

Vestervang at Kirke Hyllinge, Zealand: a late Iron Age settlement with rich stray finds

Ole Thirup Kastholm*

Roskilde Museum, Roskilde, Denmark

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In 2007 Roskilde Museum investigated a settlement dated to the late Germanic Iron Age/Viking Age. The excavated area of c. 18,000 m² unveiled 18 longhouses and 21 pit houses but is probably best understood as a single farm in c. six phases. The settlement consists of rather modest structures, not exceeding 20 m in length, which contrasts with the broad range of rich contemporary metal stray finds from the site. This paper presents the excavation results and briefly proposes a possible connection between this site and the nearby elite complex of Lejre.

Keywords: Iron Age; Viking Age; agrarian settlement; pit houses; longhouses; metal stray finds; metal detector; Roskilde Fjord; Lejre; Karleby

The cultural landscape of Denmark has experienced significant changes in the last few years, as countless hectares of arable land have been redeveloped as residential areas. This large scale transformation has not been seen since the 1960s when vast residential developments last enveloped and faded the traditional rural village. But the extent of the present restructure of the cultural landscape, has been much greater than that of the 1960s, due to for example, changes in legislation and increased mechanization, and has involved countless trial trenches and vast areas of archaeological excavation. The data collected exceeds any previous amounts in such a short time period and extensive scientific analysis and dissemination of this data will be required.

As a consequence there has been a high frequency of excavations in the district of Roskilde Museum on Zealand until recently. One of the more extensive and advantageous archaeological campaigns took place in April–December 2007 near the farm of Vestervang, Kirke Hyllinge parish, where 15 hectares of arable land was to be residentially developed (Figure 1) (Kastholm 2009).¹ The excavation uncovered traces of settlement from two prehistoric periods: Late Bronze Age and Late Iron Age. This paper aims to present the latter.

Topography

The rural village of Kirke Hyllinge is situated on a ridge in the heart of the peninsula of Hornsherred, which stretches northwards from the centre of Zealand and is flanked by the waters of Isefjord and Roskilde Fjord. The church of Kirke Hyllinge is placed on the highest point at c. 43 m

above sea level. To the west, the landscape consists of hilly terrain towards the cliffs of the Isefjord coastline. To the east the terrain slopes down towards Lejre Vig in the inner waters of Roskilde Fjord and is characterised by a flat valley traversed by the small stream of Ørbæk.

The area of investigation is situated on arable land, about halfway between the old village of Kirke Hyllinge and the village of Store Karleby, on a ridge about 23 m above sea level. To the west the area is limited by a modern settlement. To the north and east the ground slopes, while it rises to c. 30 m to the south. Although the terrain appears to be smooth sloping, the trial trenches unveiled a landscape of numerous depressions, mostly consisting of small ponds levelled by ages of ploughing.

The subsoil was variable and mostly consisting of yellow-brown to yellow-white sandy clays. The subsoil clay on the higher areas was criss-crossed by natural grooves of a more sandy and humic composition. The top soil is 40–80 cm thick with the thicker soils downslope.

The excavation

A total of c. 27,000 m² was excavated: c. 8700 m² in the trial trenches and c. 18,300 m² in the subsequent excavation. The excavation formed a field of slightly rectangular shape on the highest part of the area, covering all concentrations of relevant features discovered during the trial excavation (Figures 2 and 3). Thus the prehistoric traces ought to be more or less fully investigated on three sides: north, east and south. Trial excavations to the west of the excavation field, which was residentially developed in 2005, revealed nothing of interest.² The area immediately

*Email: olekast@roskilde.dk



Figure 1. Historical map from the first half of the twentieth century. The trial excavation area is shown in grey. The star indicates the settlement. The Viking Age cemetery at Kirke Hyllinge Church and the settlement of Stensgård, both mentioned in the text, are also shown with a cross and a square respectively (map © National Survey and Cadastre).

adjacent to the excavation field of Vestervang was however not investigated and archaeological features may have been lost here.

A total of 1608 features were registered: 1298 post holes, 86 pits (of which 21 appeared to be pit houses), 2 cooking pits, 4 trenches, 1 wall ditch, 1 stone heap and 1 natural hollow. Another 215 features appeared to be of no significance. Furthermore, a large number of stake holes in the walls of the pit houses were not seen as independent features, but were registered directly in the context of the pit house concerned.

Of the total of 1298 postholes only 311 could be connected to a structure as either roof bearing posts, wall posts, entrance posts, supporting posts or posts in a fence. In all 43 structures were recognized. Two well preserved post-built structures, as well as a number of pits, were part of an earlier settlement dated to late Bronze Age/early Iron Age (cf. Kastholm 2009, 25f., for a preliminary presentation).

The settlement

The late Iron Age settlement stretches in a broad belt over the excavation field, from NW to SE, consisting of 41

structures: 19 post-built structures, 21 pit houses and one structure consisting only of a wall ditch (Figure 4).

The post-built structures

These buildings appear to be of variable size and character (cf. Figure 5; Table 1) though of note, the longhouses are generally rather small. The maximum length of the largest longhouses does not exceed c. 20 m (respectively 19 m, 15.25 m and 18.25 m) with the majority being c. 10 m long with just three sets of roof bearing postholes. The floor plans are commonly rectangular (10 cases) along with curved (7 cases) and trapezoid (2 cases). As no walls survive in this Iron Age/Viking Age settlement, the floor plan must be estimated solely on the basis of the width span between the roof bearing postholes. An exception is house I, in which leaning supporting posts in curved rows on both sides are present. A further difference between the longhouses is the width span between the roof bearing postholes, which varies from between 1.9 to 3.5 m. There is general similarity in the length span of the longhouses, as long as specific narrowed roof bearing sets are excluded. The prevalent length span is between 4.5 to 5.5 m.

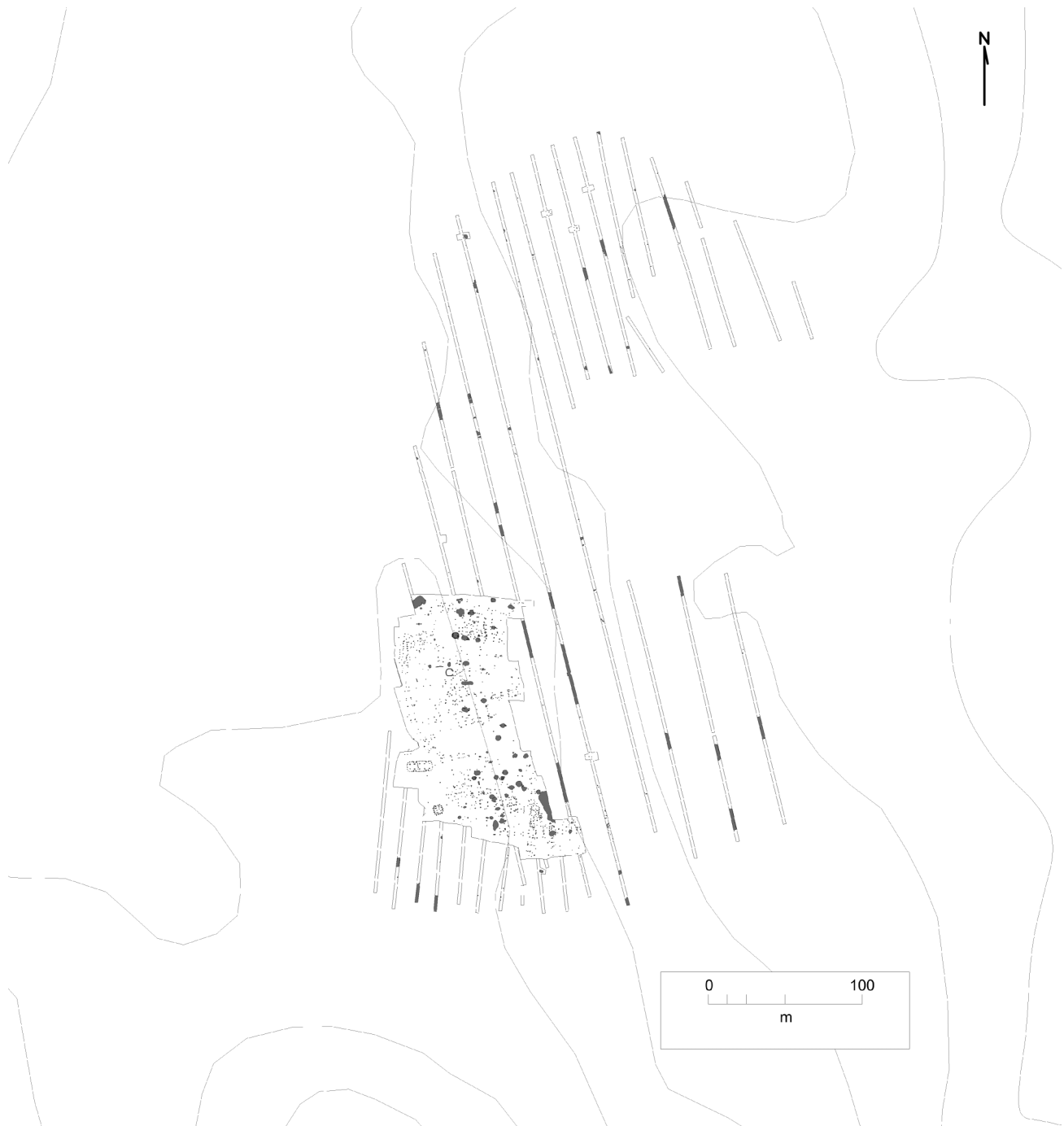


Figure 2. An overview of the excavation field and the trial trenches. Equidistance 2.5 m.

Stratigraphic correlation between the post built structures was mostly inconclusive as most of the houses are solitary. Two exceptions are that longhouse I can be seen to be older than pit house XIX and longhouse II, can be seen to be older than pit house V. Additionally, the longhouses XXVII and XXXV could not have been contemporary and neither could longhouses XI and XII. The longhouses XV, XVI, XXIII are situated so close to each other that they probably cannot have

stood at the same time. The same goes for the longhouses XIII, XIV as well as XXXVII, XXXVIII.

