THE BRONZE AGE SETTLEMENT OF ZWOLLE-ITTERSUMERBROEK: SOME CRITICAL COMMENTS

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ABSTRACT: The author discusses the published results of the excavations of a Bronze and Early Iron Age settlement at Zwolle-Ittersumerbroek. He rejects many irregular structures proposed by the excavators as being based on arbitrary selection of post-holes. In contrast, he identifies some regular aisled long houses that have not been recognized. Two timber circles only become acceptable after some changes, making them to meet with Gerritsen's rule. In this form they are not identical, and they cannot be used as sun calendars in the proposed way.

KEYWORDS: Bronze Age, settlement, long houses, granaries, timber circles, Zwolle-Ittersumerbroek.

1. INTRODUCTION

In 1990 settlement traces of the Bronze Age and Early Iron Age were discovered in road cuttings at Ittersumerbroek, a new living quarter of the town of Zwolle. The major results of the ensuing excavations by the town archaeologist Clevis and his collaborators have been speedily reported on in an impressive series of well produced papers (Clevis & Verlinde, 1991; Groenewoudt, 1993; Verlinde, 1991; van Beek & Wevers, 1993; Groenewoudt & Wiemer, 1994; van Beek & Wever, 1994; Bakels, 1994; de Jong, 1994a, b). Up to date the plans and finds of eight settlement units and two outlying post-hole concentrations have been interpreted and published.

The traces are situated on the higher parts of a slightly undulating coversand plateau, which is overlain by clays and sands deposited by the near-by river IJssel. They consist of post-holes and other pits which show clearly in the light-coloured sand below a dark humous layer of 20-30 cm thickness. Uncharred organic materials are not preserved. Dating is based on potsherds, some bronzes and a few radiocarbon assays.

Since their discovery in 1960 at Elp in Drenthe (Waterbolk, 1961; 1964; 1986; 1987), Middle and Late Bronze Age aisled long houses have been recognized all over the country (Roymans & Fokkens, 1991). On the basis of such features as the position and form of the cattle stalls, the construction of the walls, the position of the entrances, the presence of parallel ditches outside the walls, one can distinguish some house types of limited geographical and chronological distribution such as the Elp and Emmerhout types in Drenthe (Waterbolk, 1987). Common to all is a length of 15-40 (or more) m, a width of 5-6.5 m, a prevailing distance of 2-3 m between the main roof support pairs, and the relative narrowness of the central aisle. House ends are often rounded. Wall posts, if present, often stand in line with the roof supports. Ridge supports occur frequently. Along with the houses we find heavily built square or rectangular granaries of 4, 6 or 9 posts, as well as less regularly built sheds (see also Harsema, 1992; 1993b). At Elp some evidence was found for cattle enclosures adjacent to the houses. Irregular groups of pits outside the houses are a common feature at most sites. Pits occur also within the houses, mostly in the side aisles.

On the basis of the published interpretation the Ittersumerbroek sites would considerably deviate from the standard pattern. Rectangular and square granaries of 4, 6 and 9 posts do occur, but regularly built symmetrical long houses would not seem to appear until the end phase of the habitation period in the Early Iron Age. Instead, we are presented with some unconvincing asymmetrical short house plans – some of which of oval shape – equally unconvincing triangular, pentangular, lozenge-shaped and trapezoidal granaries, and oval post configurations with rectangular extensions interpreted as sheep-folds. At one of the sites (unit 7) the Zwolle group has claimed to have found two identical circles with a diameter of 11 m, which, in combination with some additional posts would have served as sun calendars (de Jong & Wevers, 1994). These sun calendars have provoked large public interest but also well founded critical comments (Fokkens, 1994a; 1994b).

In this paper I shall try to explain why the excavators did not recognize normal long houses at Ittersumerbroek and to demonstrate their presence. I shall also comment on the circles.

2. THE EXCAVATIONS

From the published summary plan of excavated areas

Fig. 1. Zwolle-Ittersumerbroek. Summary plan of excavated trenches and settlement units. After van Beek & Wevers.

(van Beek & Wevers, 1994: p. 44; fig. 1) it appears that the excavations started in the road cuttings, which had a width of about 8 m. When these cuttings proved productive, adjacent areas were excavated, mostly of course at a later stage. Each settlement unit is thus composed of the results of a number of successive excavation trenches. For example, unit 4 comprises trenches 10 and 11, and unit 2 the trenches 1, 4 and 8. Such a procedure has a number of disadvantages. First, it is impossible to get an overview of the total area of a long house, at least when it is not exactly lying within the trench. Second, there will always be the problem of connecting the sub-plans. Even when there are no complications with the measuring system, there is twice the problem of the correct observation and interpretation of soil traces near the edges of the trenches. Third, it often cannot be avoided that there remain narrow unexcavated zones between the road cutting and the adjacent excavation trenches.

As at Elp, the settlement traces are concentrated on the elevations of the coversand plateau, where natural drainage is optimal. Such areas were repeatedly occupied. Each occupation may have lasted for one generation only. In the intervening periods the site was used as cultivated field and grazing ground. During such periods all traces of the former occupation disappeared. This repeated habitation of preferred areas resulted in a great density of post-holes and other pits. In combination with the limited size of the trenches and the absence of a preferred house direction in this period, this circumstance complicates the sorting out of the individual house plans. If the sorting is done in the field it is possible to verify intersections of post-holes, to look for seemingly absent posts in or under earlier or

later pits, to compare details of the fill, form and sections of the holes, to check whether all post-holes have indeed been registered and to extend the excavation at critical places. If the sorting is mainly done on the drawing table after the excavations, the result will of necessity be much less satisfactory.

From the published photographs of the excavation it further appears that in some trenches the drawings were made at a relatively high level. The final result would have been clearer if additional drawings had been made at a deeper level. In the published reports there is no indication that sections through the holes have been systematically drawn and used in the interpretation. For maximum information the sections should be related to the orientation of the structure. From that point of view, too, it is important to recognize as many structures in the field as possible.

