Late Neolithic burial practice on the Island of Öland, southeast Sweden

Ludvig Papmehl-Dufay, Kalmar County Museum/Linnaeus Universitet

Abstract - This paper deals with Late Neolithic burials found on the Swedish Island of Öland in the Baltic Sea. A brief review of the hitherto known burials from this period on the Island is followed by the presentation of a recent find at Björnhovda, southwest Öland. Here at least one, and possibly as many as five, Late Neolithic traces of burials were found and excavated during autumn 2008. The site is presented in some detail, and these burials are compared to evidences presented in the brief review of Late Neolithic burial practices on Öland. In conclusion it is shown that burial customs during the Late Neolithic were greatly varied in this area, although a number of features can be identified which appear in the majority of the burials and thus possibly indicate some form of common customs.

Introduction

The Island of Öland is the second largest of the Swedish islands in the Baltic (Figure 1). The bedrock consists mainly of Ordovician limestone, the topography is level and the highest point is around 58 m above present sea level. The Island is extremely rich in terms of prehistoric archaeological remains, consisting of visible monuments and sites as well as stray finds of prehistoric artefacts from all periods. The research to date has mainly concerned settlements and burials from the Iron Age, and until recently the Island’s Stone Age was sparsely known. A large-scale field survey, conducted in the mid 1990s, resulted in a vast increase of recorded Stone Age sites, and today a wealth of sites are known along the coasts of the Island. Few of the sites have been excavated and thus our knowledge of this period is still limited. However, in recent years, research interest in Stone Age remains has increased, as has the number of excavated Stone Age sites. During the last three years, contract archaeology in the region has carried out several small-scale excavations on Neolithic sites of various types (Papmehl-Dufay 2008a, 2008b, 2008c, 2009a, 2009b; Alexandersson & Papmehl-Dufay 2009). In addition, several studies analysing prehistoric skeletal remains have been carried out in which aDNA and stable isotopes have played a key role (Kanstrup 2004, Eriksson et al. 2008, Linderholm 2008). This has increased our knowledge of the earliest settlers on the Island, but it is evident that more research is needed. This paper deals with one of the Stone Age sites, a Late Neolithic (LN) grave field at Björnhovda, excavated in August and November 2008 (Papmehl-Dufay 2009a).
Öland in the Late Neolithic

The LN on Öland has never been subject to a thorough analysis, although a few studies exist. Nils Åberg’s study of the prehistory of Kalmar County from early 20th century (1913, 1923) includes stray finds from all phases of the Stone Age. Based on the distribution and typology of various Stone Age implements, his aim was to describe and understand the development of settlement and demography in the area. From the distribution maps showing finds of simple shafthole axes and flint daggers (Åberg 1923 plate V), it seems the central parts of Öland, from the parishes of Torslunda and Gårdby in the south to Köping in the north, have constituted a central area of settlement during the LN.

Åberg’s maps were based solely on reported stray finds and those from large private collections, and thus several source critical factors need to be considered in the evaluation of the artefact distributions. Still, subsequent studies have more or less confirmed the existence of the above mentioned core area, with the extension towards the south to

Figure 1. The Island of Öland and the neighbouring mainland, with sites mentioned in the text indicated. 1) Björnhovda, 2) Gettlinge, 3) Lilla Smedby, 4) Mysinge, 5) Vickleby, 6) Karlevi, 7) Torsborg, 8) Törnbotten, 9) Algutsrum, 10) Strandtorp, 11) Tryggestad, 12) Kalleguta.
include the parishes of Vickleby and Resmo (Gurstad-Nilsson 2001a). Concerning the northern parts of the Island, one must bear in mind that large parts were still submerged during the Neolithic (Svensson 2001). An analysis of the digitalised data found in the National Record of Ancient Sites and Monuments (FMIS) reveals a similar pattern as above concerning LN sites.