The pit houses

There is a variety of shapes and sizes in the 21 pit houses (cf. Figure 6; Table 2). The pit house floor plan shapes are identified through wall poles or stakes, which were driven into the



Figure 3. An overview of the excavation field with all features (digital redrawing by Cille Krause).

ground and found in 12 of the houses. The most common floor plan seen is oval (6 houses), followed by a rectangular shape with rounded corners (3 houses), circular (2 houses) and in a single case, square shaped with rounded corners. The largest pit house is no. VI, which measures a length of 4.5 m and a width of almost 4 m. An estimated internal area of this building is 10 m² although most of the houses have an estimated internal area of between 4–7 m². The depth of the pit houses varies from almost nothing except the roof bearing postholes to more than 0.5 m of preserved material. It was not possible

to separate floor layers in any of the pit houses and all material is thus to be regarded as fill.

The walls of some of the pit houses are, as mentioned, marked with poles driven into the ground. Other wall types, such as wall ditches, are not seen. The pole holes show that the poles were usually pointed spars, but cleaved and pointed poles with square or triangular cross sections were also used. Their common diameters were 4–5 cm, which is confirmed by pole marked fragments of burned mud wall from the burned pit house XLI. Presumably these slender poles were

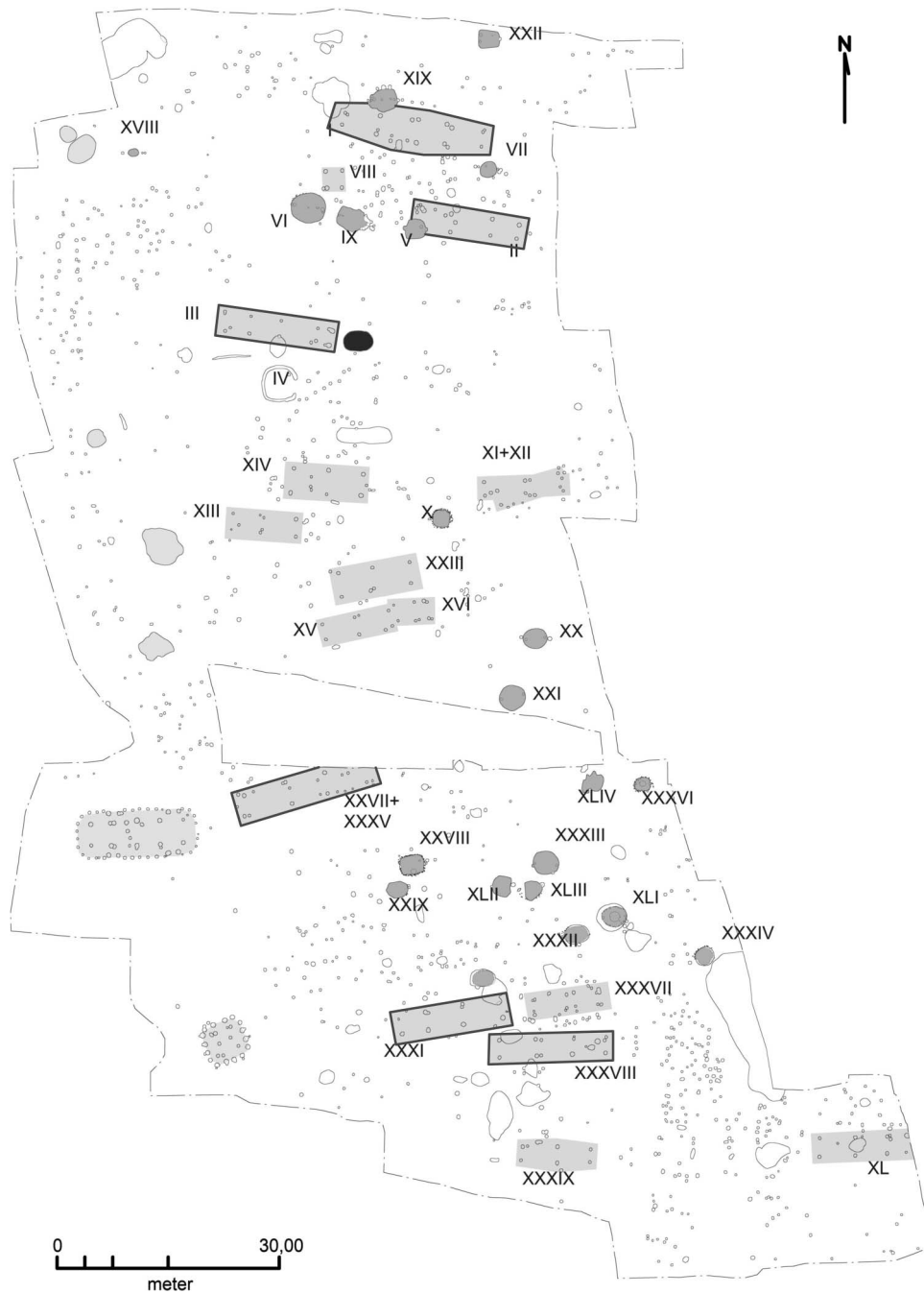


Figure 4. The excavation plan with structures highlighted. Longhouses are shown in light grey (solid outlines indicate possible main houses), pit houses are in medium grey and the stone heap is the black structure east of House III. Unnumbered highlighted house-structures and pits indicates the Late Bronze Age/Early Iron Age settlement not dealt with in this paper.

the base for mud walls. Fragments of mud walls were located in 10 pit houses.

Of interest are the small, solitary pits at the base of at least four of the pit houses (XXVIII, IXXX, XXXVI, XLI). They are mostly flat bottomed, 0.5 m in diameter and a maximum of 0.2 m in depth. One exception is in the larger pit in house XXVIII, which is 0.5 m deep. These pits occur in the centres as well as the corners of the houses. They

should be probably be understood as depressions in which a person could stand upright, or as foot pits for a person sitting, a similar feature to that at Østergård in Southern Jutland (Sørensen 2011, 56 ff.). Another possibility might be that they were a kind of drain or barrel pit, though no traces of standing water or other finds were present.

Material from each pit house was sieved on site where possible. Alternatively 10 litres of material from each

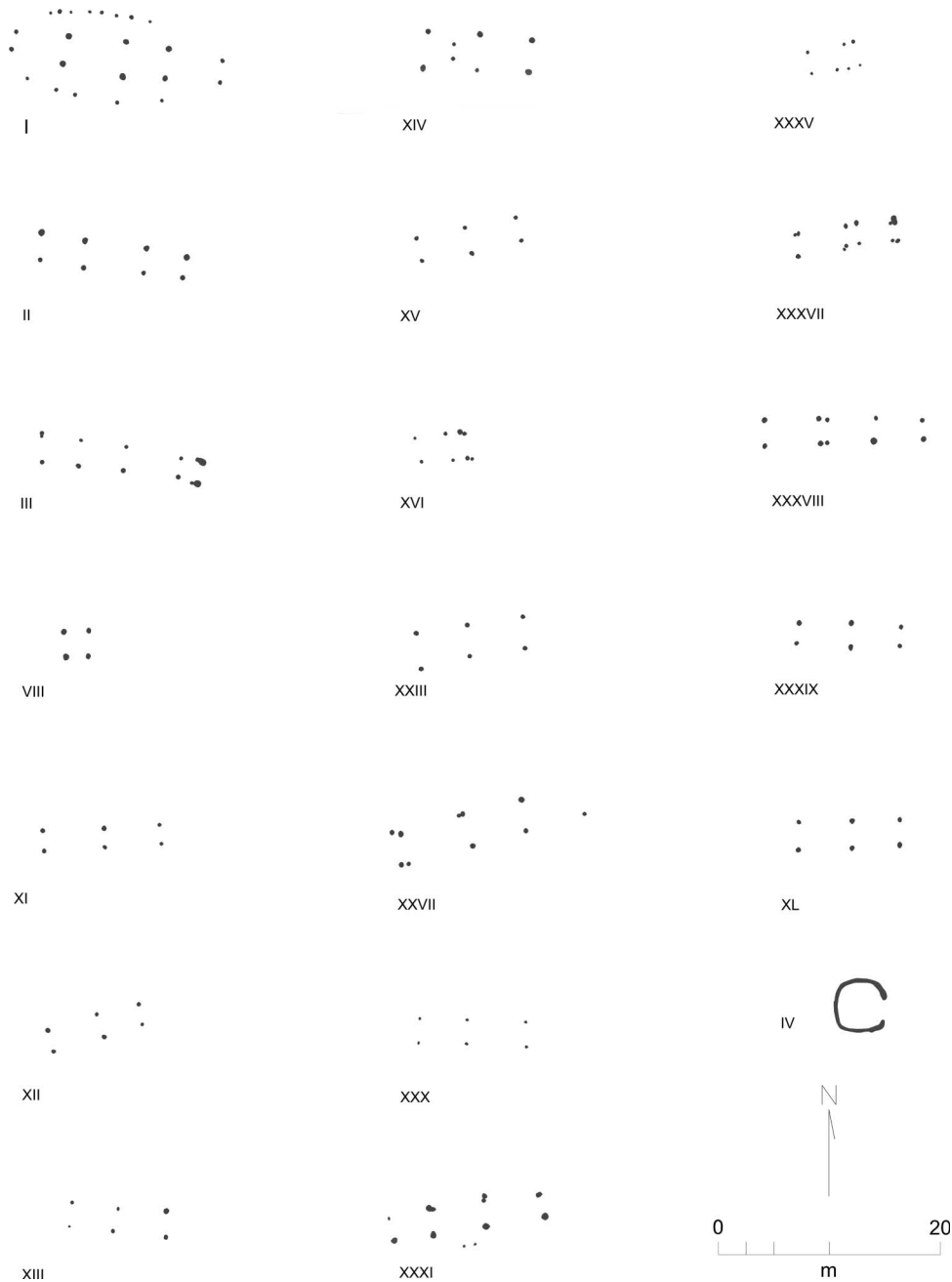


Figure 5. The floor plans of the longhouses and structure IV.

house was investigated using the flotation method at Roskilde Museum producing small fragments of charcoal, faunal material and ceramics.

