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EXCAVATIONS AT GELEEN-JANSKAMPERVELD 1990/1991

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During the excavations at Geleen-Janskamperveld, not only features from the early Neolithic were found. Later activities date to the Iron Age, the Roman and the post-medieval periods. In this chapter the Iron Age features will be dealt with and the Roman features will be referred to briefly. The Iron Age features consist of a loose spread of a main building and some granaries, belonging to a wandering farmyard typical of the Iron Age settlements from the Dutch and Belgian sandy soils. It is becoming increasingly clear that this type of settlement was also the normal type on the loessic soils. Parts of other wandering farmsteads were found in the immediate surroundings of the Janskamperveld excavation and in the towns of Geleen and Sittard as a whole. The typological position and functional interpretation of the main building will be dealt with extensively. The settlement features can be dated to the early Iron Age. Immediately to the south of the excavation some graves dating to the late Bronze Age and early Iron Age were found. They probably form part of a larger burial ground. This has no temporal or spatial relation with the Roman burial site found during the Janskamperveld excavation.

16.1 INTRODUCTION

Compared to the wealth of material from both the Neolithic and Roman periods, the Iron Age remains at the site of Geleen-Janskamperveld seem to be rather poor. However, from a scientific point of view these are very important. Since the beginning of large scale excavations in the 1950s, research in the loessic regions of Germany, the Netherlands, Belgium and Northern France had mainly been directed towards the early Neolithic, giving at least some attention to the Roman period. Although in most of these excavations some Iron Age features were uncovered, a focus on this period only emerged in the 1980s.² So when the first monograph on the Iron Age of the loessic area appeared,³ the author could only work with four large scale excavations of Bronze and Iron Age settlements of which two were situated on heights and therefore need not necessarily represent the 'normal' open settlements of the time. Needless to say her conclusions were very preliminary.

Large scale research in the loessic area of the Netherlands had through Modderman mainly been a Leyden affair, even

before the Institute of Prehistory was founded there in 1962. Before the excavation of Janskamperveld was started, the Leyden Institute had undertaken an excavation of an Iron Age settlement at Geleen-Krawinkel,⁴ and it was involved in the excavation by the Archaeological State Service (ROB) of a medieval settlement at Sittard-Haagsittard, during which some Iron Age features were found.⁵ Only the archaeological service of the city of Maastricht had also been excavating Iron Age sites in southern Limburg (Dijkman 1989). None of these sites had delivered houseplans, only pits and granary-type buildings were found. However: rarely more than a small part of the site was excavated.

When the large scale excavations at Geleen-Janskamperveld started in 1990, the view on the Iron Age settlement structure of the loessic area was therefore still based on a limited number of sites, of which the most important could be labelled hillforts. Pits used for storage or for loam extraction were found regularly, but almost nothing was known of the buildings on the farmyards. Therefore a discussion had started on the topic whether large buildings (whether considered to be houses containing both a living and a byre section or not) had existed on the loess or not (Joachim 1980 & 1982, Simons 1989, Roymans/Fokkens 1991, Roymans 1996). So when during the excavation of an early Neolithic settlement at Janskamperveld larger ground plans were uncovered that seemed to date to the Iron Age, this data was destined to leave an impact. Unfortunately however, almost no-one seemed to notice it in the mass of Neolithic and Roman age data incorporated in the preliminary reports.

16.2 THE FEATURES

During the excavation at Geleen-Janskamperveld several postholes could be distinguished as not belonging to the Bandkeramic settlement. An important feature of these postholes is their yellowish or light grey colour, which distinguishes them clearly from the brownish postholes of the Neolithic period. Also, several of the postholes of structure 1 cut through Bandkeramic features. On the basis of the find material found in some of them, they can be dated to the Iron Age. These postholes can be grouped into four structures and two clusters, which will be analysed in this section.⁶ We have

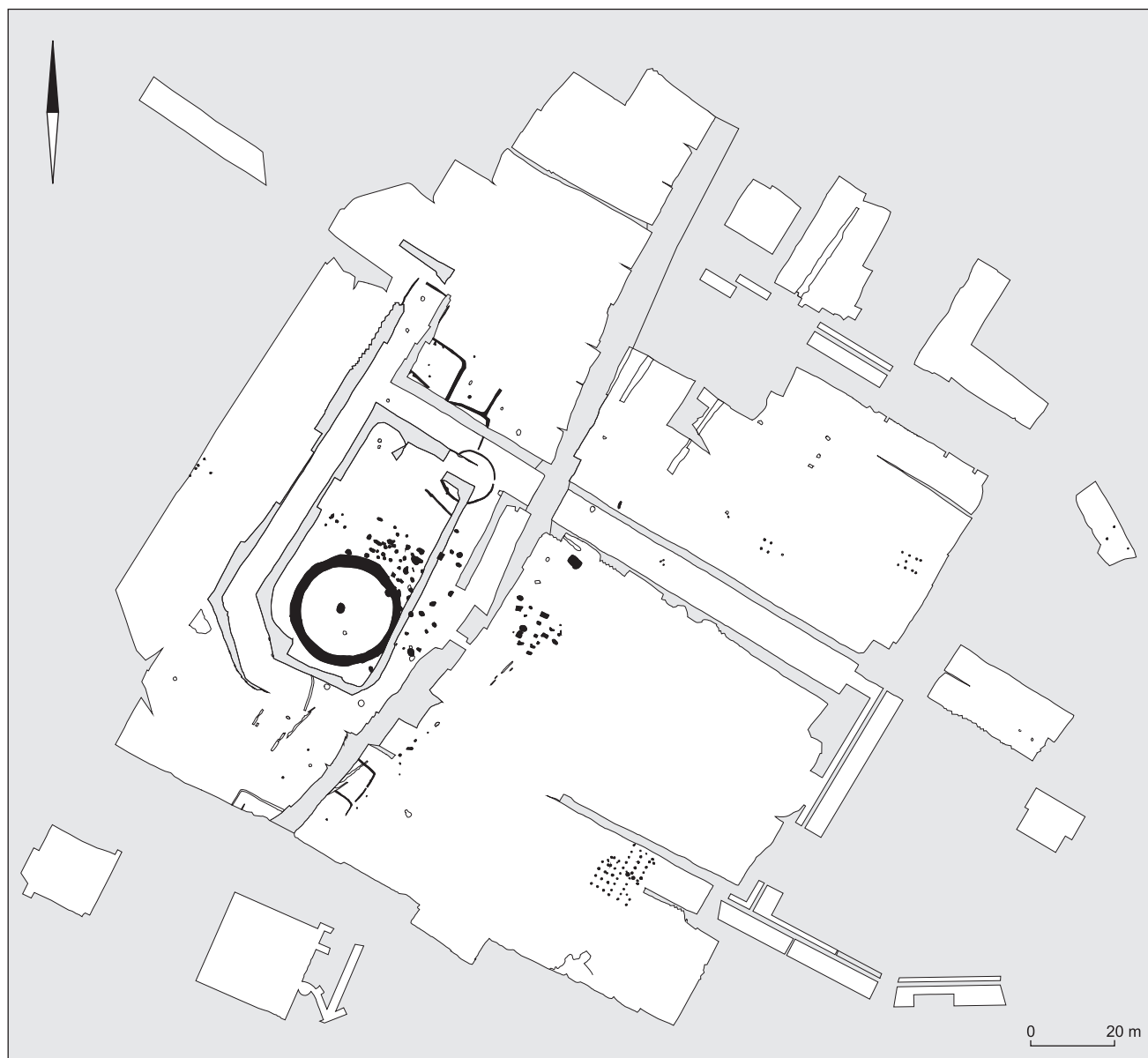


Fig. 16-1 The distribution of all Iron Age and the main Roman features at Geleen-Janskampveld as discussed in this chapter (scale 1:1500).

to keep in mind that probably more than 60 cm of the original surface has disappeared due to erosion, soil formation, etc. before reaching the level at which features were visible in the trenches. Therefore, only slightly dug-in structures will have been missed. Nevertheless, the conservation of the features is quite good for the loessic region.

Structure 1

This structure consists of three alignments of nine postholes and is oriented north-south. Not only the colour of the features, but also the orientation of the building distinguishes it from the bandceramic settlement structures. Next to that, three of the features cut through a Bandkeramic settlement ditch and a Bandkeramic pit. The northern wall of the house

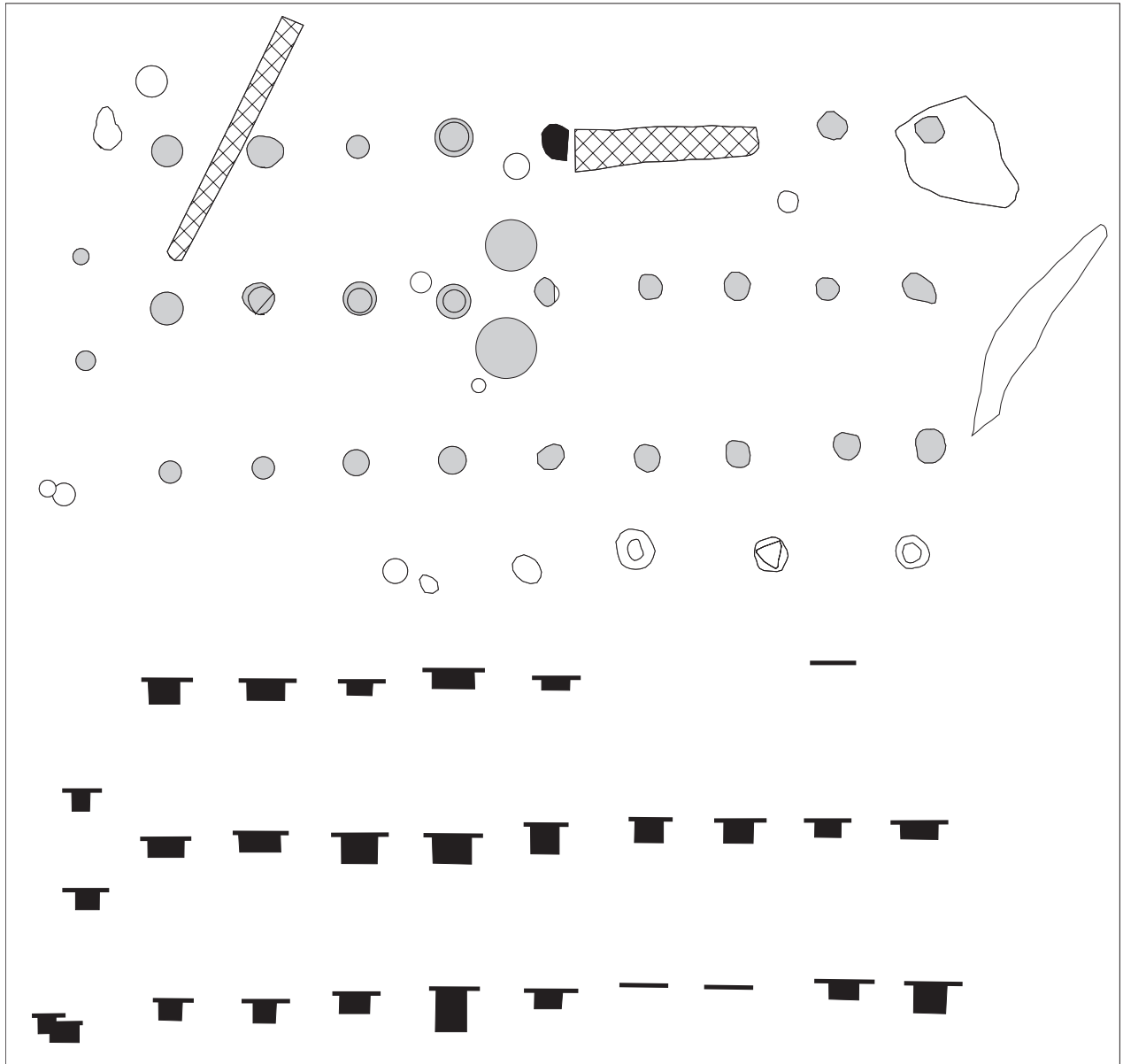


Fig. 16-2 Structure 1 (ground plan 1:100 Bandkeramic features not indicated; feature depths 1:50 (the last after Lawende 1992). In black indicated feature 13004 containing almost all of the material found within the structure.

shows two postholes in the middle positioned in front of the last wallposts. This might point to a rounded ending of the building. Although part of the eastern wall has been destroyed by a ditch of (sub-)recent date the ground plan still shows a great deal of regularity. The distance between the postholes (from edge to edge) is about one meter in the length of the building and about two meters in the width.

The size of the building is $12,6 \times 4,8$ m. Its original size probably wasn't much larger considering the fact that structure 2 is situated within 0,8 m of structure 1 (measured from the edges of the postholes), which indicates that the walls weren't situated at a great distance from the roof-supports. It can therefore be classified as a two-aisled building. In the centre of the building two pits were found,

one in each aisle (features 13013a and 13021). Feature 13021 measured 65 cm in diameter and 20 cm in depth. Feature 13013a was 80 cm in diameter, but according to the excavation notes was too shallow to be drawn.⁷ Considering their position within the building, we expect them to belong to the building, and expect feature 13013a to be only the last remains of a pit within the house. Due to its size this structure might be interpreted as the main building of the Iron Age settlement. A further discussion on its possible function will be kept to section 16.5.

Material was found in three postholes. Interesting is the amount of material found in feature 13004: 37 pieces and a lot of smaller remains of heavily secondarily burnt ceramics, weighing 1308 g, and 81,7 g of burnt loam (partly with imprints of twigs). This is quite a lot of material, considering the fact that the feature was only 50 cm in diameter and 10 cm in depth.⁸ It is interesting that exactly opposite this feature in the western wall of the building is situated the deepest posthole of the entire structure with a depth of about 30 cm (all other postholes have depths between 0-20 cm). We wonder if we can call it a coincidence that the deepest posthole is situated on a line in the middle of the building, on which line we can find a posthole containing a large amount of burnt ceramics and loam and the two pits lying within the structure. We expect the entrance of the building to have been in this area. If we take the distance from the edges of the postholes, the entrance is 1,1 m wide. This is on the small side, but within the range of entrances known from other regions of the Netherlands. For example the entrances of Iron Age houses in the central and eastern parts of the Netherlands have widths of 1,2 – 1,8 m (Hermesen 2003). In Oss we see comparable widths, especially during the Roman period (Schinkel 1998, Wesselingh 2000) and in the Bronze Age of the Netherlands entrances have widths of 1,0 – 1,6 m, most of them measuring 1,3 – 1,4 m (Van Hoof/Meurkens 2007, 37-38).

The amount of burnt material in feature 13004 stands out in the total amount of Iron Age finds from the site. Actually the amount of material is that large, that you might wonder whether there was any sediment in this small posthole. Interestingly, in several other similar buildings large amounts of burnt ceramics were found in one or two of the postholes, usually on the corner of the structure. This is the case at Echt-Mariahoop (Willems 1983, 234-238) and Inden-Altendorf (Kranendonk 1992). But also in some granaries in the region large amounts of burnt ceramics, loam and even grinding stones were found.⁹ The amount of material is often so high that you might wonder if there was still room for the wooden post itself. Although the amount of material in Geleen-Janskampveld is somewhat less than on for example Echt-Mariahoop, the posthole it came out of is also very small. Therefore we presume this phenomenon to belong to

abandonment rituals (cf. Van den Broeke 2002). In the Iron Age of the loess region no clear foundation depositions are known, but abandonment depositions in the form of large amounts of burnt material in specific postholes or in pits on the settlement are found regularly (Van Hoof 2002).

