

## Early Neolithic Landscape And Society In South-West Scania – New Results And Perspectives

*Magnus Andersson, Magnus Artursson and Kristian Brink*

### Abstract

The last two decades of excavations in southwest Scania, Sweden, have given substantial new results regarding Early Neolithic society (4000–3300 cal. BC). The overall aim here is to discuss and synthesize these results, and a number of important excavations are also presented in detail. The results are both on a macro scale concerning overall settlement pattern, landscape use and the scale of monumental landscapes, and on a micro scale concerning, for example, houses and huts, monumental sites and their complexity, and pits and depositional practices on different types of sites. Also, the economy of the region as well as the socio-political organization are discussed based on interpretations of the material presented.

### Introduction

The last two decades of excavations in southwest Scania, Sweden (Fig. 1), mainly conducted within developer-funded archaeology, have given substantial new results regarding society in the Early Neolithic (EN I 4000–3500 cal. BC, EN II 3500–3300 cal. BC). These results are both on a macro scale concerning settlement pattern, landscape use and the scale of monumental landscapes, and on a micro scale concerning, for example, houses and huts, monumental sites and their complexity, and pits and depositional practices on different types of sites. However, it remains to be discussed and synthesized on a regional level, which is the overall aim of this article. The EN is associated with the early Funnel Beaker culture (FBC) of southernmost Scandinavia, part of the vast area of the so-called 'TRB North Group'.

This article is the result of a large-scale developer-funded excavation. It took place in the autumn of 2013 in Östra Odarslöv on the northeastern outskirts of Lund. Here the ESS (European Spallation Source) is being built as part of a collaboration of several European countries to create a powerful new neutron source (<http://europenspallationsource.se/>). Remains of houses, huts, pits, a wooden façade with an inhumation burial, three free-standing wooden façades, a stone-built façade and three long dolmens from the EN were excavated, forming one of the largest and most complex sites of the period in southwest Scania (Brink/Larsson in press).

This article will present the Östra Odarslöv site and the results of the excavation. The excavation at Östra Odarslöv has changed the outlook on this particular part of southwest Scania as an area in between more intensely occupied zones of the region (cf. Lagergren 2012). In this respect, it is an important part of our view of EN sites, landscapes and society in the region as a whole (Fig. 2). New excavations reveal a steadily more complex and varied picture. Thus, in or-

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### Authors' addresses:

Magnus Andersson  
Magnus Artursson  
The Archaeologists  
Swedish National Historical Museums  
Odlarevägen 5  
SE-226 60 Lund  
Sweden  
Magnus.Andersson@Arkeologerna.com  
Magnus.artursson@arkeologerna.com

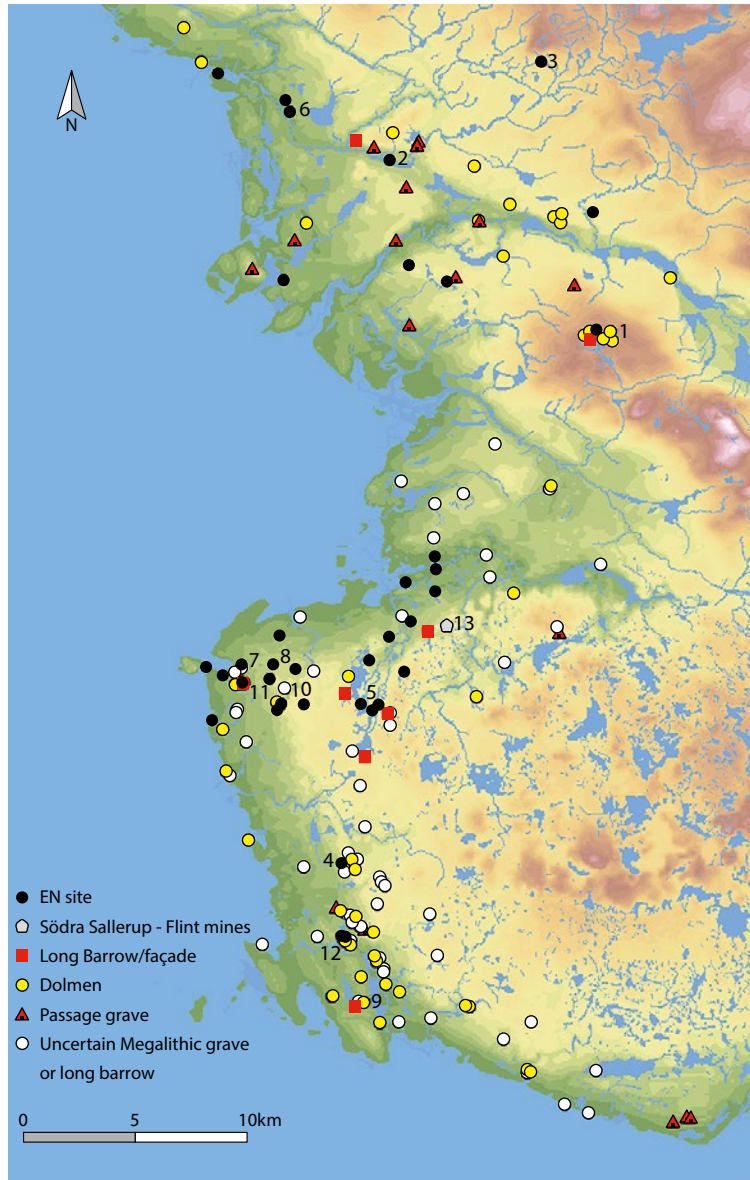
Kristian Brink  
Sydsvensk Arkeologi AB  
Erlandsrovägen 5  
SE-218 45 Vintrie  
Sweden  
kristian.brink@sydsvenskarkeologi.se

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der to understand Östra Odarslöv as part of EN society, a wider regional outlook is necessary.

The article begins with a short background on Late Mesolithic society in southern Scandinavia before turning to the EN. A general overview of landscape use in the period will initiate the discussion. The perspective presented forms a background in the following discussions on EN sites and society in the region. After this the results from a selection of sites in southwest Scania are presented, starting with the Östra Odarslöv site. The chosen objects are of course only a selection among the many EN sites in the region. They have been cho-



sen because they hold a wide range of remains of houses, huts, pit depositions and different types of monuments, thus clearly revealing the variation and complexity of the EN material. The section that follows discusses houses and huts, pits and pit depositions and monuments in various contexts in the region. The focus is on new results and perspectives regarding these phenomena. This section also considers the history of research, describing the main lines of thought in earlier interpretations as well as methodological aspects. In the final section EN society in southwest Scania is discussed as regards some aspects of Neolithization, economy and socio-political organization. Tables I–VI presenting basic information on excavated houses, huts and monuments in the region will be found in the Appendix.



Fig. 1. Southwest Scania – the region dealt with in this article – in southernmost Scandinavia.

Fig. 2. EN sites in southwest Scania referred to in the appendix. Places discussed in the text are marked with numbers: 1 Östra Odarslöv, 2 Dagstorp 19, 3 Östra Karaby, 4 Herrestorp, 5 Fosie 11D, 6 Saxtorp 23, 7 Dösemarken, 8 Hyllie, 9 Skegrie, 10 Vintrie Park, 11 Almhov, 12 Döse-rygg, 13 Södra Sallerup.

## The Late Mesolithic background 5500–4000 cal. BC

According to Brian Hayden (2014, 162–163) the introduction of agriculture cannot be considered as the major watershed in cultural evolution. Instead, the major step occurred with the appearance of transegalitarian complex hunter-gatherer societies; in general, all cultural innovations attributed to Neolithic societies actually first occurred before Neolithization. In southern Scandinavia, several traits that are usually connected with the Neolithic culture were introduced already during the Late Mesolithic Ertebølle culture.

Recent excavations of Middle and Late Mesolithic (6800–4000 cal. BC) settlements and cemeteries in the Baltic Sea region and the Öresund Strait area have shown much greater social, ideological and religious complexity than earlier models proposed. During the Late Mesolithic (5500–4000 cal. BC) a clear change in settlement organization can be seen in southern Scandinavia; the base settlements were concentrated on the coast and they got larger and more complex in structure. At the same time there was a specialization in fishing and hunting of sea mammals, which probably could support much larger, permanent concentrations of people on a yearly basis. To supplement this specialization in sea-based resources, small settlements in the inland for hunting and foraging were in use during shorter periods of the year (Brinch Petersen/Meiklejohn 2003; Karsten/Knarrström 2003; Andersson et al. 2004; Nilsson Stutz/Larsson/Zagorska 2013).

The establishment of large cemeteries placed close by the base settlements on the coast can be seen as markers of territory and as statements of long-established hereditary rights to certain regions. In the cemeteries some graves show signs of social stratification; differences in investment in burial construction and burial gifts imply the existence of an age-based hierarchy, probably based on a big-man political system. In some cases remains of standing wooden poles and small specialized buildings for ritual activities have been identified in the cemeteries, implying the existence of quite complex rituals and religious/ideological concepts (Albrethsen/Brinch Petersen 1977; Klassen 2002; Brinch Petersen/Meiklejohn 2003; Larsson, L. 1984; 1988; Karsten/Knarrström 2003; Hallgren 2011; Nilsson Stutz/Larsson/Zagorska 2013).

A regionalization of the Ertebølle culture in southern Scandinavia can be identified, probably due to a rise in population density and consequent increased competition for resources. The increasing importance of territorial aspects can be seen in a more obvious regional division in material culture, especially between the western and eastern part of southern Scandinavia, but also between local groups in the Baltic and Öresund region (Tilley 1996, 52–57; Andersen 2002, 228–229; Sørensen 2014, 110–117).

An important aspect is also the first more substantial signs of long-distance contacts: the import of shoe-last axes ('Schuhleistenkeilen'), axes made of exotic materials like jade and also some copper objects from continental Europe. The existence of these long-distance networks for the import of exotic objects could have supported an evolving prestige goods economy that formed the base for an increase in hierarchical level and the beginning of social stratification in the region, clearly seen when reaching the EN. These networks could also be the background to the first appearance of domesticates and the introduction of agriculture in southern Scandinavia, supplying people with essential know-how and the material base to change the economy as well as society (Klassen 2000; 2002; 2004; Fischer 2002; Sørensen 2014).

## The Early Neolithic landscape of southwest Scania

The EN sees a dramatic rise in the number of sites compared to the Late Mesolithic, above all in the inland, although the coast is continuously used as well. On a supra-regional scale this can possibly be seen as the result of an increase in population and exploitation of resources visible at least from 4100 cal. BC in northern Germany and from 4000 cal. BC in southern Scandinavia (Hinz et al. 2012; Sørensen 2014; Hinz 2015).

The farm inhabited by a household is a social unit found throughout the 4th millennium BC in several regions – including southwest Scania – of the large area of the FBC North Group (e.g. Larsson, M. 1992, 78–82; Andersson 2004a, 130–141; Björhem/Magnusson Staaf 2006, 117–121; Larsson/Brink 2013, 331; Müller et al. 2013, 64). Households are generally considered to have been based on multi-generational families (e.g. Larsson, M. 1992, 83, families of 8–10 people; Ebbesen 2011, 516, families of 6–7 people; see also Artursson et al. 2003, 125–126 and Ahlström 2009, 135 for a critical discussion regarding family and household). Stig Welinder (1998, 127) has defined the Neolithic farm as a group of people living in a house, relying on agriculture as a substantial part of their economy.

Although valid on a general level, this view of the farm and household runs the risk of giving a one-dimensional picture of social relations as well as of our understanding of land use in the Neolithic. The basic pattern of single farms or households is in some cases challenged by indications of more than one household living at the sites. Also, as suggested by Niels H. Andersen (2013, 119), rather than understanding a settlement or a farm as a single site – holding all activities within an easily delimited area – it means recognizing that many different activities or functions located within a larger area can be related to what we can perceive as part of a settlement or a farm. This is not to be equated with the classical economic territory of site-catchment analysis, neatly circled around a settlement. Instead it is to be perceived as an area of both economic and social importance to people, and an area of partly overlapping functions and relations of several households or farms.

The traditional categorization of sites into different functions – settlements of different temporalities, burial grounds, depositions – have also divided the landscape into functionally and spatially clearly differentiated sites. Perhaps most commonly a division into sites of domestic or ritual function has been applied. More recent discussions – in southern Scandinavia and beyond – have instead underlined the fluid or merged picture regarding use and meanings within local Neolithic sites as well as landscapes, bridging earlier more clear-cut site dichotomies (e.g. Björhem/Magnusson Staaf 2006; Hallgren 2008; Berggren 2010; Berggren/Brink 2012; Thomas 2013; Jorge 2014; Smyth 2014; Brink in press).

The merged picture regarding functions and meanings within a settled area should also be applied to aspects of social constellations, that is who participates in different activities. Current discussions on FBC use of the landscape within Scandinavian archaeology have stressed collective accessibility and movement. Groups of varying social constellations – from individual or several farms, during different periods of the year or at special events – may have used certain sites, whether seasonally used herding, hunting or fishing sites or large assembly or burial sites of importance within a wider community (e.g. Andersson 2004a; Björhem/Magnusson Staaf 2006; Rudebeck 2010; Brink in press; see also Hallgren 2008; 2013 and Carlsson 2014).



The Late Mesolithic–EN landscape seen in fig. 3 can exemplify the above perspective. This was a landscape of different and mixed activities and temporalities – a landscape of temporary, small-scale activities, a landscape of farmsteads where at least some lived and worked all year round and a landscape of large-scale burial and assembly activities of social importance far beyond the area seen in the figure. Some of the sites will be presented in more detail.

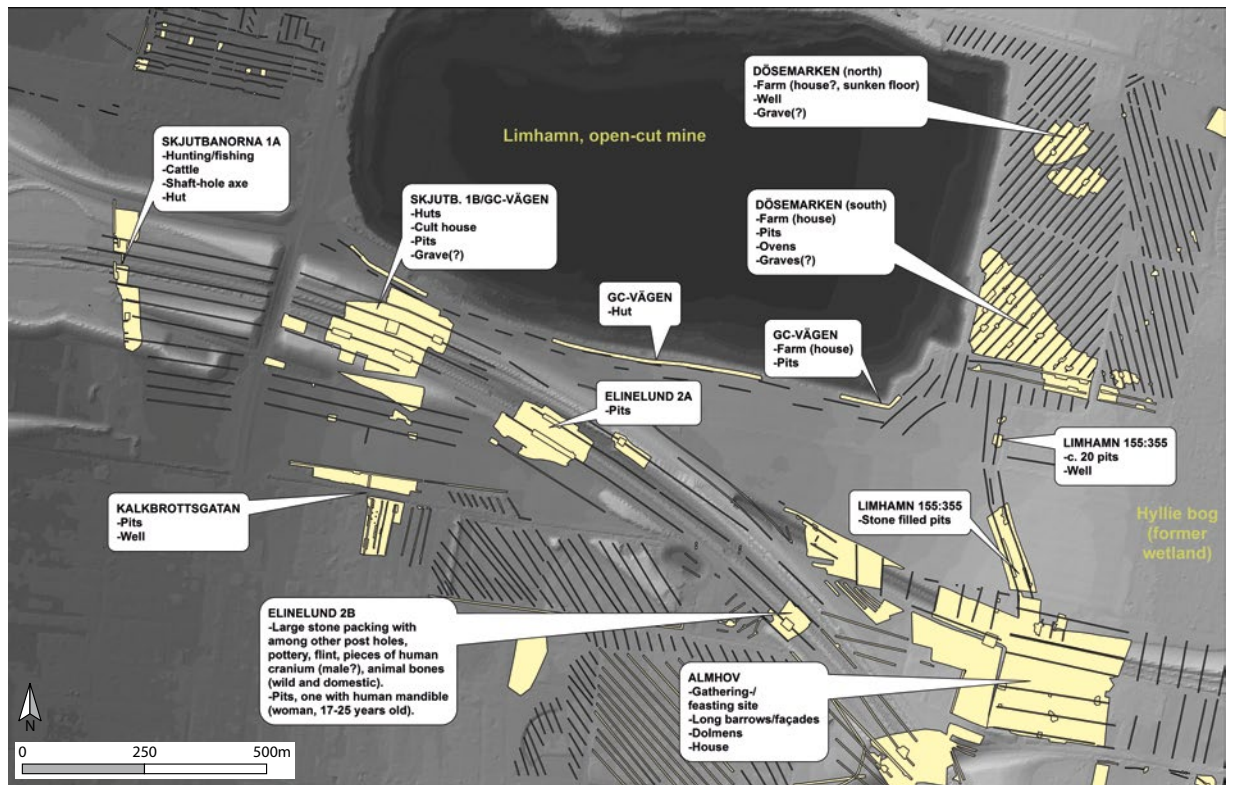


Fig. 3. The Late Mesolithic and EN–early MN II landscape of the Hyllie area, southern outskirts of Malmö, with the sites Almhov and Dösemarken to the east (approx. 12–14 metres above sea level) and the coastal sites Skjutbanorna 1A and 1B to the west (approx. 3–5 metres above sea level). All excavated areas are indicated (yellow). The site Skjutbanorna 1A is a coastal Late Mesolithic–early EN I site. Here a shaft-hole axe with traits from both shoe-last axes ('Schuhleistenkeile') and EN battle axes/flat hammer axes was found. A collection of finds from the area included a genuine shoe-last axe (Klassen/Jonsson 2000; Jonsson 2005, 66–69, plate 6–8). In the earliest part of the EN I activities at Almhov also begin. From the middle of EN I onwards the area is intensely used. Note that not every single site in the area containing FBC remains is indicated. Data from Jonsson 2005; Sarnäs/Nord Paulsson 2001; Carlson 2006; 2008; Gidlöf/Hammarstrand Dehman/Johansson 2006; Rudebeck 2010; Berggren/Brink 2012; Berggren 2013; 2015a; 2015b; Brink/Grehn 2015. Lidardata © Lantmäteriverket, I2014/00893.

## EN sites in southwest Scania – a few examples

### Östra Odarslöv

At Östra Odarslöv topsoil was removed from about 104,000 m<sup>2</sup> divided between four areas. The main area with Neolithic remains, Object 1, was about 37,000 m<sup>2</sup>. Object 1 was dominated by remains from the EN (Andersson/Artursson in press a). This site was located on sandy, gentle western slopes and strips of land, extending towards areas which in prehistoric times were wetlands. On a larger regional scale the site is located on the western tip of the Romele ridge, a large ridge stretching for about 30 km towards the southeast, and with the present-day coast line roughly 13 kilometres to the west. During the EN, the sea level was 4 m above the present level, and the site was only 8 km from the sea at this time.

Remains of fourteen huts, two longhouses, cultural layers, ovens, and various types of pits were found in the settlement area. In the southeastern part of the site the excavation documented a ritual area. Here, one wooden façade, an inhumation burial with a wooden façade, an inhumation burial without any markings above ground, a stone-built façade and three long dolmens were excavated (Fig. 4). All structures have been dated to the EN based on finds, context and

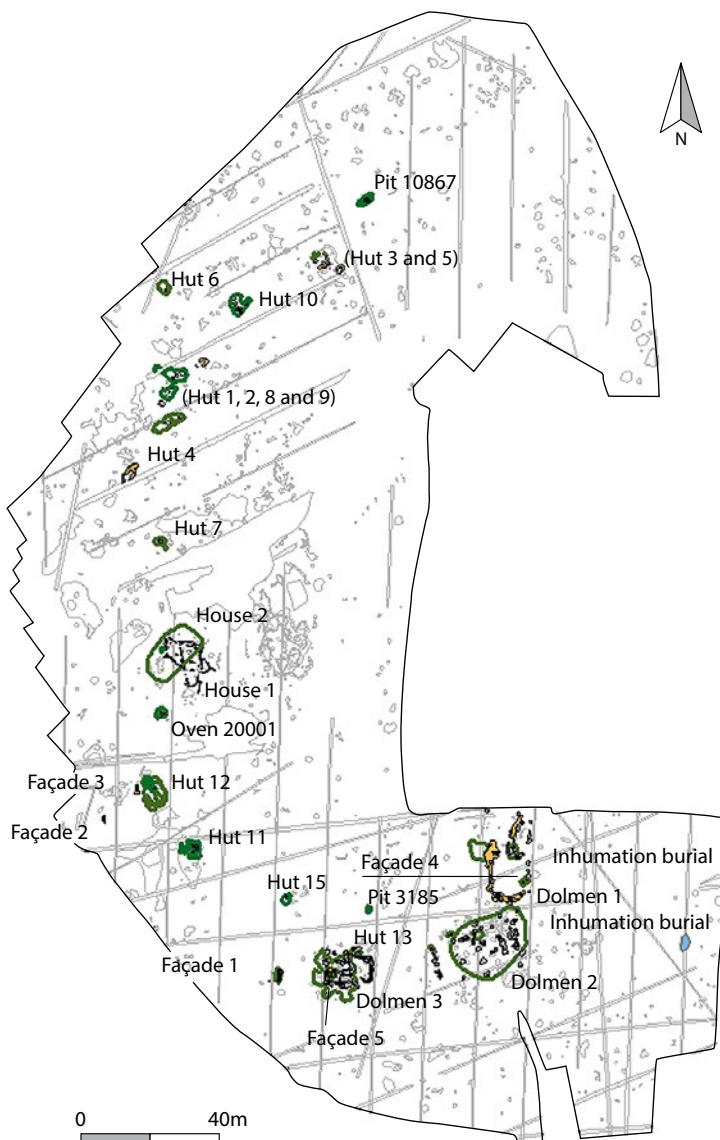


Fig. 4. The site at Östra Odarslöv.

OxCal v4.2.4 Bronk Ramsey (2013); r:5 IntCal13 atmospheric curve (Reimer et al 2013)

Sequence ESS object 1					
Boundary start settlement activities					
Phase first phase northern sector/facade 5					
Beta-375266, hut 3+N(10, 100)					
R_Date Beta-375266, hut 3					
R_Date Beta-371075, hut 7					
R_Date Beta-375274, hut 6					
R_Date Beta-375262, facade 5					
R_Date Beta-362993, hut 1					
R_Date Beta-340082, hut 10					
R_Date Beta-371061, hut 8					
R_Date Beta-371068, oven 20001					
R_Date Beta-371067, hut 9					
R_Date Beta-375271, hut 5					
R_Date Beta-340085, pit					
R_Date Beta-371078, oven 20001					
R_Date Beta-374038, hut 2					
Boundary transition/start second settlement phase					
Phase second phase southern sector					
Phase hut 11					
R_Date LuS-11175, hearth					
R_Date Beta-371070, hearth					
R_Date LuS-11177, layer					
R_Date Beta-374044, layer					
R_Date Beta-362995, pit					
R_Date Beta-371073, posthole under dolmen 3					
Phase house 1/2					
R_Date Beta-362991, hearth house 1					
R_Date Beta-362998, house 2					
Phase baking ovens south of house 1/2					
R_Date LuS-11174, oven 20001					
R_Date LuS-11176, oven 20001					
R_Date Beta-371072, pit					
R_Date Beta-371074, ditch hut 4					
R_Date Beta-375269, hut 12					
R_Date Beta-371062, hut 13					
R_Date Beta-340087, pit					
R_Date Beta-374039, hut 8					

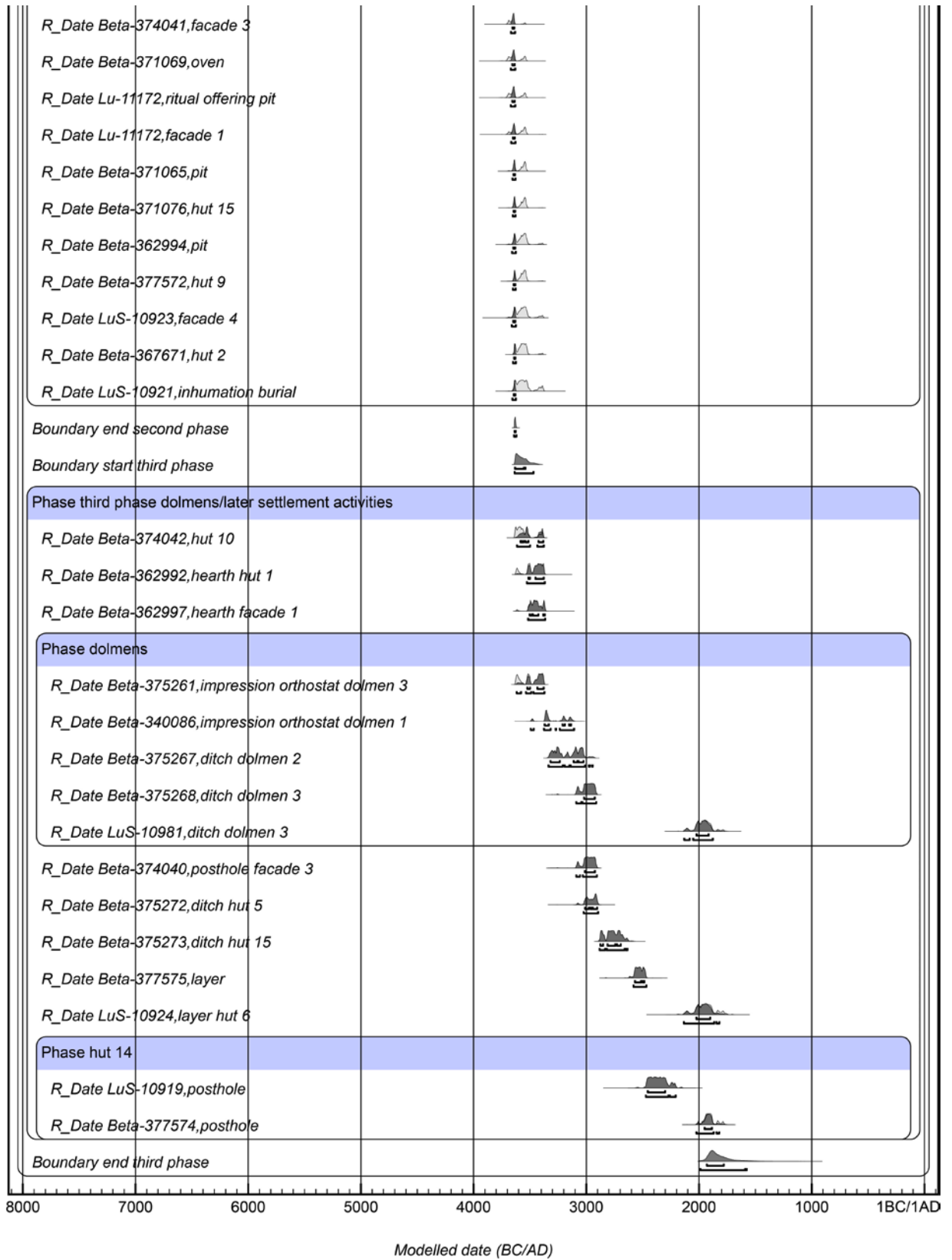


Fig. 5. Bayesian analysis of <sup>14</sup>C datings at Object 1. Illustration: Bettina Schultz-Paulsson, KULA/Kulturgeografi.



$^{14}\text{C}$  analyses (Fig. 5). The whole existing settlement, from the EN phase, was probably located within the excavated area – encircled by the wetlands to the west and south, and the heavier clay soils to the north and east. About 500 metres east of Object 1 another site, Object 2, was excavated. This settlement was located on a terrace and on a gentle southern and southeastern slope towards wetlands. Four huts and a number of pits with EN material were found. This site probably extended beyond the excavated area.



Fig. 6. Round oval hut with sunken floor.  
 Illustration: © Richard Holmgren, ARCD-DOC.



Fig. 7. Round oval hut with sunken floor.



Fig. 8. U-shaped hut.

The huts from the EN at Östra Odarslöv can be divided into two types (see Appendix, Tabs. II and III) and there is a striking homogeneity in the design within each type:

- Round or oval huts with sunken floor/trodden surface, hearths and postholes for roof and/or walls (Figs. 6 and 7).
- Simple huts with U-shaped wall trenches with postholes and sometimes roof-postholes and hearth (Fig. 8).

The two longhouses at Östra Odarslöv had a rectangular shape with rounded gables in the south and straight in the north (Figs. 9 and 10). The appearance of the houses is almost D-shaped, since the eastern long wall in house 1 and the southwestern long wall in house 2 were slightly rounded (see Appendix, Tab. I). Three or four roof-postholes were documented in each house as traces of the roof-bearing structure. Traces of the wall structure in the buildings consisted of a system of trenches and postholes. No clear postholes could be discerned in the trenches. The trenches were, however, clearly dug and traces of posts have probably leached through the millennia in the easily-drained sandy soil. An alternative explanation is that the trenches were traces of wooden sleepers added along the line of the wall and on which wall posts rested.

At Östra Odarslöv a number of pits were examined, of which three pits will be mentioned here (Tab. 1). Two pits at Object 1 stood out as particularly complex and rich in finds: A20001, immediately to the south of the longhouses, and A10867, within the settlement's northeastern part. The primary function of pit 20001 is interpreted as a working pit with ovens, and pit 10867 is interpreted as a pit for

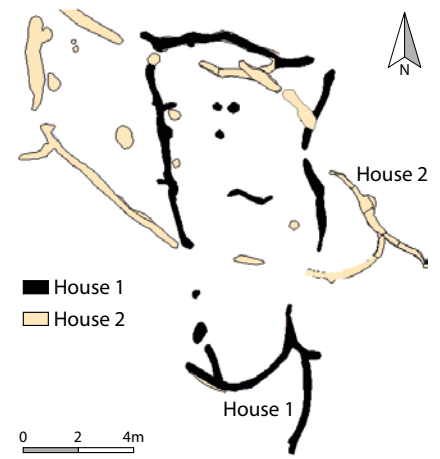


Fig. 9. Houses 1 and 2 at Östra Odarslöv.

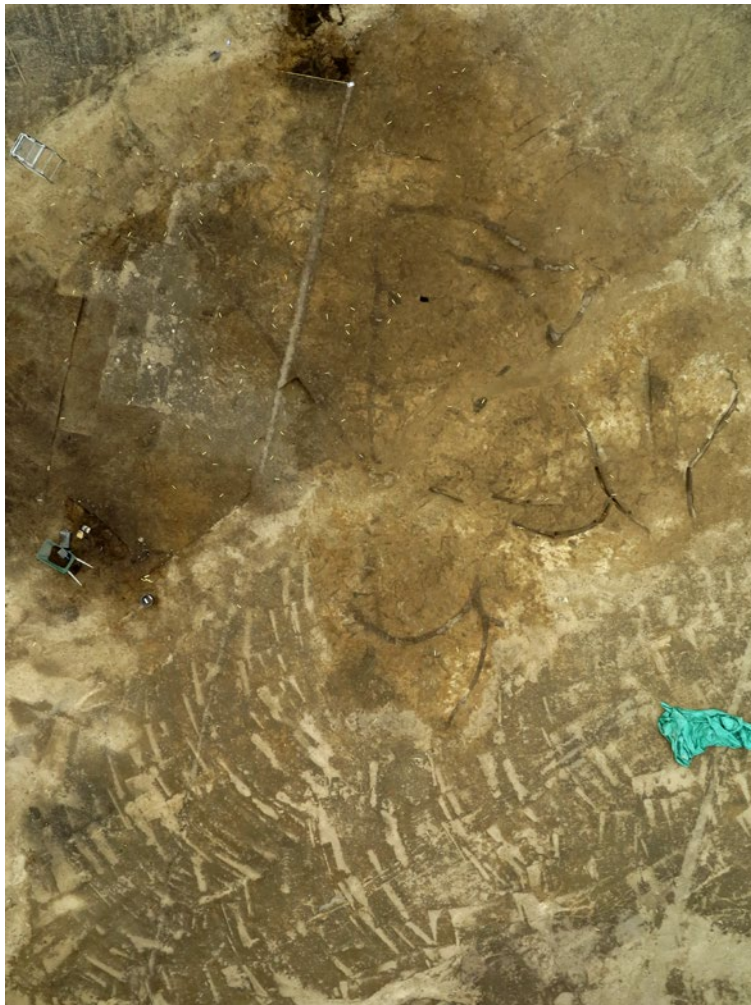


Fig. 10. Houses 1 and 2 at Östra Odarslöv.

clay extraction. In both of these large amounts of material had been deposited. A3185 was a smaller pit than the two others but contained relatively rich material of plant remains (cereal). It was located in the southern part of the trench beginning to emerge as a ritual area at the time of deposition in A3185 (Tab. 2). A3185 seems to have been dug to be used for a deposition while the two others were secondarily used for deposition. Both A10867 and A20001 had material that was arranged as well as part of the backfill.