Stratigraphic correlation between the pit houses was mostly inconclusive as most of the houses are solitary. Only this could be concluded: pit house V is younger than longhouse II and the pit house XIX is younger than longhouse I. Furthermore it seems that the pit houses XLII and XLIII are lying too close to have existed at the same time.

¹⁴C dating the pit houses

Faunal material from 6 pits houses was submitted for radio-carbon dating.³ This material is broadly dated from the late seventh century to the earliest eleventh century AD. The dates show a tendency towards two main phases, the earliest from c. 660–780 AD (house XIX, XXVI, XLI) and the latest from c. 880–1020 (house VI, XXVIII). House X has a somewhat wider age range of c. 680–890 AD (Figure 7; Table 3).

It should be stressed that dating the fill material does not necessarily date the construction itself. But it seems

Table 1. Three-aisled longhouse inventory (* supporting post are included).

House no.	Set of roof bearing post	Ground plan	Length m	Width m	Span width m	Span length m
I	5	Curved	19	8*	2–2.5	4.5–5.5
II	4	Curved	13	2.75	2.4–2.75	3.75–5.5
III	5	Rectangular	15.25	2.25	2–2.25	2–5
XI	3	Rectangular	10.9	1.9	1.9	5–5.5
XII	3	Curved	8.9	2.15	2–2.15	4–4.75
XIII	3	Rectangular	9	2.5	2.25–2.5	4.25–4.75
XIV	3	Rectangular	10	3.5	3–3.5	4.9
XV	3	Curved	8	2.4	2.2–2.4	4.5–4.75
XVI	3	Curved	4.5	2.5	2.25–2.5	1.5–3.75
XXIII	3	Trapezoid	10.2	3.25	3–3.25	4.75–5
XXIV	5	Rectangular	16.5	6.75*	3.25	3.25
XXVII	4	Rectangular	18.25	3	3	5–6
XXX	3	Rectangular	9.5	2.1	2.1	4.3–5
XXXI	4	Curved	14.25	2.75	2.25–2.75	3.75–5
XXXV	4	Rectangular	4.5	2.25	2–2.25	1–2.25
XXXVII	4	Rectangular	9	2	2	1.25–4.5
XXXVIII	4	Trapezoid	14.75	2.5	2–2.5	4.5–5
XXXIX	3	Curved	8.75	2.25	2–2.25	4.5–4.75
XL	3	Rectangular	8	2.5	2.5	4.5–4.75

Note: *indicates that supporting post are included.

plausible that abandoned pits lying in an area of activity would be filled quite rapidly with the settlement's day-to-day waste (cf. e.g. Sørensen 2011, 49f.). The date of the oldest fill strata in a pit house ought consequently to be regarded as corresponding to the period immediately after the abandonment of the building. It must be noted though, that there is always a risk of contamination in the samples from previous activity phases and this risk can only be reduced by undertaking numerous analyses.

Other structures

Two undated constructions (IV and VIII) are found in the Iron Age/Viking Age settlement, that are neither longhouses nor pit houses (Figure 5).

House IV is a square shaped wall ditch with clearly rounded corners and an entrance facing east. In metaphorical terms the shape might be described as horseshoe-shaped. The construction measures 4.75 × 4.75 m. No traces of an inner, roof bearing construction were recognized and thus, it is not certain whether this 'house' was roofed at all. The wall ditch did not contain traces of poles or stakes. The profile was rounded with a depth of no more than 0.15 m. No archaeological finds were made. A number of similar horseshoe-shaped constructions are known from, for example, the ring fortress of Trelleborg, Slagelse. These constructions of unknown function, were excavated inside the fortress' walls and although they are not dated, they do not appear to be contemporary with the main settlement (Nørlund 1948, 39ff.; Nielsen 1990, 106ff.). Poul Nørlund interpreted these features as fences associated with the so-called sacrificial wells at the site (Nørlund 1948, 39ff.; see also Jørgensen 2009, 329f.).

House VIII is a square construction measuring 2.75 × 2.75 m, and defined by the holes of four roof bearing posts. Thus it belongs to the large group of constructions traditionally referred to as small barns.

Fences

On such a fairly extensive excavation, with numerous non-contextual post holes, it is appropriate to attempt to identify any possible fences. In all, 987 non-contextual post holes were excavated. None of these form clear, uninterrupted rows. Only short rows of 3–5 m can be unmistakably recognized besides unstructured concentrations of post holes, and therefore the identification of fences is difficult without further evidence. One of these short fences is found leading from the 'entrance' of the horseshoe-shaped structure (IV) towards the stone heap A245 (see below).

Although there is no clear evidence for fences, belts of post holes do occur in what seems to be 'fence areas'. This is most evident alongside the western field boundary. Such belts of post holes might reflect fences in multiple phases, but another possibility is that they represent the presence of more or less temporary outhouses leaning against a fence.

Other features

Two other recognized features are worth mentioning. The stone heap A245, just east of longhouse III, consists of burnt stones and faunal material. Such stone heaps are known from for instance, Fredshøj at Gl. Lejre and at Tissø, although on a much larger scale (Christensen and Tombjerg 2009, Jørgensen 2009, Nielsen and Bastrup 2011, 112f.). These features probably reflect feasting waste.

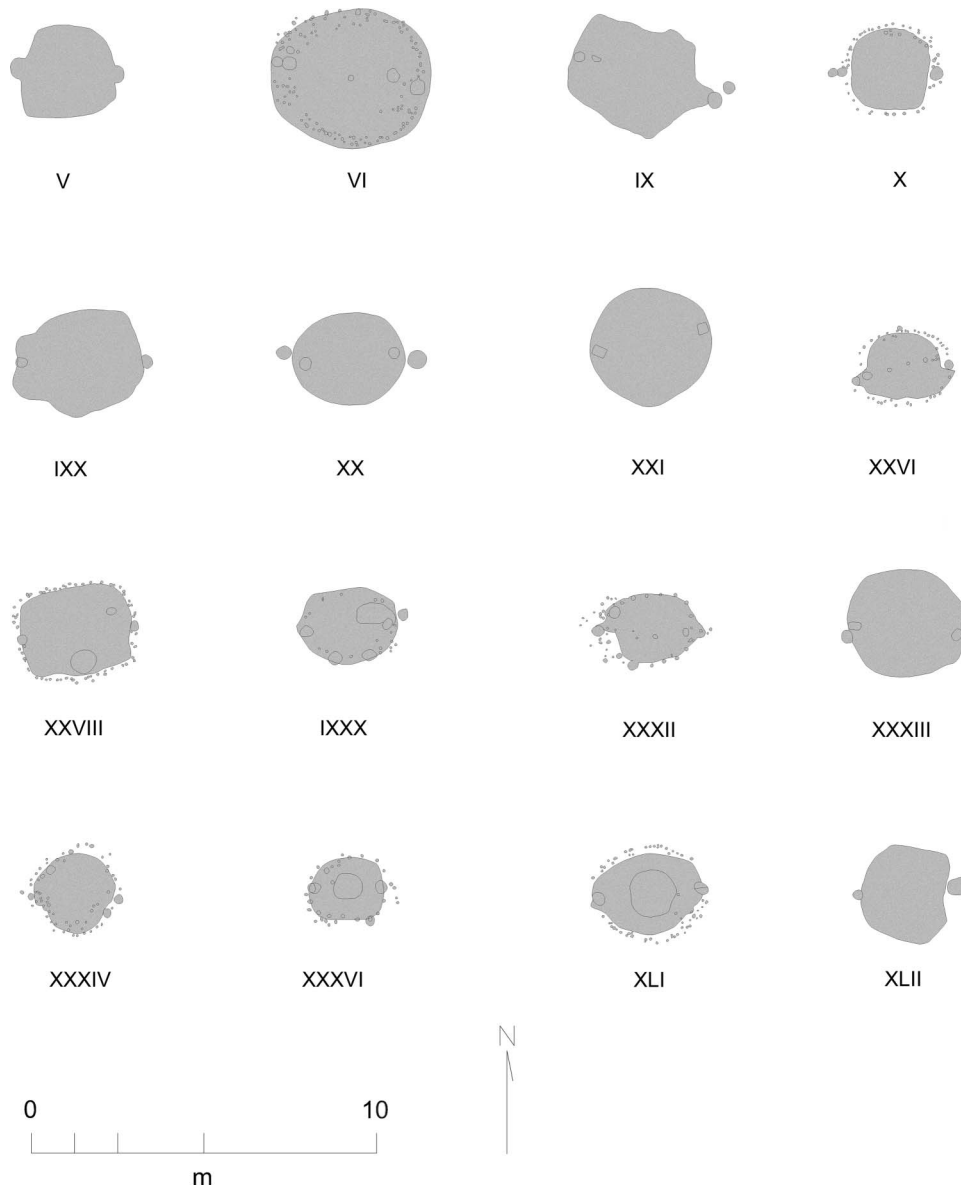


Figure 6. Selected pit house floor plans.

Additionally, a cultural layer of burnt stones covered parts of the excavation, primarily in the SE area where the concentration of post holes was largest. The material was similar to that of the pit houses and of most of the post-holes. The layer was monitored as well as regularly surveyed with a metal detector during the mechanical excavation, but had to be removed before the underlying features could be identified.