Structure 2

Adjoining structure 1 to the west is a cluster of postholes that were originally (Lawende 1992) taken together as one ground plan. This then would have dimensions of $7,9 \times 3,5$ m and would seem to be a smaller building of the same type as structure 1. However, a closer analysis of the plan shows that the northern six postholes are not really aligned on the southern nine postholes. These southern postholes almost all show discolorations of the actual posts (yellowish) within the post holes (grey), which the northern six do not. And finally the sizes of the two groups of postholes show some differences. Therefore, it seems necessary to distinguish between a southern (2a) and a northern structure (2b). Structure 2a has a square ground plan, consisting of nine posts on three lines. Its size is $4,1 \times 3,5$ m. It can be classified as a nine-post outbuilding, mostly seen as used for grain storage. This kind of building can be found regularly on Iron Age settlement sites. Structure 2b still offers some interpretational problems. It might be interpreted as one four-post outbuilding of $2,0 \times 2,0$ m. That however would mean that several of the post-holes could not be attributed to any structure, although some might be interpreted as the remains of repair works to the building. A second option might be to see these postholes as the remains of a second, slightly turned fourpost outbuilding built on the same location and measuring $1,6 \times 1,4$ m.¹⁰

Structure 3

At a distance of about 90 m to the north of the aforementioned structures a cluster of eleven postholes was found. Of these eight seem to form two lines of four posts. However, the easternmost posts are not aligned on the others. Therefore two interpretations seem to be possible for this structure. First of all it can be identified as a six-post outbuilding of which the eastern wall has been repaired. The original dimensions of this building therefore would have been $3,7 \times 3,1$ m, after repair $4,7 \times 3,1$ m. A second possibility is that two four-post outbuildings have been built on the same site. These would have measured $3,7 \times 3,1$ m and $2,9 \times 3,1$ m. We slightly prefer the first possibility. In this construction we find a post on the central axis of this building. Therefore we might interpret this building as a two-aisled small outbuilding, known from several Dutch early Iron Age settlements (see fig. 16.7), which we will argue further on in this study to form outbuilding type Oss IID.

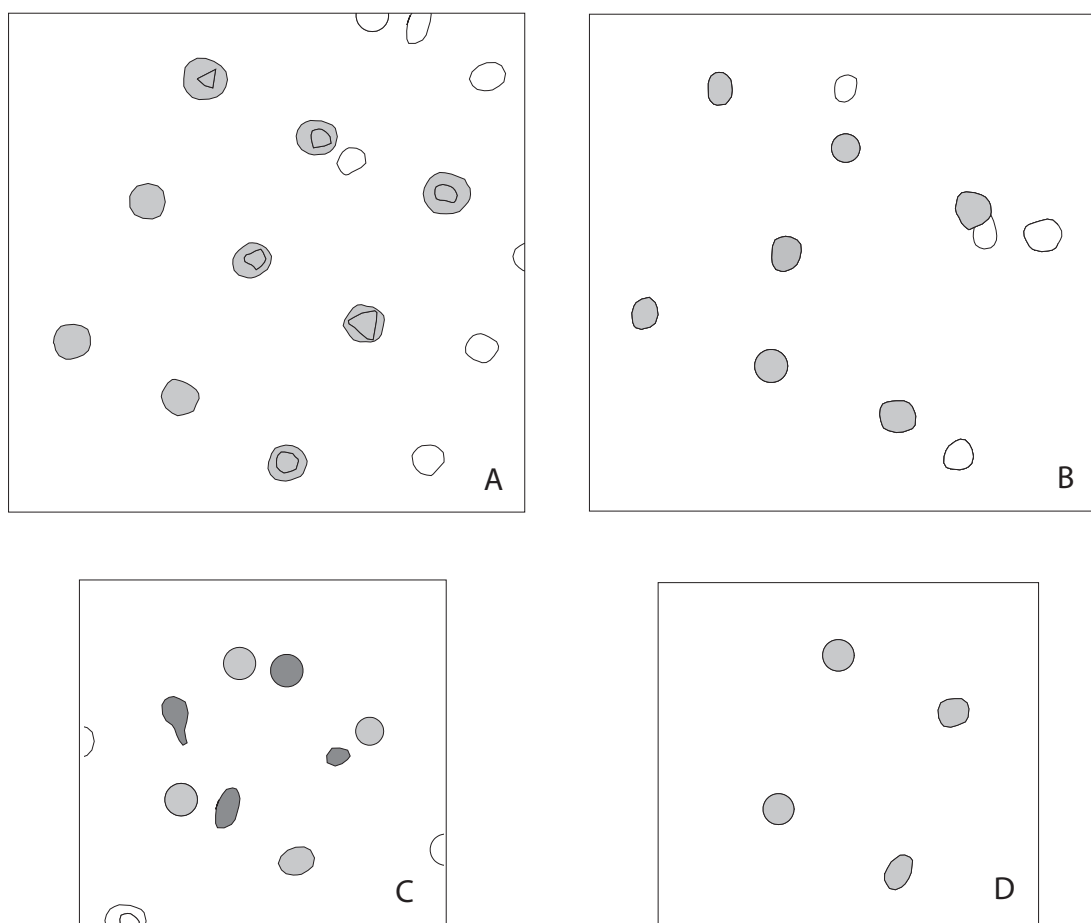


Fig. 16-3 Outbuildings found at Geleen-Janskamperveld (scale 1:100; bandceramic features not indicated). A: structure 2A; B: structure 3 (primary construction highlighted); C: structure 2B (with two possible building phases indicated); D: structure 4.

Structure 4

At a distance of 30 m to the west of structure 3 another six postholes have been found, in which a four-post outbuilding could be identified. It measured $2,2 \times 1,7$ m.

Other clusters of postholes

In trench 21 ($n=2$) and 62 ($n=2$) about 45 m to the east of structures 3 and 4, and in trench 38 ($n=5$) on the western border of the excavated area, some features with the same colour characteristics were found. No structures could be identified from these. However, in trench 38 four of these features form a straight line of 5,2 m length before reaching the edges of the excavated area. Therefore, we might assume that it forms part of a structure, but cannot ascertain the size or function of this building.

Furthermore within the excavated area 22 pits were found with colour characteristics that might date them in the Iron

Age or Roman period. Only three of them contained Roman material (Wesselingh 1992). Therefore it is not sure whether some of these pits might belong to the Iron Age habitation.

Finds

Only in structures 1 and 2 some ceramics were found that could provide a date for the settlement. All other structures were only dated to the same period on the basis of the colour characteristics. Therefore, synchronicity of the structures cannot be proven. The lack of other late prehistoric (or later) settlement remains, however, does make synchronicity probable.

Most finds from structure 1 come from feature 13004. It consists of 37 larger pieces of ceramics and some smaller remains (total of 1308 g). Most of the material is secondarily burnt, which makes the analysis more difficult. The material consists of several sherds of a large vessel with a small ear,



Fig. 16-4 Ceramics and loam fragments from feature 13004

mainly showing a temper of ground ceramics. It seems that all this material might be interpreted as belonging to one large storage vessel with several small ears on the shoulder. Such ceramics have been found in early Iron Age contexts.¹¹ In the filling of the northeastern corner post 13010 18 sherds were found (141,5 g), showing some quartz-temper. One of the sherds was decorated with lines or comb-decoration. One of the roofbearing posts (13017) contained a piece of thinwalled reddish ceramics. It shows some characteristics of the ceramics that salt containers were made of, but a definite attribution could not be ascertained on the basis of this small sherd. Finally some 81,7 g of burnt loam was found within feature 13004. Some of these pieces showed imprints of twigs.

In three of the postholes belonging to the possibly two-phased fourpost outbuilding 2b a total of six sherds was found. They show the same characteristics as the ceramics found in structure 1. In one of the postholes belonging to

structure 2a one sherd was found, again showing the same characteristics. Therefore, we can attribute the settlement features to the early Iron Age. If the piece of ceramics from feature 13017 would indeed be a cylindrical salt container, this would date the site in the 6th century BC. However, this attribution is not clear enough and therefore we should stick to the wider date range.

16.3 THE PLACE OF GELEEN-JANSKAMPVELD IN THE REGIONAL IRON AGE LANDSCAPE

Until now, Geleen-Janskamperveld is the only Iron Age site in southern Limburg where large areas have been excavated around a large building. For the research of the Iron Age in this area, therefore, we were fortunate that these features were found in the middle of a large Bandkeramic settlement. Iron Age sites in the region are rarely excavated, and almost never on a large scale (cf. Van Hoof 2007).¹² However, the cities Sittard and Geleen (recently fused into one administrative unit) form an exception in the amount of research carried out on sites from the Bronze and Iron Ages. Only the city of Maastricht sees an equally intensive research on these periods, however until now resulting in more insight into the burial grounds than into the settlement structure. Therefore it will be interesting to compare the data of Geleen-Janskamperveld with that of other sites excavated in the towns of Geleen and Sittard.

Before the excavations at Geleen-Janskamperveld started, an excavation by the University of Leyden had been carried out on the Iron Age site of Geleen-Krawinkel in 1986 and 1987. The data of this site are only published in preliminary reports (Abbink/Van Ieperen 1988; Van Hoof 2000) but the analysis carried out by the current author is reaching its final stages. The site of Sittard-Haagsittard has only provided a storage pit and some postholes and will therefore not play a major role in this study. Since the excavations of Geleen-Janskamperveld have been carried out, important new sites have been excavated at Sittard-Hoogveld, -Nusterweg, Nieuwstadt-Sittarderweg and Geleen-Hof van Limburg (small scale excavations taking place at Geleen-Tuinboulevard and -de Haese). The site of Sittard-Hoogveld, excavated by the University of Amsterdam in 1998 and 1999, consists of a large Iron Age urnfield and settlement features of the Bronze and Iron Ages (Tol et al. 2000; Tol/Schabink 2004). Only separated by a railway line, the site of Sittard-Nusterweg seems to belong to the same Iron Age settlement area as Sittard-Hoogveld. On the site of Nusterweg next to a large number of postholes, remains of early Iron Age kilns for ceramic production were found (Wetzels 2002). The excavations at Nieuwstadt-Sittarderweg uncovered an Iron Age habitation site, just outside of the community of Sittard-Geleen (Bink 2004). The site of Geleen-Hof van Limburg (of which a part is still planned to be excavated in the near

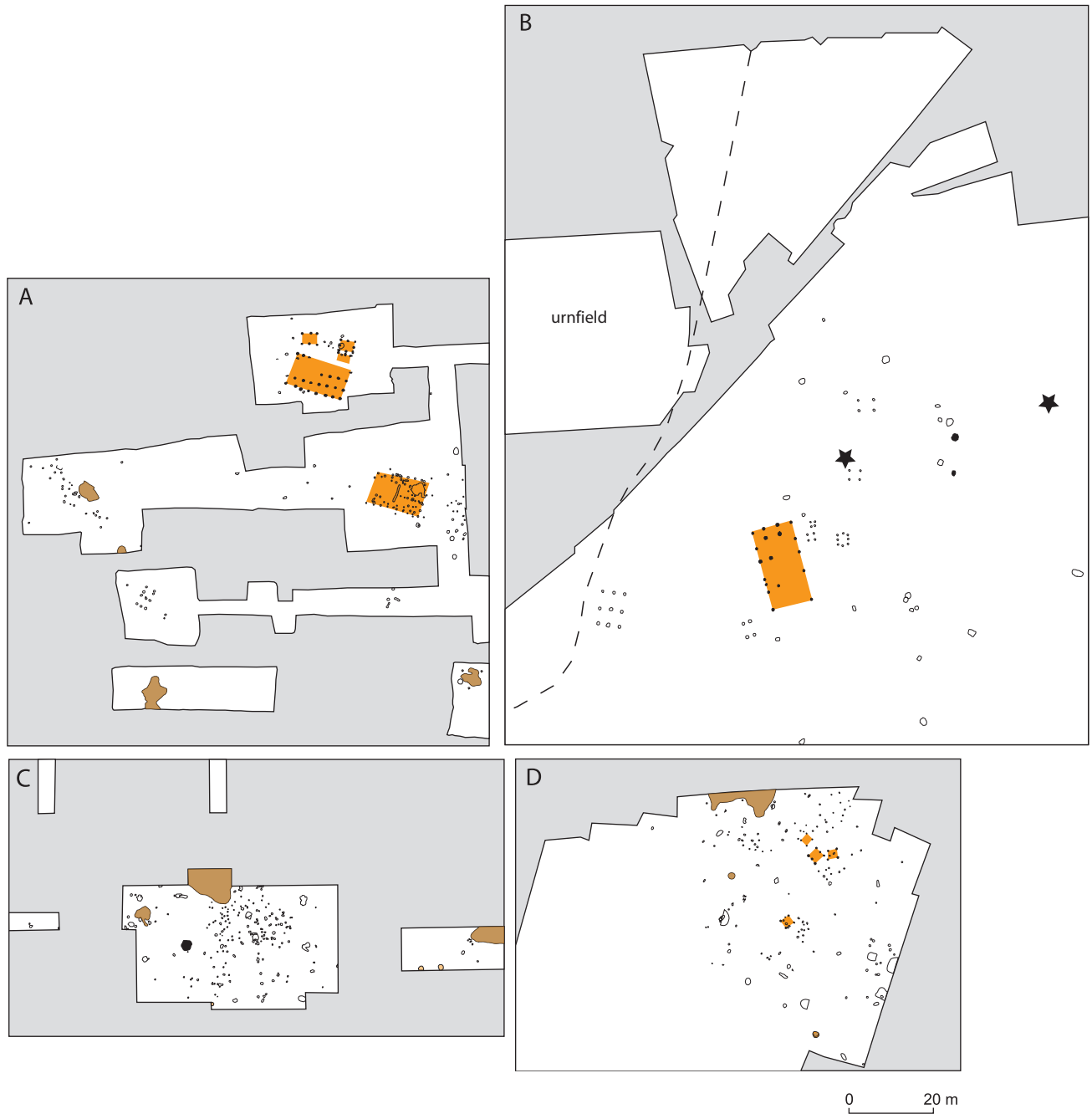


Fig. 16-5 The settlements of Sittard-Hoogveld (A; Tol/Schabbink 2004), Neerharen-Rekem (B; De Boe et al. 1992), Geleen-Krawinkel (C; Abbink/Van Ieperen 1988) and Geleen-Hof van Limburg (D; Van Hoof et al. in prep.) compared. Highlighted are the evident Iron Age buildings, the loam extraction pits, pits with layers of charred grain and pits showing evidence for abandonment rituals. On the image of Neerharen-Rekem the late Bronze Age and early Iron Age urnfield and spread graves (stars) are indicated.

future) has seen the excavation of part of an early Iron Age settlement with its surroundings. Because of the Neolithic features found outside of the Iron Age settlement, a large area around the excavated part of the Iron Age site could be researched (Van Hoof *et al.* in prep.). At a small distance from this site some small-scale excavations were carried out at Geleen-Tuinboulevard that have also delivered settlement features from the early Iron Age.¹³ Finally just west of Janskampveld (across the main road) small scale excavations were carried out at De Haese, again delivering settlement features from the early Iron Age.¹⁴

Only on three of these sites were large buildings found: at Geleen-Janskampveld, Sittard-Hoogveld and Nieuwstadt-Sittarderweg. Most of these large buildings show a ground plan similar to that of Geleen-Janskampveld: two-aisled with a regular setting of postholes placed relatively close to each other (one at Sittard-Hoogveld and three at Nieuwstadt-Sittarderweg). At Sittard-Hoogveld a second building was found that forms a three-aisled variant of this building type. An almost identical building had been found within 10 km of the town of Geleen across the Meuse river in Neerharen-Rekem (Belgian Limburg; De Boe *et al.* 1992, 488-489). One of the interesting observations on all of these sites with house plans is that contemporary features are quite rare in the immediate surroundings of these buildings.

At Neerharen-Rekem a group of storage pits was found at 40-50 m from the Iron Age building.¹⁵ In between the house and the pits some smaller granaries were found, probably belonging to the Iron Age, although some of them might belong to the Roman settlement that was later built in the same area. Some 30-40 m to the south of the main building a few pits containing ceramics from the 5th century BC were found. So at this site in a radius of about 50 m around the main building some granaries and storage pits existed. No other contemporary settlement features have been found on the large scale excavation. At the settlement of Rosmeer some early Iron Age pits have been found immediately around the main building, and again several clusters of pits have been found at distances of 25-35 m from this main building (De Boe/Van Impe 1979).

