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The Iron Age Village Mound at Heltborg, Thy

by JENS-HENRIK BECH

For more than half a century, Thy has occupied a special place in the study of settlements of the Early Iron Age. The National Museum's excavations of the Ginnerup settlement in southern Thy, initiated in 1922, revealed for the first time in Denmark well preserved house remains, yielding a wealth of new information on the construction and internal arrangement of Iron Age houses (Kjær 1928, 1930; Hatt 1935, 1936). Subsequently, a number of major settlement investigations were carried out at other localities in southern Thy: Vestervig 1961–1965, Hurup 1965–1969 and Tåbel 1971, to name the most extensive (see i.a. Vebæk 1971, 1976; Kann Rasmussen 1968; Salewicz 1976).

These settlements are characterized by massive culture layers, which in some cases may attain a thickness of over 2 metres. This is primarily due to two circumstances. In the first place, Iron Age settlement was very stable for a period of at least 300 years, throughout which the individual units remained in the same place and seem to have been in continuous use. However, this was not in itself enough to form the thick occupation layers, and another circumstance played a role, namely the type of house construction, which employed turf walls up to 1 metre thick. When houses built in this way were demolished and the walls razed, the thickness of the occupation layer was considerably increased. Although there is some doubt as to the original height of the walls, there can be little doubt that it is this combination of factors – permanent settlement and turf walls – that has led to the fact that the settlements even today may appear as distinct elevations 1 to 2 metres above terrain. The application of the terms "settlement mounds" and "village mounds" to settlements of this character is thus not without foundation (1).

Considering the great concentration of settlement mounds in the south of Thy (fig. 1a), it was not entirely unexpected when *Museet for Thy og Vester Hanherred* observed in 1981 that a projected by-pass north of Hurup would cut directly across a previously unrecorded mound. As it was not possible to let the road skirt the settlement, the museum started in the same year a so-called § 49 excavation, which was terminated in October 1982. It is this investigation which will be described here (2).

The mound is situated at Heltborg, just over 1 km NE of Hurup. The surrounding area is an undulating moraine landscape with deep valleys and high-lying hills, where the terrain to the east falls towards the Lim Fjord and to the west is bounded naturally by the rather narrow and deep Visby river valley. As fig. 1 c shows, the settlement is placed on a high-lying hill overlooking the river valley; at the same time there is only 2.5 km as the crow flies to the Lim Fjord, which is clearly visible from the most elevated parts of the site.

EXCAVATION METHOD

The surface of the projected by-pass would at the point where it cut the settlement be about 5 m under surrounding terrain and, with the sides of the cutting, the road would therefore take a 32–35 m wide swath out of the settlement. As culture layers of up to 1 m thick could be determined by means of bore probes over a stretch of about 70 m, it was apparent that over 2,000 m^3 of culture layer with houses, pavements and detritus in the southern part of the settlement would be directly affected.

The time factor common to all § 49 excavations necessitated the extensive use of earth-moving machinery. The excavation of the Tåbel village mound had previously made successful use of machinery, employing a large earth-mover with lateral shovel. The same type of machine was used at Heltborg.

It was clear from experience gained with the earlier settlement excavations that the greatest problem would be of a purely stratigraphic nature: how to separate coeval structures at the site. Cobbled pathways made it

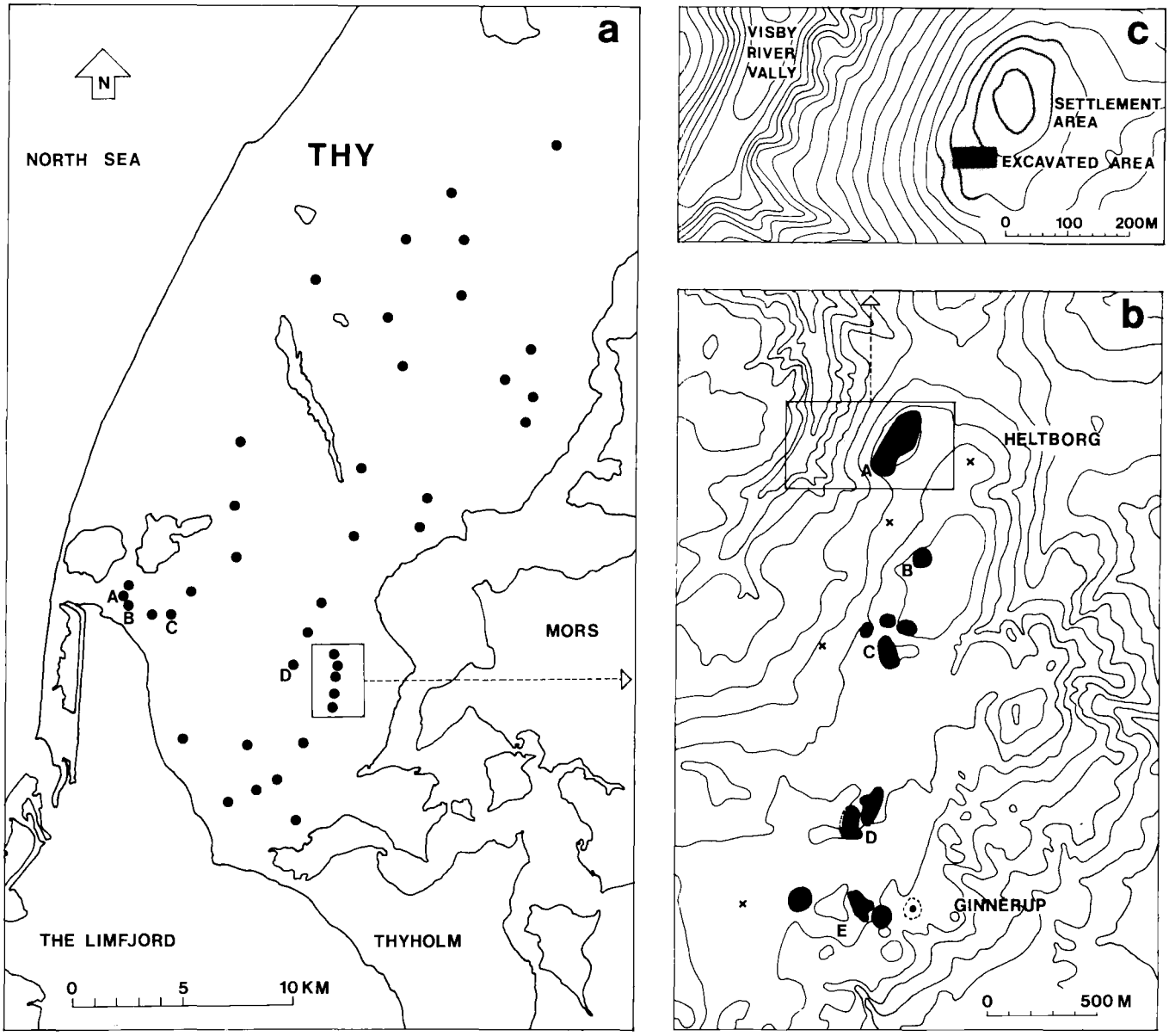


Fig. 1a. Map of settlement mounds in central and southern Thy. A, Tåbel. B, Mariesminde. C, Vestervig. D, Hurup. – Fig. 1b. Provisional map of the settlement pattern in the area between Heltborg and Ginnerup. 5 m equidistance. A, the Heltborg village mound. B, isolated settlement mound. C–E, settlement mound complexes (E, Ginnerup). X, various traces of settlement without or with only a thin culture layer. – Fig. 1c. The Heltborg village mound. 2 m equidistance.

possible at Vestervig to connect a number of contemporaneous houses, whereas at the Hurup mound, house correlation seemed to be possible in only a very few cases. With this in mind, it was natural at Heltborg to use profile sections to a much greater extent than had previously been practised in such excavations. Thus the use of machinery, in conjunction with a wish to establish a network of sections covering the whole area of study, led to a special excavation procedure with areas of a fixed size separated by usually 1 m wide profile balks. The problem of machine movement within the excavation area was solved by aligning the balks parallel to the road's projected axis, which lay exactly E-W in the area involved, and by starting with a number of