Finally, a word must be said on the size of the excavation trenches outside the road cuttings. From the published plans it appears that they were rather small and in many cases one cannot be sure that the structures do not extend beyond the limits of the trenches.

Of course I realize that a new town quarter under development is in many ways not an ideal context for archaeological research. The archaeologist depends on the sequence of the developing and building activities and can do little to change them. He has to cope with all sorts of restrictions as to the depth and lay-out of the trenches. His work stands under strong time pressure and has to be done, often with limited financial resources, under unfavourable weather conditions, with unexperienced personnel and machine drivers not used to the special requirements of archaeology. It is obvious that under such circumstances an optimal registration of soil traces is not possible. However, what I do hold against the excavators is that they neither in the field, nor at the drawing table have been more perseverant in searching for aligned post pairs, and that they have insufficiently realized that for grouping post-holes to structures objective criteria, such as symmetrical lay-out, equal size, equal distance, equal depth, comparability with structures from elsewhere, etcetera, must be applied. It is the arbitrary nature of their post selections which Fokkens has rightly criticized.

3. REINTERPRETATION OF UNITS 4 AND 7

To illustrate the above, I shall give here a tentative reinterpretation of parts of the adjacent units 4 (trenches 12 and 10) and 7 (only trench 16). The excavators' interpretation of unit 4 (Clevis & Verlinde, 1991) is reproduced here as figure 2. Figures 3 and 4 give my interpretation. Of the structures suggested by the excavators I only accept the heavy square four-post setting in the northern part of the trench and a small rectangular setting of four posts in the southern part. In my view the plan suggests the presence of at least three long houses. A fourth, in the NE corner of the trench, may find its continuation in trench 16. The best of the houses, oriented NNE-SSW, parallel to the granaries, has a length of at least 24 m and a width of 5.5 m. The triangular and lozenge-shaped granaries suggested by the excavators all have 'given' posts to the long houses and must be rejected. The 'sheep-fold', too, has given posts to the houses. In any case, it lacks the symmetry which would make it acceptable.

Of unit 7, trench 16, figure 5 gives the interpretation of the excavators (van Beek & Wevers, 1994): an irregular oval four-aisled building, two timber circles, a number of irregular four- and six-post granaries, a small oval post-setting, some arbitrary two-post settings, and drawn lines that would indicate the calendar function of the circles (see also fig. 10).

My tentative interpretation (figs 6-9) is quite different. The main element (fig. 6) is an aisled long house with a length of 26 m and a width of 6 m, oriented NNW-SSE, that may have been elongated – in the way described by Kooi (1991) for the site of Dalen – by at least 6 more m. West of its northern end the house is accompanied by a heavy six-post granary, of which the post-holes show characteristic signs of repair. A small four-post granary is situated somewhat further to the south.

In addition, the trench may contain the remains of three more long houses (figs 7-8). One is situated directly east of the house plan described. The situation is complicated by the fact that side-aisles of both houses would seem to overlap. Such overlaps occur also at the site of Angelsloo-Emmerhout (Kooi, in prep.). Unfortunately the other side aisle of the house lies close to the edge of the trench, and partly outside it. Here, a widening of the trench had been imperative. This house, too, would seem to be accompanied by a six-post granary, equally with clear signs of repair.

Four remaining heavy posts in the northwestern corner of the trench can be combined with some other posts further to the west and suggest an EW oriented house. Finally there is a line of posts in the northwestern corner of the trench, which seems to continue in trench 10.

The houses and granaries so defined have used up many posts of the oval four-aisled house, suggested by the excavators. Its lack of symmetry and its unusual great width made it beforehand already doubtful. It must be rejected.

My exercise has left the circles (figs 5 and 10) largely intact. On figure 10 the circle posts are numbered. Of the northern circle I only had to use the large post-hole 13. Of the southern circle I used the post-holes 14 and (half of) 7. In addition posts 2 and 7 of the northern circle were used for the granaries. Having so got more confidence in the circles than I had when starting this analysis, I tried to apply Gerritsen's rule (van der Veen & Lanting, 1991) to the circle posts (fig. 9). This had been done by the excavators, too, but they failed to have success, probably because they were preoccupied with

Fig. 2. Settlement unit 4, as interpreted by Verlinde, in Clevis & Verlinde, 1991.

Fig. 3. Settlement unit 4, as tentatively interpreted by the author. Long house and two granaries.