Context	Pottery: amount/ min. number of vessels	Flint and stone: amount/type	Pottery and flint: use (lipids)/use wear	Bone: amount/ species	Cereals, nuts, roots, berries
A10867, initially a clay extraction pit later used for deposition (measure: 3.5×2.3 m and 0.85 m deep)	36.379 g/ between 19 and approx. 40 vessels, fragments of clay discs	10.788 g/ flakes, flake scrapers, hammer stones, cores, blades, blade scraper, axe fragments (flint), hammer stones, stone axe, transverse arrowheads, quern stone	Lipids indicating terrestrial animals and vegetables, tar, resin /flint use on meat, hide and wood	642 g/cattle (Bos taurus), sheep/goat (Ovis/Capra), pig or wild boar (Sus scrofa domestica or Sus scrofa), red deer (Cervus elaphus)	5 cereal (Cerealia indet.); 16 naked barley (Hordeum vulgare var. nudum); 5 wheat (Triticum vulgare); 2 emmer/spelt wheat (Triticum dicoccum/spelta); 1 bread wheat (Triticum aestivo/compactum); 1 oats (Avena sativa); 1 rye (Secale cereale); 5 hazelnut shell (Corylus avellana); 1 raspberry (Rubus idaeus)
A20001, oven in two phases and working area (measure: 2.8×2.6 m and 0.8 m deep)	19.595 g/ between 28 and approx. 45 vessels, fragments of clay discs and fragment of a collared flask	11.452 g/flakes, flake scrapers, hammer stones, cores, blades, flake axe, axe fragments (flint), transverse arrowheads, polishing stone	Lipids indicating terrestrial animals (incl. dairy fats) and vegetables/flint use as sickle on cereal or reed, use on meat, hide, horn/bone and wood	104 g/roe deer (Capreolus capreolus), sheep/goat (Ovis/Capra), cat/marten (Felis/Martes)	80 cereal and 2 spikelet forks (Cerealia indet.); 140 naked barley, 6 spikelet forks and 1 rachis-internode (Hordeum vulgare var. nudum); 80 unsp. wheat (Triticum sp.); 5 bread wheat (Triticum aestivo/compactum); 6 emmer/spelt wheat (Triticum dicoccum/spelta); 188 emmer, 12 rachis-internodes, 9 spikelet forks and 1 glume-base (Triticum dicoccum); 42 hazelnut shell (Corylus avellana); 18 root of lesser celandine (Ranunculus ficaria); 14 raspberry (Rubus idaeus)
A3185, pit with deposition (measure: 1.75×1.10 m and 0.06 m deep)	1.795 g/6 vessels, a clay disc fragment and a small piece of a possible clay figurine	1.169 g/flakes, core, axe fragments, transverse arrowheads, hammer-stones	not analysed	-	80 cereal (Cerealia indet.); 6 naked barley (Hordeum vulgare var. nudum); 41 wheat (Triticum vulgare); 3 hazelnut shell (Corylus avellana)

Remains of three long dolmens were found (see Appendix, Tab. VI), situated on a gentle slope towards the southwest, close to a former wetland (Fig. 11 and 12). The three long dolmens had the same basic design with a central burial chamber placed within a more or less rectangular rim of small stones. All the chamber stones were missing, as were the kerbstones. Gaps in the rims and dark impressions in the earth, however, showed where the chamber stones and the kerbstones had been placed. The chambers were built up of three to five wall boulders on which a roof block rested. The chamber floors were in some cases sparsely paved. No bones or grave goods have been found in the tombs, but this is the rule rather than the exception in southern Scandinavia (see e.g. Tilley 1996; Thorsen 1981 for discussion). Interestingly, there were traces of entrances in all three long dolmens in the form of layers, trenches and impressions and stone packings indicating standing stones. The three long dolmens had a kind of paved platform adjacent to one long side. Presumably these are areas for ritual activity where ceramic vessels and other objects may have been deposited (Andersson/Artursson in press a). In connection with a minor archaeological excavation at Science Village in 2014, remains were found of two more long dolmens on the other side, i.e. on the west side of the former wetland (Fig. 12). The construction details of the dolmens were similar to those at Östra Odaröslöv (Kronberg 2016).

Tab 1. Three pits at Östra Odaröslöv. The total amount of cereals at the site is about 1200 grains. They were most likely grown and processed at the site, as indicated by remains of spikelet forks, rachis-internodes and glume-bases (Broström in press a). As for lipids, both A10867 and A20001 also had pottery without lipids indicating for example dry or low-fat products or water.



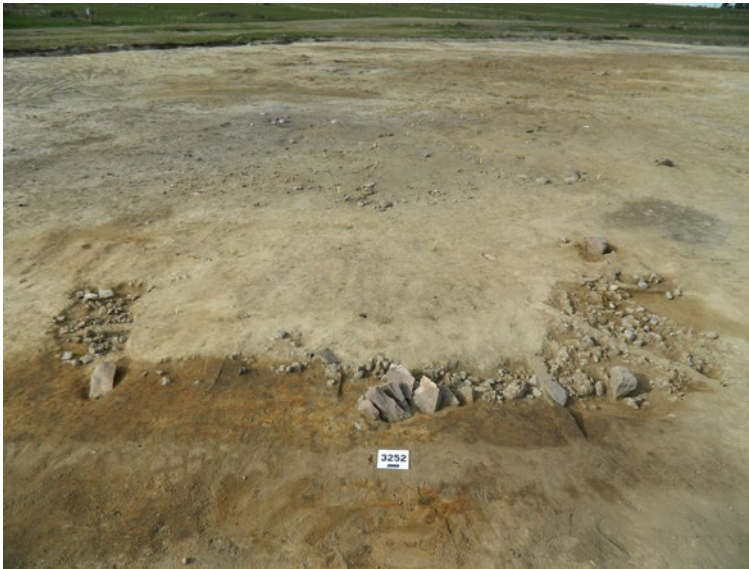


Fig. 11. Long dolmens at Östra Odarslöv.



Fig. 12. Long dolmens on both sides of the former wetland. In the foreground dolmens at Science Village and in the background the three dolmens at Östra Odarslöv. Illustration: © Henning Cedmar Brandstedt, The Imagination Show.

Five different kinds of façades were erected at Östra Odarslöv (see Appendix, Tab. V) with slightly different structure and context (Fig. 13). Façade 1 was the youngest on the site, probably contemporary with the dolmens, and consisted of five standing stones that formed a façade running in a north–south direction (Fig. 14). Based on the size of the impressions and the extent of the stone packing, it can be assumed that the stones were of different size and height. A plausible interpretation is that the centre stone in the façade was the largest. The other façades were older, probably contemporary with the settlement on the site. Façades 2, 3, and 5 consisted of three to four wooden posts of different size. Façades 2 and 3 were placed close to one of the huts at the shore of the wetland and had a north–south orientation. Façade 5 was placed in the southern part of the site and had an east–west direction. Façade 4 had been erected at the head end of an inhumation burial and consisted of three wooden posts, probably with a larger post placed in the middle. Façade 4 was oriented in a northwest–southeast direction (Andersson/Artursson in press a).

According to the archaeological findings together with a Bayesian analysis of  $^{14}\text{C}$  datings (Schulz Paulsson in press: model 3) there seems to have been a continuous expansion at Object 1 and the site can be divided into three building phases (Tab. 2).

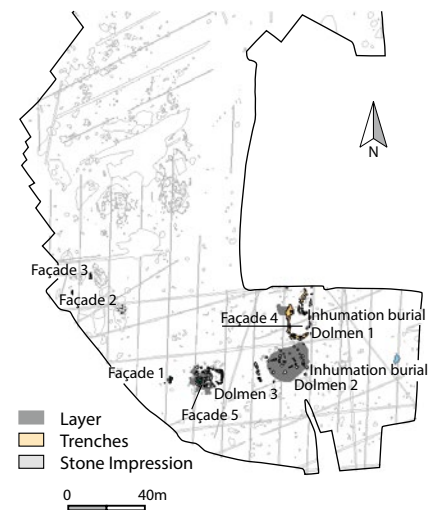


Fig. 13. Long dolmens and façades at Östra Odarslöv.





Fig. 14. Façades at Östra Odarslöv.

Building phases Östra Odarslöv	Northern settlement Object 1	Southern settlement Object 1	Ritual space Object 1	Settlement Object 2	Activities
Building phase 1 ( <sup>14</sup> C-phase 1) c. 3800–3700 cal. BC	Huts 3 and 7 Huts 1, 2, 5, 6, 8, 9 and 10. Oven 20001		Façade 5		Settlement established in the northern part of the area. On an archaeological basis huts 3 and 7 with slightly older datings should be incorporated with the other buildings in the north. Ritual activi- ties at façade 5. Pit depositions
Building phase 2 ( <sup>14</sup> C-phase 2) c. 3700–3600 cal. BC	Huts 2, 4, 8, 9 and 10. Oven 20001, pit for clay extraction 10867	Huts 11, 12, 13 and 15. Houses 1 and 2. Pit 3185. Façades 2 and 3	Façade 4 with inhumation burial 1004608. Flat-earth grave 1789		The settlement is growing gradually. The southern parts are also built. Ritual activities at the façades. Pit depositions. Flat-earth graves
Building phase 3 ( <sup>14</sup> C-phase 4) c. 3600–3300 cal. BC			Dolmens 1, 2 and 3. Façade 1	Huts 110, 126, 124952, 125024. Pits 67627, 78107. Trench 126175	Settlement at Object 1 was aban- doned and the southern part of the site transformed into a ritual space where three long dolmens and fa- çade 1 were erected. A settlement established at Object 2 that even- tually replaces the settlement on Object 1. Ritual activities at Object 2 in the form of pit depositions

It is clear that the first settlement activities took place in the northern part of the area (Fig. 15). Within a probably rather short period of time huts 1, 2, 3, 5, 6, 7, 8, 9, 10 were built and, based on the archaeological context, probably even hut 4, although the <sup>14</sup>C results for this lie in a later phase. Hut 3 with a slightly older dating can be considered as a storage building that can be linked to hut 5. Datings from the working pit with associated oven (A20001) indicate that this was already in use during the first settlement phase. It seems that the oldest façade (façade 5) was constructed during this phase within an area to the south allocated for ceremonial activities. The first settlement phase should be placed somewhere in the range of 3800–3700 cal. BC.

The second settlement phase can be placed in the interval 3700–3600 cal. BC (Fig. 16). All huts south of the longhouses belong to this phase, i.e. huts 11, 12, 13 and 15. The second settlement phase immediately follows the first and should be seen as a gradual expansion of the site where parts of the northern settlement were still in use; this applies to huts 2, 4, 8, 9 and 10. The longhouses were probably built in connection with the second building phase. Stratigraphy shows that house 2 is younger than house 1. The stratigraphic documentation of the oven 20001 along with the <sup>14</sup>C analysis show that this was

Tab. 2. Building phases of the EN sites at  
Objects 1 and 2, Östra Odarslöv.

also in use during settlement phase 2. Some other pits with deposits may be related to this stage – the pit for clay extraction 10867 and pit 3185. The traces of ceremonial activity become clearer in the second settlement phase. In addition to deposits in some of the pits we see the first burials at the site in the form of flat-earth graves in the south-east. Another two façades, 2 and 3 were erected, and an inhumation burial with a façade, 4, was constructed.

The earliest settlement activity started in the north and gradually expanded towards the south. Although all the buildings never were in use at the same time, their juxtaposition suggests that the previous buildings were known when new huts and houses were built.

Around 3600 cal. BC, it appears that the settlement at Object 1 was abandoned and the southern part of the site was transformed and expanded into a specialized ritual space where three long dolmens and the stone built façade 1 were erected (Fig. 17). The burial chamber in dolmen 1 was placed directly over the inhumation burial with façade 4, and dolmen 3 was placed directly over façade 5. This strongly implies some kind of ritual continuity in this area of the site. Maybe the façades have still been visible, or a continuous oral tradition has transmitted the use of these ritual monuments. The specialized ritual space was probably used during a relatively short time period, as the ceramics found can be placed in the later part of the EN II and the earliest part of the MN, approximately 3600–3400 BC.

The extensive analytical work on material from the site (osteology, palaeoecology, lipid analysis, micro-wear analysis, etc.) shows clear indications of a well-developed agricultural economy during the EN, 3800–3600 cal. BC (Brink/Larsson in press).

The buildings that suggest a settled existence are in themselves an indirect indicator of more stationary economies such as agriculture and animal husbandry. Many of the flint blades (sickles) at Östra Odarslöv show that they were used to cut grass plants. Furthermore, grindstones were found connected to the longhouses and hut 10 (Knarrström in press). The many charred grains (mostly emmer and barley, but also bread wheat) from the EN in several contexts at the site are an important indication of cultivation. The grain could of course have been brought there from outside, but its presence together with harvesting tools suggest that cultivation was in place. The average size of naked barley and emmer/spelt does not change during EN while the medium size of bread wheat decreases significantly. This may indicate that the processing of naked barley and emmer/spelt succeeded well while the processing of bread wheat succeeded less well. The average size of naked barley and emmer/spelt is smaller than in Denmark, northern Germany and the Netherlands. This is interesting but should be interpreted cautiously because comparative material is scant. This perhaps indicates poorer growing conditions because the growing season is shorter further north (Broström in press a). The osteological material with bones from cattle and pig at Östra Odarslöv shows that animal husbandry was more important than hunting in this period (Magnell in press). The lipid analysis of pottery shows a total domination of terrestrial materials, mostly meat from ruminants, usually in combination with some form of vegetables. Furthermore, there are lipids which indicate that milk products of some kind were produced. These indications are consistent with the osteological material, with a predominance of cattle bones. Elements of fish are missing (Isaksson/Erdös in press).

At the Östra Odarslöv site we thus encountered the expected activities of a settlement with an adjacent ritual activity area: for example, huts and houses, cooking hearths, waste in pits, clay extraction pit and ritual activities at the façades as well as funerals in various types of graves. Something unusual and unexpected, however, is the low-

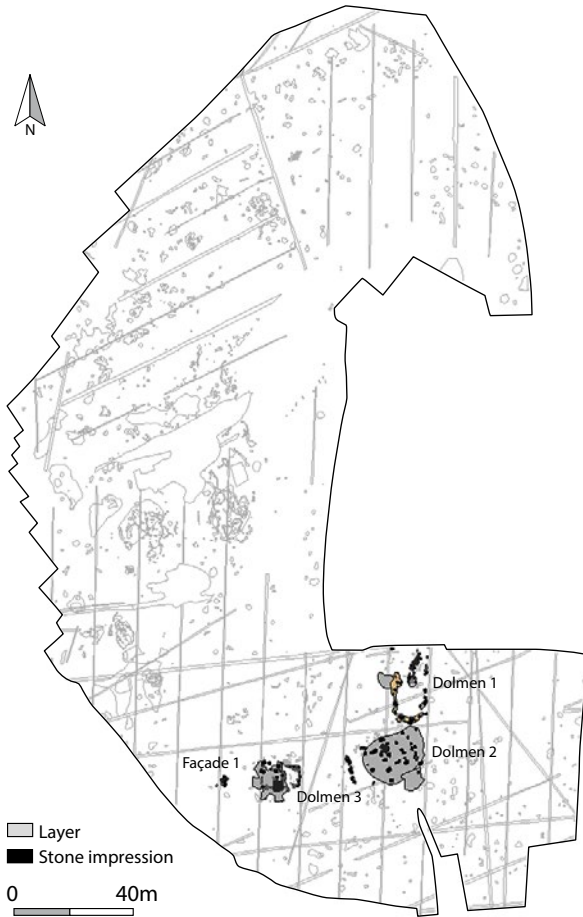
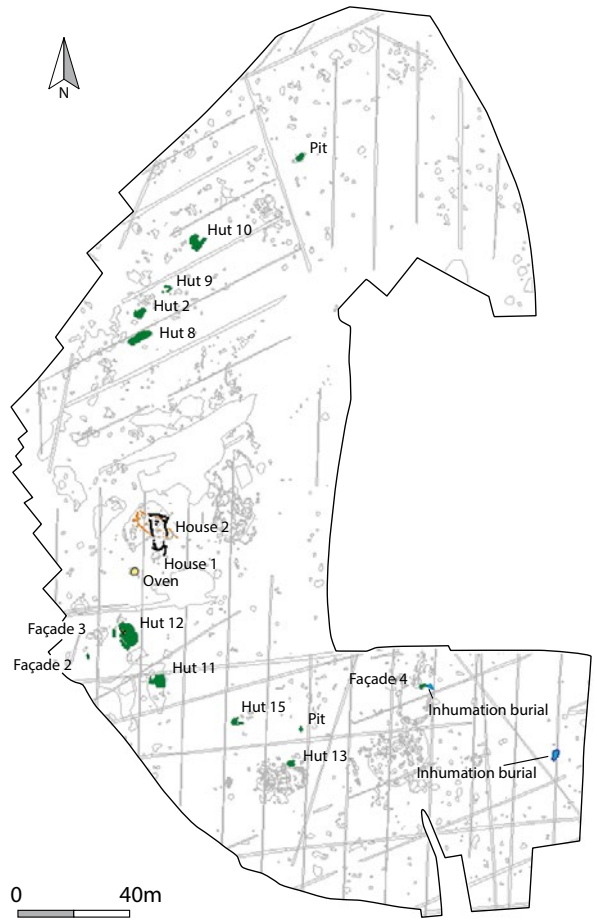
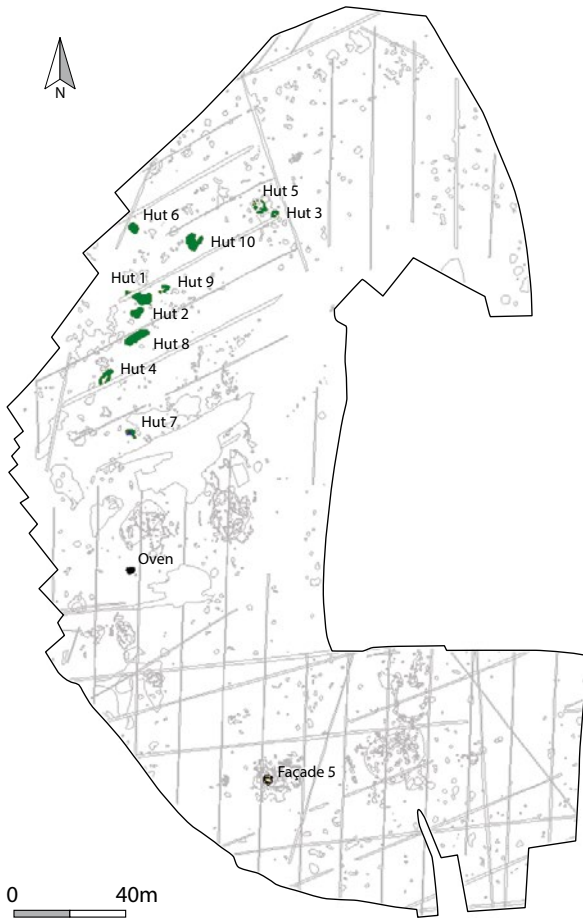


Fig. 15. Building phase 1, 3800–3700 cal. BC.

Fig. 16. Building phase 2, 3700–3600 cal. BC.

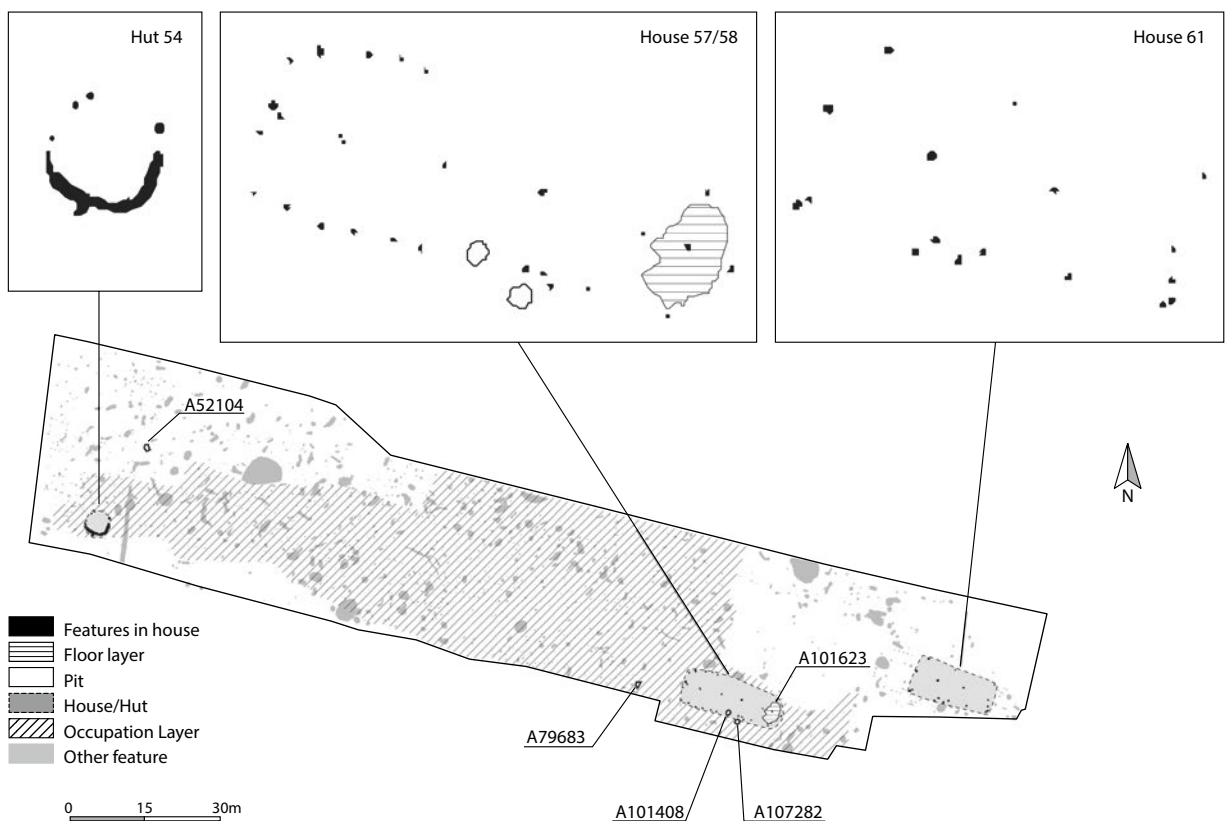
Fig. 17. Building phase 3, 3600–3300 cal. BC.

temperature ovens that occurred in a number of pits or huts within the site. What these ovens were used for is uncertain, but based on the relatively abundant finds of charred grains on the site, one may assume that people roasted grain in them, possibly for brewing, and perhaps baked simple, unleavened flatbread.

The EN remains at the Östra Odarslöv site thus do not represent the very first Neolithic wave in southern Scandinavia around 4000–3800 cal. BC. Most indications are that the people established themselves in the area c. 3800 cal. BC and then lived here until c. 3400 cal. BC.

### Dagstorp 19

At Dagstorp in western Scania, which was excavated in connection with the construction of the West Coast Line in 1998, remains were found of about fifteen houses from the EN and the MN. The EN phase included, among other features, two longhouses and one hut (see



Appendix, Tabs. I and III) (Fig. 18). The remains were located about 9 kilometres from the coast, on stretches of fine sand along the Väla-bäcken brook running for a distance of approximately 500 m. About 500 m west of the site is a dolmen (Fig. 19) (Andersson 2004a).

In the western part of the site there were occupation layers with chronologically homogeneous find material. The layer comprised an area of about 3700 m<sup>2</sup> and the boundary could be established wholly to the east and west and partially to the north and south. The pottery (16 kg) was of Funnel Beaker character and the total impression was of a dating to the EN I. The flint in the layer (24 kg) was of Neolithic character. Flint, as expected, is dominated by flakes and debitage. Flake manufacture predominates, with some element of blades. Some flakes from axe manufacture were also retrieved, alt-

Fig. 18. The EN settlement at Dagstorp. From Andersson 2003, figure 23a.



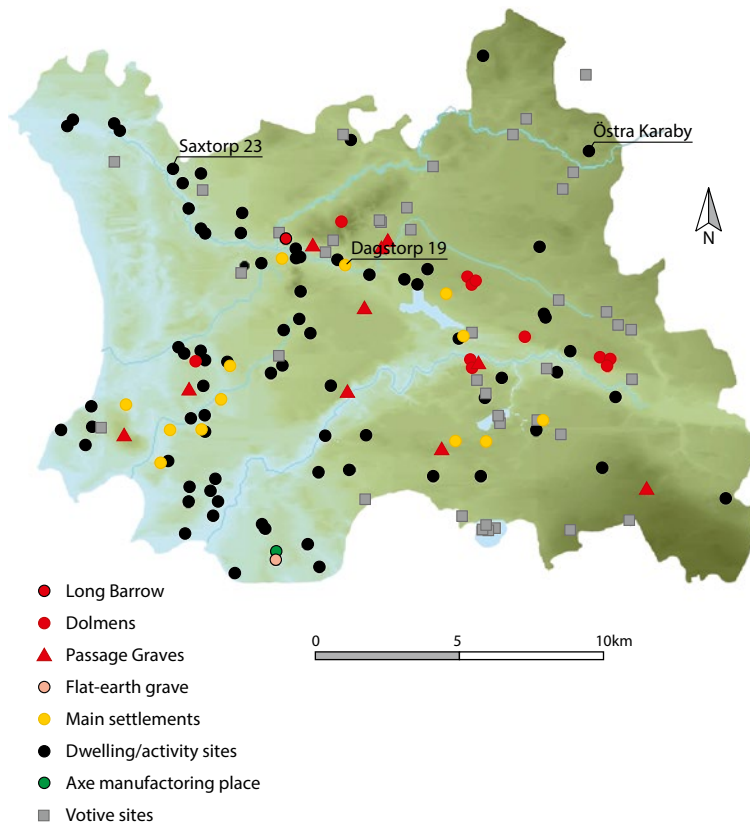


Fig. 19. Sites from EN-MN II in western Scania. From Andersson 2004a, 163 fig, 82.

though they are only a small proportion of the total debitage/flakes. The tools are scrapers, knives, transverse arrowheads, and awls and axe fragments, together with a large quantity of 'other' retouched flint (Andersson 2004a; Artursson et al. 2003; Svensson 2003).

In and beside the occupation layer farthest to the west was a hut structure, designated hut 54 (see Appendix, Tab. III). It was round with a diameter of 4.3 m, and with the opening towards the north-northeast. In the southern half the hut consisted of a trench with postholes and in the northern half of postholes.

Adjacent to the eastern part of the occupation layer was a structure designated house 57/58 (see Appendix, Tab. I). The design was two-aisled and just over 20 m long, with a width varying between 7.7 and 5 m. In postholes to hut 54 and house 57/58 various barley and wheat types were found. East of the layer there was yet another house structure, house 61 (see Appendix, Tab. I). The house is a two-aisled structure, 16×7 m and oriented ESE–WNW, with a rectangular, possibly slightly trapezoidal form. Occasional flint flakes were found in the features of the house.

A slightly larger concentration of flint and pottery is noted beside, but not in, the EN houses at Dagstorp. The house interiors seem to have been kept fairly clean, since the finds are to a large extent outside the houses. It seems that special areas intended for specific activities can be distinguished outside the remains of the houses – between the houses, indicating that the majority of the daily activities took place outside.

Several EN pits were found on the site. Large amounts of flint and pottery were generally part of the find material (Tab. 3).

Context	Arranged material	Backfill with large amount of finds	Flint and stone	Pottery	Bone, plants	<sup>14</sup> C BP/(cal. 2 σ BC), material
A52104	–	x	Flakes/debitage, axe fragments, burnt flint, debitage from axe manufacture	Fragments of funnel beakers, clay disc	Burnt bones	4755±70/(3650–3370), charcoal. 4800±70/(3710–3380), charcoal
A101408	–	x	Flakes/debitage, scrapers, knife, transverse arrowhead, polished axe, retouched flint	Fragments of lugged beaker, clay disc and collared flask	–	4925±70/(3940–3530), charcoal (deciduous tree)
A101623	–	x	Flakes/debitage, scrapers, retouched flint	Fragments of funnel beakers	Burnt bones, shell of a hazelnut	–
A107282	–	x	Flakes/debitage, flake core, retouched flints, axe fragment	Fragments of funnel beakers, clay disc, burnt clay	Burnt bones	4900±70/(3930–3530), charcoal (birch)

Tab. 3. Finds in pits and features at Dagstorp.

### Östra Karaby

At the site Östra Karaby in west Scania, which was excavated in connection with the construction of Road 17 in 2005, remains of two EN houses with sunken floors were found (see Appendix, Tab. I). The Neolithic activity appeared right next to a bend in a brook about 19 kilometres from the coast (Andersson et al. 2006) (Fig. 20 and 21).



Fig. 20. The two houses next to the brook.

House 1 was oriented north–south and measured 7×4 m. Two phases of occupation could be distinguished. The floor had originally been strengthened with a layer of stones. On top of the stones was a 0.1 m thick earth floor. The stone-paved floor covered all the effective floor area (about 18 m<sup>2</sup>). A 4 m long and 1.5 m wide paved entrance was found in the southwestern part of the house which led down to the brook. In the centre of the house a hearth had been placed. Three postholes belonging to the roof-structure can be ascribed to the first phase. The house was abandoned for a brief period. A layer of nearly 0.1 m came to accumulate during this intermediary. In the second phase a new earth floor was built. The entrance has been located in exactly the same place as before and probably even some of the older roof-posts reworked. Two central hearths belong to this phase and three postholes can be tied to the roof-structure (Andersson et al. 2006) (Figs. 21, 22 and 23).

The number of finds in the house was limited. Apparently it was cleaned out. Three fragments of thin-butted axes as well as a few

scrapers, cores and a drill were found. Scattered pottery shards were also found inside the wall line. The finds in the stream ravine were limited to occasional flint flakes (Andersson et al. 2006).

The earth floor of house 2 was buried 14 cm below ground. In the centre of the house a hearth had been placed. The edges of the floor revealed a total of eight postholes, three placed in pairs (Fig. 24). A few finds were collected including a number of scrapers and drills (Andersson et al. 2006).

The macrofossil analysis performed on samples from the different settlement phases could not detect any occurrence of cereals. Thus, there is no concrete evidence of agriculture at the site. Five  $^{14}\text{C}$  datings ended up at the transition to, or in, the EN I (see Appendix, Tab. I).

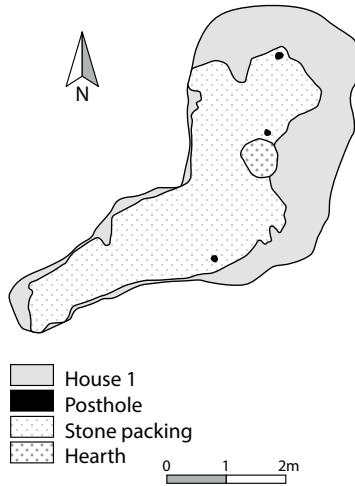


Fig. 22. The first phase of accommodation in house 1.

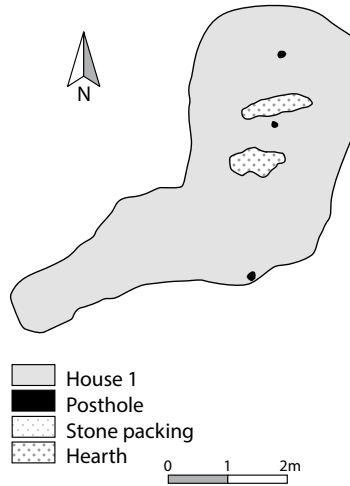


Fig. 23. The second phase of accommodation in house 1.

Other than the houses no other Neolithic activities could be distinguished on the site. Occasional findings of worked flint were found in the topsoil over the entire survey area but with a clear concentration in the western parts, close to the Neolithic houses (Andersson et al. 2006).

## Herrestorp

At Herrestorp several huts and pits were excavated in 2012 (Brink/Hammarstrand Dehman/Helgesson 2014). The remains were found in two main areas or concentrations, one in the northern part of the trench and one in the southern part (Fig. 25, Tab. 4). They were located on a low, to the eye almost flat, rise surrounded by former wet areas to the north, east and south. Further towards the east the landscape quickly rises, forming a ridge where several burial monuments, among them megaliths, are found.

The remains at Herrestorp are dated to the EN I with a clear preponderance of  $^{14}\text{C}$  dates from the early part of the period, before c. 3700 cal. BC. Datings suggest that both areas may have been occupied at the same time, at least part of the period, thus indicating a small hamlet. The two groups may reflect two families living here, likely closely related. It is possible that they, or at least some of them, lived here all year round, although this cannot be said for certain. Finds as well as features are generally consistent with settlement activity. Flint suggests both the making and the use of tools. Use-wear analysis on flints indicate use on both hard (wood and bone/antler)

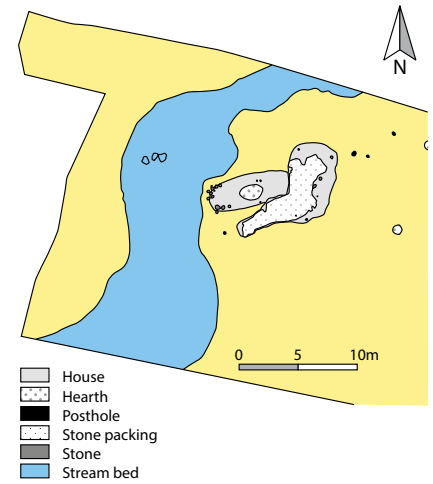


Fig. 21. Plan of the houses next to the brook.

