MEDIEVAL FARMSTEADS IN GASSELTE (PROVINCE OF DRENTHE)

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1. INTRODUCTION

The extensive excavations of settlements in Drenthe in Elp and Angelslo-Emmerhout (Bronze Age), Hijken and Noord Barge (i.a. Pre-Roman Iron Age), Wijster (the Roman period) and Odoorn (the Merovingian and Carolingian periods) form a series that spans almost completely the time from the 13th century B.C. until the 9th century A.D. (Van der Waals & Butler, 1973-75; Harsema, 1974a, 1976; Van Es, 1967; Waterbolk, 1973a). Assuming that each of these settlements is more or less representative for its period – just as the present-day, at least the 19th century villages of Drenthe show a great degree of uniformity over the whole region in terms of situation, structure, farmhouse type and type of agricultural occupation carried out - from the results of the excavations it is possible to study the various problems of development of house forms, of settlement structure, of food economy and of continuity of occupation.

Until recently this series lacked an excavation that could form a link with the historical villages, such as those that we come across in the oldest written records, dating from the 11th century. In Odoorn we did in fact see a continuity, in boundaries of plots of land, between the excavated Carolingian village and the cultivated fields (es) that later developed at the same spot – a continuity that is also apparent in the recently excavated Migration period settlement of Peelo – and we did find there a village structure that is strikingly similar to that of a large number of 19th century villages, but the contrasts were in many respects still exceptionally great. This was especially the case with house forms. As for the typical Drenthe variety of the three-aisled hall-house there is no trace of this whatsoever in Odoorn.

The excavations in Gasselte in 1975 and 1976 have brought us a step further. The row of 10 farmsteads, dating from the 9th-12th century A.D., that has been established so far borders immediately on the present-day village. The farmhouses with their outbuildings were renewed at least three times, yet remained within the same initially delimited areas. Subsequently the whole area of habitation was abandoned and taken over as arable land. As "Galgeakkers" (literally: "gallow fields") this area thus forms a block, that with its



Fig. 1. The situation of Gasselte shown on a map of the Netherlands.

parallel, long, narrow plots differs in no way from the blocks of fields like those that occur especially on the periphery of the *essen* in Drenthe. These blocks give the impression of being younger than those blocks with short and relatively wide plots, which occur especially in the more central parts of the *essen* and which we presume date from pre-Carolingian times when there was no question of *plaggenbemesting*, i.e. the use of dung mixed with sods for fertilizing the soil.

The aim of this publication is to give a provisional description of the excavation results and to inclicate the perspectives opened up by this research for the study of the origin and growth of the villages of Drenthe.

We shall see that the period of economic growth and population expansion that N.W. Europe experienced in the 9th-10th century is reflected in the excavated settlement. Furthermore it will be evident that the development of farmhouse-forms that has been established makes it possible to con-

firm what is in fact an already existing hypothesis concerning the origin of the Drenthe farmhouse. Finally it is shown that the farmhouses excavated have many points in common, as regards method of construction, with the approximately contemporaneous wooden buildings that have been found in the area during excavations of churches as forerunners of the later stone buildings.

Various questions remain open however. These could be answered partly by supplementary excavations. Such excavations would make it clear whether the settlement was even larger during the period under study, and where the presumed preceding phases were localized. Hypotheses concerning

these points will be suggested in the following section. We do not want to wait until further excavations are carried out however, but prefer to publish now a representative part of the excavations of 1975 and 1976. We therefore give here some examples of the types of buildings established, and

Fig. 2. The territory of Gasselte with adjacent village territories. The features shown include the *essen*, the most important centres of occupation (hatched), the most important roads (dotted lines), the valley of the Hunze with tributaries (densely stippled) and the region of raised bog (sparsely stippled). Based on the topographical map 1:50,000 of 1860. Scale 1:100,000.

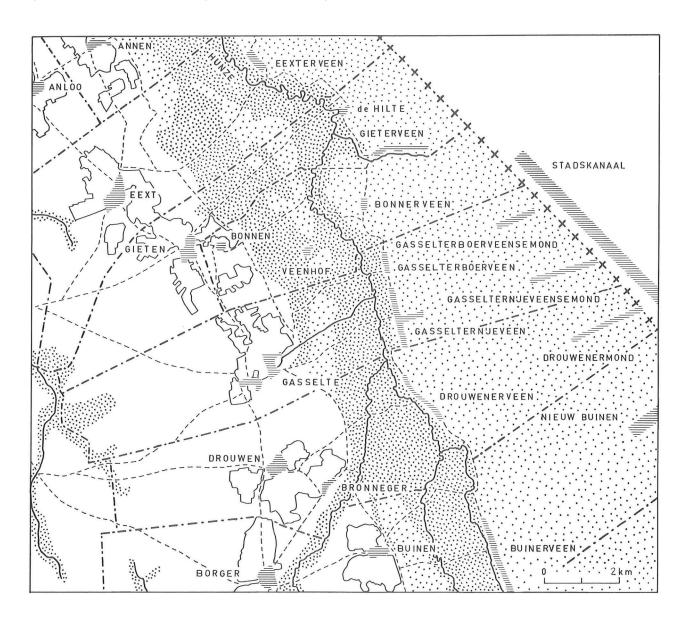




Fig. 3. The cadastral situation of 1813, with the "Lutkenende" (in the S.W.) and the "Grotenende". The most easterly building but one in the "Lutkenende" to the north of the village

road is the church. The excavation area is situated W. of the Rolde and Grollo-Drouwen roads. Scale c. 1:14,000.

finally a schematic survey of the development of that part of the settlement that has been excavated, as we think we are able to ascertain on the basis of the available data.

At present we will refrain from making any systematic comparison of the types of buildings found with other types elsewhere in the Netherlands or in bordering parts of other countries. Some parallels will be mentioned however within the more restricted region of the sandy areas of the Northern Netherlands.

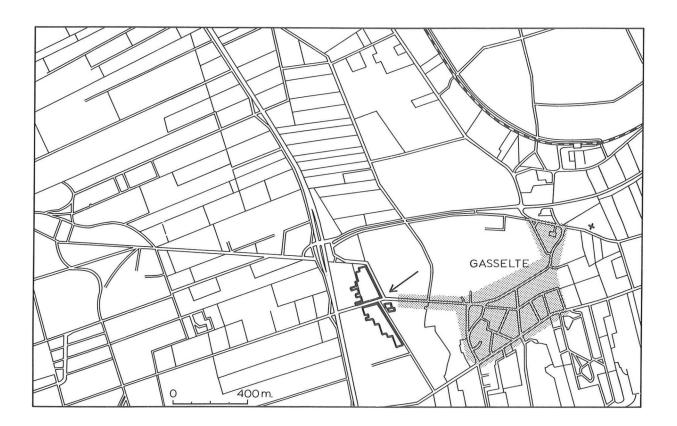
We are grateful to Messrs. A. Meijer and J. H. Zwier, and also to Mr. K. Klaassens, who directed the fieldwork and recorded the data, often under inclement weather conditions. The *Cultumrtechnische Dienst* contributed a considerable amount of financial aid towards subsidizing the excavation within the framework of the "Gasselte" field re-allotment scheme (*rnilverkaveling*). The state archivist in Drenthe, Dr. J. Heringa, provided some historical data. For their cooperation thanks are also due to the local Commission for the re-allotment scheme (under the chairmanship of Mr. J. Middelbrink) and to the persons farming the land, Messrs. F. G.

Adams, J. Komdeur and G. van der Schoot of Gasselte. Mr. H. Praamstra worked out the ground plans of the excavation and assisted with the interpretation of the traces of buildings found. The photos were made by Messrs F. W. E. Colly, A. Meijer and O. H. Harsema. The translation is by S. van Gelder-Ottway.

2. THE SITUATION

In the long row of villages that lie along the Hondsrug of Groningen and Drenthe, Gasselte (fig. 1, 2) is situated about halfway. Gasselte has certain features in common with the nearby villages in this series, Eext and Gieten – with Bonnen – to the north and Drouwen to the south, inasfar as the village area stretches from west to east over a large part of the flat, often boggy Drenthe plateau, over a

Fig. 4. The present-day topographical situation of the excavation area. Also indicated is the findspot investigated in 1972. Scale 1:20,000.



somewhat higher, undulating area (the actual Hondsrug) including the village and the essen, over an abrupt transition to the wide valley of the Hunze, with its meadows and pastures, over a medieval village established for peat reclamation on the east side of the Hunze on the sandy ridge running parallel to it, and over part of the extensive Groningen-Drenthe raised bog area, as far as the Stadskanaal, that was dug and colonized in recent centuries. The entire area forms a strip, at most only 3 km wide, running WSW-ENE, which is c. 14 km long from the upper reaches of the Drentse A river to the Stadskanaal. Leaving aside the former region of peat-bog to the east of the Hunze (with the present-day villages of Gasselterboerveen, Gasselternijeveen, Gasselterboerveensemond and Gasselternijeveensemond) there remains for the village of Gasselte itself (and any prehistoric forerunners it may have had) an area of c. 20 km².

Elsewhere we have proposed that many of the present-day village areas originated as early as the La Tène period and that also the villages themselves were established at that time (Waterbolk, 1979). There are, however, hardly any archeological finds that could illustrate this general picture with respect to Gasselte itself. From early unlocalized finds the presence of a Migration period cemetery can be deduced.

At the beginning of the 19th century the village of Gasselte (fig. 3) consisted of two clearly separated parts: the "Lutkenende" (literally: the end with the small farms) to the south of the es and the 'Grotenende' (literally: the end with the large farms) to the east of the es. An uncultivated strip 300 m long separated the two parts, which have since merged (fig. 4). The meaning of the names becomes clear when we see that on the cadastral map the farmsteads in the "Grotenende" are in general larger than those in the "Lutkenende". The structure of the two parts of the village is different. In the "Grotenende" most of the farmsteads lie between two more or less parallel roads, which are connected by transverse lanes. In the "Lutkenende" on the other hand we see a rudimentary block structure with roads, that go on into the es (that here in fact shows an atypical structure on account of later changes). While the "Lutkenende" is directly comparable with many other old village centres, there is a great similarity between the

"Grotenende" and parts of villages such as Eursinge (= Overessinge) near Havelte, Westenes near Emmen, and Westeinde near Dwingelo, which all to some extent have the character of short ribbon villages, and as appears from their name and situation must be younger than the villages to which they belong. The provisional conclusion that the "Lutkenende" is the oldest part of the village is confirmed by the situation of the Nederlands Hervormde (Dutch Reformed) church, on the eastern margin of the "Lutkenende". The marginal situation of the church is characteristic of almost all old villages. Examples include Vries, Zuidlaren, Norg, Rolde, Emmen (Waterbolk, 1973b). This situation indicates that the structure of the village was already present when the church was built. The church was in existence in 1359, but unfortunately we do not know the date of its founding. Nothing remains of the original medieval construction.