In a study of diet on Öland during the LN, Marie Kanstrup carried out stable isotope analyses \((^{13}C, ^{15}N)\) on human skeletal remains from a number of burial contexts (Kanstrup 2004). Bones from the burial sites at Algutsrum, Kalleguta, Karlevi, Strandtorp, Torsborg, Tryggestad and Vickleby were included in the study, and these sites are presented in some detail below. The aim of the study was to investigate the dietary habits of the LN population on the Island to discuss diet and food as expressions of cultural identity. The results indicated, among other things, that despite the insular geographic setting, the subsistence during the LN was based mainly on terrestrial resources, with a limited influx of marine protein. This was interpreted as a reliance on agricultural products and domesticated animals in combination with limited fishing and hunting. Subsequent studies on Neolithic diet on Öland by Eriksson et al (2008) have also included Middle Neolithic individuals from burials in Funnel Beaker (TRB) and Pitted Ware (PWC) contexts respectively. The results presented by Eriksson et al indicate that the predominance of terrestrial resources in the diet, as suggested by Kanstrup’s study, in fact is a novelty of the LN. Analysed human skeletal remains associated with the Funnel Beaker culture (TRB) show a mixture of marine and terrestrial resources, and the individuals from the Pitted Ware culture (PWC) display values that give testimony to a completely marine-oriented diet and lifestyle (see also Papmehl-Dufay 2006). Thus, these studies suggest that the shift to a Neolithic economy occurred on Öland at the onset of the LN phase.

**Late Neolithic burials on Öland**

The classical LN grave form in southern Sweden is the gallery grave or “stone cist”, a specific type of megalithic tomb that appears in large numbers from Scania in the south to Medelpad in the north and date to the LN and Early Bronze Age (EBA) (e.g. Weiler 1994; Holm et al 1997; Heimann 2004; Forsman 2007). The stone cists are usually situated in a stone setting, and they are generally considered as collective burials with deposition in the chamber of large amounts of human and faunal skeletal remains as well as objects of LN character. Typical stone cist artefacts include flint daggers, flint sickles, bifacial flint arrowheads, slate pendants, shaft-hole axes and bone implements (Stensköld 2004). The stone cists have played an important role in the archaeological understanding of the chronology and social development of the LN in southern Sweden. They are not the only type of LN burials occurring in the area, however, and in recent years it has become increasingly apparent that burial customs in southern and central Sweden during this period varied greatly (Forsman 2007: 395pp). Alongside collective burials in stone cists, cremations as well as individual earth graves have been widely practiced. Espe-
cially in southernmost Sweden, the latter form appears to have been more common than previously thought (Stensköld 2004: 137; Forsman 2007: 396). Regional customs seem to vary greatly, and outside Scania the individual earth graves thus far are few.

The varied nature of LN burial practice is equally apparent when considering the known data from the Island of Öland. A problematic factor is that burials in stone cists were very common on the Island during the Iron Age, and thus detection of LN stone cists among the hundreds of Iron Age cists is not an easy task. The compilation presented in table 1, and in the text below on LN stone cist burials on Öland, has been collected from published and archive data, and in some cases data from FMIS (the National Record of Ancient Sites and Monuments) has been used. Additional burials from the LN may be “hidden” among the hundreds of excavated Iron Age burials from the Island, and my study presented below should be seen as an initial review of the known data. For further details with illustrations see the excavation report from the Björnhovda site (Papmehl-Dufay 2009a). The sites mentioned in the text are indicated in figure 1.

The Sites

The Torsborg site was discovered and excavated in the 1950s (Petersson 1956). The site was heavily damaged by gravel quarrying, and the eight recorded burials have probably originally been accompanied by additional graves. Seven are interpreted as stone cists burials, and one is described as an inhumation in crouched position covered by limestone slabs. Unfortunately this grave lacks finds, and its date remains unclear. The number of buried individuals at this site has not been clearly established, but it is indicated that several of the graves contain the skeletal remains of a number of individuals spanning over an extended chronological sequence. The majority of the graves at Torsborg indicate dates to the late Middle and LN, although the site has been used for burials throughout the Bronze Age and even during the Iron Age. Of the 16 dates available from Torsborg, only four show dates from the LN time frame (Eriksson et al 2008: table 5). However, the majority of the finds from the graves are typical of the LN and include cylindrical amber beads, tooth pendants, a slate pendant, a bone pin and two bone points. The Middle Neolithic burials at Torsborg are of particular scientific interest, since they connect with the Battle Axe culture both in chronology and artefacts. Bones from this site have been included in studies of LN diet (Kanstrup 2004; Eriksson et al 2008).

The Kalleguta grave was found and excavated in 1975 (Schulze 1980). The initial aim was to excavate an Iron Age stone setting, but the Iron Age cremation layer was found to be superimposed on a damaged LN stone cist containing two individuals. The artefacts found in the stone cist include flint flakes, fragments of resin, bone pins, bone beads and fragments of pottery. Bones from this site have also been included in studies on LN diet (Kanstrup 2004; Eriksson et al 2008), and in connection to these studies one of the buried individuals has been $^{14}$C-dated to the LN c. 2200-1800 BC.
The burial at Tryggestad is poorly documented, as it was excavated already in 1894 by Hans Hildebrand. The grave was described as a stone cist of a “man’s length”, with no visible marking above ground. Two human skeletal remains were found, and except for the lower jaw bones, all bones found were reburied at the local church yard. The finds in the stone cist included a flint scraper, flint flakes and a number of oyster shells one of which showed traces of working. An attempt was made to include the jaw bones from the Tryggestad burial in the above mentioned studies on LN diet, but the bones turned out to be in a poor state of preservation and thus unfit for the analysis and no $^{14}$C-date is available from this site.