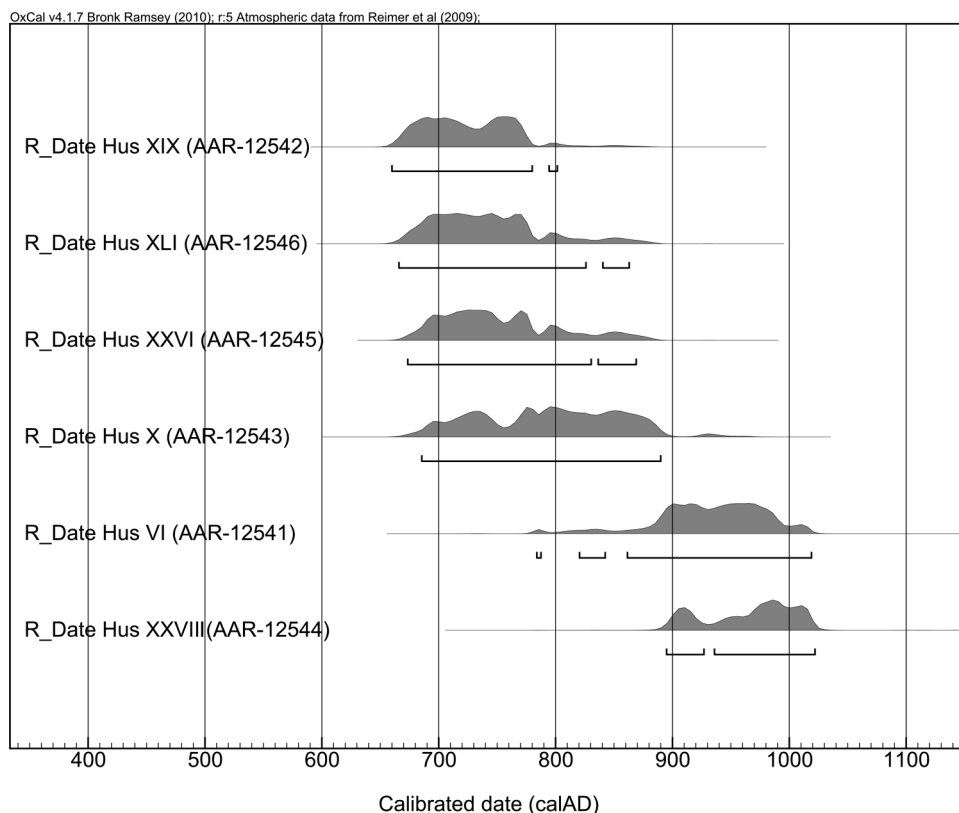
State of preservation at the site

It is well known that many centuries of ploughing slowly remove prehistoric settlement features from the subsoil and this is especially the case on the heavily cultivated island of

Zealand. The exact state of preservation at Vestervang is nevertheless difficult to pin down. At first glance the preservation seems rather poor with most structures being only visible through their roof bearing posts. But this only applies to the Iron Age settlement as the Bronze Age house, over 1000 years older, is quite well preserved with relatively deep outer and inner wall posts. This prompts the question of why the Iron Age wall posts are absent. One explanation may be a variation in topsoil thickness thus giving a differential spatial preservation. However, the variability in soil thickness does not correspond with the areas of greatest/least preservation. A more probable explanation may be that they never existed and that the structures of this era had a different type of wall construction, for

Table 2. Vestervang pit house inventory.

House no.	Feature no.	Ground plan	Size (est.) m ²	Length m	Width m	No. of phases	¹⁴ C date AD
V	A106	–	6	3.3	2.65	1	
VI	A57	Circular	10	4.4	3.95	2	880–1000
VII	A158	–	4	3.9	2.15	?	
IX	A58	–	9	–	2.9	?	
X	A459	Rectangular	4.5	3.45	2.7	1	680–900
XVIII	A18	–	–	3.35	–	?	
XIX	A60	Rectangular	8	3.5	2.3	2+	670–780
XX	A517	–	6.5	4.4	2.75	2	
XXI	A518	Circular/oval	9	3.4	–	1	
XXII	A619	–	6	3.1	2.3	1	
XXVI	A969	Oval	5	3.0	2.2	1	680–780
XXVIII	A927	Square	7	3.5	2.9	1	900–1020
XXIX	A925	Oval	4.5	3.1	1.9	1	
XXXII	A1016	Oval	5.5	2.85	2.1	1	
XXXIII	A1005	–	8	3.3	2.6	?	
XXXIV	A1045	Rectangular/oval	4	2.3	2.3	?	
XXXVI	A863	Oval	3.5	2.3	1.9	?	
XLI	A1017	Oval	7	3.35	2.9	1	680–770
XLII	A999	–	5.5	2.8	–	1	
XLIII	A1002	Oval	4.5	3.4	–	1	
XLIV	A864	–	5	2.4	–	1	

Figure 7. Calibrated ¹⁴C results from the pit houses. The calibration uses OxCal 4.1 © (Bronk Ramsey 2009, Reimer et al. 2009).

example with some kind of foot beam placed on the topsoil or with stakes/poles driven into the ground similar to the pit

house walls. Such traces could easily be ploughed away or overlooked during the excavation.

Table 3. The uncalibrated ¹⁴C results.

House no.	¹⁴ C years	Lab. code
VI	BP 1109±39	(AAR-12541)
X	BP 1224±39	(AAR-12543)
XIX	BP 1284±32	(AAR-12542)
XXVI	BP 1253±30	(AAR-12545)
XXVII	BP 1069±34	(AAR-12544)
XLI	BP 1265±33	(AAR-12546)

The cultural layer mentioned above, which covered parts of the excavation field, as well as the stone heap, demonstrate that the site is fairly well preserved as does the rather good condition of the stray finds, which show no or limited traces of plough wear.

Discussion of the settlement

The concentration and number of features at the site is obviously the result of repeated occupation. A precise understanding of the phases, the generations of Vestervang, is nevertheless not simple. Specific elements such as fences, the precise dating of each house, significant stratigraphy or certain characteristics grouped among the structures are required to segregate the phases. Such elements are limited at Vestervang but nonetheless some hypothetical considerations on the nature of the settlement's character can be put forward.

The post built structures can be grouped by size despite the lack of significant characteristics concerning each building and its function. Six of the longhouses have 4–5 regular sets of roof bearing posts (I, II, III, XXVII, XXXI and XXXVIII) and may be regarded as 'main houses', each representing a phase in the settlement. Among these main houses, house I is typologically the youngest and probably dates from the tenth century. This corresponds well with the stratigraphically older pit house XIX, from which the fill is ¹⁴C dated to the eighth to ninth century. If the time of use for each of the main houses is estimated as 30–40 years, the total 180–240 years usage agrees well with the apparent activity period of the settlement (see below). This model applies if it is accepted that the six largest longhouses are the main houses and that the smaller buildings, with 2–3 sets of roof bearing posts, are regarded as economic buildings. Although their exact function is unknown, they may be barns, stables, working places, storage rooms, living quarters or a combination hereof.

The pit houses are all of the same general type according to the definitions offered by Anne Birgitte Sørensen (2011). They belong to the most simple pit houses, types IA or IB, which are round, oval or rectangular pits with a roof bearing post at both ends and either without traces of walls (IA) or with pole holes marking the position of walls (IB) (cf. Sørensen 2011, p. 48). Although generally of the same type, the Vestervang pit houses nevertheless show a great variety in shape, size and pit depth.

As previously mentioned, the site is not particularly badly preserved, and the variation in pit depth ought therefore to be seen as a sign of diversity instead of a mere matter of preservation. Some pit houses were deep, others were not. Some had walls, others did not. A few pit houses have such a provisional character that they may be more like shelters for short-term use rather than permanent buildings.⁴ As no preserved floor layers or other significant interior features were found, the pit houses' primary function(s) cannot be established. While pit houses have traditionally been regarded mainly as workshops, not least connected to textile production, attention has recently been drawn to the need to perceive them as structures with multiple purposes depending on their actual context (Gotfredsen and Gebauer Thomsen 2011, Nørgård Jørgensen et al. 2011). Regarding the non-agrarian sites, like assembly sites and landing sites, the idea has been proposed that the pit houses were temporary accommodation for families or working groups performing the activities reflected in the finds from the site in question (Nørgård Jørgensen et al. 2011, 103ff.). But why restrict this idea to the specialized sites? Agrarian sites probably also had the need to accommodate for example, seasonal labourers, travelling craftsmen as well as local gatherings and feasts. This need might be reflected in the pit houses at Vestervang and could explain their provisional character and lack of significant floor layers.

To sum up, the structures of Vestervang seem to reflect an agrarian settlement, a farmstead, in six phases. Each phase is characterized by a main longhouse and a diversity of smaller structures, primarily minor longhouses and pit houses. The youngest phase is typologically dated to the tenth century and ¹⁴C dates of fill from the pit houses show a period of activity from Late Germanic Iron Age to Late Viking Age.

Finds related to the Iron Age settlement

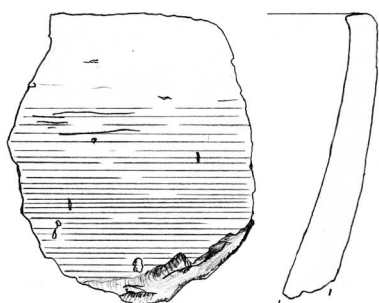
The archaeological finds can be divided in two groups of excavated finds and stray finds, of which the latter were mostly found using a metal detector.⁵ The metal detector finds cover a range of significant artefacts. The majority of the finds however, originate from the fill material of the pit houses (Table 4) with only a few from post holes and pits. The two most marked find groups are ceramics and faunal material, but a number of artefacts of bone, metal, glass, amber, burnt clay and stone were also found. It must be noted however, that all the objects from the pit houses should be regarded as secondary deposits. Nevertheless it seems plausible that these pits, situated in an active settlement area, were filled quite rapidly and therefore date the period immediately after the house was demolished.

Ceramic vessels (c. 390 pcs.)

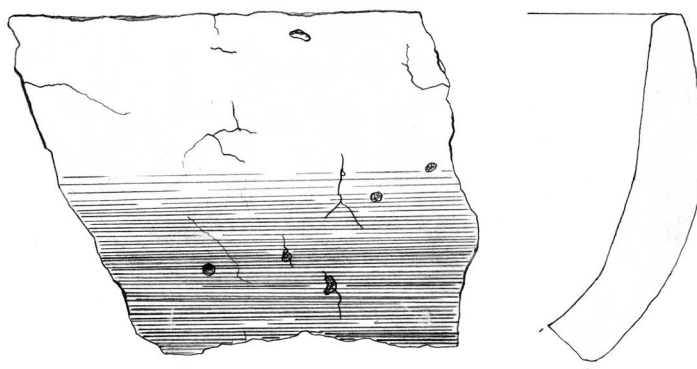
The majority of the potsherds were found in the fill material of the pit houses. The ceramics are characterized primarily by flat based vessels with an even out-leaning

Table 4. Finds in the pit houses' fill material.