In contrast to the situation elsewhere in Drenthe, where several ancient villages constitute one parish, in Gasselte parish and village territory coincide.

While the church lies at the eastern end of the "Lutkenende", the excavation area (fig. 4, pl. V) lies on the west side, c. 500 m west of the church. On account of their situation two small farmsteads could represent the direct continuation of two excavated farmsteads (namely those on plots nos. VI and VII), but the series as a whole, with its total length of c. 450 m, extends so far to the north and south that one can hardly imagine that the whole area between the series and the church was built up so intensively. The total number of farmsteads would then certainly have amounted to 40.

A suggestion of the possible extent of the medieval village is given by the number of full waardelen (shares in the village common land). This amounted to 16. According to D. P. Blok (unpublished) the amount levied of a certain tax, the so-called schultmodden, can be an indication of the number of farmsteads in Carolingian times. For Gasselte this number amounted to 12. Both figures are clearly bigger than the number of 9 farmstead plots (erven), that according to our investigations was the maximum number that was inhabited at the same time. From this too it can be deduced that the excavated settlement does not represent the whole of medieval Gasselte. The relation between the ex-

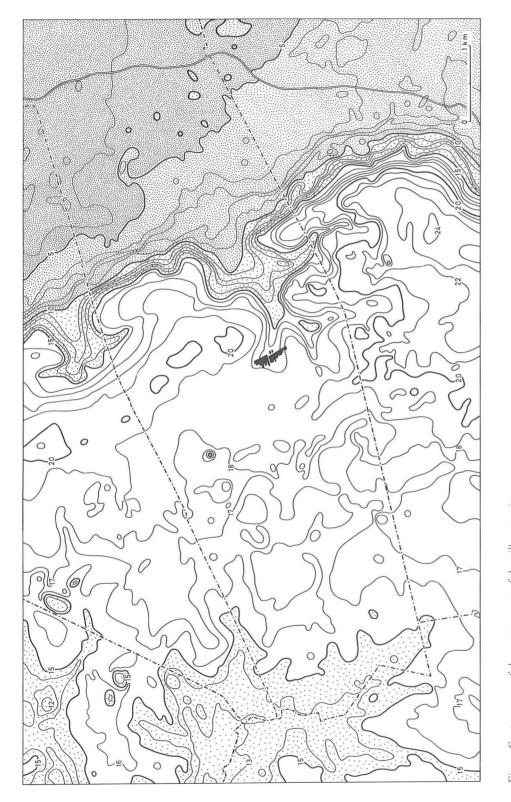


Fig. 5. Contour map of the western part of the village territory of Gasselte. The occupation area is shown in black. Scale 1:50,000.



Fig. 6. The "Lutkenende" of Gasselte, viewed from the N.W. The excavation area is situated immediately to the right of the road. On the left in the background the N.H. church.

cavated settlement and the present-day village we shall return to in section 7.

If we consider the situation of the "Lutkenende", the "Grotenende" and the excavated settlement on a contour map of the area (fig. 5), then it is clearly evident that all three are situated on the slopes of a short W-E running side-valley of the Hunze. This valley forms an interruption of the Hondsrug proper, which here consists of two closely spaced parallel ridges. The excavated settlement lies at the westernmost end of the valley.

On the higher, non-inhabited parts to the west of the excavation area there is boulder-clay present in the subsoil. In the inhabited area there is usually only some residual moraine present. In many places there were traces of digging for boulders, which provided an additional source of income in the last century. These digging activities caused considerable disturbance. Another kind of disturbance is the result of sand digging. In several wells an interstadial peat layer was found at a depth of c. 13 m below NAP (Ordnance Datum), with a C^{14} dating of 43.900 \pm $^{1800}_{1500}$ (GrN-8314), which gives an indication of the age of the valley.

The settlement area (pl. V) is rather flat. The maximum variation in height was c. 2.60 m. The area slopes in general from west to east, with the highest points of the excavation surface being in plots II and XI (at c. 18.10 and c. 17.80 m respectively) and the lowest part in plots VI and VII (c. 16.10 m to the west of the cycle path to Drouwen, c. 15.50 m in the excavation trenches to the east of the path). This is apparently the beginning of the low-lying valley that extends from south of the "Lutkenende" and continues eastwards in the direction of the Hunze valley, and that provides natural drainage for our settlement area. The slight bend in



the row of farmstead plots is thus explained by the relief. It is interesting to note that the "Groten-ende" shows a corresponding topographical situation with respect to the further course of the valley.

3. THE EXCAVATION

3.1. Discovery

The discovery of the settlement (Harsema, 1974b) is due to the notification of two finds, namely by Messrs. H. and P. Kroezenga of Gasselte and B. Schiphuis of Muntendam. In both cases the discovery was made of patches of discoloured soil containing medieval sherds and fragments of quernstones. These were observed in the cunette and the ditch-side respectively of a new, more or less E-W running road, the Herenkampsweg, that was built by the Rijkswaterstaat (State Water

Fig. 7. Excavation trench immediately south of the Herenkampsweg, here under construction, viewed from the W. In the background the farmsteads of the "Lutkenende".

Board), within the field re-allotment scheme for Gasselte, as a continuation of the main road through the "Lutkenende" (fig. 4). After negotiations with the Rijkswaterstaat and the road-construction firm Reef of Emmen, it was possible to make a systematic investigation of part of the road cunette, as well as of some strips of verge between the road and the ditches that had already been dug. This took place between February 28th and March 21st 1975. In this period a trench was also dug immediately to the south of the newly constructed road (fig. 7 and 8).

When it became clear from the provisional results that here part of a long-sought medieval settlement had been found, and that this settlement seemed to continue both to the north and to the



Fig. 8. The buildings 69-73 to the S. of the Herenkampsweg, here under construction. In the background the new tunnel under the main road (rijksweg) from Groningen to Emmen. Seen from the E.

south under arable land where no buildings are present, it was obvious that an attempt should be made to extend the excavation and to look for the northern, western and southern limits of the settlement. For it was assumed that here was a fortuitously deserted part of the old Gasselte, and that in the area to be excavated a connection would be found with that part of the village still inhabited today.

Our expectations were not completely realized, for the settlement turned out to extend far further northwards as well as southwards than we expected. Three campaigns were necessary to accomplish the task that we had set ourselves. These took place from Sept. 15th until Nov. 26th 1975, from March

8th until June 16th 1976 and from Nov. 8th 1976 until January 14th 1977.

3.2. Method

The situation and orientation of the excavated pits were determined by the direction of the newly built road, by the route of the northward running old road to Rolde, and by the southward running newly built cycle path towards Drouwen. Unfortunately this path had been built some tens of metres west of the old road to Drouwen and Grollo, as a result of which the eastern part of the southern farmsteads could no longer be investigated.

The excavation pits, that were dug alternately, had an initial width of twice 7 to 8 m, i.e. the maximal distance over which the excavating machine, a

Fig. 9. Survey showing the farmsteads 23-25 in plot III, seen from the E.



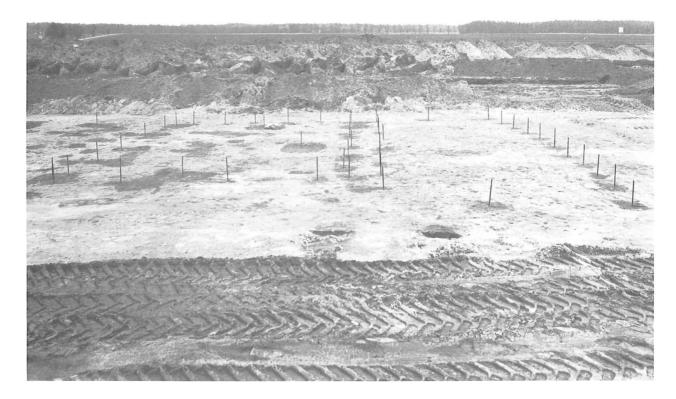


Fig. 10. The small outhouses 27 and 28 in plot III, seen from the $\ensuremath{\mathrm{N}}.$

so-called hydraulic crane, standing next to the trench, could be operated. After the topsoil had thus been removed, three or four workmen smoothed out and cleaned the surfaces. Sometimes it was necessary to deepen the surfaces several times by hand or mechanically. When it was necessary to investigate as a whole an intricate complex of buildings that stretched over two pits, then an exception was made to the normal routine and the complex was studied and measured in its entirety.

In the eastern part of the excavation pits disturbance to some depth was a frequent occurrence. This was partly the result of boulder-digging activities, and partly the result of digging for sand. The deep post-holes of the massively built houses were often still to be found at the bottom of the recent trenches. All shallow ground traces have disappeared there however.

On the detailed ground-plans of plots III and IV (pl. I-IV) we have therefore made a distinction between ground disturbed by "deep recent" and by

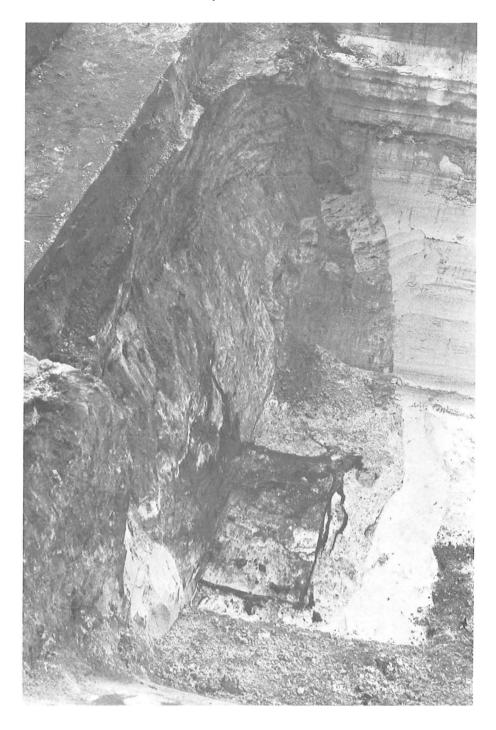
"shallow recent" activities (indicated by crosshatching and areas delimited by dotted lines respectively).

4. THE SOIL TRACES

4.1. Fencing structures and ditches

The farmstead plots were enclosed by shallow ditches (only on the west side), by foundation trenches of palisades (by no means preserved everywhere) and by rows of posts (only locally). From the course of these structures it can clearly be seen that at least during part of the occupation period there were E-W running trackways, with a minimum width of 4 m, between the plots. Where conditions are good for observing the foundation trenches, it is clearly evident that the palisades were repeatedly renewed. Often their situation shifted somewhat, notably on the east side.