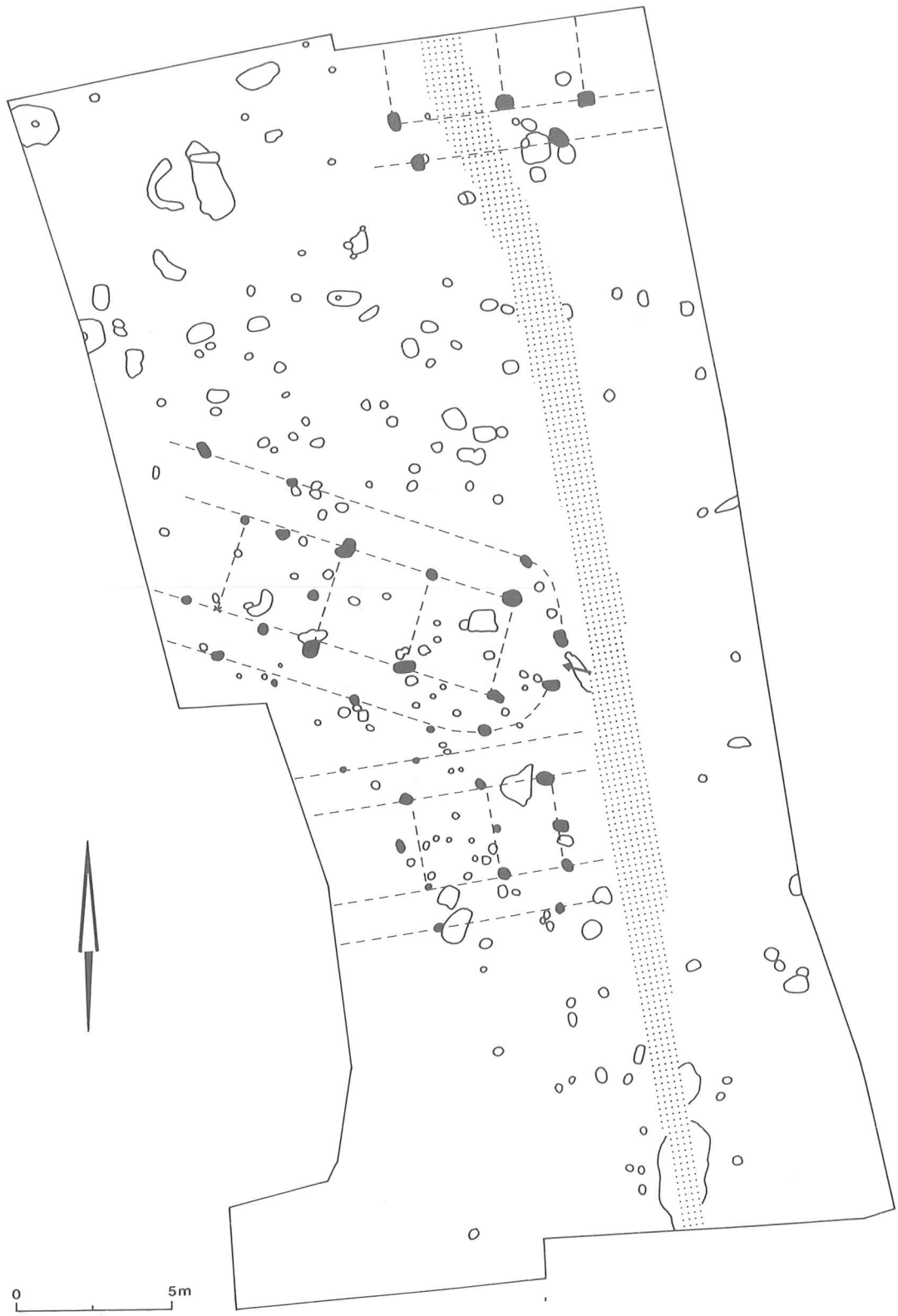

Fig. 4. Settlement unit 4, as tentatively interpreted by the author. Fragments of three further long houses.

the supposed congruence of the post configurations. Anyway, much to my surprise I had success after some minor changes in the selection of the holes.

In the northern circle the Gerritsen centre is found by drawing lines between the posts 1 and 9, 3 and 10, and 4 and 11. Having done this, post 12 finds its counterpart in a treefall, post 13 in a large granary pit east of post 6. The two remaining posts are easily found by connecting an oval post-hole between the post-holes 7 and 8 with a large hole directly west of post 14. In the southern circle one finds the centre by drawing lines between the posts 6 and 13, and 7 (western part) and 14. Posts 4 and 5 find their counterparts in posts near posts 11 and 12; post 8 in a large hole SE of post 1. Nos 2 and 3 must have their counterparts in the unexcavated area outside the trench and in a large pit, respectively. The northern circle has 12 posts, the southern 14. They are not congruent.

Interestingly, with the newly chosen posts, most circle posts are now of medium size. Of the northern circle only the small posts 10 and 11 remain, of the southern circle 2, 7 and 14. It would be interesting to compare the depths of these posts with those of the other circle posts. Another observation is that the distance between the posts along the circle is now less variable than in the original circles: 2.5-3.4 m in the southern circle, 1.8-2.5 m in the southern circle. Such differences are not uncommon with timber circles around barrows. The timber circle of Hijken, tumulus 5, for example (van Giffen, 1938), diameter 10.2 m, has 12 posts at distances of 1.4 to 2.5 m. Another point of agreement with the barrow timber circles is that the mathematical centre of the circles does not coincide with the Gerritsen centre.

As such, the timber circles of Ittersumerbroek might therefore well indicate the presence of barrows. At Elp and Angelsloo-Emmerhout one finds barrows and contemporary settlements at one site. Earlier reclamations may have levelled barrows, and many timber circles have been found under the medieval cultivated fields ('essen') in Drenthe. But here the former barrow can mostly still be recognized by the difference in colour of the subsoil, and by the presence of deep tangential graves. Both phenomena are lacking at Ittersumerbroek. Some circle holes precede Bronze Age pits, others follow them. For that reason, too, it is hard to assume a barrow within the circles. The Ittersumerbroek circles may have had a temporary ritual function of some other kind. The far-fetched calendar interpretation of the circles, as suggested by de Jong and Wevers, cannot be applied to the new circles with their different centres and post composition.

Harsema (1993a) has drawn attention to the interconnection of two Balloo barrows along an EW axis, suggesting there, too, an interpretation of the timber circles as sun calendars. There is no such a connection of the circles at Ittersumerbroek.

Hopefully more of these circles will be found and recognized in the field, so that the sub-soil can be studied, exact measurements can be taken and radial sections of the post-holes can be studied. For the time being, it seems wise to refrain from spectacular interpretations as sun calendars. It is certainly premature to make 1:1 reconstructions as has been done in the archaeological park 'Archeon' (Geraerdts, 1994).

4. THE OTHER UNITS

I shall refrain from a detailed analysis of the other settlement units and only make a few comments. North of the described units 4 and 7 the units 8 and 3, separated from each other only by an unexcavated road cutting, form another settlement complex. Here, too, fragments of many three-aisled houses can be identified. The house recognized by the excavators in unit 3 (Clevis & Verlinde, 1991, pp. 40-43) can be much improved upon by choosing for its northern wall another line of posts. It is only in unit 3 that one finds convincing evidence for the existence of three-post granaries: they show the repair signs typical for the four- and six-post granaries, and are situated in the same zone as the granaries. The house plan recognized by the excavators in unit 8 (van Beek & Wevers, 1994: pp. 60-63) with its large distance between the upright pairs probably dates from the Early Iron Age. Some of the Bronze Age houses in this unit are of the Late Bronze Age Elp type. This type might be expected here, for it does not only occur in Drenthe, but also at Deventer.