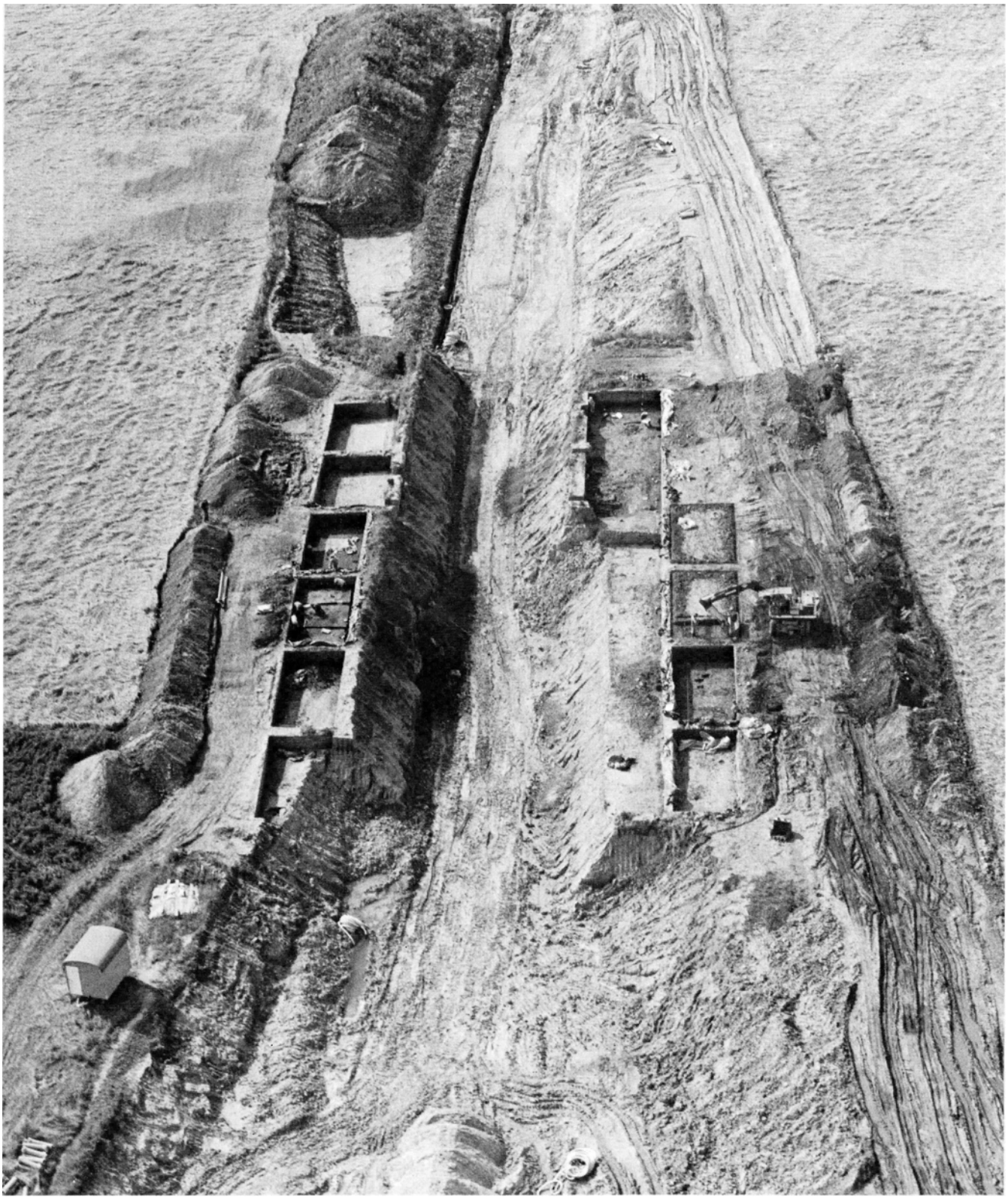


Fig. 2. The excavation at an advanced stage (phot. Tage Jensen).

Fig. 3. Plan showing all the excavated houses.

segments on either side of the mid-line, excavating these to virgin subsoil, and then row by row working out to the edge of the area (fig. 2).

In order to maintain as close a check as possible on the machine excavation, a c. 25 cm wide trench was cut by hand along the sections, to a depth of about 30 cm under the already exposed surface, for each pit and every machine traverse. Observations on layers which would be uncovered with the next traverse could thus be made in the sections, and from the appearance and inclination of the layers it was then decided how much should be removed in each part of the pit. With the generally adopted pit dimensions of 9 × 5.5 m, a new house could in most instances be observed in at least one of the sections. This procedure usually permitted the houses to be roughly cleared by machine, after which further excavation turned to hand shovel and trowel.

There are, of course, things to be said for and against every excavation method. A number of the advantages with the present method are apparent from the above, but a further advantage was that the oldest layers, too, were investigated satisfactorily. If excavation had started with a major continuous surface clearance, there would have been the risk that at the end of the allotted period there would at best have been time only for a summary documentation of the oldest phase of the mound.

Among the disadvantages, must be reckoned the totally random way in which the sections intersected the

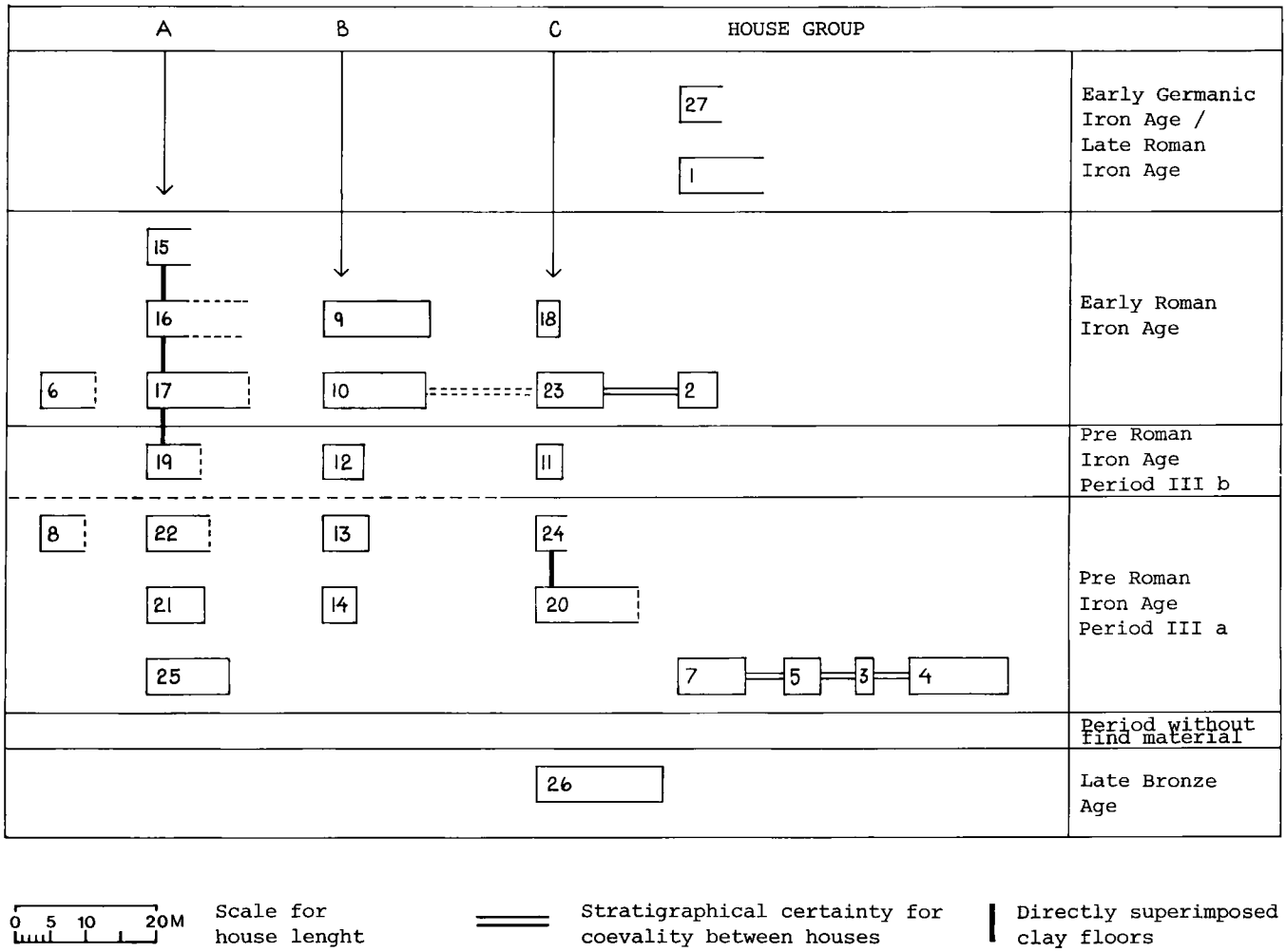


Fig. 4. Suggested relative chronology for the Heltborg houses.

houses, and that it was rarely possible to document a house in one operation: more often than not a house extended over several pits, the excavation of which due to the imposed constraints was not necessarily synchronous. As byre ends with earthen floors might be only slightly in evidence in the culture layers, it was often difficult to recognize the structure for what it was, if a byre was encountered before the corresponding dwelling part had been cleared. With traditional methods of clearance, this would have been less problematic.