The boundary ditches of the plots are very striking. They only occur on the west side. The ground is highest there however. It is possible that these ditches only served to provide material for a wall of



earth. They might also have served to deviate the surface water coming down from the fields behind the plots. Some ditches continue into the area west of the settlement where no buildings were present. There they may have formed the boundary of fields or pastureland. Within the plots defined by pali-

Fig. 11. Well I, with traces of the wooden sheet-piling.

sades and ditches there are soil-marks of houses, barns, storage-sheds for grain (*spiekers*), haystacks, sunken huts and wells.

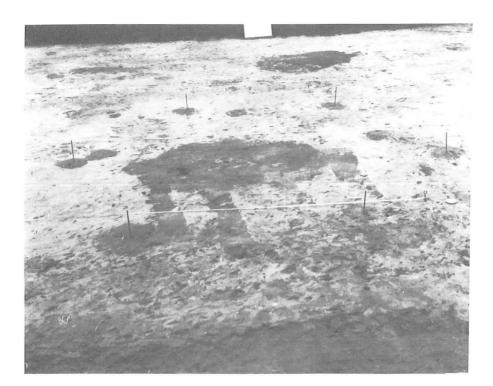


Fig. 12. Corn stacks 53a and 54, seen from the N.

4.2. Principal buildings (fig. 13-16)

In the centre of the farmstead plots there is always a large, repeatedly rebuilt or renovated building that certainly had the main function of a dwelling-place. In addition it would also have served as a byre and as storage space. Near the western end of the building, that was always E-W oriented, there are several small outhouses. The other buildings are almost always situated along the periphery of the plot. We begin the discussion with the principal buildings.

We distinguish three types. The oldest closely resembles the types C and D distinguished in Odoorn (fig. 13/14: 77 and 85). These are lightly built single-aisled hall-houses 18 to 24 m long, 4.8 to 5.4 m wide, and with the wall posts spaced at intervals of 0.8 to 1.2 m. The ground-plans often seem to be irregular (cf. Odoorn D), although this is also a result of the frequent building activities later occurring on the same spot. There are almost always exterior posts that are not infrequently spaced at regular intervals. There are also scattered posts that supported the ridge of the roof. The walls often curve slightly outwards. Just as in

Odoorn there appear to have been two pairs of entrances. It can be assumed that these houses were jointly dwelling-places and byres, the latter being in the eastern part, on the basis of clear indications of this in Odoorn. Near plots III and V there are a few ground-plans of houses of this type isolated outside the later plots. A total of 9 or 10 buildings can be ascribed to this type. Apart from the two mentioned they are all situated on plots I to VIII.

The second type, that we can call Gasselte A (fig. 13/14: 86 and 11), consists of single-aisled, more massively built houses, with distinctly out-curved walls, varying in length from 21 to 25 m and with a maximal width of 5.8 to 6.6 m. At the extreme ends the width of the house varies from 3.8 to 4.8 m. The post-holes of the wall are often extended like a foundation trench in the longitudinal direction of the house. Where the post-holes show up more clearly, it is possible to calculate an average distance between the wall posts of 2.0 to 2.6 m. With this type also there are two pairs of entrances present. In the eastern part of the house there are many pit-like depressions, often including one extending more or less parallel to the longitudinal axis of the house, that may have functioned as a byre gutter.

Byre gutters also occur in the Odoorn houses. They suggest that in this case also the buildings concerned served jointly as dwelling-places and byres. A total of 9 examples of this type were found (on each of the plots II-X).

The third type of house, Gasselte B (fig. 15/16: 54, 87 and 70), consists of sturdily built hall-houses with a row of outer posts outside part of the wall, indicative of outer side aisles (nitkubbingen). The walls curve outwards from a slight to a marked extent. The length varies from 20 to 31 m, and the maximal width (excluding the outer side-aisles) from 7.0 to 7.5 m. The massive wall posts c.q. vertical supporting beams (staanders), that stand in opposite-facing pairs, are spaced at intervals of 2.3 to 2.8 m.

From the ground-plan it cannot be deduced which part served as dwelling space and which part as byre. The situation in the same central position in the plots could indicate that the dwelling area lay to the west. In contrast to the two previous types the position of the entrance(s) is not immediately apparent from the ground-plan. The numerous improvements are conspicuous. There appear to be in principle two examples of this type present per plot; one of these, evidently the earlier (with slightly out-curved walls and fewer posts), on the same spot as the previous principal buildings, and the other (with often markedly out-curved walls and many outer posts) on a new spot situated further to the east. A total of 15 examples have been found, these being on plots III-X.

4.3. Barns and small outhouses (fig. 17-20)

Among the barns too several types can be distinguished. In the first place there are outhouses longer than 10 m, and others that are shorter. The oldest type of large barn corresponds exactly with the type of building in *Odoorn* distinguished as *type E*. The type of building concerned is narrow and two-aisled, not usually exceeding 20 m in length and usually between 3.0 and 3.8 m wide. The walls are almost always approximately parallel.

The standard distance between the wall posts is in many cases about 0.9 n1 (fig. 17/18: 3, 12 and 68), but there are also buildings in which this distance appears to be much greater (e.g. 1.2, 1.7 m) (fig. 17/18: 125 and 104). This could possibly permit a

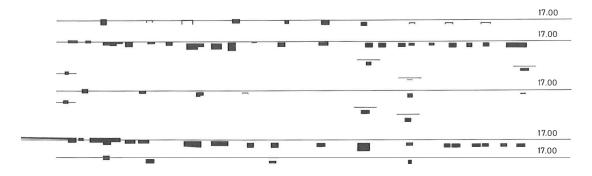
subdivision into two subtypes. In practice it is difficult to determine the original distance between posts as the post-holes are often shallow and as there are abundant signs of renovation, so no subtypes can be easily distinguished. One building is 4.7 m wide and must be regarded as a transition form with respect to the next type. Barns of the Odoorn type E are present in abundance: they are always situated along the northern, western and southern edges of the plots, and sometimes two are even adjacent along one boundary. On plot III there are 5 examples. The total number amounts to about 26. They are situated in plots I-X. A particularly conspicuous feature is the continuous series of barns aligned longitudinally along the western plot boundary on plots I-VI.

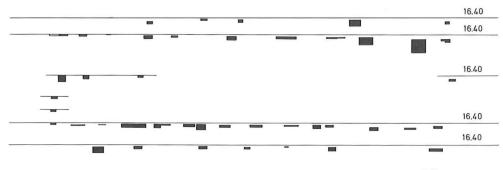
In Odoorn, where the peripheral location was also characteristic, we took into consideration the possibility that these buildings functioned as dwelling-places. We now regard them primarily as barns.

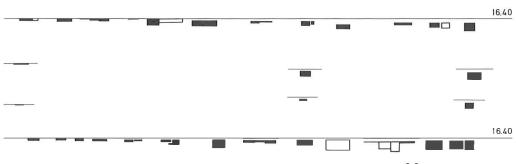
The second type of large barn, type Gasselte C (fig. 19/20), consists of single-aisled, massively constructed buildings, the walls of which may vary from being strictly parallel to markedly outward curving, which indicates that two subtypes can be distinguished. We speak of subtype Gasselte C1 when the walls are more or less parallel (fig. 19/20: 13, 94 and 74) and of subtype Gasselte C2 when the walls clearly curve outwards (fig. 19/20: 17). The dividing line can be placed where the short sides are not more than 1.5 m narrower than the maximum width. The length is usually between 12 and 24 m. One barn is even 36 m long. The maximum width is usually between 5 and 6 m for type C1 and between 6 and 7 m for type C2. The distance between the wall posts (from centre to centre) is between 2.2 and 2.8 m for both subtypes. In these barns too the wall posts are usually in oppositefacing pairs. There are no outer posts that could be indicative of outer side-aisles. Renovations are far less frequent than in the dwelling-houses.

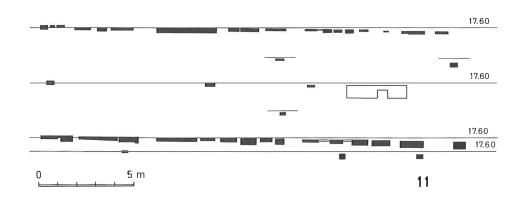
Fig. 13. Depth on the post-holes of farmhouses 77, 85, 86 and 11. \rightarrow

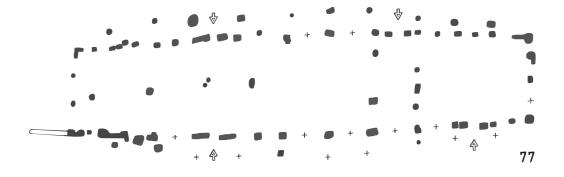
Fig. 14. Ground-plan of some farmhouses of Odoorn C/D type (nos. 77 and 85) and Gasselte Λ type (nos. 86 and 11). Scale 1:200. $\longrightarrow \longrightarrow$