The burial at Strandtorp is situated at a site containing a large number of stone cists, most of which probably date to the Iron Age. The burial in question was excavated in the 1930s and consisted of a stone cist with finds of human skeletal remains and artefacts of LN type. The finds include a bone pendant, a bone pin and fragments of a decorated pottery vessel. Bones from the burial at Strandtorp were included in the above mentioned studies on LN diet, and the results indicated a reliance on agricultural products (Kanstrup 2004). No $^{14}$C-date was carried out on this burial, however.

In 1973 a stone cist was discovered at Vickleby on southwest Öland (Holgersson 1976). The grave contained the skeletal remains of three individuals, and the accompanying artefacts suggested a date to the LN. The finds include two bone pins, two bone points, a flint scraper, flint flakes, fragments of a decorated pottery vessel and fragments of burned clay, which originated from a wattle and daub structure. The typological dating was partly supported by a conventional $^{14}$C-date, which placed the burial at 2100-1300 BC. Recently all three individuals were AMS-dated, and the results suggest a slightly earlier time frame at c. 2300-1700 BC (Kanstrup 2004; Eriksson et al 2008). Given the individual ranges of these dates, if the three individuals were buried on the same occasion, this would have taken place in the final phase of the LN around 1900-1800 BC.

The burial at Karlevi was found in 1926 during an excavation of a severely damaged grave mound. The mound contained finds from the Bronze Age and the Iron Age, but was superimposed on Neolithic inhumations without a stone cist containing the skeletal remains of three individuals as well as a large artefact assemblage. The finds included a flint dagger, two flint spearheads, flint flakes, a disc-shaped amber bead, a perforated fossil, a bone pin, cylindrical bone beads, tooth pendants and a perforated cylindrical bone button. One of the flint spearheads was fragmented, and parts of it were mixed in the Iron Age burial context as well as in the LN burial context. An attempt was made to $^{14}$C-date bones from the original burial, but the result turned out to be Viking Age, which further points to the level of disturbance and problems with inconsistencies in the documentation of the collected material (Kanstrup 2004).

At Algutsrum on western Öland, a site consisting of some 30 burials was excavated and removed in the 1970s (Hagberg & Waern 1974; Rasch 1991). Under one of the large
stone settings, a stone cist was found containing artefacts of LN type. The finds include a bifacial flint arrowhead, flint flakes and tooth pendants. Skeletal remains of at least 16 individuals were found in the stone cist, six of which have recently been subjected to \(^{14}\)C-dating. The results indicate a range for use of the stone cist from the latest phase of the LN (two dates) through the early and middle Bronze Age, c. 1900-1000 BC (Kanstrup 2004; Eriksson et al 2008).

A site consisting of around 70 prehistoric burials was excavated in the 1950s and 1960s at Törnbotten, western Öland (Rasch 1991:169pp). The majority of the burials dated to the Iron Age, but one of the stone settings covered an earlier feature. Here, a stone paved pit c. 3 x 2 m was found containing a layer of partially burned human skeletal remains from several individuals and underneath them, an inhumation in outstretched position with the head missing. From the filling of the pit, a large artefact assemblage was recovered, indicating a LN or EBA context. The finds from the pit included flint flakes, a flint blade, bone pins, cylindrical bone buttons, a bone plate, two bifacial flint spearheads, a shaft-hole stone axe, a cylindrical bone bead, a fragment of worked antler and two copper/bronze spirals. No \(^{14}\)C-dates have been carried out from this site.

At Lilla Smedby on southwest Öland, a large Iron Age cemetery has been subjected to archaeological excavations on several occasions (Schulze 2001). A large portion of the graves consists of stone cists, and the majority of the c 130 investigated graves show a mid-Iron Age context. One stone cist however, contained the human skeletal remains of one adult and a child and grave goods of LN type. The finds include a flint flake, three tooth pendants and two bone pins. No \(^{14}\)C-dates are available from this burial.