STRATIGRAPHY AND DATING

From bore probes in the Heltborg village mound it can be determined that the culture layers stretch unbroken over an area of about 325 × 125 m (fig. 1c). In the light of the other known village mounds, this mound must be described as the largest of its kind, the investigated area covering less than 1/10 of the total extent of the settlement (3).

The thickness of the culture layer within the excavation area varied from 40 to 130 cm, least at the eastern edge of the settlement. On account of the fall in terrain, the layers attained a considerable thickness at the settlement's western edge, but without evidence of other than refuse layers with varying content of charcoal.

Within the investigated area, the placement of the individual houses followed a pattern previously ob-

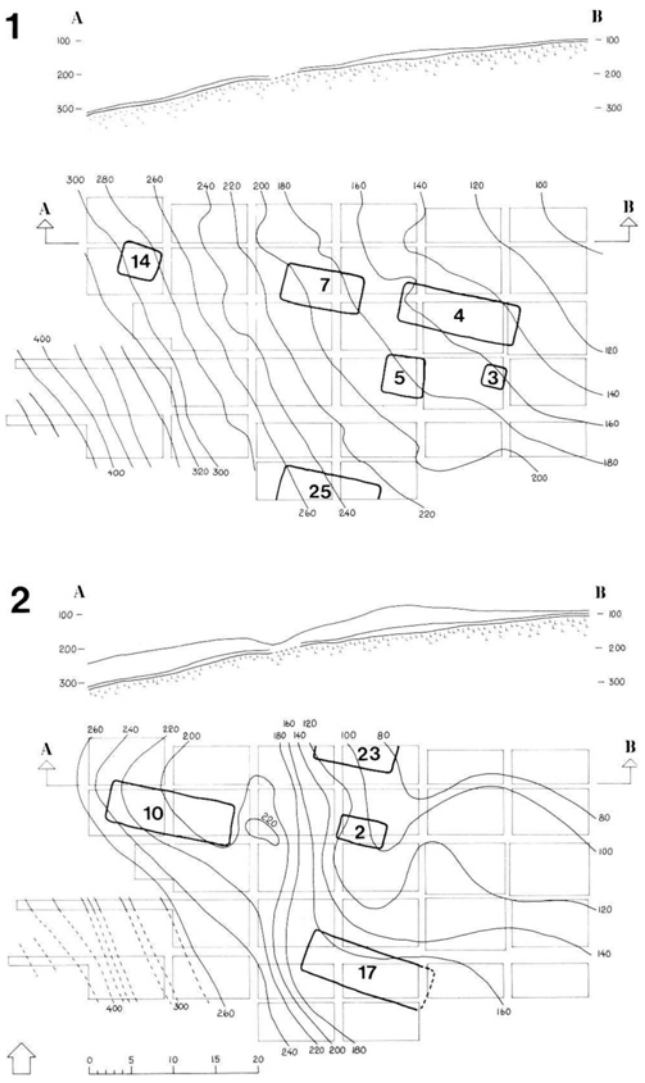


Fig. 5. Terrain surface at different points of time in the development of the Heltborg village mound. 20 cm equidistance.
1: At the establishment of the village in period IIIa showing the houses resting on the ancient topsoil. In the section A–B the thickness of this layer has been exaggerated by a factor of 4.
2: At the beginning of the Early Roman Iron Age showing contemporaneous houses. In sectionA–B, thickness of the ancient topsoil and the culture layers accumulated during the Pre-Roman Iron Age have been exaggerated by a factor of 4.

served in other village mounds, namely a localization of houses in particular areas of the settlement (fig. 3). Thus in the southern part of the excavation, we have a sequence of no fewer than 7 houses in chronological succession (house group A). In the north-western part a similar series of 5 houses (house group B) could be distinguished, and finally, about 10 m from there a further sequence of 5 houses (house group C). That a few other houses were placed elsewhere on the site does not affect the general picture.

This placement of houses raised stratigraphical problems. Whereas a determination of the chronological relationships between the houses within a group did not present particular problems, it proved extremely difficult to establish contemporaneity between houses belonging to different concentrations, on a stratigraphical basis. This was primarily due to the often strongly variable terrain conditions within the settlement area, where no stratum could be followed for any distance. The problems of correlation were further aggravated by the discovery of a modern ditch and a sunken road cutting across the middle of the excavation. It was thus only in a very few cases possible to follow the refuse layers with sufficient certainty to demonstrate coevality.

Fig. 4 is an attempt to establish a relative chronology for the investigated houses. In the vertical columns, the houses are seen in the individual sequences. The horizontal connecting lines show the cases where evidence of coevality could be adduced from the stratigraphy (4). But, based on the pottery, it has been possible to date the houses to the Late Bronze Age, Pre-Roman Iron Age period IIIa and IIIb, Early Roman Iron Age, and Late Roman Iron Age/Early Germanic Iron Age, respectively, so the possibilities of ascertaining which houses existed at the same time are considerably improved (5).

As far as the Late Bronze Age settlement is concerned, it is represented by only one NW-SE oriented long-house, which will not be discussed in the present context (6). No regular culture layers are preserved from this first settlement, which is undoubtedly due to cultivation of the area before the establishment of the Iron Age village at the end of the Pre-Roman Iron Age.

Several of the houses from period IIIa were placed directly on the old topsoil: this applies to houses 3, 4, 5, 7, 14, and 25, which may be regarded as coeval, although some chronological variance is also possible. Stratigraphical observations leave no doubt, at least, that houses 3, 4, 5 and 7 are contemporaneous. None of these houses was, however, directly followed by another house on the same site. It is uncertain where the explanation for this should be sought, but we are possibly dealing with a kind of new establishment phase in the village, at a time when a coherent structure was not yet

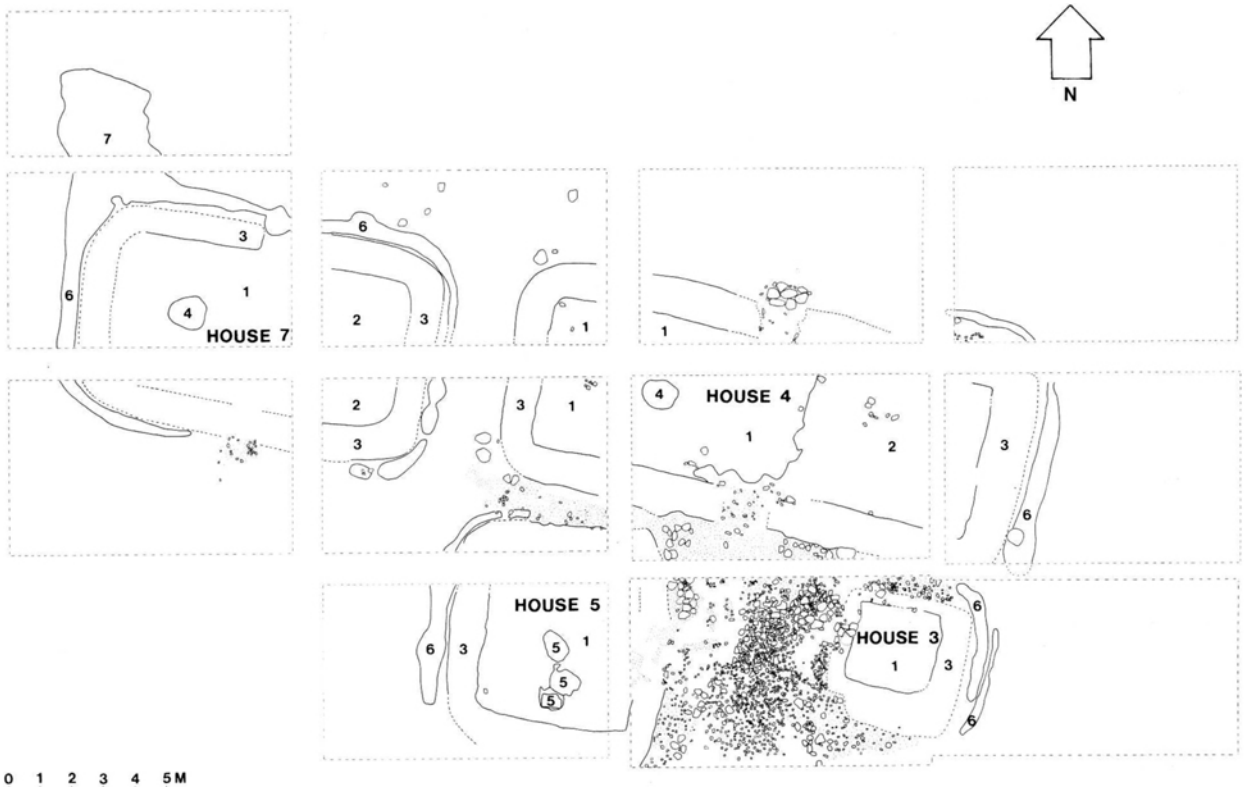


Fig. 6. General outline of house 7 and farmstead consisting of houses 3, 4, and 5 (J.-H. Bech del.). 1: Clay floor. 2: Earth floor. 3: Turf Wall. 4: Clay hearth over a stone bed. 5: Red-burnt patch on the floor (fireplace without a stone bed). 6: Drainage channel. 7: Pit for collecting rainwater.