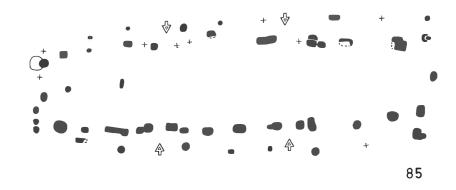


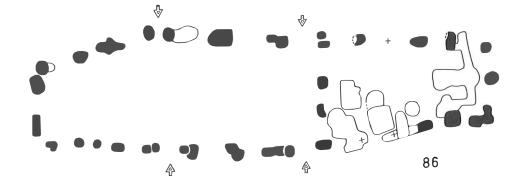


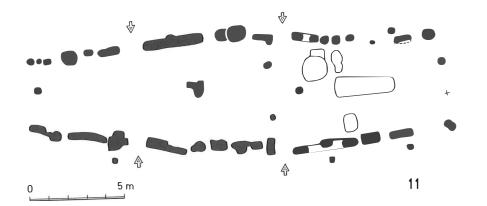


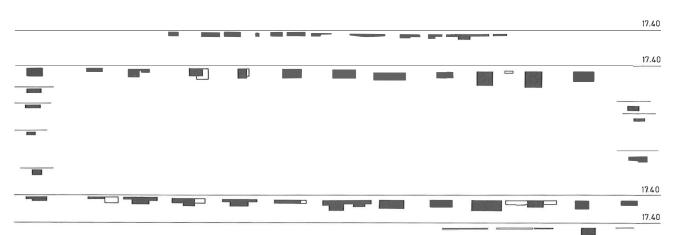




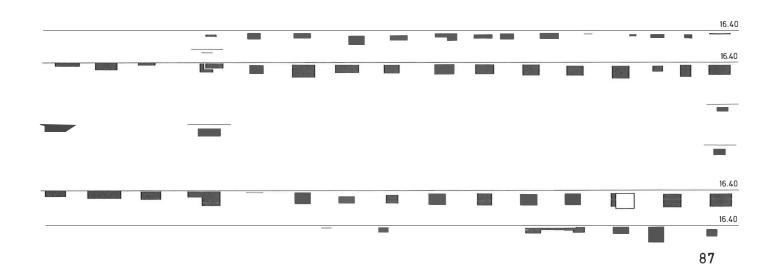








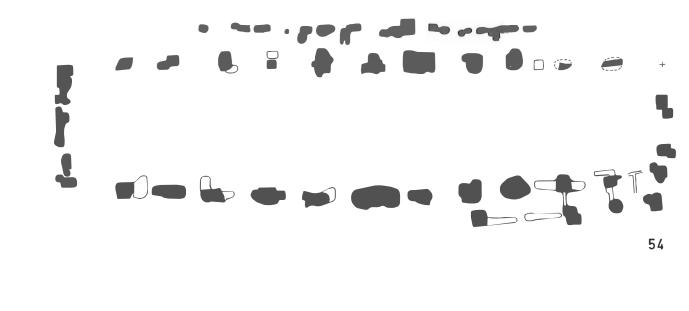
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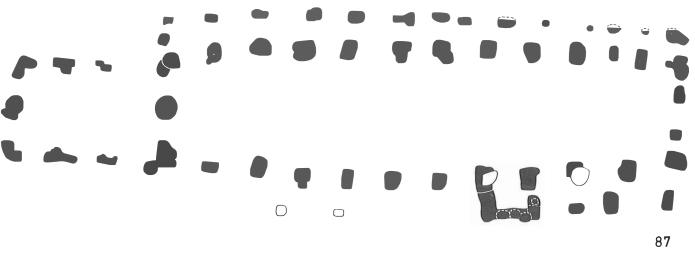


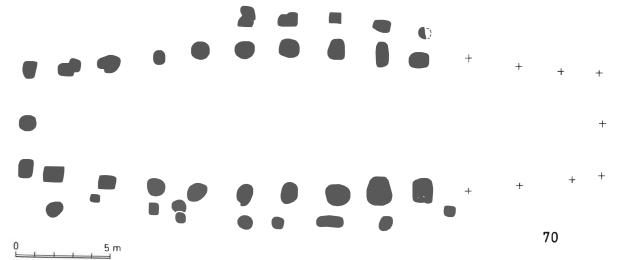
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0 5 m







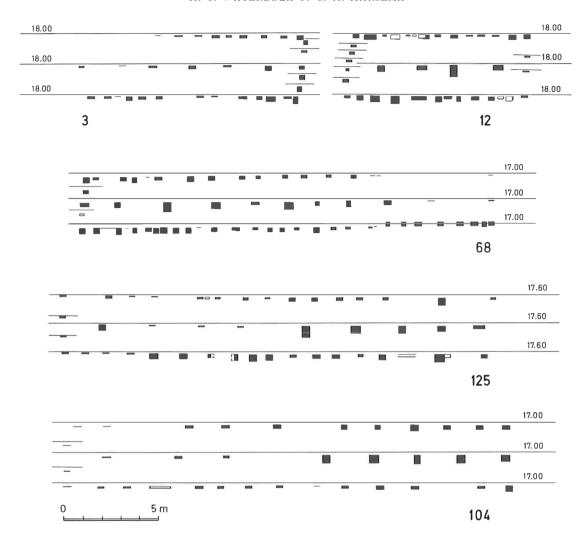


Fig. 17. Depth of the post-holes of barns 3, 12, 68, 125 and 104.

If we consider the nature and quality of the postholes (and the relative age in the parts of the plots) then it is clearly evident that the Odoorn C/D houses are connected with the Odoorn E barns, and the Gasselte B houses with the Gasselte C barns. Barns that could be connected with the Gasselte A house type cannot be discerned as a separate type, or they may be the two-aisled barns with wall

← ←

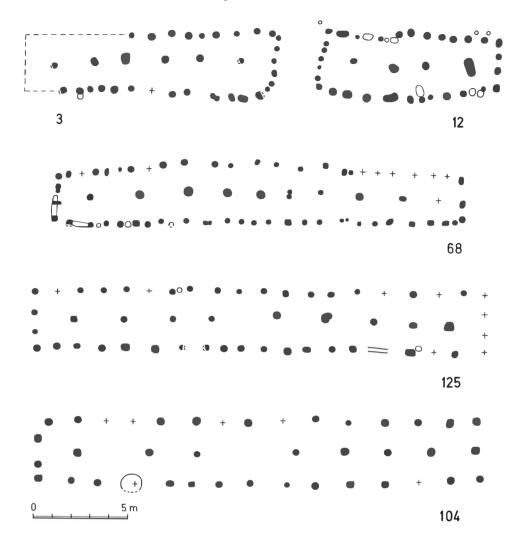
Fig. 15. Depth of the post-holes of farmhouses 54, 87 and 70.

←

Fig. 16. Ground-plan of some farmhouses of Gasselte B type (nos. 54, 87 and 70). Scale 1:200.

posts spaced at larger intervals. One barn, which we have classified as Gasselte C1 type, is conspicuous on account of its much smaller post-holes, that are somewhat extended. This one example is however insufficient for the definition of a distinct subtype.

With regard to situation, it can be established that most examples of type C1 lie along the southern edge of the plot; some occur along the western and eastern edges of the plot. Those of type C2 all lie in the eastern half of the plots, next to or slightly east of the farmhouses to which they evidently belong; there is no question of a distinct peripheral location. In fact they disappear out of view southwards on account of the newly built cycle path. There are three examples in the two excavation pits on the other side of the cycle path. These lie in the



extension of the zone in which barns of the same type in plots III and IV are situated. One example was found on plot XI. Barns of this type are absent from plot I. The total number of barns of type C1 amounts to 35, and of type C2 to 8.

Most of the small outhouses are 4.5 to 7 m long; a few are longer, and could also be ascribed to the category of large barns. In another respect too a relatively arbitrary limit has been drawn: rectangular post-configuration of 4 or 6 posts are regarded as storage sheds for grain (*spiekers*), and those of 8 or more posts as small barns. The width of the small outhouses is usually between 3 and 4.5 m. For the meantime we refrain from distinguishing any types. The total number is approximately 21.

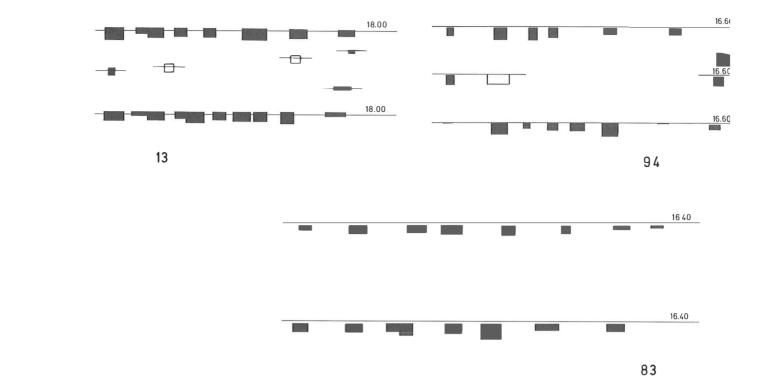
As criteria for division into subtypes the post ntervals could be used, for example as follows: (a)

Fig. 18. Barns of Odoorn E type (nos. 3, 12, 68, 125 and 104). Scale 1:200.

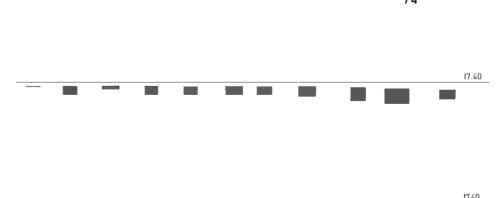
o.9 to 1.2 m, (b) 1.3 to 2.0 m, and (c) 2.1 to 2.9 m. Also the relative size of the post-holes could be used in defining these subtypes. In practice in most cases the original post interval cannot be determined because of insufficient documentation, or because of renovations or because the post-holes have been cut into at a later stage. We shall use the

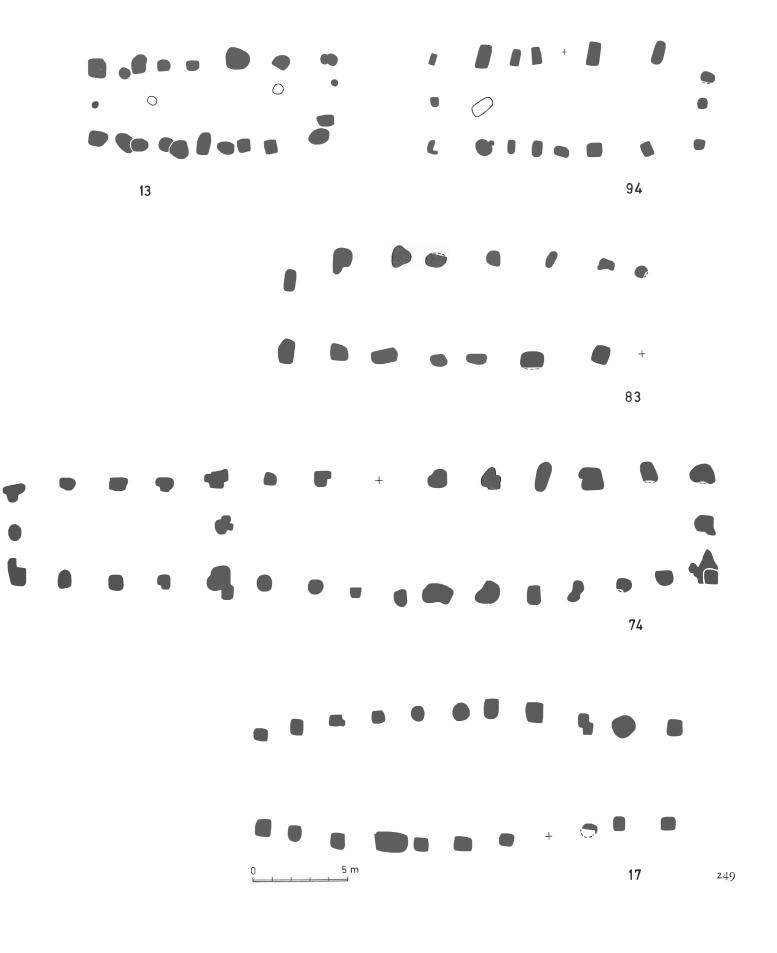
Fig. 19. Depth of the post-holes of barns nos. 13, 94, 83, 74 and 17. \rightarrow

Fig. 20. Barns of Gasselte C1 type (nos. 13, 94, 83 and 74) and Gasselte C2 type (no. 17). Scale 1:200. $\rightarrow \rightarrow \rightarrow$









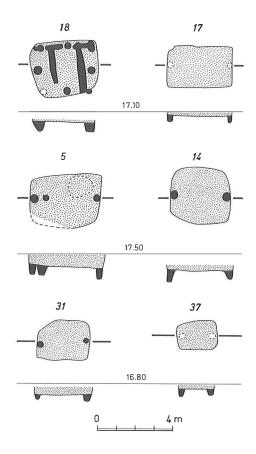


Fig. 21. Some examples of sunken huts, with accompanying schematic cross-section (nos. 18, 17, 5, 14, 31 and 37). Scale 1:200.

subdivision of these outhouses therefore only as an indication for the attribution to periods (section 5.2.).