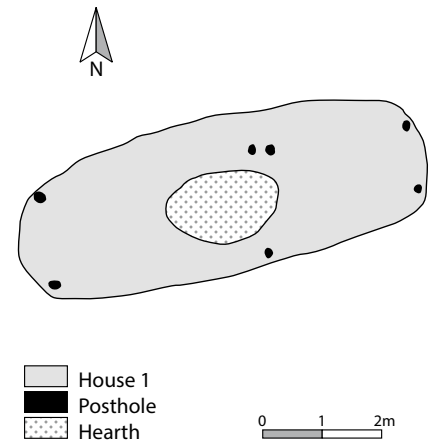


Fig. 24. House 2.

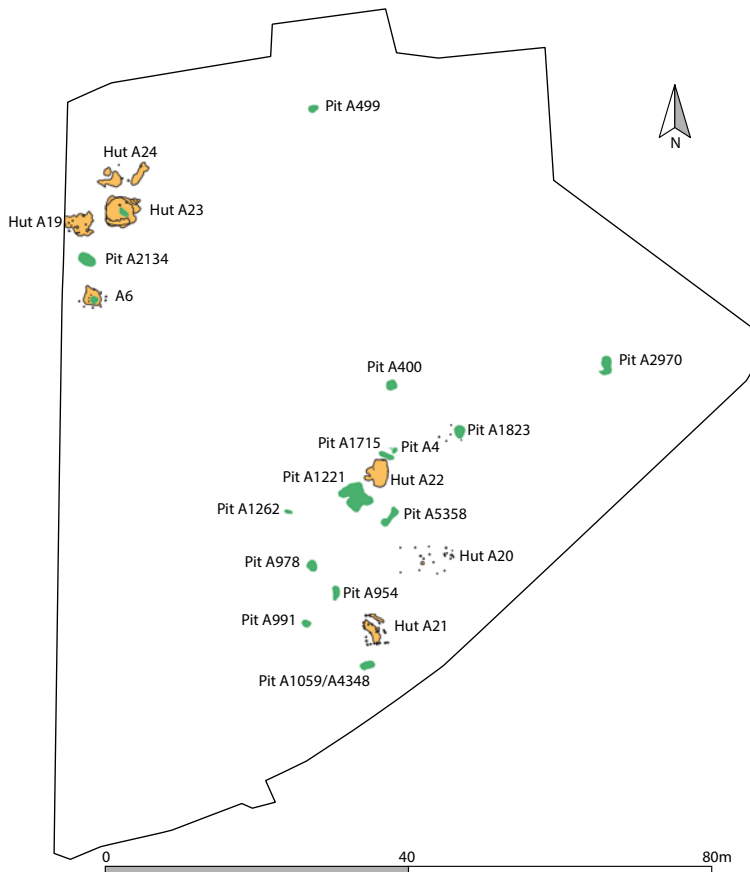


Fig. 25. Herrestorp. EN remains listed in Tab. 4 indicated. The northern group was located close to the border of the trench. Towards the west a number of pits were excavated in 1992, thus possibly indicating a third group.

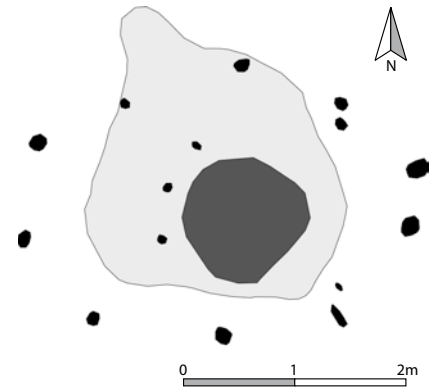


Fig. 26. A6, pit A11912 (dark grey) and surrounding postholes (black). Illustration: Anders Gutehall. From Brink/Hammarstrand Dehman/Helgesson 2014, 60 figure 38.

and soft materials (meat and skin). In hut A23 there are also indications of a Mesolithic tradition in the flint material through the presence of a micro blade and a micro blade core. Among the pottery funnel beakers dominate but lugged jars are also quite common, as are clay discs. Bowls and small beakers are uncommon. Lipids on some of the shards indicate the consumption of both terrestrial animals and vegetables, and from A400 and A2970 shards indicate milk products. Although not large in quantity, bone and charred seeds show that cattle and pig as well as wheat were part of the economy.

As seen in table 4, several pits were marked out by posts. This is not least the case where material was carefully arranged at the time of deposition. A6 in figure 26 can be characterized as a post circle where the central pit had been used for depositing. A6 was not interpreted as a hut used for dwelling since the pit made the floor area very small (thus not listed in the Appendix). Finds indicating activity were found in the floor area surrounding the pit. It is not clear whether there was a roof or not. If there was a roof, perhaps the construction was used for storage. Another possibility is that the structure should be understood as connected to ritual aspects of life at the site, as indicated by the deposition of large amounts of pottery and other objects (see also A23 at Hyllie below and Edring 2015 for pits surrounded by posts).

The pits A400 and A2970 in the southern group should also be mentioned. A400, about 1.5 m in diameter and 0.32 m deep, contained a rich assemblage of above all flint and pottery. Finds had been both carefully placed in the pit and also deposited with burnt and unburnt stones and charcoal as part of the backfill. A posthole in the pit marked its location. Possibly, a posthole next to the pit could also have been part of marking its location. Notably A400 contained shards from a bowl, possibly used for serving, and two beakers apart from the many funnel beakers and a lugged jar. A2970, lo-



Fig. 27. A2970, level 2. Level 1 showed a more scattered stone packing, covering a larger area. At level 4 only the northern pit had a stone packing. This is where pottery and fragments of cattle teeth had been placed. Illustration: Anders Gutehall. From Brink/Hammarstrand Dehman/Helgesson 2014, 86, figure 65.



Context	Arranged material	Backfill with large amount of finds	Pottery, min. number of vessels represented	Bone, plants	<sup>14</sup> C BP/ (cal. 2 σ BC), material
<b>Northern group</b>					
Hut, A19	–	–	–	–	–
Hut, A23 with pit A12264	–	x	6	hazelnut shell	5168±46/(4060–3800), hazelnutshell from pit A12264
Hut, A24	–	–	–	–	–
A6, post circle with pit A11912	x	x	18	cattle, hazelnut shell, wheat	4955±35/(3800–3650), wheat from pit A11912
A499, pit	–	x	3	hazel	5103±33/(3970–3790), hazel
A2134, pit	–	x	15	pig	4772±34/(3650–3380), charcoal
<b>Southern group</b>					
Hut, A20	–	–	–	–	–
Hut, A21	–	–	1	hazelnut shell	4856±34/(3710–3530), hazelnut shell
Hut, A22 (finds mostly from layer 1, backfill)	–	x	11	cattle, hazelnut shell, cereal	5111±32/(3980–3790), hazelnut shell
A4, pit with postholes	–	–	–	–	–
A1823, pit with postholes	–	–	–	–	–
A400, pit with posthole(s)	x	x	23 (c. 4.3 kg from the trial excavation are not included in estimation)	cattle, hazelnut shell	5037±35/(3950–3710), hazelnut shell; 4979±35/(3930–3650), hazelnut shell
A954, pit with posthole(?)	–	x	9	–	–
A1221 etc, pits with postholes	x	x	6	hazelnut shell	4996±32/(3940–3690), hazelnut shell
A1262, pit with posthole	–	–	2	–	–
A2970, pit	x	x	27	cattle? (large herbivore), hazelnut shell	5074±35/(3960–3790), hazelnut shell
A5358, pit with posthole(?)	–	x	7	hazelnut shell	–
A978, storage pit	–	–	2	–	–
A991, pit	–	x	9	hazel	5059±32/(3960–3780), hazel
A1059/A4348, pit	–	x	5	–	–
A1715, pit	–	–	–	–	–

cated slightly to the east in the southern group, consisted of two pits (Fig. 27). Both were covered by a stone packing with lots of burnt flint. A large part of the stones were also burnt. In the northern pit pottery and other objects had been deposited, some shards carefully placed at the bottom surrounded by stones and with fragments of teeth from a large herbivore, likely cattle, placed on top, perhaps indicating a larger skull or skull fragment not preserved. No traces of posts were found in the structure. The covering stones may have functioned as foundation(s) for standing stones although evidence of this was not clearly found.

Finally hut A22 will be mentioned since the find material in the top layer was interpreted as a result of a backfill connected to the abandonment of the hut. The finds were thus not interpreted as evidence of activities carried out in the hut but as part of a depositional practice of the same character as found in some of the pits.

Tab. 4. Finds in structures and features at Herrestorp. Large amounts of flint were generally also part of the find material, tools as well as waste from production, although not presented in the table. Where the minimum number of vessels is not given, structures/features either had no pottery or were not analysed. For more details of the huts, see Appendix.

### Fosie 11D

The site Fosie 11D was localized on an offshoot of a peninsula-like height beside a wetland area around a stream (Hadevik/Gidlöf 2003). At the site up to six remains of huts were found, a number of pits and extensive cultural layers from the EN I (Fig. 28). Five of the huts were placed in a line at an equal distance apart in the southernmost part of the trench. The huts had a similar layout, with a more or less curved ditch as the most significant feature. In and around the huts were found a small but varied amount of artefacts that can be interpreted as waste from the households. Osteological material was missing but cereal was found in several of the huts (see Appendix, Tab. III). Adjacent to the huts are a few features interpreted as storage pits. Their content corresponds to the material found in and around the huts. The remarkable amount of flint, close to 30 kg, on the site was waste, suggesting flint crafts. The remains were interpreted as seasonal because of the small size of the huts, used for living and/or storage, and the low incidence of pottery (Hadevik/Gidlöf 2003, 228–232). The place was probably used for hunting, fishing and gathering, although farming cannot be ruled out due to the quite frequent occurrence of cereals in the huts.

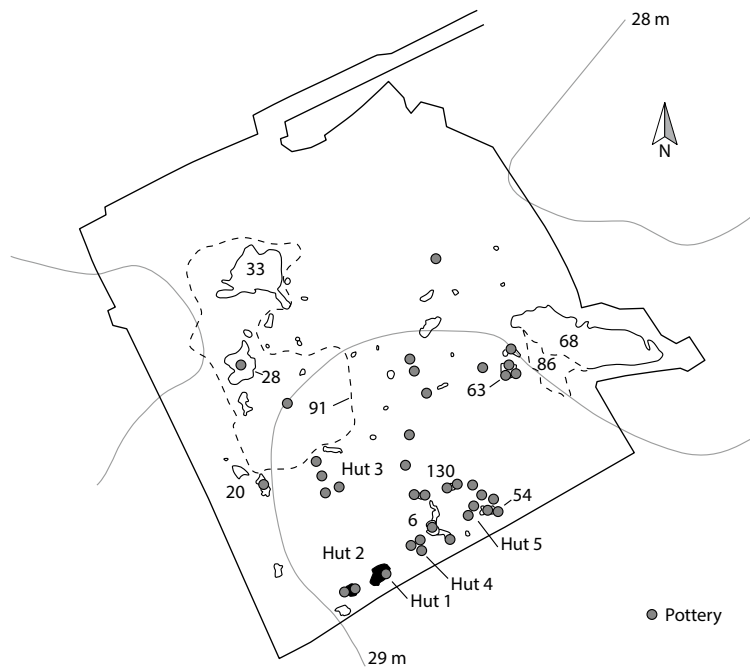


Fig. 28. Fosie 11D with huts (Hydda 1–6) and the occurrence of pottery (black dots). From Hadevik/Gidlöf 2003, 229 fig. 174.

### Saxtorp 23

On a height, which in prehistoric times was a promontory-like tongue of land between the brooks of Saxån to the south and the Kvärlövsån to the north, there was a large settlement in the EN (Fig. 29). During at least parts of the EN, in connection with the transgression maximum, an offshoot of the bay reached all the way in to this place (Regnell/Sjögren 2006). The remains, which were excavated in 1997–1998 in connection with the expansion of the West Coast Line, are in a central location on the sandy part of the height (Andersson 2004a).

On a terrace in the gentle slope down towards the Kvärlövsån, the excavation documented a house adjacent to a find-bearing layer. The house was round-oval and was estimated to measure 4.5×7.5 m, oriented WNW–ESE (see Appendix, Tab. I). In the southern part of the

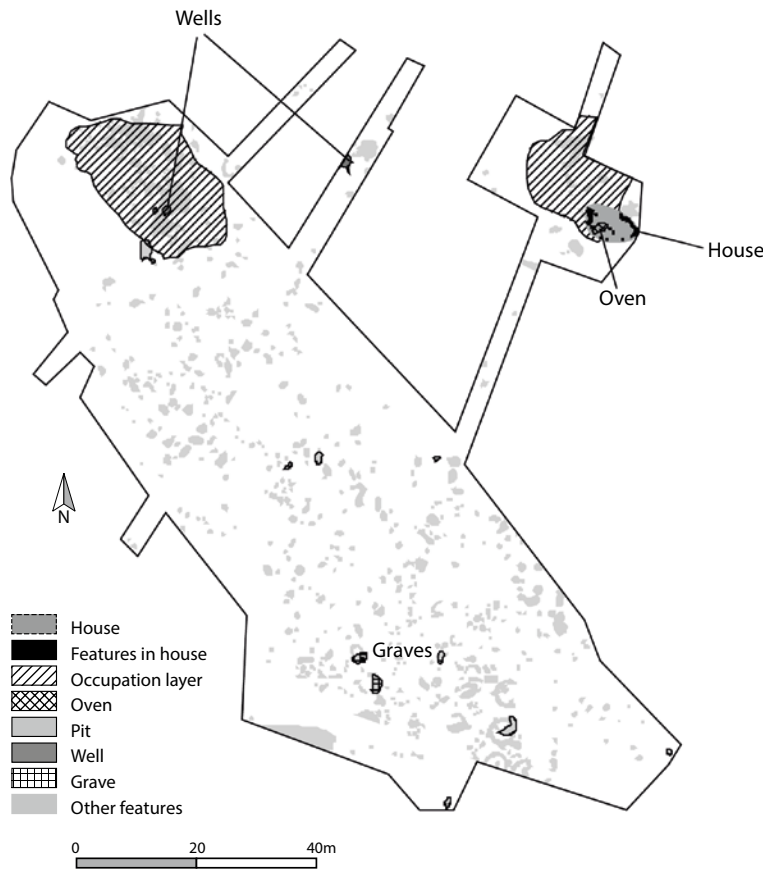


Fig. 29. The EN settlement at Saxtorp. Illustration: Anna Åström, National Heritage Board. From Andersson 2004a, 56 fig. 12.

structure between the trenches there was a black, sooty layer which was covered by a compact layer of burnt clay – perhaps the remains of a simple oven. The pottery in the sooty layer is undecorated but can be assigned to the Neolithic. A  $^{14}\text{C}$  dating from the sooty layer gave the value 3950–3350 BC cal.  $2\sigma$  (Ua-8987), which largely corresponds to EN I. The stock of tools was dominated by flake scrapers, but also comprised a knife and two transverse arrowheads. Other flint material consisted of cores, flakes from axe manufacturing, re-touched flints, along with debitage and debris. There was a concentration of flint within the layer; it included a core, several flakes from axe manufacturing and blades, but also a transverse arrowhead. The dense accumulation of flints and the occurrence of both debris and small and large flakes suggests a primary deposit. The pottery is mainly undecorated, but a cord-decorated rim sherd was found, with decoration consisting of two horizontal lines placed under the edge of the rim. All in all, the composition of the flint and pottery indicates that the material originated in EN I (Andersson 2004a).

About 60 m west of the area with the house two features were interpreted as wells since the groundwater could be reached by digging shallow pits. A  $^{14}\text{C}$ -dating taken from charcoal in one of the wells gave the result 3950–3350 BC cal.  $2\sigma$  (Ua-8986), which largely corresponds to EN I. The finds from the wells included flake scrapers and pottery with small imprints under the edge of the rim. In addition, there was burnt clay and stone in large quantities. Among the osteological material, dental enamel from cattle could be identified (Andersson 2004a). Analysis of the palaeobotanical material from the two wells shows that the forest vegetation consisted of hazel, lime, oak, pine, alder and birch. A large percentage of grass and herb pollen suggests, however, that the area was cleared in places (Regnell/Sjögren 2006). The flint material of the surrounding occupation layer was dominated by flake scrapers. The area around the well was pro-

bably the scene of some specialized activity, with the flint scrapers used for working wood and skins. The pottery mainly consisted of small, unidentifiable sherds and cannot be dated any more precisely than to the Neolithic (Andersson 2004a).

Higher up on the plateau, about 80 m south of the house and the wells, there were two features (A642 and A1292) which were presumed to be flat-earth graves. A642 ran from northeast to southwest and measured 2.32×0.79 m with a depth of 0.58 m. Two postholes were found adjacent to the ends of the feature and may have been part of the structure. They could be the traces of some form of superstructure. Grey humus documented in the grave is probably the stain left by a body. No skeletal parts survived and it was not possible to determine how the body had lain. On the same level as the body colouring there were eight stones of varying size at the north edge. Among the flint there were three flake scrapers and a fragment of a polished axe. The axe fragment shows parts of three polished sides and probably comes from a thin-butted or a pointed-butted axe of type 3 and can thus derive from either EN I or EN II. The pottery mainly consisted of undecorated sherds of general Neolithic character. Two small rim pieces, one of them with cord decoration, were found, however. A charcoal sample from the filling was <sup>14</sup>C-dated, yielding the result 3950–3350 BC cal. 2σ (Ua-8984). This result largely falls within EN I and is thus contemporary with the house and the wells. Immediately to the southwest of the structure was an intact quern bedstone. Just over ten metres east of A642 was yet another grave-like feature (A1292) measuring 2.02×0.76 m; the depth was 0.63 m. The feature was oriented north–south. A grey colouring in the filling of the grave, about 1.3 m long, was interpreted as having been made by a body, showing that the deceased was probably laid with the head towards the north. No skeletal parts or grave goods were found. A small amount of flint was retrieved from the filling (Andersson 2004a).

Between these activity areas there were a number of pits with EN material, some of them containing a fairly large number of finds. The composition – potsherds, flint flakes, axe fragments, flake cores, blades, awls, scrapers, and burnt bones – can be described as ordinary dwelling site material (Andersson 2004a).

## Dösemarken

Dösemarken, excavated in 2010, revealed EN remains in two main trenches (Berggren/Brink 2012; Berggren 2015a). The southern trench will be discussed here (Fig. 30 and Tab. 5, see also Fig. 3). The southern trench had two main concentrations of features. In the eastern part a longhouse, house 36, with a nearby area of activities was investigated and in the western part a group of pits, one oven and one layer formed a semicircle along the outer edge of a small hillock in the otherwise largely flat landscape. The remains have been interpreted as a settlement of varying activities, some of ritual character, and activity areas. The datings – finds and <sup>14</sup>C – suggest a beginning in the EN I, a focus in the EN II and then ending in the early MN (Tab. 5).

The two burials are uncertain since they did not contain any skeletal remains or apparent grave goods. Interpretation rests on the size and shape of the features. To the north two features, A23731 and A25172, were interpreted as remains of single standing posts, erected here in different phases. More single postholes were located in this area and elsewhere, but they have not been clearly dated (Berggren/Brink 2012, 62 figure 29). In A23731 skull bone and ant-



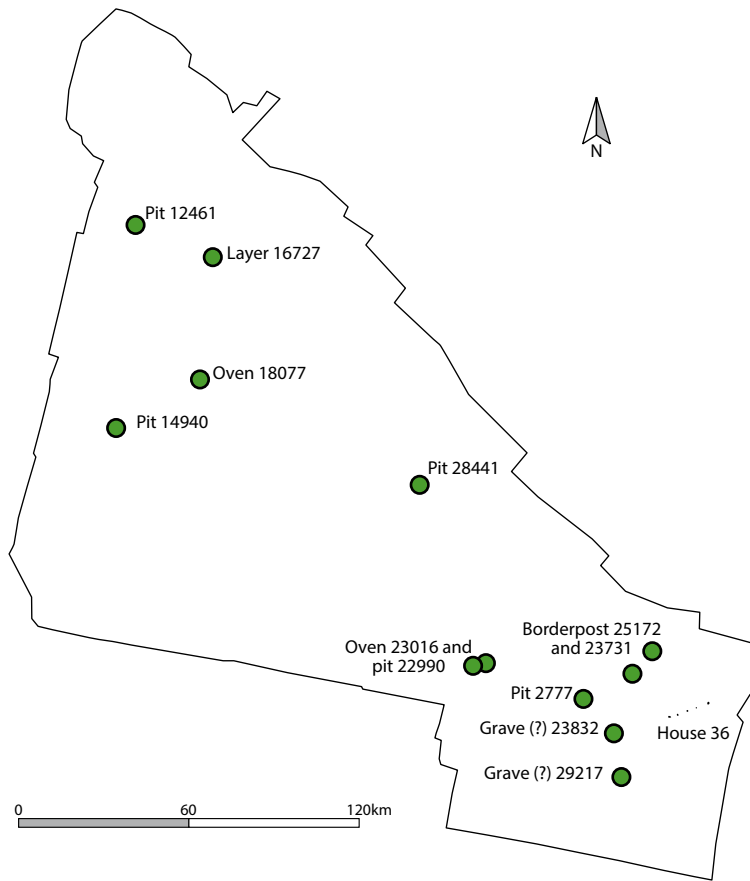


Fig. 30. Dösemarken (southern trench, see Fig. 3) with house 36 and surrounding features to the east and features placed in a semicircle along the eastern part of a small hillock to the west (in the late MN, c. 2600–2500 cal. BC, a single rowed palisaded enclosure was built on the small hillock, succeeded by a Battle Axe culture burial and a Late Neolithic–early Bronze Age farmstead (Brink 2013)).

ler from roe deer were found, possibly indicating the placing of the skull on the post. Among the bone material from the pits cattle, pig, sheep/goat have been identified, as were some bones from wild animals. In one of the ovens, A23016, hazelnut shells as well as cereals were found. Among the charred grains wheat (emmer/spelt) could be identified.

Three of the pits have been described in detail by Åsa Berggren (2015a). Only short descriptions of some of the material will be given here in order to give an overview of the character of the pits and the material found in them. In pit A2777 carefully arranged material was found as well as finds in the backfill (see Fig. 45 for a scene from Dösemarken). The pit measured 1.60×1.25 m and it was 0.28 m deep. In total 2.7 kg of pottery, 4.2 kg of flint, about 1 kg animal bones and burnt clay as well as two stones with evidence of use were found (polishing or grinding). Use-wear analysis on some of the flakes indicates working on wood, hide/meat, bone/horn and plant. At least 13 vessels of different sizes and functions are represented in the ma-

Phase	Dating	Features
1	EN I	Pit A12461; Grave(?) A29217
1	EN I/EN II	Pit with border post A23731
2	EN II	House 36; Oven A23016; Pit A22990; Grave(?) A23832
2	EN II–early MN	Pit A2777; Layer A16727; Oven A18077
3	EN II/MN I	Pit A14940
3	MN I	Border post A25172; Pit A28411

Tab. 5. Features dated to the EN–early MN (southern trench) at Dösemarken. From Berggren/Brink 2012, 178, table 55.

terial; among them a hanging vessel. The arranged material was placed at the bottom of the pit. Stone, bone and pottery were part of the arrangement. Part of a cattle skull with horns as well as a half-sectioned cranium of a pig had been placed in the pit. Intentionally placed or not, a small red coloured stone was found in the eye socket of the pig cranium. Also, two lower legs from cattle had been placed next to each other, one foreleg and one hind leg.

Pit A28411 was only partly preserved. It measured 0.75×0.70 m and was 0.3 m deep. The pit had already been partly filled, finds being part of the fill, when someone decided to place a small selection of objects in the pit. Flakes from axe production were placed on top of each other in a pile and on top of this a piece of a clay disc was placed. Two pieces of another clay disc were also found, with a scraper used to process hides placed between them. Next to them a blade struck from a polished axe was placed.

Finally, pit A12461 measuring 2.22×1.53 m and 0.26 m deep contained a lot of finds, although not carefully arranged. In total 4.4 kg of pottery, flint, animal bones and worked stone was found in the pit, the pottery amounting to 1.85 kg representing at least 14 vessels of different types used for cooking, consumption and perhaps storage of food and drink. Use-wear analysis on a sample of flints indicates woodwork as well as processing plant fibres. The fill of the pit indicates a rather quick backfill process, although done on several occasions. Objects had been deposited mixed with soil but also deposited between instances of backfilling with soil.

## Hyllie

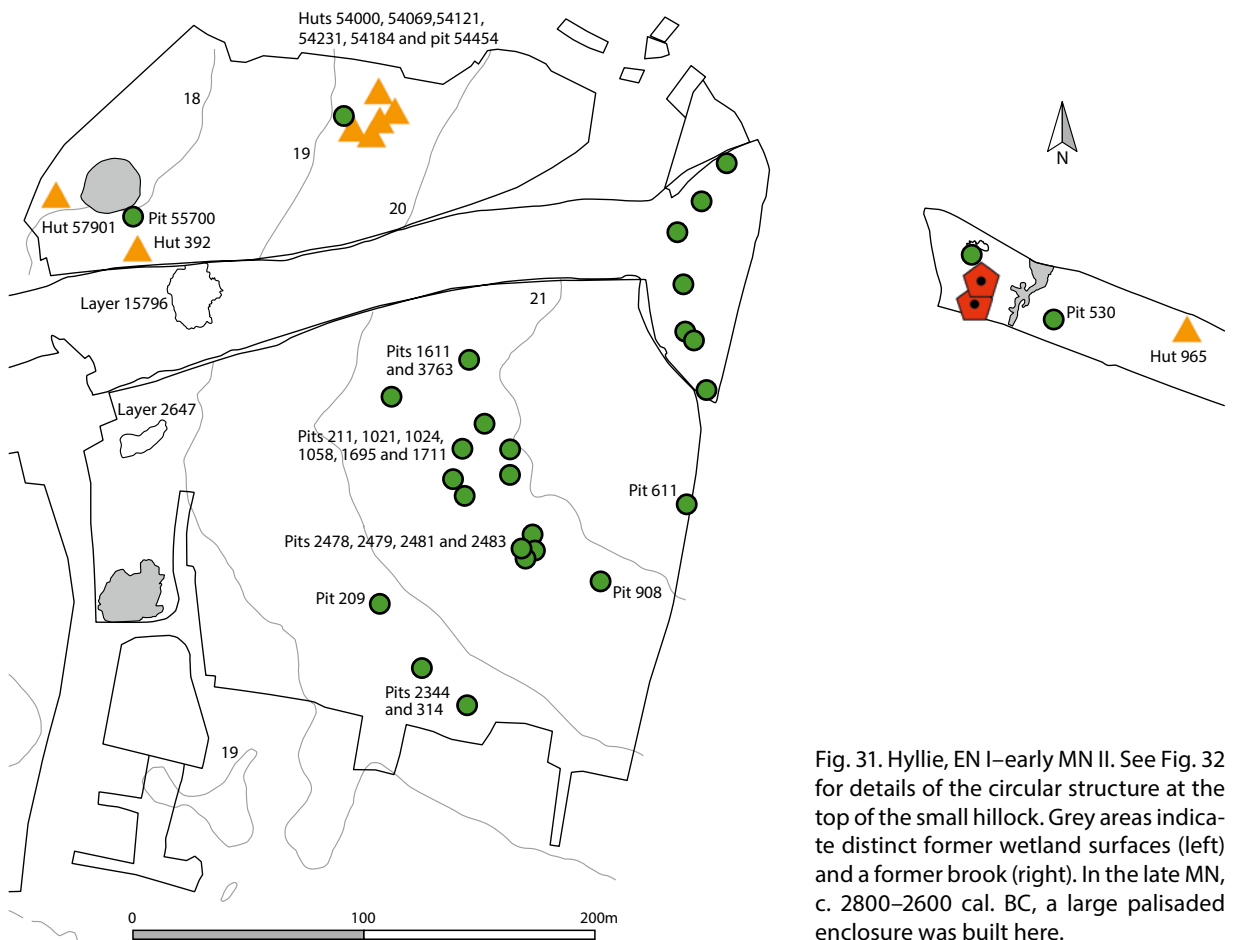


Fig. 31. Hyllie, EN I–early MN II. See Fig. 32 for details of the circular structure at the top of the small hillock. Grey areas indicate distinct former wetland surfaces (left) and a former brook (right). In the late MN, c. 2800–2600 cal. BC, a large palisaded enclosure was built here.

The Hyllie site is primarily known for its large palisaded enclosure dated to the late MN (Brink 2009; Brink 2014). The site was excavated in 1989, in 2001–2002 and in 2005. Apart from the palisaded enclosure several remains from the EN were investigated (Fig. 31, 32, 33 and Tab. 6). As a whole the site has been interpreted as a settlement with continuity spanning the EN into the early MN (Brink/Hydén 2006; Andréasson et al. 2006; Gidlöf 2006). Some of the pits, especially A10706 (earlier feature number A3391), have been used as examples of so-called offering pits (Karsten 1994, 155; Malmer 2002, 41).



The EN I remains dominate the site. A beginning of activities at the site is seen through house 1 dated to the Late Mesolithic–EN I, 4240–3970 cal.  $2\sigma$  BC. (Fig. 33). The dated material is cereal, thus being a very early dating of cereal from the region. The structure shows no similarities to other houses of the EN. It has been placed among asymmetrical huts/houses in Table IV in the Appendix. The excavator deemed it unlikely to have functioned as a house used for living or other domestic use, instead suggesting some form of ritual function. In the EN I another house or hut, house 3, was built to the north of house 1 and a number of pits were dug, forming what appears to be a circular structure (Fig. 32). House 3 was interpreted as a house by the excavator but is placed as a hut in Tab. II in the Appendix due to the occurrence of a wall trench and only a few postholes. Also in the EN I another group of features, concentrated half-way down the slope towards the former wetland, was excavated. Although on a

Fig. 32. The EN I pit circle at Hyllie. The grey area to the east of the houses indicates a former brook. House 1 represents the beginning of activities on the small hillock, dated to the Late Mesolithic–EN I transition.

smaller scale, some of the pits seem to form a circular structure as well (Fig. 31, A211 etc.). The chronological details regarding the two main pit groups are not known. As a whole datings suggest activities from an early part of the period onwards, although we do not know at what intervals. Remains from the EN II–early MN II were all found along the lower parts of the hillock.

In the northern part of the site five curved trenches were found, interpreted as possible hut remains by the excavators. Since there were no traces of postholes in or around them that could be connected to them with certainty they have not been included in the Appendix (as was also the case with the two other features indicated as huts to the west in figure 31). Only two of the possible hut remains were dated by <sup>14</sup>C. Both were dated to the EN I. In A54231 in the north two micro blades were found, indicating a Mesolithic tradition in flint knapping. Also, in the area of these possible huts sherds belonging to a short-necked funnel beaker of Oxie type were found at the trial excavations (Brink 2002, 63).

The pits differed in shape and size. In general they had backfills containing often large amounts of pottery, flint and bone. From EN contexts cattle, pig, sheep/goat, bird, dog (uncertain) and seal have been identified among the bones. As for archaeobotanical content, hazelnut shell, wheat, barley and naked barley have been identified. Apart from the bird all species of animals and plants are found in EN I contexts. In some cases the pits were small and probably dug in order to be used solely for deposition. In a small pit, A209, large parts of a funnel beaker had been placed lying on the side. Close to the brim part of a jaw from cattle had been placed, as was a piece of a polished stone tool, possibly broken just before deposition. Pieces of burnt bone from pig and a bird were also found in the pit. In another small pit, A2479, pottery representing at least 12 vessels, about 3.1 kg of flint and a piece of a secondarily used polygonal battle axe dominated the find material. It had been deposited together with a backfill of fat sooty clay containing both pieces of charcoal and fire-cracked stones.

Dating	Pits/layers/structures
EN I	house 1 (Late Mesolithic–EN I); house 3; A10043; A10116; A10587; A15809; hut A23 with A10706; A10722/A10724; A15813; A908; A611; A1711; A1695; A1024; A1021; A1058; A211; A3763; A1611; A54454; possible huts A392; A54000; A54069; A54121; A54184; A54231; A57901
EN I–EN II	A8628; hut A965; A2478; A2479; A2481; A2483
EN II	A6635
EN II–MN I/II	A55700; A2647; A2344; A314; A209
MN I–II	A530 ; A15796

A10706 was a large pit, 1.6 m in diameter and 0.5 m deep, containing roughly 4 kg of finds. As mentioned earlier, it has been used as an example of a so-called offering pit mainly due to the find of a complete funnel beaker placed in the bottom layer in the centre of the pit. The pit was located inside hut A23. The hut was not identified at the time of excavation and the postholes were never excavated. Interpretation thus rests on surface documentation. Nevertheless, it is possible that the hut and the pit should be understood as an entity, and perhaps not only in purely practical terms but as parts in a structure of ritual significance as well. Thus it may be similar to A6 at Herrestorp described earlier.