Gettlinge on southwest Öland hosts one of the largest Iron Age graveyards on the Island, stretching over some 2.5 km and containing a variety of grave forms. Numerous excavations have been carried out here since the late 19th century. A majority of the investigated graves consist of inhumations in stone cists, of which the majority date to the Roman Iron Age. One of the excavated features was a mound containing two stone cists, one dating to the early Roman Iron Age and the other having a LN or Bronze Age context with finds including a tooth pendant and a flint flake (Näsman 2001: 264pp, 283). However, no \(^{14}\)C-dates have been carried out here.

In the parish of Resmo on southwest Öland, four megalithic tombs are situated, one of which was excavated in 1908 (Arne 1909). An abundance of human skeletal remains from a large number of individuals was recovered from the chamber, as well as a rich artefact assemblage indicating a chronological range spanning the Neolithic and into the Bronze Age period. Among the artefacts, finds of a fragmented flint dagger, two bifacial flint arrowheads, a bone pin, two perforated cylindrical bone buttons and a number of bone points indicate a LN or EBA context. Several of these artefacts show great similarities with objects from some of the above mentioned LN burials on the Island. Recently some 34 \(^{14}\)C-dates on human bones found in the chamber have been carried out, and the
results confirm a long term utility of the monument. Twelve of the dates show a late Early/early Middle Neolithic TRB context, another eleven indicate a late Middle Neolithic context, and an additional ten show an early to mid-Bronze Age context. One single human bone has been dated to the LN period, and in addition a bone from a sheep or a goat (Ovis/Capra) has been dated to this period as well. Several of the recovered artefacts confirm that the tomb was in use also during the LN (Gurstad-Nilsson 2001b:214; Papmehl-Dufay 2009a).

During a site evaluation at Karlevi 7:4 in 2009, a cremation pit was discovered and investigated (Alexandersson & Petersson manuscript). Apart from a small amount of cremated human and animal bones, the finds from the pit include pottery, burned clay, a fragment of worked bone, a flint flake and one bear tooth pendant. Four of the potsherds are decorated, and on stylistic grounds they indicate dates from various parts of the Middle Neolithic. At least two sherds can be attributed to the late Middle Neolithic Battle Axe culture. The tooth pendant and a cremated human skull fragment from the feature have recently been $^{14}$C-dated, and the results suggest that a certain time span is involved in the deposition of the material. The human bone was dated to the period MN B c. 2600-2100 BC, which corresponds well with the finding of the Battle Axe pottery. The tooth pendant on the other hand, was dated to the LN around 2100-1900 BC. A slight chronological overlap is indicated when calibrated by 2σ, but it seems difficult to argue that the two are contemporary, and rather a chronological sequence is suggested. However, if the dated individual relied on a marine diet, the reservoir effect would affect the outcome of the date and suggests the bear tooth and the cremation to be contemporary. Since the $^{14}$C-analysis in this case was carried out on hydroxyapatite from cremated bones and not on collagen, no data is available on $^{13}$C and the marine influx in the diet of the cremated individual. However, the presence of the Battle Axe pottery, which most probably dates to the late Middle Neolithic, could suggest that the buried individual is contemporary with the pottery, and that the bear tooth pendant is a later deposition in the grave. With this reservation, it is suggested that the cremation at Karlevi 7:4 be dated to the late Middle Neolithic or possibly the LN, but the tooth pendant clearly indicates that activities related to burials were practiced at the site during the LN. The Karlevi 7:4 site is not yet published, and information regarding its existence has kindly been offered by Per Lekberg and colleagues at Kalmar County Museum.

An emerging pattern?

What results can be drawn from the brief review presented above of LN burial sites on Öland? Are there any general spatial or structural patterns of similarities and differences to be identified? Firstly, there are several problematic issues connected to the data set that must be considered. Only a few of the burials are securely dated, and in almost all cases the connection between $^{14}$C-dates and dating using typology of artefacts is difficult to evaluate. All $^{14}$C-dates are all carried out on bone material and almost 50% of the
burials clearly contain material deposited over a long time span, often several centuries and in some cases millennia, and thus to identify the use of the site in the LN is difficult.

All of the reviewed graves seem to be single occurring features, with the possible exception of the Torsborg stone cist grave field. In several cases a grave field has subsequently evolved around what appears to be an initial burial from the LN, but so far there is no clear evidence for a true LN grave field on the Island, with the possible exception of the Torsborg site. Concerning grave forms, of the twelve sites reviewed, eight contain stone cist burials suggested to be in a LN context. The remaining four include one passage tomb, two earth burials covered by subsequent grave structures and one cremation burial under level ground. This is in line with the general variation in LN burial customs mentioned above. Stone cists are the most commonly observed LN grave form on the Island, but they are also the easiest to find and identify. Inhumations and cremations, which are dug down without any visible structures on the surface (at least not visible today) are found more by chance, and thus it is difficult at present to draw any far reaching conclusions concerning the relative abundance of the various burial customs during the LN on Öland.