Most of the small outhouses lie close to the principal buildings, on the west and southwest side of these. Some stand immediately north of the houses. Sometimes they seem to have been built on to the principal buildings.

4.4. Sunken huts (fig. 21)

The sunken huts give little occasion for remark. Most are of the type with 2 posts; only a few have corner posts in addition. The latter sometimes also show foundation trenches with posts half-way the long sides. Most of the sunken huts are situated in short rows along the northern edges of the plots,

yet they also occur scattered on other parts of the plots (notably along the southern edge of these). The total number amounts to 37; they occur on plots II to VIII.

4.5. Grain storage sheds and haystacks (fig. 22)

The number of squares or rectangles of 4 or 6 posts is small. In fact there are only 8. Several of these could be considered as short barns, while some squares of 4 posts could be regarded as variants of the haystacks to be described here below. Seeing that on the site a few find-complexes were found with RW I (Ruinen-Wommels) pottery dating from the Pre-Roman Iron Age, then the possibility must also be taken into consideration that some squares or rectangles of posts may date from as long ago as that time. The grain storage sheds can thus be disregarded as a category in the medieval settlement.

In contrast the regular pentagonal or hexagonal configurations of post-holes are striking and numerous. These occur in rows, usually along the southern boundaries of the plots. They would have been stacks for corn or hay, with a movable roof. The enclosing circle measures from 3 to 6 m in diameter. Pentagons and hexagons are represented in approximately equal numbers (28 and 33 respectively). In addition there are 3 heptagons. As mentioned some squares could also possibly be ascribed to this category.

4.6. Wells

On almost all plots there are a few wells. The total number amounts to 18; they are indicated by the letters A to R. The diameter of the wells varies from 2 to 7 m. As far as could be ascertained, the wells were predominantly made out of hollowedout tree trunks, that sometimes had a pile of large boulders on top, that had of course collapsed. On account of the deep drainage the wood had mostly decomposed to a great depth. Four wells contained a square frame with corner-posts (nos. I, L, N, R). The two wells in the trenches east of the cycle path are of a different type of construction; they are obviously much younger and belong to the recent farmsteads. One of these was made out of turfsods, the other had on the bottom a square frame with curved sides, sawn of bent pieces of wood,

held in place by pegs. The depth of the wells varied from 2 to 5 m.

Difficulties arose in investigating the wells as a result of repeated collapse. One well (N) could not be excavated because of the proximity of a waterpipe. The wells yielded hardly any finds.

4.7. Miscellaneous

All over the area there are pits, post-holes, short foundation trenches, etc., that cannot be included in any kind of typology.

5. THE PLOTS III AND IV

To serve as an example for a more detailed presentation of the excavation data we have chosen plots III and IV (pl. I-IV). These show a great degree of similarity in terms of size, situation and the succession of types of building, and in fact this applies to all the plots. We shall first deal with the northern part of the plots, then the western, southern, and eastern parts, to finish up with the central part. An attempt will then be made to establish a periodization.

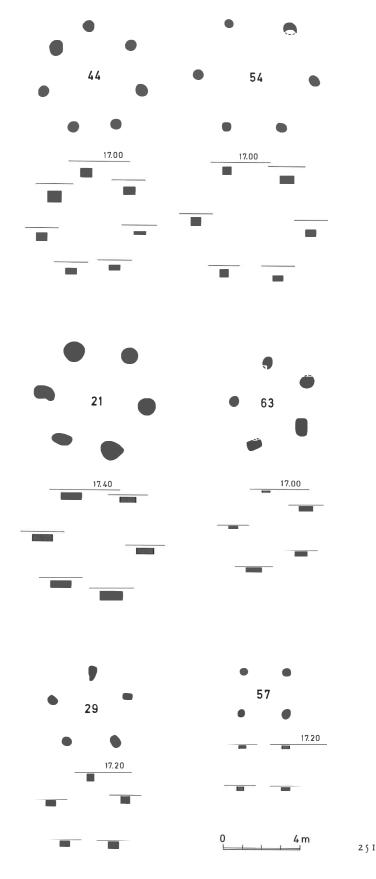
5.1. Description

In the *northern part* we find a two-aisled building, with traces of some kind of fence. In plot III some kind of rebuilding or renovation appears to have taken place. In both cases a group of sunken huts continues to the east, and in plot III some of these clearly cut into one another, as well as into traces of fencing structures. One sunken hut intersects with the two-aisled building.

To the west of these houses ditches begin that enclose the *western part* in the form of a horseshoe. In many places these ditches intersect with the foundation trenches and would thus be younger as a general rule. The ditches leave roads clear, that are nevertheless intersected by later ditches.

That the roads lost their function at a certain moment in the development of the settlement will

Fig. 22. Some examples of corn or haystacks, with accompanying depth of post-holes (nos. 44, 54, 21, 63, 29 and 57). Scale 1:200.



also be evident when we consider the eastern part of the plots. Along the western border of both plots there are N-S oriented two-aisled buildings: in the case of plot III there seem to be 3 buildings, two of which are immediately adjacent, while the third appears to precede the other two.

On the south side we see foundation trenches, ditches and post rows serving as plot boundaries, while included in the boundary or placed close alongside there are a number of successive structures that are very different. Detailed analysis shows that the polygons are the youngest elements. They are preceded by barns of Gasselte C type. The oldest structures here are 2-aisled barns (Odoorn E type) and several sunken huts. In plot III there are two successive barns of type C1, of which the older has smaller post-holes. In plot IV there are two barns of type C1 aligned longitudinally; the western barn shows traces of rebuilding, while the eastern one was completely renovated at one time. In plot III there is a well immediately to the east of the barns, in plot IV there is a well between the two barns. In both cases the well is thus situated along the plot boundary.

We now turn to the *east side*. Here the picture is again completely different. The traces are relatively scarce on account of the many recent disturbances, as a result of which all shallow post-holes and foundation trenches have disappeared here. Fortunately it was possible to observe the deeper post-holes in many cases.

Here too the very incomplete foundation trenches lie far apart, indicating that the eastern boundary of the plots was not very constant, and that there was no second row of plots.

Parallel to the fencing structures there are a few smaller buildings present on this side. The picture is dominated however by E-W oriented houses and barns of Gasselte B and C types. These buildings are also situated on the E-W roads. They appear to respect the southern boundaries of plots III and IV, but not that of plot II. We shall return to this point later.

The two buildings that can be considered as the principal building (Gasselte B type) in this part of each plot on account of their size, outer posts and repeated alterations are both situated immediately NE of the central group of buildings to be discussed immediately below. The barns of Gasselte

C2 type all lie somewhat further to the east. Some buildings intersect one another and therefore cannot be contemporaneous.

Finally we turn to the *central part* of the plots. In both plots there are at least three successive buildings that functioned as dwellings. They belong to the Odoorn C/D, Gasselte A and Gasselte B types respectively. In both plots we see several outhouses on the W side, in plot III two that are N-S oriented, and in plot IV four that are E-W oriented. In plot III there is moreover another outhouse on the north side.

There are two points that still have to be mentioned. In the first place there is a ground-plan of a house of Odoorn C type – with an outhouse – in the north-west of plot III, that precedes two ditches and that is evidently not contemporaneous either with the foundation trenches bordering the group of N-S oriented 2-aisled houses lying to the east of the Odoorn C type house. It is obvious to assume that the building represents a very early stage in the settlement and in fact predates the time when the ordered row of farmsteads came into being.

In addition there are two incomplete ground-plans (nrs. 46 and 47), which on the basis of quality and arrangement of post-holes appear to represent remains of three-aisled houses dating from later prehistoric or early historical times. There could be some connection here with the find made elsewhere in the excavation area of a complex of RW I pottery, dating from the Pre-Roman Iron Age. These incomplete ground-plans presumably have nothing to do with the medieval settlement itself.

5.2. Periodization

From the circular tour of the plots described above it can be seen to what extent the phenomena observed recur in the two plots. In the case of all activities involving renovation, relocation and alteration, certain rules of placing and grouping were kept to, and consequently despite fairly considerable differences in detail the overall picture that emerges is very similar. In the following section we shall survey the settlement as a whole, and it will then become evident that the overall similarity also applies to the other plots. Under these circumstances it should be easy to periodize the

phenomena. For what is not clear in one plot is probably clear in another. Nevertheless it is not easy to ascertain which buildings were contemporaneous at any particular time. Apart from the problems that always arise with the analysis of postholes cutting into one another etc. – the observations are not always unambiguous – and that are here aggravated by the high density of soil-traces and by the many disturbances, the difficulties are nevertheless mainly caused by the fact that each of the five parts of the plot, as distinguished above, has in a certain sense a separate development. The problem is then the correlation of the five different developments.

In addition there is another complication. It seems obvious to assume that in each phase there was a centrally placed principal building and that a series of outhouses were grouped around it. Yet this does not necessarily apply at the beginning and end of the period during which buildings were present within the area concerned. This is especially the case with the initial phase. For we must take into consideration the possibility that the parcels of land were used for cultivation or as pasture, and that a barn was present on the periphery. It was necessary for us to take this possibility into account in studying the settlement at Odoorn, too. The terminal phase (E) in Odoorn was characterized by a rigid division of land with 2-aisled buildings of the same type that we now find here along the edge of the parcel. These buildings are so narrow that it would not have been possible to have the usual two rows of cattle stalls and at the same time there would hardly have been any dwelling space. In this light it seems possible that the terminal phase of Odoorn is present at Gasselte too and that in Gasselte there was an early phase in which on the parcels where houses later stood there were still only 2-aisled buildings. We assume that these buildings had no dwelling function and that therefore hardly any pottery remained on the spot.

But if this possibility applies to the initial phase of Gasselte, then it can also apply to the terminal phase. Especially noteworthy in this connection are the polygonal hay or corn ricks that stand in long rows along the southern edge of the plots, thus on the same spot where two-aisled barns also stood.

Finally it is also possible that the field barns remained standing when the parcels were first used

for building houses on, and similarly that the hay or corn ricks remained standing when the inhabitants went to live elsewhere.