East of units 4 and 7 and forming part of the same complex we find units 5 and 2 (Clevis & van Beek, 1991: pp. 54-55 and 28-31). Here, too, many fragments of long houses appear to be present if one looks for aligned post pairs. In unit 5 they would replace the doubtful oval house and sheep-fold of the excavators. The atypical house identified by the excavators in unit 2 seems to consist of posts of two successive normal long houses. The sheep-fold in the southern part of this unit shows a symmetrical build-up. Unfortunately it has not been excavated completely. The irregular oval house in unit 5, too, must be rejected. There seem to be at least two long houses in this unit, but the size of the trenches is too small to be sure.

Further to the south we find unit 1 (Clevis & Verlinde, 1991: pp. 56-57), with a good Early Iron Age house, recognized by the excavators, and unit 6 (Verlinde, 1993: pp. 41-42). This latter unit contains the remains of three Early Iron Age houses, recognized by the excavators, and at least five Bronze Age houses, two of which follow each other at the same spot. I reject the two oval houses in the southern part of the unit and would considerably change the selection of posts in the houses I accept.

East of unit 2 there are an isolated six-post granary in trench 9 and an isolated long house accompanied by a four-post and a six-post granary in trench 2 (Clevis & Verlinde, 1991: pp. 64-65).

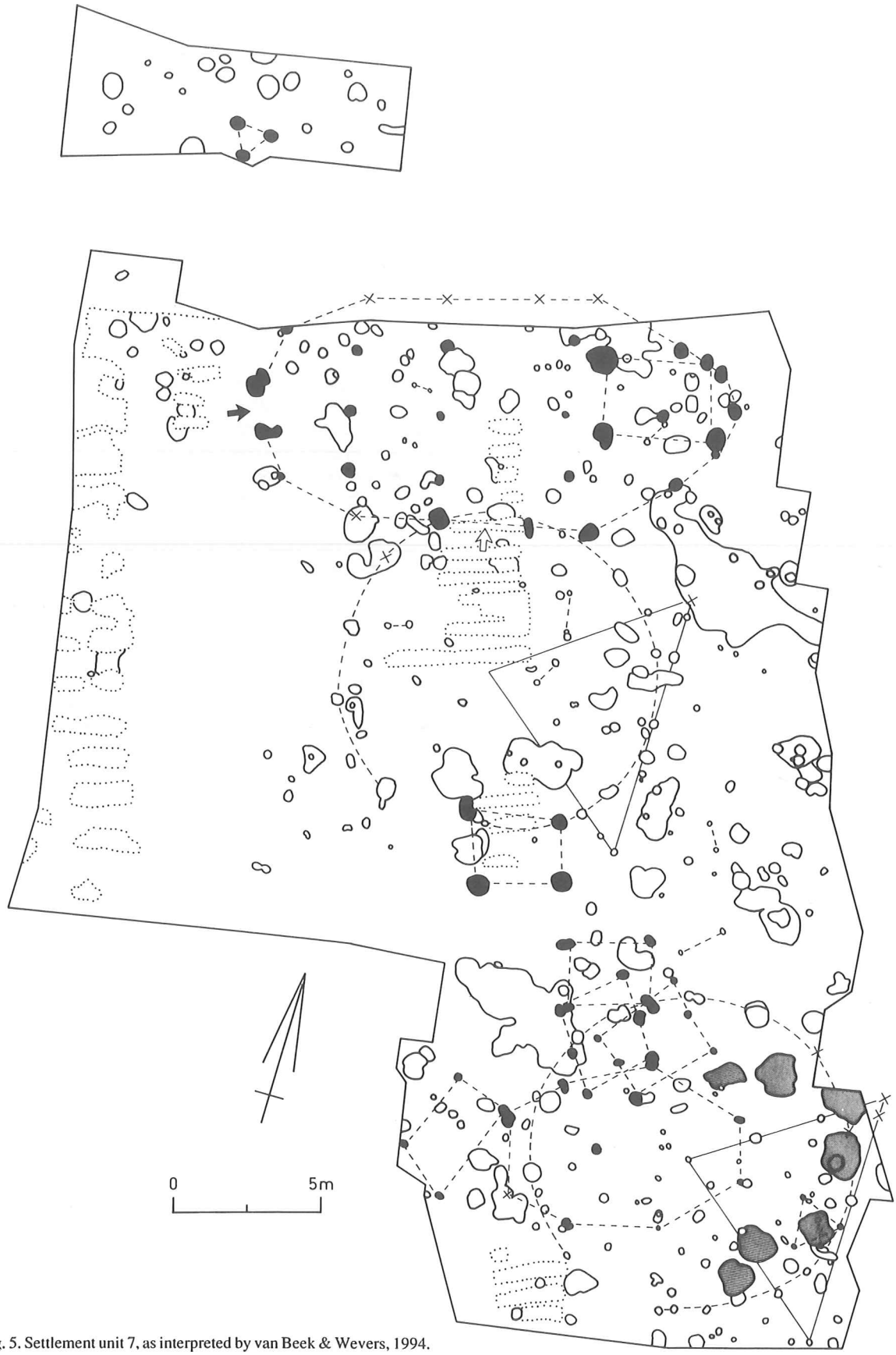

Fig. 5. Settlement unit 7, as interpreted by van Beek & Wevers, 1994.