In the cases where osteological data is available, the stone cists generally seem to contain the skeletal remains of 1-3 individuals. The exception is the site Algutsrum where the stone cist contained the remains of 16 individuals; however, a large portion of them probably date from subsequent periods, and of the six dates available only two indicate a LN context. Thus, stone cists during the LN on Öland seem to have been used for burials of one, two or in some cases three individuals. A similar pattern is suggested for the other types of burials. The rather peculiar burial at Törnbotten contained an unknown number of individuals, although the occurrence of a single inhumation at the bottom of the feature, and a layer of partially burned human bones above it, may suggest that LN use also in this case involved only one or a few buried individuals. This is perhaps also supported by the artefact assemblage from the feature, including two copper/bronze spirals.

Among the artefact assemblages from the burials, no detailed analysis can be presented at this time, but some observations are worth mentioning. Flint is present in some form in ten of the twelve reviewed graves. Daggers, spearheads and/or arrowheads are present in four of the graves. Flint sickles are completely absent from the burials so far. Thus, daggers and other bifacial flint tools do not seem to have been standard burial gifts, despite the fact that they are common as stray finds on the Island (Åberg 1923; Gurstad-Nilsson 2001b). Another observation of importance in the present context (see below) is that only one of the graves contained a stone axe. Artefacts made from bone, teeth or shells are however present in all burials. Considering the limestone bedrock and the calcareous soil on the Island this might not be surprising, but there are some traits in the assemblages that call for a comment. The most striking pattern is that bone pins of similar size and fashion were found in as many as eight of the twelve graves (Figure 2). The
LN date of these pins is supported by the burials at Kalleguta and Vickleby. They contain a pin each, both lack evidence for use in later periods, and both are dated to the LN through \(^{14}\)C-analysis of human bones. Tooth pendants and perforated cylindrical bone buttons are also common, the former occurring in six and the latter in three of the graves. Here the date is somewhat more difficult to establish, however, and it cannot be ruled out that the bone buttons date to the Bronze Age. Tooth pendants occur in graves from all parts of the Stone Age on the Island (e.g. Papmehl-Dufay 2006).

With the background of LN burial customs on Öland generated by the above review, I now turn to the site Björnhovda which was found and excavated in 2008. The results from these excavations fit well into the discussion on burial practice during the LN on the Island as well as the issues of variability and visibility. The information presented below is a summary from the excavation report, which was originally published in Swedish (Papmehl-Dufay 2009a).

**The Björnhovda site**

The village of Björnhovda is situated in the eastern part of the small town of Färjestaden, on western Öland, southeast Sweden (see fig 1 above). From its establishment in the middle Iron Age and up to the 15\(^{th}\) century, the village was located c. 1 km to the east on the crest of the so-called West escarpment, which is the highest elevated topographic feature in the otherwise level Öland landscape (Göransson 1968). At the site of the Iron Age
village of Björnhovda, several high-quality prestige artefacts have been found such as a hoard of Roman gold coins and four bronze figure-plates. It has also been suggested that this is the original find spot of the famous gold collar of Torslunda, but this is not certain since there is no record of where it was actually found (Söderström & Papmehl-Dufay 2009). In the area around the present day village of Björnhovda, a number of Stone Age artefacts have been found, which indicate that several settlement sites from the Neolithic in particular are located in the region.

Due to the planned construction of a number of new houses, an area of c. 26,500 m² situated just west of the village of Björnhovda, was subjected to an archaeological site evaluation in August 2008. The aim was to delimit and evaluate the remains of two settlement sites, previously indicated by finds of worked flint in the plough layer at this site. Both settlements turned out to be severely damaged, but in a depression in-between the two sites an additional and unusual feature was found, which lead to further archaeological excavation of the site in November and early December 2008.

**Burial 1**

Just beneath the plough layer in the central lowermost part of the investigation area, two stone axe heads were found lying closely together (Figure 3). The position of the axes, one shaft-hole axe of LN type and one finely polished thick butted stone axe, clearly indicated an intentional deposition of some sort. At first no sunken feature was discernible in connection with the axes, but careful excavation in the area revealed a dark coloration, measuring c. 1.75 x 1.1 m, in which the axes were placed in the north-eastern end (Figure 4). The fill continued from the level of the axes and down c. 0.17 m and consisted of clayey silt rich in small fragments of charcoal. In the central part of the feature a small flake of porphyry was found, but apart from this no further artefacts were recovered from the feature and no bones were found. Despite this, the placement of the axes and the flake in connection to the dark soil led us to the interpretation that the find might represent a LN burial. In an attempt to further investigate this, phosphate samples were analysed representing a 15 cm grid covering the entire feature.

