

Early Bronze Age Houses at Højgård, Southern Jutland

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West of Gram, the elevated plain emerges as a wedge between the streams Gels and Gram. Like a river terrace the plain is slightly elevated above the streams. Above the terrain rises steeply, then to slope more gently into a plateau with a wide view of the four corners of the world. The subsoil consists of varying oblique layers of more or less sandy gravel and sand.

During the last thirty years Haderslev Museum has undertaken a series of investigations in this area covering some 10 km², ranging in time from the Early Neolithic period to the Late Iron Age.

In August 1984 it was reported that pottery sometimes rolled down from the edge of a gravel pit. The gravel pit is located some 400 m north of Saint Thøger's chapel on the Gram-Ribe road and approx. 300 m west of the large Enderupskov burial ground near the farmstead Højgård.

After the initial inspection of the location a small investigation of an area covering 5 to 10 × 60 m close to the edge of the gravel pit was carried out towards the end of August 1984 (1). Eleven urn graves, 2 cremation graves, and one inhumation grave appeared. Three of the graves contained weaponry, a.o. double-edged La Tene swords and Hannoverian fibulae. These graves must thus be dated to the Pre-Roman Iron Age period IIIb and should be seen in the context of the many other graves containing weaponry in Jutland (Jørgensen 1968). Some of the urns likewise contained fibulae from the Late Pre-Roman Iron Age and the beginning of the Early Roman Period. So there is hardly much difference in time between the separate graves.

In mid-November the investigation was revived with the purpose of establishing the boundaries of the burial ground. A series of trial ditches were dug at right angles to the edge of the gravel pit and with a distance of 10 m between them around the supposed centre of the burial ground and at 15 m's intervals towards the periphery. No graves were found. However, a number of post-holes and pits were found. Though no particular pat-

tern could be recognized. Where the concentration of post-holes was densest the area of investigation was extended to cover approx. 300 m². Thus parts of three unusual three-aisled longhouses were discovered, which of course gave rise to a larger investigation. This was continued in April 1985. The investigation cannot be considered terminated yet.

So far an area of almost 5500 m² has been investigated (fig. 2). Inside this area 2 houses with sunken floors (VIII–IX) have been found, 2 possible framehouses (VIII–XI), and 7 three-aisled longhouses. Furthermore, there were a number of pits of various kinds, a.o. fire-

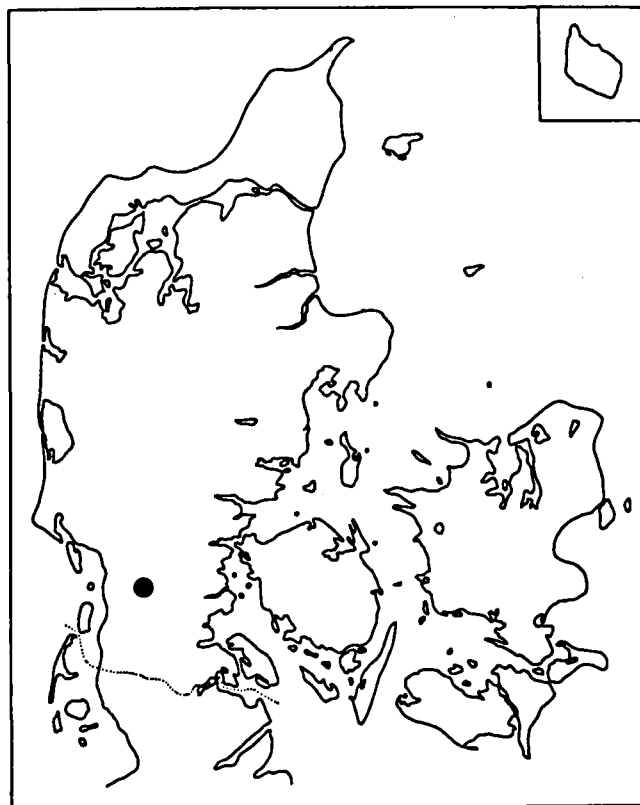


Fig. 1. Geographical position of the site.



Fig. 2. Højgård. Plan of the excavation.

pits and refuse-pits. During the 1985 campaign a further 2 inhumation graves were found. They were contemporaneous with the graves mentioned above. See survey map fig. 2. The present article will concentrate on the houses, especially the three-aisled long-houses found.

HOUSES WITH SUNKEN FLOORS (fig. 4)

House VIII (fig. 3). The house appeared as a large, roughly east-west aligned, rectangular depression measuring 6.15×4.1 m. Five post-holes were covered by fill from the depression. A few of these appeared before the excavation of the sunken floor, which has thus been slightly larger than originally recorded. Three post-holes appeared immediately outside the sunken floor. The fill in all the holes consisted of yellowish brown sand mixed with topsoil.

There were no further features in the immediate vicinity of the depression. So everything suggests that the post-holes should be connected with the depression. Together they form a rectangle measuring 8.5×4.45 m around the depression. There were no traces of a fireplace or interior roof-supporting posts. The sides of the

depression sloped gently down to the centre, where the depth was 31 cm. The fill consisted of dark, yellowish brown sand and gravel mixed with topsoil and fist-sized and larger stones. These were mostly found in the south-western corner of the fill; but none were burned or placed according to any pattern. The fill was not stratified.

Scattered in the fill was a good deal of flint waste, and near the bottom towards the south-east was a large cluster of sherds. The depression was intersected by a pit with fire-shattered stones.

House IX (fig. 3). The house appeared as a large north-west-southeast aligned depression measuring 5.4×4.5 m. The depression was intersected by rows of a number of post-holes, among which were 3 belonging to house VI. The sides were sloping to almost level, and the bottom was flat. The depth was approx. 20 cm. Unlike in the case of house VIII it seems that the floor has been regularly dug into the subsoil.

Around the feature there were 7 post-holes that differed markedly, both as regards fill and diameter, from the rest of the surrounding post-holes. So it is natural to connect these holes with the depression. They form a rectangle measuring 8.5×4.3 m.

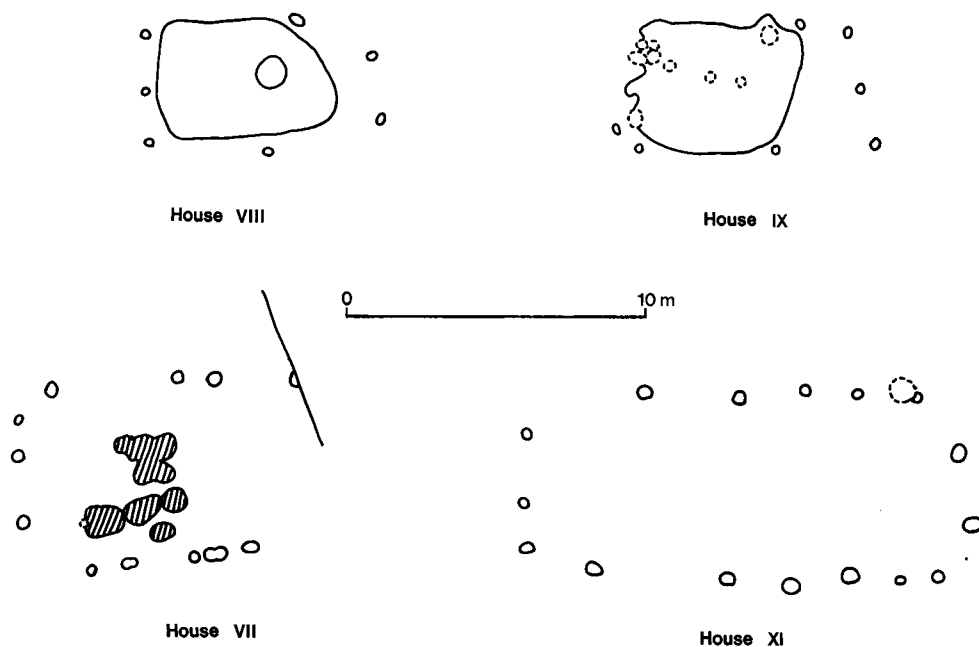


Fig. 3. Højgård. Houses with sunken floors (nos. VIII and IX) and framehouses (nos. VII and XI). 1:250.