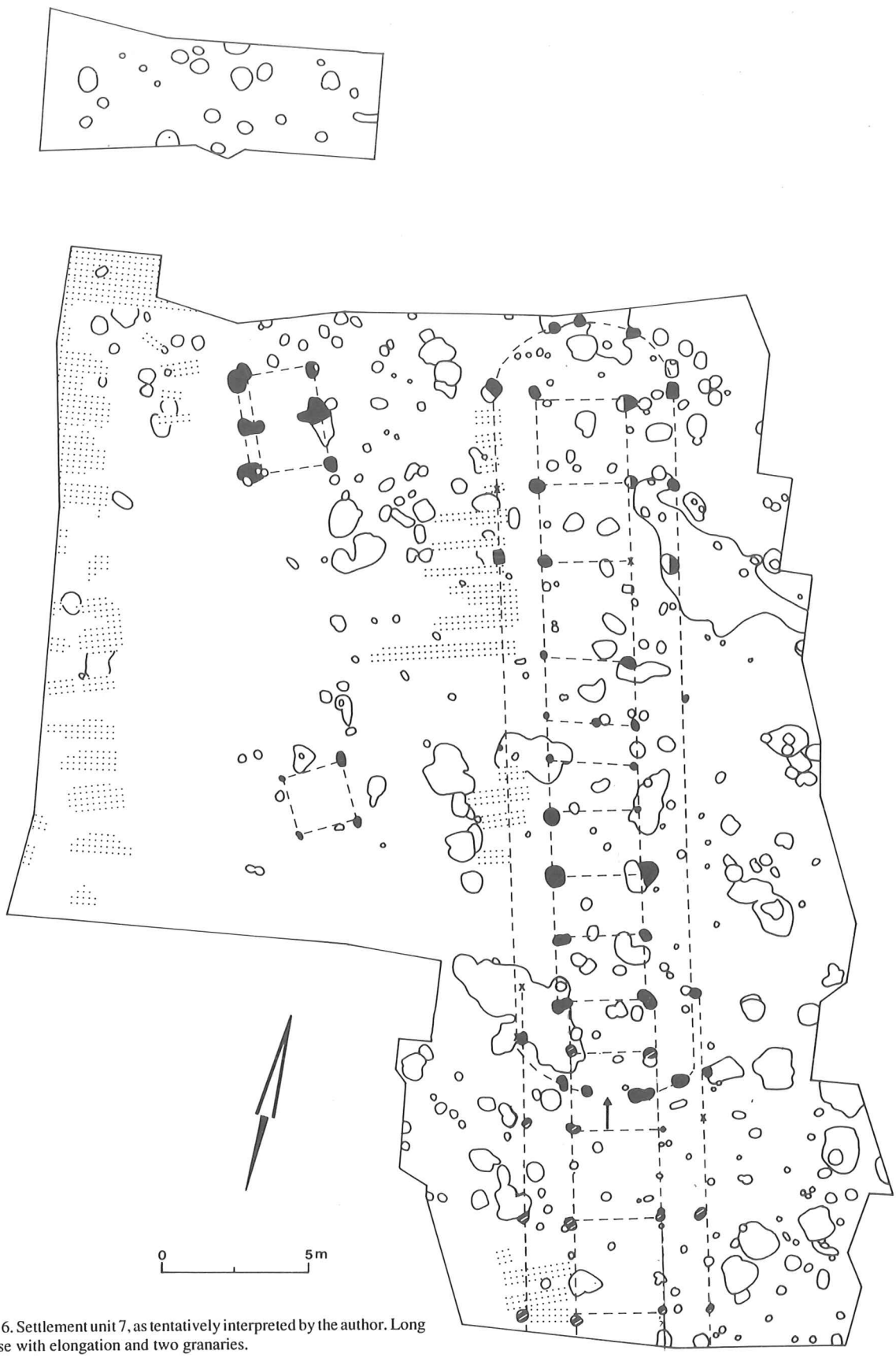

Fig. 6. Settlement unit 7, as tentatively interpreted by the author. Long house with elongation and two granaries.