At Sittard-Hoogveld no clear contemporary features have been found with the two-aisled late Bronze Age building, which is very similar to the one at Geleen-Janskampveld. Unfortunately, large parts around the buildings on the site have not been excavated. However, for the early Iron Age habitation the settlement lay-out is somewhat clearer. The early Iron Age features consist of one evident and one possible main building situated at about 20 m distance from each other. Immediately surrounding the clear, three-aisled main building are some smaller granaries. The immediate surroundings of these structures are quite empty. Only at distances of 50-100 m from the two main buildings are new

features found that are arranged around the zone with the main buildings. These features consist of some postholes, belonging to at least one granary, and some polylobal pits that contained large amounts of ceramics and stone. The form and contents of these pits are identical to the upper layers of the loam-extraction pits known from early Iron Age sites like Geleen-Hof van Limburg, – Krawinkel or the adjacent German loessic soils (Simons 1989, Van Hoof 2002). The single pits underneath these upper layers are easily missed, since they were back-filled with the original soil and normally do not contain ceramics or other finds. Since weather conditions during excavation of these features weren't always ideal, these lower layers might not have been noticed in the field. We therefore believe these features to belong to the category of loam-extraction pits, typical for the loessic region.¹⁶

At the site of Nieuwstadt-Sittarderweg, situated on the sandy soils just north of the loessic area, surrounding the two-aisled main buildings are some granaries and other outbuildings. Only a limited number of pits and ditches was found in the vicinity. Most of these features even date to the middle and late Iron Age. Therefore, again, the number of features that was clearly contemporaneous with the main buildings is very restricted. At the sites of Geleen-Krawinkel and – Hof van Limburg only parts of the settlement could be excavated as of yet. On both sites some granaries have been found associated with large loam extraction pits. At Hof van Limburg it is very clear that these loam extraction pits surround the granary area. To the other side of the loam extraction pits no Iron Age features were found.¹⁷ At Geleen-Krawinkel the excavation was very limited, but some of the trial trenches might indicate a similar lay-out with large loam extraction pits dug on the edges of the settlement, something also noted in the adjacent German area.¹⁸ Within this settlement a large cluster of postholes (probably belonging to several times rebuilt outbuildings) was found, accompanied by a grain storage pit and some pits filled with large quantities of burnt ceramics, burnt loam, grinding stones, etc.¹⁹

On all of these sites only granaries and other small outbuildings are found immediately next to the main building. Only very rarely are pits found within 10 m from the main building. Pits and other groups of granaries can be found at distances of 30-100 m from the main building. Especially the pits used for loam-extraction seem to be situated on the edges of the settlement.²⁰ At Geleen-Janskampveld immediately next to the main building two to three granaries were found (structures 2a+b). At a much larger distance, structures 3 and 4 can be found in a zone at 80-100 m from the main building where some more postholes were found. The furthest of these Iron Age postholes (for example the line of postholes on the limits of trench 38) are

found at distances of up to 130 m from the main building. No clear Iron Age pits were found at Geleen-Janskamperveld. However, the limits of the excavation lie only 20 m to the south of the main building. Therefore, more features belonging to this farmyard might have existed outside of the excavation limits.

It is clear that the Iron Age settlement zone stretched over a far larger area than has been excavated (fig. 16.6). To the south at a distance of 230 m of building 1 a pit containing

large amounts of early Iron Age ceramics was found during construction works in 1977 (Van den Broeke 1980; fig. 16.6 nr. 1: Haesselderveld). At about 275 m to the east of structure 1 a possible storage pit was found in 1993. According to Harry Vromen the colour indicated an Iron Age origin of this feature (fig. 16.6 nr. 3).²¹ Recently at a comparable distance to the west Iron Age features have been found during small scale excavations in the building area of De Haese (fig. 16.6 nr. 2).²² Unfortunately due to the nature



Fig. 16-6 The Iron Age and Roman features of Janskamperveld and its immediate surroundings. Circles indicate Iron Age settlement remains (1: Haesselderveld, 2: de Haese, 3: pit found in 1993), stars indicate late Bronze Age and early Iron age graves (4: Geleenbeeklaan 70, 5: find Schute 1990 (approximate location); 6: find Vromen 1993).

of these rescue excavations, not much can be said about the structure of the larger settlement area. But it is clear that the features found at Geleen-Janskamperveld form only part of a substantial area in which clusters of Iron Age features can be found. This fits in nicely with the model of wandering, mostly one-phased farmyards based on the Iron Age settlement evidence of the sandy soils of the southern Netherlands.²³ At Sittard-Hoogveld a two-phased farmyard from the early Iron Age has been established, but the wandering of farmyards has led to the construction of houses from the middle Bronze Age until the early Iron Age within the same area. Only at the site of Nieuwstadt-Sittarderweg and possibly at Echt-Mariahoop – both situated just north of the loessic soils – have several occupation phases from the early Iron Age led to the existence of houseplans at short distances from each other. Interestingly all other late prehistoric features in the larger settlement area around Janskamperveld seem to date to the early Iron Age.

16.4 A BURIAL GROUND AT GELEEN-JANSKAMPVELD
At the sites Neerharen-Rekem and Sittard-Hoogveld, not only have houses been excavated, but also the burial grounds belonging to the same periods (Tol *et al.* 2000; De Boe *et al.* 1992). At Neerharen-Rekem the southernmost graves and the northernmost settlement features are found only a few meters away from each other. At the site of Sittard-Hoogveld the excavations of the settlement site and the burial ground are located at 250 m from each other. The zone in between has not seen any excavations, therefore we know little of the distribution of Iron Age settlement features around the burial ground. In both cases these burial grounds have an older origin (starting with early or middle Bronze Age graves), but the largest part of the burials date to the late Bronze Age and early Iron Age. Interestingly, again on both burial grounds, within or on the edges of these large urnfields some small clusters of late Iron Age graves occur. At Geleen-Janskamperveld also a large burial ground was found. Most of the ca. 100 graves date to the Roman period (Wesselingh 1992). Some of the graves in this burial ground, however, indicate older roots. Five of these graves have been described by Lawende (1992), one has been added by Wesselingh (1992: grave 8). On the basis of their grave gifts they might date to the late Iron Age or the beginning of the Roman period. Four graves contain hand-made ceramics. Only in one case is this an urn (a hand-made open form with inward-turned rim), in the other three graves only some sherds were found. In two of these graves other grave goods were also found, in one case an iron knife, in the second seven sling shots.²⁴ The other two graves contain no grave goods. From the smaller circular ditch an Iron Age sherd was collected, having a deliberately roughened surface.²⁵ In the northern zone where these ditch structures were identified, in pit 11028

a sherd with V-shaped fingernail impressions was found, that seems to date to the early Iron Age.

Although the grave goods might only hint to a first phase of the burial ground, the structure of this burial ground shows this much clearer. The plan of the burial ground shows a dense cluster of burial pits dating to the period 70-225 AD (dates according to Wesselingh 1992). Some of the oldest burials from this cluster have been dug into the upper filling of a large circular ditch, and other circular and square ditches are visible on the edges of the burial ground. It is in the northern zone with square ditched structures that five of the six late Iron Age or early Roman graves were found. The grave containing the sling shots was located within the large circular ditch. Thus, it is evident that there was a burial ground consisting of loosely spread graves, surrounded by square and circular ditches pre-dating the highly clustered Roman burial ground dating to 70-225 AD. This stratigraphical position is underscored by the fact that one of the square ditches in the north has been cut by a Roman age pit (pit nr. x11 of Wesselingh 1992). The grave goods indicate a date in the late Iron Age or the beginning of the Roman period for these burials.

The most striking feature in this burial ground is a large circular ditch with a diameter of about 25 m. The ditch itself has a width of 2,0 – 2,7 m, a depth of 1,5 m and a V-shaped cross-section. The ditch shows a laminated, natural fill, which means that it filled up gradually. Some Roman burials dating between 75 and 125 AD were dug into the top of this filled-up ditch (Wesselingh 1992, 17-18). Only one grave (containing the sling shots) was found within this ditch. This grave can be dated to the early phase of the burial ground, which means that the later, concentrated burials respect the body of this large monument. This might indicate that a burial mound was still visible. Within the circular ditch a 3,5 m deep pit was found containing some Roman sherds, nails and a layer of charcoal. The Roman graves cluster on the northeastern side of this large structure. The monumental character of this structure indicates its special role. Although it clearly predates the clustered Roman burial ground, it might very well belong to the earlier late Iron Age / early Roman burial ground with its square and circular ditches. It even lies in the centre of this burial ground. Although the diameter of this burial structure equals some elite prehistoric burials, large and deep, V-shaped ring ditches are not known in Dutch prehistoric burial grounds. Therefore this structure might be interpreted as a monumental ‘founder burial’, forming the centre for both phases of the early- and middle-Roman burial ground. Possibly the central burial was robbed (which would make the 3,5 m deep feature within the ring ditch the robber’s pit). This would mean that an Iron Age beginning of this burial ground can not be established with certainty. The oldest phase with its square and circular

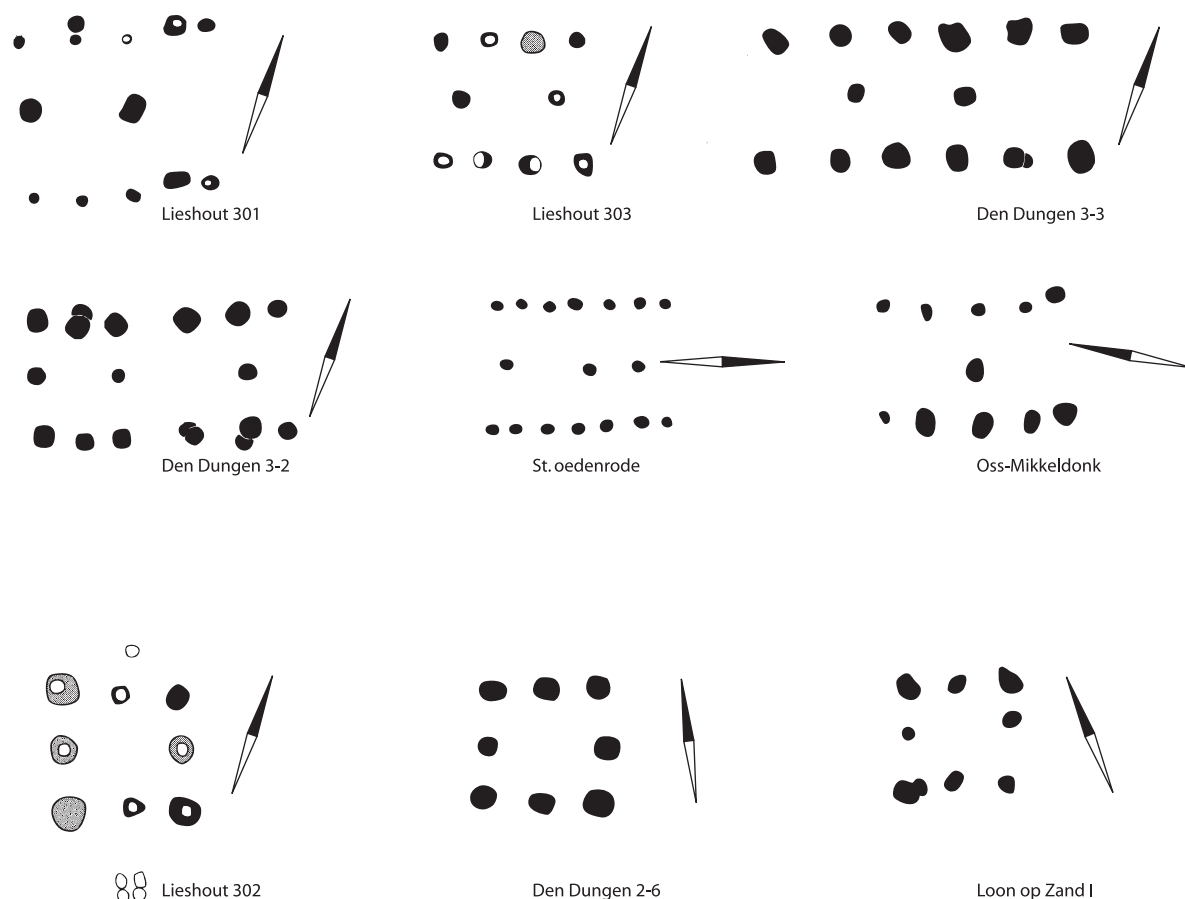


Fig. 16-7 Examples of granary type Oss IID; scale 1:200 (Hiddink 2005a, 104).

ditches might very well date to the early Roman period, which was after 70 AD replaced by a highly clustered burial ground clearly grouped around the largest, most monumental burial structure of this burial ground.

But are there no indications of a clear prehistoric burial ground in the vicinity of the settlement at Geleen-Janskamperveld? Actually, there are. During construction works along the road to the south of the Geleen-Janskamperveld excavation (the Geleenbeeklaan) several graves were found. At nr. 80 three graves were found that might form the southern extension of the late Iron Age / early Roman burial ground of Janskamperveld. Near nr.70 (about 50 m south of building 1; fig. 16.6 nr. 4) a burial pit was found by Harry Vromen. The feature was visible in the side of a trench for service-pipes as a feature of 92 cm wide and 35 cm deep. In the grave were found a cremation, a bronze ring and a bracelet of sapropelite.²⁶ Further to the east, in a similar trench a cremation in a late Bronze Age urn was found in 1990 by Ivar Schute (fig. 16.6 nr. 5).²⁷ Finally at about 430 m to the southeast of building 1,

a cremation grave was found by Harry Vromen in 1993 (fig. 16.6 nr. 6). Within a feature with a diameter of 35 cm and a remaining depth of 5 cm remains of a cremation and Iron Age ceramics were found.²⁸ This all indicates that the site of Geleen-Janskamperveld is situated in a cultural landscape where settlements and burial grounds from the late Bronze Age and early Iron Age can be found. Unfortunately, the archaeological research undertaken in the area around Janskamperveld was very limited. Therefore we know very little of the burial grounds and settlement sites surrounding it.

16.5 THE JANSKAMPERVELD – HOUSEPLANS IN A WIDER VIEW

16.5.1 *The definition of a building type*

When the buildings of Geleen-Janskamperveld were found, not much material was available to compare it with. Since Iron Age settlement sites in the Dutch loessic area had hardly seen any excavation taking place (at the large-scaled excavations of the Bandkeramic settlements of Elsloo, Stein and

Sittard by the late professor Modderman only a few outbuildings, some pits and some graves were found) and no comparable plans had been published in the then quite recently published thesis of Simons (1989), attention was drawn to a small number of plans known from the sandy soils of the southern Netherlands (cf. Lawende 1992). This has led to the incorporation of the Janskamperveld houseplan in a group of buildings known as Oss – granary type IIB (Schinkel 1998, 258). Therefore, a first step in analyzing the building (whether regarding its typological position or its function) will be to look at the discourse about this outbuilding type and the position of the Janskamperveld plan within this discourse.