apparent. If this explanation is correct, these houses will be the oldest on the site. As 5 houses were found in both house group B and house group C, it is likely that a fairly uniform development involved both groups. Each also contains 3 Pre-Roman Iron Age houses, and both groups were probably established at the same time. Group A comprised no fewer than 7 houses, 4 of which must be assigned to the Pre-Roman period, with the oldest, house 25, somewhat displaced in relation to the others. On the basis of fig. 4, a synchronization has been attempted of the houses in groups A, B and C, so that houses 21, 14 and 20 are considered coeval. House 14 rested, as mentioned above, on the ancient topsoil, slightly downslope to the west, while both house 21 and house 20 covered a thin culture layer from the Pre-Roman Iron Age period IIIa. This synchronization means that house 25, and houses 3, 4, 5 and 7, are considered to be the oldest within the investigated part of the village. The oldest houses of the Early Roman Iron Age in the three groups are reckoned to be houses 17, 10 and 23, with house 2 in close stratigraphical association. Stratigraphical observations also suggest that houses 10 and 23 were contemporaneous.

Based on this concatenation of houses from the beginning of the Early Roman period, a contour plan of the terrain at the time may be drawn from the many profile sections (fig. 5,2). If this situation is compared to that obtaining when the village was established (fig. 5,1), the result of the accumulation of culture layers through the Pre-Roman Iron Age is readily apparent. thus apart from illustrating how a village mound is formed, the contour plans and sections A–B through the mound show that a very dissimilar accumulation of culture layers occurred, so that after a mere century of occupation, the terrain was much more uneven than previously. This is naturally a consequence of the localization of the houses in particular areas of the settlement, whereby they gradually came to lie on small eminences comprising culture layers. This circumstance has undoubtedly contributed to a fixation of the exist-

ing pattern, since the lower-lying parts of the site must have been less attractive, when a new house was to be erected.

While the Pre-Roman Iron Age and Early Roman Iron Age are well represented in the find material, we are on more uncertain ground with respect to the later structures. Thus only 2 houses may be dated to the Late Roman Iron Age or Early Germanic Iron Age (houses 1 and 27). They were both found at the eastern edge of the investigated area and were poorly preserved, owing to their lying just under the modern surface. Their dating is based among other things on the presence of a piece of a rotary quern in the entrance paving of house 1. Fragments of a pot with horizontal perforated lugs on the shoulder likewise derive from the eastern edge of the site and are possibly synchronous with house 27. The pot should probably be dated to the Early Germanic Iron Age (Jensen 1978, p. 109).

With reservations in the scanty find material, which must be placed after the 2nd century AD, it would seem most likely that the site was continuously occupied up into the Early Germanic Iron Age, and that cultivation over the years has destroyed the most recent layers within the central parts of the settlement.

In addition to relative chronological and stratigraphical information on the various houses, fig. 4 also shows the length of each house. We see here how it may vary considerably from house to house within the individual sequence. This is most obvious in house group C, where the short house 11 is replaced by the somewhat longer house 23, which again is replaced by the short house 18. Development in group B is smoother, the relatively short Pre-Roman houses being replaced by two long-houses proper in the Early Roman period. In group A, house 25 is replaced by the shorter house 21; whether development from this point on followed that of group B can unfortunately not be fully established, since determination of house length in the later sequences is somewhat uncertain.

Thus we can state that in general there is no clear common developmental trend in the individual house groups. Perhaps several of the smaller houses in groups B and C, should not be considered independent economic entities, but were used in conjunction with houses which should be sought outside the excavated area. This topic will be further discussed below, in connection with a more detailed description of the houses.

THE HELTBORG HOUSES

The Iron Age houses at Heltborg are all of the traditional north-west Jutland type with turf walls, which was the only one known from the Pre-Roman Iron Age period III and the Early Roman Iron Age in Thy. In the following, we shall examine some of the most informative houses more closely, and start with the first certain farmstead structure demonstrated so far in village mound context.

This structure consists of houses 3, 4 and 5 and is part of the oldest Iron Age settlement on the site. To the north, oriented WNW-ESE, is long-house 4, while the two smaller houses, 3 and 5, are located immediately south of this on either side of a yard surfaced with stone and gravel (fig. 6).

House 4

House 4 had an inside length of 14 m and a width of 4 1/2–4 3/4 m, and formed two parts, with a clay floor in the western half and an earth floor in the eastern. The entrances were placed in the centre of the long sides, only the northern one being furnished with a small pavement consisting of 7 large stones flush with the outside of the c. 1.1 m thick turf wall. Like the southern entrance, the actual opening through the wall was surfaced with an irregular layer of small stones and gravel. The fireplace, which had a clay hearth over a stone bed, was found mid-way between the entrances and the west wall. In the west end, an irregular thin covering of clay was found along parts of the southern wall and in the south-western corner – undoubtedly remains of collapsed clay daub, which could with varying definition be observed along the walls in the dwelling part, locally still standing to a height of 3–6 cm above the floor surface. There were, – in common with all the Heltborg houses with clay rendering – no traces of wood or wattle in connection with this daub.

Both at the level of the house floor itself and at subsoil level, a number of post-holes were observed. Most of them can be assigned to house 4, although a few of the subsoil holes, in particular those in the north-western part of the house, may derive from the Early Bronze Age settlement. It seems that house 4 had five pairs of inner posts to support the roof, placed at a distance of 1 m from the long sides. At the east end there was, as in the other long-houses, no clear demar-

cation of stalls, but a couple of oblong marks must be connected with sub-division of the byre.

Outside house 4 was a 0.5 m wide channel, which had been dug to a depth of 0.5 m into the clay subsoil, and which had surrounded the east end of the house. Similar ditches, which were observed in a number of the Heltborg houses, have not previously been recorded in Thy and must be seen as small drainage channels to hold rainwater and roof-drip. This is most apparent in the ditches which surround the over 9 m long house 7, where the water has been collected in a larger pit north-west of the house (fig. 6).

House 3

The two smaller houses of the farmstead, houses 3 and 5, were, as mentioned above, placed immediately south of house 4 on either side of the farmyard. The smaller of these is house 3, which measured only 2.7 × 2.7 m. It had two phases with greatly worn clay floors directly superimposed. In both phases the house had the same dimensions, with only a small displacement. From the yard, there was in both phases access to the house via a small cobbled passage through the turf wall. The house was not furnished with a fireplace. Two posts in the wall line just inside the entrance supported the roof, with a further two near the rear wall. It was not possible to define the outer edge of the turf walls with certainty at the time of excavation, but judging from the course of the stone and gravel surfacing outside the house, the wall must have varied somewhat in thickness, being widest to the south and east. Corresponding to the two house phases, two small drainage channels were found opposite the east gable.

House 3 is definitely the smallest building at Heltborg and apparently the smallest among the Early Iron Age houses so far investigated in Thy.

House 5

On the other side of the yard was house 5, which with its inside dimensions of 5 × 5 m belongs to the same category of small houses as house 3. From the yard, a gravelled 1 m wide entrance led into the house in the middle of the east side. Just inside the entrance, the clay floor had been locally worn away: elsewhere patches and unevenness were seen in the c. 2 cm thick clay floor. No certain traces of clay rendering were observed in either house 3 or house 5.

On the clay floor of house 5 no fewer than three fireplaces were found, one no doubt replacing the other over the years. All were without a stone bed and lay in a row following the north-south oriented mid-line of the house. The most distinct and regular fireplace lay a mere 0.5 m from the south wall, and appeared as a rectangular, strongly red-burnt clay surface of about 60 × 40 cm, surrounded by an irregular border of red-grey, fire-marked clay. The clay under this fireplace was only 2–3 cm thicker than the surrounding floor. The two other fireplaces in house 5 consisted merely of red-burnt parts of the clay floor itself, with the more northerly placed just opposite the entrance.

Like the other short houses at Heltborg, house 5 had only four posts to support the roof, one at each corner, 0.5–1 m from the inner wall line. The holes in connection with the western posts were unusually large, and there is as yet no explanation for the fact that the clay floor could be followed down into the partially filled holes, so that it here lay 25–30 cm below floor level.