For all these reasons we have decided upon a fairly broad division into periods, in which the possibilities mentioned are left open while various developments and changes within these periods are necessarily taken into account. It is clearly evident that the development of the centrally placed principal building should be taken as a criterion for the division into periods. The three buildings of varying type that are successive on approximately the same spot thus give us the periods one to three; the building immediately to the northeast, that is of the same type as the youngest of these three successive ones and that is indeed younger as appears from its cutting into other plots, thus provides a fourth period.

With regard to the other parts of the plots the problem is now to find for each principal building the associated accessory buildings. Although taking into consideration typological and stratigraphical data can be of help here, a certain arbitrariness cannot be avoided. Moreover it should of course also be borne in mind that a continual development took place, every cesure thus being artificial, and that it is very well conceivable that an "old-fashioned" building, that was still of good quality, could remain in existence alongside more "modern" constructions. With all these limitations in mind we should like to suggest the following division into periods.

Period 1: To period 1 (pl. I) we ascribe almost all foundation trenches and sunken huts, together with most of the 2-aisled barns along the plot borders. In both plots it is often difficult to define the limits of the principal building on account of the many soil-marks. There are however rather too many post-holes than too few. This applies moreover to the other plots too. There is little doubt however that these principal buildings were of the Odoorn C and D types. Besides it is evident from the way in which sunken huts cut into one another and into foundation trenches and barns that this period I lasted for a fairly long time and that by no means all buildings could have existed contemporaneously. Also ascribed to this period are some smaller sheds, as well as the building in

the northwest corner of the terrain, that must date from a relatively early time as appears from its negative relation to ditches and foundation trenches. From the course of the foundation trenches it is possible to conclude the presence of E-W running roads between the plots.

Period 2: Characteristic for this period (pl. II) is the first system of plot borders in the form of ditches on the west side. They leave the old roads intact, which indicates that only buildings that respect these roads can be ascribed to this period. In the centre there is a medium-sized building with pits in the presumed byre area and irregular elongated wall post-holes (Gasselte A type) as the successor to buildings of Odoorn C or D type.

It is obvious that one should look for such corresponding characteristics among the outhouses too. This is only successful on the southern edge of plot III. On the corresponding spot in plot IV there is a more massive barn. On the west side two immediately adjacent 2-aisled barns in plot III are ascribed to this period – more on the basis of the situation on the other plots, for they themselves are suggestive rather of period 1. In plot IV the two-aisled barn of period 1 possibly remained in use here. Several small outhouses and a well complete the picture.

Period 3: This is the period (pl. III) in which the massive constructions with large, deep post-holes dominate completely and are used both for the principal building as well as the outhouses. The roads are now closed off by continuous ditches on the west side. Several outhouses are situated partly on the earlier roads. The principal building is on the same spot as in the two earlier periods and along the southern plot-border we find barns, also situated on the same site as before. Again we also find small outhouses near the western end of the principal building. The principal building shows signs of rebuilding. A characteristic feature is the presence of the outer side-aisles built on to the eastern half of the south wall.

Period 4: In period 4 (pl. IV) the old site of the principal building is abandoned. We find a building with similar characteristics – side-aisles, traces of rebuilding, great width – to the principal building

of period 3, slightly to the northeast of the latter. It is clear that the barns present in the same area on each side of this building should be ascribed to this period too. In doubtful cases we have ascribed barns with more or less parallel walls (type C1) to period 3 and those with distinctly bulging walls (type C2) to period 4. Evidently there was reason for shifting the whole settlement somewhat to the east, i.e. down the slope. The parcel boundaries seem to remain intact however, in the sense that the old roads in each case appear to have been included in the parcel bordering on the south. Moreover the situation on both the south border of plot IV as well as on the north border of plot III is not completely clear. We shall return to this point in the discussion of the settlement as a whole. On the site of the old barns along the southern plot-border there now stand a series of polygonal hay or corn ricks. It cannot be ascertained whether these are contemporaneous with the buildings and intentionally placed behind the houses, for example to avoid the risk of fire (fermenting hay!), or whether they belong to a (sub)period, when the principal buildings had already been moved elsewhere. In fact several barns intersect one another too.

5.3. Pottery (fig. 23)

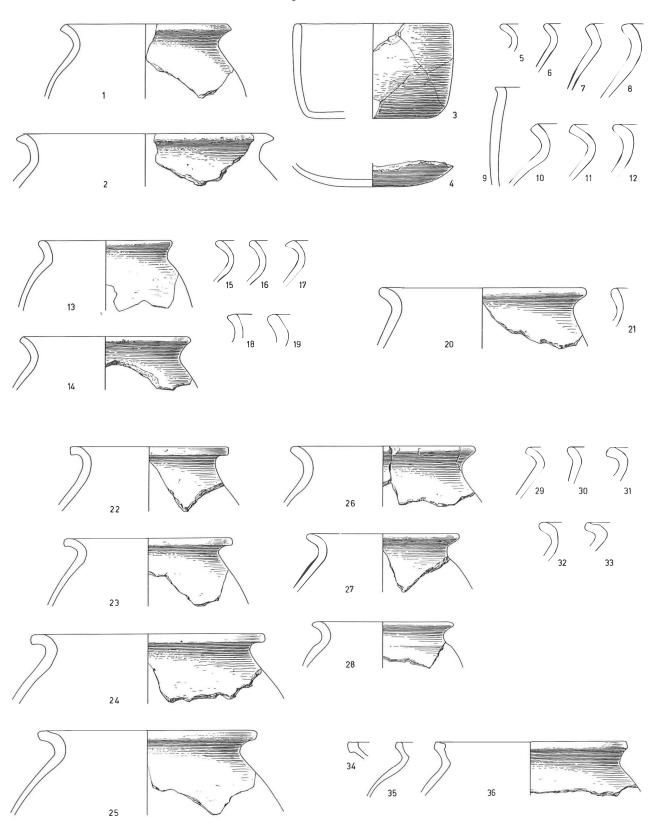
We shall refrain here from giving an extensive account of the finds. They consist mainly of *Kugeltopf* pottery and in addition many fragments of quernstones made out of basalt lava and some, usually unidentifiable iron objects.

Among the pottery imported wheel-thrown ware is scarce. There is only one sherd of Badorf ware. Pingsdorf ware is slightly more present.

In fig. 23 a few complexes are illustrated, coming from sunken huts of period 1 and from the postholes of two farmhouses dating from period 4.

Typologically the earliest material can be seen to consist of several steep-walled bowls with or without a slightly turned out rim, while the youngest material comprises several distinctly profiled *Kngel*-

Fig. 23. Pottery from the sunken huts & (plot III, per. 1): 1-12, 7 (plot III, per. 1): 13-19, 12 (plot III, per. 1): 20 and 13 (plot IV, per. 1): 21, and from post-holes of the houses 41 (plot IV, per. 4): 22-33 and 16 (plot III, per. 4): 34-36.



topf rims with grooves for the lid. For the most part however the material consist of *Kugeltöpfe* with a simple S-shaped rim that may or may not be well finished off. Comparing with the studies of Haarnagel (1959) and Steffens (1969) indicates a dating for the whole between the middle of the ninth and the middle of the twelfth century.

It should be borne in mind that a close correlation between the find complexes and the building phases is usually not possible. The filling of the sunken huts will consist predominantly of material that ended up there after the sunken huts had lost their original function. Finds in the filling can therefore only serve as a terminus ante quem for the dating of the sunken huts. With the post-holes of the houses the reverse situation will apply: these post-holes will be filled mainly with material that was lying around as refuse when the holes were dug and can therefore provide only a terminus post quem for the construction of the house concerned. With the sunken huts it is of course possible that some sherds date from the time when the hut was in use, while sherds may have ended up in the postholes after the posts had been pulled out or had decayed. For all these reasons we must refrain from attempting to arrive at a closer dating for the four periods that we have distinguished, and from using the pottery to ascribe buildings etc. to any particular period.

Finally mention should be made of a pit that was filled with RW I pottery dating from the Pre-Roman Iron Age.

5.4. C14 datings

Up until now we have five C¹⁴ datings of samples from the excavation. These datings were established by Dr. W. G. Mook, department of Isotopenfysica of the Natuurkundig Laboratorium of the Rijksuniversiteit in Groningen.

Charred grain (find no. 72) from post-hole of wall-post of single-aisled house no. 170 in plot V (period 4), GrN-8245: 930 \pm 60 B.P. (A.D. 1020 \pm 60).

Charcoal (find no. 328) from post-hole of central post-row in two-aisled barn no. 51 in plot IV (period 1), GrN-8246: 1295 \pm 40 B.P. (A.D. 655 \pm 40).

Charcoal (find no. 377) from post-hole of two-

aisled barn no. 34 in plot III (period 2), GrN-8827: 1205 \pm 30 (A.D. 745 \pm 30).

Charcoal (find no. 411) from oak (23 annual rings) from post-hole of small outhouse no. 28 in plot III (period 2), GrN-8828: 1270 \pm 30 (A.D. 680 \pm 30).

Charcoal (find no. 456) from pit in eastern end of two-aisled barn no. 22 in plot III (period 1), GrN-8829: 1170 \pm 30 (A.D. 780 \pm 30).

The only dated grain sample (GrN-8245) seems to be rather early for period 4, to which it belongs. The sample probably dates from the beginning of that period. In view of the statistical uncertainty there is in any case no question of a contradiction with respect to the archeological dating (see section 5.3).

The other four samples are all of charcoal. As it is not known from which part of the tree-trunk the charred wood came, the datings will in general be somewhat earlier than expected. GrN-8829 (period 1) gives few problems in this respect, but the other three datings all seem to be two centuries too early.

Three possible explanations can be suggested for this discrepancy. In the first place it is conceivable that the earliest phase left so little pottery that the picture is distorted and that the settlement did indeed begin earlier than we think. The fact that in Odoorn the phase concerned left behind a considerable amount of material argues against this. In the second place it is possible that closer dendrochronological calibration of the relevant part of the curve could provide an as yet unknown de Vries variation in the amount of C¹⁴ in the atmosphere. In the third place it may be that for building the barns use was made systematically of wood that had already been used as building material in one or more preceding buildings.

More detailed research should indicate which of these explanations is correct. In the meantime we regard the last one as the most probable. The re-use of old oak timber was frequently practised in historical times.

6. THE DEVELOPMENT OF THE SETTLE-MENT

The criteria used for establishing a division into

periods for the buildings in plot III and IV have also been applied to the other plots. In pl. VI-IX the result is given schematically. We repeat that per period more buildings and fencing structures are indicated than could have existed contemporaneously and that it is also conceivable that buildings placed in one period may have been built in the preceding period and may also have remained in use in a following one. Moreover in period I along the plot borders there may have been barns that were standing in the area before there was a principal building with a dwelling function, just as in period 4 there may have been haystacks, along the plot borders, that had been built when such a principal building was no longer present.