The granary type IIB has been defined by it showing a ground plan of three lines of postholes and having twelve or more postholes in total. Until now three buildings of this type have been recognized at Oss. Two of them were found on the location Westerveld, one at Mikkeldonk. All three of them can hardly be dated on the basis of the few crumbs of ceramics found in the postholes. The hand-made sherds could date in the entire period late Bronze Age through Roman period. Although the three buildings show some basic similarities in their ground plan, we can also distinguish some clear differences between the three structures. The first of them is S445 from Oss-Ussen (Westerveld), measuring 6,1 × 2,9 m. This structure is situated near the late Iron Age houses 113 and 114 and early Iron Age house 112.²⁹ Therefore, the structure will be an outbuilding belonging to one of these Iron Age houses. Its structure is however far less regular than that of the building at Geleen-Janskamperveld. This building should probably be attributed to another type of outbuilding, seen on several Iron Age sites in the Netherlands. It is indeed built up of three lines of posts, and it has more than three posts on the outer lines. However: in general they show less posts on the central line. We might include this type in the Oss typology as granary type IID. Good examples of this group are known from Deventer-Swormink (Ten Bosch 1995), Oss-Mikkeldonk (Fokkens 1991, 106), Den Dungen (Verwers 1991), Sint-Oedenrode (Van Bodegraven 1991), Lieshout (Hiddink 2005a, 102-104; structures 301, 303 and 382), Someren (Hakvoort *et al.* 2004; structure 302 that might be split up into two of these buildings), Loon op Zand (Roymans/Hiddink 1991), Hilvarenbeek (Hakvoort 2004), Venray (Van der Velde/Kenemans 2003, 34; possibly Stoeper *et al.* 2000), Sint-Gillis-Waas (Bourgeois 1991) and Geleen-Janskamperveld structure 3 (see this report). Their dimensions range from 3,75-10 × 2,3-4,5 m, but only a few examples are larger than 25 m² (see fig. 16.8). They form a clearly defined outbuilding type that seems to date almost exclusively to the early Iron Age. One building was found at Someren that probably belongs to this category of buildings, but due to the amount of central posts looks a

lot like the building of Geleen-Janskamperveld (Roymans/Kortlang 1993, 30-31). However, it still has less posts on the central axis than on the outer rows and therefore probably belongs to the type IID.

The second building attributed to granary type IIB known in Oss is outbuilding S455, again from Oss-Ussen (Westerveld). This building has the same regular lay-out of postholes as the buildings of Geleen-Janskamperveld and Echt-Mariahoop. Its dimensions are 8,5 × 4,4 m and its orientation is north-south (Schinkel 1998, 258). The first thing that is striking are the dimensions of this granary. Of the 486 granaries uncovered in Oss-Ussen only eight Roman *horrea* and two other granaries have a surface area of more than 20-21 m²: this outbuilding S455 and outbuilding S320 (measuring 6,5 × 5,3 m) that was also found at Westerveld. This last one has been found in between two Roman houses and was dated on the ground of ceramics from its postholes to the late Iron Age or the Roman period. A Roman age for this structure is also highly likely because of the fact that its postholes were founded so deep that the lower parts of the posts were preserved below the water table. This is something that in Oss is only known from structures dating to the Roman period or at most from 50 BC. The category of larger outbuildings (of which twelve structures are known in Oss-Ussen) is also only dated to the Roman period and the last half century BC.

This means that if S455 would date to the early Iron Age, its size would be totally exceptional in the context of Oss-Ussen. But there are some doubts about the early Iron Age date of this structure (that was only based on its structure being similar to that of the building type of Geleen-Janskamperveld). First, of course, there is the size of the building. But secondly there is the orientation. Of all houses and outbuildings known in Oss-Ussen only a few show a north-south orientation (all others are oriented more or less east-west). Although some houses can have a strong inclination towards northeast-southwest, real north-south oriented buildings stick out immediately on the map of the site. These buildings are eight houses, a *horreum* and an outbuilding and they have all been found on the Westerveld settlement. This settlement belongs to a special group of Roman sites where buildings were constructed on two axes, more or less in a square, and where special buildings (probably the residences of the local elite) were constructed.³⁰ Because of its situation just outside the ditches of the Westerveld settlement, and the fact that the only other north-south oriented buildings in Ussen are Roman buildings from this Westerveld settlement, we believe that this building should be attributed to this Roman settlement. It might very well belong to the Roman houses 118 and 119 that have the same north-south orientation and are situated at about 25 m from S455. This seems more likely than that it belongs to the nearest Iron Age

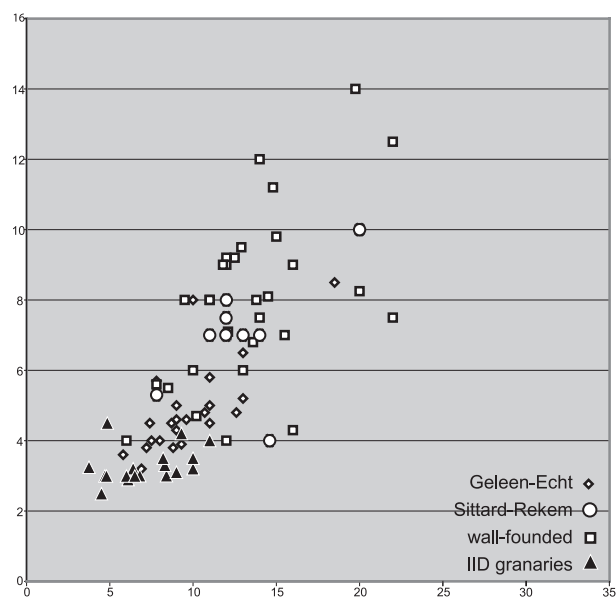


Fig. 16-8a Dimensions of granary type IID compared to the buildings of types Geleen-Echt, Sittard-Rekem and those with tightly placed wallposts from northern France and southern Germany.

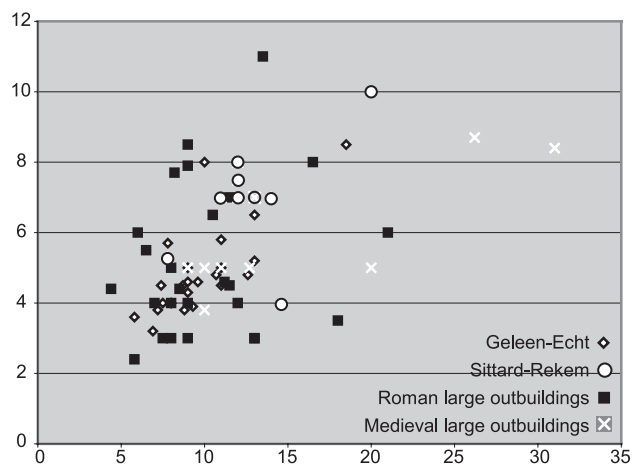


Fig. 16-8b Dimensions of the buildings of types Geleen-Echt and Sittard-Rekem compared to those of Roman and Medieval two-aisled large outbuildings.

house (house 112 situated at about 75 m to the west of S455, of course oriented east-west).³¹

If we accept the attribution of S455 to the Roman period, it becomes clear that in Iron Age Oss there is no category in between the granaries of up to 21 m² and the houses. Even outside of Oss outbuildings dating to the early Iron Age only rarely are larger than 25 m² (see above). Larger outbuildings such as *horrea* only come into existence in the Roman period

or at least after 50 BC, at the same moment when houses with extremely deep founded central posts come into existence. From the same moment onwards large granaries of type IIB can be found, next to these *horrea* and other outbuilding types. Maybe some of the shorter houses of the late Iron Age / Roman house type 5A belong to this same group of large outbuildings.³² Other granaries of Oss type IIB can be found on Roman settlements throughout the Netherlands. A large number of them is known from Wijk-bij-Duurstede “De Horden” where the houses follow the Oss typology. Smaller numbers of these buildings are known from Beegden, Weert, Breda, Fochteloo, Peel and Zeijen.³³ In the Netherlands and northern Germany similar outbuildings can be found on early medieval sites (see further). Therefore we see no problem in attributing S455 to the Roman period, which means that a direct link between this structure and structure 1 of Geleen-Janskamperveld does not exist and that the granary type IIB just like all large outbuildings in the southern Netherlands should be dated from the Roman period onwards.

This leaves us with the two-aisled structure found at Mikkeldonk (house 133; 10,7 × 4,8 m).³⁴ Its size and ground plan are quite close to that of Geleen-Janskamperveld. Also the association with a smaller granary is identical. Although large areas surrounding this structure have not been excavated, there are no indications of there being a Roman settlement on this location. Although no datable material was found in the features, the structure has been tentatively dated to the early Iron Age because of its parallel structure to the building of Geleen-Janskamperveld and to the fact that several early Iron Age farmyards were excavated in the vicinity. It's only just north of the loess soils that similar structures can be found in central Limburg.³⁵ Here good examples are known from Echt-Mariahoop and Nieuwstadt.³⁶ Other examples are known from the loessic soil in Dutch southern Limburg, in Belgian Limburg along the Meuse river and in the adjacent German loessic area between Aachen and Cologne.³⁷

The building of Sittard-Hoogveld was dated by ¹⁴C-analysis in the late Bronze Age. The structures of Echt and Inden-Aldorf were clearly dated to the early Iron Age on the basis of large amounts of ceramics found in one or two of the postholes. The other buildings are mostly dated to the early Iron Age on the basis of surrounding features. Only the relatively small building at Stieldorferhohn was dated to the transition of the middle to the late Iron Age. All these buildings show a rather similar ground plan built up of three rows of postholes with regular setting. Also, they all seem to date to the same period: the late Bronze Age and the early Iron Age. The building type might have continued to be used later on, but only one example is known to date to the second half of the Iron Age. Because of the fact that this was a rather small building, and that buildings with a similar

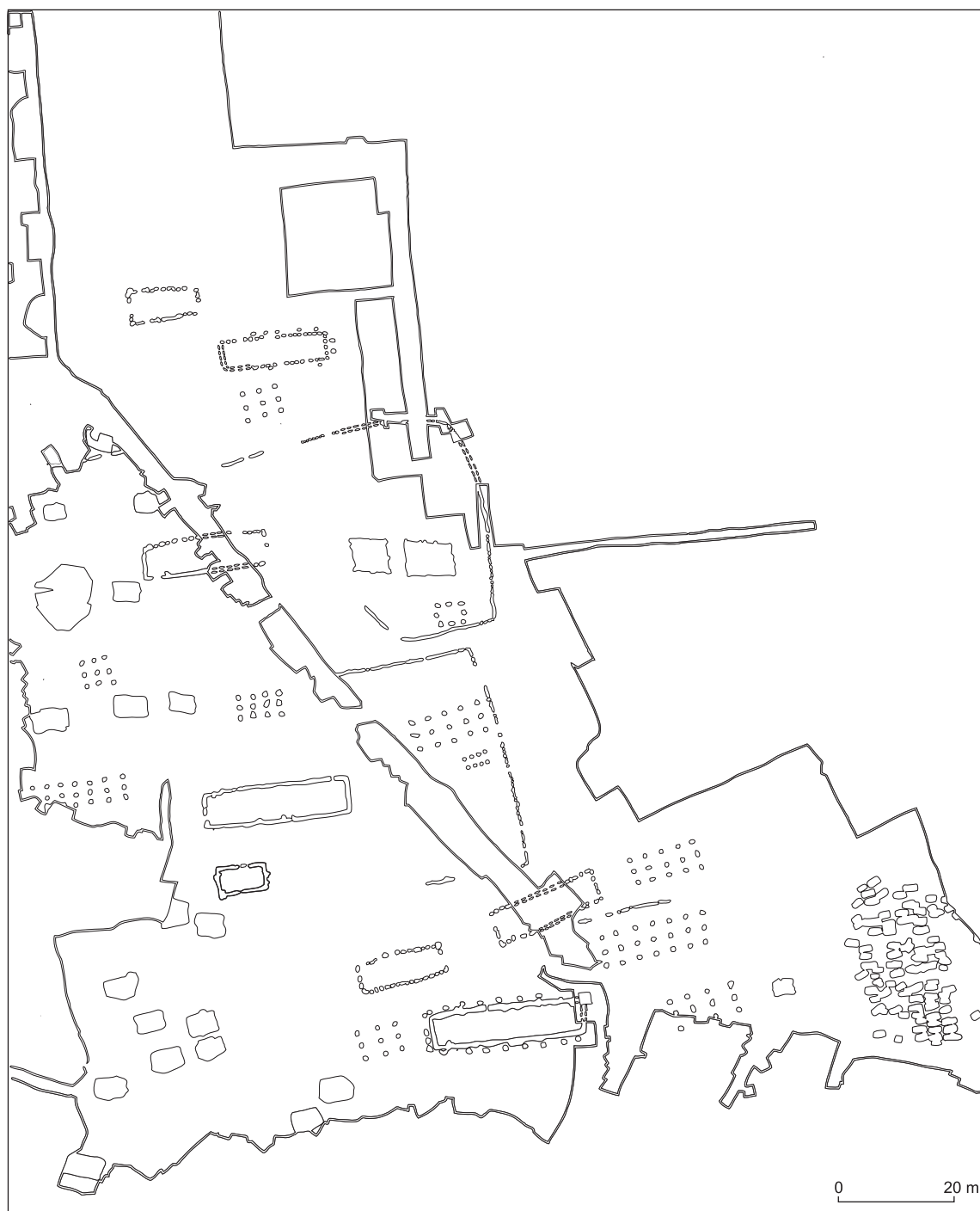


Fig. 16-9 Site where two-aisled buildings with regular post-settings are clearly associated with 'normal' main building types: Dalem in the 7th-8th centuries AD (Zimmermann 1991, 40).

structure are known as outbuildings on Roman sites, more examples need to be known to shed more light on the attribution of the building from Stieldorferhohn.

Also in geographical terms this type can be defined quite narrowly. In the Netherlands and its immediate surroundings almost all known examples were found on the loessic soils and the southern borderzone of the sandy soils in the Rhine-Meuse interfluvium. Only the structure found at Oss-Mikkeldonk, and a possible parallel at Sint-Denijs-Westrem (Bourgeois 1991) are known further to the north (we might include the Someren example in this group, although this might be attributed to the outbuildings of type IID as proposed earlier). Therefore, these buildings can be attributed to a separate building type. Their structure is quite different from that of the new granary type Oss IID, and their geographical and temporal extension is different from the Roman and early medieval outbuildings of Oss type IIB (although for the few northern outliers of this group, the reasons for dating them to the Iron Age and not for example to the early Middle Ages should be thought through more firmly). Therefore, these buildings with a two-aisled ground plan built up of regularly placed postholes, dating from the late Bronze Age and early Iron Age and almost exclusively found on the loessic soils and the southern edge of the sandy soils are attributed to the type Geleen-Echt.

Whilst the difference in ground plan to Oss type IID is quite clear, the differences with type IIB are much less evident in the ground plan. There are however three major differences: they are dated differently, their geographical extension is different, and – most important – their site context is different. Whilst all Roman and early medieval buildings of type IIB are found in the vicinity of large houses of types regularly found in the Netherlands, the buildings of Geleen-Echt type are always the largest structure on the site. In the same region where the buildings of Geleen-Echt type were found, two buildings were excavated that show a similar ground plan, but then three-aisled. These two fairly identical plans were found at Sittard-Hoogveld and at Neerharen-Rekem.³⁸ At Sittard the house itself was ¹⁴C-dated, at Neerharen-Rekem grain from one of the storage pits was ¹⁴C-dated. The dates of both sites are quite close to each other.³⁹ Ceramics from Neerharen-Rekem date this site more precisely in the 5th century BC. Therefore the three-aisled building type might be a development of the two-aisled Geleen-Echt type, dating to the transition from the early to the middle Iron Age. We shall refer to the three-aisled buildings in the rest of this text as the Sittard-Rekem type.

In conclusion it seems that the granary type Oss IIB has been a container for very different types of buildings. The smaller, two-aisled Iron Age granaries with less posts on the central row than on the outer rows can easily be defined as a new type, which logically can be labeled IID in the Oss typology. The original type Oss IIB can be split in two.

One group of classical IIB type that can be found on several Dutch sites as outbuildings next to normal Dutch house types. These buildings however do not date to the early Iron Age but to the Roman and early medieval periods. Then there are the two-aisled buildings that look similar to Oss type IIB but can be dated to the early Iron Age and late Bronze Age. These buildings seem to be almost exclusively restricted to the loessic soils and the southern border zone of the sandy soils in the Rhine-Meuse interfluvium. They will be referred to as the type Geleen-Echt. Although based on a limited number of house plans, these buildings might evolve into a three-aisled building type of similar ground plan with regularly spaced postholes. These buildings of Sittard-Rekem type have been dated around the transition from the early to the middle Iron Age.