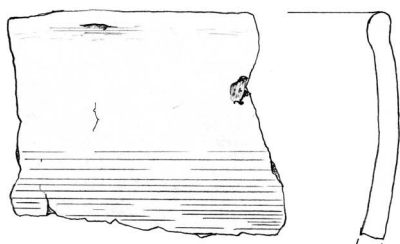
House no.	Ceramics	Soapstone	Spindle whorls	Loom weights	Bone combs	Iron knives	Scissors	Chisels	Whet stones	Fired clay
V	X								X	X
VI	X	X	X			X		X	X	X
VII										X
IX	X				X					
X	X		X	X		X				X
XVIII	X							X	X	X
XIX	X						X			
XX	X			X	X					
XXI	X									
XXII										
XXVI	X	X		X	X	X		X		X
XXVIII	X							X	X	X
XXIX	X			X						
XXXII	X									X
XXXIII	X									X
XXXIV	X					X				
XXXVI	X									
XLI	X				X					X
XLII						X				
XLIII	X									X
XLIV										



House VI x60



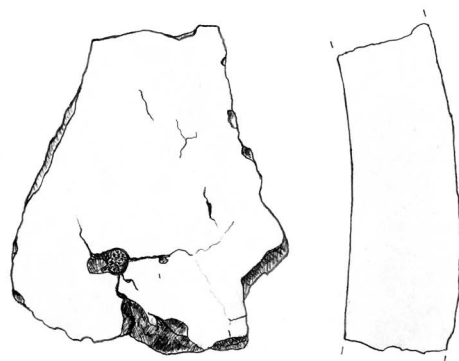
House VI x59



House VI x61

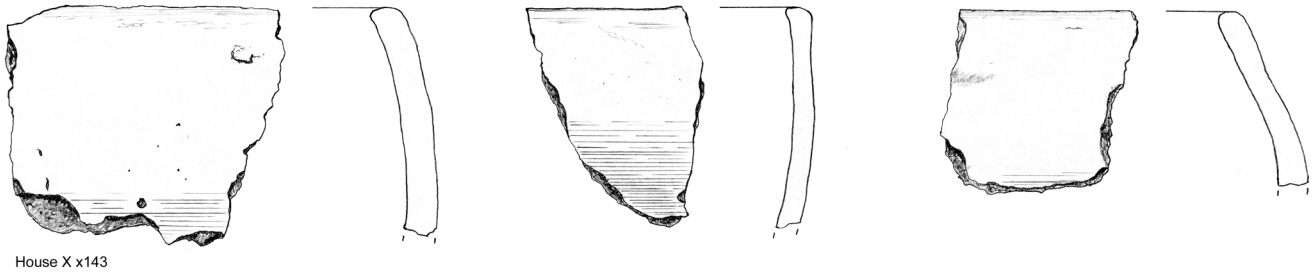


House VI x62



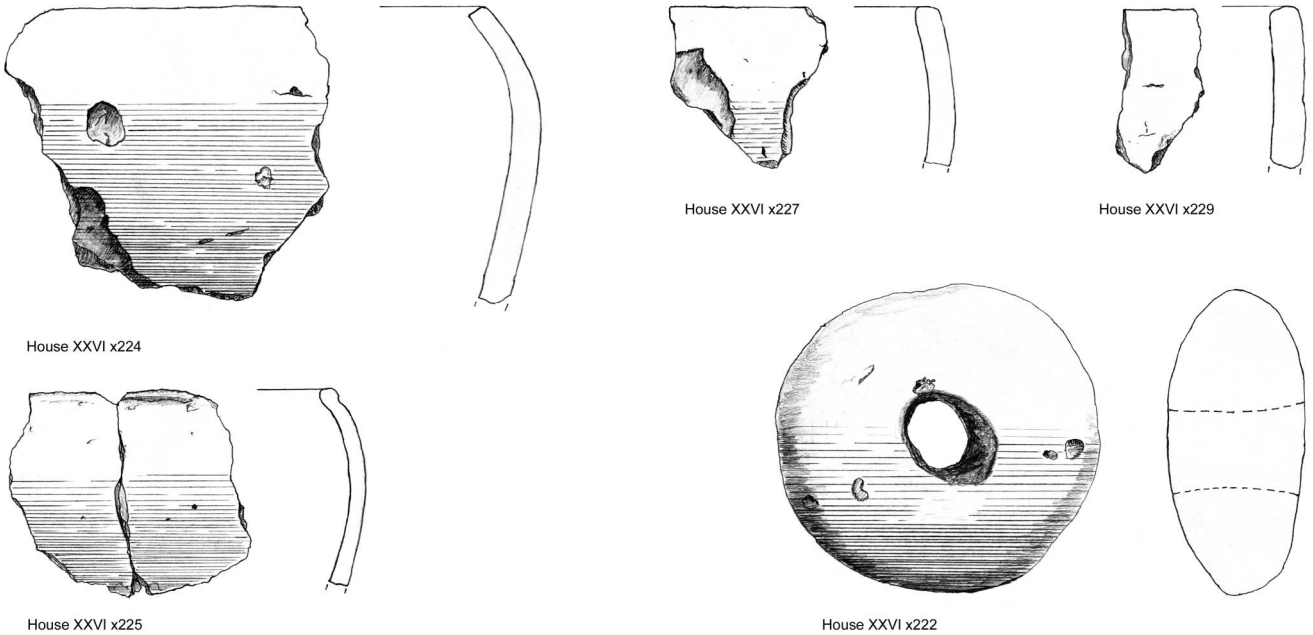
House VI x58

Figure 8. Fragments of pottery (left) and soapstone vessels from pit house VI, ¹⁴C dated to c. 880–1000 AD. Scale 1:2.



House X x143

Figure 9. Fragments of pottery from pit house X, ¹⁴C dated to c. 700–900 AD. Scale 1:2.



House XXVI x224

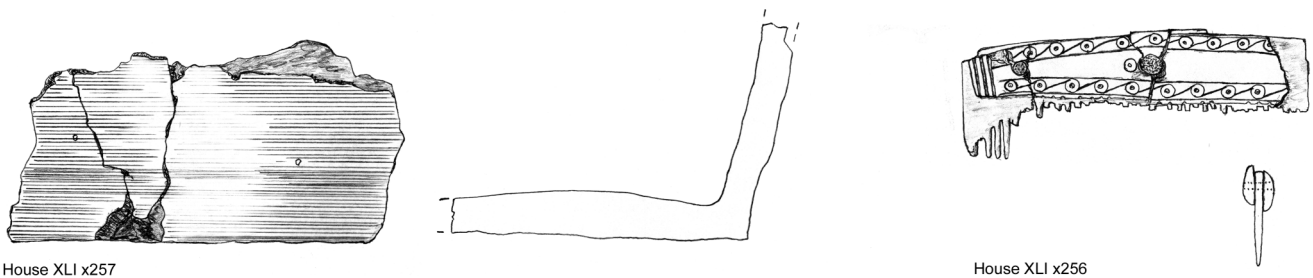
House XXVI x227

House XXVI x229

House XXVI x225

House XXVI x222

Figure 10. Fragments of pottery and a loom weight from pit house XXVI, ¹⁴C dated to 680–770 AD. Scale 1:2.



House XLI x257

House XLI x256

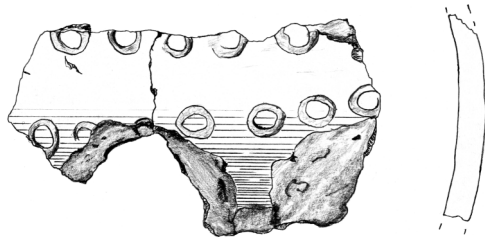
Figure 11. A pottery fragment and a fragmented comb from pit house XLI, ¹⁴C dated to c. 680–770 AD. Scale 1:2.

body and inwardly turned neck, with a rounded or straight cut lip. Other vessel designs were however also seen (Figures 8–12). The earthenware is generally relatively hard burned and has a rough, everyday character. One fragment was decorated with concentric circles (Figure 12), a decoration similar to that known from for example, the settlement at Fyrkat (Roesdahl 1977, Figure 11). Otherwise no decorations were seen. The lack of

Baltic ware is striking, only one single fragment was found and at some distance east of the central settlement.

Soapstone vessels (3 pcs.)

Fragments of soapstone vessels were found in the fill material of two pit houses (VI and XXVI). One large rim shard has a thin, slightly inwardly bent rim which was rounded on the inner side. It originates from a bowl



House XX x165

Figure 12. Decorated pottery from pit house XX. Scale 1:2.

with a c. 22 cm opening. Another shard is riveted with an iron nail, a feature often seen and used in order to prolong the vessels life time (Figure 8).

Spindle whorls (5 pcs.)

Spindle whorls were found in two pit houses and in a solitary posthole. A further two were collected as stray finds (Figure 13). As shown in Table 5, several types and materials are represented within this group.

Loom weights (5 pcs.)

Fragments of loom weights were found in four pit houses (X, XX, XXIX and XXVI). A further fragment was found in the solitary post hole A1397 that also contained a spindle whorl. Just one weight is fully preserved (x222), it weighs

309 g, is 40 mm thick and 90 mm in diameter (Figure 10). All the weights are lens shaped and made of fired clay.

Combs (5 pcs.)

Combs made of bone occurred in four pit houses (IX, XX, XXVI, XLI). One fully preserved comb was found in house XX and an almost fully preserved one was found in house XLI. The latter is decorated with rows of connected concentric circles (Figure 11). Both specimens are composite single combs with a convex ridge. The remaining three fragments seem to originate from combs of the same type and with the same decoration.

Iron tools (10 pcs.)