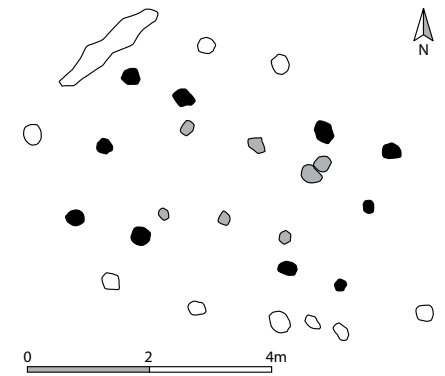


Fig. 33. House 1 from Hyllie (Inre Ringvägen) as interpreted by the excavator. Black: postholes left by the roof-bearing construction (on average 0.2 m deep); Grey: inner construction (postholes all less than 0.1 m deep); Unfilled: postholes and trench remaining from the wall construction (postholes of varying depth, 0.26 m at the most). <sup>14</sup>C-dated cereal (see Appendix, Tab. IV) was retrieved from one of the postholes in the roof bearing construction (second from the left in the southern row). A flint scraper was found in a posthole in the southern wall (first from the left). From Gidlöf 2006, 14 figure 8.

Tab. 6. Pits, layers and structures dated to the EN I–early MN II at Hyllie (see Figs. 31, 32, 33). Dating of pits and layers mainly based on pottery, but in some cases also <sup>14</sup>C, type or context.



### Skegrie



Fig. 34. Photo of the Skegrie long dolmen. Photo: Thomas Hansson, National Heritage Board.



Fig. 35. Photo: Façade and an adjacent 'offering' pit. Photo: Adam Bolander, The Archaeologists, Swedish National Historical Museums. From Söderberg 2014, 57 fig. 27.

The excavation at Skegrie is especially interesting, since the trench was situated very close to one of the most impressive long dolmens still standing in southwest Scania (Fig. 34). The site is situated about 4 km to the south of the above-mentioned assembly and burial site at Döserygg, and the cluster of dolmens at Skegrie is a part of the concentration of monumental burials that stretches north–south all the way from the coast in the south to the Döserygg area in the north, on both sides of a narrow sea bay and along adjoining rivers (Fig. 40). The sea bay and the rivers combined constituted an important zone of communication in the landscape, connecting the inland with the coastal areas.

The EN sequence was initiated with a façade (see Appendix, Tab. V) consisting of at least two standing stones and an adjacent ‘offering’ pit in which at least one ceramic vessel, some flint tools and burnt bone had been deposited (Fig. 35 and 36). The façade has been  $^{14}\text{C}$ -dated to 3950–3690 cal. BC. During the EN II (3500–3300 cal. BC) a round dolmen was erected just 40 m west-northwest of the still standing long dolmen, and it is possible that it was rebuilt as a long dolmen (Söderberg 2014, 50–55). It is likely that there were even more dolmens in the vicinity, making Skegrie into another important ritual hub in the landscape. In connection with the cluster of megaliths, contemporary foundations for standing stones and pits with quite large amounts of ceramic and flint tools deposited have been excavated, implying that ritual activities have been of importance at the site.

### Vintrie Park

Vintrie Park was investigated in 2011 (Figs. 37 and 38). A burial field of long continuity was revealed with burial activities during the EN–early MN, the late MN (Battle Axe culture), the Late Neolithic, the Early Bronze Age and the early Roman Iron Age. Lastly, during the Viking Age and then again as a result of the plague of AD 1712 people were buried in the mound covering the chambers of long dolmen 1 which was then still standing (Brink/Hammarstrand Dehman 2013; 2015; Brink 2015; in press). All traces of this burial field were gone by the late 1700s–early 1800s as indicated by historical maps. The exception were some flat, red coloured sandstone slabs seen in the topsoil before excavation, indicating possible dry-walling in long dolmen 1 (see Fig. 38).

At Vintrie Park remains of two long barrows and two long dolmens were excavated. The long barrows were placed on the top of the small hillock dominating the middle trench in Fig. 37. They consisted of stone-filled pits where posts marked the eastern façades. There were no traces of the actual mounds left, thus the interpretation as long barrows rest on the façades. However, to the west of the façade of long barrow 1 two features interpreted as possible burials were documented. Both  $^{14}\text{C}$  dates and the two possible graves indicate different phases of this long barrow. Two  $^{14}\text{C}$  datings on charcoal from oak retrieved from the façade have been made, dating it to the early EN I and late EN I–EN II. The trial excavation report does not mention what part of the oaks were dated, thus there is a risk of old-wood effect (Aspeborg 2009, 19). Long barrow 2 lacks evidence of burials and only one  $^{14}\text{C}$  dating was made on hazelnut shell, placing it in a late part of the EN I. Pottery dated to the EN II–early MN indicates possible phases and/or later activities in this case too.

The two long dolmens were placed on the western and southern slope of the small hill dominating the middle trench, continuing into the southern trench seen in fig. 37. Long dolmen 2 was badly pre-

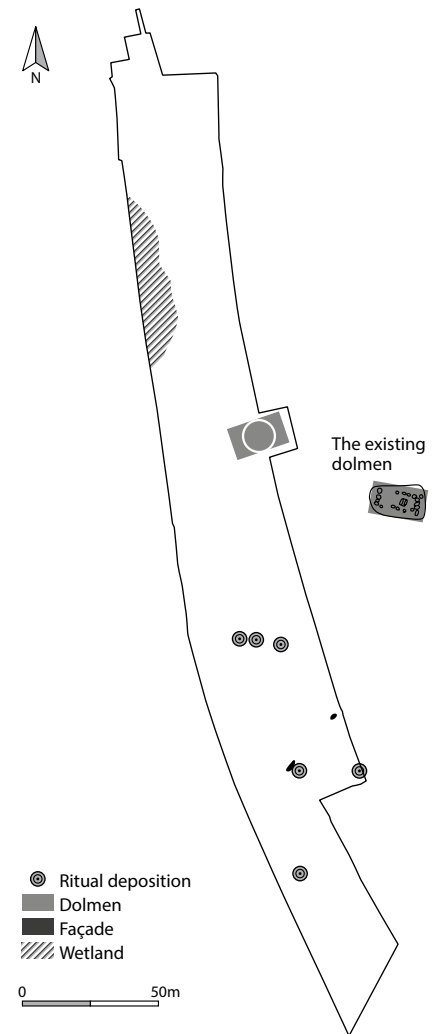


Fig. 36. Dolmens, façade and pits at the Skegrie site. Illustration: Henrik Pihl, The Archaeologists, Swedish National Historical Museums. From Andersson/Wallebom 2013, 130 fig. 1.

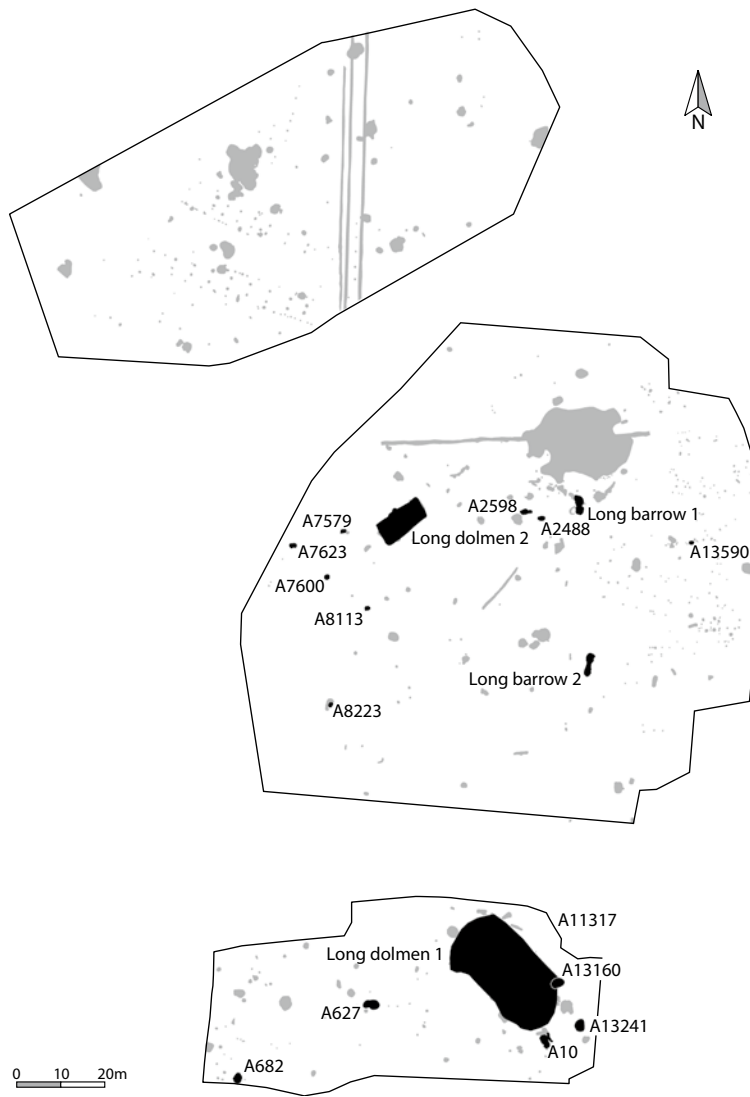


Fig. 37. Vintrie Park. Funnel Beaker Culture remains are filled (black). The huts were found under the eastern part of long dolmen 1. Illustration: Anders Gutehall. From Brink in press fig. 6.

served, consisting of shallow trenches where kerbstones once stood, and a packing of stone and flint interpreted as the chamber floor. Long dolmen 2 was slightly trapezoid in shape. No finds can be securely connected to burials or burial rituals. A flint scraper was found in the stone and flint packing of the chamber floor, put there as part of the construction.

Long dolmen 1 was located on a ledge on the southern slope of the hill. The ledge was partly formed when the monument was built. The remains consisted of a stone brim, pits where kerbstones have stood and two chamber areas with pits where chamber stones have stood (Fig. 38). In the stone brim several small slabs of red sandstones were found, used as dry walling between the larger blocks. Both chambers had openings; the eastern chamber towards the north/northeast and the western chamber towards the west/southwest. No finds could be connected to burials in the chambers. A few pits left by kerb stones on either side of the western chamber have been interpreted as the places of stones belonging to an initial phase of the monument (Fig. 38). It was extended when the western chamber was built. Barley retrieved from a hearth underneath the stone brim was <sup>14</sup>C-dated to a late part of EN I, 3710–3530 cal. 2  $\sigma$ BC. The hearth belonged to an older phase of settlement together with a few huts (Fig. 37). Well-preserved remains of a hut, A10, consisted of a floor layer with surrounding postholes, and with an opening towards the south. In the eastern part of the floor undecorated potte-



ry was found in a small concentration. Flint was scarce and does not reveal specific activities. The hut is dated to the EN I through the pottery and through its stratigraphic relation to long dolmen 1. It was found underneath the stone brim of the long dolmen. One more feature close by, A13160, was interpreted as a possible hut. A large part of the find material from the area of the long dolmen probably belongs to this earlier phase of occupation. There were, however, two areas where above all pottery was deposited (Fig. 38). These areas of deposition generally fit with areas outside the direction of the openings of the chambers. Pottery from the southern concentration is dated from EN I–early MN II. The northern concentration has pottery that to a large extent can be dated to the early MN I–II. Pottery of

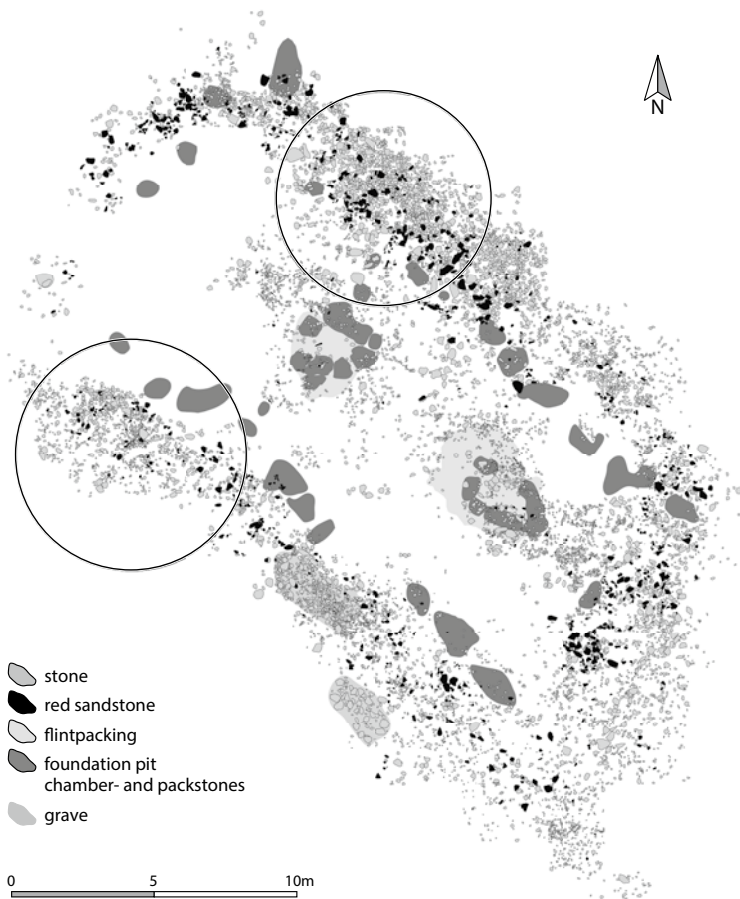


Fig. 38. Long dolmen 1, Vintrie Park. Circles indicate main areas of deposition (pottery). Illustration: Anders Gutehall. From Brink in press fig. 7.

a type normally associated with depositions outside passage graves made up part of the material. In the local region where Vintrie Park is located (the Malmö area) passage graves have not been found. As a whole this indicates that long dolmen 1 was built and extended in the very latest part of EN I at the earliest and then activities continued into the MN I–II. The depositions at long dolmen 1 at Vintrie Park and at the long dolmen in Hindby, a few kilometres to the NE (see Appendix, Tab. VI), indicate that certain long dolmens were used for depositions and rituals in a similar way as passage graves in other parts of Scania (Brink in press).

At Vintrie Park a few pits were investigated, dated to the time of the erection and use of the long dolmens (Fig. 37). In most cases they seem to have been dug in order to be used as places for depositing selected material. The finds were generally deposited together with soil and without apparent order, but there is also one case where material was carefully arranged in the pits before it was filled with soil. In pit A682 material seems to have been more carefully arranged in the pit. A stone packing close to the bottom of A682 had pieces of



pottery as well as teeth of cattle placed on it. Two individuals, among them a calf, were represented. Possibly whole craniums were deposited, but taphonomical effects may have erased evidence of this. In the backfill both flint and pottery were present. One pit, A13590, located in front of/between the long barrows and dated to the EN II–early MN, contained sooty material indicating fire and pottery, flint and animal bone (cattle identified) in the backfill. A group of features dated as a whole to the EN II, among them three in line indicating temporally close activities, were located south of long dolmen 2 (Fig. 37). They contained above all flint and pottery in the backfill. In A7623 pottery was found on a concentration of stones, probably indicating the placing of a single pot in the pit. Generally, the flint material from all the pits at Vintrie Park has been identified as the result of household production as well as specialized production of axes. Use-wear analysis on flints from pits in the middle trench in fig. 37 indicates that flints were used on a variety of materials; hard material such as wood or bone, soft skins and meat.

The Vintrie Park burial ground has been discussed in relation to the surrounding local settled landscape focusing on its social significance over time (Brink in press). In the early part of the EN I the first phases of the long barrows was connected to a nearby farm, house 17 at Svågertorps industriområde J. Another house, house 5 at Svågertorps industriområde A, about one kilometre to the east should perhaps also be related to the long barrows. This house has a very early <sup>14</sup>C dating of cereal (see Appendix, Tab. I). Important individuals living on the farm(s) may have been buried here. The activities represented by hut 10 etc. have been interpreted as part of building activities at the burial ground, thus not representing everyday activities.

Slightly later, when the two long dolmens were built and used, evidence suggests that there were more farms in the local surrounding landscape. Depositions at long dolmen 1 and in the pits thus indicate more complex relations in this landscape in the EN II–early MN II, c. 3500–3000 cal. BC. Depositions may indicate the collective importance of the old burial ground, although probably initiated or led by local high-status individuals.

## Almhov

Excavated by Malmö Heritage in 2001–2002 as part of the City Tunnel Project, the central assembly site of Almhov has produced an intriguing picture of a large feasting and burial site from the beginning of the EN (Fig. 39, see also Fig. 3) (Gidlöf et al. 2006; Gidlöf 2009; Rudebeck 2010; Rudebeck/Macheridis 2015). Radiocarbon datings suggest activity already from the Late Mesolithic–EN transition, continuing into the MN. A scenario suggested by Elisabeth Rudebeck places the most intense activities c. 3800–3700 cal. BC and c. 3370–3340 cal. BC (Rudebeck 2010, 208–213). Especially the EN I phase is interpreted in terms of recurring feasting as well as building and tending the first burial monuments (Rudebeck 2010, 100). The site consisted of a large number of pits in combination with remains of possible huts and four or five long barrows or façade graves and other ritual features. Two long dolmens were erected around 3500–3300 cal. BC. In total about 700 kilos of flint, 390 kilos of pottery, 160 kilos of used and worked stone and 41 kilos of animal bones were retrieved, mainly from the pits.

Located just 1.5 kilometres from the former shore of the Öresund Strait, the site had a favourable situation for easy access by the sea. In terms of economy, the marine resources may have been relatively

insignificant, especially in comparison to the Late Mesolithic settlements in the region. However, seal and fish bones as well as flints used for cutting fish show that marine resources were part of the economy (Högberg/Puseman/Yost 2009; Rudebeck 2010, 106–109). The osteological material is abundant, mainly recovered from pits, and includes cattle, sheep/goats, and pigs, indicating an economy dominated by animal husbandry. New results based on sequential sampling of tooth enamel carbonate carbon and oxygen isotope ratio analyses and strontium isotopic provenancing point towards cattle being manipulated to give birth in more than one season, indicating a focus on the production of milk and dairy-based products (Gron/Montgomery/Rowley-Conwy 2015). Remains of wild boar, some red deer, and many burnt hazelnut fragments show that hunting and foraging continued to be of importance (Gidlöf et al. 2006; Rudebeck 2010; Rudebeck/Macheridis 2015). Finds of carbonized seeds in the pits, primarily wheat and barley, indicate the use of cereals at the site.

Judging from the features at Almhov, some as early as from 4000–3800 cal. BC, and from the artefacts, the main activities were cooking, craft, feasting and burying. Substantial quantities of ceramics, flint objects and animal bones were deposited in the roughly 190 pits on the site. Also, ceramic vessels found in several of the pits had a size and appearance suggesting that ritual drinking, perhaps of some kind of intoxicating drink, played an important role at the gatherings.

Around 80 pits appeared in pairs or small clusters. The paired pits have been interpreted as the result of a functional division related to activities during assemblies (Rudebeck 2010, 168; Rudebeck/Macheridis 2015, 181). The interpretation rests on patterns of quantity as well as quality of the find material from the pits. One pit in each pair was used for storage and the other as a working pit connected to craft, butchering and cooking. Later, when the gathering was coming to an end, the working pit was filled with waste from these activities. The pits backfilled with the bulk of the waste thus indicate a spatial association with craft production, butchering, cooking and consumption. In addition, many of the unexcavated postholes at the site appeared in pairs, usually 2–4 metres apart. These hypothetical post pairs, in all about 30 pairs, were located on the periphery of the Early Neolithic activity area, often in proximity to the pit pairs and pit clusters (Fig. 39). Rudebeck (2010, 139) has suggested that these postholes may have been traces of small huts or tents, connected to the pit pairs/clusters.

The first burial was covered by a large long barrow, about 90 m long and 8 m wide, with a post-built, eastern façade. The long barrow covered some of the pits and postholes, which shows that the first burial at the site was made after the start of the ritual activities on the site. Cereal seeds from the façade of the monumental grave have been <sup>14</sup>C-dated to 3940–3660 cal. BC and perhaps it was the physical manifestation of a reputed ancestor, the original founder of a local or regional FBC group or clan. Establishing the corporate nature and the property rights of the group, this early monument associated with seasonal gatherings and feasts would have created a focal point marking property relationships between the group and its territory.

The original layout of the central assembly place at Almhov probably emerged organically, starting c. 4000 to 3800 cal. BC. The pits and huts formed ten concentrations, roughly encircling an open centre. The first long barrow was erected in the southwestern part of the site, covering older pits and huts. Over 100–200 years, three or four more long barrows or façade graves without barrows were constructed, creating what became an impressive monumental fan-shaped



grouping of tombs with façades and in some cases long barrows. To the east of the façades were areas with lower phosphate values than elsewhere on the site, partly overlapping with areas with few or no features. These areas may have been arenas for social and ritual activities. At an early stage a deep well was dug to the south of the long barrow and a stone platform with adjoining wooden posts was built to the east of the façade. The well indicates ritual activities connected to water, while the stone platform, containing red deer bones and antlers, which have had a special meaning since the Late Mesolithic in southern Scandinavia, indicates a ritualized connection with hunting. This is supported by the 328 transverse arrowheads found on the site.

After 300 years people returned to Almhov to bury their dead again; two long dolmens were erected around 3500 cal. BC, one directly on top of the well and the other over the stone platform. The early features must still have been visible, or at least well known through oral tradition, when the long dolmens were built. With the still standing long barrows and façade graves, the site probably became an impressive ritual monument with a deep history and long tradition.

### Döserygg

Excavations of the Döserygg site were conducted by the National Heritage Board, Lund, during 2006–2008 as a part of the construction of the E6 motorway to the south of the city of Malmö, southwestern Scania (Andersson/Wallebom 2011, 2013). Altogether, the investigations have revealed a large megalithic complex dating to the EN and MN, c. 4000–2600 BC. According to the  $^{14}\text{C}$  datings and the ceramics and flint tools found, the site was established around 4000 BC and it was used for approximately 1400 years. The site displays a rare

Fig. 39. EN I central assembly place at Almhov, to the south of Malmö, southwest Scania, southern Sweden. In the excavated area there were a large number of pits placed in pairs or small clusters (black dots), postholes (red dots, marking the positions of hypothetical huts), 4–5 long barrows or façade graves (black stars) and two later long dolmens (green areas). The pits and postholes were concentrated in ten areas (grey areas) interpreted as areas for cooking and dwelling, roughly encircling an open centre. This could imply the seasonal presence of several regionally based FBC groups at the site. Yellow indicates areas with low levels of phosphates and the round areas to the east of the façades (black lines) show areas with few or no features. Hypothetically, these areas were kept clean and used for rituals and dancing. From Rudebeck 2010, 213 fig. 30. Scale 1:3000.

combination of finds and monuments, reflecting different aspects of Neolithic society. Analysis of the large and complex material from the excavations is still in progress (cf. Andersson/Wallebom 2013a; 2013b) and additional research excavations at the site are planned.

The site was placed on a ridge bordered by wetlands and streams to either side. It was surrounded by an extensive network of lakes, rivers and wetlands and as the sea level was about 4 m higher than today (Regnell/Sjögren 2006), access by water was possible from all directions; from the south a 7 km long bay stretched up to the site from the Baltic Sea and to the west a narrow, 3 km long bay ran from the Öresund Strait almost all the way to the site (Fig. 40).

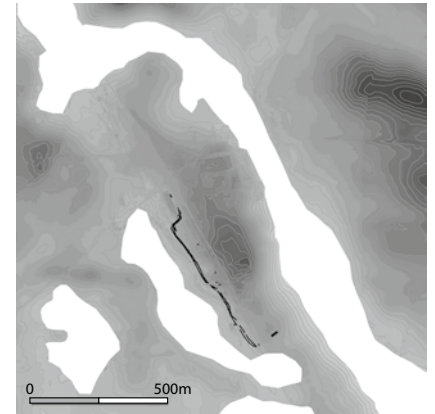
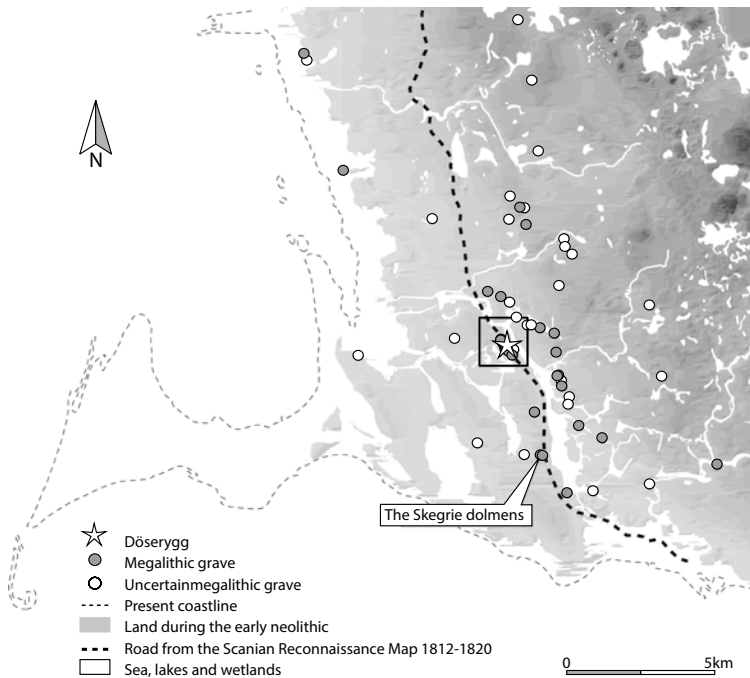


Fig. 40. The reconstructed Neolithic landscape in the vicinity of Döserygg. Sea level is 4 m above the present level. Illustration: Henrik Pihl, The Archaeologists, Swedish National Historical Museums.

The main structures identified at the site consist of an irregular megalithic monument, at least twenty destroyed and ploughed-out megalithic monuments (long dolmens and round dolmens), a stone circle, a system of pits and ditches with lines of standing stones and extensive stone packings delimiting the site from the wetland in the west, offering pits and a palisaded enclosure (Fig. 41). The site also yielded rich find material of grave goods and ritual deposits in pits and the surrounding wetlands.

As the excavation did not cover the whole site, even more monumental structures and dolmens are likely to be found in the remaining area of the ridge, and it is also possible that passage graves were added later. The number of megaliths inside the palisaded area is hard to estimate, but it is not unlikely that at least double the number of now excavated dolmens are present in the area. This makes Döserygg one of the most complex burial and assembly sites in southern Scandinavia.

Excavations recovered many grave goods and ritual deposits in wetlands and pits showing recurring ritual use. In the surrounding regions little is known of contemporary settlements, but they appear to have been relatively small and sparsely distributed. Animal husbandry and cereal farming dominated the subsistence economy, supplemented by hunting, fishing and foraging.

Although suffering heavy destruction and plough damage and thus missing wall and roof slabs of chambers and most kerbstones,



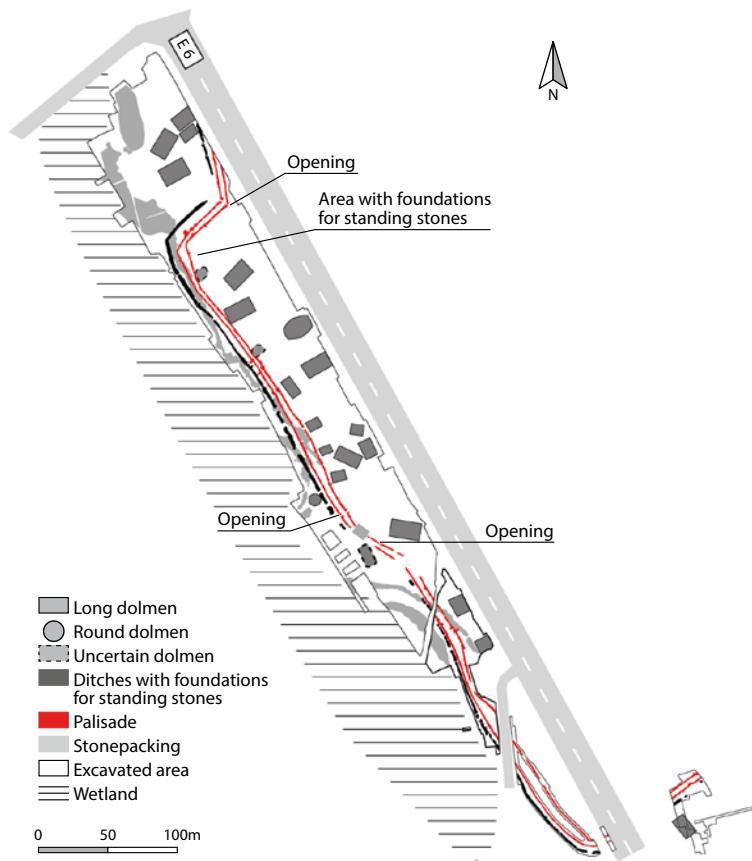


Fig. 41. The megalithic complex at Döterygg, southwestern Scania, southern Sweden. Illustration: Henrik Pihl, The Archaeologists, Swedish National Historical Museums.

dolmens were recognized in the excavations by rectangular pavings of small stones and flints placed around the tomb. Gaps in the paving and dark impressions in the earth showed where the kerbstones originally stood. The size of the long dolmens ranged from 10×6 to 22×15 m. The burial chambers were indicated by impressions of the wall slabs. All dolmens but one had a single central chamber, and the exception with two chambers is quite unusual for Scania. Finds from the dolmens consist of fragmented flint axes, scrapers, blades and considerable amounts of pottery of different types and quality occurred around the grave chambers and beside the kerbstones. No untouched burials in the grave chambers of the dolmens were found.

The impressive palisades consisted of two parallel trenches, running north–south for almost 730 m inside the excavated area, disappearing outside in both directions. The space between the palisades varied between 3 and 8 m and well-preserved postholes document that 3–4 posts were set per metre of palisade trench, creating long wooden walls. The total number of posts required to build the palisades within the excavated area has been estimated at 5000. Three distinct entrances in the palisades could be identified. Standing stones and larger posts marked these openings (Fig. 42). Flakes from axe manufacture, axe fragments, scrapers, burnt flint and several broken whetstones for grinding and sharpening axes were found in the palisade trenches, suggesting that the tools for building the palisades were deposited here, probably representing the ritual importance of the construction event.

A stone-built platform had been erected where a short break existed in the palisade lines as they bent slightly. The stone platform was apparently an integrated part of an overall construction plan. It had straight edges and a protruding segment and may have served as the floor for a cult house. At the centre of the stone platform was

a gap suggesting the location of a large standing stone or wooden pole. The exact use of the platform is still ambiguous as there are no finds that can resolve its function.

Along the western palisade line were several ditch-like features with varying depth. Many of them held stone-lined foundations for standing stones and impressions left by large stones, exactly like the stone pavements and homogeneous filling observed for the kerbstones and chamber stones in the dolmens. A long line of standing stones with some small gaps was apparently constructed here. The size of the stone impressions varied from 0.4 to 1.5 m in diameter, suggesting that the standing stones varied in girth and height and so produced an undulating alignment. The total number of standing stones is estimated to have been around 300, within the excavated area alone.

As we have seen, Döserygg was located on a ridge that once had wetlands and rivers on either side. On the former western shoreline a long, extensive stone packing or low stone wall of varying density was constructed, constituting a boundary between land and water. The stone packing was present in every place where the former wetland and shoreline was included in the excavated area, corresponding to a stretch of almost 500 m. The interpretation that is currently believed to be the most probable is that it was constructed in connection with rising water levels when a climate change affected the landscape (Risberg/Regnell 2006), as an attempt to protect the monuments close to the wetland. Finds of whole and fragmented thick-butted flint axes and chisels in the stone packings imply that activities of some kind were going on during the early MN and up to the transition between the early and the late MN (c. 3300–2600 BC).



Fig. 42. One of the openings in the palisades at Döserygg. From Andersson/Wallebom 2011:93.

Associated with the structures at Döserygg, sacrificial activities and ritual feasting were evident, although more ambiguous than at Almhov. Several flint axes and many scrapers, some burnt, were discovered in the wetland to the west of the site. Also, a ceramic vessel with some kind of food offering was discovered here. Sacrificial activities also took place on dry land; in a number of pits beside the openings in the palisades and close by some of the dolmens, ceramic vessels were found together with large quantities of flint scrapers and parts of axes. The bones from the wetland and pits were limited, but consisted mostly of burnt fragments of cattle, domesticated pig, sheep/goat or roe deer, red deer and seal, probably representing feasting residues.

The chronological relationship between the various components at Döserygg is still the subject of analysis and discussion within the Döserygg project. Based on the rich find material, contextual and stratigraphic relations, in combination with  $^{14}\text{C}$  datings, it is quite clear that the components all relate to each other. The site had a monumental design already in the EN with wetland deposits and the construction of numerous dolmens and other megalithic structures.

Early  $^{14}\text{C}$  datings together with find material could be seen as an indication that even the system of pits and ditches with line of standing stones and the palisades were erected during the EN while other  $^{14}\text{C}$  datings corroborate that the ditches as well as the palisades should be dated to the transition between the early and late MN (c. 2800 BC).