16.5.2 *A functional interpretation of the building-types Geleen-Echt and Sittard-Rekem*

The Dutch evidence

After having looked at the typological position of the largest building of Geleen-Janskamperveld, we should look at the functional interpretation of this category of buildings. The discussion on its functional interpretation has always been closely connected to its typological position. If we split up the granary type Oss IIB in different branches, what does that then mean for the functional interpretation of the Geleen-Echt type of buildings? In France Olivier Buchsenschutz considers these buildings to belong to a group of very large outbuildings, probably used to store surplus grain in large bulks (pers. comm. at AFEAF 2007, compare Buchsenschutz 2005, 59 and Gouge 2005, 276-280 for this type of buildings).⁴⁰ The main arguments for this interpretation are twofold:

- the analogies in ground plan of Schinkels ‘granaries of type IIB’ with outbuildings known from the coastal area of the Northern Netherlands and with *horrea*-type large granaries
- an argumentation centered on the structure and position of the actual buildings themselves.

We shall first go into the parallels alluded to by Buchsenschutz (which will bring us back to one other branch of the granaries of Oss type IIB), before considering the argumentations on the French buildings themselves.

The first group of buildings used as an analogy by Buchsenschutz are the outbuildings in the Dutch and German northern coastal settlements as Ezinge, Jemgum and Middelstum.⁴¹ Although we should state that the northern Dutch and German ‘*terpen*’⁴² settlements, because of their very specific lay-out, can not easily be compared to other Dutch or German sites, it is still interesting to look at this

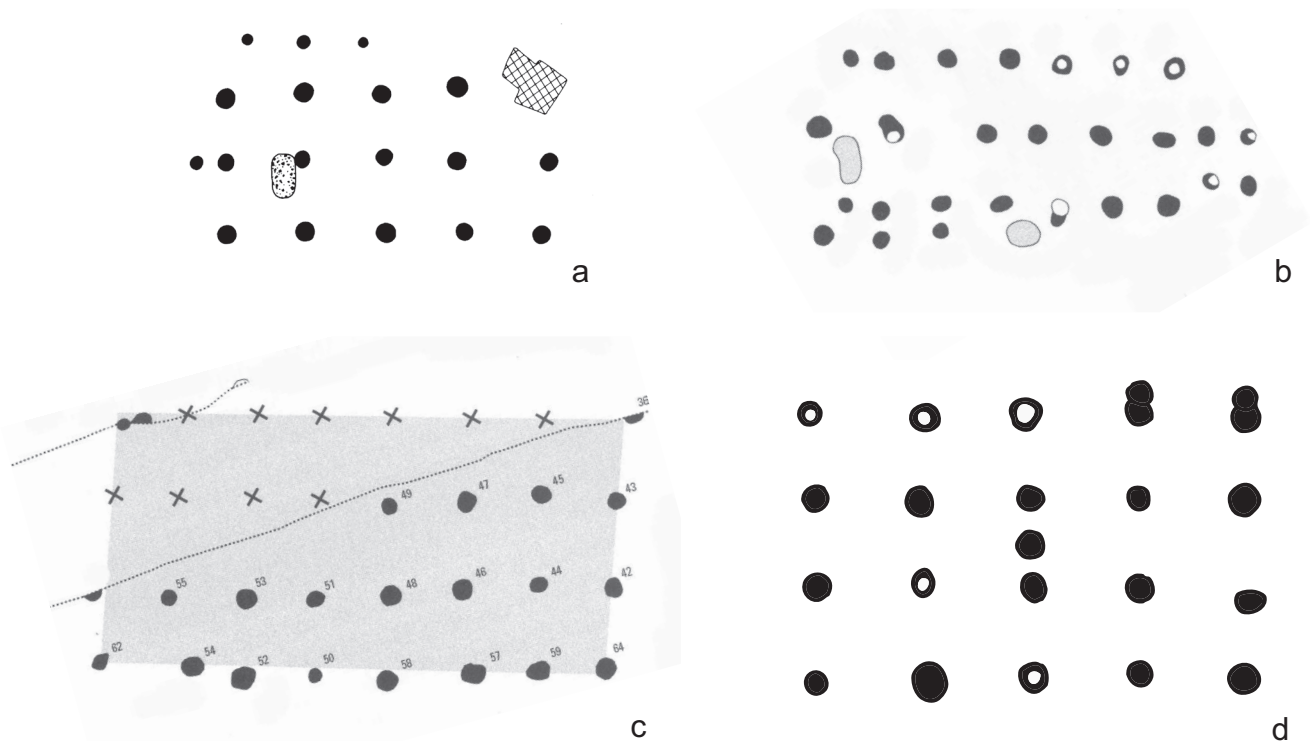


Fig. 16-10 Buildings of the two-aisled Geleen-Echt type (a: Echt-Mariahoop (Willems 1983, 235), b: Sittard-Hoogveld (Tol/Schabbink 2004, 27) and of the three-aisled Sittard-Rekem type (c: Sittard-Hoogveld (Tol/Schabbink 2004, 31), d: Grisy-sur-Seine (Gouge/Séguier 1994, 53). Scale: 1:200.

building type. In the first flatland or very early '*terp*' phases (i.e. before the creation of a village '*terp*' with radial structure) of several of the settlements in the area, platforms or possible outbuildings were found. These outbuildings belong to layers dated to the 6th-5th centuries BC. The outbuildings are always situated near the main building of the farmyard: a large three-aisled house with byre-section.⁴³ The platforms at Ezinge and Middelstum have dimensions of respectively 17×5 m and 15×5 m, the one at Jemgum could only be partially excavated ($>7 \times 4,2$ m). Only looked at in a very general way, they seem to be quite similar to the structures known from southern Limburg in dimension and lay-out (lack of clear indications of divisions within the building that consists of a rather dense frame of postholes). However: when looked at in a bit more detail, important differences can be seen in the construction of these structures.

The platform of Ezinge has been reinterpreted several times. The main difference in interpretation is whether we are dealing with one large or several smaller structures (cf. Boersma 1999). This discussion shows that the structure of these buildings is not as clear-cut as it is on sites like

Janskamperveld. The reason for this is that whilst the southern structures show an extremely regular build-up, those from the north show crooked lines of posts. Whilst the lines of posts in the width of the structure seem to be rather straight, those in the length of the structure are actually bent lines (cf. Boersma 1999, 90). Also the number and position of posts on every line in the width of the building does not confirm to a simple build-up in aisles (for example in Ezinge the number of posts on these rows differs from four to six, their position on the line showing such great variation that this cannot only be explained by later repairs). Therefore these structures do not seem to have the same build-up in which straight lines were necessary (probably to join horizontal beams), but show a more eclectic structure. If these buildings were indeed platforms, this might explain why straight lines weren't as necessary as in the southern buildings. Because of these very important differences in build-up of the structure and because of the fact that the '*terp*' platforms are always situated next to a main building, we believe that they cannot be seen as belonging to the same category of buildings as the main building of Geleen-

Janskamperveld. If we accept these ‘*terp*’ platforms, and the Iron Age two-aisled outbuildings as described before (the type Oss IID) to be different phenomena than the Geleen-Echt type of buildings, this means that this type has no clear parallels within the Iron Age of the Netherlands and its immediate surroundings.

So if we do not consider the platforms from the ‘*terp*’ settlements of the coastal region to be related to the building type found at Geleen-Janskamperveld, how does this building fit in with the large *horreum*-like granaries? Large outbuildings of the *horreum*-type from the Roman period, or those known from medieval settlements like Hesel, Großdendorf, Dalem, Peelo or Valkenburg seem to show more similarities in construction than the platforms from the ‘*terp*’ settlements.⁴⁴ They are mostly two- or three-aisled and show a regular build-up of small ‘compartments’. There are however some important remarks to make on this point. First of all: comparably large outbuildings are not known from the Netherlands, Belgium or northern and western Germany before the Roman period (except for the platforms that are only found in ‘*terp*’ settlements). It seems that the introduction of large ‘*horrea*’ in the Roman period was a direct consequence of economic developments, e.g. the production of large amounts of surplus grains, partly needed to pay the Roman taxes and feed the army in the region (although this can not be a 1:1 relation, since large outbuildings also appear north of the Rhine frontier). Large surplus production of grain has of yet not been recognisable at Iron Age sites in the Netherlands and its surrounding areas, or at least it seems not to have led to the development of very large granary-types like the *horrea*. In areas where surplus production in the Iron Age can be seen archaeologically, storage of the surplus products took place in larger numbers of storage pits and small granaries than on other settlements (e.g. Gransar 2000; Mordant/Gouge 1992). No specific large storage buildings were developed (for the possibly different Northern French situation see further). Therefore the world of Roman and medieval settlements might not that easily be equated with the Iron Age evidence.

A second important problem with this analogy however, is that these outbuilding types can always be found in the immediate surroundings of the main houses on these sites. And exactly that is missing in the area where buildings of the same type as found at Geleen-Janskamperveld have been found. There are no candidates for the houses to which these outbuildings should belong. No other large structures have been found at Janskamperveld, Nieuwstadt or Neerharen-Rekem where large areas around the Iron Age buildings have been excavated. And on none of the other settlement sites in the area has another type of large building been identified. Therefore, we are left with a problem: if these buildings are the first large granaries used for the storage of surplus grain

known from the Netherlands, where then are the houses that people lived in? The only other structures known until now from the area are four- to nine-post granaries, and these have only been considered to be houses in the absence of larger buildings.⁴⁵

Finally, we should look at the structure of the *horreum*-type buildings. They are considered to belong to the group of granaries with raised floors, supported by the posts that stood in the archaeologically retrievable postholes. If the buildings of type Geleen-Echt would have the same structure, their floors should also have been raised above the original ground surface. This causes some problems for the building found at Echt-Mariahoop where a hearth was situated within the building (Willems 1983, 234-238). The position of the hearth next to a central post, at a right angle to the orientation of the house (the hearth has a rectangular ground plan) and the lack of other features seem to indicate that it belongs to the house. The same problem exists for the Geleen-Janskamperveld building where two pits are located next to each other exactly within the aisles, and therefore seem to belong to the structure. Furthermore, the real Roman *horrea* found on the sandy soils follow a different structure than the Geleen-Echt buildings. Actually, they are quite rare on these settlements (where mostly small granaries are found), and can be divided in two groups following the Oss-typology.⁴⁶ Type IIIA is formed by a nine-post granary surrounded by wallposts, their dimensions ranging from 4,75-8,5 × 3,5-6,2 m. Type IIIB consists of the larger *horrea* that follow the same ground plan: a rectangular build-up of posts and small ditches surrounded by wall-postst, their dimensions range from 9-11,5 × 6,5-8,5 m. So there are several important differences:

- the structure of the ground plan is different: the real *horrea* do not consist of clear two- or three-aisled structures, but of a square made out of posts and ditches surrounded by wallposts,
- the ratio of length:width in these *horrea* is different from those in the buildings of Geleen-Echt type (the three-aisled Sittard-Rekem type is much larger, whilst the widths of the two-aisled Geleen-Echt type never comes near the width of the larger type IIIB *horrea*).

This means that the only large outbuilding type comparable to the Geleen-Echt buildings is the two-aisled outbuilding type known from Roman age sites (a large number from Wijk-bij-Duurstede, with a few examples at Oss, Breda, Weert, Beegden, Fochteloo, Peelo and Zeijen) and from early medieval sites not extending south of the Rhine-Meuse delta (Valkenburg, Peelo, Hesel, Großdendorf and Dalem).⁴⁷ They have a very similar build-up of three lines of posts with regular layout. Most of these outbuildings consist of 12 posts, however some examples with up to 27 posts are known. The

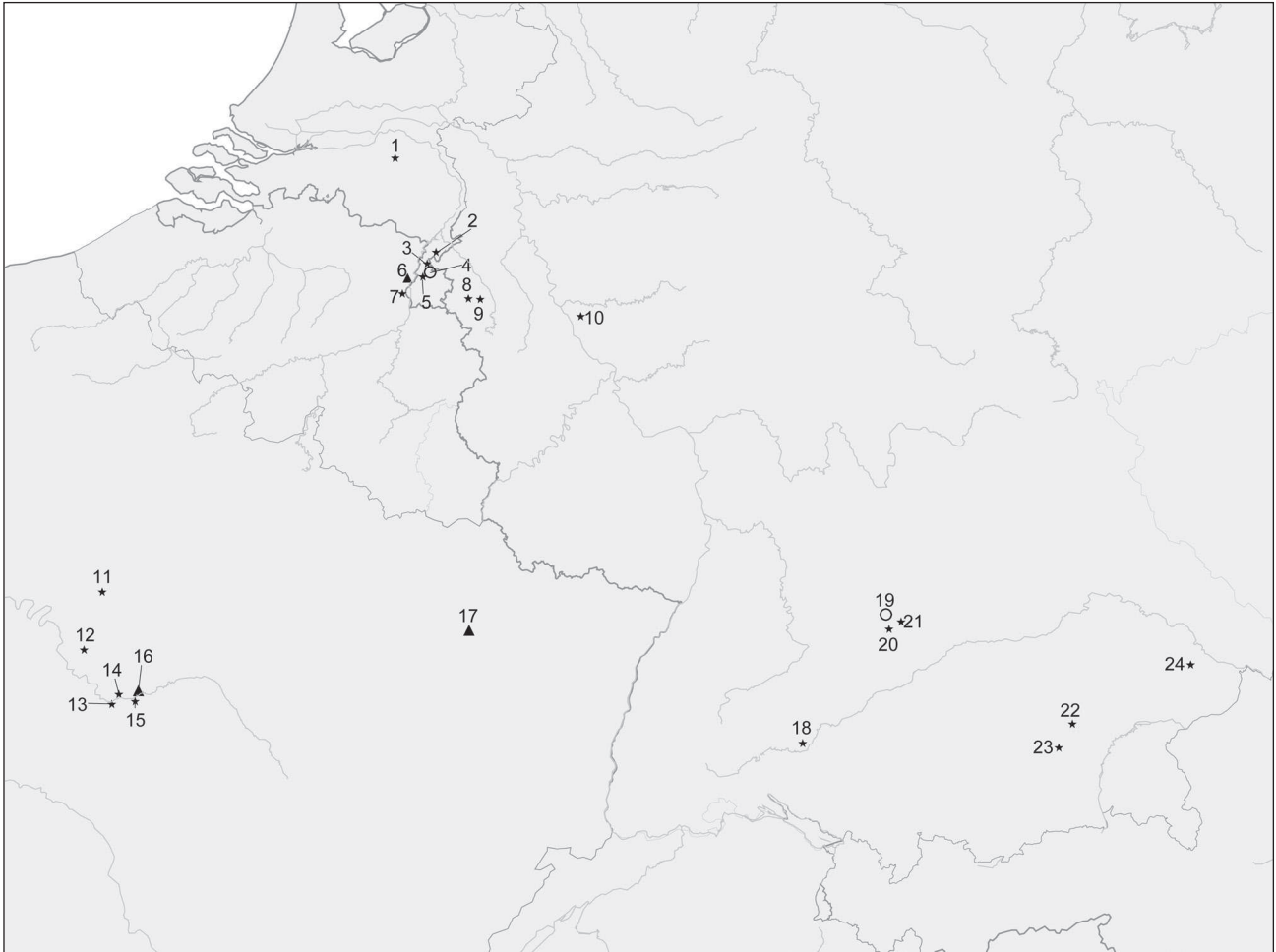


Fig. 16-11 Distribution of buildings of the types Geleen-Echt (stars) and Sittard-Rekem (triangles). Circles indicate sites where both types were found.