Unfortunately no distinctive patterns in soil phosphate content appeared that could be related to the function of the feature.

The shaft-hole axe is severely weathered, and from the presence of small fragments and pulverised traces of weathered rock around the axe it is clear that the weathering has taken place on site. It is known from other studies that axes found as grave goods in Neolithic burials often are heavily weathered, and usually this is explained by the effect on the rock of mortuary liquids from the dead body (von Hackwitz & Lindström 2004:22-21; Lekberg 2002:118pp). The other axe in the Björnhovda grave does not show evidence of weathering, however, despite its place only a few centimetres from the weathered shaft-hole axe. The rock types have not been analysed, but from the colour
and texture it is clear that the axes are made from different types of stone material and possibly their chemical and physical composition accounts for the apparent differences in resistance to weathering.

Figure 3. Two axes indicating a burial, Björnhovda in August 2008. Photo from the east by the author/Kalmar County Museum.

Figure 4. Burial 1 at Björnhovda as it appeared c 3 cm below the level of the axes. The two yellow sticks in the left part of the image mark the position of the axes. Photo from the north-west by the author/Kalmar County Museum.
The weathered shaft-hole axe measures 14.5 cm in its present state, and is fragmented from the drilled shaft-hole and towards the butt. The diameter of the drilled hole is 2.5 cm, and the original length of the axe is estimated to around 18-19 cm. This makes it a relatively long axe compared to finds of shaft-hole axes found in other graves, and it is also unusual to find fragmented axes in burial contexts (Lekberg 2002:129pp). It should be emphasised, however, that due to the weathering of the axe on site it is not possible in this case to establish whether the axe was deposited in a complete or a fragmented state. An argument for the former is that the “fragment” is large enough to allow for a new shaft-hole to be drilled, and the fact that this has not been attempted may suggest that the axe was complete at the time of deposition (see Lekberg 2002).

The thick-butted stone axe is well preserved and finely polished on all four sides. It measures 7.8 cm in length, 4 cm in width and 2.3 cm in thickness. The type of stone is fine grained of a greyish-blue colour. A similar axe was found in a layer of fire-cracked stone from the EBA, at Bruatorp south of Kalmar, SE Sweden (Dutra Leivas et al 2001:31).

The combination of axes suggests a date of the suggested burial to an early phase of the LN, around 2300 BC or shortly thereafter (Per Lekberg personal comment). The find is of importance to our understanding of the LN in the area, and the archaeological context of the suggested burial was regarded important to validate further. During the initial excavation in August, no clear indications of further burials were found in the area and there were practically no other features whatsoever that with any certainty could be dated to the Neolithic. Approximately 25 m north of the burial, a fragment from a flint scraper, which may be dated to the Neolithic, possibly indicated the presence of further burials in the low-lying central part of the investigation area.

**Burials (?) 2-5**

In an attempt to establish the context of the suggested burial, an additional excavation was carried out during the late autumn. An area of c. 3100 m² surrounding the burial was stripped of soil and carefully investigated. Despite difficult weather conditions, the excavation was successful as another four features were found that could be interpreted as remains from burials (Figure 5).

The grave-like features consist of elongated dark colorations in the clayey soil (Figure 6), in several cases containing a few pebble stones and fragments of charcoal, similar to the above mentioned feature, which was interpreted as the remains of grave. These additional features measured c. 1.7-3.2 x 0.7-1.1 m and they varied in depth from c. 0.15 to 0.36 m. Three of them were located c. 16-24 m south of the above mentioned burial-feature and the fourth was located c. 9 m to the northeast. All five features thus cluster in an area of c. 25 x 15 m in the central part of the investigation area, in a field situated between the two previously recorded, but heavily damaged, settlement sites. In direct
association with one of the features a posthole was found that could be interpreted as remains of a marking above ground.

Figure 5. The central part of the investigation area, with burial 1 and the possible burials 2-5 indicated.
Apart from this no indications of grave superstructures were identified. No further artefacts were found that can be securely interpreted as grave goods, although one of the features contained a large flake of porphyry, which might be interpreted as such.