The fill in this feature consists of brown sand and gravel mixed with topsoil and a few fist-sized and larger stones and a little charcoal. Scattered among the fill was some pottery and flint waste.

Houses with sunken or partly sunken floor have gradually become known from several locations ranging in time from the Single Grave Culture to the beginning of the Early Bronze Age (Aarup Jensen 1972, Hvass 1978, Skov 1982, Boas 1980 and 1983, Jæger and Laursen 1983, Simonsen 1983, and Jeppesen 1984). Some are completely without post-holes and others only have wall-posts. However, most of them have rows of internal roof-supporting posts and are considerably larger.

So it is reasonable to interpret the two structures at Højgård as houses although neither internal roof-supporting posts nor fireplaces have been recorded.

The two Højgård houses mostly resemble the Single Grave Culture house at Vorbasse (Hvass 1978), both as regards size and post lay-out, though the Vorbasse house is somewhat closer to a square in shape. However, the respective materials of artefacts differ greatly. Along with the houses from the Single Grave Culture and the Late Neolithic Period large numbers of ornamented sherds were found. Though the pottery mate-

rial from Højgård was relatively large, none of it is ornamented.

The sherds from house VIII were found inside a clearly delimited area and can be assembled into two largish flakes probably deriving from the same vessel, though they do not fit together (fig. 5). One reaches from the bottom onto the lower half of the vessel. It consists of a bottom, and an even, slightly outward-curving bottom half. The fragment is coarse-grained with granite and quartz grains, and the surface is smoothed. The burning is poor displaying reddish-brown surfaces and a greyish-black middle. Comparable bottom-profiles are known from both Vejlbj (Jeppesen 1984, p. 102), and Egehøj (Boas 1983, p. 98), the former being dated to the transition between the Late Neolithic Period and the Early Bronze Age (1470 ± 80 b.c., recalibrated c. 1800 B.C.), and the latter to the Early Bronze Age period I ($1390-1210 \pm 100$ b.c., recalibrated c. 1610-1420 B.C.).

The other fragment reaches from the rim to the transition from the mid- and bottom-sections. The rim is heavy, outward-curving, and slightly thickened. The neck is short, outward-curving, and smoothly continued into the rounded top-section. Quality and burning are of the same description as above. Vessels with

this kind of rim-profile are known from both Røjle Mose (Jæger & Laursen 1983, p. 113), Tastum (Simonsen 1983, p. 84), and Myrhøj (Aarup Jensen 1972, p. 102). Timewise this means from the Late Neolithic Period to the beginning of the Early Bronze Age.

Furthermore, there are a few rim-sherds from a dish found in house VIII. In both structures a good deal of flint was found, a.o. blades and flakes, but no tools. A few pieces show that pressure flaking was known. However, the flint material cannot contribute to the dating of the houses.

On this background the most probable dating of the houses would be to the transition between the Late Neolithic Period and the Early Bronze Age. However, this means that these are the earliest documented house-sites in Southern Jutland.

FRAMEHOUSES (fig. 6)

A framehouse is here defined as a longhouse without interior roof-supporting posts.

House VII (fig. 3). This is a west-northwest to east-southeast aligned longhouse without interior roof-supporting posts. It has been at least 10 m long and 6.7 m wide. The east gable may have been removed by the installation of a recent field-irrigation system. However, the house seems not to have been longer than 10 m. The interpretation of the structure is uncertain, partly because of the somewhat irregular positions of the posts of the long walls. In the middle of the house was a cluster of deep pits containing heavily burned stones

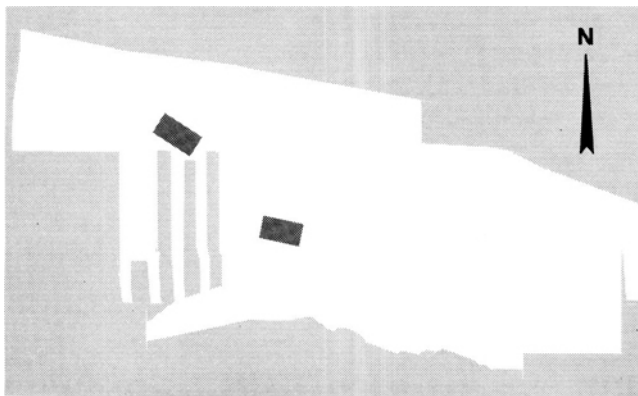


Fig. 4. Højgård. Plan showing the position of the houses with sunken floors (nos. VIII and IX).

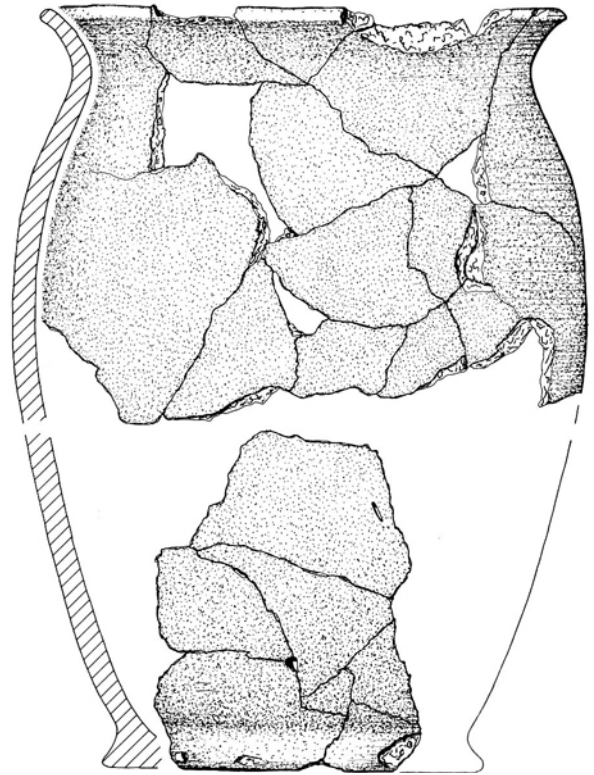


Fig. 5. Højgård. Clay vessel from house VIII. 2:5 (Lars Kempfner-Jørgensen del.).

that were, however, not tightly packed. So they should perhaps be characterized as fire-pits.

No material suitable for dating was found along with this structure.

House XI (figs. 3). This house is an east-west aligned longhouse without traces of roof-supporting posts. In relation to house X it is turned slightly towards the north. The measurements are 15 × 6.1 m.

The interpretation of the house structure is uncertain partly because of the lacking interior roof-supporting posts, and partly because of the irregular positions of the wall-posts. Off the centre of the house in relation to the central axis of the house was a largish fire-pit but a fireplace proper was not found. Owing to the position of the fire-pit it is uncertain whether this has belonged to the house at all. The long walls are straight and the gables curved. It has not been possible to establish an entrance. No datable objects have been found in connection with the house, but stratigraphically it is earlier than house VI, which can be dated to the beginning of period III of the Early Bronze Age.