1: Oss-Mikkeldonk; 2: Echt-Mariahoop; 3: Nieuwstadt; 4: Sittard-Hoogveld; 5: Geleen-Janskamperveld; 6: Neerharen-Rekem; 7: Rosmeer; 8: HA 502; 9: Inden-Altdorf; 10: Stieldorferhohn; 11: Fresnes-sur-Marne; 12: Lieusaint; 13: Marolles-sur-Seine; 14: Balloy; 15: Bazoches-lès-Bray; 16: Grisy-sur-Seine; 17: Vigny; 18: Heuneburg; 19: Goldberg; 20: Riesburg-Pflaumloch; 21: Nördlingen; 22: Kirchheim; 23: Unterhaching; 24: Aiterhofen

Roman ones are somewhat narrower (widths of 3,0-4,4 m) than the medieval ones (widths mostly 5,0-7,0 m, only one of 3,8 m known), whilst their lengths are quite comparable (7,5-18 m for the Roman ones, 9-20 m for the early medieval ones).⁴⁸ Interestingly this means that the widths of the Geleen-Echt type lie a bit in between these two groups: 3,8-5,8 m, with lengths of 8-13m. These outbuildings are normally considered to have raised floors, which would give some problems for the Geleen-Echt type where hearths and pits were found that seem to belong to the building. Evidence for there being (or not being) raised floors is of course scarce, therefore we might not give too much weight to this argument. However, although these buildings show remarkable

similarities to the Geleen-Echt type of buildings, we still are confronted with the two problems alluded to before: their different chronological (and therefore social-economical) setting and their different setting within a settlement (always accompanied by typical main-buildings known throughout the Dutch archaeological record and interpreted as houses with a byre section).⁴⁹ And this leads us to an interesting observation. Whilst the search for parallels has always been directed towards outbuildings and granaries, some of the best parallels of the two-aisled buildings of Geleen-Echt type and of the three-aisled buildings of Sittard-Rekem-type can be found in the main buildings of the early middle ages in the southern Netherlands. So if we want to look for parallels

outside of the chronological limits of the Dutch Iron Age, why stop at the outbuildings? If outbuildings from the Roman and early medieval period are considered to be fair game for analogies, why not the main buildings of this period? We shall return to this question later on. In conclusion we can state that the *horreum*-type buildings (the redefined granary type Oss IIB) show many similarities in ground plan to the buildings of Geleen-Echt type. However, we still see some major problems in interpreting both building types in the same way.⁵⁰ These problems lay in:

- their different chronological position, and therefore their different social-economical context (Roman and medieval periods versus Iron Age),
- the differences in their settlement context (always associated with main buildings (houses) versus never associated with a possible main building),
- the differences in the structure of the building above ground (raised floors versus hearths and pits on floor level).

A European context

If we return to the Iron Age but start looking outside of the Netherlands for analogies, we come to the second argument of Buchsensschutz. Both in southern Germany and in northern France similar houseplans have been found, mainly dating to the late Bronze and early Iron Age. The only sites where a two- or a three-aisled plan with regular build-up can be associated with another type of large building that could be interpreted as the house, are at Grisy-sur-Seine (Mordant/Gouge 1992) and Aiterhofen (Schauer 1995). These sites have been interpreted as elite courtyards where surplus grain was stored. This seems to be confirmed by the large amount of outbuildings and storage pits at the site of Grisy-sur-Seine (fig. 16.12). One of these large storage facilities would be the three-aisled building of 12 × 8 m with regular post setting. There is however one important problem with both sites: both of them clearly show two phases in their ditch-layout, at what point in Grisy-sur-Seine even the orientation of the ditches changes. However: for the interpretation of one large building to be the main building and the other one to be a large granary, both large buildings have to be contemporaneous. We see some hazards in the fact that the only two sites in this large area where two different large building types have been found next to each other are clearly two-phased settlements. Therefore, we shall first direct our attention to the relation between the different large building types in the northern half of France and the southern half of Germany.⁵¹

We shall start with the central part of northern France (Piccardy and Île-de-France), a region where since the 1990's large-scale excavations of Iron Age habitation sites has taken

place. On these sites mostly about 90% of all structures is made up of 4- and 6-post granaries, an additional 5% of 9-post ones. Their dimensions are rarely larger than 6 × 5 m, with some outliers reaching 7,5 × 7 m (Gransar 2000; Gouge 2005, 275). This leaves about one in every twenty structures that has a larger and/or more complex ground plan. One part of these larger structures can be ascribed to the two-aisled buildings with regular postsetting of the Geleen-Echt type (Balloy, Bazoches-lès-Bray, Marolles-sur-Seine, Lieusaint) or to its larger three-aisled variant of Sittard-Rekem type (Grisy-sur-Seine, with possible parallels at Fresnes-sur-Marne, Pont-de-Metz and Vermand). Another part however, belongs to a type with a dense setting of wall-posts and a fairly open inner structure, with only a few roof-bearing posts that can divide this area in one to four aisles (Grisy-sur-Seine, Bazoches-lès-Bray, Barbey, Verberie).⁵² Almost all of these buildings can be dated to the early Iron Age and the transition to the middle Iron Age, only some of the Geleen-Echt type and the house of Verberie dated somewhat later. The Verberie house has however been dated to the La Tène period on the basis of pits from that period cutting through features of the house! This means that an early Iron Age (or late Bronze Age because of the other features on the site) date might not be that farfetched.

The number of known house plans from the early Iron Age in this area is still rather small. Therefore, it is still difficult to have a clear view on the relation between the two main large building types in the area. But what is evident, is that the number of two- and three-aisled structures with regular post-setting is quite small. The two-aisled type (Geleen-Echt type; n=4) consists of relatively small buildings and most of them are dated to the second half of the Iron Age.⁵³ The three-aisled type (Sittard-Rekem type) is only clearly represented at one site, the other three possible examples either seem to be two nine-post granaries (Fresnes-sur-Marne) or have a different build-up that falls between the Sittard-Rekem type and the other main building type (Verberie-type).⁵⁴

In the north-east of France again 90% of all excavated buildings belong to the four- or six-post granaries (Koenig 2005; Brénon *et al.* 2003, 252). The larger buildings from the late Bronze Age and early Iron Age in this region can be divided into four groups (Brénon *et al.* 2003, some examples can be found in De Hingh 2000). The first two groups are the most frequently found and consist of one- and two-aisled buildings with dense wall-posts. Therefore they seem to be the local pendant of the Verberie-type of central northern France. Especially of the one-aisled variant several small examples were found, which according to Brénon *et al.* means that this type can be divided in smaller buildings found next to larger ones, therefore being outbuildings, and larger buildings that are the main buildings on these sites. A variation on these types is type 3 consisting of a central post

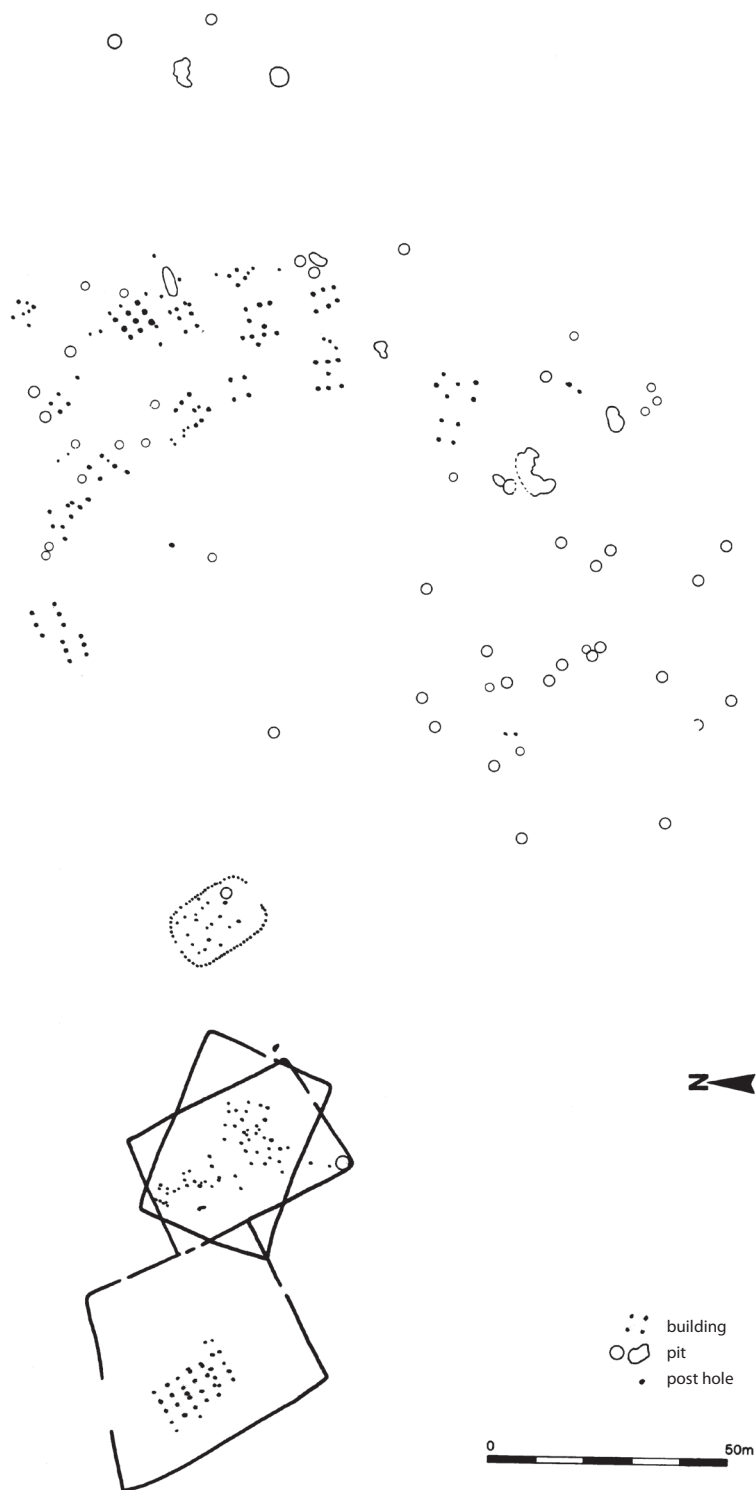


Fig. 16-12 The settlement of Grisy-sur-Seine «Les terres du bois mortier» (Gouge/Séguier 1994, 54).

construction surrounded by dense wall-posts (which forms a three-aisled variant on the Verberie type). Finally, one example of a three-aisled building with regular post-setting was found at Vigny. Interestingly the structure of a late Bronze Age site as Rosières-aux-Salines (Koenig 2005) with larger two-aisled buildings of $9,7\text{--}13,7 \times 4,3\text{--}5$ m looks very similar to Grisy-sur-Seine “Les Rouqueux” in Île-de-France (Mordant/Gouge 1992) or Unterhaching in southern Germany (Keller 1995/6).

So, in northern France it seems quite possible that the buildings with regular post-settings might be seen as large granaries, connected to large buildings with closely set wall-posts and rounded edges (the Verberie-type). This connection would then be illustrated very clearly at Grisy-sur-Seine. The number of clear examples from the early Iron Age and transition to the middle Iron Age (three with regular post-settings, four with dense wall-posts for central northern France but a lot more for northeastern France) is still very limited. Therefore, hopefully, future research will shed more light on this problem. Buchsensschutz’ hypothesis therefore seems to be a reasonable possibility in this area.

The southern German evidence shows again a large number of two-aisled buildings from the late Bronze Age and the early Iron Age. The site-plan of the late Bronze Age settlement at Unterhaching shows a two-aisled building looking very similar to the Geleen-Echt type and some two-aisled buildings with dense wall-posts surrounded by a large number of smaller structures.⁵⁵ In this respect it looks very similar to the late Bronze Age settlements of Rosières-aux-Salines (Koenig 2005) and Grisy-sur-Seine “Les Rouqueux” (Mordant/Gouge 1992). At early Iron Age sites like Riesbürg-Pflaumloch (Krause 1989) and possibly Kirchheim (Fuhrmann *et al.* 2004) large buildings with regular post setting can be found, not clearly associated with contemporary larger buildings (the large possibly three-aisled building of Riesbürg is built over the surrounding ditch to which the building with regular post setting is clearly oriented; in the preliminary report of Kirchheim the connection between this building and a stone platform is not very clear). On the early Iron Age site of the Heuneburg with its outer settlement (e.g. Kurz 2000, Gersbach 1995) 15-post structures have been found, in part associated with larger buildings built on horizontal beams that have also been found on the Heuneburg itself. The ground plan of this last building type is built up of small squares. Interestingly in some of these houses hearths have been found within these squares.

On the Goldberg (Parzinger 1998) the same house types recognized in northern France can be distinguished. There are buildings with dense wallposts that are one- or two-aisled (houses 1, 2, 3, 24) and buildings with regular post settings with two or three aisles (houses 4, 5, 8, 21). Here we might interpret the site as follows: central in every habitational unit

could be a two-aisled building with dense wall posts, often containing remains of a hearth (buildings 3, probably 7, 9, 2, 24 and possibly 25 or 27). In the neighborhood are clusters of three- (and sometimes two-)aisled buildings with regular post settings and large one-aisled structures. These might be seen as granaries or other types of outbuildings (Parzinger 1998, 105). The same association of a building with dense wall-posts and fairly open inner structure with buildings with regular post settings can be seen on the enclosed ‘chiefly’ settlements (*Herrenhöfe*) of Aiterhofen and Nördlingen-Baldingen east.⁵⁶

In the early Iron Age of Bavaria again buildings with dense wall-posts have been found on sites like Unterbiberg, Poing, Eching (Scheffzik 2001), Wittislingen (Pöllath 1998), Enkering (Schaich/Rieder 1998) and Unterschleißheim (Haller/Wernard 1993). In Eching and Germering these buildings have a large number of roof bearing posts, therefore showing many similarities to the Geleen-Echt type. On these large-scale excavations the buildings are associated with up to 12-post granaries and other outbuildings.

The southern German evidence thus shows a more diverse image than the northern French evidence. In Germany buildings with regular post settings are encountered more frequently than in northern France. The larger ones are often only surrounded by smaller granaries and outbuildings, the smaller ones are mostly associated with other types of large buildings. The most frequent of these other buildings are one- or two-aisled buildings with dense wall-posts. In part they look a lot like the buildings from northern France (e.g. the Goldberg buildings), others are rectangular and mainly consist of two lines of wall-posts with less posts on the line of roof-bearing posts. Buildings like those in Eching and Germering seem to cross the divide between the two-aisled buildings with dense wall-posts and those with regular post setting. The other group of large buildings is only known from the Heuneburg and its outer settlement and consists of a plan of horizontal beams on which the structure was built. Interestingly this last group of buildings shows many of the characteristics seen in the buildings with regular post settings that are considered to contradict a dwelling function for these buildings (the partitioning of the building in small squares, a lack of evident entrances and internal divisions). However, just like the building of Echt-Mariahoop several of them contain hearths.

So, in conclusion, the settlement sites excavated in northern France and southern Germany give the following image of the late Bronze Age and early Iron Age. There are mainly two types of larger buildings. Those with an open central area, mainly leading to a dense setting of wall posts, and those that are divided into small square segments, either by a regular spacing of postholes or by horizontal beams. Of both types smaller and larger buildings can be found. The

smaller buildings are normally associated with a larger main building, and therefore interpreted as outbuildings or large granaries. The larger ones of all types can be the main building on a settlement. This means that the interpretation of a specific structure is still mainly dependent on its own characteristics (e.g. size) and its context (associated buildings). The same actually can be said of the northern Netherlands, northern Germany and southern Scandinavia, where many of the larger outbuildings look exactly like short versions of the three-aisled main buildings associated with them.

Living in different worlds?