With regard to the separate plots and groups of plots the following remarks can be made. Plot I appears to have had a dwelling function only in period I and to have been added on to plot II in period 2. Subsequently both plots appear to have been added on to plot III in period 3. In period 4 there are indeed rows of haystacks on plots I and II, indicating at least that the plots maintained a functionally independent character as parcels of land. The possibility cannot be excluded, however, that plots I and II continued on the other side of the present Rolderweg.

In plot V the data are rather incomplete, owing to the construction of the Herenkampsweg with ditches on each side of the verge. The character of plot V nevertheless appears to differ from plots III and IV, that we have already discussed in detail, and from plots VI and VII, bordering on the south, that again correspond to plots III and IV. To begin with, one difference is that there appears to be no road between IV and V, while on the other hand the road between V and VI appears to be very broad (c. 8 m), at least initially. The most important difference, however, is that the principal building of period 4 lies southeast of the principal building of period 3 (on the plot border) and that correspondingly the row of corn or haystacks is situated centrally in the plot (which suggests moreover that the main building and haystacks are indeed contemporaneous, see discussion on p. 253). The principal building of period 2 is on the same spot as that of period 3, yet a distinct principal building of period 1 appears to be lacking. This may be a result of the many disturbances. It is possible however that the

buildings to the west of the plot may have functioned as such*).

Unfortunately the construction of the new cycle path to Drouwen has steadily resulted in the loss of a great deal of the eastern parts of plots V to XI. Only to the E of plot VI was it possible to dig two trenches on the other side of the cycle path. There on the one hand we came across the area of house sites still occupied in the last century, while on the other hand a couple of barns were present, that form the continuation of the barns that we saw on plots III and IV. The distance between the western border-ditch and the end of the most easterly lying barn in plots III and IV is equal to the corresponding distance in plot VI (c. 100 m).

The excavations to the west of the cycle path thus only show the western parts of the plots, with usually only the western end of the principal buildings of period 4. The rows of haystacks are always present (up to and including plot X). In plots IX and X no principal building is present that could be ascribed to period 1, but there are 2-aisled barns present along the border. It is possible that these belong to a preceding phase, as discussed on p. 253; it is also possible that they should all be ascribed to period 2. In spite of a broad empty strip to the south of plot X, an incomplete barn was nevertheless found to the south of this. With the continuation of a ditch on the west side this could be an indication of an eleventh plot in period 3 (and possibly in 4). Seeing that the block of "Galgeakkers" has a maximum width of c. 450 m from north to south, and that the excavated area is approximately just as long in the same direction, it is not likely that the number of plots in the row was any greater. Supplementary excavations to the east of the cycle path are certainly desirable however.

To summarize we can say that in period 1 there are indications of 10 plots, in 7 of which there are clear indications of a principal building. In addition, in plot III another principal building found to the west of the main row, that appears to precede the whole. If we assume that the building

^{*} In an alternative interpretation of plot V building 74 could be the principal building of period 3. It would have as a northern side aisle the southern wall of building 71, now attributed to period 2. Building 67 would then be a period 3 barn. This interpretation is probably to be preferred.

situated to the west of plot V functioned as a principal building on plot V, then we arrive at a total of 8 units. In period 2 this number amounts to 9 (documented both in the number of ditches bordering plots and buildings functioning as both byre and dwelling-place). In period 3 the number is also 9 (10 if plot XI is included). Finally in period 4 we have 10 rows of haystacks. There is only direct evidence for a principal building in 7 plots however. Yet this may be the result of the unfavourable situation of the excavation pits. The total number would have been 8 or 9.

Thus we come to the conclusion that during the couple of centuries in which the settlement existed the number of farmsteads hardly changed. After an initial period when they were perhaps grouped together rather loosely, there soon developed a rigid, somewhat curved row, with each farmstead extending over a plot of almost equal width (c. 40 m), and with roads left open between the plots, which after some time lost their function however and, possibly with one exception (that between plots V and VI), became incorporated into one of the plots. Within the plots renovating and new building activities took place according to strict rules with respect to the location and grouping of buildings. Finally the whole area seems to have been suddenly abandoned and reclaimed as arable land.

7. THE RELATION TO THE PRESENT-DAY VILLAGE

We are presented with the picture of a ribbon-village, established as such, and if the number of 9 farmsteads was not less than the number of basic shares (waardelen) in the common land (16), then we could conclude that here we had found medieval Gasselte. It is very unlikely however that the Hondsrug villages, of which Gasselte is one, were only established in the 9th century A.D. We are therefore more likely to be concerned rather with a systematic, organized extension of the village at a time of economic prosperity and population expansion. The extension took place along the outgoing roads to Rolde and Drouwen/Grollo. It appears from the oldest cadastral maps that series of farmsteads along outgoing roads occur in many villages in Drenthe (including Dalen, Gees, Wachtum, Uffelte). The economic growth can also be concluded from the increasingly massive size of the buildings and barns. It is clear that the old centre of the village should presumably lie in the middle of the "Lutkenende", for example where the "Groningerweg" begins, i.e. 200 m to the east of the excavation area.

If our explanation is correct and there was an old centre of inhabitation immediately to the east of the excavation area, then a gradual shifting of the settlement in an easterly direction cannot have been the reason for the cessation of occupation to the west of the roads mentioned to Rolde and Drouwen. It is more obvious to think in terms of a new shift, and in this regard the "Grotenende" represents a possible new place of settlement. For on the basis of structure and situation a younger age has already been presumed for the "Grotenende" than for the "Lutkenende". Now we see however that the "Grotenende" in fact also consists of a strip running N-S, situated alongside a road, with plots that are separated by parallel roads. Even the total length of the strip corresponds to that of our series of farmsteads. Could the present-day "Grotenende" be the direct continuation of our excavated part of the village? The find in 1972 of 14th century pottery (Harsema, 1974b) fits in with this picture, although of course it does not prove it. Only further excavations in the village area of Gasselte could possibly provide the answer to these questions. We propose in the first place to survey the area immediately to the east of the road to Rolde and the cycle path to Drouwen, and at a later stage to ascertain whether in association with the observations made in 1972 the "Grotenende" offers any further possibilities for verifying this hypothesis, for which we cannot provide any support in the meantime.

It is interesting to compare the situation and subdivision of our settlement with the land division as shown in the cadastre of 1813 (fig. 24). Here we must remember that the projection of the excavation area on to the cadastral plan was not without problems. Some farmstead plots dating from the beginning of the 19th century still appear to exist and could be used as fixed points, but their dimensions show that the cadastral measurements are never exact. Moreover the dividing lines between the plots that we excavated leave quite a lot of room



for free play with regard to situation as well as direction, as is evident from pl. V. Bearing these limitations in mind the following can be established.

- (a) The old roads to Rolde and Drouwen/Grollo border the series of farmsteads on the east side. Evidently these roads already existed at the time of the settlement.
- (b) The two most westerly, small, farmsteads are situated in the plots VI and VII; they appear to be the direct successors of the excavated farmsteads.
- (c) The only road that appears to have been present throughout the entire duration of the set-

Fig. 24. The cadastral situation of 1813, and projected on to it the excavation area with the plot boundaries.

- tlement, that runs between plots V and VI, may very well have been the continuation of the northerly parallel road in the "Lutkenende".
- (d) A number of parcels of fields, notably in plots I-III and VII-VIII, have transverse divisions that are aligned longitudinally. The line concerned forms approximately the western border of the house-sites excavated. It can be assumed that these divisions date from the time of occupation.

- A number of schematic plot-borders coincide approximately with major borders between parcels of fields, namely those between plots III and IV, VI and VII, VII and VIII, and IX and X. The boundary between X and XI falls in the middle of an abnormally wide parcel, that in view of the more subdivided situation at the western end appears to have come into being as a result of combining a number of parcels. Moreover the situation at this spot does indicate the probability that there was indeed an eleventh plot. The boundaries between plots I and II and between II and III clearly deviate in direction. We have established however that in periods 3 and 4 the plots I, II and III were contracted; when the settlement was abandoned they had already lost their function. Besides it is also possible that the boundaries (as functional boundaries) shifted already during the period of occupation. The boundary drawn between plots IV and V is dependent on the allocation of house 62; if we had included it in plot IV, which would have been justifiable on the basis of direction, then this boundary too would have coincided with a cadastral parcel-boundary. The boundary between plots VIII and IX could be shifted northwards in such a way that the deviation from the cadastral boundary becomes very slight.
- (f) The excavation area coincides almost exactly with the eastern part of the "Galgeakkers". This indicates that the parts of fields behind the house-sites already existed at the time of occupation.

From points (a) to (f) it follows with a degree of probability bordering on certainty that the main lines of the cadastral division of 1813 go back to the time of occupation.

- 8. PARALLELS IN THE NORTHERN NETH-ERLANDS FOR THE GASSELTE B AND C HOUSE TYPES
- 8.1. Farmsteads in Zeijen and Wijnjeterp (fig. 25)

In the pre-war years Van Giffen excavated small parts of medieval settlements in Schipborg and

Hooghalen. These excavations revealed no complete ground-plans however. They were published in 1943 and 1946 respectively.

Two post-war excavations that did yield ground-plans, namely near the so-called Voren-kamp south of Zeijen (1946) and in Wijnjeterp (1962), have remained unpublished. At the Voren-kamp site a building was revealed that was 26 m long and about 5 m wide in the middle, that with its out-curved walls and intervals between posts of about 2 m is directly comparable with the buildings of the Gasselte C2 type.

In Wijnjeterp even three buildings were revealed of the Gasselte C type, measuring 18 \times 5.5 m and 11(?) \times 4 m respectively. In both cases the find material (a developed *Kugeltopf* ware) appears to be younger than that of Gasselte, which could be an indication that this type of building remained in use for a considerable time.

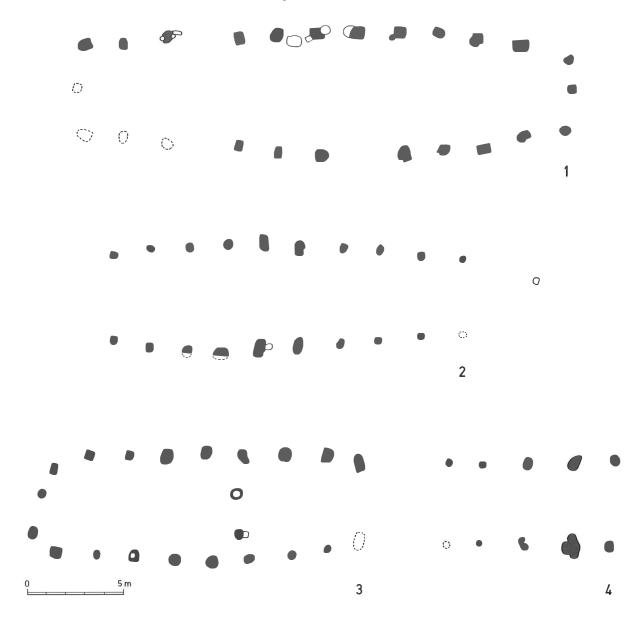
Neither in Zeijen nor in Wijnjeterp is it clear whether the buildings found were dwelling-places or barns.