The turf wall around house 5 was mostly well defined, with a width of 90–115 cm. Just outside the west wall, a 50–90 cm wide ditch was observed, which continued with a smaller width around the north-west corner of the house. As the difference of over 50 cm in the level of the bottom of the ditch shows, rainwater could be collected in the broad, southern part of the channel.

Fig. 7. House 2 excavated to floor level. On the left is the cobbled porch and entrance paving. Viewed from the west (phot. J.-H. Bech).

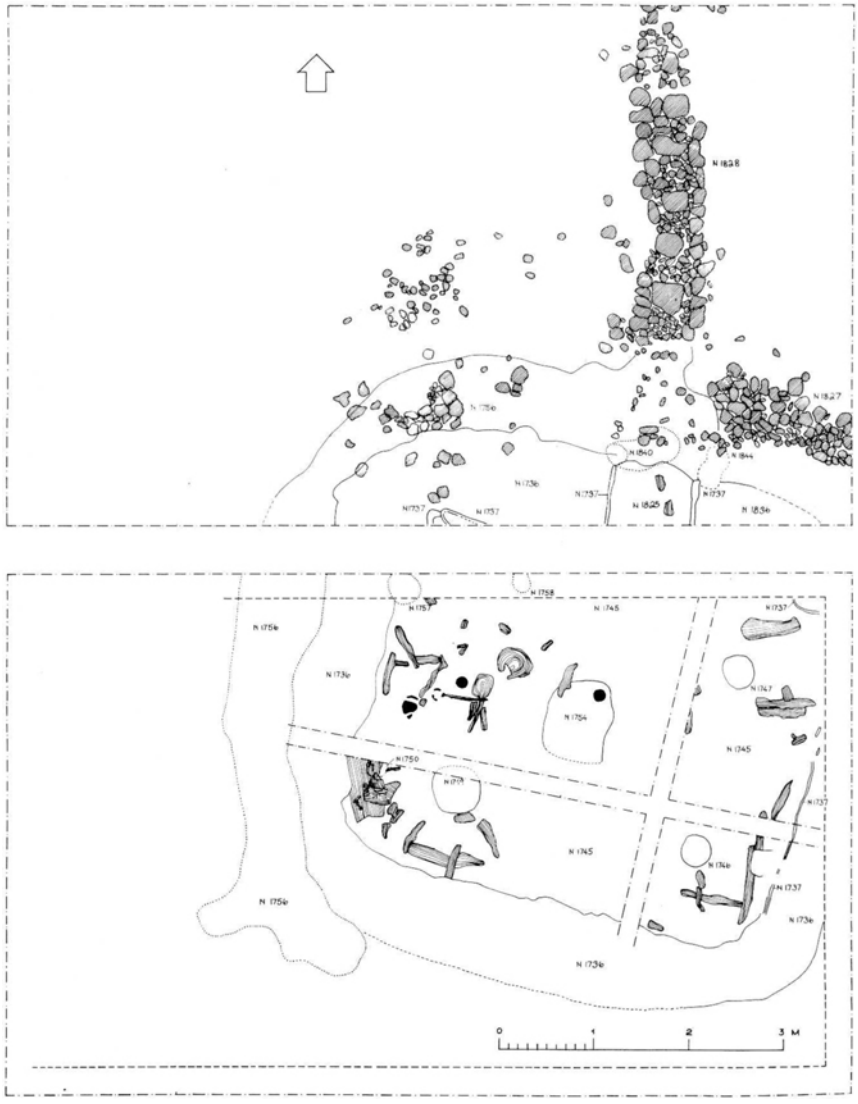


Fig. 8. House 14 (S. Klingenberg, L. Stange *del.*).

The close connection between the long-house and the smaller houses strongly suggests that they served for work, for storing implements and perhaps for storing food, like the small houses at Hodde, south-western Jutland (Hvass 1982a: 132) and the annex houses at Overbygaard, Vendsyssel (Lund 1976: 135ff).

House 2

Other small houses at Heltborg, too, support the view that these houses were not independent economic units. This is most clearly apparent from house 2, which by means of a paving was linked to the north to the 9.4 m long house 23, which presumably had a byre, since it is furnished with an earthen floor at the eastern end. House 2, on the other hand, was 5.2 m long and 2.9 m wide, and thus clearly belongs to the category of small houses. In the western half of the house was a regular up to 10 cm thick clay floor with a very uneven surface and numerous depressions. The clay floor was at the eastern end of the house preserved only in fragments – in some places it was missing entirely, in others smaller patches were seen, especially along the walls, which were clay-rendered. The well-paved porch (fig. 7) formed by the passage through the turf wall had likewise been rendered with clay.

On the best preserved part of the clay floor, the remains of two fireplaces were found, both consisting of

red-burnt patches on the floor without a stone bed or strengthening of the floor. A stone-lined roasting-pit filled with fire-fractured stones lay immediately up to the more westerly fireplace.

House 14

The best-preserved house at Heltborg is undoubtedly house 14, the only one to have been razed by fire. The inside dimensions were 4.8 × 3.75 m. Access was from an entrance in the centre of the north side, whence a cobbled path led north into a part of the settlement which has not been investigated (fig. 8). The clay floor in the house was covered by small pieces of charred wood and collapsed clay rendering which was locally preserved intact to a height of 40 cm above floor level. As was also the case with house 2, the daub continued out into the porch which led through the turf wall to the outer door. Judging from the amount present, the wall must have been rendered to at least 1 m from the floor. On house 14's clay floor, which shaded from brownish-yellow to yellow, were several yellow patches, no doubt caused by the conflagration, but in the middle of the house was an area of about 70 × 90 cm with a more reddish, distinctly hard-fired surface, which must be the fireplace itself, although no stone bed was present. Apart from a very small amount of burnt corn and three small pots, there was nothing on the floor of house 14 which in itself could clarify the function of the structure, but like the other small houses, it seems most likely that it was used for work or storage. A complementary long-house must presumably be sought within the unexcavated area to the north, as suggested by the direction of the path outside house 14.

Houses 11 and 18

If the interpretation of the short houses is correct, house 11 and house 18 must also have been part of a larger unit. They were both found in the northern part of the excavated area within house group C.

House 11 measured 3.9 × 3 m and had a compacted clay floor and entrance in the centre of the northern long side (fig. 9). Like house 14, this placement of the entrance would suggest a connection with the area immediately north of the investigated part of the site.