Interestingly this overview of buildings from northern France and southern Germany has provided many examples of buildings with lengths of eight to more than twenty meters and widths ranging from four to more than ten meters. They form the main buildings on settlement sites, and have dimensions that are totally comparable to those of the main buildings found in the Netherlands, northern Germany or Scandinavia in the Iron Age. Also their association with many smaller buildings like 4-, 6- and 9-post granaries is identical, as is their position on mostly one- or two-phased settlement sites that are then replaced. Only in exceptional cases were extensive settlement sites found that seem to consist of several contemporary settlement units (many of them seem to date to the late Bronze Age). This indicates that the difference between the settlements on the north European plain and those in the loessic and other Central European landscapes isn't that fundamental as has been proposed by Roymans and Joachim. This was gradually becoming clear for the northern borderlands of the loessic zone like in the region of Osnabrück (Both *et al.* 2005). But also for regions much further to the south this image is becoming fairly clear for periods other than the Iron Age. In some periods the large houseplans are more or less identical in both regions, for example in the early Bronze Age when large identical two-aisled buildings can be found in Austria, the Czech republic and southern and eastern Germany and in Denmark,⁵⁷ the middle Bronze Age when large two- and three-aisled buildings that look a lot like the Dutch and northern German houses can be found on the loessic soil of southern Limburg, in Burgundy and southern Germany⁵⁸ or in the Roman period when large three-aisled buildings are known from the northern Netherlands and Germany but also from Hessen, the northern parts of Bavaria and from east of the Rhine near Bonn.⁵⁹ In the early Middle Ages phosphate analysis has even shown that houses with byre section existed in southern Germany,⁶⁰ where already during the late Neolithic (around 3500 cal BC) dung layers had been found in a specific part of the houses.⁶¹ So it is clear that the idea that on the loess people live differently than on the sandy soils and therefore that buildings from this area can only be

interpreted as having separate living, working, byre and other functions on farmyards that therefore contain several buildings but no large ones sharing all of these functions, needs a lot of adjustment.

All of this only leads us back to the buildings of the Geleen-Echt and Sittard-Rekem types with two important lessons: we should look at the context of the buildings, and we should look at these buildings without preconceived expectations of whether we should or should not expect living, byre and other sections to be combined under the same roof.⁶² The buildings of Geleen-Echt and Sittard-Rekem types of the Rhine-Meuse interfluvium are only found together with smaller granary-type buildings. This makes them the only candidate for the principal building on the farmyard. Three possible other Iron Age main buildings are known from the loessic area north of Ardennes and Eiffel. However, the building at Hermalle-sous-Huy (Frébutte *et al.* 2007) is for the moment too much of an outlier to be able to understand its position in the settlement system of the region, and the two four-aisled buildings excavated at Jülich-Stetternich and HA 59 are difficult to date (Heimberg 2002/3, 71 & 75). They probably predate the Roman age villa and burials they were found next to, but their exact attribution is not secure enough to incorporate them in this discussion.⁶³ A large two-aisled building of 25 × 8 m excavated at FR 98/24 can most probably be dated to the late Iron Age. A precise date is made difficult by the fact that it was found on an excavation where many other periods were represented – amongst them middle Neolithic settlement locations with two-aisled house plans –, and unfortunately this site has until now only been published in preliminary reports (Arora 2001, Geilenbrügge 2007). However, all these buildings seem to be the principal building on their respective settlements, therefore they would assume a similar role as the Geleen-Echt and Sittard-Rekem structures. Some authors have suggested that possibly lightly founded buildings were used in the region, which haven't been traced archaeologically due to the heavy erosion on most loess soils. Although perhaps a tempting idea, we think we should stick to the data available and see no reason not to consider the large buildings of the Geleen-Echt and Sittard-Rekem types to be the principal buildings on these settlements.

If we accept these buildings to be the main buildings on settlements from this area, the question is of course what was their function. The hearth found in the building of Echt-Mariahoop and the pits found in the building of Geleen-Janskampveld point to a function as living area. However, does that mean that was the only function of the building? Of course, within Dutch discourse the main question would be whether it combines a living area and a byre section underneath one roof. Since – except for the lowland areas and the northern Netherlands – no direct evidence of byre sections (such as layers of dung or small walls in the byre

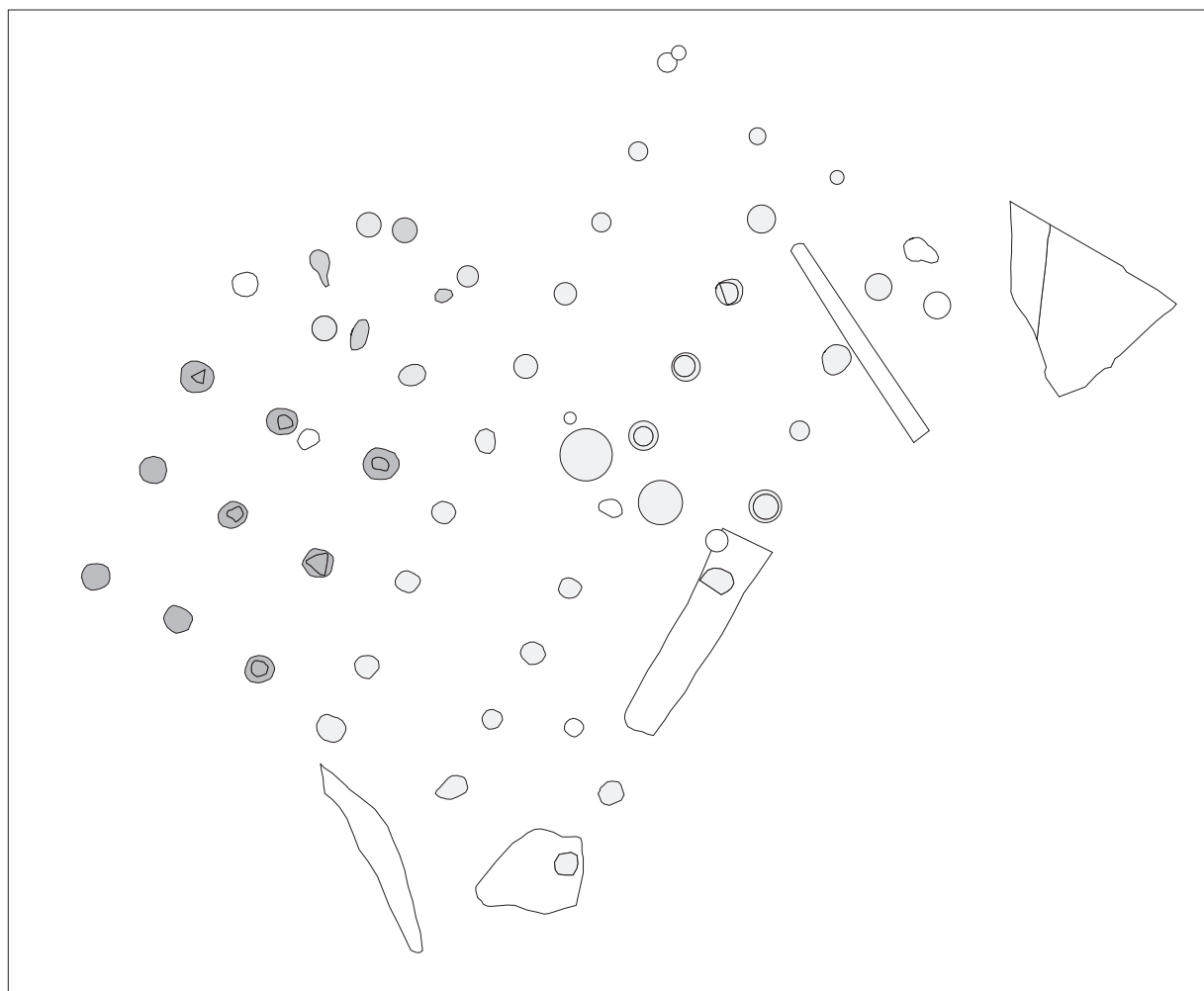


Fig. 16-13 The main building and its surrounding smaller structures of the Iron Age habitation at Geleen-Janskamperveld (scale 1:100, Bandkeramic structures not indicated).

section) is known from Dutch settlements, some secondary arguments are normally used. The principal arguments are: the length of the building and a division of the building (mostly this means the occurrence of entrances in the long walls of the house). As can be seen in fig. 16.8 the lengths and widths of the buildings of Geleen-Echt and Sittard-Rekem types aren't that different from the dimensions of early Iron Age houses in other parts of the Netherlands (which only rarely reach lengths of 20 m, most of them being 10-15 m long, cf. Fokkens 2002, 139). The evidence for a division of the building is much less clear.⁶⁴ The decentral position of the hearth at Echt-Mariahoop and the possible entrances of building 1 at Geleen-Janskamperveld could be indications of there being such a division. It is interesting to

note that the absence of clearly identifiable entrances on the sandy soils of the (southern) Netherlands never seems to be a real problem in identifying the structure as a house with living area and byre section. For house types in which such entrances can be found regularly, that of course is understandable, but for building types that notoriously lack clear entrances this is a different affair.⁶⁵ Especially the early medieval buildings known in the southern Netherlands are not at all that different from the Geleen-Echt and Sittard-Rekem types of buildings, showing no clear internal divisions and no clear entrances.⁶⁶ We should not forget that entrances might not always be visible in the distribution of wall foundations and wall posts. We presume no-one will assume that the IA-houses of the Bandkeramic with their continuous wall

foundations couldn't be entered. So, maybe even in the Iron Age the differences between the loess area of southern Limburg and the sandy soils of the southern Netherlands weren't that fundamental. Just as in the middle Bronze Age when a house found at Sittard-Hoogveld shows the same type of plan as the middle Bronze Age houses known from the southern and central Netherlands (Tol/Schabbink 2004), in the Roman period when houses of the typical southern Dutch / Flemish types can be found on the loess in Belgian and Dutch Limburg (Van Hoof in prep.) or in the Middle Ages when 'boat-shaped' houses of normal southern Dutch type were built at Sittard-Haagsittard.⁶⁷ This doesn't automatically mean that houses of the Geleen-Echt and Sittard-Rekem types should be interpreted as houses with a byre section, but what should be clear is that the same is true for most house plans in the southern Netherlands. There is almost no real evidence for byre sections existing in the southern Netherlands before the Roman period. A more open-minded approach, not immediately equating "large house = living area + byre section" and "loess = the Other = no joined living and byre section", has already led to interesting new insights into the settlement structure on medieval sites (Hiddink 2005a, 160-161; Knippenberg *et al.* in prep.). The interpretation of the Iron Age houses on the loess is far from clear, but these buildings don't seem to be all that different from the buildings on the sandy soils of the southern Netherlands and northern Belgium (cf. Van Hoof 2002).

16.6 CONCLUSION

The excavations at Geleen-Janskampveld were the first large-scale excavations on the Dutch loessic soils where large parts of an Iron Age habitation site were uncovered. Since then fifteen years have gone by that haven't seen any excavations on a comparable scale taking place on habitation sites from later prehistory. So the amount of data available for this period is still very limited. However, in the neighbouring towns of Geleen and Sittard smaller scaled excavations (especially those at Sittard-Hoogveld, where settlement remains were excavated near a completely excavated burial ground) have been carried out, on the basis of which a first attempt can be made to sketch an image of the late Bronze Age and early Iron Age cultural landscape in southern Limburg.⁶⁸ Unfortunately, almost no data are available for the loessic soils of Belgium, the Netherlands and the area between Aachen and Cologne (except perhaps for the region around Inden) that provide data with which this image can be compared. What happens to the main buildings after the 5th century BC is even entirely unknown in this area!

The settlement of Geleen-Janskampveld consists of a large two-aisled main building, close to which some granaries were built. At distances between 80 and 130 m to

the north and west of the main building small groups of granaries were found. This image of loosely arranged farmyards fits in nicely with what is known from other sites on and immediately north of the loess like Sittard-Hoogveld and Neerharen-Rekem, where similar distances of outbuildings and pits to the main building can be observed. But it also complies perfectly to the model of wandering, one-phased, loosely arranged farmyards on the Dutch sandy soils: the so-called *zwervende erven*. The ceramics found at Geleen-Janskampveld date the settlement in the early Iron Age. In the immediate surroundings of Janskampveld other early Iron Age pits and postholes were found during rescue excavations at Haesselderveld and De Haese. Therefore, it is clear that the Janskampveld site only forms part of a larger early Iron Age cultural landscape in which several loose farmyards existed. Just south and east of the Janskampveld excavations, remains of burials from this period were found. As of yet there seems to be no direct link between the late Bronze Age and early Iron Age settlement remains and burial ground, and the Roman burial ground excavated at Janskampveld. This two-phased burial ground was clearly laid out around a grand circular monument. Although it is difficult to put a precise date on this large burial and most of the first phase of this burial ground, it seems most likely that it belongs to the early Roman period, dating before the clustered burial ground of 70-225 AD. There is therefore neither in time (graves from the middle and late Iron Age have not been found, except perhaps for the final phase of the late Iron Age), nor in space a direct link between the Iron Age and the Roman graves (the Roman graves are centered on the large circular monument, not on the prehistoric graves to the south of Janskampveld).

Whilst the interpretation of most structures gives no evident problems, the interpretation of the main building has been the centre of a debate. It was taken as belonging to a category of large granaries (Oss type IIB), that was characterized based on small examples of this type found on the sandy soils of the (southern) Netherlands. A closer analysis of this category has shown that it can be split up into three groups. A first group of small, two-aisled outbuildings, mainly dated to the early Iron Age with less postholes on the central axis than on the outer ones (here labeled Oss type IID). A second group of large two-aisled granaries with regular post-setting, that can be found throughout the Netherlands and northern Germany on Roman and early medieval sites associated with 'normal houses' from this period (granary type IIB that therefore can now be dated differently than was originally assumed). And a third group of two-aisled buildings with regular post-setting that can be dated to the late Bronze Age and early Iron Age and is almost exclusively found on the loessic soils and the southern border of the sandy soils in the Rhine-Meuse

interfluve (type Geleen-Echt). Although dating evidence is restricted, this building type might evolve around the transition from the early to the middle Iron Age into a three-aisled building type of similar regular layout (type Sittard-Rekem). What happens to the buildings in this area after the 5th century BC is still unknown, due to a lack of excavated settlement sites. The buildings found at Jülich-Stetternich, HA 59 and FR 98/24 could possibly fill this gap, but their chronological attribution is still unclear.

The buildings of Geleen-Echt and Sittard-Rekem types show many similarities to large outbuildings found on Roman and early medieval sites in the Netherlands and Germany, but also to the main buildings found on settlements from the Iron Age in Central Europe and the southern Netherlands. The main difference between the 'loessic' and 'sandy' types of early Iron Age buildings not being their size or the evidence for entrances, but their inner structure. However, a large number of the early Iron Age houses from the southern Netherlands due to their switching two-and-three-aisled ground plan and the large numbers of pits within the building, show as much of a compartmentalization as do the buildings of Geleen-Echt type. So many of the arguments why these different building types should be symbols of totally different social and economic organizations seem to have to do more with preconceptions of what we should find on the loessic and sandy soils of the southern Netherlands and Belgium, than on the house plans themselves. Yes, they are different, but not that different. Probably not more different than middle and late Iron Age houseplans from the southern and the northern Netherlands.

In conclusion it is clear that the early Iron Age settlements on the loess and southern fringe of the sandy soils in the Rhine-Meuse interfluve are very similar to those on the sandy soils of northern Limburg, Brabant and Flanders. They consist of loosely organized, short-lived farmyards, that rarely stay on one location for more than two building phases of the principal building. It seems that the only stable element in this cultural landscape was the urnfield (known for example from Sittard and Stein, cf. Van Hoof 2000). The principal buildings in this region can clearly be identified as houses of Geleen-Echt type (late Bronze Age and early Iron Age) or of Sittard-Rekem type (transition from early to middle Iron Age). These buildings are of an equal size as buildings known from the rest of the Netherlands, the main difference being their regular outline of posts that create a strong compartmentalization of the building. This, however, does not seem to differ fundamentally from the 2/3-aisled buildings of the early Iron Age found in the southern Netherlands. We need much more large-scale settlement excavations in the region to test this model, to confirm the chronological differences between the Geleen-Echt and the Sittard-Rekem types, to understand what happens in the

middle and late Iron Age, to understand what happens just north of the loess in central Limburg, etc. And we need bone assemblages to understand more about the economy in the region.⁶⁹ We have tried to start to build a general model, but many gaps in the story still need to be filled.

Notes

1 The author wishes to thank Alistair Allen, Walter Laan and Ivo van Wijk (all of Archol bv) for their help in producing the illustrations to this chapter.

2 Until the end of the 1980s the monograph of the local archaeologists father and son Beckers (Beckers/Beckers 1940) could be considered to contain all the essential data on the Iron Age of the Graetheide area. Recently a new overview of the Bronze and Iron Age data from the Graetheide region has appeared: Van Hoof 2000.

