual activities (see Karsten 1994; Kock 1998; Berggren 2007). Fragments of burnt axes are also a common feature in Neolithic ritual contexts (see Larsson 1989).

The timber structures were located between the excavated dolmens and the preserved dolmen in the meadow. It is likely that the timber structures were related to the megalithic structures and that they were significant features of the Neolithic burial site. The spatial separation of monumental structures, those built of stone and those built of timber, was most probably intentional, indicating areas with diverse function. It can be questioned, however, whether the semicircle at Skepparslöv was a timber circle of the same type as those excavated in the British Isles, Germany and the Netherlands (see Bradley 1998; Thomas 1999; Gibson 2005). There are, however, some Scandinavian examples of timber circles on the sites of Vasagård, Risbebjerg and Grodbygård on Bornholm, Denmark (Nielsen 1999; Thörn 2007). These structures are connected to activities dated to the later part of the Middle Neolithic A. Similar circles have been excavated at
Fjälkinge, ten kilometres east of Skepparslöv (Edring 2005). Of the three timber circles at Fjälkinge, the largest was ten metres in diameter and the two smaller five metres (Fig. 4). These timber circles, like those on Bornholm, are dated to the later part of the Middle Neolithic A (Edring 2005). One interesting observation is that the remains of what was interpreted as a dolmen were excavated eighty metres northeast of the timber circles at Fjälkinge. Another interesting observation is that an enclosure of Sarup type was discovered within one hundred metres northeast of the circular timber structures at Vasagård on Bornholm (Kaul et al. 2002). In contrast to the timber circles on Bornholm and at Fjälkinge, the semicircle at Skepparslöv is dated to the Early Neolithic.

The single post-pits surrounded by postholes in Skepparslöv could have been contemporary with the semicircle, but they could also represent another phase of the timber monuments. The single posts in the semicircle could have been erected separately, but with the purpose of creating a complete construction. Maybe we are looking at different generations of timber structures that evolved from single structures and semicircles into more traditional timber circles during the Neolithic.

The recessed timber structure forty metres to the east of the semicircle has some similarities to Early Neolithic houses, and the artefacts found in the structure can be described as a material that is normally found on Neolithic settlements. Activities on and around

Fig. 4. The timber circles at Fjälkinge.
a Neolithic burial site would normally have gathered a lot of people. The recessed structure may have been used as a temporary dwelling, but it could also have played a part in ceremonial practices in connection with burials or commemorations.

The timber structures, the megalithic structures and the pits that formed the enclosure could have existed simultaneously. The decorated pottery and most of the radiocarbon dates from the timber structures indicate the same date. The same types of decorated pots- herds were also found in a couple of pits of the enclosure. That the two rows of pits in the enclosure seemed to follow the outline of the rectangular shapes of the megalithic structures is an indication that they were dug with this relationship in mind. The absence of artefacts and material suitable for radiocarbon dating in the three dolmens excludes an interpretation of the temporal relation between them and the enclosure. However, dolmens were generally built during the late part of the Early Neolithic or in the first part of the Middle Neolithic period.
The Neolithic landscape of the Kristianstad plain

During the Neolithic period a bay covered large parts of the Kristianstad plain (Fig. 5). The Neolithic burial site at Skepparslöv was situated between the Nävlinge ridge and the bay. Studies of the geographical distribution of megalithic monuments have shown that they were often sited along communication routes, e.g. rivers or streams (Tilley 1994, Parker Pearson et al. 2007). From the Skepparslöv site and along the ridge north there are two other dolmens.

About one kilometre to the east there are several megalithic monuments on the other side of the bay in the Fjälkinge area. The area of Fjälkinge was part of a large island, separated from the mainland by the bay and large adjacent lakes in the north. The Skepparslöv site was strategically located for passages to the north, along the ridge, and to the east, across the bay to the island.

Studying the location of dolmens and passage-graves, Neolithic stray finds, settlements and ritual depositions on the Kristianstad plain, we see that they are predominantly concentrated to four areas: Skepparslöv, Fjälkinge, Råbelöv and Kiaby (Edring 2005). Among these areas the Fjälkinge area is the one with the most numerous Neolithic remains. The site with the three timber circles and the remains of a dolmen has already been mentioned, but there are also two other dolmens and at least three passage-graves in the area. The passage-graves are situated below a large hill of bedrock that is a significant feature on the Kristianstad plain. This hill was located in the centre of the island.

The high status of the Fjälkinge area is clearly shown by the concentration of Early and Middle Neolithic copper flat axes (Larsson 1984, p. 245). Most of these axes have been interpreted as ritual deposits (Oldeberg 1974; Karsten 1994; Klassen 2000). Two of the axes were found on the southern slope of the hill-side close to a large boulder, between the passage-graves and the hill. On the hillsides are several boulders and some of them have glacial potholes. Due to glacial activity some boulders have been placed on top of each other, and this makes them similar to dolmens. This phenomenon of rock formations and boulders with a strong resemblance to megalithic tombs and their connection to Neolithic sites has previously been noted at sites in the British Isles (Bradley 2000, p. 109).

Below another large hill of bedrock in the area of Råbelöv, northeast of Fjälkinge, there are three megalithic monuments, two dolmens and a passage-grave (Bagge & Kaelas 1952; Edring 2005). In the area there is a large farm, and about 70 thin-butted flint and stone axes have been recovered in the process of agricultural work on the estate. On the hills, as in Skepparslöv and Fjälkinge, there are large boulders on the hillsides. A couple of kilometres to the north of Fjälkinge, in the Kiaby area, several Neolithic sites have been excavated. Sherds from pedestal bowls were discovered on one of the sites; the pedestalled bowl is a type of vessel that is primarily found in and around megalithic tombs. North of these sites there is a hill of bedrock with several large boulders and rock formations. In the area between the Neolithic sites and the hill there is a bog and some old fens – previously parts of the great lakes in the area – where several thin-butted axes have been discovered. The connection between ritual deposits and water, islands, hills and megalithic structures has been noted in Denmark (Koch 1998). Koch’s study of Neolithic pottery from Danish bogs has showed that the deposited pots were often placed close to the shore in what was open water at the time, often where a stream entered a lake or where two watercourses met (Koch 1998, p. 171; Bradley 2000, p. 61). A number of the bog pots in present-day Denmark were found directly opposite some prominent islets or hills, and
there were also megalithic tombs in the same area (Koch 1998, p. 171).

The concentration of megalithic tombs below the hills of bedrock, the ritual deposits in bogs and beside large boulders close to these sites, sometimes between the megalithic structures and the hills, form a pattern. On the Kristianstad plain the hills clearly had a central significance to the people during the Early and Middle Neolithic period, perhaps as places signifying the coming together of heaven and earth. As a miniature of the larger Neolithic landscape on the Kristianstad plain, the megaliths, the timber structures and the enclosure at the site of Skepparslöv have been organized in relation to the hill and its natural features. Activities of ritual character connected to burial ceremonies took place at the timber structures, the megalithic tombs and the enclosure and in the fens. The connection between natural features and monuments is important for our perception of both individual sites and the surrounding landscape.

References

Andersen, N. H. 1997. 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. Sarup vol. 1. Moesgaard.