In the centre of house 11, two red-burnt patches on

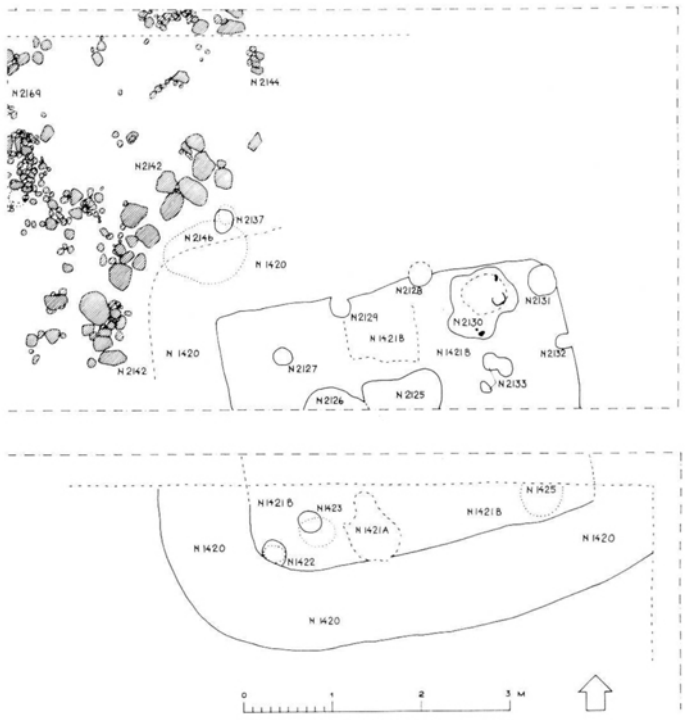
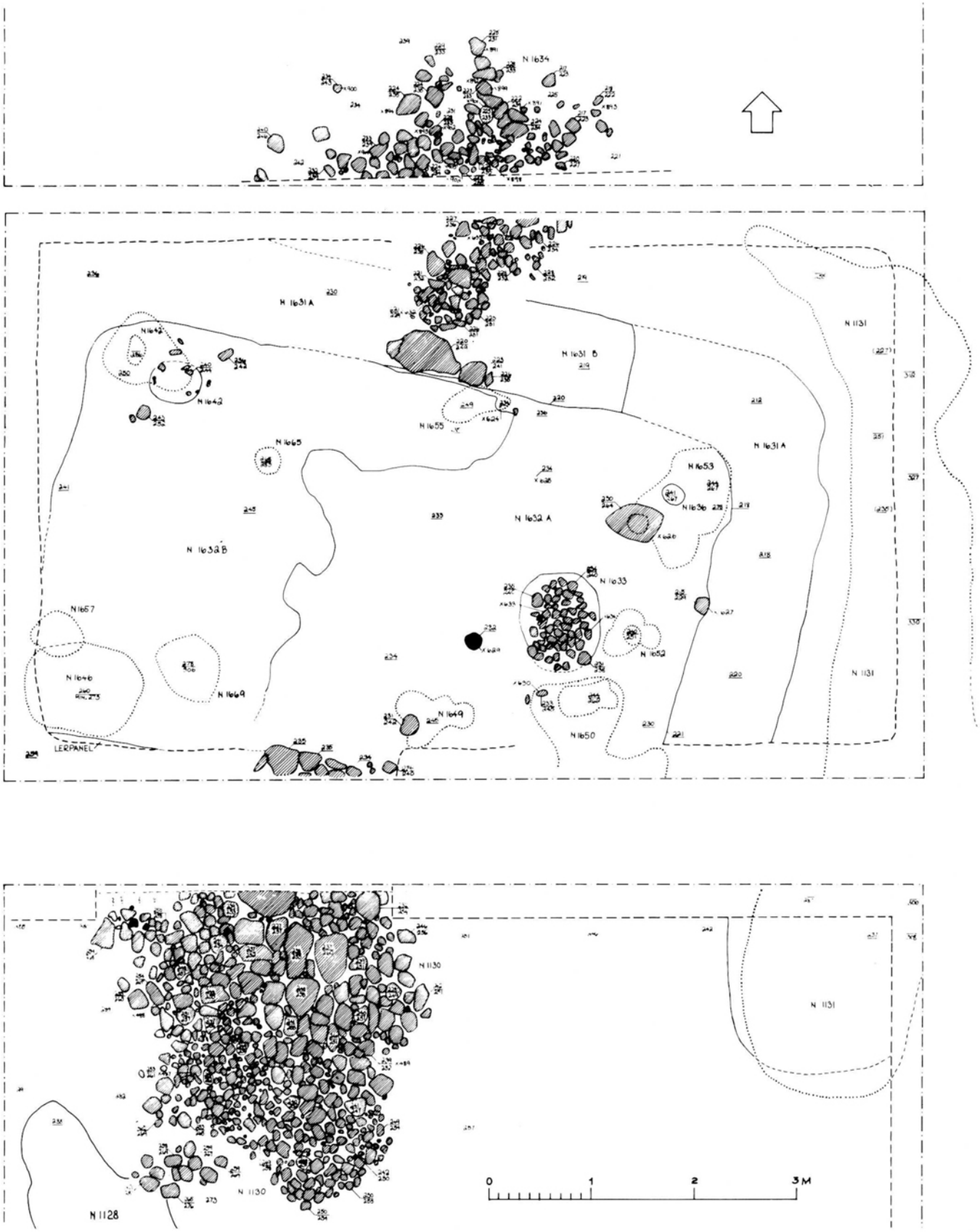


Fig. 9. House 11 (M. Mikkelsen, H. Vandkilde, L. Stange *del.*).

the floor showed that the fireplaces in this house, too, were of the simple type. The partially investigated and poorly preserved house 18, which with its E-W length of 3.2 m clearly belongs to the same group as the other small houses, differed in having a fireplace with a stone bed.

In conclusion to the above, we can conclude that at Heltborg it is definitely possible to point to a group of houses which did not function as independent economic units. This will naturally affect the evaluation of other Thy village mounds (and settlement mounds in general), i.a. Vestervig, where all the buildings, even the small short ones, were regarded as dwellings (Andersen and Voss 1963: 11; Vebæk 1971: 959, and 1976: 60). Important criteria for separating these ancillary houses will, apart from the length, which in the examples described from Heltborg does not exceed 5 m, be that the house have a complete clay floor, be furnished with only one entrance, and have a fireplace without stone bedding or underlying clay foundation. That a few houses such as house 18 have stone-bedded fireplaces naturally does not exclude the possibility that they can have served in the same way as the other small structures.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In the following, a number of houses from Heltborg occupying a place mid-way between the short houses and long-houses will be examined: houses 8, 12, 13 and 21, varying in length from 5.8 to 8.4 m.

Houses 12 and 13

House 12 had inside dimensions of 5.8 × 4.8 m with an entrance in the southern long side, and was in the western part furnished with a clay floor and fireplace with clay hearth and stone bed. But at the eastern end of the house, which was somewhat lower, there was only an earthen floor with small patches of clay.

We encounter the same sub-division in the slightly longer house 13, which had inside measurements of 6.5 × 4 m and, unlike house 12 and the even shorter houses, was furnished with an entrance with associated paving in the centre of each side (fig. 10). The east end of the house had a clay floor and fireplace with clay lining and stone bedding, placed mid-way between the entrances and the east gable. In the north-eastern corner of the houses was the mortar stone, still in place set into the clay floor. Immediately south of this, two depressions were seen in the clay, separated by an elevation. These depressions exactly fit a pair of knees and are undoubtedly due to wear on the floor in connection with the use of the mortar. A largish stone 17 × 11 × 15 cm, with fashioned, strongly worn end, may well have served as a pestle, but it would have needed two hands.

The floor layer at the west end of the house appeared as a heterogeneous, mainly dark brown layer with a high content of charcoal, a few patches of red-burnt clay and patches of yellow-brown clay. The boundary between this earthen floor and the clay floor was irregular and sinuous. Seen in relation to the entrances, it is clear, however, that the earthen floor maintain a single course to the northern entrance, while the southern doorway opens onto a regular clay floor. This difference between the entrances is also manifest in the paving outside the entrances where the southern is a setting of large stones, while the northern is more irregular. On this basis, it is tempting to speak of a front and back door to house 13, despite the absence of any signs inside of a physical separation between the two parts of the house. A similar disposition of clay and earth floors

Fig. 10. House 13 (A.L. Haack Olsen, M. Mikkelsen, S. Klingenberg, L. Stange *del.*).

Fig. 11. House 8 (H. Mikkelsen, J. Dencker, L. Stange *del.*).

with a different relation to entrances has been previously observed by Gudmund Hatt in Østerbølle house A (Hatt 1938: 169) and may, although less distinctly, also be observed in Heltborg house 4.

Corresponding to earlier observations, there was outside the 1 m thick turf wall of the east end of house 13 a nearly 1 m deep ditch, which, judging by its size, must first have served as a source of clay for the house, before being slightly expanded and used for drainage.

With a length of 6.5 m, house 13 still falls within the group of houses which in respect of size have close parallels in a number of small houses at Hodde (Hvass 1975: 147). In contrast to these and the already described short houses from Heltborg, there is no doubt that house 13 functioned independently. In support of this conclusion, there is also the circumstance that the main entrance opened onto an area which at the time was devoid of houses which could be reasonably associated with house 13.

Whether or not the west end of the house served as a small byre cannot be established on the basis of the

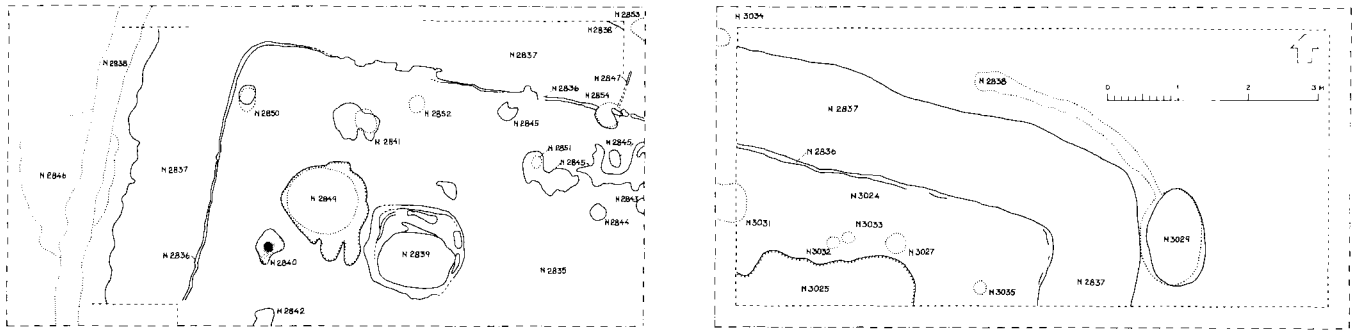

Fig. 12. House 25 (J. Dencker, H. Vandkilde, L. Stange *del.*).

available material, but considering the smooth transition from houses like house 13 to regular long-houses, the possibility cannot be rejcted. How the slightly smaller house 12 should be interpreted is more uncertain, but since its entrance opens to the south onto an area which, as with house 13, was at the time devoid of buildings which could be linked to it, it should presumably also be regarded as an independent unit.