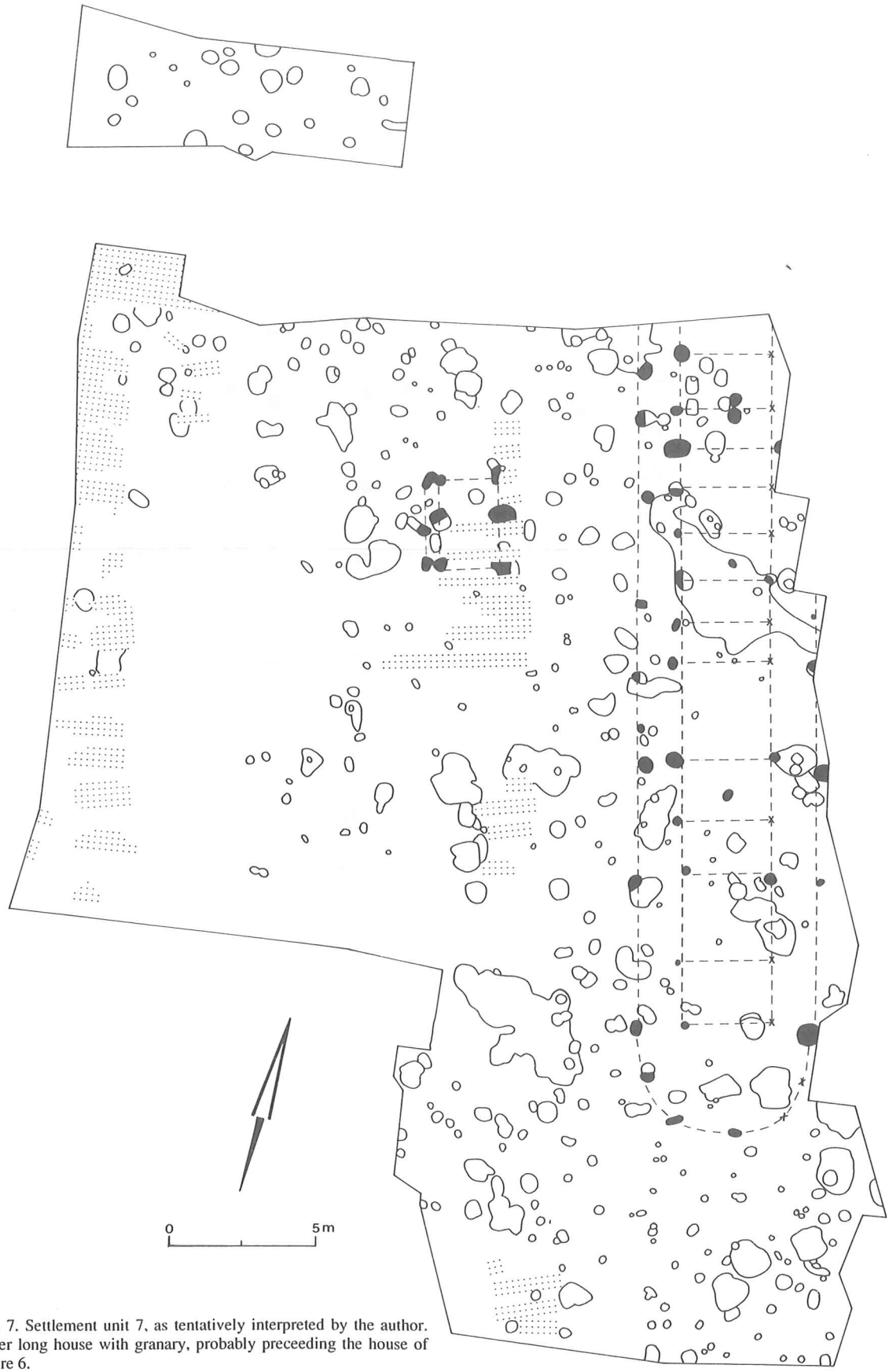

Fig. 7. Settlement unit 7, as tentatively interpreted by the author. Other long house with granary, probably preceeding the house of figure 6.

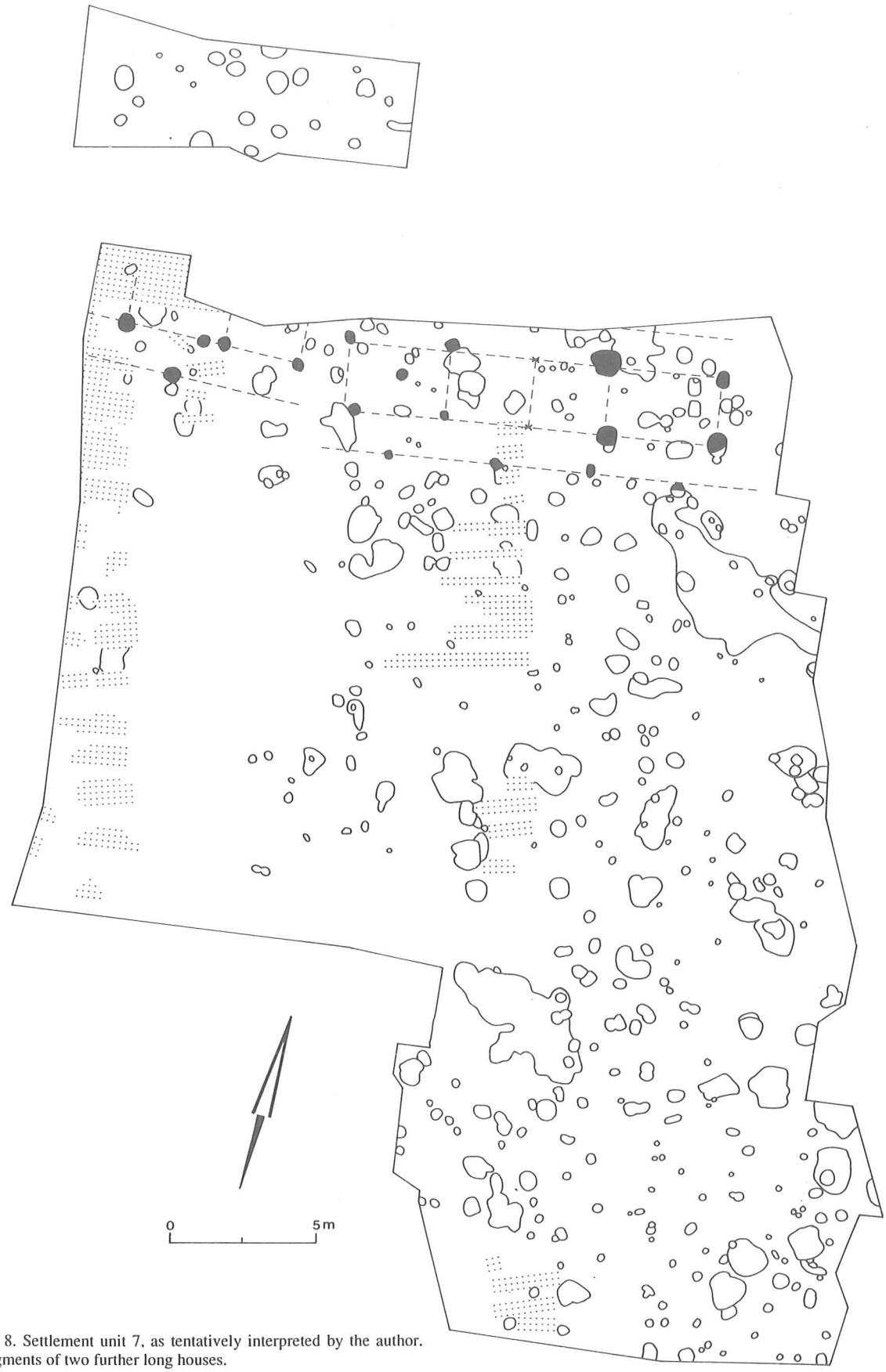

Fig. 8. Settlement unit 7, as tentatively interpreted by the author. Fragments of two further long houses.