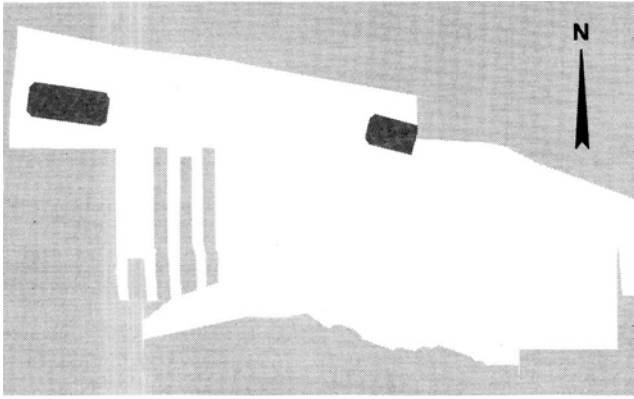


Fig. 6. Højgård. Plan showing the position of the framehouses (nos. VII and XI).

These sites have with reservations been interpreted as houses, partly on the basis of their mutual resemblance, partly on the basis of their positions in relation to the two clusters of houses mentioned below, and partly because they resemble house C from Røjle Mose (Lauersen & Jæger 11983, p. 108). This house has been dated to the Early Bronze Age period I and possibly reaching into period II. On this background, and supported by stratigraphical observations, the Early Bronze Age periods I or II would be a more reasonable dating.

Furthermore, house X, a three-aisled longhouse, which typologically seems to belong with house II, seems to be the earliest of the three-aisled longhouses. They should probably be dated to the later half of period II.

THE THREE-AISLED LONGHOUSES

House I (fig. 7). This is an east-west aligned, three-aisled longhouse measuring 8.2×30.5 m. The holes for the wall-posts and the roof-supporting posts are of equal depth. The distance between the wall-posts is from 2 to 3 m, suggesting that the walls have been built of tree-trunks. The gables are rounded and include two posts placed a little closer to the longitudinal line than can be drawn between the two rows of posts, than to the walls. There are 7 pairs of roof-supporting posts placed with regular intervals of 3.4 to 4 m. The distance from the roof-supporting posts to the wall is approx. 1.5 m.

At the west end of the house is a partition, the posts

of which have been less deeply imbedded, i.e. 15 to 20 cm. This partition has divided the house into a living quarter of some 80 m^2 at the west end, and a room of some 170 m^2 at the east end, whose function it has not been possible to determine. There is an obvious door in the partition. Partitions for stalls have not been found, and phosphate analyses do not suggest that the room has served as a stable.

Between the two last pairs of roof-supporting posts at the west-end are four fire-pits. It is difficult to determine their use as they are rather flat-bottomed, but their contents of brittle stone and the very sparse presence of charcoal probably exclude their interpretation as regular fireplaces.

In the southern long wall there may be an entrance as two of the wall-posts have a distance of only approx. 1 m between them. The total area of the house has been 250 m^2 . Some roof-supporting posts, as well as some of the wall-posts, have been replaced, indicating that the house has been in use for quite a long period of time.

House II (fig. 7). This is another east-west aligned, three-aisled longhouse measuring 22.3×6.5 m. Five pairs of roof-supporting posts were found. The distance between them varies from 1.6 to 4.4 m, and the distance between the wall-posts varies from 2 to 4 m.

The dimensions of the wall-posts and the roof-supporting posts are roughly the same. The depths of the post-holes decrease from the west to the east, perhaps due to ploughing. Ploughing may, in fact, have erased several pairs of roof-supporting posts at the east-end. If so the wall-posts have been more deeply imbedded at the east-end. A few of these posts could only be recorded in the surface and not in depth.

In the north wall two wall-posts are somewhat closer to each other than the others, and they may represent an entrance. The gables are rounded and include two posts on line with the two rows of roof-supporting posts. This house also has a group of fire-pits – five altogether – between the two last pairs of roof-supporting posts. There are also fire-pits along the centre-line of the house.

Houses III and IV (fig. 7). These are also east-west aligned, three-aisled longhouses. The two houses are much alike and will be described together. In these cases only traces were found of roof-supporting posts and possibly of some wall-posts. The houses have had a length of no less than 20 m and an estimated width of approx. 6.5 m, based on the probable position of the

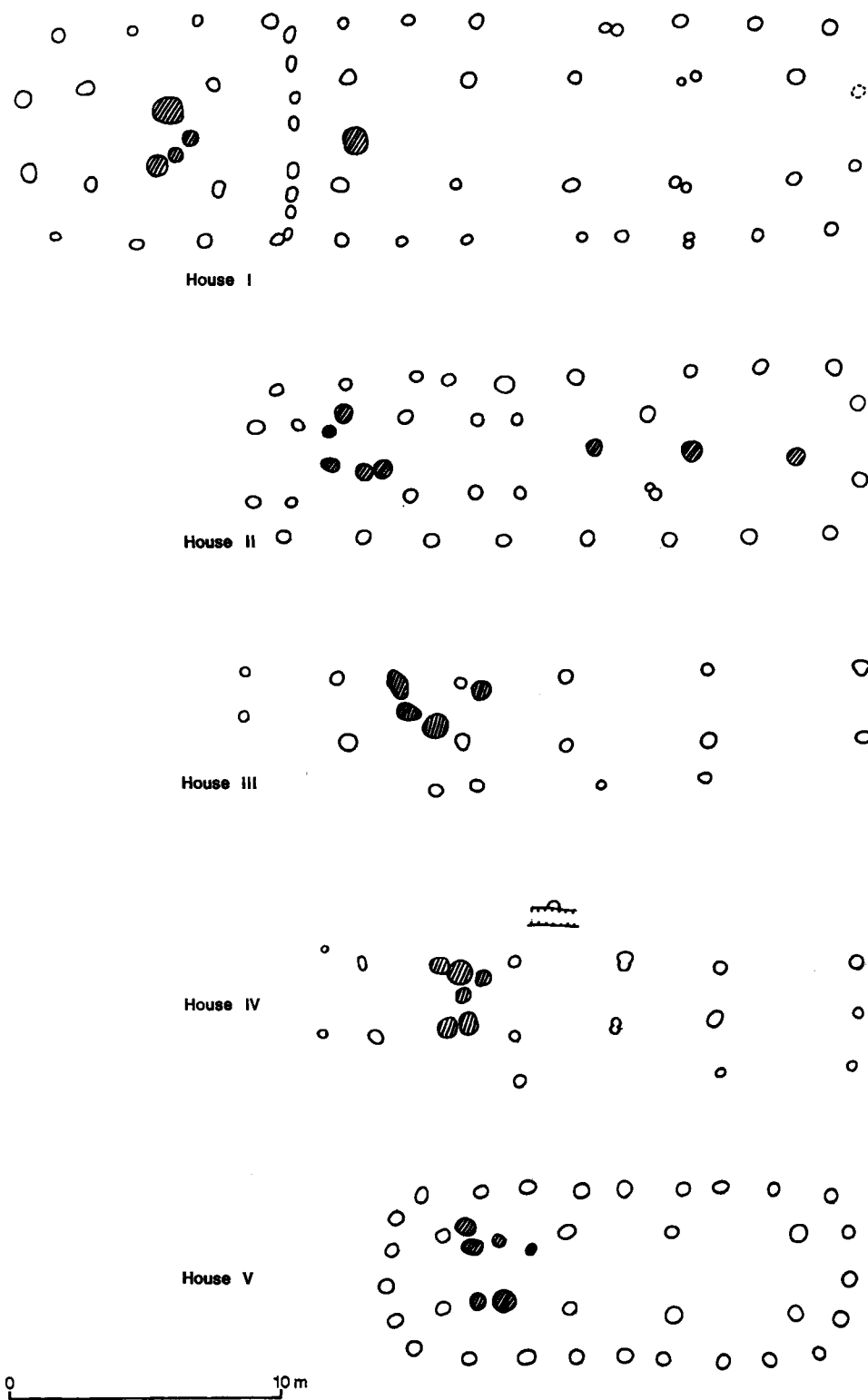


Fig. 7. Højgård. Plan of five three-aisled longhouses (nos. I-V). 1:250.