House 8

As mentioned above, the fireplace in house 13 was placed at the east end of the house, close to the wall. A similar placement is encountered in houses 21 and 8, which are also dated to period IIIa.

The east end of house 8 was partially destroyed by the above-mentioned sunken road, which had cut right through the culture layer (fig. 11). The entrance paving, which was on the southern long side of the house, and the fireplace were untouched, however, and if we assume that the entrance was placed in the middle of the south side, the house can hardly have been more than 7 m long. The fireplace must then have been placed a little more than 1 m from the east gable-end. It was furnished with a stone bed and a clay hearth decorated with a rectangular frame in the form of a groove. In the south-western part of the house, an irregular, c. 2 × 2 m area of the clay floor, which otherwise covered the whole house, was missing, perhaps owing to wear.

House 25

As an example of a somewhat longer house at Heltborg, we shall in the following take a closer look at house 25 (fig. 12), which is the oldest house in group A, and which with an inside length of 11.8 m clearly belongs to the same basic type as house 4 – the long-house in the farmstead already described.

House 25 lay in the southernmost part of the excavation area and could be only partially investigated. At the west end was a 4–6 cm thick clay floor, which was locally, especially opposite the entrance in the northern long side, worn away. Mid-way between the west wall and the entrance was the fireplace. In contrast to the usual situation in houses of this size, the oval clay hearth covered a layer of dark brown lumps resembling bog iron ore. Analysis of these lumps revealed that they were manganese concretions, which are formed under similar conditions to bog iron ore (7). These concretions were probably gathered from the nearby Visby river valley.

A bed of the same kind was also found in the earliest phase of the fireplace in the c. 14.5 m long house 20. At the Hurup village mound, similar observations were made in two fireplaces in houses 21 and 35, which based on pottery are dated to the Pre-Roman Iron Age period IIIa, entirely in accordance with houses 20 and 25 at Heltborg (Salewicz 1976: 66).

Likewise deviating from the usual construction of fireplaces, there was in long-houses 9 and 17 at Heltborg no stone bed, but instead a very thick layer of clay, which could absorb heat from the fire. In house 17, there was a pit containing clay under the fireplace.

In situ in the dwelling end of house 25 was a stone mortar. The position mid-way between the fireplace and the west wall accords closely with Gudmund Hatt's earlier observations in Early Iron Age houses at Ginnerup, Mariesminde, Østerbølle, and Nr. Fjand (Hatt 1935: 39, 1938: 171, 1957: 146 f, 1960: 75).

Since house 25 was erected on the merely 10–15 cm thick ancient topsoil, there was, as with house 4, a good possibility of observing any stall separations at the east

end of the house. As will also be apparent from the plan fig. 12, there were found apart from a more recent large disturbance only the post-holes for the roof supports and a few other scattered post-holes, but no stall separations. Against all common practice, the floor level was found to slope up to 40 cm from east to west, so that the dwelling end was lower than the rest of the house. In other long-houses, the problem of sloping terrain has been solved either by using an extra thick clay floor at the west end or by locating the dwelling at the east end of the house, as in house 20.

House 25 was oriented WNW-ESE, like the majority of the other houses, where orientation could be determined; only houses 1 and 6 deviated from the norm with a N-S orientation.

Based on the purely functional agreement between the short houses at Heltborg and the small houses at Hodde, we shall in conclusion of this section examine how great the similarities are between the houses of Thy and Hodde. Fig. 13A presents a histogram recording the lengths of all the Hodde houses (8). This may be compared with a corresponding diagram recording inside length for houses with turf walls at different localities in southern Thy: Heltborg, Ginnerup, Hurup, Vestervig, Mariesminde and Tåbel (fig. 13B) (9). By far the majority of the Thy houses are from the Pre-Roman Iron Age period III and Early Roman Iron Age. Although Hodde belongs to the first period, the differences between the two diagrams cannot be ascribed to a difference in chronology, because the house types in the whole of Jutland are the same both in the late Pre-Roman Age and the Early Roman Iron Age (Hvass 1982a: 132). Whereas the difference between the small houses and long-houses at Hodde is readily apparent, the picture from Thy is less distinct, with a whole series of houses falling mid-way between Hodde's two types in respect of dimensions. This intermediate group is represented at Heltborg by houses 8 and 21. As emphasized above, the merely 6.5 m long house 13 also belongs to this group, although its length accords with several of the small Hodde houses. But as we have seen, it differs in essence from these by having served as a dwelling. This intermediate group has in common that it consists of houses which must have been independent economic units, not based on cattle-keeping to any extent.

As far as the Thy houses of 10 m or more are concerned, they have probably had the same function as

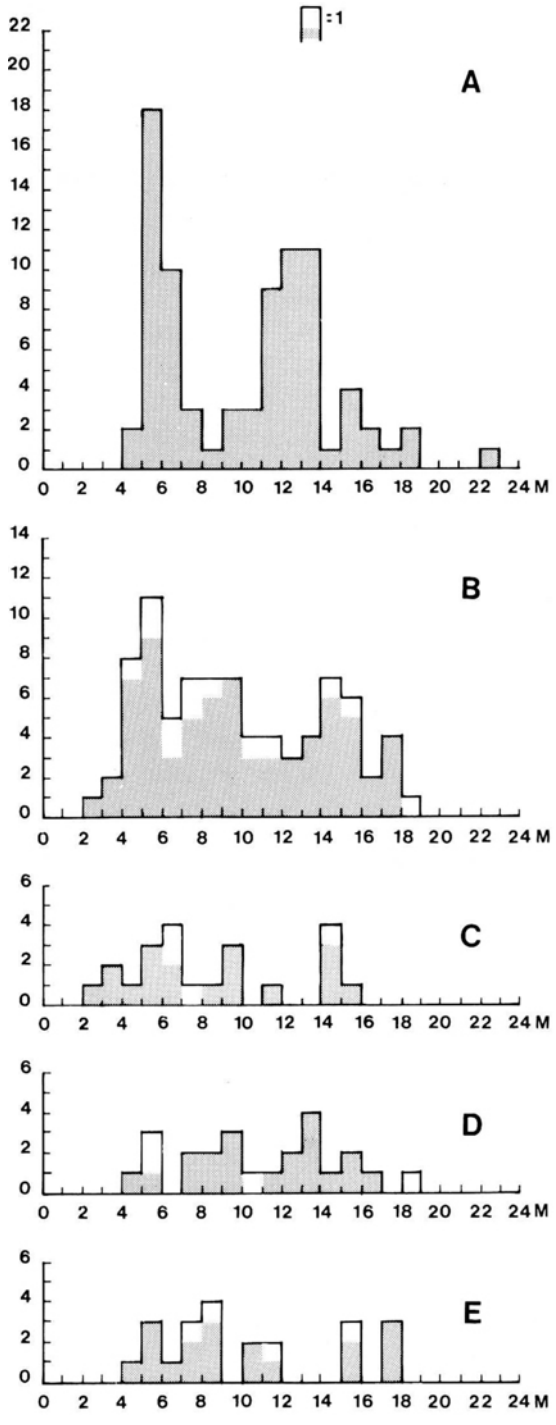

Fig. 13. Histogram to compare the inside length of houses. 1 = length somewhat uncertain, may be greater. A, Hodde. B, Thy (Ginnerup, Heltborg, Hurup, Vestervig, Mariesminde, and Tåbel). C, Heltborg. D, Hurup. E, Vestervig.

the Hodde long-houses. It must be emphasized, however, that as a detailed presentation of the houses from Vestervig and Hurup has yet to be undertaken, it cannot be established with certainty whether the absence of a fully typical byre arrangement with separate stalls in house 4 and other long-houses at Heltborg is a general Thy feature. If this be the case, possible differences in function of the long-houses should also be considered, since long-houses without demonstrated stall divisions at Hodde comprise only a small part of the total number of long-houses (Hvass 1975: Taf. I + II).

The differences we have been able to distinguish between the Hodde village and the Thy settlement mounds are hardly fortuitous and probably reflect differences in economic strategy. Whereas the Hodde villagers have been able to utilize adjacent meadows to keep cattle on a large scale, conditions in Thy have been different, as already pointed out by Stig Jensen and Steen Hvass (Jensen 1979: 29; Hvass 1982b: 191). Consindering the high population density in Thy (Jensen 1976, 1979) and the lack of meadows suitable for grazing, arable farming, based on the fertile clay soil, undoubtedly played a greater role there than in the more sandy tracts of south-west Jutland, and part of the explanation for the differences demonstrated in house size should undoubtedly be sought in different subsistence patterns.