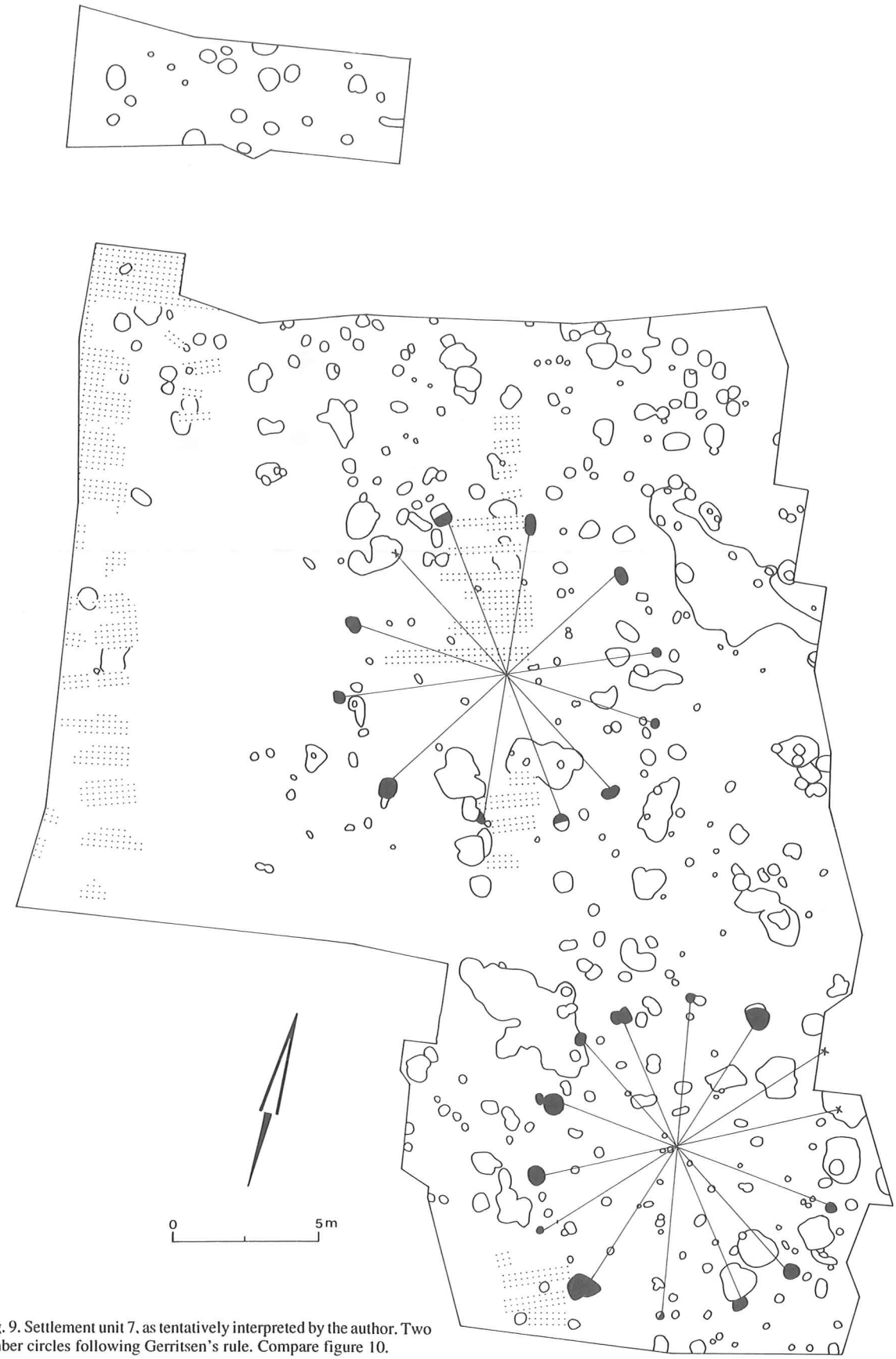

Fig. 9. Settlement unit 7, as tentatively interpreted by the author. Two timber circles following Gerritsen's rule. Compare figure 10.

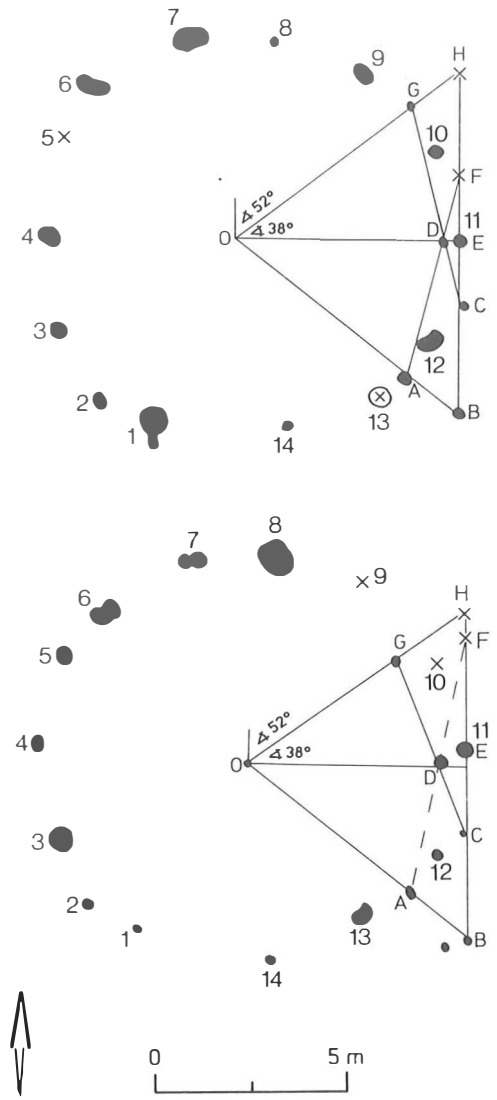

Fig. 10. The timber circles in settlement unit 7 as interpreted by de Jong & Wevers, 1994. Compare figure 9.

5. ONCE MORE ELP

In a recent paper one of the Zwolle archaeologists (van Beek, 1991) has added to my interpretation of the Elp site (Waterbolk, 1964; 1987) some structures of the same nature as would occur at Ittersumerbroek: three oval sheep-folds with entrance passage, a cattle kraal with repairs at one end, and a granary.