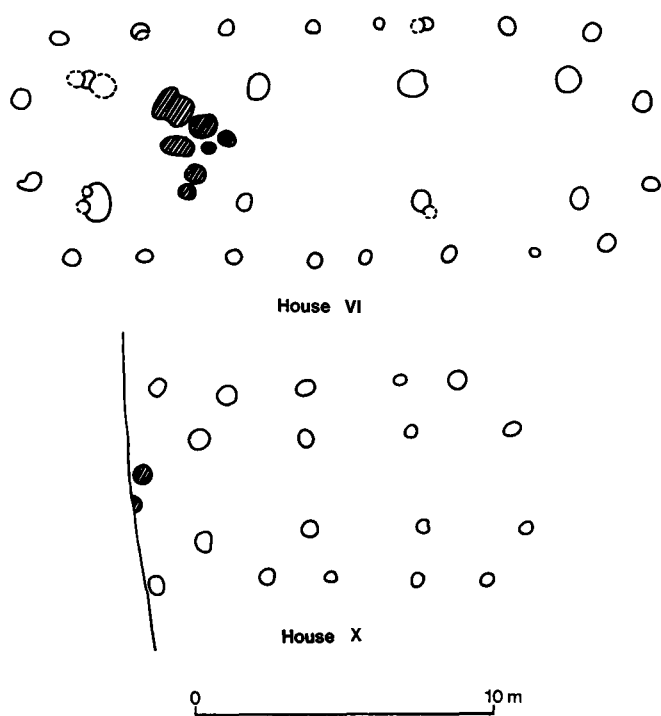


Fig. 8. Højgård. Plan of the three-aisled longhouses nos. VI and X. 1:250.

wall-posts. So the wall-posts have generally not been as deeply imbedded as the roof-supporting posts. Besides, they have had a smaller diameter.

As in the cases of houses I and II there were a number of fire-pits – respectively 4 and 6 – between the last couple of roof-supporting posts at the west-ends of the houses.

There may have been a partition in house IV, though it is not as obvious as in house I. However, they are in the same place. No gables or entrances have been recorded.

House V (fig. 7). Yet another three-aisled longhouse, but this time it is westnorthwest-east-southeast aligned and measures 17×6.2 m. The house has had four pairs of roof-supporting posts. The long walls are straight and the gables curved. Unlike the other houses with gable-posts where the number has been two, it has here been augmented to five. The wall-line has a distance between its posts varying from 1 to 2 m, but usually it is between 1.2 and 1.5 m. This is a lot closer than in the other houses with preserved wall-posts. On the whole the holes from the roof-supporting posts have had a larger diameter than the holes from the wall-posts. No

entrance could be established. At the west-end of the house was a cluster of fire-pits – a total of six. Most of them are quite flat-bottomed with a scattered content of brittle stone fragments, but some are deeper and packed with brittle stone.

House VI (fig. 8). This is an east-west aligned, three-aisled long house measuring 20.8×7.9 m. The long sides are straight and the gables rounded. Each gable includes two posts slightly recessed from the two lines of roof-supporting posts.

The wall-posts are spaced at intervals of 2 to 3 m. At the middle of the south wall there is a couple of somewhat tighter spaced posts probably indicating an entrance. In the north wall there is also a couple of more closely spaced posts, which might indicate an entrance.

The diameters of the holes for the roof-supporting posts are generally larger than those of the wall-posts; however, there is no difference in the depths of the holes. Some post-holes in the wall-line indicated that two posts had been imbedded there, but obvious post-impressions could not be observed. Roughly the same situation was found at house I.

Between the two last pairs of roof-supporting posts was a cluster of fire-pits, in fact, a total of 7.

House X (fig. 8). This is yet another east-west aligned, three-aisled longhouse. The west-end has not been excavated. The house must have had four pairs of roof-supporting posts as fire-pits were found on the boundary of the excavated area. The investigated area measures 13×6.7 m.

The wall-posts are spaced at distances varying from 2 to 3 m. No entrance was recorded, but at the middle of the south wall was a pair of tightly spaced posts. The diameters and depths of the wall-posts and roof-supporting post-holes were alike. The excavated gable consists of two posts on line with the rows of roof-supporting posts.

THE PHASES OF THE THREE-AISLED LONGHOUSES

The seven above-mentioned three-aisled longhouses fall into two clusters of three houses each and one separate house. The distance between the two clusters is approx. 25 m. The settlement site is demarcated towards the south and the east, but boundaries towards the north and the west have not yet been established.

The houses have so much in common that there is no doubt that they have been in use successively inside a

limited span of time. Among common traits can be mentioned the three-aisled construction, the straight walls without recessed doors, the curved gables, and finally the fire-pits between the last two pairs of roof-supporting posts at the west-ends.

This uniform position of the fire-pits in all the houses cannot be coincidental. They must be regarded as an integral part of the house structure. This is important partly because they often contain a good deal of brittle stone, which makes a scientific dating possible, and partly because they seem to enable us to locate the outline of the houses. This should be kept in mind at future investigations of otherwise “uninteresting” clusters of fire-pits.

Among differences should be noted the varying positions of the gable-posts, their varying numbers, the differences of distance between the wall-posts in relation to the holes for roof-supporting posts. These differences and the stratigraphical observations make it possible to establish a chronology of the houses.

Judging by their construction houses III, IV, and V must be contemporaneous (fig. 9), witness the smaller diameter and depth of the holes for the wall-posts compared to those for the roof-supporting posts, their apparently closer spacing, and the increased number of gable-posts. Houses III and IV are compared to house V because the wall-posts have almost disappeared, which means that they cannot have been as deeply imbedded as the roof-supporting posts. These houses constitute *the latest phase, phase 3*, as house V is stratigraphically later than house VI.

Stratigraphically house VI is earlier than house V and later than houses VIII and XI. House VI is contemporaneous with house I (fig. 10). Though they vary markedly in length, their widths are roughly the same. The posts are spaced with the same distance between them. The depths and diameters of the post-holes are the same both as regards wall-posts and roof-supporting posts. The gables are shaped alike, and it seems that the heads above the roof-supporting posts have not extended to the gables. These houses make up *an intermediate phase, phase 2*.

Houses II and X are contemporaneous (fig. 11). They differ from the phase 2 houses in being less wide and in having a different position of the gable-posts, indicating that the heads above the roof-supporting posts have extended all the way out to the gables. These two houses represent *the earliest phase, phase 1*.

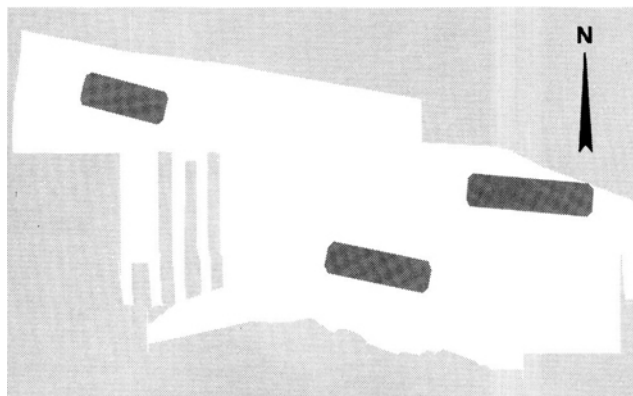


Fig. 9. Højgård. The position of the longhouses belonging to phase 3 (EBA period III).