It should be recalled that the axes in burial 1 were found right beneath the ploughed soil. In order to uncover and identify the faint colorations of the features during the soil stripping in November, we dug a bit deeper with the machine than was the case in August. Thus, it might well be the case that artefacts representing grave goods have been destroyed or displaced either by earlier agricultural activities or by the machine during the soil stripping. Still, the similarities in size and fill of the above mentioned features, the position relative to one another, and the presence of the suggested burial 1 are suggestive of favoring the idea that a cemetery consisting of at least 5 burials, one of which dates to an early phase of the LN, has been identified at this site.

Figure 6. One of the grave-like features at Björnhovda discovered in late autumn 2008. Photo from the northeast by the author/Kalmar County Museum.
Conclusion

The theme of this paper, LN burials on the Island of Öland, has not previously been discussed in any detail in the archaeological literature. The brief review presented above shows that several burials from the period have been identified, and also that a number of common traits and features can be identified from the current data set. Source critical factors must be considered, but with these in mind I argue that a general view be presented on some of the features of LN burial practice on the Island. It seems that the stone cists during this period did not function as communal graves in the way often seen on the mainland. Instead, the majority of them contain evidence for 1-3 individuals buried in the same grave. Also, it is clear that stone cists were not the only burial form practiced during the LN phase. Inhumations without any (as far as we know) visible markers on the surface mentioned in the review were all covered by later grave structures. It should be emphasised though that this most likely is not a defining feature of these types of burials, rather it is the reason why these particular burials were found in the first place. If anything, the suggested cemetery at Björnhovda shows that inhumations can be extremely difficult to identify if they are not tied to a stone cist context, and they are probably much more common than previously thought. This in turn means that the distribution among various LN grave types, as suggested in the review above, is most probably heavily biased towards graves with some form of visible stone structure, be it a stone cist or an overlapping Iron Age stone setting.

The classical stone cist grave goods of flint daggers and sickles are not the most commonly occurring artefacts in the reviewed Öland graves. Flint sickles are completely absent in the graves and rare in the Öland surface find collection as a whole, while daggers and spearheads have been found in large numbers spread over the Island (Figure 7). Some of these finds, as well as some of the shaft-hole axes, most probably represent LN burials that have been disturbed by agricultural or other activities. This is further suggested by the axes in burial 1 at Björnhovda, which were found right at the transition between the plough layer and the subsoil. A few more seasons of agricultural activities at the site could easily have displaced the axes, turning them from what has been interpreted as unique grave goods to anonymous surface finds.

The above review and finds at the Björnhovda site have contributed to our knowledge of burial practice on Öland in the LN and a number of new aspects can be included in the analysis. An important factor is the landscape context: the Björnhovda burials was located in a low lying field between two settlement areas in a topographic location far from what usually is regarded as the ideal site for burials. Usually we favour searching for Neolithic burials on an elevated ridge visible in the landscape. This means that if we continue to search for these types of burials only in the “ideal” locations, we run the risk of loosing vital information.
Figure 7. Map of Kalmar County, with the distribution, according to Nils Åberg, of flint daggers and bifacial spearheads (red dots) and shafthole rock axes (black dots) respectively. After Åberg 1923 plate V.
Table 1. Compilation of Late Neolithic burials on Öland. Modified after Papmehl-Dufay 2009a.