The  $^{14}\text{C}$  datings at Döserygg cover a relatively long time span, concentrated mainly in two clusters: c. 4000–3300 cal. BC and 2800–2600 cal. BC. These two clusters could be seen as an indication that the megalithic monuments were constructed during the EN while the palisade was erected during the transition between the early and late MN. The EN  $^{14}\text{C}$  dating and find material found in the palisade trenches can in that case be easily explained as traces of earlier activities at the site that ended up in the palisade trenches when they were dug during the MN.

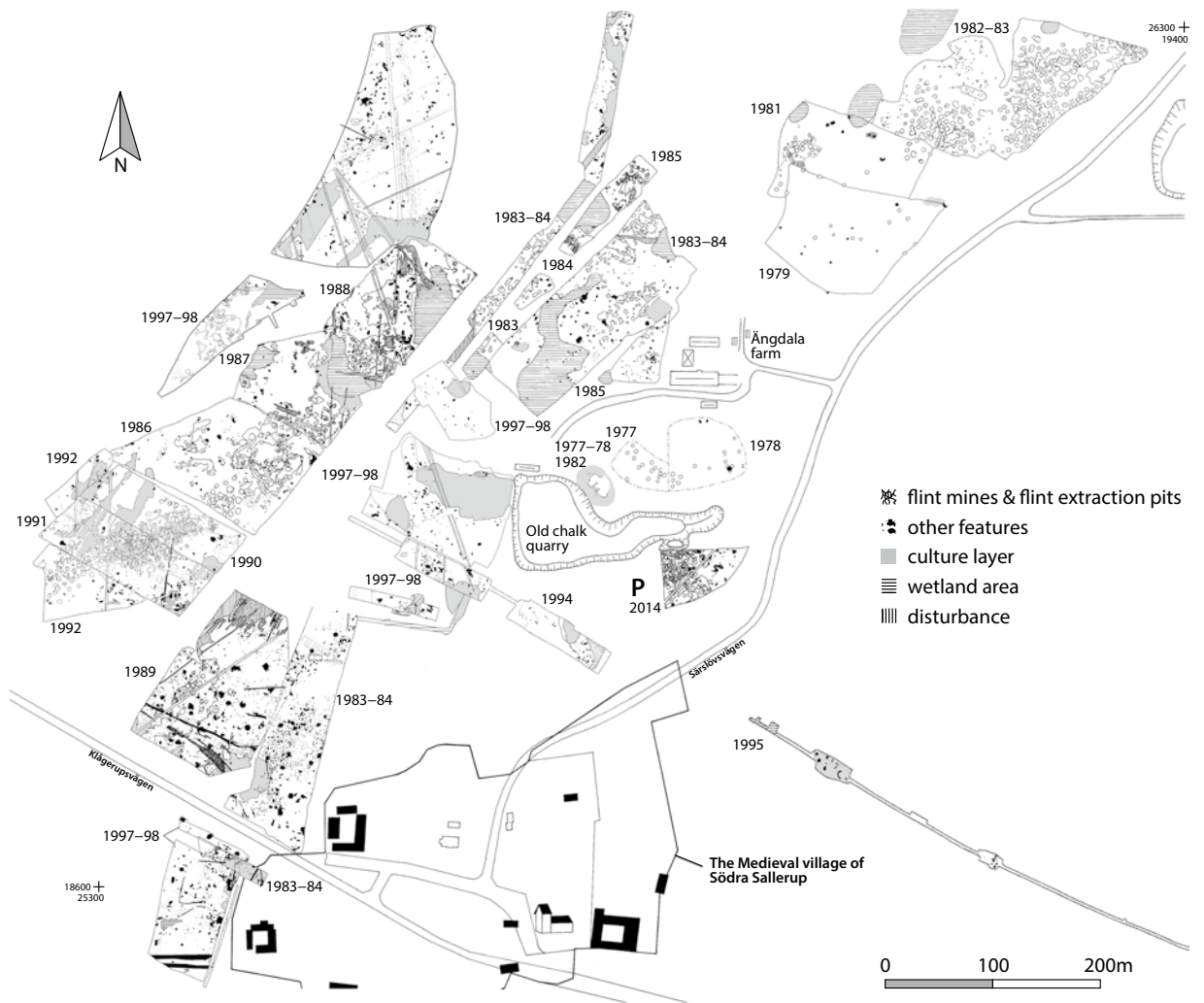
Where to place the palisade in the chronology is therefore still an open question. The interpretation of  $^{14}\text{C}$  datings is quite problematic at sites like Döserygg that were in use continuously for such a long time span and with such a high degree of intense activities and redesign of the structures, but also intense destruction through agriculture activities, such as plough-out effects, in modern times. For this reason, one has to calculate with the fact that the datings could be secondary to the feature's primary phase. Forthcoming  $^{14}\text{C}$  datings from the palisade and the ditches will hopefully clarify the chronological conditions of the site.

Lastly, beside the EN and MN activities, traces of sporadic activities during the Late Neolithic, Bronze Age and Early Iron Age have been documented at the site, but nothing that indicates any more extensive use, at least not within the investigation area. Perhaps the monumental site at Döserygg was considered to be charged with ritual power and viewed as taboo during these periods? Later, during the Late Iron Age, the site seems to have been used for settlements, a pattern also recognized from other megalithic sites (cf. Söderberg 2014). Remains of two pit-houses and a post-built longhouse indicate that a number of farmsteads were established in the area during this time.

Döserygg was probably an important burial and gathering place in a central region in southwestern Scania with a large concentration of megalithic graves. Close by, on the extended flat ridges bordering the larger bay, were numerous megalithic monuments. Just 4 km to the south at Skegrie lies another, smaller cluster of dolmens, but in this case with a still standing long dolmen adjoining (see below). The megalithic graves in southwest Scania concentrate unevenly in the southwest plains, where 45 dolmens have been documented. The excavation at Döserygg and studies of the degree of preservation of megalithic tombs in southwestern Scania, partly through analysis of old field-names and old maps, show that more dolmens must have existed; in the 17th and 18th centuries nearly 150 preserved megalithic tombs still existed in the region. The total number during the Neolithic can now be estimated to have been between 400 and 800, making this region one of the most important megalithic domains in southern Scandinavia, comparable with central regions in Sealand (Schülke 2008) and Funen (Andersen 2010; 2013) in Denmark.

## Södra Sallerup – mines, quarries and large-scale extraction of flint

Already from the introduction of the Michelsberg culture in Central Europe, mining and quarrying for flint and other stone materials was important for the provision of high-quality raw materials. In southern Scandinavia, mining and quarrying for flint started around 4000 cal. BC (Rudebeck 1986; Russell 2000; Jensen 2001: 324–332; Kieselbach 2010; Barber et al. 1999; Berggren et al. in press). The known flint mining areas in southern Sweden are concentrated in Södra Sallerup just to the east of the city of Malmö. Large areas have been excavated from the 1970s onwards, producing an impressive amount of features connected to well-developed and quite advan-



ced flint mining (Fig. 43). At least 400 flint mines and open quarries of different depth and size have been excavated so far (Rudebeck 1986; 1994, 10). Quite a few of the mines and quarries have been <sup>14</sup>C-dated to the beginning of EN I, 4000–3800 cal. BC, indicating intense flint quarrying connected with the introduction of the Neolithic Funnel Beaker Culture in the region. According to the latest results there does not seem to be a chronological division between the deep flint mines and the open quarries (Berggren et al. in press).

As there is no detailed analysis of the lithic material from the quarrying areas so far, the full range of what the flint was used for is unclear. Studies nevertheless show that the main product during the first centuries seems to have been point-butted axes of different types and sizes (Rudebeck 1998; Berggren et al. in press). This is the ol-

Fig. 43. Areas with flint mines and open quarries excavated at Södra Sallerup just to the east of Malmö. The archaeologically excavated areas are marked with the year of excavation. The most recent area excavated, Pålblad, is marked with P (Berggren et al. in press). Illustration: map by Elisabeth Rudebeck, Sydsvensk Arkeologi, revised by Anders Gutehall and Joakim Frejd, Sydsvensk Arkeologi.



dest Neolithic type of flint axe in Scandinavia, which confirms the early <sup>14</sup>C dates from the activities in the area. It might even be that the quarrying was most intense during these early centuries, implying a quick adoption of the technique to extract flint by mining (Rudebeck 1994, 12, table 1). Therefore, it cannot be ruled out that know-how was directly introduced to southern Scandinavia by experts on mining from continental Europe. Parallel to this hypothesis, some researchers have lately reintroduced the old idea that the Neolithization of Scandinavia has its roots in a more or less extensive immigration of Michelsberg groups from continental Europe, searching for new grazing and farming land and prospecting for possible flint and copper resources (for discussion see Klassen 2000; 2004; Kieselbach 2010; Ruter 2011; Sørensen 2014; Sørensen/Karg 2012).

In the areas of mining and quarrying, different types of aggregations of worked flint have been found, representing both primary working areas and secondary depositions of waste (Rudebeck 1986, 15). Also, some concentrations of finds like scrapers probably represent working areas where different kinds of handicrafts connected with the mining and quarrying itself have been located, as the manufacture of antler pickaxes, wooden handles and ladders must have been substantial (Rudebeck 1986, 6). Consequently, the operation can be described as almost being on an industrial scale with specialized craftsmen in charge of the more complex and hazardous work. The 2–8 m deep mine shafts have been perilous workplaces, and to avoid the collapse of the mine walls the work must have been performed in an organized and systematic way, with every mine being emptied of its flint nodules and then refilled before a new, adjoining one could be opened (for discussion see Roth 2008, 250–269). Also, the provision of craftsmen with food and other resources must have depended on the production and direction of an economic surplus that could be invested in the mining operations.

The impact of mining and quarrying on the environment must have been extensive and in some cases devastating, at least locally. Large areas were transformed into waste land, probably constituted by large, shallow craters and mounds of material from the flint mines and quarries. Also, erosion might have had an impact on the surrounding grazing and farming land, probably reducing the local base for the provision of food and other resources. This was probably the first time in southern Scandinavia when human activities had a major impact on the environment, which could have had consequences for how Neolithic man viewed himself as an actor in nature and his relationship to the landscape.

## **Living, depositing, burying – a discussion of settlements, pits and monuments**

### **The settlements – houses and huts**

Although several scholars have devised systems which describe the settlement patterns of the early Funnel Beaker culture, few attempts have been made to understand the activities performed on the settlements. The results of recent years' rescue excavations, as we shall see, have nevertheless shown that there is a pattern in the way that the Early Neolithic population organized itself. Although we cannot clarify in detail how they carried out their everyday activities, it is possible to detect several underlying motifs in the use of the settlements. Different areas in which different activities were performed can be discerned.

The intention in the following sections is to discuss the function and significance of different houses and huts. The idea is to study different locations with buildings. Studies of the excavated sites seek to understand the meaning of the individual construction. An understanding of the buildings also requires an understanding of the organization of the place. This is dependent on an ability to identify the type and date of individual features and ascertain their mutual spatial relations, to analyse the composition of the material, and to chart the topographical location of the place and its relation to contemporary surrounding remains.

### The settled Early Neolithic landscape – an introduction

Of the hitherto published EN settlements sites in Skåne, the majority are in parts of the west and southwest of the province. It is above all the intensive developer-funded archaeology conducted by Malmö Museum/Malmö Heritage and the National Heritage Board/National Historical Museums in the last thirty years that has added to our knowledge (e.g. Andersson 2003; 2004a; 2004b; Svensson 2003; Björhem/Magnusson Staaf 2006; Rostoványi 2007; Hadevik 2009a; Berggren 2010; Rudebeck 2010; Brink in press; Andersson/Artursson in press b)

In several cases it can be shown that EN settlements were located in places which had previously been used in the Late Mesolithic (Andersson 2003; 2004a; Rostoványi 2007). Tradition was evidently important when settlements sites were established. The coastal settlements were not abandoned at the transition to the Neolithic; several of the big Late Mesolithic sites were also occupied in EN I. In this way the ancestors' sense for and knowledge of the landscape were passed on and a social landmark was created, constituting a permanent place in a partly mobile way of life. This understanding was not just a matter of the physical landscape but also of the landscape as a social construction.

In the opening phase of the EN, however, new settlements were also established, above all along the river systems further inland (Andersson 2003; 2004a; Svensson 2003). Leaving a life by the sea must have been a rather big step. Along the coast, by lagoons and river mouths, people were active for most of the year, utilizing the diversity and variation of food resources both in the sea and on land. There was a long tradition and knowledge of how to organize the landscape in the coastal region. The establishment of inland settlements has sometimes been explained in terms of a minor change in climate affecting the ecological and economic conditions for the coastal populations and forcing a transition to a Neolithic economy and movements inland. The Late Mesolithic and EN economy, however, was flexible (e.g. Larsson, L. 1984; Karsten 2004), and a minor ecological change probably did not mean that people altered their way of life. To some extent new ideas about e.g. economy and settlement organization could have been brought to southern Scandinavia by influences from the continent, perhaps even by migrating groups (see chapter Becoming Neolithic for further discussion).

### Methodological problems concerning the Early Neolithic building tradition

Very few places from the earliest Neolithic have traces of buildings and if so, rarely more than one house or one hut (Artursson et al. 2003; Hadevik 2009a; Hadevik 2010). The settlements in both Scania

and Denmark have been described in earlier research as consisting of small and scattered households which functioned for brief periods of time (e.g. Larsson, L. 1992; Larsson, M. 1984; 1992; Madsen/Jensen 1982; Eriksen/Madsen 1984). These results can to a large extent be explained by contemporary excavation methods, i.e. small excavation areas and extensive reliance on results from surface surveys. The relatively small identified areas with remains of settlements from EN found in Denmark and southern Sweden were generally considered as traces of the entire existing settlements. It was never assumed that it could be the richest areas of a larger settlement area or areas of specific activities leaving archaeologically more easily identifiable traces (cf. Brink in press). It should be pointed out that any assessment of the extent of settlements is based on the excavation of rather small areas.

A change in the view of how EN and MN settlements should be excavated in order to better understand their organization can be traced back to the 1990s, when a number of major road and rail projects provided opportunities to explore large areas of settlements from these periods in Scania (e.g. Svensson 2003; Andersson 2003; Andersson 2004a; Andersson 2004b; Björhem/Magnusson Staaf 2006; Rostoványi 2007; Hadevik 2009a; Berggren 2010; Rudebeck 2010; Brink in press; Andersson/Wallebom 2011; Andersson/Wallebom 2013a, b). Although entire settlements only rarely have been investigated at these sites, sufficient areas have been excavated in order to make it possible to study different types of supposed contemporary hut and house structures in the same dwelling, the location of various activities in relation to the buildings, the handling of waste within settlements, ritual structures on dwelling sites etc. The recent excavations have shown that some of the EN main settlements were much larger in area than previous archaeologists had found for Scania. Both large and small dwelling sites appear to have existed in parallel. Some of them seem to have been big enough to be occupied by groups larger than a single family, perhaps a whole kin group. The size of dwelling sites shows that space was required for different activities and that there was successive expansion (Artursson et al. 2003; Andersson 2004). The big settlements in EN I were not just places for dwelling; they were also the scene of burials and votive ceremonies which meant that larger areas were claimed (Andersson/Artursson in press a; Brink in press).

It should be pointed out that a strict division of different categories of archaeological remains, such as dwelling site, burial place, and so on, is – at least in part – a simplification. We may expect that prehistoric people did not distinguish between different concepts such as economic, social and spiritual. Setting up a camp or erecting a monument no doubt had what we define as social, economic and spiritual meanings, but for prehistoric people these categories were probably indistinguishable. We also see in the same places traces of activities which we could consider to be of both sacred and secular nature. An important precondition is that the houses and dwelling sites are more than just a place for sleeping and eating. No dwelling site can be understood if we assume that all its elements have solely a practical function (e.g. Bradley 1998). The houses can tell us about the organization of the household and society, but they can simultaneously be reflections of cosmology and beliefs (e.g. Cooney 2000; Cross 2003; Thomas 2013). Like all human activity, the arrangements in the habitation area, tool manufacture, cooking, or waste handling followed structured, deep-rooted cultural norms.

Another methodological problem related to the interpretation of the organization of settlements involves the excavation of culture layers. "Excavation reports tend to view them as either cases of thro-

wing waste into a (former) wetland or as traces of settlement in general if they are found on what is interpreted as having been dry land during the Neolithic. Interpretations rest on rather summary excavation. Thoroughly investigating layers is time-consuming, which means that often only a few square metres have been excavated in order to retrieve datable artefacts" (Brink in press). To investigate and document leached cultural layers is generally difficult. It is therefore important to continuously conduct a methodological and interpretative discussion about their potential information and about the most appropriate excavation method. Cultural layers are created by deposits of various kinds. Human activities and thus social interactions have shaped their creation, location and appearance. Cultural layers should therefore also be regarded as material culture in the same way as artefacts (see e.g. Larsson 2000; Balić 2007). We need to be aware that cultural layers may represent buildings or other complex structure. Systematic excavation is needed in order to interpret these remains. The single context method, which is common for excavations of medieval remains, could be useful (e.g. Larsson 2000). These features should be excavated horizontally, layer by layer, so that a potential stratigraphy can be distinguished. In this way, various structures at different levels could be identified. With this method, remains of huts and houses with sunken floors have been identified in southwest Scania in the last twenty years (e.g. Artursson et al. 2003; Andersson et al. 2006; Hadevik 2010; Andersson/Artursson in press a; in press b).

### Types of houses and huts

All excavated houses/huts in southwest Scania dated to the EN are presented in this article in tables (see Appendix, Tabs. I–IV). Then a few of the sites with houses/huts are discussed with the aim of highlighting them in different habitat contexts. In this article huts are separated from houses in that they lack a roof-line of postholes, i.e. traces of the roof-bearing structure, although sometimes there are occasional roof-postholes. In the tables, we have only included houses/huts that show clear construction details, such as systematically placed postholes, wall trenches, floor layers etc., which may be attached to a building. We have omitted remains which the investigating archaeologists considered uncertain.

An overview of the EN hut and house material from southern Scandinavia shows that there are a number of more or less distinct types of buildings that can be found in virtually the entire area (Artursson et al. 2003; Hadevik 2009a; 2010; see also Larsson/Brink 2013; Müller 2014; Sørensen 2014). The house material from the EN is still quite limited, although excavations in the last twenty years have improved the data significantly. The documented houses confirm the picture of heterogeneous building structures during the initial phase of the EN, although specific types definitely can be discerned. Although the buildings vary in some of the details regarding the construction, such as the number of wall and roof posts, the roof-bearing construction, sunken floor or not, size etc., there seems to be a formative tradition in houses/huts from the EN. If we look at buildings from the same phase as those in Östra Odarslöv, the earliest part of the EN (EN I), the round-oval shape is dominant – regarding both the huts and the longhouses.

We know a number of round-oval houses in southwest Scania, with or without sunken floor, which date back to the beginning of EN. Not until a later part of the EN (EN II) does a rectangular or trapezoid house shape seem to occur more frequently.



Similar to the situation in Östra Odarslöv, EN huts in general can, broadly speaking, be divided into two types during this early phase (cf. Artursson et al. 2003; Andersson 2004a; Hadevik 2009a; Hadevik 2010): (1) round or round oval huts with sunken floor/trodden surface, hearths and sometimes with postholes for roof and/or walls and (2) simple huts with U-shaped or curved wall trenches sometimes with roof/wall postholes and an associated hearth.

The round oval form and the U-shaped or curved type are the predominant during the EN. However, other types exist, such as clusters of postholes, but there it is difficult to discern a clear structure. We list in tables some of those in this category which have been interpreted as huts.

### Settlements in the interior

Unlike the Late Mesolithic sites, several of the registered EN sites are in the interior. Most of the inland sites, however, are close to watercourses or wetlands. There is no continuity back in time to Late Mesolithic at these sites. However, contact with the familiar coastal regions was retained both physically and mentally via the water routes. Most of the EN inland settlements are relatively small, but a few larger dwelling sites in the interior have been documented.

Dagstorp 19 is an example showing that certain groups in the initial phase of the Neolithic moved their more permanent settlement from the coast to inland watercourses, perhaps to establish new farmlands. The place has been populated since the earliest Neolithic throughout the EN and the MN.

Within the excavated area at Dagstorp 19 there were two longhouses and a hut which can be dated to EN I. It is not possible to determine with certainty whether it is a large household with accompanying houses for different functions or several contemporary households. Of course, there may also be a certain chronological difference between the buildings. The occurrence of several houses, however, might indicate dwellings for two or more individual family units. It seems as if there was an open area at the centre of the settlements at Dagstorp 19, perhaps used for communal activities. The buildings are in the eastern and western parts of the settlement, with extensive surviving occupation layers left by human activities in between (Andersson 2004a; Müller 2014).

The total quantity of finds and the scope of the occupation layers and features at Dagstorp suggest that the site functioned as a main settlement. By this is meant a location where people lived for the major part of the year, or even the whole year, and from where special 'work groups' proceeded. This hamlet-like site, with longhouses, may be evidence of more permanent settlements perhaps corresponding to the needs of an emerging agricultural economy (permanence, space for storage and perhaps even stables for cattle etc.). Despite the poor preservation conditions for organic material at the site, there were indications that agriculture played a role. Various barley and wheat types were encountered (Andersson 2004a). The introduction of cultivation and animal husbandry, albeit on a small scale, entailed changes to the appearance of the landscape that subsequently had an impact on people and their relations and, by extension, in the design of houses.

The Dagstorp settlement is centrally located within the 'enclosed space' formed here by the Saxå/Välabäcken valley. Several dwelling sites, megalithic tombs, and votive sites are concentrated here, on sandy spots along the river (Fig. 19). Dwelling sites where only a small

amount of finds are documented are located on the hills of Karaby Backar and along the river, both east and west of the Dagstorp settlement. Their function and meaning cannot be determined on the basis of the meagre finds and the lack of osteological material.

The settlement at Östra Karaby is situated about six kilometres northeast of the Dagstorp settlement (Andersson et al. 2006). Using the waterways along the Saxån stream and its tributaries, the distance is approximately 10 kilometres. It is reasonable to assume that Östra Karaby was in the resource area exploited by the population of the main settlement at Dagstorp. Although the buildings on the site were stable structures, the sparse find materials and the few features suggest that the site was used only during parts of the year. It is likely that the settlement was of a temporary seasonal nature. Why did people settle in a previously unvisited inland area?

Some of the places surrounding permanent settlements, such as Östra Karaby, may be the result of an economy partly based on transhumance, that is, a stationary settlement combined with the seasonal use of grazing land away from the base site. The form of transhumance proposed means that cattle were moved from the lowlands (the area at the Dagstorp settlement) to the highlands (Östra Karaby) during the summer and back before winter. Transhumance did not mean a totally nomadic way of life, as there was always a more or less permanent settlement. The concentration of settlements along the brooks of Saxån and Välabäcken in the Dagstorp area during the EN may have affected how livestock farming took place. As the habitation became increasingly concentrated, transhumance was introduced. The cattle were transferred from the valleys around the streams to previously unexploited areas of the hilly landscape at Östra Karaby (Fig. 19).

The conditions at Östra Odarslöv (and Herrestorp) is reminiscent of Dagstorp – a settlement located on the inland watercourses. The settlement at Östra Odarslöv appears to be one of the largest EN I sites that we know and can be regarded as a main settlement assumed to have been used during much of the year. There were two longhouses and fourteen huts which can be dated to EN I. The archaeological source material, in the form of finds and structures, shows that different activities took place at the site. The presence of graves and monuments on or near the site is yet another sign of the significance of the place. The diet at the site was mostly based on agriculture, i.e. cereal growing and livestock farming. Lipid analysis showed that different types of milk products were produced on site and used in cooking. The element of hunting, fishing and gathering was probably relatively small.

The contemporary existence of huts and longhouses during the second building phase could be interpreted as there being a growing hierarchical social structure on the site, or that family structure was more complex than expected. The longhouses may also have acted as the settlement's community hall, a place for shared celebrations and/or general administrative tasks. An alternative can therefore be that some of the longhouses even in south Sweden functioned as a meeting place and/or feasting halls. The location of the houses 'in the middle of the village' in Östra Odarslöv proves this hypothesis. In this case, then, several of the huts had consequently functioned as dwellings. This might also explain why longhouses are relatively uncommon at Östra Odarslöv, and elsewhere in South Scandinavia, where most other domestic structures, permanent or temporary, throughout EN were small and oval/circular.

The introduction of agriculture is probably one reason why parts of the population followed the waterways and opened up new settlements in the inland, such as Östra Odarslöv and Dagstorp 19. Pro-

duction surpluses that were created through time in the growing agricultural economy meant that larger social units were formed. More labour- and time-consuming projects could be implemented. An elite emerged that institutionalized and marked its power visually, perhaps by bigger houses and eventually monumental tombs as seen in the examples of Dagstorp, Vintrie Park and Östra Odarslöv.

The control of production led to control of the relationship between individuals in society, and certain dominant interest groups were favoured. A system of ownership emerged whereby grain and cattle were produced and exchanged. This led to greater competition between groups and the growth of social differentiation. Monuments, pottery, and axes were intimately associated in these strategies between rival groups. To be able to maintain the symbolic power more communal projects required to be undertaken (cf. Hodder 1990; Tilley 1996). One way to legitimate and pass on the power of the dominant groups in EN society was probably the construction of communal monuments. Perhaps the longhouses are the first stage in this process and should be considered as monuments and collective places. The agglomerated settlement, and the longhouses, could be interpreted in terms of the successful strategy of an elite to establish social control, which was legitimized in the collective ritual.

Even at the Herrestorp site, between 4 and 5 kilometres from the Neolithic coast, the remains indicate the presence of a small hamlet. The finds show that agriculture and animal husbandry were part of the economy. On the site there are remains of several huts but no longhouses (Brink/Hammarstrand Dehman/Helgesson 2014). Larger buildings that were able to hold the people for special meetings might not have been necessary here, implying different social needs and/or strategies within the region. Only a few kilometres to the south is the burial place and assembly site Döserygg. Perhaps this was the place where the people in this region held larger gatherings.

### Settlements on the coast

In the initial phase of the EN, the sea level in southwest Scania was about three to four metres higher than today (Regnell/Sjögren 2006). The coastline was marked by bays and lagoons with long shallows extending out from the coastal strip. This means that bays cut like wedges into what are now the rivers Sege Å, Saxån and Lödde Å.

Along the bay of the sea which is today the river Saxån, EN places have been documented. The Saxtorp 23 site on the tongue of land was probably a settlement of a more permanent nature, though probably not on a full-year basis, but at least for one season. The various remains display a diverse picture, with a hut, tool manufacture, wells, and specialized activities in the form of wood and skin processing. The flint is of the type associated with dwelling sites, with a large element of flake cores and flakes/debitage. The tools are dominated by flake scrapers, but knives, awls, and transverse arrowheads also occur in fairly large numbers. The palaeobotanical analyses indicate, moreover, that an area of forest was cleared. This reinforces the impression that the occupation was not short-term, and the presence of graves shows that burials was part of the settlement.

The Saxtorp 23 site nevertheless has a different character from, say, Dagstorp, Östra Odarslöv and Herrestorp, in addition to the topographic location. Only one hut was found within the relatively large excavation area and despite good preservation conditions, for example in the wells, traces of agriculture in the form of grains were missing. The economy at this coastal site was perhaps more dependent on seasonal hunting and fishing than on agriculture but with an

element of animal husbandry. A fully developed agricultural economy, to the extent that a major part of the food was provided by cultivation and/or animal husbandry, is not attested in the initial phase of the Neolithic. In actual fact, wild food resources were probably of great importance during the EN as well (cf. Andersson 2007a).

There are some more EN coastal settlements in west and southwest Scania with remains of solitary or a few huts (see Appendix, Tab. III). Several of these coastal sites display traces of earlier Late Mesolithic activities. These were thus places with a long tradition of settlement. Bone and plant material, however, is too small to enable us to say anything for certain about any prey, gathering or farming at most of these sites (Andersson 2004a; Rostoványi 2007). At Bunkeflostrand 15:1, on the Öresund shore, cereal has been retrieved from the remains of a hut (hut 7 in Appendix, Tab. III) and a well, although the latter may also contain material of MN date (Brink/Grehn/Kishonti 2008). It is possible that the agricultural economy generally was of secondary importance at these sites. Some places, like Saxtorp 23, may have been used as seasonal hunting and fishing camps (Andersson 2004a). On these sites more stable structures, such as longhouses, whether they were meant for dwelling or meeting places, seem to be missing. Hut remains occur at some of the sites. Maybe some of these sites are traces of hunter-gatherers who remained along the coast at the very beginning of the Neolithic. In this case it is assumed that two communities over a period lived side by side. It is of course also possible that the locations represent hunting stations occasionally used by inland farmers.

### The pit depositions

The following quotations highlight some important aspects regarding views within earlier research on pit depositions of the EN. “A characteristic feature of settlement sites in the early Funnel Beaker culture is the occurrence of a number of pits with pottery sherds, flint artefacts, flint flakes, burnt clay, and burnt bones. The function of the pits is difficult to assess”.(Andersson 2004b, 158). “The probable interpretation is that the pit was used for extraction of clay and then as a waste pit, and finally for a votive ceremony” (Malmer 2002, 41). Pits are common on sites from the period, and they have been the centre of discussion concerning function for a long time. This discussion has entailed practical as well as symbolic interpretations of the role of the pit depositions. The quotations above also pinpoint the fact that the pits have mainly been seen as part of settlement sites, often the only trace left of them. Excavations in the last few decades have however clearly revealed that pits are not only confined to settlements; they are also found as single features, in concentrations at large assembly places, and at monumental burial sites. In this they are part of a wide range of contexts – representing different social events and scales – bound together by the practice of depositing and burying material culture in pits.

### Perspectives and interpretations

Research on Neolithic depositional practice has mainly focused on depositions of above all (whole) objects in wetlands, although depositions on dry land are also treated (e.g. Karsten 1994; Malmer 2002; Berggren 2010; see also Koch 1998 for Danish bog pots). Depositions have been interpreted as acts reflecting different intentions, although religious motifs have dominated the interpretations. This is



revealed, among other things, through the common use of the term 'offering' (see Berggren 2010 for a critical review). Whereas depositions in wetlands have been treated as deliberate acts of ritual or social significance for a very long time, deposition in pits has generally undergone a longer interpretational journey. Depositional practices in pits on dry land have for a long time been considered with the main focus on pits with whole objects, sometimes carefully arranged. This is starting to change, and a broader range of pits with deposited material is being brought to light. They are beginning to be discussed, for example, for their ritual, symbolic and/or social significance as the body of evidence grows in size, variation and complexity (e.g. Andersson 2004a; 2004b; Larsson/Rzepecki 2005; Larsson, M. 2007; Rudebeck 2010; Andersson 2013; Berggren 2015a; Rudebeck/Macheridis 2015).

Pits containing large quantities of material are in some cases treated as evidence of handling waste at settlements (e.g. Larsson, M. 1984; cf. Larsson 2013). They are thereby largely treated as a more or less passive result of an everyday need to get rid of trash, although organizational or ritual aspects are sometimes hinted at (e.g. Rogius/Eriksson/Wennberg 2003). Exceptions are, as mentioned above, pits containing whole objects such as pots or flint axes. These are often referred to as offering pits or in some cases graves (e.g. Karsten 1994; Hadevik 2009a; Rogius/Eriksson/Wennberg 2003). The term 'offering pit, implying religiously motivated rituals, has been used as a general explanation for why material culture was buried in the pits, making further analysis of content and context of less interest (see discussion in Berggren 2010; 2012; 2015a).

The focus has however changed towards looking more closely at both content and context in order to get a better understanding of economic and social aspects, moving away from simple ritual/religious or practical explanations. This is partly inspired by discussions of pit depositions in British archaeology (e.g. Garrow/Beadsmoore/Knight 2005; Chadwick 2012; Garrow 2012 with comments; Anderson-Whymark/Thomas 2012; Thomas 2013). In doing this, attention is given to pits containing both fragmented material in backfills and/or (more or less) whole objects. The acts of both digging and depositing, as well as what the deposited material was used for before being buried, are gaining more and more attention. Where on a site it was buried and the character of the site is also of importance (e.g. Rostoványi 2007; Rudebeck 2010; Berggren 2015a). As these pits are found at different types of sites, variation regarding economic and social events and scales is beginning to emerge (e.g. Björhem/Magnusson Staaf 2006; Rudebeck 2010; Berggren 2015a; Rudebeck/Macheridis 2015; see also Sandén et al. 2010).

In the next section a few sites with pits containing (among other things) deposited material will be presented. The main aim here is to highlight different site contexts, not looking in detail at every single pit, although drawing on specific examples in some cases. Examples from different contexts are meant to underline the variation within pit deposition practice in the EN landscapes of southwest Scania. Hundreds of sites with FBC remains have been excavated in the region, making it impossible to present them all in this article. In the area around the city of Malmö alone, about 250 sites with Funnel Beaker remains are recorded, of which a large number contained pits (Hadevik 2009a, 69–80 lists all sites documented in the Malmö area roughly until June 2007). Here only a few examples can be given, focusing on what are interpreted as sites of differing social scale. The focus is on dry-land pit depositions as this has been the focus of excavation as well as discussion during the last few decades. Before turning to the individual sites again, some short theoretical and methodological remarks will be made as a background.