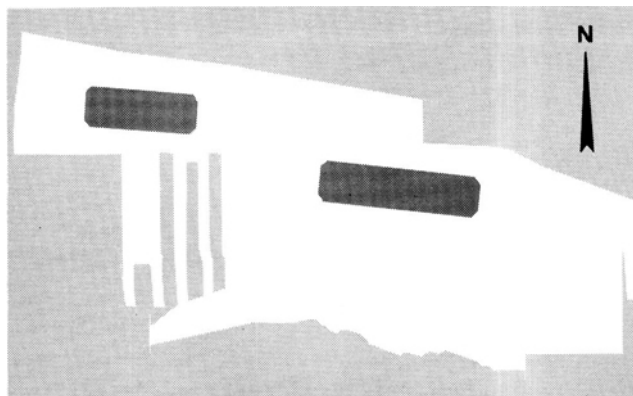


Fig. 10. Højgård. The position of the longhouses belonging to phase 2 (EBA period II/III).

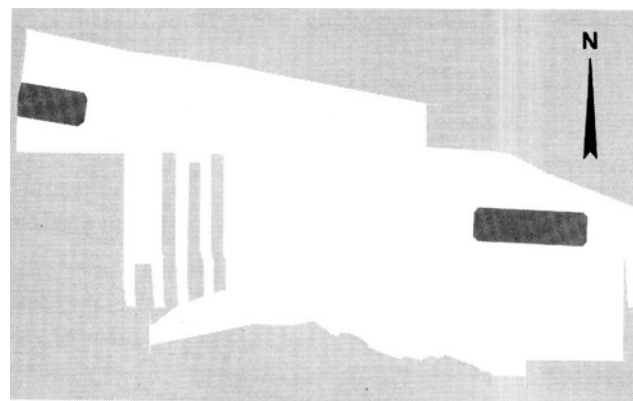


Fig. 11. Højgård. the position of the longhouses belonging to phase 1 (EBA period II).

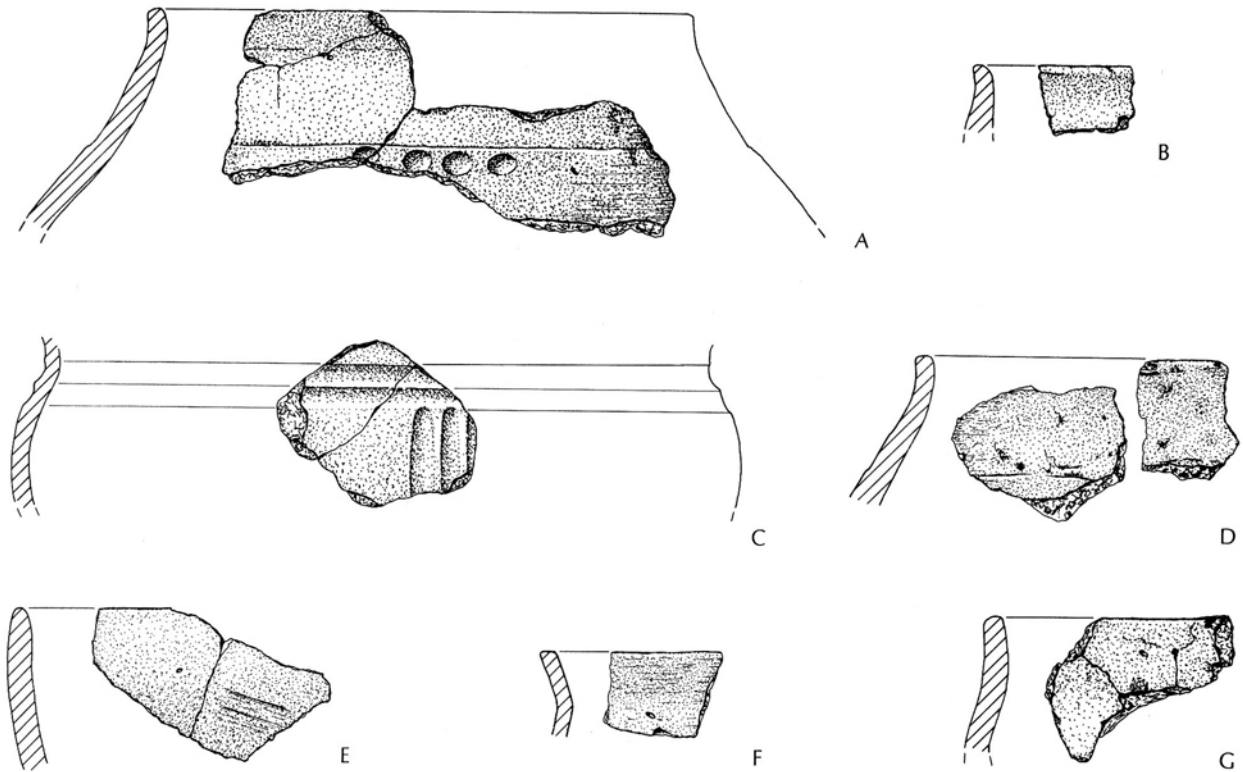


Fig. 12. Højgård. Pottery from the pits. 2:5 (Lars Kempfner-Jørgensen *del.*).

House II seems stratigraphically earlier than house III; but this assumption is uncertain. The division into phases is mainly based on differences in construction between phases 1 and 2.

It seems that the roof-construction is altered from phase 1 to phase 2. The wall-structure seems to grow slighter from phase 2 to phase 3. Finally there is a gradual shifting of the weight of the roof from the wall-posts to the roof-supporting posts from phase 1 to phase 3.

All three phases are later than the Late Neolithic Period and the Early Bronze Age period I, cp. the stratigraphy of houses VI and IX.

The division into phases has not taken the frame-houses into consideration though each is connected to its own cluster of houses.

THE FINDS

The material of artefacts derives partly from the fill of the post-holes (fig. 13), partly from refuse-pits (fig. 12),

and partly from stray finds. It consists mainly of pottery and a little worked flint.

The pottery consists partly of thick-walled, very coarse-grained sherds, in fact, a grain-size of 2 to 3 mm or more is not uncommon. The sides of the vessels are hand-slapped or very poorly smoothed, and almost straight or slightly outward-curving. The basis is clearly emphasized. Necks and rims are vertical or slightly outward-curving. Sherds of this description were found both in post-holes and pits.

There were also vessels with somewhat thinner walls, and these were not quite as coarse-grained. Their sides are more curved and likewise their rims. These vessels are smoothed and the burning of the ware is of a higher quality. Some of these sherds derive from one pit and probably also from one single vessel. In this case the transition between the neck and the upper section is marked by a small platform below which there are small circular depressions. Another sherd is equipped with both horizontal and vertical ornaments. Sherds of this type were only found in the pits (fig. 12). In fact, no ornamented sherds were found in the post-holes.

The flint material consists of flake-scrapers, one of which shows traces of pressure flaking, two indeterminate tools with an edge-trimming that connects them with tools – they may be scrapers of some sort –, a good many flakes, and a few blades. The flint was either found in the pits or as stray finds. However, a few small flakes were found in the post-holes.