Determinable tools of iron occurred in seven pit houses (VI, X, XIX, XXVI, XXVIII and XLII) and the pit A1018. There were four standard knives, three small chisels, a well preserved pair of scissors, an awl and a sickle-shaped knife possibly for cutting leaves (Figure 14).

Animal bones (c. 12 kg)

The many animal bones found in the pit houses, are almost entirely from ordinary domestic animals such as dogs (*Canis familiaris*), pigs (*Sus domesticus*), cattle (*Bos Taurus*), sheep (*Ovis aries*), goat (*Capra hircus*) and horse

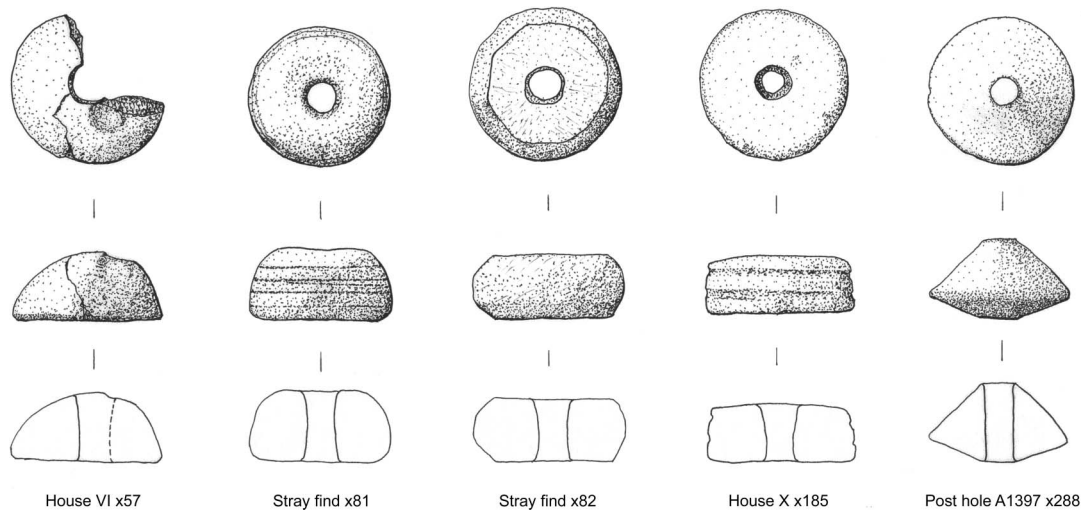


Figure 13. Spindle whorls. Scale 1:2.

Table 5. Spindle whorl inventory.

Shape	Material	Weight	Structure	No.
Spherical	Bone	7 g (fragm.)	Pit house (VI)	x57
Spherical with three grooves	Sandstone	23 g	Stray find	x81
Tablet shaped with convex sides	Soapstone	21 g	Stray find	x82
Tablet shaped with two grooves	Sandstone	32 g	Pit house (X)	x155
Conical with convex bottom	Fired clay	19 g	Post hole (A1397)	x288



Figure 14. Iron tools.

(*Equus caballus*). A few bones have cut marks and many show dog tooth marks – even one of the dog bones. As far as it is possible to calculate, the size of the ox and horses match well with our knowledge of Viking Age livestock. Only a few non-domestic bones were found and the only fish bones are two finds of cod (*Gadus morhua*). In addition, there are a few bones of duck (*Somateriinae*), goose (*Anserinae*), goshawk (*Accipiter gentilis*), crane (*Grus grus*) and deer (*Capreolus capreolus*), the latter with cut marks.⁶ Thus an element of hunting and fishing is present at the site. Even though hunting activities seem to be connected with the aristocracy, the amount of wildlife bones at Vestervang is not higher than for common settlements (cf. Villumsen 2011, 207 f., Figure 2).

Miscellanea

Most notable are a glass fragment from a drinking glass and two amber beads, one of which is however fragmentary, from houses IX and pit A405 respectively. A large bone needle from the pit A1563 also deserves a mention. In addition were found: bronze fragments, whetstones, crush stones, a glazing stone, nails and rivets of iron, indeterminate iron fragments, slag, fossilized sea urchins and fragments of fired clay.

Discussion of the excavated finds

The clear impression gained from the excavated finds is that they mainly represent the everyday household of common people living in an agrarian Iron Age settlement. Personal equipment is represented by combs, hand knives, whet stones and probably the fossilized sea urchins. Artefacts related to the handicrafts of an everyday household are spindle whorls, loom weights, crush stones, scissors, the leaf knife and of course the fragments of pottery and soapstone. There are no concentrations in the find material which point towards certain specialized crafts besides those of a farmstead. The everyday character of the site is underlined by the species represented among the animal bones, although a limited occurrence of wildlife bones reflects hunting activity.

Stray finds

While the excavated finds were mainly of an everyday character, a number of exciting stray finds were made by metal detector in collaboration with volunteer amateur archaeologists (Table 6).⁷ The most significant finds derive from the excavation area or immediately adjacent areas and from top soil or soil piles. The metal detector was, however, used throughout the whole trial excavation area without further significant results.

Decorated artefacts

The detector survey unveiled a variety of jewellery material from Germanic Iron Age and Viking Age, primarily brooches or fragments of such, but also a strap end and an arm ring were found. Two of the brooches were quite remarkable.

A circular 'baroque' brooch

The most spectacular find is a large, circular brooch of Scandinavian origin with a diameter of 73 mm and a weight of 132 grams (Figure 15). The brooch is designed as a cast disc of copper alloy with a marked and decorated rim, from which three ribs to the centre divides the disc into three equal fields. These ribs are shaped as identical face masks. In one of the fields an animal image is fastened with rivets. In the two other fields only the rivet holes remain, but it seems evident that similar animal images also decorated the surface in these fields (Figure 16). The masks show pronounced eyebrows running into the nose, under which the mouth is represented by a large,

drooping moustache. A circular mark is seen between the eyebrows and above this, two ears or horns emerge, giving the human-like mask an animal character. From underneath the eyes, shown by two concentric circles, a series of short lines radiate outwards and can probably be interpreted as eyelashes. From the lower edge of the moustache as well as from the mask's neck, a bead-like line or chain seems to connect all three masks.

The surviving animal image is more complex. The head is shown facing the brooch's centre and designed as a heart shape with rounded ears and circular eyes. The neck is covered by a bead-like chain. Above the creatures fore legs there are marked elbow joints and three-fingered paws or feet which awkwardly grasp backwards to what might be hind legs or wings. The heads of the two non-preserved animal images also face the centre.

Stylistically, this brooch contains several disparate parts. The animal image is clearly under the influence of the symmetrical animal style, Borre style. The heart shaped head, as seen en face and the feet with three toes

Table 6. Inventory of dated stray finds in chronological order.

Artefact	Dating	Type	Type Provenience	No.
Circular brooch	c. 500–750	Merovingian	Frankish	x40
Oval brooch	Eighth century	N1b-N2	Scand.	x9
Arm ring	c. 750–775	Q3b	Scand.	x5
Trefoil brooch	c. 775–825	SK 1	South Scand.	x19
Coin	822–840	Louis the Pious	Frankish	x18
Oval brooch	c. 850–950	JP 51	Scand.	x14
Equal-armed brooch	c. 875–925	SK 4	South and East Scand.	x7
Trefoil brooch	c. 850–950	SK 4	South Scand.	x314
Circular brooch	c. 900–950	'Baroque'	Scand.	x331
Circular brooch	Tenth century	–	Scand.?	x17
Weight	Tenth century	Spherical	Scand.	x1
Scale	Tenth century	–	Scand.	x2
Urnes brooch	c. 950–1100	–	South Scand.	x6
Bird-shaped brooch	Eleventh century	–	South Scand.	x41



Figure 15. The 'baroque' brooch x331, c. 850–950 AD.

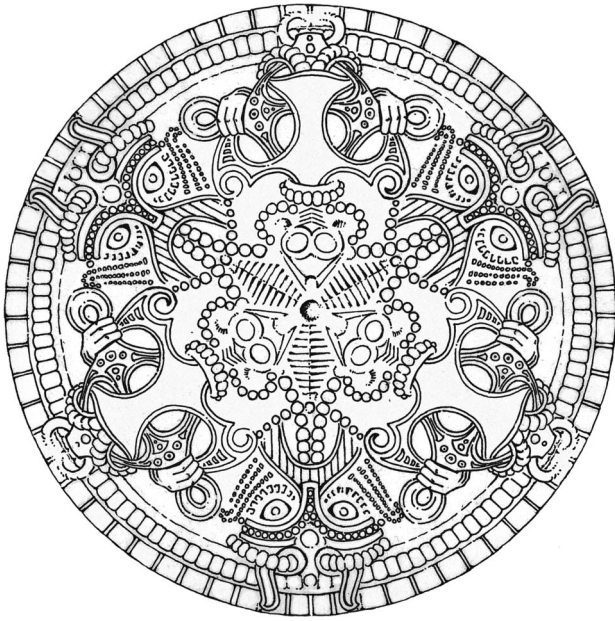


Figure 16. An artist's reconstruction of the 'baroque' brooch. The rim is folded out to show the full motif (drawing Rune Knude, Zoomographic).

are also elements of this very broadly defined style which dates from ca. 830 to the mid- 900s. The mask seems to represent a less organic style, which resembles the later Mammen style, traditionally dated to ca. 940–1000. The decoration of the brooch therefore most probably dates to the 'late' Borre style, i.e. the first half of the 900s. It must be stressed however, that the stylistic ambiguity is not a real aspect of the decoration but merely an example of our inadequacy in the understanding of prehistoric art.

Such an artefact is of course rare, although not unique. A handful of these circular brooches are known and have been given the term 'baroque' by Michael Neiß. Neiß furthermore suggests that their three dimensional layout refers to aspects of Norse mythology (e.g. Neiß 2009). Neiß has recently (2011, 2012) examined the Vestervang brooch and has suggested that it contains a puzzle picture with at least eight different motifs and with parallels in contemporary art. He furthermore points out that such puzzle pictures ought not to be seen as products of coincidence, but as distinct communicative media (Neiß 2011, p. 69). Michaela Helmbrecht has suggested that these 'baroque' brooches do not form a distinct type, but represent individual works of art probably to be seen in connection with the aristocracy of the sites of elite complexes (Helmbrecht 2011, p. 299, 402 ff.).