Finally, mention may be made of an excavation of Van Giffen in a small *terp* mound in the low-lying Peizermade (Van Giffen, 1946). Here he found the ground-plan of two successive post buildings, quite like the barns of our Gasselte C1 and C2 types. They measured c. 16×6 and 16×7 meters respectively and dated from the advanced medieval period.

8.2. Wooden churches (fig. 26)

Over the years during excavations in churches in Drenthe post-holes have been found of wooden predecessors. In general these are dated to the 10th or 11th century, i.e. before the introduction of tuff as a building material. In other words, these constructions were roughly contemporaneous with the excavated farmsteads. They have been found for example in the tuff-stone dingspil churches of Anlo, Diever and Vries. Drenthe is subdivided in 6 dingspelen. Originally these were probably large parishes that later were subdivided. If so, the dingspil churches would be the oldest.

In fig. 26 we have shown two of the naturally rather incomplete ground-plans concerned, namely from Diever (Woudstra, 1956) and Norg (Boersma, 1974). Also included is the famous wooden buil-



ding under the St. Walburg church in the churchyard of the Martinikerk (St. Martin's church) in the city of Groningen (Van Giffen & Praamstra, 1973). The interpretation of this wooden building as a church is somewhat doubtful, in view of the many other settlement traces at this spot.

The extent to which these ground-plans of churches correspond with the ground-plans of the excavated houses is striking. The size and depth of the post-holes, the intervals between them, the width of the buildings, the occurrence of both one-aisled as well as three-aisled buildings all fall within the range of variation of the younger types of buil-

Fig. 25. Ground-plans of some medieval wooden buildings, excavated in Wijnjeterp (1) and Zeijen-Vorenkamp (2-4). Scale

ding in Gasselte. Some (Diever, St. Walburg) even show a corresponding outwards curvature of the wall. Only one conclusion is possible: the members of the parish constructed as a place of worship a hall of the same type as that in which they themselves lived. The massive type of construction that we previously found so striking in the wooden churches no longer surprises us now that we are familiar with the dwelling-places of Gasselte.

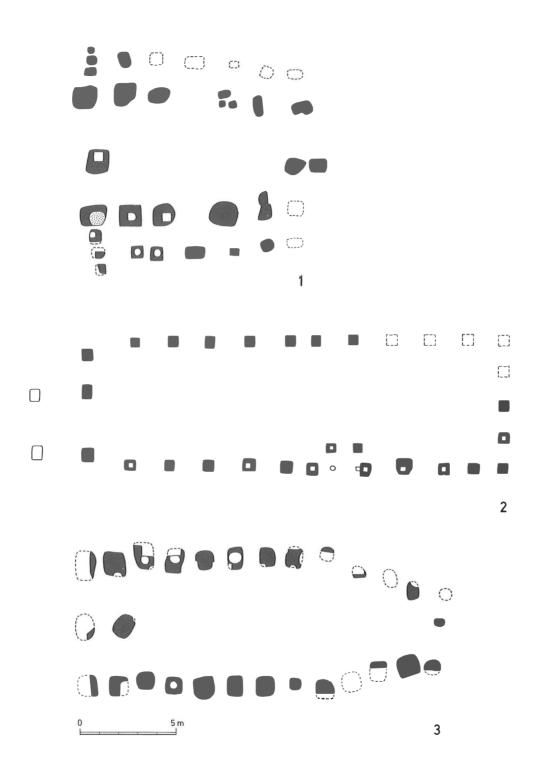


Fig. 26. Ground-plans of some wooden churches (1: Groningen-St. Walburg, 2: Diever and 3: Norg). Scale 1:200.

9. THE DEVELOPMENT OF THE DRENTHE HALL-HOUSE TYPE

In this preliminary contribution it is not our intention to bring up the whole discussion on the origin of the typical Drenthe hall-house. The many ground-plans of houses dating from Roman and Merovingian times, that have been obtained in Wijster, Peelo and Odoorn, have made it clear that there can be no question of any continuity between the three-aisled house of the Bronze Age and Pre-Roman Iron Age and the recent farmhouse type. There probably is some continuity in the coastal region with regard to the so-called byre-house (stalbuis) in the Frisian farmhouse.

Gasselte has now supplied us with data that in fact provide a pleasing confirmation of the old theory of Grohne (1938), according to whom the side-aisles of the "niedersächsische Bauernhaus" – to which the Drenthe hall-house also belongs – developed out of a parietal house by means of outer side-aisles, so-called *nitknbbingen*. His theory has been taken up and extended by others, including Van der Molen (1942).

Odoorn and Gasselte show us a development whereby the load of the roof comes to rest completely on posts placed in the alignment of the wall. The outer posts present at a certain stage (Odoorn C) thus gradually lose their importance (Odoorn D, Gasselte A). When this development comes to an end, we see that as a result of the increase in size of posts and post-holes the width of the houses is now 7 to 7.5 m (Gasselte B), while in view of the depth of the post-holes the height of the houses must also have increased. With houses of the last type there now occur locally parallel outer posts, that can best be interpreted as *nitkubbingen* (outer side-aisles) in the sense meant by Grohne: the roof extends to a low outer wall and in this way more space is made available for stalling cattle and for storage. This may happen over part of one of the side walls or over the entire length of the house along both walls, according to requirements. The uitkubbingen are c. 1.50 m deep. They can result in the total width of a house reaching 10 to 11 m.

In the classic Drenthe farmhouse the vertical supporting beams are placed on pedestals of glacial boulders (*stipen*). Our material does not yet show this phenomenon.

The outward-curving walls too have yet to disappear. It is clear therefore that the development leading to the Gasselte B type has not yet come to an end. The continuing excavations in Gasselte will perhaps provide further information on this development.

10. FINAL REMARKS

The excavations in Gasselte, on which we have here given a preliminary report, have provided us with a very welcome link in the series of large settlement excavations that have been carried out on the sands of Drenthe during the past 25 years or so.

First of all they have revealed to us some new house types, that show a development in the direction of the classic historical Drenthe farmhouse, as described by Hijszeler, Van der Molen and others. This development appears to confirm the theory of Grohne and Van der Molen: the three-aisled house had its origin in a simple ballenbuis (hall-house) with parietal uprights by the addition of outer side-aisles (nitkubbingen) laterally under the extending roof. We see this in our period 3. It is of course only possible to make this kind of addition when the walls of the one-aisled house are built sufficiently high. The fact that the post constructions become increasingly more massive, as occurs already in period 2 and is pronounced in periods 3 and 4, is a strong indication that the walls were indeed higher. As the height of the building must have been sufficient in earlier periods for the inhabitants and their livestock, it is obvious to think in terms of the need for more storage space. We shall return to this point later.

That the new construction method was also used for the oldest churches does not surprise us. The similarity is so great that it is not yet possible to deduce from the ground-plan alone whether we are dealing with a secular or religious building. Accordingly, the wooden building that was found under the church of St. Walburg in Groningen may have been a farmhouse as well as a wooden forerunner of the church.

As for the rectangular farmstead plots, separated by roads, with their centrally-placed principal building and peripherally located barns and other outhouses, these we have already seen in Odoorn and Wijster. In this respect an old tradition is continued in Gasselte (at least in periods 1, 2 and 3).

A very striking feature is the increase in the built-up surface area per plot. We see this increase when we compare the ground-plans of periods 1, 2 and 3 (and bearing in mind the fact that not all structures ascribed to the same period existed contemporaneously). This increase appears to be even greater when we include Odoorn in the comparison. While in period 3 in Odoorn we see plots in which the principal building and outhouses together occupy a total internal area of hardly more than 100 m², in period 3 in Gasselte the corresponding area is three to five times as large. In view of the greater height of the buildings in Gasselte, the increase in volume of all the buildings would have been even greater: roughly ten-fold or more.

This increase must have been the result of fundamental economic changes in the society of that time. It is obvious to see a connection here with the change-over, presumed precisely for this period by Slicher van Bath (1960), from a rotation system of two crops to the more productive one of three crops, and to the introduction of traction power using horses (instead of oxen), made possible by improved harnessing, that resulted in more effective tillage. Moreoever, the expansion in population and the development of towns would have caused an increase in the demand for harvest products. The processing of the increased amount of crops harvested resulted from all these factors could presumably not have been carried out in the same short period of time as previously, so there would have been more storage space required for the unthreshed grain.

The grouping of the plots in one long row is surprising at first sight. For both in the early historical settlements in Wijster and Odoorn, as well as in the historical villages the plots show a pattern of agglomeration with intersecting roads. In this respect Gasselte appears to be an anomaly. This anomaly was moreover already evident from the situation of the church, that led us to suppose that the true old centre of the village must have lain further eastward. Besides, also the absence of almost any trace of former occupation on the nevertheless extensive area suggested that here a new settlement was involved, as an extension of the village.

This new settlement is clearly of a different character. For the plots are situated in a row. An interesting point is that during the course of occupation the initial dividing roads between the plots fall into disrepair. In this way the row of plots became a true ribbon village: there was access to the parcels of arable land only from the individual plots. It appears as though we here see a development that could apply for the origin of a ribbon village in general. The building development that took place along the field boundaries on the outgoing roads could have been the example for the new settlements in the peat areas, that in fact all have the character of ribbon villages. However this may be, the view of Slicher van Bath that the ribbon villages started to develop in the 10th century (with a few forerunners in the 9th century) finds a pleasing confirmation in Gasselte.

That we have been able at all to establish by excavation such a large part of this ribbon village is due to the fact that at a certain moment it was abandoned. In view of the apparent scarcity of such abandoned medieval settlements in Drenthe it can be assumed that there was some particular local inducement and we are therefore perhaps justified in seeing a causal connection with another local peculiarity, namely the presence of the separately situated "Grotenende", that also represents a ribbon village, and that on the basis of finds goes back at least to the late middle ages. What this inducement may have been however is not evident from our observations. According to the pedologist J. Wierenga the "Grotenende" was situated on more fertile ground and closer to suitable pastureland. The botanical investigations of Van Zeist (this volume) indicate a rather acid vegetation near the excavated settlement.

It is possible that excavations in the "Grotenende", where in recent times several farmsteads have been abandoned, will be able to tell us more about the period of initial development of this part of the village. Before going thus far however it seems desirable to try to approach the subject of the history of the growth of the village along the lines of historical-geographical research, in a similar way to that done by Heringa (1979) for the village of Ansen.

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