DATING OF THE FINDS

Especially the first-mentioned type of vessel resembles Late Bronze Age pottery from this part of the country (Ethelberg 1982 pp. 108–32); but it is too coarse-grained for a dating to the Late Bronze Age to be likely. Besides there are no sherds with added bands or finger impressions or oval or round knobs, and these details are characteristic of the most common type of Late Bronze Age vessels. The pottery material is so large that this type of vessel ought to be represented if it were a settlement site from the Late Bronze Age.

The resemblance to the pottery from e.g. Egehøj (Boas 1980 p. 112, and 1983 p. 94), and Røjle Mose (Laursen and Jæger 1983 p. 113) is more obvious, both of which have been dated to the Early Bronze Age period I.

However, these sites are especially rich in worked flint. Pressure flaking is widely used, which also goes for settlement sites from the Late Neolithic period, e.g. Myrhøj (Aarup Jensen 1972 pp. 79–89). These facts, along with the stratigraphical observations, make a dating to these periods unlikely. However, it should be noted that there was not very much worked flint in the two Late Neolithic houses on the settlement site.

As parallels to the circular depressions and the groove-ornamentation can be mentioned:

a) A vessel ornamented with small circular depressions and groove-ornamentation, both vertical and horizontal, is known from Sorteøj grave A (Thrane 1962 p. 117). The grave has been dated as not later than period III (Thrane 1962 p. 120).

b) From Nandrup there is a vessel with horizontal groove-ornamentation running round it. It is dated to period II (Broholm 1952 p. 206).

c) Finally there is a vessel from Jelling with vertical grooves, dated to period III (Broholm 1952 p. 341).

The groove-ornamented sherd may resemble the pottery from the 4th and 5th centuries A.D. But con-

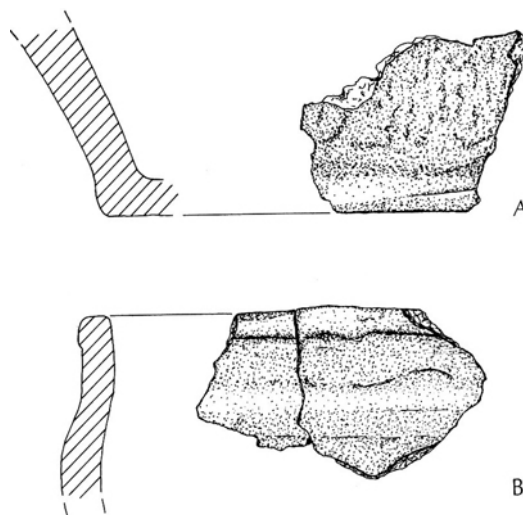


Fig. 13. Højgård. Pottery from house I (a) and IV (b). 2:5 (Lars Kempfner-Jørgensen del.).

sidering the fact that it was found in a pit containing sherds of the coarse-grained type, it must belong to the settlement site's type-inventory. Furthermore, apart from the Late pre-Roman graves, no Iron Age sherds have been found on the site. The large Enderupskov burial ground with graves from the 4th and 5th centuries A.D. is located at a distance of more than 300 m from the settlement site. Judging by the sherds from both the post-holes and the pits the most reasonable dating of the pottery must be the Early Bronze Age periods II and III.

In the subsequent dating of the three-aisled longhouses the material from the pits has not been taken into consideration unless there is a direct connection with the houses, as the pits need not be contemporaneous with the houses, which will appear below.

DATING OF THE THREE-AISLED LONGHOUSES

Five post-holes from house I contained coarse-grained sherds. One sherd from the bottom of a vessel (fig. 13a) was found at the top of the fill in a hole from a roof-supporting post. The remaining 4 sherds are uncharacteristic sherds from the sides of vessels. They are coarse-grained, except one which shows a somewhat finer grain.

There is a coarse-grained sherd from one of the fire-pits in house IV. This is also from the side of a vessel.

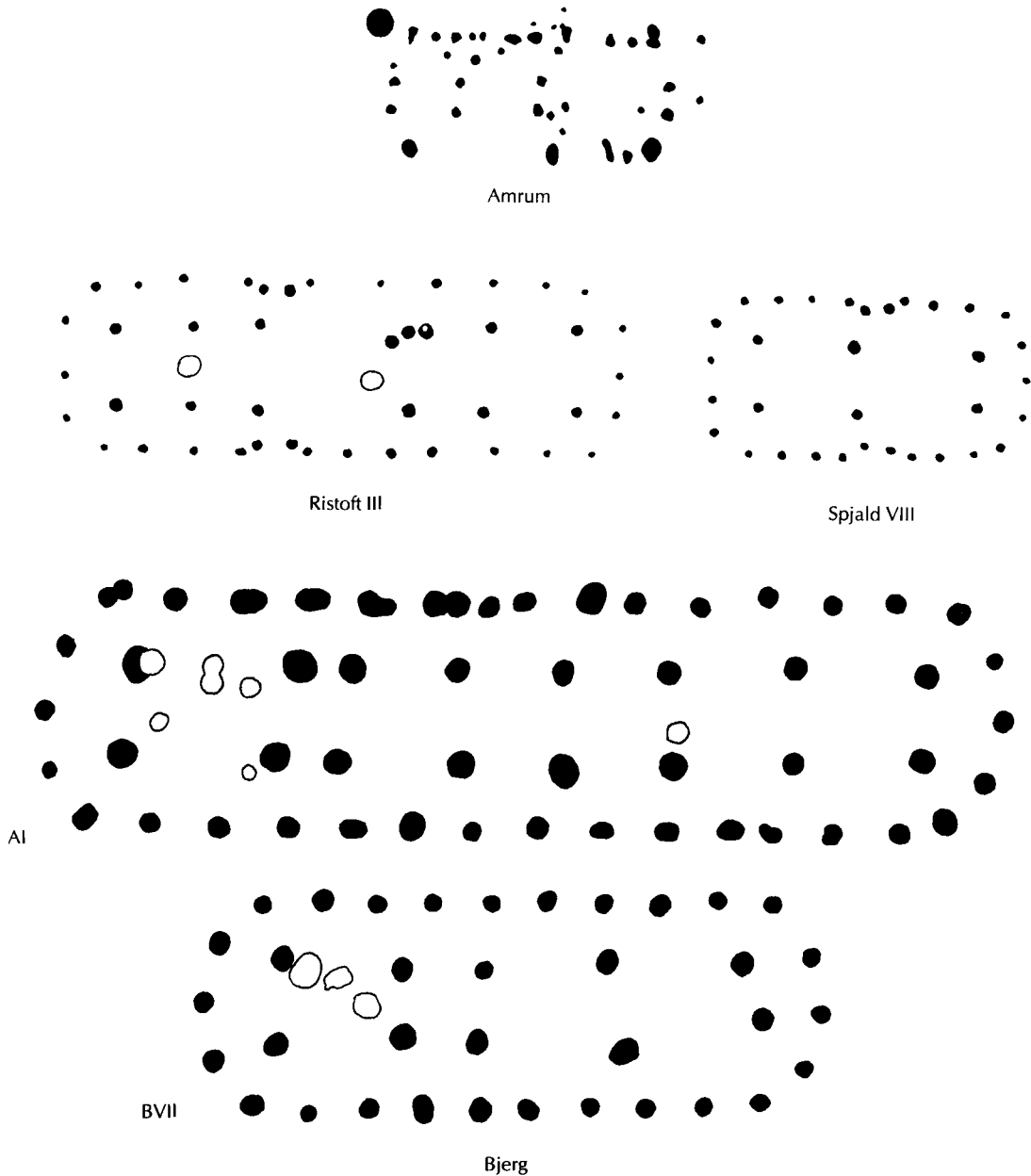


Fig. 14. Plans of Bronze Age longhouses. 1:250.