Of the suggested structure in the northern part of the site, five posts at fairly regular distance from each other form a curved line. They may indeed have formed part of a fence of some kind and for example be interpreted as an alternative end of the main cattle enclosure in this part of the site. There are more such post series at the site, for example near structure *r*. Some of the four other posts of the structure are of different nature and there is no objective reason at all to connect them with the other ones. The suggested entrance passage is purely hypothetical. The structure as such must be rejected.

In the southern part of the site I did of course recognize the irregular structure (*h* on my plan) but did not call it a granary, as it lacked the regularity of the other six-post granaries at the site. It is not a new feature as suggested by van Beek.

As to the cattle kraal S. of houses 6 and 7, I have emphasized in my plan two post alignments, which showed a mutual distance of the posts comparable to the main enclosure in the northern part of the site. The continuation suggested by van Beek is based on an arbitrary selection out of the available post-holes, and the way he has suggested three alternative ends can only be characterized as pure fantasy. All objective criteria for grouping the posts as he has done, are lacking. The same holds good for the two oval structures with entrance passage.

Van Beek comments on the difference in interpretation of house 8 in my 1964 and 1987 papers. The reason is that the narrow rectangle of four posts – an unusual form for a granary – in front of the 1964 house, can better be interpreted as a double set of two posts in the house axe, such as have since Elp been found at the excavations of Angelsloo and Emmerhout. This leads to an elongation of the house in southerly direction and to a reinterpretation of those posts that had originally been interpreted as part of the fence E of house 8.

I remain of the opinion that reinterpretation in the light of new evidence must always be possible. Unfortunately most of the Ittersumerbroek interpretations cannot be considered to be new evidence. For me the only new structures these excavations have produced are the heavy three-post-settings and the barrowless timber circles.

Harsema (1993a) has suggested that the very long house No. 5 of Elp should be seen as a combination of two houses. He has published a plan of the eastern part. In fact there are a number of possibilities:

1. The house was originally built in its present length of 40 m;

2. One house was built later than the other and came by accident to lie on the same line as the first;

3. One of the houses was elongated in the same way as has been demonstrated by Kooi (1991) at Dalen.

I still prefer the first alternative for a number of reasons:

a. There are no positive indications for the alternatives 2) and 3) in the form of convincing house ends as was the case at Dalen;

b. The eastern house part differs from all other Elp houses by the small distance of the upright pairs;

c. The eastern house part must be a relatively late phenomenon at the site since it neglects the flat grave cemetery, yet it is not of the Late Bronze Age Elp type;

d. All houses lie on the top of the low coversand ridge. In the case of alternative 2) both houses would

have an unusual slope location;

e. The slight bend in the house on the top of the ridge does in fact occur in the eastern house part;

f. Wall posts occur at regular distances over the whole house length without any interruption or change in distance;

g. In his post grouping Harsema does not use a post-hole dug into one of the flat graves; instead he uses a post of what seems to be a good six-post granary.

Unfortunately, large disturbances at the critical zone, bad weather conditions during the excavation of this part (continuous drought) and erosion of the top of the ridge – see the post-hole sections – will always leave room for some doubt.

Finally a word should be said on house 6. Huijts (1992) has drawn attention to the fact that this house with its central cattle stalls should not be reckoned to the Elp type, but rather to the Emmerhout type. In fact, it is an intermediate form between both types; the general lay-out and form of the plan are of the Emmerhout type, but the form of the cattle stalls is that of the Elp type. Clear counterparts have not been found so far.

6. FINAL CONSIDERATIONS

That the excavators have failed to recognize most of the long houses at Ittersumerbroek appears to be caused by a combination of circumstances: the small size of the excavation trenches, the density of the post-hole and pit concentrations at most sites, the locally too high level of registration of soil traces, the insufficient effort spent in searching for aligned post pairs, and too much confidence put in drawing table interpretation. Of the few house plans the excavators did recognize most can be improved upon by a different selection of post-holes, making the plans more symmetrical.

In contrast, the excavators have distinguished a number of structures unknown at other sites. To me, only some of the three-post granaries are convincing: they are situated in the same zone as the normal four-, six- and nine-post granaries, and show the same repair signs. But the sheep-folds, the lozenge-shaped and other irregular post-settings interpreted as granaries, not to speak of the two-post combinations, are not based on objective criteria for the grouping of post-holes, such as equal form, fill, section, size and equal distances, but on arbitrary selection. The resulting structures lack the regularity, symmetry and standardization which would make them convincing.

The controversial timber circles only become acceptable after considerable changes, making them to meet with Gerritsen's rule and to show more uniformity in the diameter and distance of the posts. The new circles are not congruent and they cannot be used as sun calendars in the way suggested by de Jong and Wevers.

The Ittersumerbroek site is of special interest, since it combines house plans from the Bronze Age with house plans from the Early Iron Age, without any intrusion or admixture of structures from later periods. Since there are pottery finds from the Early Bronze Age, some plans might even date from that period, which so far is not yet convincingly represented in our country by good house plans. Unfortunately, the plans so far identified at Ittersumerbroek lack the necessary precision to compare them in detail with the plans found elsewhere.

As in Drenthe, we must assume that at any given moment only a very small number of houses coexisted, perhaps two or three in the whole area. We may visualize a Celtic field in an early stage of development, perhaps still without permanent boundaries between the fields. Many of the posts found may have been elements of fences which either served to bring cattle together in a kraal, or to protect the cultivated fields on former house sites against roaming domestic animals and game. Some isolated granaries, like the one in trench 9, may well have been field sheds. Such isolated granaries occur also in the Celtic fields of Drenthe, for example at Peeloo and Hijken.

In short, Ittersumerbroek presents wonderful possibilities for research. I only hope that the Zwolle team will turn away from far-fetched interpretations as sun calendars, oval four-aisled houses, lozenge-shaped and trapezoidal granaries and direct their attention to the search for the more conventional settlement and ritual structures, their precise registration and typology, their dating and relative sequence and the analysis of the settlement patterns that eventually may emerge.

7. ACKNOWLEDGEMENT

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