SUBSISTENCE PATTERNS

Differentiation within Thy

Can similar differences in subsistence patterns be demonstrated between village mounds within the Thy area, as suggested by Stig Jensen (1976: 67 ff., abridged and revised 1979: 22 ff.)? The main argument supporting Jensen's theory is the distribution of house types: the mounds of south-west Thy – Vestervig, Mariesminde and Tåbel – show according to Jensen a predominance of short houses, while the picture in the eastern part of the area – Hurup and Ginnerup – is dominated by long-houses with byres. Harald Andersen and Olfert Voss suggested already at an early stage of excavation that the Vestervig village mound should primarily be considered a fishing village (1963: 11). Based on this interpretation, Stig Jensen feels able to differentiate between the different settlements of southern Thy, with fishing playing a major role in the western part of the area and agriculture characterizing the more easterly part, at Hurup and Ginnerup.

But this concept is based on the assumption that all houses are independent economic units, and as we have seen at Heltborg, this is not the case. As far as the dimensions of the houses are concerned, there do not seem to be significant differences between the individual settlements. As the histograms fig. 13C–E show, there are only minor differences between the lengths of the houses of Heltborg, Hurup and Vestervig, the average length of the Hurup houses being only slightly greater than that at Vestervig and Heltborg (10).

That fishing should have played an important role in the settlements of the western part of south Thy is not supported by the finds. Thus no net sinkers have been found at Vestervig, Mariesminde or Tåbel, as was the case at the Nr. Fjand settlement on the Nissum Fjord (Hatt 1957). Moreover, the Vestervig village mound is situated 2 km away from both Krik Vig and Ørum Sø, which are the nearest sizeable areas of water where fishing can reasonably be carried on. Fishing from Vestervig can hardly have been a significant element in the economy. We must therefore conclude that there does not at present seem to be any basis for talking of major economic differences between the different settlement mounds of Thy.

Settlement structure in the Heltborg-Ginnerup area

Although major variations in the basic subsistence pattern cannot be demonstrated, the Thy settlements of the late Pre-Roman Iron Age and Early Roman Iron Age nevertheless vary in size and complexity. It must first be remarked that not all settlements are immediately visible in the terrain, as are the mounds. Scattered between the mounds are localities with remains of brief settlement, where no or only a very thin culture layer is preserved (Jensen 1967: 69). The settlement mounds obviously represent a more enduring occupation, and vary both in respect of extent and of thickness of culture layer.

As an example of a typical settlement pattern, we shall in the following examine the area between Heltborg and Ginnerup more closely (fig. 1b). Reconnaissance of Iron Age settlements within this area is not yet complete, and reservations must be made with respect to future discoveries, but it is already clear how the area

has been marked by a very dense settlement in the centuries around the birth of Christ. Settlement mounds are found in a straight line following a N-S oriented range of hills, often in small groups, at a distance of 250–600 m between groups. On the basis of excavation results and the collection of stray pottery, it can be established with reasonable certainty that the settlement mounds represent coeval settlement, although minor chronological disparities in establishment and relinquishment occur. Between the mounds, there are also localities with traces of less permanent activity, where querns, pottery or actual house remains without a thick culture layer have been demonstrated.

In connection with the first presentation of the results from the Ginnerup excavations, Hans Kjær emphasized how the settlement layers within an area 400–500 m long and 100 m wide formed smaller, separate eminences (1928: 12). This feature has subsequently proved to be extremely common in Thy and is also found at two other localities within the area investigated – especially fig. 1b:C, but also fig. 1b:D. Most recently, Steen Hvass, with reference to Ginnerup, has remarked that these eminences have contained a single farmstead (1982: 191). Whether this explanation is valid for all localities with similar groups of settlement mounds depends to a great extent on factors such as the extent of the individual mounds and the thickness of their culture layers. As we have seen, the village mound at Heltborg may very schematically be regarded as a group of concentrated and coalescent small units, where the inner structure of the site is no longer visible in the terrain. In those cases where a division into separate eminences is visible today, it is, however, far from certain that each of these contains one farmstead: two or more farmsteads placed close together may gradually, during the life of the settlement have coalesced to the extent that they are now visible as a single mound.

This is undoubtedly the case with the locality fig. 1b:D, where two c. 150 m long and c. 75 m wide eminences with up to 1 m of culture layers together exhibited more than 25 ploughed-up house remains from the Early Roman Iron Age. A considerable part of these must have been in use at the same time, so more than two farmsteads were undoubtedly simultaneously extant. The smaller saliences at the locality fig. 1b:C, however, can easily each contain one or maximally two independent farmsteads. One of these settlement mounds has an extent of about 90 × 70 m and, in the centre, a culture layer at least 1.8 m thick.

In general, it may be stated that the mapped settlement mounds do not differ from the Heltborg village mound, despite the differences in their appearance in the terrain. It is true that Heltborg is larger with a more cohesive structure, but the fact that the smaller settlement mounds as a rule clump together presumably shows that they functioned as hamlets in the same way as Heltborg. This is definitely the case with fig. 1b:C, where the culture layer also links the individual mounds. The situation is more difficult to adjudge, when, as at Ginnerup (fig. 1b:E), there is a distance of over 100 m between the most westerly mound and its nearest counterpart to the east, and no continuous culture layer can be observed. Here it is a question of definition as to how the main elements in the settlement should be separated. The settlement mound fig. 1b:B does not present the same problem, since it may best be considered an independent entiny consisting of a small group of farmsteads or a single large farm.

In addition to demonstrating aspects of the settlement pattern of which the Heltborg village mound is a part, the above brief treatment may serve to illustrate the great possibilities found in Thy for a more detailed mapping and analyss of Iron Age settlement structure. With minor exceptions in recent years (Jensen 1976: 64 ff.), discussion of the Thy settlement mounds has previously concentrated on single localities; information on the individual houses, their construction and internal arrangement is important, but before the individual settlements are seen in wider context, the picture will not be complete, and in this respect much remains to be done.

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NOTES

1. When employing the term "village mounds", which is a rendering with modification of the Danish *byhøj*, one runs into a terminological problem, since the Iron Age settlement at several localities manifests itself as a whole complex of small eminences, which must together have formed a village (see p. 144 f.). I have confined the application of the term to a discrete eminence with the remains of a whole village: thus it cannot be applied without ambiguity either to a complex of small mounds or to the individual mounds making up such a complex, to both of which the general term "settlement

mounds" has been applied. *Settlement mound* is thus the general term and *village mound* more specific, to be employed only when more detailed study has revealed the nature of a settlement mound.

What figure should by way of definition be employed to distinguish between settlements of ordinary character and the settlement mounds in general is to a certain extent a matter of judgment, since we are dealing with a smooth transition. But a culture layer thickness of, for example, 60 cm would, somewhat dependent on terrain, normally be sufficient for the site to be visible as a slight salience.

2. Museet for Thy og Vester Hanherred, file no. 1690. NM *sb.* no. 105, Heltborg *sogn*, Refs *herred.*

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A preliminary report on the excavation results has been published in *Hikuin*, vol. 10 (Bech 1984, in press), from which the two first sections of the present article have been taken.

3. It has previously been stated that the investigated area comprised 1/3 of the total area of the mound (*Journal of Danish Archaeology*, vol. 2, p. 218); after the completion of bore probing, this figure has to be revised.
4. For houses 6 and 8 there are difficulties with a closer correlation with the other houses, and their placement in fig. 3 must therefore be trated with caution.
5. A brief description of the Heltborg pottery has been published in *Hikuin*, vol. 10 (Bech 1984).
6. A brief description and a plan of house 26 has been published in *Hikuin*, vol. 10 (Bech 1984).
7. Kindly identified by *lektor* Per Nørnberg, Aarhus Universitet.
8. For information on the length of the Hodde houses I have to thank Steen Hvass. Fig. 13A corresponds to fig. 74 in S. Hvass, *Hodde: Huse, gårde, landsbyer, samfund, økonomi og bebyggelsesstruktur i ældre jernalder* (in press).
9. For information on the length of the houses at Tåbel, Vestervig and Hurup, I have to thank J. Lund, C.L. Vebæk and K. Salewicz. With respect to Ginnerup and Mariesminde, the diagram fig. 13B is based on published material (Kjær 1928, 1930, Hatt 1935, 1936, 1960).
10. In the case of Mariesminde and Tåbel, the number of houses with information on length is too small to be included in this comparison (see further Bech 1984: note 5).

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