One of the holes from a roof-supporting post in house IV was covered by the fill from a pit, containing coarse-grained sherds from sides of vessels and a large sherd (fig. 13 b) from the rim of a vessel with a vertical, smoothed neck and a straight, smoothed rim.

The post-holes in houses V, VI, and X also contained a few coarse-grained side-sherds.

The pottery connected with the houses is thus highly

homogenous. A dating is best based on the sherds from houses I and IV, and they are typical of the Early Bronze Age. This dating is supported by house I's architectural resemblance to the Trappendal house (Andersen and Boysen 1981 and 1983) and the Handewitt house (Bokelmann 1977). The only differences are the nature of the fireplaces and the wall-structure, the Handewitt house having a wall-ditch, and the Trappen-

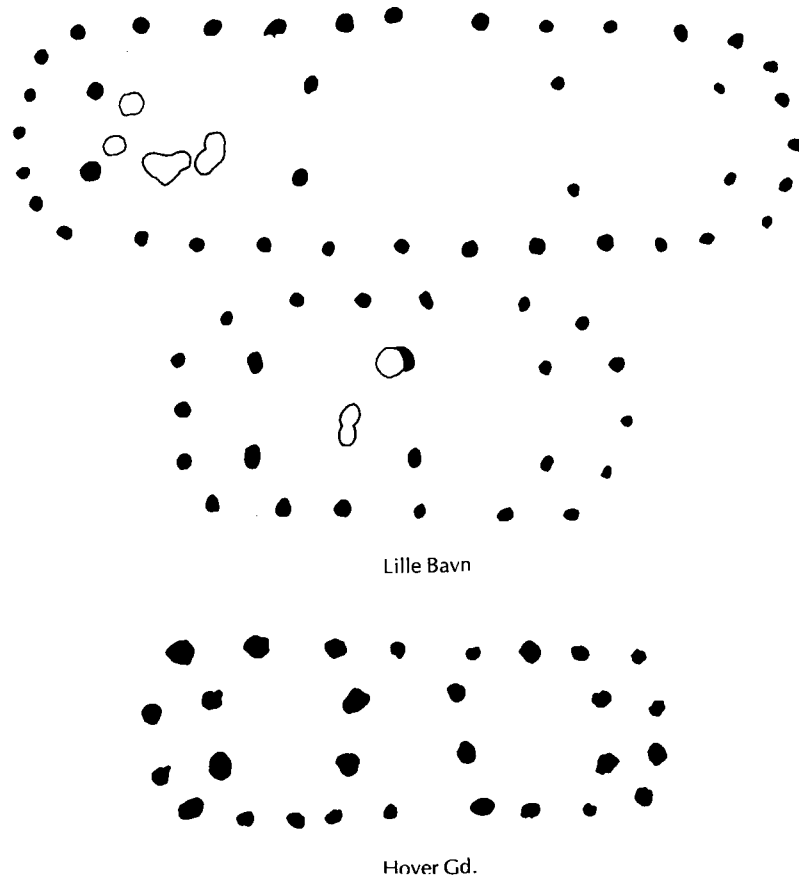


Fig. 15. Plans of Bronze Age longhouses. 1:250.

dal house having closely spaced wall-posts. These houses are no later than the Early Bronze Age period III. The average value of 4 C-14 datings of charcoal from the post-holes of the Trappendal house is 1476 ± 80 B.C. (recalibrated), corresponding to the first half of the Early Bronze Age period II. On this background the most probable dating of the Højgård houses must be the Early Bronze Age periods I–III.

SCIENTIFIC DATING OF THE THREE-AISLED LONGHOUSES

With a C-14-dating in view the fill of 5 post-holes from each house was suspended in water to extract the charcoal. However, the charcoal content was not big enough for a C-14-dating.

Samples were also taken from the fire-pits, but only one provided enough charcoal for a C-14-dating. However, the result of this dating shows that some of the

fire-pits were actually later than the Bronze Age occupation (K-4614: 670 A.D., recalibrated).

Another date derives from a pit which is stratigraphically later than one of the holes for the roof-supporting posts in house IV of phase 3. It gives a recalibrated date of 1010 B.C. (K-4615: 900 ± 75 b.c.) thus dating the pit to the transition between the Early and Late Bronze Age. It confirms the archaeological dating of the settlement and is in support of the view that the last phase is not later than period III.

Against this background it is suggested that phase 1 be dated to the Early Bronze Age period II, phase 2 to periods II and III, and phase 3 to period III.

IMPLICATIONS FOR THE DATING OF BRONZE AGE HOUSES

Besides the Trappendal and Handewitt houses Early Bronze Age three-aisled longhouses are known from

three other localities, e.g. Vadgård North (Lomborg 1973, 1976, and 1980). However, these houses are considerably smaller than those described above.

At Hyllerup near Slagelse Jens-Aage Pedersen has investigated a longhouse below a mound whose primary grave is dated to the Early Bronze Age period III (Pedersen 1986, this volume). In this connection a house-site at Ballermosen should also be mentioned (Lomborg 1956), and it is possible that this was also a three-aisled longhouse, or part of one. Like at Hyllerup the site appeared under a mound whose primary grave was dated to the last half of period II. Finally the Amrum house should also be mentioned (Struwe 1954 pp. 35–40). On the basis of potsherds it is dated to period II, or possibly period III (fig. 14). However, these may not be the only Early Bronze Age houses to have been found in Denmark.

Towards the end of the 1960s a large number of Late Bronze Age settlements with house-sites was investigated in the Holstebro-Herning-Ringkøbing area, a.o. Spjald, Bjerg A and B, Ristoft, Kærgård, Hover Gd. (Becker 1980: fig. 1 and note 5), and Jegstrup near Skive (Davidsen 1982). Most of these are three-aisled longhouses with rounded gables and clearly recessed doors (figs. 14–15), a fact which sets them apart from the Højgård houses. Another difference is the absence of fire-pits. Neither has the presence of partitions been recorded. An exception is house I at Nybro (Nielsen and Mikkelsen 1985 p. 58), which may have been divided into separate rooms. This locality is dated to the last half of the Late Bronze Age.

The roof-supporting posts in the Late Bronze Age houses are considerably stouter and more deeply imbedded than the wall-posts. However, this is also observed at Højgård and Trappendal.

At Spjald and Bjerg (fig. 14) (2), however, not all the houses are of this description; a few are very much like the Højgård houses, especially house V. These houses are all dated to an early part of the Late Bronze Age (Becker 1975/76 p. 74 and 1980 p. 132).

However, there is no archaeological support for such a dating, neither on the basis of pottery nor on stratigraphical observations (3). The dating is solely based on the fact that the houses were located on sites with houses and pits reliably dated to the Late Bronze Age.

At Hover Gd. J. Jensen (Jensen 1971 p. 10) (fig. 15) has investigated a similar house. According to stratigraphical observations the house should be later than

another house in the locality, dated to the Late Bronze Age (Jensen 1971 p. 10). However, J. Jensen has informed (personal communication) that exactly the opposite is the case, and he would not dismiss the possibility that the house might derive from the Early Bronze Age.

At Lille Bavn (Hvass 1983 p. 127) (fig. 15) near Vorbasse S. Hvass has investigated 5 house-sites, of which at least two resemble house V at Højgård. It is dated to the Late Bronze Age, but solely on the basis of potsherds found in pits nearby. There were no potsherds in the fill of the post-holes (personal communication).