<table>
<thead>
<tr>
<th>Site</th>
<th>Grave form</th>
<th>No of graves</th>
<th>No of buried individuals</th>
<th>Artifacts</th>
<th>Typological date</th>
<th>Absolute date (14C)</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torsborg</td>
<td>7 stone cists, 1 stone packing grave</td>
<td>8</td>
<td>numerous</td>
<td>Flint flakes, flint blade, flint scraper, pottery, cylindrical amber beads, tooth pendants, slave point, bone pin, bone</td>
<td>Middle Neolithic BE to early Iron Age</td>
<td>2900-900 BC (total of 16 dates)</td>
<td>Pettersson 1956; Karstrup 2004; Eriksson et al</td>
</tr>
<tr>
<td>Kallegute</td>
<td>Stone cist covered by later stone setting</td>
<td>1</td>
<td>2</td>
<td>Flint flakes, fragments of resin, worked antler, bone pins, bone beads, bone point, pottery</td>
<td>Late Neolithic BC 2200-1800</td>
<td>2200-1800 BC (1 date)</td>
<td>Schulte 1980; Karstrup 2004; Eriksson et al</td>
</tr>
<tr>
<td>Tryggestad</td>
<td>Stone cist</td>
<td>1</td>
<td>2</td>
<td>Flint scraper, flint flakes, worked oyster shell</td>
<td>Late Neolithic -</td>
<td>SHM 9578; Arne 1909; Karstrup 2004</td>
<td>-</td>
</tr>
<tr>
<td>Strandtorp</td>
<td>Stone cist</td>
<td>1</td>
<td>unknown</td>
<td>Bone pendant, bone pin, pottery</td>
<td>Late Neolithic -</td>
<td>Karstrup 2004; Papmehl-Dufay 2009a</td>
<td>-</td>
</tr>
<tr>
<td>Vickleby</td>
<td>Stone cist</td>
<td>1</td>
<td>3</td>
<td>Bone pins, bone points, flint scraper, flint flakes, pottery, clay daub</td>
<td>Late Neolithic BC 2300-1700</td>
<td>2300-1700 BC (total of 3 dates)</td>
<td>Holgersson 1976; Karstrup 2004; Eriksson et al 2008</td>
</tr>
<tr>
<td>Karlevi</td>
<td>Flat earth inhumation covered by later mound</td>
<td>1</td>
<td>3</td>
<td>Flint dagger, flint spearheads, flint flakes, disc-shaped amber bead, perforated fossil, bone pin, cylindrical bone beads, tooth pendants, perforated cylindrical bone button</td>
<td>Late Neolithic -</td>
<td>SHM 18914; Karstrup 2004; Papmehl-Dufay 2009a</td>
<td>-</td>
</tr>
<tr>
<td>Algotrumb</td>
<td>Stone cist covered by later stone setting</td>
<td>1</td>
<td>16</td>
<td>Bifacial flint arrowhead, flint flakes, tooth pendants</td>
<td>Late Neolithic BC 1900-1000</td>
<td>1900-1000 BC (total of 6 dates)</td>
<td>Hagberg &amp; Waern 1974; Rasch 1991; Karstrup 2004; Eriksson et al 2008</td>
</tr>
<tr>
<td>Törnbotten</td>
<td>Flat earth burial covered by a later stone setting</td>
<td>1</td>
<td>several</td>
<td>Flint flakes, flint blade, bone pins, perforated cylindrical bone buttons, bone plate, bifacial flint spearheads, shaft hole, cylindrical bone bead, worked antler</td>
<td>Late Neolithic BCE to early Bronze Age</td>
<td>-</td>
<td>Rasch 1991; Papmehl-Dufay 2009a</td>
</tr>
<tr>
<td>Lilla Smedby</td>
<td>Stone cist</td>
<td>1</td>
<td>2</td>
<td>Flint flakes, tooth pendants, bone pins</td>
<td>Late Neolithic -</td>
<td>-</td>
<td>Schulze 2001; Papmehl-Dufay 2009a</td>
</tr>
<tr>
<td>Gettlinge</td>
<td>Stone cist</td>
<td>1</td>
<td>1</td>
<td>Flint flakes, tooth pendant</td>
<td>Late Neolithic -</td>
<td>-</td>
<td>Nitsman 2001; Papmehl-Dufay 2009a</td>
</tr>
<tr>
<td>Mysinge</td>
<td>Passage tomb</td>
<td>1</td>
<td>55</td>
<td>Fragment of flint dagger, bifacial flint arrowheads, bone pin, perforated cylindrical bone buttons, bone points</td>
<td>Early Neolithic to late Neolithic</td>
<td>c 3500-1000 BC (total of 94 dates)</td>
<td>Arne 1909; Eriksson et al 2008; Papmehl-Dufay 2009a</td>
</tr>
<tr>
<td>Karlevi 7-4</td>
<td>Cremation</td>
<td>1</td>
<td>unknown</td>
<td>Pottery, flint flake, worked bone, tooth pendant, hazelnut shell</td>
<td>Middle Neolithic BC 2600-1900</td>
<td>2600-1900 BC (total of 2 dates)</td>
<td>Alexandersson &amp; Pettersson</td>
</tr>
</tbody>
</table>

127
The axes in burial 1 at Björnhovda also show that surface finds of stone axes of different fashion may well derive from disturbed LN burials, which is contrary to what could be argued from the graves presented in the review. The lack of osteological remains in the Björnhovda burials shows that conditions for the preservation of bone vary on the Island and, contrary to what is often assumed, not all sites on Öland contain well preserved bone material. As a final conclusion, it can be stated that burial customs on Öland in the LN obviously varied and not all burials are marked by visible stone structures. Additional burials of various kinds will most likely be found in the future in LN contexts.

References
Åberg, N. 1913. Kalmar läns stenålder. Meddelanden från Kalmar läns fornminnesförening VI.