A primary starting-point is to view pit depositions as socially significant. As briefly touched upon, discussions of pit depositions have often focused on the ritual/non-ritual dichotomy, where ritual is often understood as part of religiously motivated acts and the non-ritual is connected to a mundane sphere. In a south Scandinavian context this has been criticized and discussed at length by Åsa Berggren (2010; 2012; 2015a; also Berggren/Nilsson Stutz 2010), drawing on works in British archaeology (e.g. Chadwick 2012; Garrow 2012). Briefly, Berggren uses a practice theory perspective in her discussion of pit depositions (including the Dösemarken site presented here) in which practice generates socially significant meanings (Berggren 2015a). Duncan Garrow's distinction between so-called odd deposits and material culture patterning (Garrow 2012) is used in her interpretation of single pits. Odd deposits describe more spectacular, sometimes highly formalized and ritualized, deposits where objects may have been carefully arranged in a pit. Material culture patterning is seen as less spectacular in this way. The latter may for example be material retrieved from backfills and stemming from activities close to a pit, i.e. what is often referred to as waste. They form two ends of a continuum of acting or depositing where exact boundaries are not easily detected. Both can in some cases also be detected within the context of a single pit, and most certainly within pits on the same site as well as within sites of different social character and meaning. Regardless of where in this continuum an act is placed, it holds social significance and meaning, possible to interpret if anchored in its context. This view of pit depositions makes thorough fieldwork important. When excavating, detailed observation and documentation is of great importance, as well as reflecting on events behind what is excavated when documenting and later analysing the material. In the site examples given in the previous sections this has been done to different degrees. Of course, the wider site and landscape context is also necessary to consider, although the possibility to do this vary according to the size of the individual trench and the number of excavations carried out in an area.

### Pit depositions in the Early Neolithic – social scales and milieus

Digging into the earth was an important part of life of people during the EN – economically, socially and mentally (e.g. Herva et al. 2014). In this there seems to be a clear difference compared to the Late Mesolithic. As a phenomenon digging pits and depositing material in them in southern Scandinavia is connected to direct influences of practices linked to the Michelsberg culture on the continent (Sørensen 2014, 122–124). The examples from sites given above show that digging pits and depositing occurred in different social settings in southwest Scania. In this section, examples of different sites with pits will be discussed in order to underline the different social scales and milieus of pits and pit depositions. Variation regarding this will thus be highlighted, focusing both on the placing of pits within sites and on their content. Beginning with the very early part of the period and the Almhov site puts the importance of assembly and feasting on a larger social scale in focus.

Almhov is interpreted as a large assembly site where burials and feasting took place during the EN (Rudebeck 2010) (Fig. 39, see also Fig. 3). A few sites in the region are possible candidates for being of a similar character to Almhov – the eponymous site Svenstorp and the site Månasken. At these sites hundreds of pits – containing large amounts of material were excavated during the 1960s. They were initially interpreted as settlements with primarily waste pits (Larsson,

M. 1984, 103–127, 130–143), but have more recently also been suggested to be not only ordinary settlements but also places of special significance (Larsson/Rzepecki 2005, 4–5; Larsson, M. 2007, 213–214; Larsson 2013, 39). Further analysis of the material from these sites would however be necessary to make further comparisons with Almhov possible (see also Rudebeck 2010, 203–206 for a discussion). At Almhov, the find material, primarily found in the pits, comprise the largest archaeological material from the period in the region (Gidlöf 2009; Rudebeck 2010;). Early farmers from different local groups or clans met here. At each visit tents or huts were likely raised and adjacent pits were dug, one for storage and the other for working activities. When the assembly came to an end the latter was used for dumping waste from butchering, cooking and craft (Rudebeck 2010, 168; Rudebeck/Macheridis 2015, 181–185). Careful arrangement of material in the pits seems to have been of limited importance at Almhov. As concluded by Rudebeck and Macheridis (2015, 185), deposition in pits was not a result of actions concerned with the filling-in of pits as part of ritual practice, but as a result of cultural norms of dwelling at the site. The pits/pit clusters at Almhov formed more or less distinct spatial patterns over time. The long barrows and façades and the open spaces in front of them were of course also an important part of this spatial structure (Fig. 39). Backfilled pits or pit clusters were probably visible for a long time, thus the different groups meeting here knew their place within the site. In one case there is also evidence that the location of a pit was marked with a post (Gidlöf et al. 2006, 55–56).

The spatial structure among the different structures and features at Almhov underlines the importance at looking at where pits are dug at a site. The placing of pits created socially significant space, and some of them may have been made visible through the erection of posts in or near them. The latter is a phenomenon gaining increasing more attention in fieldwork, thus resulting in a growing body of evidence. Marking pits with posts made their placing known for substantial periods of time. Formalization and arrangement should thus only be sought in the single pits but also through the pits themselves by their spatial arrangement and at least in some cases visualization through posts. Perhaps posts were painted or carved, as suggested by Elisabeth Rudebeck regarding the façades at Almhov (Rudebeck 2010, 194). This overall spatial formalization is of course above all clear in the case of the causewayed enclosures (the Sarup enclosures) where pits (system graves) are dug and palisades are erected in order to delimit a certain space (Andersen 1997). It can, however, also be seen on a smaller scale at sites in southwest Scania.

Turning to Hyllie, structuring space with pits and by other means is seen through the larger circular structure seen in fig. 32. A similar circular or semicircular tendency, although on a smaller scale, is also seen immediately to the southwest of the larger structure at Hyllie and in the western and perhaps also in the eastern part of Dösemarken (Fig. 30). Structural relations to the more manifestly enclosing tradition of the so-called causewayed enclosures may be invoked, although in those cases representing a large-scale communal effort in construction (Andersen 1997; Sørensen 2014, 221–227). This level of comparison, however, does not explain the Hyllie pit circle in more detail.

A possible key to understanding the social significance of the Hyllie site is the post-built structure, house 1, dated to the Late Mesolithic–EN I (Fig. 33). This structure could mark the starting point of a special social importance of this hillock. The structure itself is difficult to interpret as regards a clear function since the construction does not resemble houses of the EN two-aisled tradition. The occurrence

of an early cereal in the house should perhaps be related to the social importance of the site and the structure in what can be considered a very early milieu of agricultural produce, whether actually grown at the site or not. House 1 marked the beginning of further building activities and pit digging at the top of the small hillock (Fig. 31 and 32). Huts in the area may represent living spaces at smaller gatherings at the site. House 3 and the pits could very well represent what can be viewed as a farm at the site in the EN I, although with a special history and social significance to people from several households/farms in the local area. Although not revealed through the house itself, the forming of an 'enclosed' space by digging pits underlines its importance. The pits contained what could be characterized as both odd deposits (in A10706) and material culture patterning.

The Hyllie pit circle was most likely formed over time. This meant that people knew where the old pits were located. Post structures such as the one related to A10706 may have stood for quite a long time. The social importance of the site seems to continue into the late EN I–EN II although on a smaller scale. The depositions seem to continue on the slope to the southwest of the older pit circle. This is most clearly seen in the deposition of a broken and secondarily used polygonal battle axe in one of the pits. The pits in this area, including the smaller circular structure, may be the result of small-scale assembly events at the site. Houses from this period are not known but the earlier significance of the site made people return to it.

Hyllie may thus have formed a social hub on a local level for a long time, being a place to return to on certain occasions. The social importance of the Hyllie area as a whole is also seen in the continuity of events and structures. In the MN III a large pit on a hillock a few hundred metres to the southwest has been interpreted as the result of solidarity feasting among local FBC groups (Sandén et al. 2010). The large palisaded enclosure standing on the slope of the hillock in fig. 31, c. 2800–2600 cal. BC, was the scene of important events, such as meetings and dealing with the earliest influences from the Corded Ware complex (Brink 2009; 2014).

At the household/farm level – at Östra Odarslöv, Dagstorp 19, Fosie 11D, Saxtorp 23, Herrestorp and Dösemarken – pits are a more or less common feature. In some cases they seem to mark events of special social character containing material that may be the result of special events or feasting, possibly involving a visiting group or groups. Feasting in the EN has so far not been systematically studied in southwest Scania. The examples mentioned here are therefore to be considered as a few possible remains of feasting, although all the details regarding the contexts and the finds in them have not been analysed from a feasting perspective.

At Östra Odarslöv, the pit A10867 is interpreted as a deposition of material possibly marking the end of a feast (Fig. 44). Dated to settlement phase 2 (3700–3600 cal. BC), A10867 was located on the northern outskirts of the settled area (Fig. 16). The pit contained large amounts of material; both arranged and as part of the backfill (Tab. 1). All seems to have happened over a short period of time. The material deposited represents a wide range of activities, perhaps not all related to the event of the feast itself but perhaps also the result of depositing material of middens from the settlement as a whole. Of course, a large part of the material may also be from preparing food for feasting or from making tools that were displayed and exchanged at the feast (cf. Rudebeck 2010, 177). If in fact the bone material represents animals slaughtered and consumed within a fairly short period of time, possibly at a feasting event stretching over several days, considerable amounts of, above all, meat from cattle may have been consumed. The slaughtered animals are estimated to



have given more than 500 kg of meat, more than 400 kg of inner organs and close to 70 litres of blood (Magnell in press). This amount alone would suggest more people participating than merely those living at the site and that many or all were able to eat meat.

At Herrestorp several huts and pits, some marked by posts, reveal intense activities and complex depositional practice at a settlement level (Fig. 25). As regards possible remains of feasting, A400 should



Fig. 44. The end of a feast. Pit A10867 north of the huts at Östra Odarslöv, phase 2 (3700–3600 cal. BC).

be mentioned. In this pit large amounts of material had been deposited (Tab. 4). It was interpreted as the remains of a feast at the site. Whether or not this feast involved visitors from other groups from the area is unclear but of course possible. Whether the post close by the pit was erected before the feast and the deposition or after is not known, but it may have marked the location of the pit for several years. In this way the event may have been remembered by those living there and by participating guests on later visits. In A400 bone from cattle was found. Cattle were also found in other contexts of special character at the site – A2970, A6 and hut A22 (see Tab. 4 and more detailed descriptions in this section). This indicates the status of cattle in early EN I society, linking it to social events of importance such as feasting or the abandonment of a hut. Cattle hold a prominent role at other sites as well, as for example seen in features at Vintrie Park,

Hyllie, Dösemarken and at Almhov. It underlines the significance of cattle in the EN in different social milieus.

As for Dösemarken, three of the pits – A2777, A28411 and 12461 – have been discussed by Åsa Berggren in detail as regards depositional practice (Berggren 2015a) (see Fig. 30 and more detailed descriptions in this section). They have been interpreted as having been conducted within the social realm of the farm, although not representing feasting as suggested in the few examples above (Fig. 45). The depositions represent different levels of formalization. Moreover, different levels of formalization may exist within each single feature, as discussed in the previous section. Carefully arranged material is regarded as formalized and possibly ritualized, while other material in the same pit may be part of less formalized depositional practices. The latter may still be part of an important social practice such as cleaning and organizing a workplace (Berggren 2015a, 30). At the more formalized end of the scale A2777 can be mentioned. It contained, among other things, part of a cattle skull with horns, possibly deposited by one person or a very small group (Berggren 2015a, 26–28). This focus on the cattle has also been noted at the nearby assembly site of Almhov where cattle skulls may have been on display (Rudebeck/Macheridis 2015, 183). Of course, feasting cannot be excluded in the case of A2777 at Dösemarken, since the display of cattle heads and horns may be an important part of feasts (see Hayden 2014, 220–221).



Fig. 45. A scene from Dösemarken. Pit A2777. Drawing: Krister Kàm Tayanin. From Berggren/Brink 2012, 53 fig. 27.

Finally, returning to the milieus of the monuments – Östra Odarslöv, Skegrie and Vintrie Park – there are also examples of depositions in pits on a scale not comparable to the one at Almhov. Here, events connected to single or a few farms are revealed. It may of course have involved visitors from several farms but they seem nevertheless to be related to actions directed towards founding ancestors, real or mythical, of people on a local level thus also playing an important role in the social relations among the living (cf. Thomas 2013, 427).

At Östra Odarslöv pit A3185 was located in the southern part of the trench, thus in a similar 'border' zone as pit A10867 discussed above (Fig. 16). The deposited material was quite large although not nearly on the scale seen in A10867. A3185 and the deposition in it can be interpreted as made within the group living at the site. It was made in an area beginning to emerge as a ritually significant part of the site, having a few burials and façades. Later, as the settlement was abandoned, this area saw the erection of three long dolmens. Perhaps the deposition marked the beginning of the end of the settlement, being part of leaving this site as a place for the living, replacing it with monuments of present and future social importance harking back to the founding ancestors.

At two sites – Skegrie and Vintrie Park – pits with depositions have been investigated close by the burial monuments (Figs. 36 and 37). At Vintrie Park the deposited material can in a sense be characterized as fragments of household activities as seen through analyses of the flint material. This may have been brought from the nearby farm or farms, thus linking people to the burial ground through the act of deposition (cf. Andersen 2010, 13; Brink in press). Of course, it may also be the remnants of activities played out near the monuments before deposition. Notably, at Vintrie Park, one pit also had cattle teeth placed on a stone packing at the bottom of the pit. The pits and the depositions were likely part of events in an ongoing process of visiting, building, rebuilding and occasionally burying (perhaps a seldom event) at these monumental sites, underlining their continued use and complexity.

Pit depositions also occurred at the large and complex burial and gathering site Döserygg where pits were found close to both dolmens and openings in the palisades. In these cases the scale of the site may indicate that feasting and deposition took place at a social level above single groups from one or a few farms. Instead they may have been made at gatherings of groups representing different families or clans from a much larger area than just the nearby farms. This does not rule out the possibility of each individual deposition being made by a separate group consisting of people from, say, a specific clan in the region. Instead they may have been carried out by these separate groups at gatherings involving people from more such groups, as was the case at Almhov. Considering the pit depositions alone it did not, however, reach the numbers seen at Almhov. The examples given thus underline the social variation and complexity in the practice of digging and depositing in the milieu of monumental architecture.

### **The monuments – long barrows, façade graves, façades and megaliths**

Up to the 1970s just still visible, standing long barrows and megaliths were excavated in southern Sweden and Scania (Strömberg 1971). Destroyed and ploughed-out monumental graves, like the long barrows at Kristineberg (Rudebeck/Ödman 2000) and the Hindby (Burenhult 1973) and Skogsdala (Jacobsson 1986) long dolmens excavated in the 1970s and 1980s, gave new knowledge and insights, but this was not integrated in the interpretation of the EN landscape. Extensive developer-funded excavations during the last 10–15 years have included a relatively large number of destroyed and ploughed-out monuments, which has radically expanded our knowledge of monumental graves and other types of ritually used constructions. Also, the large number of destroyed and ploughed-out monuments excavated in some regions of Scania and Funen strongly suggests

the existence of many more EN burial monuments in the area than before presumed (see Appendix, Tab. V–VI), changing our view of society and landscape in this period (Andersen 2010; 2013; Andersson/Wallebom 2013).

Interestingly, new kinds of burial monuments like the façade graves without barrows have been discovered, and also free-standing façades without graves, both in connection with other monuments and in settlements of different size and complexity have emerged (Kjällquist/Kronberg 2014). Other kinds of possibly ritual constructions excavated are a varying assortment of free-standing wooden poles, sometimes combined with stone platforms or stone packings. These wooden poles have often been placed next to pits with depositions or in connection with liminal zones at settlements, as seen at Dösemarken, or between settlements and offering fens (Berggren/Brink 2012; also Hallgren et al. 1997). In one case, at Fågelbacken in Västmanland, eastern Central Sweden, wooden poles surrounded by stone platforms were used as burial monuments where cremated human bones, animal bones and ceramic vessels were deposited (Apel et al. 1995).

### The monumental landscape of southernmost Scandinavia

As mentioned earlier, the destroyed and ploughed-out long barrows, façade graves, façades, free-standing wooden poles and megaliths excavated has produced a completely new picture of the number and density of monuments in Scania. A very large majority of the now excavated destroyed and ploughed-out megaliths in Scania are long dolmens while the number of identified passage graves is extremely limited.

The relatively large number of recently discovered EN monumental graves in southern Scandinavia has resulted in an increased interest in this kind of constructions. The excavations of large areas have shown that there is a structural difference between sites; small clusters of earthen graves, long barrows, façade graves, façades, free-standing wooden poles and megaliths are the most common type of sites, but there are also a limited number of sites with larger concentrations of this type of constructions. This can be interpreted as an indication of a hierarchical difference in organization, where the small clusters represent local ritual centres placed close by the settlements – Östra Odarslöv, Skegrie and Vintrie Park – and the large concentrations represent regional gathering sites for several local FBC groups – Almhov and Döserygg (for discussion see Rudebeck 2010; Andersson/Wallebom 2011; 2013a; 2013b).

### The living and the dead – new ways of dealing with death

The chronology of the earliest monumental burials in southern Scandinavia has been under discussion, and according to Anders Fischer (2002) and Lasse Sørensen (2014) the introduction can be placed around 3800–3700 cal. BC. It is true that the majority of the early long barrows and façade graves so far excavated have been <sup>14</sup>C-dated to this period. But there is possibly an earlier horizon of monumental graves that have been <sup>14</sup>C-dated to the beginning of the Neolithic, 4000–3800 cal. BC at sites such as Almhov, Kristineberg and Vintrie Park (see Appendix, Tab. V) (Rudebeck 2010, 144; Rudebeck/Ödman 2000, 81–96; Brink/Hammarstrand Dehman 2013, 90–93, 144–145; Andersson/Artursson in press a; in press b; see also Fischer 2002, 366, table 22.4 for Danish examples). This suggests that the-



re was an introduction phase when these kind of new burials were experimented with and manipulated to fit into the local social and political environment. This is also true for the free-standing façades that were erected both on settlements and in connection with monumental cemeteries at Östra Odarslöv, Skegrie and Science Village (Kjällquist/Kronberg 2014; Andersson/Artursson in press a; in press b; Kronberg 2016).

Based on new studies of  $^{14}\text{C}$  dates from southern Scandinavia, a new picture of the chronological relationship between dolmens and passage graves has been suggested. The now dominant hypothesis is that these two types of megaliths were more or less contemporary and that there might have been a regional difference in which type of megalith was preferred (Schultz Paulsson 2010; Sjögren 2011). In southwestern Scania, long dolmens completely dominate the picture, while in western Scania there is a mix between long dolmens and passage graves. Round dolmens are quite rare in the whole region.

The archaeological material at Döserygg and Östra Odarslöv indicates a construction phase, for most of the excavated dolmens, in the latest part of EN I, i.e., in the time range of about 3600–3500 BC. The ceramic material is dominated by vessels with cord impressions and other types of impressions. Radiocarbon dating of charcoal and seeds from stone impressions included in the dolmens actually shows dating ranges between 3600 and 3300 BC, which hypothetically could mean that they have been built during the late EN I or EN II (Andersson/Artursson in press a; in press b). Statistical analyses of the  $^{14}\text{C}$  dates of material from dolmens shows, however, according to most researchers that they started to be erected around 3500 BC, and that the majority of them were finished before 3300 BC (see e.g. Schulz Paulsson 2010; Sjögren 2011 for discussion). There is still much work to do, finding suitable dating materials which certainly can be tied to the construction phase or to the primary burials.

The monumental burials possibly introduced from the beginning of the EN around 4000–3800 cal. BC, long barrows and façade graves, involved a new and increased engagement with the dead. A small exclusive selection of individuals was buried in these monuments, which suggests that they can be seen as symbolically important interments of local leaders, ultimately achieving the position as mythological ancestors. This implies that the monuments constituted symbols of ancestral ties that probably were critical for inheritance rules concerning status, resource use and land ownership. The monuments involved substantial investments in materials and labour, requiring an economic surplus that could be mobilized and used by local leaders for construction. Some of the long barrows comprise very complex, multi-step sequences of construction, where different kinds of cult and/or death houses were included (Tilley 1996, 76–79). This implies that elaborate religious and ideological ideas were expressed and enacted in a physical form at the burials. These physical representations were permanently present in the landscape thereafter, fuelling notions of permanency and the rightfulness of social and political conditions.

Parallel to the construction of monumental burials, more simple inhumations or ‘earthen graves’ were in use. In most cases these inhumations have no elaborate constructions above ground, but in a few cases the inhumations were covered with stone constructions, low barrows or marked with wooden poles or more extensive wooden structures (Ebbesen 1994; Sjögren 2011). Also, some inhumations have wooden chambers and quite extensive stone cists, which can be interpreted as a sign of status. The number of excavated EN inhumations or ‘earthen graves’ is so far very small, which supports

the above-mentioned hypothesis that just a few individuals were buried in a more traditional way, based on social and political status. Where and how the rest of the population was buried is not known, but their remains might have been deposited in watercourses, lakes or in the sea, maybe after first having been cremated, though no traces of this have been found so far.

Comparing the quite complex Late Mesolithic cemeteries in southern Scandinavia with the long barrows in the same area, some interesting parallel features can be observed. The layout of the cemeteries, with inhumations and a few cremations combined with small buildings that can be interpreted as death and/or cult houses and standing wooden poles, single or in groups, implies that ritual activities and quite complex burial rites were part of the game. Interestingly, the same features can be observed in connection with the EN long barrows; one or two inhumations combined with small buildings and large wooden poles placed in the eastern gables, and in some cases, smaller poles along the long sides. The placement and organization are different, but the features are very similar. The difference is of course also the massive long barrows consisting of stones and soil covering the features in the later monuments (Tilley 1996, 77 fig. 2.3), which must have been a massive investment in labour and material.

## The Early Neolithic of southwest Scania

### Becoming Neolithic – transforming society and landscape

In southern Scandinavia a shift from a hunter-gatherer based economy to a Neolithic economy emerged from around 4000 cal. BC. For Scania Lasse Sørensen states: “Scania is a region where the transition towards an agrarian way of life was rapid and where a fully established agrarian society was present by the early EN I phase” (2014, 245). The shift is almost parallel to the development in northern Germany, although slightly earlier, c. 4100 cal. BC, in this region. Similarities in material culture, burial traditions and ritual activities over the whole area suggest the presence of a transregional ideology and common religious beliefs, although there are local and regional variations when it comes to details. Economic specialization and the importance of farming have varied within southern Scandinavia; a Neolithic economy was clearly present in the southern regions, while in the northern regions, especially in the eastern central part of Sweden and southern Norway, hunting, fishing and gathering retained their importance (Hallgren 2008; Østmo 2013; Sørensen 2014).

### Aspects on Neolithization

Neolithization and ‘becoming’ Neolithic as a phenomenon has been viewed from different perspectives – economic, social or ideological. As stated in the case of southern Norway, Neolithic structures and objects materialized a new social order or new ideas, although society did not have an economy based on agriculture (Glørstad/Sundström 2014; Glørstad/Solheim 2015; cf. Thomas 2013, 5). The above quotation clearly states Sørensen’s view of Scania as being fully Neolithic in all aspects from early on. Other researchers have put forward other perspectives where a strong Neolithic identity or economy is not in place until the EN I/EN II shift (Furholt 2010; see also Persson 1999, 87–94; Andersson 2004, 131; Schülke 2009a, 247–248; Andersen 2010; Kirleis et al. 2012; Thomas 2013, 74; Gron/Montgome-

ry/Rowley-Conwy 2015 for aspects of this). In the western Baltic area traditional Mesolithic practices such as hunting, fishing, living in light hut-like structures are seen as indicators of this. In the EN II, monuments, more permanent timber buildings, an increased reliance on domesticated plants and animals mark a shift towards a more fully developed Neolithic economy and identity. The EN I has even been named 'the Latest Mesolithic' to reflect this standpoint (Furholt 2010, 12).

All the domesticated plants and animals introduced to southern Scandinavia around 4000 cal. BC originated from continental Europe, and therefore the Neolithization in the area must have been based on long-distance networks providing resources and know-how (e.g. Jennbert 1984; 2011; Klassen 2000; Fischer 2002; Larsson, L. 2007; Rowley-Conwy 2011; Thomas 2013; Sørensen 2014; Larsson 2015; Gron/Montgomery/Rowley-Conwy 2015). There is not always agreement, however, on whether this also included groups immigrating into the region, although several researchers consider this likely. Researchers have thus discussed whether the introduction of a Neolithic economy should be explained as an internal transformation – indigenism – of local groups using already existing long-distance networks to gain access to domesticated plants and animals, or alternatively, by migration – migrationism – of continental Neolithic groups to the area. Also, a combination of these two models – integrationism – has been proposed (see Sørensen 2014, 11–29 for an updated history of research).

Recently, the migration and integrationism models have been thoroughly discussed, with researchers arguing that agriculture must have been brought to southern Scandinavia by migrating Michelsberg groups from the continent, prospecting for high-quality flint, copper ore and new grazing land along the coast of the Baltic Sea and the North Sea. Flint mining and agriculture require skill and know-how on a level much too high to have simply been transferred as an idea from farming communities to indigenous hunter-gatherer groups. In the early phase these migrating groups consisted of small scouting groups, and later larger groups of pioneering farmers settled at inland sites with favourable conditions for farming. Through contacts with indigenous groups agricultural know-how and practice quickly gained a foothold through communities of practice (Sørensen/Karg 2012; Sørensen 2014; see also Fischer 2002, 381 and Gron/Montgomery/Rowley-Conwy 2015). It is important to point out that it should not be seen as a large-scale immigration replacing indigenous groups, but an influx of people with new skills, material culture and ideas that transformed economy and society in close contact and interaction with indigenous groups.

Turning to the detailed evidence in southwest Scania the presence of cereal can be seen from just before 4000 cal. BC and cattle from c. 3800 cal. BC if we look at the directly <sup>14</sup>C-dated material. In his thorough work Lasse Sørensen lists these early datings (Sørensen 2014, 74 Fig. V. 2., 87 Fig. V. 16). Cattle bones are however present already from c. 4000 cal. BC although only dated by context. The <sup>14</sup>C results from c. 4000 cal. BC are interpreted as indicating that exchanges between scouting farmers and indigenous hunter-gatherers took place, soon after followed by migrating pioneering farmers (Sørensen 2014, 75). The early EN I, c. 4000–3800 cal. BC, is also seen through the occurrence of artefacts such as short-necked funnel beakers of Oxie type and the early pointed-butted flint axes, all occurring in southwest Scania (Sørensen 2014, 110–118, 162–169). To this should be added the intense activities at the flint mine area of Södra Sallerup. Sørensen's hypothesis about scouting groups followed by pioneering farmers is clearly a possibility, not least since it rests on

a firm ground in acknowledging that learning how to farm in a successful way needs solid know-how that is difficult to gain through the spread of ideas alone. Of course, as also pointed out by Sørensen, direct evidence of migrating individuals in the form of isotope and mtDNA analysis of human bones is still missing in south Scandinavian contexts (Sørensen 2014, 105–109). DNA studies on a European level nevertheless indicate complex genetic patterns in the 4th millennium BC (Haak et al. 2015). Early EN I datings from sites such as Almhov, Östra Odarslöv, Fosie 11D, Herrestorp and Hyllie could nevertheless fit into the hypotheses of early migrating groups from the Michelsberg area.

We do not know for certain, however, whether the earliest sites in southwest Scania were inhabited by scouting or pioneering farmers, indigenous groups beginning to farm or a mix of the two. There is of course also the possibility of indigenous people moving south and returning with know-how, as suggested by Julian Thomas in the case of Britain. Here young boys or men is suggested to have moved to the continent where they lived and learned cattle keeping and returned to Britain with this knowledge later in life (Thomas 2013, 406). The situation in southern Scandinavia is perhaps a mix of both elements. An influx of ideas, people moving in or moving back and hands-on know-how can, in summary, be expected to be important. Considering the evidence from the EN, an interesting pattern may evolve from looking more closely at the contexts in which we find the early evidence, saying something of the economic and social importance of domesticates and how they played a role in social life in the transition from the Late Mesolithic to the EN and in the EN.

### The feast – solidarity and competition

Actual contexts from the first two centuries after 4000 cal. BC containing cereal and/or cattle are still quite few in number. Where present this seems connected to sites of special character such as Almhov or to special features or structures within settlements such as Herrestorp. At Herrestorp only a few cereals were found and cattle bone was also scarce. When found it could be connected to pits or structures of special character. Cattle head/horns were possibly displayed at Almhov. This was also the case at Dösemarken and elsewhere in the EN II (Fig. 45). This practice of displaying cattle may indicate feasting: “They are frequently treated differently and used for symbolic displays during and after feasts hosted by individuals or social groups trying to impress others (and may have been ritually deposited in pits, ...)” (Hayden 2014, 220–221). Consuming cattle meat and cereal products may thus have been connected to special events such as feasts at sites such as Herrestorp and Dösemarken, as was the case at Almhov where feasting took place at the large gatherings. The pattern of cattle and cereal being part of special events, whether feasting or other social events, and ending up in different types of depositions at sites is present continuously throughout the EN. This is seen at several of the sites presented earlier. The examples clearly show that it was part of social life from early on, and on different social scales.

According to Brian Hayden feasting was a key factor behind the domestication process (Hayden 2014, 119–120; see also Jennbert 1984; Klassen 2000; Fischer 2002; Gronenborn 2009; Sørensen/Karg 2012; Sørensen 2014; Dietler 2007; see Twiss 2008; Wallis/Blessing 2015 for theoretical discussions). Systematic analysis of feasting is outside the scope of this article, and research on the region is quite far from following Hayden’s suggestion to view all contexts especially with do-



mesticated animals as remains of feasting (Hayden 2104, 158). Some suggestions and interpretations have however been made within single sites, as discussed earlier. A deeper analysis of this, based on hypotheses concerning societal political organization, remains to be done. Nevertheless, the few examples discussed in a previous section and briefly mentioned above hint at feasting as an important part of social life at different scales – from the large gathering sites to single settlements or farms – in the EN of the region. As a social event the feast was likely a continuation of practices in place already during the Late Mesolithic. Domesticates at Late Mesolithic sites may have been consumed at feasts (cf. Hayden 2014, 109 with reference; Jennbert 1984, 147). An example of this is perhaps seen at Skjutbarnorna 1A in fig. 3 where cattle were present.

Hayden's palaeopolitical ecology perspective stresses social and political ambition and competition as fundamental in understanding the process of Neolithization. Domesticates in early agricultural societies played a major part in socio-political life, creating networks of debt and support, and were not relied on for subsistence. In societies that were at least partly sedentary, surplus could be stored until these feasts were held. At these feasts exclusive foods such as fattened cattle and cereal-based foods and perhaps drink were consumed (Hayden 2014, 119–137, 165–175). Storage capabilities were certainly at place in southernmost Scandinavia, as seen through buildings such as huts and houses. In some cases pits, for example A978 at Herrestorp, may have functioned as storage pits (Fig. 25 and Tab. 4). The storage pits at Almhov are also a clear example of this capability (Rudebeck 2010, 120–121; Rudebeck/Macheridis 2015, 181–185). The archaeobotanical material from Almhov does not seem to contain evidence of cultivation or processing at the site (Gustafsson 2004). Instead cereal was likely brought to the site from farms for the large assemblies. Thus they have first been stored at the single farms and then again at Almhov before and during the feasting event. Storage pit A978 at Herrestorp or the smaller huts at Östra Odarslöv functioned within the single settlement, but what was stored there was likely both used at the sites and brought to larger assemblies.

On a highly generalized level feasts are held to create solidarity, for material/economic gain or to manifest and/or create status and power (Hayden 2014, 10). However, these dichotomies are probably too strict since feasts are what Hayden calls polysemous, i.e. they have different facets and elements of both solidarity and competitive power manifestations (although Hayden has a clear focus on the competitive aspects) (Hayden 2014, 11–12, 232, 242, 285–295). They are simultaneously arenas for social integration as well as social competition (Twiss 2008, 419) and the pretexts for hosting feasts are “almost unlimited” (Hayden 2014, 174).

Social prestige and personal status could be gained by those individuals who could provide exotic products at seasonal feasts, where social relations were reinforced and confirmed through ritual activities. The change of Late Mesolithic society can partly be seen as a gradual process driven by socio-economic competition, supported and boosted by networks of long-distance contacts providing new materials and ideological influences, and partly driven by more direct contacts in the form of migrating Neolithic groups from the continent. The transformation of Late Mesolithic societies could have been decisively affected by the innovative effects of feasting; new foods, materials, concepts and practices were introduced and integrated into local communities and the minds of individuals. Continuous competition led to an inflation of social and ritual symbols and a constant introduction of new status-marking objects and structures for ritual purposes.

According to comparative anthropological research, the allure of the exotic has often been used in connection with feasting to achieve the most effective and dramatic impact. Different kinds of exotic objects and foodstuffs can often be seen in connection with feasting and ritual activities at central assembly sites and monumental burials (for discussion see Hayden 2014; Twiss 2008). The use of ceramic vessels was first introduced in southern Scandinavia around 4700–4800 cal. BC under the influence of Neolithic groups on the European continent (Gronenborn 2009). Also, access to different kinds of axes such as shoe-last axes ('Schuhleistenkeilen', again see Skjutbanorna 1A in fig. 3), point-butted axes made of exotic stone materials and copper axes through long-distance contacts with the continent was probably important for the gradual establishment and development of hierarchical structures in southern Scandinavia beginning in the Late Mesolithic and continuing into the EN, approximately from 4800–3500 cal. BC. These exotic objects had a value through their novelty as regards the materials used and their shape and also through their origin in a distant and largely unknown part of the world. They were used in a prestige-based economy to mark social status and political power, gradually transforming polities in southern Scandinavia from big-man-based societies to low-complexity chiefdoms (for discussion see Fischer 2002, 373–380).