A geographically close parallel is known from the elite complex of Toftegård near the city of Køge. Again a three-fold division of the brooch's surface is seen, with plant ornamentation instead of masks, and with three zoomorphic images evidently in Borre style (Tornbjerg 1998, fig. 12).

A circular Merovingian brooch

Another artefact of particular interest is a circular brooch most likely of continental origin and cast in copper alloy (Figure 17). The decoration consists of a central wheel cross in relief, with inlaid gold pressed into a waffle form. The waffle gold is in some areas covered with transparent red glass or semiprecious stones and forming an equal-armed cross. The passage of time has however taken one arm of the cross and perhaps even more. The central wheel cross is surrounded by nine smaller circles, also in relief, and with a waffle gold inlay. These were probably also originally covered with coloured glass or semiprecious stones. It can be observed that the waffle gold here is fixed into an underlying material probably consisting of very fine clay. The reverse shows visible traces of both pin anchor and holder although the pin itself is only partially preserved.

Artefacts made with this same technology are known from for example, Tissø, where it is debated whether they are of continental origin or made in Scandinavia under continental influence (Nielsen and Bastrup 2011, p. 120, Bastrup 2012). Nevertheless parallels of this brooch appear to be found in the Frankish Empire under the Merovingian's reign c. 500–750, where related jewellery is often found in pairs in female graves for example, in Cologne (Martin 1994, s. 573 f.). This type seems to precede the small circular brooches of Carolingian and Ottonian types which have been found in considerable numbers in Denmark in the last decades (cf. Ulriksen 2000, Bastrup 2009).

Other brooches

Apart from the two artefacts mentioned above, the stray finds cover a broad range of brooches although most of them are fragmentary. Eight brooches are represented and cover various types.

Two specimens of oval brooches were found. The first was just a diminutive fragment from a small brooch, decorated with South Scandinavian animal style in gilded relief. This probably corresponds to Mogens Ørsnes' types N1-N2, which are dated to c. 680/700–775/800 by Karen Høilund-Nielsen (Ørsnes 1966, 149 ff.; Høilund-Nielsen 1987, 66 ff.;;) (Figure 21e). The second was a well preserved upper part of a double-shelled brooch of Jan Petersen's classical type (JP) 51 (Figure 18). It is partly gilded and can be dated to c. 850–950 (Petersen 1928, Skibsted Klæsøe 1999, p. 114).

Two specimens of trefoil brooches were found. The first is a well preserved piece decorated in geometrical style and certainly dating to the early Viking Age, probably from the late 700s to the early 800s (Figure 19) (SK type 1: Skibsted Klæsøe 1999, p. 106; cf. Maixner 2005, Typ E 1.2, Taf. 38). The second fragment shows acanthus ornamentation and was probably designed in Scandinavia under Carolingian influence (Figure 21b). It can be dated



Figure 17. The Merovingian brooch x40, c. 500–750 AD.

to c. 850–950 (SK type 4: Skibsted Klæsøe 1999, 106f.; cf. Maixner 2005, Typ P 2.2, Taf. 25).

One specimen of circular brooches was found in addition to the two dealt with above. This piece is cast in gilded copper alloy and decorated with three sets of double-horned, heart shaped spirals in low relief (Figure 20). It has a parallel in Mainz dated to the 8/900s (Wamers 1994, p. 586, Abb. 180). They are furthermore known from three graves in Birka and in grave no. 1090, they are together with oval brooches of JP type 55, and probably date to c. 900–950 (Arbman 1940, Taf. 69–70; Skibsted Klæsøe 1999, p. 114).

Furthermore a fragment of an equal-armed brooch was found (Figure 21a). Only the central part was preserved, but it seems to be the type with riveted animal figures facing a likewise riveted central crown which was used c. 875–925 (SK type 4: Skibsted Klæsøe 1999, p. 103 & fig. 29).⁸

The late Viking Age/early Medieval is solely represented by two brooches (Figure 21c–d). The first is a



Figure 18. The double shelled oval brooch x14, c. 850–950 AD.

fragment of an Urnes brooch with some gilding and dated to c. 950–1100 (Gjedssø Bertelsen 1994, 358f.). The second is a tail fragment from a bird-shaped brooch which has the pin anchor surviving on the reverse and dated to the eleventh century (Pedersen 2001, 26f.).

Arm ring

One copper-alloy arm ring was found. It is massive with an oval cross section, slightly expanded terminals and decorated with crescent-shaped punches. Two almost identical parallels are found at Nørre Sandegård Vest (grave 77) and dated to c. 750–775 (Jørgensen and Nørgård Jørgensen 1997, 52 & 190, fig. 26, pl. 26). The arm ring corresponds to Mogens Ørsnes' type Q3 which is dated to c. 680/700–775/800 by Karen Høilund-Nielsen (Ørsnes 1966, 166 f.; Høilund-Nielsen 1987, 62, 66 ff.).

Coins

Only one of the seven coins found could be dated to the Viking Age. It is a well preserved, though fragmentary coin minted in Louis the Pious reign between 822 and 840 (Figure 22). The coin is of the so-called temple type and is secondarily provided with a crude suspension hole. The number of such Carolingian coins found in Denmark is c. 40 at present.⁹ The six other coins found at Vestervang originate from the Medieval and Renaissance time periods and will not be further discussed here.

Weights and scales

Two weights were found. The first is a spherical iron core covered by a copper alloy and weighing 108 g. It has a flat top and bottom and the top is decorated. The second is a tablet shaped lead weight of 23 g. Furthermore fragments



Figure 19. The trefoil brooch x19, c. 775–825 AD.

of a small balance scale were found. These items are traditionally seen as a part of the monetary system, derived from the Caliphate in the late 800s, and the decoration on the spherical weights is suggested to be an imitation of Arabic coins (Steuer 1987, Sperber 1996, 96ff.; Sindbæk 2005, 45ff.).

Miscellanea

Of other stray finds worth mentioning is one half of a small mould of copper alloy for casting metal beads. The beads



Figure 20. The circular brooch x17, c. 900 AD.

cast in this mould would be very similar to those cast by a soapstone mould from Sigtuna (e.g. Floderus 1928, Fig. 55). Another interesting stray find is an animal head shaped item, most likely a dog or a wolf, and is probably a strap end fitting or a strap disperser of some kind (Figure 23).

Discussion of the stray finds

The metal stray finds may be divided roughly into two groups, the jewellery and the artefacts for use. The brooches and the arm ring belong to the first group. Most of the jewellery are standard Scandinavian items although still indicative of a certain prosperity. The two circular brooches however might be interpreted as representing contacts to an elite milieu. The scales and weights, the bead mould and the Carolingian coin belong to the second group, although the latter might also be regarded as jewellery. This small group reflects an element of trade and production.

The metal stray finds do not seem to correspond with the everyday character of the excavated site, but instead reflect a quite wealthy site with an interregional outlook.



Figure 21. Fragments of brooches: (a) equal-armed brooch x7, c. 875–925 AD, (b) trefoil brooch x314, c. 850–950 AD, (c) Urnes brooch x6, c. 950–1100 AD, (d) bird-shaped brooch x41, c. eleventh century and (e) oval brooch x9, c. eighth century.



Figure 22. Louis the Pious coin x18, 822–840 AD.

Despite the modest structures it appears reasonable to conclude that the people inhabiting this agrarian settlement had an extraordinary network.

Perspective remarks

Vestervang in the settlement landscape

The lower part of the peninsula Hornsherred, the area where Vestervang is centrally situated, is characterized by several Late Iron Age sites (Figure 24). A short overview has recently been provided by Tom Christensen and Svend Åge Tornbjerg (2009, 63ff.), while the local sites with maritime connections are more thoroughly dealt with in Jens Ulriksen's survey of the Iron Age landing sites of Roskilde Fjord (Ulriksen 1998).

Two sites of particular interest are found in the vicinity of Vestervang (Figure 1). At Stensgård, excavated in 1998, are found 14 pit houses as well as three post built

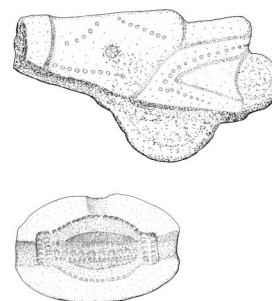


Figure 23. The mould x8 and the animal head shaped fitting x4. Scale 1:1.

structures consisting of two three-aisled longhouses and one two-aisled building. The structures are primarily dated to the Viking Age but the many metal stray finds that also characterize the site cover a wider time span of c. AD 500–1100. The site is only partly excavated and its exact function is still not fully understood. Nevertheless it seems certain that this place was not an agrarian settlement in the 'normal' sense, and that it had a specialized function, e.g. as a handicraft site. A vast number of metal stray finds are still being found at Stensgård (Ulriksen 1999, 2000, Christensen and Tornbjerg 2009, 63f., Ulriksen, pers. comm.). Kirke Hyllinge church lies on a hill south of the village in a solitary position and situated almost halfway between the Vestervang and Stensgård. Just north of the church a late Germanic Iron Age/Viking Age burial site was excavated in 2000. Here 28 burials, primarily inhumation graves, were excavated and dated to the period from the seventh to the tenth century AD (Ulriksen 2011, 164 ff.).