However, too much importance should not be attached to artefacts from nearby pits when dating house-sites with no finds. This is best illustrated by the investigations made at Uldal northwest of Skrydstrup in connection with the construction of a natural gas pipe-line. A great many pits contained pottery and flint from the Early Bronze Age, and there were several house-sites with no artefacts. Based on the potsherds from the surrounding pits the site was dated to the Early Bronze Age (Sørensen 1984 p. 22). However, further investigations showed that this was incorrect. It was in fact a large settlement site from the Early Viking Age.

Furthermore, it is not uncommon to find pits with late Bronze Age pottery without the presence of house-sites near by (Ethelberg 1982).

Judging by the striking similarity between the above houses and the Højgård houses it must be reasonable to regard all these house-sites as contemporaneous. Particular stress should be laid on the fire-pits between the two last pairs of roof-supporting posts at the west-ends of the house that are also found in the above described houses, but which do not appear in the houses from the Late Bronze Age. There is little doubt that these fire-pits are an integral part of the houses. Furthermore, like the Højgård houses the above described houses are also built in clusters. These features, along with the uniform position of the posts, make it reasonable to reconsider the dating of these houses and date them to the Early Bronze Age. However, the assumption cannot be dismissed that these houses may have continued into the Late Bronze Age, but the house-type must be considered as belonging to the Early Bronze Age.

THE DEVELOPMENT OF THE THREE-AISLED LONGHOUSES

As mentioned earlier most of the houses known from the Late Neolithic Period have only had one line of roof-supporting posts and have thus been double-aisled (cp. Simonsen 1983; Nielsen and Nielsen 1985). Common for all the house-sites of this type found in Jutland is the fact that they have partly sunken floors. As indicated by the Egehøj houses this type of house-building continues into the Early Bronze Age. Not until period II of the Early Bronze Age does the three-aisled longhouse make its appearance, e.g. Vadgård North, Trappendal, Hyllerup, and Højgård.

A comparison between the Egehøj houses and the Højgård houses shows both similarities and differences. The main difference is in the basic roof-structure, i.e. single line of roof-supporting posts against double lines. The similarities consist in the position of the fire-pits at the west-ends of the houses, the rounded gables, the fact that the doors are not recessed, and finally the location of the houses in clusters. Furthermore, one of the houses at Egehøj also has a partition.

The gap between the Egehøj houses with their double-aisled structure and the Højgård houses with their three-aisled method of construction may not be as big as appears at first, as the walls have supported the roof in both cases. However, the three-aisled method of construction must be regarded as the more stable one.

It cannot be excluded that a continuous development has taken place. However, if this is not the case, the Amrum house can be regarded as a kind of "missing link", as here the two lines of roof-supporting posts are very close together (fig. 14).

So there is nothing to disprove that the three-aisled longhouse should have been developed in Southern Scandinavia during the Early Bronze Age period II. However, it seems that pretty soon an east-Danish and a west-Danish type have arisen differing partly in their wall-structures, and partly as to the type of fireplace. This may have been a question of access to building materials. The east-Danish houses, which are all located in moraine country, have probably had wattle-and-daubed walls, whereas the west-Danish houses on the other side of the glacial boundary-line have probably had wooden walls built of logs, a building method requiring much more material. And timewise the houses coincide with an extensive deforestation, at least in the south of Jutland (4).

Little is known about the roof itself, but a qualified guess can be made. Tvillinghøj (Ethelberg 1982 and Hvass 1983) near Løsning has been surrounded by a fence of posts spaced roughly like the wall-posts of the Højgård houses and of roughly the same diameter. This mound may have been supposed to represent a longhouse with wooden walls and a turf roof. This would also explain the very massive walls. The east-Danish houses have probably had another kind of roof not requiring so powerful walls.

FURTHER ASPECTS

Some 300 m west of the settlement site, which is located on the most elevated terrain in the area, there is a small cluster of 6 mounds. As the area has been wooded for very many years, it may be assumed that this is the original number of mounds. The mounds may very well be a burial ground associated with the settlement site. As the houses were located in clusters, it is possible that each cluster has had its own burial mound.

If so, there should be another four clusters of houses, if they haven't disappeared into the gravel pit. A line drawn exactly midway between the two clusters of houses aims precisely at the centre of the cluster of mounds. None of the mounds have been investigated yet, and there is no knowledge of stray finds associated with them. If the number of house clusters and the number of graves were the same, it would be exciting to see if the mounds have the same number of phases and the same dating as the houses.

The other houses of this type were also found in clusters, so if the burial mounds are an exponent of the number of families on the settlement site, they would give a reliable idea of the settlement pattern and the size of its population. We hope to be able to clarify these matters in the future.

SUMMING UP

Three-aisled longhouses are a well-established type of structure already from period II of the Early Bronze Age. There are two distinct types, a west-Danish and an east-Danish one. The west-Danish type differs from Late Bronze Age houses in having wooden walls, non-recessed doors, fewer gable-posts, and fire-pits at the west-end. General differences between the east-Danish type and Late Bronze Age houses are more difficult to

establish. However, it seems that they may have been larger and have had a different kind of door; but the number of houses so far known is modest.

Several types of wall-structures from the Early Bronze Age have been recorded: log-built walls, shingled walls (Handewitt), wattle-and-daubed walls (Trappendal and Hyllerup), and turf walls (Vadgård North). It seems that some of the largest pre-historic houses belong in the Early Bronze Age. The three-aisled long-house was developed by the same people who erected the large burial mounds. The architectural principles of the house were to prevail till the beginning of the Middle Ages.

On the basis of the results of the Højgård investigations and their significance for the dating of a series of comparable house-sites the theory that the Bronze Age people was an itinerant, nomadic people must be regarded as invalidated – also in the case of the Early Bronze Age.

It seems that already during the Early Bronze Age people have been relatively settled inside limited areas. The house clusters, which are also known from the Iron Age, bear witness to this. However, the social infrastructure has probably been different. The large Bronze Age houses may have housed several nuclear families related to each other. The modest size of the earliest Iron Age houses may suggest that at this point of time, society has split up into nuclear families.

The separate houses are not located in such a way that they can be said to have formed a village. Thus no enclosures have been recorded. The settlement has probably consisted of separate houses or farms succeeding each other.

The number of house sites datable to the Early Bronze Age thus seems somewhat larger than so far assumed, though it is still relatively modest. So the conclusions made here should be regarded with some reservation. On the basis of the experience from Højgård there is a hope that the coming years will bring to light further house-sites from the Early Bronze Age.

Translated by Ul S. Jørgensen

NOTES

1. The investigations took place during the periods 31/8 – 6/9 1984, and 19/11 – 13/12 1984, and April 1985. Højgård, Gram parish, central register no. 170, Haderslev museum file no. 1706.
2. Becker 1972 p. 13 ff. and fig. 10. From Spjald can be mentioned a house measuring 27 × 8 m and from Bjerg A a house measuring 33 × 8 m, i.e. houses roughly of the same size as Højgård house I. Becker 1980. From fig. 2. p. 131 it appears that three of these house-sites have been found on Bjerg A and at least 3 on Bjerg B, fig. 5. p. 135. Another house from Bjerg is shown in Becker 1982 p. 57.
3. On the basis of the published plans it appears that the houses overlap, but neither from the text nor from the drawing does it appear whether stratigraphical observations have been made, apart from the fact that the biggest houses, which are supposed to be the earliest, are generally at the highest elevation. The lacking archaeological foundation for a dating to the Late Bronze Age has been ascertained by C.J. Becker through personal communication.
4. Personal communication from B. Aaby. The information was based on pollen-analytical investigations made by Aaby in Abkær Bog in Southern Jutland. Still unpublished.

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