The introduction of farming and husbandry at the beginning of the 4th millennium can be interpreted as a sign of the establishment of prestige-based polities in southern Scandinavia, where exotic products like meat from domesticated animals and food and drink based on cereals were probably used at local feasting events to establish prestige and status for the individuals providing these novelties. Anders Fischer (2002, 376) stresses the socio-economic importance of pastoral and agricultural products and their function as markers of wealth and status. Especially domesticated cattle could be used as a direct measure of wealth based on the large quantity of meat they represented. The exotic properties of cereals were probably contained in the possibility to produce new exotic foodstuffs such as bread and porridge, and of course alcoholic beverages like beer. The access to large quantities of meat, foods based on cereals and beer must have been important in a society where ritual feasting probably was a critical part of changing social and political relations and in creating and maintaining alliances.

### Subsistence

The importance of domesticates, primarily cattle and cereals, for subsistence has been intensely discussed. Several researchers dealing with the EN of southern Scandinavia see them as of little importance in this respect (Hayden 2014, 149–151 and references; Gron/Montgomery/Rowley-Conwy 2015) while others see a development from luxury foods to common staples within the EN (Fischer 2002, 384). The general social importance of cattle was discussed earlier, but cattle may have been important both within the political economy and for subsistence in the EN (Magnell 2015). However, the very earliest phase of the EN I perhaps had a particular focus on the political economy as regards the importance of cattle. The amount of meat possibly consumed at a feast has been exemplified in the case of pit A10867 at Östra Odarslöv from c. 3700–3600 cal. BC.

It is also from very early on in the EN I that evidence of dairy fats has been found on pottery – from Herrestorp and slightly later from Östra Odarslöv – indicating the use of milk products. Although milk products were known and used, the limited osteological evidence at

Östra Odarslöv indicates a focus on meat production rather than milk production as regards cattle (Magnell in press), thus perhaps being a rare part of everyday meals (assuming it was cow's milk on the potterry). The examples are as yet few, thus making solid interpretations of when milk products were consumed from a social point of view difficult. However, new results from analysing cattle teeth from Almhov indicate multiple birth seasons which would give prolonged access to milk at this feasting site (Gron/Montgomery/Rowley-Conwy 2015). Whether this manipulation was commonly applied at other sites in the EN is not known. If Almhov was a site of gatherings to which people brought things, animals and foods, such manipulation could be expected to have taken place at the individual settlements. Such manipulation would have required careful planning and storage of fodder (Gron/Montgomery/Rowley-Conwy 2015). Bone materials are generally limited on the EN sites of the region, making more secure conclusions regarding the focus of production difficult.

Turning to cereals, their importance may have been within the political economy more so or just as much as for subsistence in the early EN I. It is not until c. 3800–3700 cal. BC that we see more intensified cultivation in northern Germany and southern Scandinavia, probably connected with the introduction of the ard, which may have come as early as c. 3800–3600 cal. BC (Müller et al. 2013, 60; Sørensen 2014, 77–78, 227). In the large cereal material from Östra Odarslöv there is evidence of cultivation and processing at the site from c. 3800 cal. BC (Tab. 1). Östra Odarslöv and Almhov are exceptional in the region as regards the amount of cereal retrieved. However, even at sites with very small amounts of cereal found they may indicate the presence of cereal in quite large quantities. A single or a few charred cereals are likely the result of an accident since cereal was meant to be consumed while the often more commonly found hazelnut shells were used to kindle fires and thus had a larger chance of surviving because of their density (Thomas 2013, 393). Also, finding cereal, or cattle for that matter, in special contexts, sometimes connected to feasting, of course does not in itself rule out the use of cereal on a more regular everyday basis. At Fosie 11D cereals were found in the huts, indicating everyday use in this case.

From c. 3800–3600 cal. BC onwards evidence suggest a more stable agriculture/horticulture in the region, at least at some sites, indicating more cost-effective food production enough to be of greater importance for subsistence (cf. Hayden 2014, 163). There are of course several details regarding this topic to be resolved. To be effective or heavily relied on for subsistence, cereal would have had to be genetically fit for the conditions in southern Scandinavia (cf. Hayden 2014, 130–134). Metric analyses of cereals from Östra Odarslöv, c. 3800–3600 cal. BC, indicate a modest level of breeding and genetic improvement or adjustment of the cereal to the climate (Broström in press b). This would indicate that a relatively low yield could be expected at Östra Odarslöv, although perhaps stable over time. Evidence of brewing was sought in the Östra Odarslöv material but was not found (Broström in press a).

The use of manure to enhance crop yields is also a practice that we know very little of. So far the few studies made on south Scandinavian material indicate variation regarding this, but strongly hint that the effects of manuring were known and used in some cases (Bogaard 2015, 37–39 with references).

Of course, discussing cereal for its importance to subsistence should not be done from an either-or perspective. It may have been an important part of everyday meals, but only as one ingredient among many, thus perhaps not being used in larger quantities. Cereal as food for feasting as well as for subsistence in the EN I of southern

Scandinavia thus needs further study to be understood in more detail (cf. Sørensen 2014, 105; Bogaard 2015, 34). The combined evidence of husbandry and cultivation indicates that the farmers of south-west Scania certainly had the skills necessary to produce also for subsistence, at least from c. 3800 cal. BC. To what degree these products were part of everyday meals is of course difficult to say (Fig. 46).

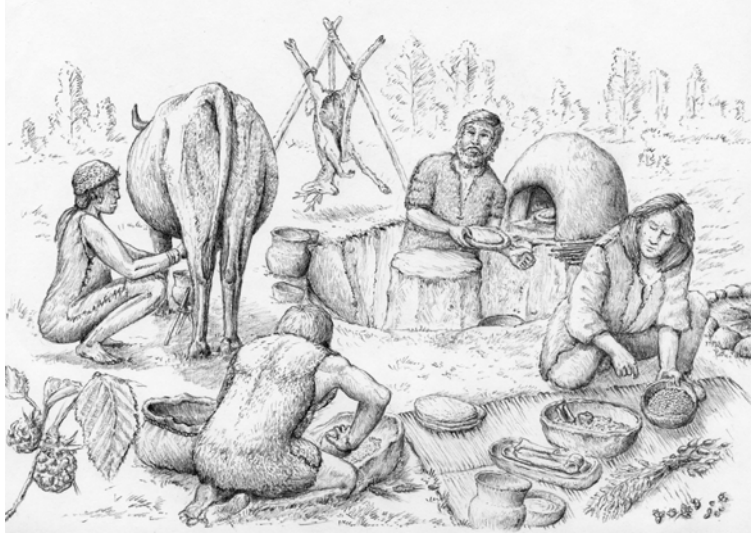


Fig. 46. Subsistence at Östra Odarslöv. Illustration: © Richard Holmgren, ARCDOC.

#### 4000–3800 cal. BC

As Anders Fischer (2002, 376) has discussed, the influx of exotic goods in the form of axes was a matter of an ever ongoing but discontinuous exchange channelled through the long-distance networks, while the introduction of farming and husbandry depended on a continuous access to know-how, animals and seeds to keep the genetic soundness and productivity at a high level (see also Sørensen 2014). Also, arrangements for storage of the harvest and protection of animals and crops changed the structure of farmsteads, landscape and society at large and people shaped practices to suit a Neolithic way of living. Consequently, the impact of Neolithization was more profound for society than the influx of exotic objects which started much earlier.

'Becoming' Neolithic seems to be a social transformation, perhaps equally as or even more so than an economic or ideological one if we look closely at the evidence from c. 4000–3800 cal. BC (cf. Jennbert 1984; Thomas 2013). In the first two centuries of the 4th millennium BC we see the onset of practices such as pit digging and depositing, increased evidence of feasting where domesticates play an important part, the start of building two-aisled longhouses, possibly the beginning of building monuments such as long barrows and/or façades, and flint mining. This was likely a process that can be understood within the integrationism model discussed above, at least in the sense that some (perhaps not many) people with know-how moved in or moved back to the region. A complex mesh of partly new outside influences and skills and internal dealings with these were created through the networks and communities of practice. These influences took practical shape at slightly different rates, as for all the elements of Neolithization. New practices shaped economic and social life, but with threads from the Late Mesolithic stretching into the EN. This is seen, for instance, in the form of continued use of smaller huts and of course through the continued dependence on hunting, fishing and gathering. Julian Thomas states: "the possession of do-



mesticated plants and animals is not in itself the hallmark of “being Neolithic”. Rather, a Neolithic group was one that possessed the necessary skills for husbandry and cultivation, and which was internally structured in such a way as to enable those species to thrive and multiply” (Thomas 2013, 429). From the evidence this ability was present in at least parts of southwest Scania c. 4000 cal. BC or slightly later. From c. 3800 cal. BC it is in place on a more stable and widespread level, even though know-how, skill and long-term success in farming may not have been evenly spread among all groups within the region. The early <sup>14</sup>C datings on cereal, such as from Hyllie, may be connected to a very early phase of either imported cereal or cultivation by only a few.

The archaeology of this earliest EN I phase is perhaps most clearly seen within the Malmö area, although certainly to be expected in other parts of southwest Scania as well. Here the feasting and assembly site of Almhov and the flint mines at Södra Sallerup are located only about 12 km apart as the crow flies. In between these sites we have the Hyllie site with its very early <sup>14</sup>C dating of cereal from the post-built structure, house 1, interpreted as a possible hub of social importance in the local area already from this early phase (Figs. 32 and 33). Perhaps this was a place for transferring agricultural know-how and ideas. Only a short distance towards the southwest from Hyllie is the Vintrie Park-Svågertorp area with very early <sup>14</sup>C datings of two-aisled houses, houses 5 and 17, and possibly very early evidence for the construction of a long barrow, long barrow 1, together marking the area of early farms (see Appendix, Tab. I, IV and V; Brink in press). More evidence is available from the Malmö area but these examples indicate a landscape being gradually altered and filled with new meanings in the two first centuries of the EN I. Thus, the earliest EN I landscape is clearly emerging as a landscape of complex economic and social relations. After c. 3800 cal. BC the phenomena mentioned above are clearly in place in southwest Scania. This is not least exemplified by activities at Almhov which seem to have had its first phase of really intense activities from c. 3800 cal. BC (Rudebeck 2010, 208–213).

### Being Neolithic – social relations and society

Scania may have been relatively densely populated in the EN. “In regions such as Scania, the habitation is so dense and widespread that this region could be characterized as one of the more important territories in the agrarian societies of South Scandinavia” (Sørensen 2014, 268). In the area around Döserygg a population density of 1–2 individuals per km<sup>2</sup> in 3600–3300 cal. BC has been suggested (Artursson/Earle/Brown 2015, 12 Table 1). In the previous chapter we argued that a Neolithic way of life was present in southwest Scania from c. 4000 cal. BC or slightly later, and clearly established from c. 3800 cal. BC. From the early EN I we have evidence of agriculture – husbandry and cultivation – being part of life. Above all this is seen at special sites such as Almhov but also at a few settlements with clear evidence of people living there for more than just seasonal short-term periods such as Herrestorp and possibly Fosie 11D. This, of course, has implications for social relations and the organization of society. The examples from southwest Scania discussed in this article clearly emphasize complex social relations and practices on sites of differing social scale – from single farms and small hamlets to larger burial and assembly sites.

## The socio-political landscape

Social organization in the EN of southernmost Scandinavia is generally considered to have been based on the family and kin-based groups. In works of the last two decades society is often seen as hierarchical, although details regarding the extent and form of this vary (e.g. Nordquist 2001; Andersson 2003; 2004; Edring 2005; Rostoványi 2007; Ebbesen 2011; Sørensen 2014; Artursson/Earle/Brown 2015). A general increase of complexity over time is sometimes advocated, changing from tribal big-man-based societies (in place already in the Late Mesolithic) towards small-scale, simple chiefdoms. Power can be viewed as either achieved or inherited. In the first case the status position as such may have been permanent, although not obtained through inheritance (Nordquist 2001, 28–43). Others hold a more cautious position on the level or character of social organization. In her thorough studies of the Kalundborg Fjord area in northwestern Zealand, Denmark, Almut Schülke holds the question of how the people who erected the megalithic monuments were organized open for future discussion (Schülke 2015, 197–198).

The slightly differing views on societal organization are of course generalizations drawn from the archaeological material and based on different theoretical outlooks. In the previous chapter social competition was stressed in the discussion of Neolithization. This in itself does not mean that a complex hierarchical political organization was in place already from the early EN I. It is however an indication of a nascent formation of more politically complex forms of organization in EN southernmost Scandinavia. Nevertheless, the growing complexity regarding our knowledge of EN landscape use – settlements consisting of single farms or small hamlets, the use of temporary sites, burials and monumental landscapes of varying scale, assembly and feasting sites – indicates an irregular and fluctuating pattern regarding social stratification and organization, not only over time but also synchronically over the region of Scania.

If we recognize hierarchical relations at the level of (small-scale) chiefdoms, the concept of constituent hierarchy (Beck 2003 with references) may be useful in understanding power relations in EN society. The concept refers to how power relations may work within a chiefdom. “In a constituent hierarchy, community-level leaders – the constituent units – cede a portion of their authority upward by acknowledging, if only during ceremonial occasions, a regional chief” (Beck 2003, 645–646). Local level leaders are thus to a large extent autonomous in relation to regional leaders; the latter communicating with local communities through gift-giving (e.g. prestige goods or feasts), gift-withholding or coercion. Such polities are decentralized and unstable, and chiefly succession is not institutionalized. They may vanish after a few generations. This form of power relation is opposed to the apical hierarchy where regional chiefs, the apical unit, delegate local authority downwards as a way of controlling and administering local communities (Beck 2003, 646).

That Scania should not be seen as an entity as regards societal structure is perhaps not least detected through the uneven spread of structures and finds such as long barrows, dolmens, battle axes, copper artefacts and flint axes in Scania, mainly concentrated along the coastal areas (Sørensen 2014, 250, 252 Fig. V. 198, Fig. V. 200). Although to some extent reflecting areas of intense modern agriculture, intensity of research and excavation, it may also indicate areas of more or less intense activities and dense populations, and thus perhaps more or less complex social organization in the EN. We know relatively little about the EN in the interior of Scania. Social organization is generally interpreted by looking at what is perceived as the

'central' areas in the region, transferring this into covering the region as a whole. This is not to deny a general level of social complexity in Scania, seen for example through certain types of features such as long barrows or through specific sites such as Almhov already from quite early on in the EN. Instead it is to be perceived as an important background in understanding that the general social organization in the EN grew out of and was based on local choices and solutions at a regional and local level as much as it was a general social and economic supra-regional development based on the large networks leading to the transformation of society in the Late Mesolithic and earliest EN. This is of course also true within the small region of southwest Scania, one of the central areas of EN Scania. Interpretations rest on the point of view, but it is a combination of the general and the specific that can give us a closer understanding of EN people and society. In the following sections some aspects of social relations will be discussed. The discussion revolves primarily around huts, houses and monuments, and some implications of these phenomena for social meaning and importance are suggested.

### Aspects of EN social relations – life in huts and houses

The number of huts and houses from the EN has increased steadily during the last two decades (Artursson et al. 2003; Hadevik 2009a; Larsson/Brink 2013). The focus in research has generally been on type, dating and functional aspects. A division has also sometimes been made between huts as representing temporally short activities and houses as representing the households or families on the farms. This division is too simplistic, as shown through the sites presented here. Other than that, social aspects have been given less attention. This is likely in part due to the often poor preservation conditions making it hard to discuss the inner structure or function of these building remains. In this section a discussion approaching at least a few social aspects on EN huts and houses will be made, drawing on evidence and discussions from earlier in this paper.

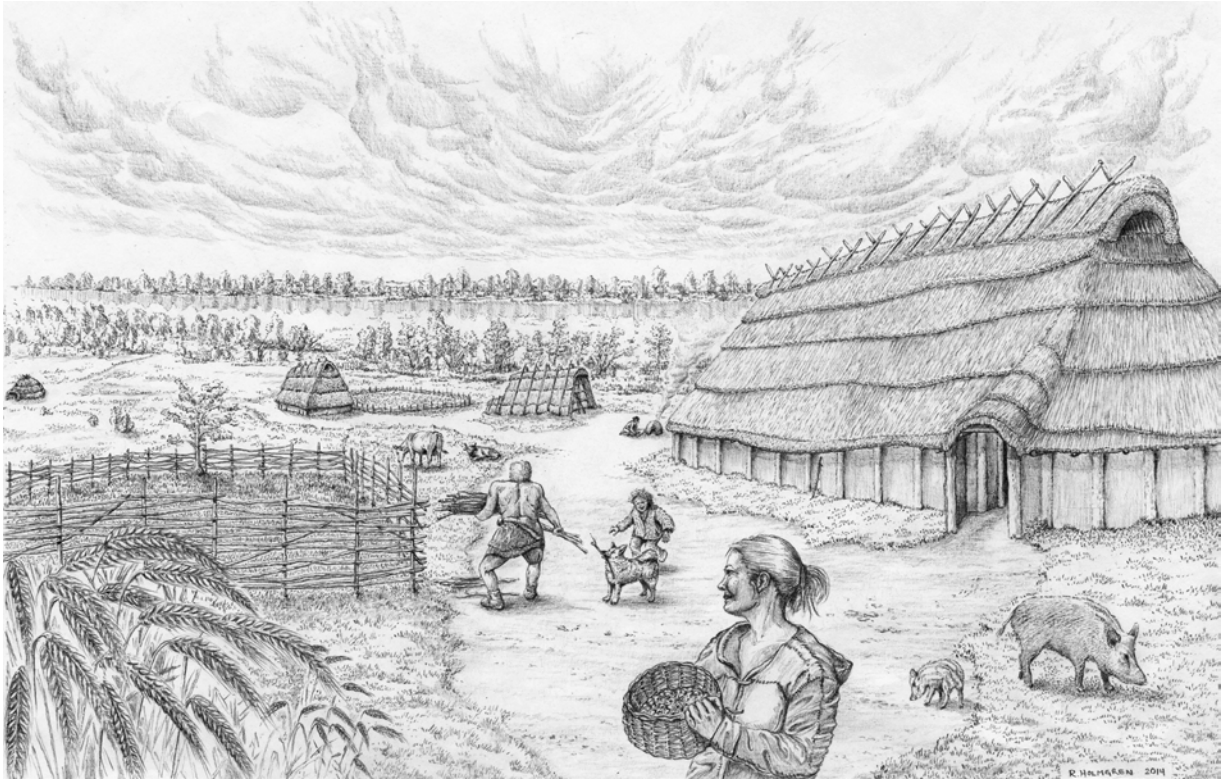
In the introductory chapter on the EN landscape, social fluidity as regards landscape use and availability was suggested. If we proceed from the household as a fundamental social unit, this fluidity brings interpretational problems as regards how huts and houses are to be understood socially. Excavations reveal a spectrum ranging from single huts or houses to multiple huts or houses, sometimes at the same location, sometimes at locations that imply special milieus not only related to just domestic everyday activities. The social role of huts and houses in southernmost Scandinavia is thus revealed through context as much as through architecture.

Households are to be understood as basically being constituted by families, i.e. mother, father and children as the core unit, but during periods also older generations. The family may however be unsatisfactory or too confined to be used as equal to the household. Households are not constrained to the immediate family, and relate to social units of activity rather than direct, close family relations (Ahlström 2009, 135–138; see also Welinder 1998, 200–207). This cannot however, be deduced by looking at individual houses but must be based on larger contextual evidence regarding (among other things) settlements. Also, as ethnographic examples clearly show, variation regarding kinship arrangements and social equality or inequality clearly exists in societies building longhouses (e.g. Waterston 2013, 374).

From a functional or social point of view huts are ambiguous, as the term is used for a wide range of structures. Put somewhat cru-

dely, the term hut is often used whenever a structure cannot be labelled as a two-aisled house (see the section Types of houses and huts for the two main types). This means that huts comprise structures of varied size and also often show variation as regards the archaeological traces revealing architecturally different solutions. Looking at two of the hut sites, Herrestorp and Östra Odarslöv, this is clearly seen (Fig. 4, 25 and 47). At Herrestorp the huts vary in size roughly from 6 up to 22 m<sup>2</sup> while the Östra Odarslöv huts vary even more, between about 2 and 20 m<sup>2</sup>. The overall contexts suggest year-round occupation by more than one family or household and a varied use of the huts. A majority were used for dwelling and the very small ones perhaps for storage. This means that the larger huts are socially equivalent to houses if we interpret them as lived in by households. There are no immediate indications of social stratification or inequality within or between hut sites if we look only at the huts (see below regarding Östra Odarslöv). A hint at special social significance in EN I is perhaps revealed through A6 at Herrestorp where this structure may mark a special role connected to the northern hut group (Fig. 25 and 26). This is however not necessarily indicative of social inequality within the site or in society as a whole.

Fig. 47. House and huts at Östra Odarslöv. Illustration: © Richard Holmgren, ARCD-DOC.



When found alone or in small groups, the smaller huts are often interpreted as being lived in during temporary activities. Generally, these activities are interpreted as economically important, such as hunting, gathering and fishing. In these cases the sites and huts may have been used by members of more than one household. An example of this is the Fosie 11D site where the small size of the huts and the low amount of pottery indicated seasonal activities according to the excavators (Fig. 28). However, other materials such as flint, the occurrence of storage pits and the possibility of agriculture suggest more long-lasting activities. The huts may have been the homes of one or a few households spread out under several different roofs. At Vintrie Park, yet another interpretation was put forward for the



rather small huts found underneath long dolmen 1 (Fig. 37). These huts were interpreted as lived in during the construction of the long barrows preceding the long dolmens, thus suggesting a socially significant event. It is possible that only a few people from different households in the area were allowed to participate in this work. By inviting others to participate in such a building event and of course hosting it, social ambition and ability was manifested and strengthened.

Turning to the two-aisled houses, previous research concluded that there was some (although limited) variation in size, indicating that no strict norms existed for this. Rather, differences in size are seen as part of differing economic and social conditions within individual households (Artursson et al. 2003, 120–128), thus implying social differentiation. Two-aisled houses are however still quite few in number (see Appendix, Tab. I), making conclusions about this difficult. There are of course other ways – architecturally/artistically – of making social statements than mere size, as suggested through reconstructions with decorative elements (Artursson et al. 2003, 151 figure 50). More directly this is seen through the occurrence of decorated burnt clay interpreted as coming from a circular timber structure at the Vasagård Vest site, Bornholm, Denmark (Nielsen/Thorsen 2014, 12–14). Perhaps such elements were also part of houses for dwelling.

The house itself indicates a relation of host and guest that may have been part of a social distinction. Pottery used for displaying and serving food is important here (cf. Waterson 2013, 378 with references). However, displaying and serving food, as far as we know from the archaeological evidence, is not connected to the interior of the houses but rather to areas outside houses. Remains of this are found in pits or from the later part of the EN at megalithic tombs. Again, this stresses the wider importance of the landscape as part of the settlement. In this respect ‘home’ may have been connected to the larger area of the household, partly overlapping areas of other households, rather than just the house (Artursson et al. 2003, 128; McFadyen 2013, 364).

Nevertheless, if large huts can house as many people as two-aisled houses, the question is of course whether there are social implications imbedded in these architecturally different forms of creating a roof over one’s head. So far such perspectives have not been discussed in depth in research on southwest Scania. Here only a few aspects will be highlighted, drawing on examples presented above. It is the context as much as the houses themselves that is put forward as important. It should also be stressed that this discussion is not aiming to create a clear-cut social dichotomy between huts and houses of the region. The house as inhabited by a household will not be questioned but rather in itself highlighted as having a social significance.

At Östra Odarslöv the existence of huts and longhouses within the same site in the second phase, 3700-3600 BC can be interpreted as reflecting a hierarchical social structure on the site (Fig. 4). A leading family or household possibly resided in the house, a position upheld over two generations of houses. Apart from being occupied by a household, the longhouses may also have acted as the settlement’s community ‘hall’, a place for common celebrations and/or general administrative tasks. It has been hypothesized that the EN longhouses of Britain and Ireland served the same function as causewayed enclosures: that of housing ritual feasting and aggregations of communal importance (e.g. Cross 2003; see also Thomas 2013, 285–313). An alternative can therefore be that some of the longhouses in southwest Scania also functioned as meeting places and were of communal importance, and not only used for dwelling.

Looking at longhouses of the region in general may further underline their social significance in EN society. The Östra Odarslöv example raises the possibility of houses being of special social importance and might also explain why longhouses are relatively uncommon in southwest Scania and elsewhere in southernmost Scandinavia. Most domestic structures, permanent or temporary, throughout the EN were instead small and oval/circular huts. That huts and houses may not have differed much in floor area is of course only one aspect of architecture. The construction of houses also means building a tall structure compared to the huts. This in itself may have been perceived as being monumental, especially perhaps in the early phases of the EN I. Building the houses required thorough preparations. Choosing and taking care of timber, gathering people from outside the household to help building it and so forth must have been necessary. Building a house may have ended with a feast. All this is likely also a reflection of social ambition and status; something we may tend to underestimate when studying the sometimes rather modest-looking excavation plans of the house remains. To mention just one area, the Vintrie Park-Svågertorp area on the outskirts of the city of Malmö, with its early houses can illustrate this (see the end of section 4000–3800 cal. BC and the discussion of huts above). These early houses, together with the construction of the first long barrow (long barrow 1) in the area, may indicate the presence of a socially important household manifesting itself through the monumental architecture both of tall houses and of a new form of burial monument, a long barrow.

Despite some indications discussed above, a general level of stratification between settlements of the EN is still difficult to detect more clearly or with more certainty. Indications of a general settlement hierarchy that would indicate social stratification (e.g. Hayden 2014, 235–237) are still weak and remain to be more thoroughly analysed. In conclusion, huts and houses thus give only small, but nevertheless important, hints of social inequality. Expanding towards the realm of the dead, however, gives stronger indications regarding this aspect of EN societies in southwest Scania.

### Aspects of EN social relations – monuments and hierarchy

Around 3300 cal. BC the number of grave monuments, dolmens and passage graves can be estimated to be more than 20,000 in southern Scandinavia, making the region one of the most heavily monumentalized areas in northwestern Europe at this time (e.g. Ebbesen 2007; 2011). It is the megaliths that have been at the centre in interpretations of societies in the area as hierarchical at the level of chiefdoms.

Excavations of the last two decades in southwest Scania have started to reveal the complexity of this monumental landscape. Single monuments, small groups of monuments as well as large sites of many monuments were part of the landscape. This is in itself a strong indication of varied social and societal relations. Local as well as regional significance may be read into this landscape. As for sites with small as well as large groups of monuments it is important to recognize that they were formed over time, thus undergoing change in social and societal importance over generations. Stability of location is seen at several sites although this does not necessarily mean inheritance within the same family or clan over several generations. Altering older monuments or even extending a monument such as long dolmen 1 at Vintrie Park may also have been a way of taking over a position. Thus it is the social and political positions that are manifes-

ted at these sites, not necessarily tied to the same families or clans over time.

Almhov and Döserygg, the two large sites, are the clearest examples of continuous building activity. These sites can fit within the constituent hierarchy discussed above. On certain occasions local-level leaders and people from their groups met at these sites of regional importance, gathering under the (limited) power of a regional leader. At these gatherings building monuments and feasting were central elements. This indicates the breakthrough of more clearly hierarchical – although small-scale and unstable – polities that perhaps reached the level of chiefdoms from c. 3800 cal. BC at the earliest and most likely existing from 3600–3500 cal. BC when megaliths were starting to be built on a larger scale (Fig. 48). Again, this does not mean that every group in (southwest) Scania was part of such polities, or at least not all to the same extent.

Fig. 48 Dolmens and façades at Östra Odarslöv. Illustration: © Richard Holmgren, ARCD OC.



Based on among other the spread of megaliths, five regions of dense EN settlement have been identified along the coast of Scania (Fig. 49) (Andersson 2004a; b). Two of these regions were in southwest Scania. Östra Odarslöv is located more or less in between these two regions. This site can in a sense be said to fill the gap, turning the entire area into one region of intense settlement in the EN. Nevertheless, looking more closely at which types of megaliths were built – dolmens or passage graves – gives a hint of local traditions and choices. Passage graves are clearly represented in the northern part of southwest Scania, and almost absent in the southwest (Fig. 2). In the southwest certain long dolmens were instead chosen as places of intense deposition above all of pottery of the same kind otherwise known from the passage graves of the northern part of the region (Brink in press). Hindby (Burenhult 1973) and one of the long dolmens at Vintrie Park are clear examples of this. Discussion concer-

ning the relative chronology of dolmens and passage graves is crucial and still going on, but the significance of these differences in distribution of types of megaliths remains to be studied in more detail.

However, it can indicate different areas of regionally based polity spheres where local leaders have made different choices concerning the choice of megaliths, and it may be within such spheres regional leaders had one of their primary roles. This regional difference in the type of monuments being built of course also has implications for burial traditions. The western Scanian passage graves resulted in larger floor areas available to those who built and used them compared to the southwestern dolmen chamber floors. Human bone material dated to the EN–early MN is absent from megalithic chamber floors in the region (Tilley 1999; Andersson 2004a). Thus we know little regarding actual burial traditions in detail in southwest Scania as a whole.

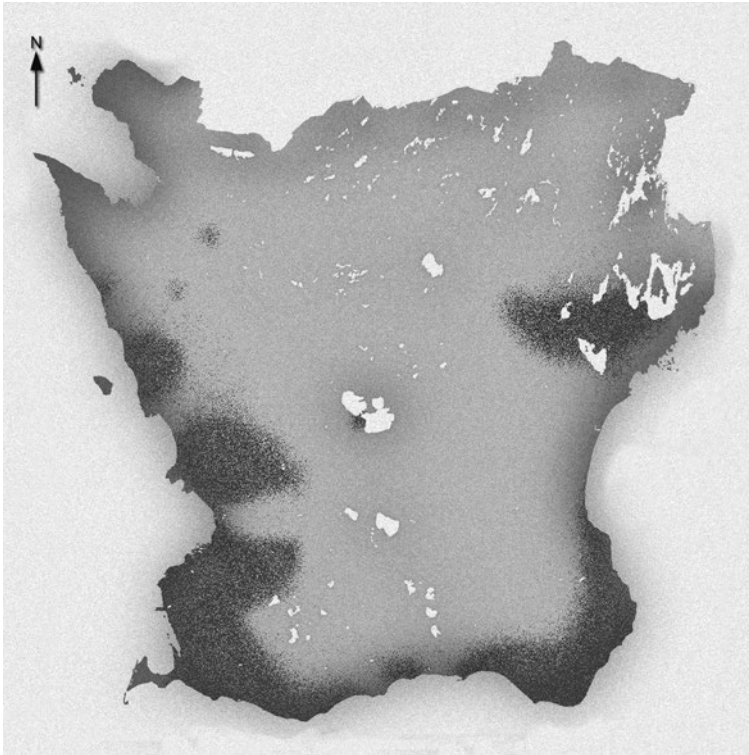


Fig. 49. Distribution of megalithic graves in Scania, southern Sweden. Denser hatching indicates concentrations (revised after Andersson 2004b, 170).

Building requires labour, and being able to control labour means having power. The construction of monumental graves (and long-houses, see above) on the scale seen in other southwest Scania means that some individuals had the power to mobilize labour, both locally and in the form of specialists probably necessary in the complex construction of megalithic graves, especially passage graves (Dehn/Hansen/Kaul 2000). Major interventions were made in the landscape when large areas were cleared. The process of clearing a place meant that special bonds to the place were forged and the landscape was socialized through these measures (Andersson 2004a; Schülke 2009b). Building a monument may have taken only a few months but planning it, choosing and preparing the site, gathering building material was perhaps a process starting long before the actual construction phase. The power to control this was held by local leaders and was given to regional leaders in the ongoing process of creating the impressive monumental arenas of the central assembly places such as Almhov and Döserygg. This of course also meant that tensions and conflict were part of life, although direct evidence of this, for exampl-



le in the form of traumatized skeletons, is rare in southwest Scania. Especially from the EN II, from c. 3500 cal. BC, the scale of building activities, feasting activity, wetland depositions and even human sacrifices (Nilsson & Nilsson 2003; Andersson 2004a) indicates intense social activities and competition, possibly reflecting some instability in political positions in the region (cf. Beck 2003, 651).