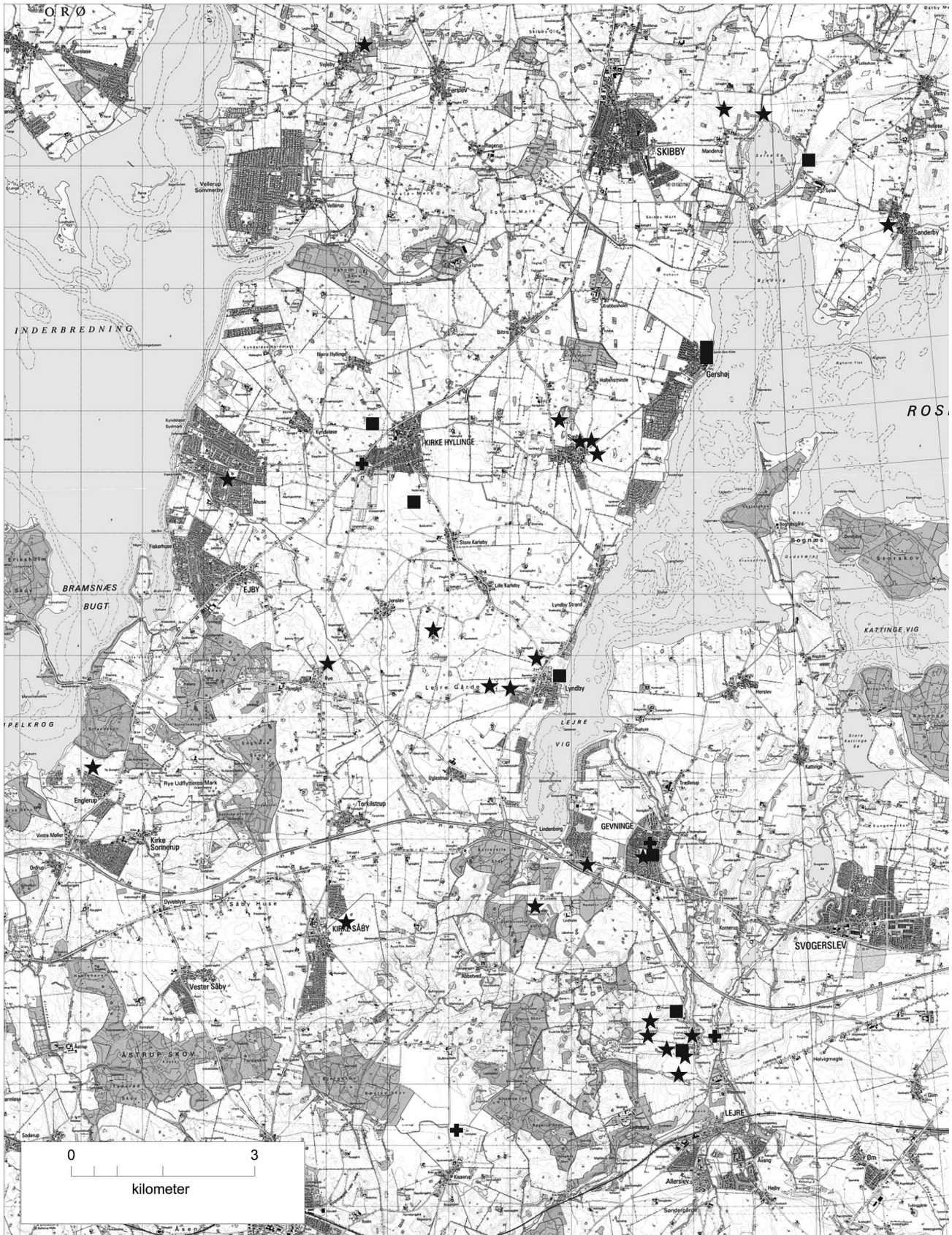


Figure 24. Finds from the Germanic Iron Age/Viking Age around Vestervang, stars = stray finds, squares = settlements, cross = burials. Based on the Danish Cultural Heritage database 'Fund og Fortidsminder' September 2012 (map © National Survey and Cadastre).

At the nearby shore of Roskilde Fjord three sites are found. Selsø-Vestby is a landing site situated eight km to the northeast and furthest away from Vestervang in a well-protected natural harbour. The site, excavated in 1994, primarily consists of 37 pit houses and thought to be specialized in the production and repair of ships and sails (Ulriksen 1998, 42 ff.). Gershøj, a rural village with a small fishing port, is situated on the straight coastline about 5 km east of Vestervang. In 1995 and 2008 settlement traces from the Viking and Medieval Ages were excavated near its medieval church but it is uncertain whether this reflects an actual landing site or merely an agrarian settlement situated near the coast (Ulriksen 1998, 78ff., 2008a). A few kilometres further south at the village of Lyndby and facing the mouth of Lejre stream, traces of long term Late Iron Age activity have been discovered through metal stray finds. Additionally, traces of a cultural layer were found during trial excavations in 1988 and 1994, although clear traces of buildings have not yet been detected (Ulriksen 1998, 104 ff.).

The last site to be mentioned here is at the village of Gevninge situated 2 km upstream from the mouth of Lejre stream. In 1999–2000 a Viking Age settlement was discovered here. The settlement remains themselves were modest but among the metal finds were a gold arm ring, a portion of a gilt bronze helmet, a bronze bucket and a winged spearhead. This discrepancy, along with a topographical analysis of the area around the Lejre, has indicated that Gevninge was probably the gateway to the elite complex of Lejre, a distance further upstream (Ulriksen 2008b).

Kirke Hyllinge – Karleby

Although the site of Vestervang has now become part of modern Kirke Hyllinge, this was not the case just a few decades ago. Maps predating the vast residential development of the 1960s show the site situated halfway between the two villages of Kirke Hyllinge and Store Karleby. The name ‘Vestervang’ also refers to the ‘western fields’ of Store Karleby district. This may indicate that Vestervang was a predecessor of Store Karleby. Store (‘great’) Karleby is paired with Lille (‘little’) Karleby a few kilometres further south. These two villages probably reflect one place which at some time was split in two.

Karleby – Lejre?

The elite complex of Lejre lies 10 km SSE of Vestervang. Old Norse legends of Lejre cite it as populated by the aristocracy and this was archaeologically confirmed in the 1980s. Excavations have since revealed numerous massive buildings west of the Lejre stream and facing a burial ground of mounds and monumental ship settings on the opposite bank. The elite complex was active between c. 500 and 1000 AD (cf. Christensen 2010).

The easiest and most practical route from Vestervang to Lejre is first c. 3½ km over land along the Ørbæk valley to the landing site at Lyndby, then a crossing of Roskilde Fjord by boat and landing at Gevninge on the Lejre stream, which is a distance of c. 3 km, i.e. c. ½–1 h of rowing/sailing. Finally, c. 3½ km over land along the Lejre valley from Gevninge to Lejre. This avoids the wetland area at the bottom of the fjord. Travel time using this route would take no more than 3 hours.

Although there is no absolute proof of a connection between the two sites, this does suggest the possibility that Vestervang was a kind of satellite site to Lejre. A study of middle Sweden by Stefan Brink suggests that place names show a repeated system where an elite complex, e.g. *Husaby* or *Tuna*, gives rise to a range of satellite settlements with names such as *Rinkaby*, *Karlaby*, *Tegnaby* (e.g. Brink 1999, 424 ff.; 2008, 117 f.). With reference to Anglo-Saxon written sources Brink suggests that these place names reflect the king’s retainers and the land that they were given control over. Thus the landscape of today offers knowledge of the Late Iron Age’s social order. Although the same fossilized pattern in the distribution of place names apparently cannot be found in Denmark, probably due to the reason that many of the names have been lost (cf. Brink 1999, p. 425), it may give some food for thought. The old Scandinavian term *karl*, corresponding with the old English *ceorl*, refers to a member of the king’s professional warrior escort, the *hirð*. Brink points out that the king’s retainers of course had their profession, for example as warrior, but primarily they were farmers and they were accordingly given farms and hamlets for their daily livelihood (Brink 1999, p. 433).

Whether the existence of a ‘Karleby’ near the excavated site of Vestervang is coincidental is uncertain. Furthermore one might question if the physical distance between Lejre and Vestervang is too large. Regarding the latter, it must be emphasized that the elite complex of Lejre bears a tradition of numerous centuries and it would have had a major impact not only on local areas, but also on the larger region. Bearing this in mind, it seems probable that the settlement of Vestervang was a farm controlled by a Lejre superior and given to generations of retainers, i.e. to a *karl* of the *hirð*. This would explain the extraordinary character of the stray finds contrasting with the somewhat ordinary traces of settlement.

Notes

1. The excavation took place in two stages: from 21 May to 13 July and again from 24 October to 14 December 2007. Daily director and responsible for reporting was the present author assisted by the following students of Prehistoric Archaeology at University of Copenhagen: Sofie Laurine Albris, David Brink, Nikolaj Wiuff Kristensen, Katrine Ipsen Kjær and Julie Nielsen and furthermore archaeologist, M.A. Patrick Lawrence Marsden, museum assistant Niels

- Karl Wedel Nielsen and museum technician Cille Krause. Responsible for the excavation was curator, mag. art. Tom Christensen, Roskilde Museum. Original documentation is kept at Roskilde Museum, case record: ROM 2384 Vestervang, Kr. Hyllinge.
- Cf. case record ROM 2299 Ammershøjvej, Kr. Hyllinge, Roskilde Museum's archive.
 - The ¹⁴C analyses were carried out by The Aarhus AMS ¹⁴C Dating Centre. The results are calibrated with 2 σ precision with OxCal 4.1 (C. Bronk-Ramsey 2009) with background data from Reimer et al. (2009).
 - The same interim kind of 'pit houses' is for example seen on a recently excavated Viking Age farmstead, Lindborgvej Syd I-II, southwest of Roskilde (Kastholm 2011, 73 ff.).
 - The excavation was assisted by a number of volunteers with metal detectors: Eva Brix, Kaare Bøgh-Jensen, Michael Jensen, Ib Nielsen, Lars Nissen, Ole Sommer og Mauritz Tchikai.
 - The analysis of the faunal material was undertaken by conservator Kristian M. Gregersen, Natural History Museum of Denmark (case record: ZMK 17/2008).
 - The site of Vestervang is still today (December 2012) producing interesting artefacts corresponding with the hitherto known stray finds.
 - This artefact is wrongly categorized in Kastholm (2009).
 - Personal message from curator Jens Chr. Moesgaard, The National Museum in Copenhagen, 7 May 2008.
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