Mobilization of labour and surplus of staples was also necessary to maintain regular feasting events at the monuments and at the central gathering sites, which in the case of Almhov and Döserygg were situated in the same place. Historical and anthropological research shows that a leadership structure characterized as big-man societies or simple chiefdoms must have been necessary to mobilize and manage the economic surplus (Johnson/Earle 2000; Hayden 2014; Artursson/Earle/Brown 2015). Construction of monuments and organization of feasting organized by a big-man or chief probably represented his social and political position, which determined ownership of associated ceremonies and rituals, e.g. his social capital. The regular feasting events accompanied ritual activities preoccupied with ancestral cult and fertility. This combination of ritual concerns is well known from anthropological studies of primitive societies involved in agriculture and husbandry (Hayden 2014).

Consequently, the EN monuments can be seen as the physical manifestations of social capital and labour used by local and regional leaders to establish selected places with ritual and emotive significance. In connection with this process, early forms of property rights instituted new socio-political institutions with rights to monopolize and utilize surplus for local and regional leaders (Artursson/Earle/Brown 2015).

Also, the organization and direction of mining, quarrying and the primary production of axe planks was likely centralized under the influence and guidance of local leaders (see Berggren et al. in press for a differing view on this). It is also likely that they were in charge of the distribution of the raw material in the form of axe planks, destined for the continued work and refinement to make the finished, ground axes. This placed the local leaders in a position of social and political power, controlling the regional distribution networks and access to essential prestige goods in the form of high-quality flint axes. This circumstance could have been used in a political economy based on the control of extraction, production and distribution of essential raw materials and finished products (for discussion see Earle 1997; 2002).

## Conclusion

To sum up, interpretations of EN hierarchy rest heavily on the burials (and also depositions although not discussed at length here), and so far not on settlement material. Some suggestions concerning settlements were however made in the previous chapter. Large-scale investigations are steadily revealing a more and more complex EN landscape, certainly in need of more synthesizing research. The discussion regarding EN society and hierarchy will certainly continue.

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## Note

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#### Author's addresses

- Magnus Andersson, The Archaeologists, Swedish National Historical Museums, Odlarevägen 5, SE-226 60 Lund, Sweden. magnus.andersson@arkeologerna.com
- Magnus Artursson, The Archaeologists, Swedish National Historical Museums, Odlarevägen 5, SE-226 60 Lund, Sweden. magnus.artursson@arkeologerna.com
- Kristian Brink, Sydsvensk Arkeologi AB, Erlandsrovägen 5, SE-218 45 Vintrie, Sweden. kristian.brink@sydsvenskarkeologi.se

#### APPENDIX

Tables I–VI list houses, huts, long barrows, façades and megaliths excavated in southwest Scania, Sweden (area seen in figs. 1 and 2). Houses are in this case defined as two-aisled constructions (after Artursson et al. 2003, 58). Several structures interpreted as huts are however of considerable size, that is, they are not necessarily to be seen as indications of, for example, small-scale or temporary ac-



tivities. As regards the huts, only posthole structures, wall trenches or sunken floors where postholes have been securely related to the structure are included, thus leaving out a number of possible huts, for example several of the structures at Hyllie (fig. 31).

Parish/site (structure)	House shape/details of construction	Length/width (m)	Orientation	Dating	<sup>14</sup> C BP/(cal. 2σ BC)	Reference
Bunkeflo/Almhov (house 12)	Rectangular/wall and roof postholes	13.6×5.7	NW–SE	EN II/MN (cereal)	4570±55/(3510–3090) 4455±70/(3350–2920)	Gidlöf/Hammarstrand Dehman/Johansson 2006; Hadevik 2009a
Bunkeflo/Svågertorps industriområde A (house 5)	Round-oval/wall and roof postholes	22×5	WNW–ESE	EN I (cereal)	4950±55/(3940–3640)	Hadevik 2009a
Bunkeflo/Svågertorps industriområde J (house 17)	Trapezoid/round-oval?/wall and roof postholes	11.2×5.9	NW–SE	EN I (charcoal)	4945±70/(3940–3640)	Hadevik 2009a
Burlöv/Burlöv (house 5)	Trapezoid/wall and roof postholes	10.2×6	NW–SE	EN II/MN (type, finds, context)	–	Andersson 2007b
Dagstorp/Dagstorp 19 (house 57/58)	Round-oval partly with sunken floor/wall and roof postholes	20×7.5/5	WNW–ESE.	EN I (charcoal)	4915±85/(3950–3500)	Artursson et al. 2003; Andersson 2004a
Dagstorp/Dagstorp 19 (house 61)	Trapezoid/wall and roof postholes	16×7	WNW–ESE.	EN I (charcoal)	4895±85/(3950–3350)	Artursson et al. 2003; Andersson 2004a
Hyllie/Dösemarken (house 36)	Rectangular/wall and roof postholes	15.2×4.5	NE–SW	EN II (grey pea)	4678±37/(3630–3360)	Berggren/Brink 2012
Hyllie/GC-vägen (house 1)	?/roof postholes	>12.3×?	W–E	EN I–EN II (type, context, finds)	–	Brink/Grehn 2015
Löddeköpinge/Marbäcksgården (house 1)	Round-oval/wall postholes and roof postholes	13×6	NE–SW	EN II (charcoal)	4420±100/(3300–2920)	Knarrström/Wallin 1999; Andersson 2004
Malmö/Valdemarsro	Trapezoid/wall and roof postholes	12.2×6.4	WNW–ESE	EN I (type, pottery)	–	Lindahl Jensen 1992; Hadevik 2009a
Odarslöv/Östra Odarslöv (house 1)	Round-oval/wall trenches, roof postholes	13×6	N–S	EN I (hazel)	4910±30/(3760–3640)	Andersson/Artursson in press b
Odarslöv (Östra Odarslöv (house 2)	Round-oval/wall trenches, roof postholes	14×6.5	NW–SE	EN I (cereal)	4820±30/(3650–3530)	Andersson/Artursson in press b
Oxie/Lunnebjär (house 7)	?/roof postholes	11×?	SW–NE	EN I (cereal)	4880±70/(3920–3390)	Hadevik 2009a
Saxtorp/Saxtorp 23 (house 1)	Round-oval/wall trenches, roof postholes	7.5×4.5	WNW–ESE	EN I (charcoal)	4910±95/(3950–3350)	Artursson et al. 2003; Andersson 2004a
Saxtorp/Saxtorp 26 (house 17)	Round-oval/wall postholes and roof postholes	19.7×5.8	WNW–ESE	EN II/MN (charcoal)	4710±70/(3640–3350) 4750±70/(3660–3360) 4625±70/(3650–3100). 4685±70/(3650–3100)	Artursson et al. 2003; Andersson 2004a
Tofta/Tofta 17 (house 2)	Round-oval/wall and roof postholes	–	NW–SE	EN (type, pottery, stratigraphy)	–	Andersson 2004a
Östra Karaby (house 1)	Round-oval with sunken floor/roof postholes	7×3	N–S	LM/EN I (charcoal)	5025±45/(3950–3700) 5245±80/(4350–3800) 5265±45/(4240–3970) 4915±40/(3780–3640) 4865±45/(3770–3520)	Andersson et al. 2006
Östra Karaby (house 2)	Round-oval with sunken floor/roof postholes	7×4	SW–NE	EN I (type, stratigraphy)	–	Andersson et al. 2006

Tab. I. Two-aisled longhouses in southwest Scania which most likely dates back to the EN.

Parish/site (structure)	Hut shape/ details of construction	Length/ width (m)	Orientation	Dating	<sup>14</sup> C BP/ (cal. 2σ BC)	Reference
Bunkeflo/Vintrie Park (hut A10)	Round-oval with sunken floor/wall postholes and roof posthole	3×1.7	NW-SE	EN I (type, pottery, context)	–	Brink/Hammarstrand Dehman 2013
Bunkeflo/Vintrie Park (hut A13160)	Round-oval with sunken floor/roof posthole	3.2×2.2	E-W	EN I (type, pottery, context)	–	Brink/Hammarstrand Dehman 2013
Bunkeflo/Hyllie 7:4 (A2284 etc.)	Round-oval with sunken floor/postholes	11.6×6.6	NE-SW	EN I (cereal)	4835±40 (3710–3520)	Hadevik 2009b; 2010
Bunkeflo/Svågertorps industriområde F (A1304)	Round-oval with sunken floor/roof postholes	5.5×4.5	–	EN II (type, pottery)	–	Hadevik 2009a
Burlöv/Sunnanå 19A (hut IX)	Round-oval with sunken floor/wall postholes	4.5×3	NW-SE	EN I (charcoal)	4910±70/(3940–3520)	Steineke et al. 2005
Fosie/Inre Ringvägen (hut/house 3)	Round-oval/ rectangular without sunken floor/wall trench with postholes and roof posthole	7.5×5.6	NNE-SSW	EN I (hazel)	4800±50/(3700–3380)	Gidlöf 2006
Husie/Fredriksberg 13 E (hut 2)	Round-oval/wall trenches with postholes	5.6×4.2	E-W	EN (type)	–	Tennander 2005
Hyllie/Annetorpsleden (A23)	Round-oval/wall postholes	4.2×4	NE-SW	EN I (type, pottery)	–	Andréasson et al. 2006
Hyllie/GC-vägen (hut 2)	Round-oval with sunken floor /wall trench and wall posthole	3.9×3	W-E	EN I-II (hazel)	4724±37/(3640–3370)	Brink/Grehn 2015
Lackalänga/Lackalänga 36 (hut 1)	Round-oval/ rectangular without sunken floor/Wall postholes and roof postholes	7×6.5	NW-SE	EN I (charcoal)	4790±80/(3651–3385)	Andersson 1997; Andersson 2004a
Lockarp/Lindängelund 4 (house 54)	Round-oval without sunken floor	7×4.40	NE-SW	EN II (Find, context)	–	Strömberg et al 2014
Malmö/Bellevuegården (A16)	Round oval with sunken floor/roof posthole	6×3.6	NE-SW	EN II (type, pottery, context)	–	Larsson, M. 1984
Malmö/Toftanäs (A246)	Round-oval with sunken floor/wall postholes	5.9×5.8	–	EN (type, pottery)	–	Hadevik 2009a
Odarslöv/Östra Odarslöv Object 1 (hut 1)	Round-oval with sunken floor/ wall trenches with postholes	9.5×3.5	E-W	EN I (cereal)	4690±30/(3630–3370) 5000±30/(3930–3700)	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (hut 2)	Round-oval with sunken floor	5×3	NE-SW	EN I (cereal, charcoal)	4780±30/(3640–3520) 4920±30/(3760–3640)	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (hut 6)	Round-oval with sunken floor/roof posthole	4×3	NW-SE	EN I (charcoal)	5020±30/(3940–3710)	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (hut 7)	Round-oval with sunken floor	3×2	NW-SE	EN I (cereal)	5030±30/(3940–3710)	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (hut 8)	Round-oval with sunken floor/wall trenches and roof postholes	9×3	NW-SE	EN I (hazel)	4950±30/(3790–3650)	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (hut 10)	Round-oval with sunken floor/wall postholes	6×5.5	N-S	EN I (charcoal)	4750±30/(3640–3380) 4990±30/(3940–3690)	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (hut 11)	Round-oval/ rectangular with sunken floor/roof postholes	4.5×3.5	N-S	EN I (cereal)	4840±30/(3660–3540) 4940±30/(3780–3650) 4960±35/(3895–3650)	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (hut 12)	Round-oval with sunken floor/sill stones and wall postholes	9.5×5.5	NNW-SSE	EN I (hazel)	4890±30/(3705–3640)	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (hut 13)	Round-oval with sunken floor	2.5×1.8	NW-SE	EN I (cereal)	4890±30/(3710–3640)	Andersson/ Artursson in press b

Parish/site (structure)	Hut shape/ details of construction	Length/ width (m)	Orientation	Dating	<sup>14</sup> C BP/ (cal. 2σ BC)	Reference
Odarslöv/Östra Odarslöv Object 1 (hut 15)	Round-oval with sunken floor/sill stone and wall postholes	2.7×2.3	N-S	EN I (cereal)	4810±30/(3650–3530)	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 2 (hut 110)	Round-oval with sunken floor/wall postholes and roof posthole	5×3.5	NE-SW	EN I (charcoal)	4890±30/(3705–3635) 4800±30/(3645–3525)	Björk et al. in press
Odarslöv/Östra Odarslöv Object 2 (hut 126)	Round-oval with sunken floor/wall postholes and roof posthole	2×1.9	E-W	EN I (finds, context)	–	Björk et al. in press
Stävie/Stävie 21 (hut 1)	Round-oval without sunken floor/wall postholes	8×7.5	W-E	EN I (type, context)	–	Knarrström 1995; Andersson 2004a
Vellinge/Herrestorp (hut A19)	Round-oval with sunken floor/wall postholes and roof posthole	3.6×2.8	E-W	EN I (type, context)	–	Brink/Hammarstrand Dehman/ Helgesson 2014
Vellinge/Herrestorp (hut A21)	Round-oval with sunken floor/wall postholes and roof posthole	4×3	N-S	EN I (hazel)	4856±34/(3710–3530)	Brink/Hammarstrand Dehman/ Helgesson 2014
Vellinge/Herrestorp (hut A22)	Round-oval with sunken floor/wall postholes and roof posthole	4.4×2.4	N-S	EN I (hazel)	5111±32/(3980–3790)	Brink/ Hammarstrand Dehman/ Helgesson 2014
Vellinge/Herrestorp (hut A23)	Round-oval with sunken floor/wall trenches with post holes and wall postholes	4.5×4	NE-SW	EN I (hazel)	5168±46/(4060–3800)	Brink/Hammarstrand Dehman/ Helgesson 2014
Vellinge/Herrestorp (hut A24)	Round-oval without sunken floor/wall trenches with postholes and wall postholes	5×2.5	NE-SW	EN I (find, context)	–	Brink/Hammarstrand Dehman/ Helgesson 2014

Tab. II. Round-oval huts in southwest Scania, with or without sunken floor, which most likely date back to the EN.

Parish/site (structure)	Hut shape/details of construction	Length/ width (m)	Orientation	Dating	<sup>14</sup> C BP/(cal. 2σ BC)	Reference
Bunkeflo/Bunkeflostrand 15:1 (hut 7)	U-shaped/wall trench with postholes	3.3×2.9	N-S	EN I (type, context)	–	Brink/Grehn/ Kishonti 2008
Bunkeflo/Bunkeflostrand 15:1 (hut 4)	U-shaped/wall trench with postholes	3.15×2.6	NE-SW	EN I (type, context)	–	Brink/Grehn/ Kishonti 2008
Bunkeflo/Bunkeflostrand 15:1 (hut 6)	U-shaped/wall trench with postholes/roof support?	5.5×3.3	SW-NE	EN I (type, context)	–	Brink/Grehn/ Kishonti 2008
Bunkeflo/Bunkeflostrand 15:1 (hut 5)	U-shaped/wall trench with postholes	3.7×2.8	NE-SW	EN I (hazelnut shell)	4860±55 ( 3780–3520)	Brink/Grehn/ Kishonti 2008
Dagstorp/Dagstorp 19 (hut 54)	U-shaped wall trench with postholes	4.3×4.3	–	EN I (charcoal)	5040±75/(3980–3660)	Andersson 2004a
Fosie/Fosie grusterminal (A 60)	U-shaped/wall trench with postholes and roof posthole	6×5	E-W	EN II/MN (type, pottery)	–	Andersson 1994
Fosie/Inre Ringvägen ( hut A965)	Curved wall trench with postholes	6.5×?	NE-SW	EN I-II (hazel)	4700±55/(3640–3360)	Gidlöf 2006
Görslöv/Burlöv 20B (A208)	Curved wall trench with posthole.	3.16×?	–	EN I/EN II (charcoal)	4690±65/(3640–3340)	Friman 2005
Hyllie/Skjutbanorna 1 B (A206)	U-shaped/wall trench	4×4	–	EN II/MN (pottery)	–	Sarnäs/Nord Paulsson 2001
Hyllie/Skjutbanorna 1B (A207)	U-shaped/wall trench	4×4	–	EN II/MN (pottery)	–	Sarnäs/Nord Paulsson 2001

Parish/site (structure)	Hut shape/details of construction	Length/width (m)	Orientation	Dating	<sup>14</sup> C BP/(cal. 2σ BC)	Reference
Hyllie/GC-vägen (hut 1)	U-shaped/wall trench with posthole		W–E	EN II/MN (charcoal from hearth outside hut)	4595±36/(3520–3110)	Brink/Grehn 2015
Lockarp/Fosie 11 B (hut 2)	U-shaped wall trenches with postholes	4.8×4.8	–	EN I (hazel)	4980±75/(3950–3650)	Hadevik/Gidlöf 2003
Odarslöv/Östra Odarslöv/Object 1 (hut 3)	U-shaped wall trench with postholes	3×2	NE–SW	EN I (charcoal)	5190±30/(4045–3965)	Andersson/Artursson in press b
Odarslöv/Östra Odarslöv/Object 1 (hut 4)	U-shaped wall trench with postholes	6×3.5	NE–SW	EN I (cereal)	4890±30/(3710–3640)	Andersson/Artursson in press b
Odarslöv/Östra Odarslöv/Object 1 (hut 5)	U-shaped wall trench with postholes and roof posthole	5.5×4.5	NW–SE	EN I (charcoal)	4940±40/(3795–3645)	Andersson/Artursson in press b
Odarslöv/Östra Odarslöv/Object 1 (hut 9)	U-shaped wall trench with postholes and roof posthole	2.5×2.5	NE–SW	EN I (charcoal) EN I (hazel)	4800±30/(3645–3525) 4940±30/(3780–3650)	Andersson/Artursson in press b
Odarslöv/Östra Odarslöv/Object 2 (hut 124952)	U-shaped wall trench with posthole	3×1.9	NW–SE	EN I(context)	–	Björk et al. in press
Odarslöv/Östra Odarslöv/Object 2 (hut 125024)	U-shaped wall trench with postholes	2.8×2.4	NE–SW	EN I(context)	–	Björk et al. in press
Oxie/Fosie 11D (hut 4)	U-shaped wall trench with postholes	3–4×3	N–S	EN I(type, pottery, context)	–	Hadevik/Gidlöf 2003
Oxie/Fosie 11D (hut 5)	U-shaped wall trench	2.8×2.2	N–S	EN I(type, pottery, context)	–	Hadevik/Gidlöf 2003
Oxie/Fosie 11D (hut 6)	U-shaped wall trench	2.8×2.2	N–S	EN I (cereal)	4935±105/(3970–3520)	Hadevik/Gidlöf 2003
Oxie/Lunnebjär (hut A52817)	Curved wall trench	5.5×?	NW–SE	EN I (hazel)	4805±65/(3710–3380)	Hadevik 2009a
Oxie/Fosie 11D (hut 1)	Curved wall trench with posthole	4.7×3.6	NE–SW	EN I (cereal)	4935±100/(3960–3520)	Hadevik/Gidlöf 2003
Oxie/Fosie 11D (hut 2)	Curved wall trench	2.3×1.5	NW–SE	EN I (cereal)	4970±85/(3960–3640)	Hadevik/Gidlöf 2003
Oxie/Fosie 11D (hut 3)	Curved wall trench with posthole	3.5×0.9	N–S	EN I (cereal)	4970±70/(3940–3650)	Hadevik/Gidlöf 2003

Tab. III. U-shaped or curved huts in southwest Scania which most likely date back to the EN.

Parish/site (structure)	Shape/details of construction	Length/width (m)	Orientation	Dating	<sup>14</sup> C BP/(cal. 2σ BC)	Reference
Fosie/Hyllie-Inre Ringvägen (house 1)	Asymmetrical/postholes	7.3×4.5	E–W	LM/EN I (cereal)	5260±50/(4240–3970)	Gidlöf 2006
Hyllie/Skjutbanorna 1A (hut A38)	Asymmetrical round oval/stone setting	4.8×4.6	E–W	LM/EN I (burned food remains, hazel)	5030±85/(3980–3650) 5275±70/(4320–3960)	Jonsson 2005
Stävie/Stävie 21 (hut 2)	Asymmetrical/postholes	6.5×6.5	–	EN I (pottery)	–	Knarrström 1995; Andersson 2004a
Vellinge/Herrestorp (hut A20)	Asymmetrical rectangular/postholes	7.1×3.6	E–W	EN I (context)	–	Brink/Hammarstrand Dehman/Helgesson 2014
Örtofta/Örtofta 46 (hut I)	Asymmetrical/postholes	6×5	N–S	EN I (pottery)	–	Petersson/Hägerman 1997; Andersson 2004a
Örtofta/Örtofta 46 (hut II)	Asymmetrical/postholes	5×5	–	EN I (pottery)	–	Petersson/Hägerman 1997; Andersson 2004a

Tab. IV. Asymmetrical huts/houses in southwest Scania which most likely date back to the EN.



Parish/site (structure)	Type	Length, m	Burials	<sup>14</sup> C BP/ (cal. 2 σ BC)	Note	Reference
Bunkeflo/ Almhov (Long Barrow 1)	Long barrow; four façade pits	≥ 85	One burial west of the façade; a thin-butted flint axe interpreted as a grave gift	4990±70/(3950–3650)	Cereal from one of the façade pits dated; Another thin-butted flint axe was found 15 m to the south of the burial; interpreted by excavators as part of the same burial as the other axe	Gidlöf/ Hammarstrand Dehman/ Johansson 2006; Gidlöf 2009
Bunkeflo/ Almhov (Long Barrow 2)	Long barrow; four façade pits	–	Two stone packings west of the façade; no finds or skeletal remains clearly indicating burials	–	–	Gidlöf/ Hammarstrand Dehman/ Johansson 2006; Gidlöf 2009
Bunkeflo/ Almhov (Long Barrow 3)	Long barrow; two façade pits	–	One burial west of the façade; skeletal remains from two adult individuals	4495±45/(3360–3020)	Skeletal material from one of the buried individuals dated	Gidlöf/ Hammarstrand Dehman/ Johansson 2006; Gidlöf 2009
Bunkeflo/ Almhov (Long Barrow 4)	Long barrow; four façade pits	–	One pit/stone packing west of the façade; no finds or skeletal remains clearly indicating burials	–	–	Gidlöf/ Hammarstrand Dehman/ Johansson 2006; Gidlöf 2009
Bunkeflo/ Almhov (Long Barrow 5)	Long barrow or façade; two façade pits	–	–	4460±40/(3630–3350)	Cereal from façade pit dated	Gidlöf/ Hammarstrand Dehman/ Johansson 2006; Gidlöf 2009
Bunkeflo/ Vintrie Park (Long Barrow 1)	Long barrow; two façade pits	≥ 12	Two stone packings west of the façade; no finds or skeletal remains clearly indicating burials	5130±45/(4040–3790) 4785±45/(3660–3380)	Possibly two phases; indicated by <sup>14</sup> C on charcoal from oak retrieved from façade pits	Brink/ Hammarstrand Dehman 2013; Aspeborg 2009; Brink in press
Bunkeflo/ Vintrie Park (Long Barrow 2)	Façade trench with two post pits (interpreted as possible long barrow by excavators)	–	–	4816±37/(3660–3510)	<sup>14</sup> C on hazelnut shell	Brink/ Hammarstrand Dehman 2013; Brink in press
Dagstorp/ Dagstorp 12 (northern structure Krängelofta)	Long barrow; six façade pits	≥ 21	Stone packing west of the façade; no finds or skeletal material clearly indicating a burial	–	–	Ericson Lagerås 1999; Andersson 2004a
Dagstorp/ Dagstorp 12 (southern structure Krängelofta)	Long barrow; six façade pits	≥ 38	Stone packing west of the façade; no finds or skeletal material clearly indicating a burial	–	–	Ericson Lagerås 1999; Andersson 2004a
Fosie/Fosie 9B (A4215 etc)	Long barrow; two façade pits	≥ 11	Stone packing west of the façade; no finds or skeletal material clearly indicating a burial	(Charcoal dated to the Mesolithic)	–	Jönsson/Lövgren 2003; Gidlöf 2009
Glostorp/Hans Winbergs väg, söder om (northern structure)	Long barrow?	–	–	–	Uncertain, possibly still preserved underneath topsoil	Gidlöf 2009
Glostorp/Hans Winbergs väg, söder om (southern structure)	Long barrow?	–	–	–	Uncertain, possibly still preserved underneath topsoil	Gidlöf 2009

Parish/site (structure)	Type	Length, m	Burials	<sup>14</sup> C BP/ (cal. 2 σ BC)	Note	Reference
Lund City/ Science Village (Façade 1)	Façades with six pits/impressions	3.2×0.9	Free-standing without graves Close to dolmens	4994±39/(3950–3660)	<sup>14</sup> C on charcoal	Kronberg 2016
Lund City/ Science Village (Façade 2)	Façades with four pits/impressions	4.5×1.5	Free-standing without graves Close to dolmens	–	–	Kronberg 2016
Lund City/ Science Village (Façade 3)	Façades with six pits/impressions	4.5×0.7	Free-standing without graves Close to dolmens	–	–	Kronberg 2016
Odarslöv/Östra Odarslöv Object 1 (Façade 1)	Façades with five pits/impressions	3.4×2.4	Free-standing without graves Close to dolmens	4660±30/(3520–3360)	<sup>14</sup> C on cereal	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (Façade 2)	Façades with three post pits	2.2×0.75	Free-standing without graves Close to dolmens	–	–	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (Façade 3)	Façades with four post pits	2.7×1.0	Free-standing without graves Close to dolmens	4860±30/(3700–3630)	<sup>14</sup> C on charcoal	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (Façade 4)	Façades with three post pits	2.6×1.67	Free-standing without graves Close to dolmens	4795±45/(3660–3380)	<sup>14</sup> C on charcoal	Andersson/ Artursson in press b
Odarslöv/Östra Odarslöv Object 1 (Façade 5)	Façades with four post pits	2.7×1.0	Free-standing without graves Close to dolmens	5010±30/(3935–3705)	<sup>14</sup> C on charcoal	Andersson/ Artursson in press b
Oxie/Kristineberg (northern structure 163 A–C)	Long barrow; two façade pits	–	–	5040±110/(3966–3702 cal. 1 σ BC) 2 σ interval not given in report	Charcoal from façade pit dated	Rudebeck/Ödman 2000; Gidlöf 2009
Oxie/Kristineberg (southern structure A160, 161, 162, 193)	Long barrow; two façade pits	≥ 40	Two stone packings west of the façade; no finds or skeletal remains clearly indicating burials	5010±110/(3954–3670 cal. 1 σ BC) 2 σ interval not given in report	Charcoal from stone packing dated	Rudebeck/Ödman 2000; Gidlöf 2009
Skegrie/Område 6:1 (Façade A6912)	Façades with two pits/impressions	4.6×1.6	Free-standing without graves Close to dolmens	5005±42/(3950–3690)	<sup>14</sup> C on charcoal	Söderberg 2014
Södra Sallerup/ Hörlanders väg (A5)	Long barrow; three façade pits	≥ 9–10	Stone packing west of the façade; no finds or skeletal material clearly indicating a burial	–	–	Berggren/Brink/ Skoglund 2009; Gidlöf 2009

Tab. V. Excavated long barrows and façades in southwest Scania. At Bageritomten, Lockarp parish, a structure has been discussed as a possible long barrow/ façade but it has been dismissed on source-critical grounds (Gidlöf 2009, 100). The Jättegraven site which is still visible above ground (Larsson, L. 2002) and the Örnakulla site, an existing dolmen preceded by a long barrow (Sjöström/Pihl 2002), are not included in the table.

Parish/site (structure)	Type	Size,length/width	Chamber; inner size	<sup>14</sup> C BP/(cal. 2 σ BC)	Note	Reference
Bunkeflo/Almhov (Dolmen 1)	Long dolmen	15×6 m	c. 1.5×0.6 m	–	–	Gidlöf/ Hammarstrand Dehman/ Johansson 2006
Bunkeflo/Almhov (Dolmen 2)	Long dolmen (uncertain)	12×9 m	c. 2×2 m	–	A well was located underneath the structure	Gidlöf/ Hammarstrand Dehman/ Johansson 2006
Bunkeflo/Vintrie Park (Long Dolmen 1)	Long dolmen (two chambers)	15×9 m 22×9 m (29×15 m stone brim included)	1.9×0.9 m 1.3×0.9 m	–	Long dolmen built in two phases; two concentrations of deposited pottery outside the kerbstones	Brink/ Hammarstrand Dehman 2013; Brink in press
Bunkeflo/Vintrie Park (Long Dolmen 2)	Long dolmen	11–11.5×5–5.5 m	1.8×0.8 m	–	–	Brink/ Hammarstrand Dehman 2013; Brink in press
Fosie/Hindby (Anl. 1)	Long dolmen	c. 18×10 m (measured from Plansch 6, see reference)	c. 2.0×1.2 m (measured from Plansch 6, see reference)	–	Large amounts of deposited pottery and burnt human bone outside the kerbstones	Burenhult 1973
Håslöv/Döserygg (Dolmen 1)	Round dolmen	7 m (diam.)	1.4×1.4 m	5213±32/(4230–3950), 4305±50/(3090–2760)	<sup>14</sup> C on charcoal	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 2)	Long dolmen (two chambers)	20×10 m	1.1×0.9 m 1.8×1.1 m	4205±45/(2910–2630)	Long dolmen with two chambers. <sup>14</sup> C on charcoal	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 3)	Long dolmen(?)	29×15 m (estimated from map)	–	–	Removed in modern time; marked on map from 1770	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 4)	Long dolmen	14×10 m	1.4×1.0 m	–	–	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 5)	Long dolmen	11×10 m (part inside the trench)	1.6×1.1 m	4840±45 (3710–3520)	Part of the dolmen was outside the trench	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 6)	Long dolmen	11×9 m	1.9×1.7 m	–	–	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 7)	Long dolmen	12×10 m	?	–	Chamber without clear structure.	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 8)	Long dolmen	21×10 m	?	–	Chamber without clear structure.	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 9)	Long dolmen	11×6 m	?	4101±36/(2870–2490)	Chamber without clear structure. <sup>14</sup> C on charcoal	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 10)	Long dolmen	13×10 m	1.5×1.3 m	4153±38/(2880–2610), 4015±30/(2620–2460)	<sup>14</sup> C on charcoal and cereal	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 11)	Long dolmen	19×12 m	2.0×1.4 m	–	–	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 12)	Long dolmen	15×8 m	1.3×1.2 m	–	–	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 13)	Long dolmen	22×15 m	2.5×2.3 m	4953±52/(3940–3640)	<sup>14</sup> C on charcoal	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 14)	Long dolmen	25×13 m	1.8×1.3 m	–	–	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 15)	Long dolmen	>12×9 m	1.9×1.4 m	–	Part of the dolmen was outside the trench	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 16)	Long dolmen	13×7 m	?	–	–	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 17)	Long dolmen	19×16 m	?	–	–	Andersson/ Wallebom 2011
Håslöv/Döserygg (Dolmen 18)	Long dolmen	19×14 m	3.3×2.9 m	–	–	Andersson/ Wallebom 2011

Parish/site (structure)	Type	Size,length/width	Chamber; inner size	<sup>14</sup> C BP/(cal. 2 σ BC)	Note	Reference
Håslöv/Döserygg (Dolmen 19)	Long dolmen	>6×7 m	–	–	–	Andersson/Wallebom 2011
Håslöv/Döserygg (Dolmen 20)	Long dolmen	20×10 m	–	–	–	Andersson/Wallebom 2011
Lund city/ Science Village (Dolmen 1)	Long dolmen	15.5×9.5 m	2.3×1.8 m	–	–	Kronberg 2016
Lund city/ Science Village (Dolmen 2)	Long dolmen	15.5×9 m (1st phase) 17.5×10.5 m (2nd phase)	2.4×2.2 m	4466 ±57/(3360–2930), 2nd phase	<sup>14</sup> C on charcoal Built in two phases	Kronberg 2016
Odarslöv/ Östra Odarslöv (Dolmen 1)	Long dolmen	26×12–13.8 m	2.2×1.6 m	4570±30/(3500–3100)	<sup>14</sup> C on charcoal	Andersson/ Artursson in press b
Odarslöv/ Östra Odarslöv (Dolmen 2)	Long dolmen	14×9.5 m (1st phase) 25×10 m (2nd phase)	2.0×1.6 m	4450±30/(3330–3015), 2nd phase	<sup>14</sup> C on charcoal. Secondary expansion to the east and west	Andersson/ Artursson in press b
Odarslöv/ Östra Odarslöv (Dolmen 3)	Long dolmen	14×8–9 m	1.45×1.4 m	4710±30/(3630–3375), 4380±30/(3010–2940)	<sup>14</sup> C on charcoal	Andersson/ Artursson in press b
Odarslöv/ Odarslöv (Raä nr 15)	Passage grave	–	–	4540±50/(3495–3085) 4440±55/(3340–2920) 5115±50/(4040–3785) 4565±50/(3500–3095)	Only a minor part of the passage grave excavated (outer area south of the entrance); dated material: charcoal and food crust	Edring 2007
Skegrie/Område 6:1 (A120)	Round dolmen	15 m (diam.)	1.15×1.0 m	–	–	Söderberg 2014
Örja/Örja 1:9 (A160818)	Unclear, only chamber preserved	–	1.88×1.08 m	–	Only chamber preserved	Andersson 2013

Tab. VI. Excavated megaliths in southwest Scania (note that still existing monuments are not included).