3 Simons 1989, actually the study was finished in 1985.

4 The excavation was undertaken in 1986 and 1987. Only preliminary reports have appeared (Abbink/Van Ieperen 1988; Van Hoof 2000 catalogue: Geleen-Krawinkel). An extensive report is being prepared by the author, taking over from the director of the excavation, the late dr. A.A. Abbink.

5 It was actually during this excavation, undertaken in 1990, that the first trial excavation at Geleen-Janskamperveld was undertaken by a team from the Haagsittard site (*Publications de la société historique et archéologique dans le Limbourg* 127 (1991), 260-261 and *Jaarverslag Rijksdienst voor het oudheidkundig bodemonderzoek* 1990, 77-80 & 120).

6 A first analysis of these features was undertaken by Margot Lawende as a student assignment. A large part of the information in this section therefore is indebted to her paper (Lawende 1992).

7 Daily report of the excavators Richard Exaltus and Ivar Schute, Tuesday 16-4-1991.

8 On the digitized drawing of the site, it seems that this feature was cut by a recent disturbance. According to the field drawings however, this disturbance started somewhat more to the south, still destroying two postholes (therefore, the digital drawings have been somewhat adapted to the situation according to the field drawings for the images used in this chapter). Unfortunately, however, the original drawings with the depths of these features could not be found. Therefore we have to rely on the illustrations used in Lawende 1992.

9 Cf. Van Hoof 2002, 87-89.

10 In Lawende's study (Lawende 1992) some of the postholes of the second four-post granary were not included in her plan of structure 2. Therefore the illustration used by her could be split up into the nine-post structure 2a and two three-post structures as 2b. Since the original section drawings of these buildings have disappeared, we cannot refer to the depths of the features not incorporated in her study to see why these features were not incorporated in her reconstruction and to test the possible four-post structures.

11 In the immediate surroundings one such large vessel has been found at the site of Catsop-Hoogenbosch (Van Hoof 2000), other examples are known from Nijmegen (Van den Broeke 1999), Loon op Zand (Roymans/Hiddink 1991, 119), Bladel (Roymans 1977) and Deventer-Colmschate (Hermesen 2007, 226).

12 One of the major problems in this respect is that during prospections in the area (that mostly consist of extensive augering, sometimes joined with extensive surveying) Iron Age settlements are rarely recognized. Both prospection method and selection of sites to be preserved or excavated favor concentrated (settlement) sites with a high density of finds (a few sherds and a few features in a trial trench – which is the typical result on most prehistoric and many other small scale, extensive sites – are rarely considered to be ‘interesting’ enough). This means that Iron Age features are often only found during excavations of Neolithic or Roman settlements (as was the case at Geleen-Janskamperveld, but compare Van Hoof 2007 for Dutch Limburg or Geilenbrügge 2007 for the adjacent German area) when the strategies for the excavation are difficult to change. Unfortunately, even when an area was selected to concentrate on the Iron Age cultural landscape, as soon as Merovingian graveyards with nice grave finds or Roman sites with lots of find material are found, the scattered Iron Age features get pushed to the second level (Geilenbrügge 2002).

13 The publication of this site is being prepared by Harry Vromen.

14 The publication of this site is being prepared by Harry Vromen.

15 Grain from these features was dated to 2435±35 bp and 2530±50 bp (Roymans 1985).

16 This interpretation was deemed very probable by the excavator when confronted with the characteristics of this type of features from sites like Geleen-Krawinkel and –Hof van Limburg (oral communication Adri Tol, 18-1-2008).

17 Due to the fact that late Neolithic features were found on this location, a large area could be excavated outside of the Iron Age site (in total 1 ha was excavated). Therefore the borders of the settlement could clearly be established.

18 Frank/Keller 2007, 318; Simons 1989, 115-116.

19 For the different types of elements on these settlements compare Van Hoof 2002.

20 A similar lay-out can also be seen on settlements much further on the loess like Pößneck (Ebner 2001).

21 *Publications de la société historique et archéologique dans le Limbourg* 129 (1993), 307 (where the feature was dated in the early Neolithic because of it being found near Janskamperveld) and letter H. Vromen to the Rijksdienst voor het Oudheidkundig Bodemonderzoek, dated 26-10-1998 (where the colour of the feature was used as argument for an Iron Age origin). Archis-waarnemingsnr. 32809.

22 Report being prepared by Harry Vromen.

23 Schinkel 1998, in the original Dutch version of his Ph.D.-thesis this system was labeled with the Dutch term ‘*zwervende erven*’.

24 The grave described by Wesselingh also contained a flint implement. This could however be material that was lying around on the surface of the Bandkeramic settlement. Therefore it should not be seen as a grave gift.

25 The sherd was found where the ring ditch cuts through feature 34023 (its position described in the field notes of the excavators under 6-6-1991).

26 Information provided by Harry Vromen, who also was kind enough to show the finds during the preparation of Van Hoof 2000.

27 Cf. *Publications de la société historique et archéologique dans le Limbourg* 127 (1991), 228.

28 Letter H. Vromen to the Rijksdienst voor het Oudheidkundig Bodemonderzoek dd.26-10-1998.

29 Schinkel 1998, map 1 sheet 10 (northeastern part of this sheet).

30 For Westerveld: Wesselingh 2000. Other examples are Nistelrode-Zwarte Molen and Hoogeloon (cf. Slofstra 1991 and Jansen in prep.).

31 Schinkel 1998, map 1 sheet 11.

32 Examples of this group are H24 (7,7 × 5,4 m), H73 (5,9 × 4,6 m) and H83 (>7,0 × 5,5 m) (Schinkel 1998).

33 Vos 2002; Koot/Berkvens 2004; Kooi *et al.* 1987; Kooi 1993/4; Waterbolk 1977; Roymans *et al.* 1998, 4; *Publications de la société historique et archéologique dans le Limbourg* 124 (1988), 355-358.

34 Jansen/Fokkens 1999, 57.

35 Although the research of burial grounds in central Limburg is on a very high level, for settlement research there exists a huge gap between the sites of Echt and Nieuwstadt on the southern fringe of the Limburgian sandy soils and those near Eindhoven (prov. North Brabant) and in northern Limburg where houseplans of ‘normal’ Dutch types are known. Even on the large-scale excavations near Weert no house plans dating before the last phase of the late Iron Age have been found (Hiddink 2005b). This, however, seems to be in large part due to the choices for other types of sites to be excavated. Therefore we do not know how far to the north the buildings of Geleen-Echt and Sittard-Rekem types can be found, nor how far to the south the houses of Oss type 2 / St.Oedenrode type can be found (cf. Van Hoof 2007).

36 Echt-Mariahoop: Willems 1983, 235; Nieuwstadt: Bink 2004.

37 Besides of Geleen-Janskamperveld examples are known from Sittard-Hoogveld (Tol/Schabbink 2004), Rosmeer (De Boe/Van Impe 1979), Hambach 502 (Simons 1989), Inden-Altdorf (Kranendonk 1992) and Stieldorferhohn (Schuler 1999).

38 Tol/Schabbink 2004; De Boe *et al.* 1992.

39 For Sittard 2475±35 bp (Tol/Schabbink 2004), for Neerharen-Rekem 2435±35 bp and 2530±50 bp (Roymans 1985).

40 His conclusion is therefore very much in line with the traditional Dutch interpretation. The argumentation in the Dutch literature

however is very much based on the attribution of these plans to granary type IIB and to preconceived ideas about how different the sandy and loessic soils are, whilst the arguments of Buchsenschutz have developed from the ground plan itself, without the attribution to granary type IIB and without the sand-loess opposition. Therefore his arguments can be used as a starting point after having shown the problems with attributing the buildings of Geleen-Echt type to one granary type IIB.

41 Ezing: Boersma 1999; Jemgum: Haarnagel 1957; Middelstum: Boersma 2005, 563-567.

42 *Terpen*, which depending on the region are also known as *wierden* or *Wurten*, are a typical phenomenon of the North Sea coastal areas. These settlements are located on humanly raised surfaces (slightly comparable to *tells*).

43 Because of the specific preservation conditions of the '*terp*' settlements, large parts of the wooden buildings are still standing. Therefore the functional interpretation of the different parts of these buildings is far less complicated than in other regions of the Netherlands. In large part the interpretation of house plans, comparable to those of '*terp*' settlements, in other parts of the country is based on analogies with these well preserved '*terp*' and other lowland settlements.

44 Roman *horrea*: Vos 2002; Koot/Berkvens 2004; Kooi *et al.* 1987; Kooi 1993/4; Waterbolk 1977; Roymans *et al.* 1998, 4; *Publications de la société historique et archéologique dans le Limbourg* 124 (1988), 355-358. Medieval outbuildings: Bärenfänger 1994 & 2005; Zimmermann 1991; Bult/Hallewas 1990; Kooi 1993/4.

45 Cf. Joachim 1982. This model was however based on several hilltop-settlements (Eschweiler-Laurensberg and -Lohn (Joachim 1980) which have delivered large numbers of swords and other kinds of weaponry. Therefore we doubt whether these sites could be seen as 'normal settlements' and feel that much more attention should be given to recent data from open, 'flatland settlements' where larger structures have been found.

46 For comparison we give the numbers for some published sites: Oss-Vijver 1 of type IIB; Oss-Zomerhof 3 of type IIIA; Oss-Westerveld 2 of type IIIA and 2 of type IIB; Lieshout 2 of type IIIA; Nederweert 1 of type IIIA; Tiel-Hogeweg 1 of type IIB and 2 of type IIIA. Oss: Wesselingh 2000; Lieshout: Hiddink 2005a; Nederweert: Hiddink 2005b; Tiel: Heeren 2006.

47 Early medieval examples: Bärenfänger 1994 & 2005; Zimmermann 1991; Bult/Hallewas 1990; Roman examples: Kooi *et al.* 1987, Kooi 1993/4 (nrs. 70, 71 and 208); Van Es 1965-6, 41; Koot/Berkvens 2004, 242; Roymans *et al.* 1998, 4.

48 The buildings from Weert that were first dated in the early Middle Ages, actually have a width that falls in the medieval range and not so much in the Roman range. The find material from these structures, however, seems to date in the Roman period.

49 The only exception is Valkenburg where no main buildings were identified. If we regard the bad preservation of the main buildings at some other early medieval sites like Hesel and look at the small sections of the all feature-map of Valkenburg that have been published, this might have to do more with the recognisability of

these structures than with a different function of these buildings and the site as a whole (traders or fishermen on the banks of the Rhine) as proposed by the excavators and others (Bult/Hallewas 1990; Theuws 1996).

50 To illustrate the fact that similar ground plans may be the result of very different types of buildings, we just like to mention the fact that Roman sanctuaries for the god Mithras can show exactly the same plan as the classical houses with byre-section of the Northern Netherlands and Northern Germany (e.g. Kortüm/Neth 2003). If we wouldn't look at the context, the *Mithraeum* could be interpreted as a stone version of the northern houstype, which would of course lead to a false functional interpretation of the building.

51 These regions seem to be far away from the area where the group of Geleen-Echt type of buildings has been found. The problem however, is that house plans from the southern half of Belgium, Luxemburg, Rhineland-Palatinate and Hessen are almost if not completely absent. This lack of known buildings has mainly been caused by a lack of large-scale excavation of Iron Age habitation sites. For example, only recently has the first Iron Age houseplan of Wallony been excavated (Frébutte *et al.* 2007). Still, we see no fundamental problems in comparing the loessic soils of the Meuse-Rhine region north of the Ardennes and Eiffel with the areas to the south of this mountainous zone, just as we see no principal problems in looking to the north for comparisons as long as the context of the buildings is kept in mind. Evident borders of the region that is used as reference zone can be found towards Normandy and Brittany where round houses can be found during the period under consideration and towards the Rhône valley and the Alps that lead towards Mediterranean France and Italy where very different settlement and house types are known. Towards the east the border has yet to be established. The last few years it has become clear that in the Austrian Danube basin and Moravia (eastern part of the Czech Republic) the situation isn't that different from southern Germany.

52 In the diagram of Buchsenschutz these plans fall under the heading of '3 nefs Roten' (and 2-aisled variant) and 'poteaux/parois' (Buchsenschutz 2005, 59). We shall call this last type of buildings the Verberie-type because of its first find-spot. Grisy-sur-Seine, Bazoches-lès-Bray, Balloy and Barbey: Gouge 2005; Verberie: Blanchet *et al.* 1983; Pont-de-Metz and Vermand: Buchez 2005; Fresnes-sur-Marne: Marion 1994; Marolles-sur-Seine: Peake 2005; Lieusaint: Boulenger 2005.

53 A two-aisled house of 12 x 5 m is known from the late Bronze Age site of Grisy-sur-Seine "Les Rouqueux" (Mordant/Gouge 1992, 141-142). It differs from the Geleen-Echt type by there being less posts on the central axis. This house plan is known from several sites in the larger region dating to the late Bronze Age.

54 The building from Grisy-sur-Seine however, shows a very strong resemblance to the building of Sittard-Hoogveld. Their overall dimensions are almost identical. Also, the three aisles have exactly the same widths, and the distances between the postholes in the length of the buildings are for Grisy exactly 2/3 of those at Sittard, meaning that every second post at Grisy is on exactly the same location as every third of Sittard.

55 Keller 1995/6. In this publication the building with regular post-setting that looks quite convincing on the plan, but unfortunately was only partly excavated, has been split up in several smaller buildings.

56 Schauer 1995; Fries 2002, 562; the structure of the western enclosed settlement is less clear but seems to show a similar structure. The largest buildings in Schauer's publication are now firmly positioned in an early Bronze Age building type.

57 Nadler 1997, Boas 1991.

58 Tol/Schabbink 2004; Darteville 1996; Dieckmann 1998; Nadler 2006. The loessic region between Aachen and Cologne has delivered some first indications of larger buildings: Paffgen/Wendt 2003.

59 Van Hoof in prep.; Gechter-Jones/Kempken 2006; Fiedler *et al.* 2002.

60 Fuchs 1997; Bauer *et al.* 1993; Eule 1998; *Archäologische Ausgrabungen in Baden-Württemberg* 1989, 212-217; 1991, 187-195; 1993, 227-231; 1999, 170-173; 2000, 154-156; 2003, 170-172.

61 E.g. Pestenacker, Unfriedshausen and Weier (Schönfeld 1991, Weidemann/Schönfeld 1994, Robinson/Rasmussen 1989).

62 Whilst above we have paid attention to the house plans where byre sections are probable or proven for the loessic and other Central European regions, we should point to the reverse on the sandy soils: the *caveats* expressed in Zimmermann's work that in northern Germany sometimes living areas and byres are found in separate buildings (Zimmermann 1992), as might also be the case for several medieval settlements in the southern Netherlands (Knippenberg *et al.* in prep.).

63 Their structure shows many similarities with early Iron Age houses from the sandy soils of the Netherlands. Therefore in Dutch literature they are sometimes incorporated in overviews of house types from this period (e.g. Roymans/Fokkens 1991). In German literature there however is still an intense debate on whether or not they should be associated with the Roman features surrounding these buildings (cf. Lochner 1995; Lenz 1995; Lenz 1999, 76; Lochner 2007). Due to the fact that there are intersections between Roman grave structures (the surrounding ditch) and the building of Jülich-Stetternich and the fact that the building of HA 59 is oriented differently than all the buildings of the Roman villa, and is situated outside of the villa structure, a date before the middle Roman age for these buildings seems to be all that can be said with certainty. They might be dated in the earliest part of the Roman period or in the late Iron Age showing some similarities to late Iron Age houses recently uncovered in Weert and near Antwerp (Roymans/Tol 1996, 33; Roymans *et al.* 1998, 34; Bungeeers *et al.* 2004, 117-156).

64 Although Dutch archaeologists seem to be pre-occupied to equate a division in a house with a separation into a living and a byre section, there are of course many other possible divisions within a house.

65 This is especially the case with Oss type 5A (dating to the late Iron Age and Roman period; Schinkel 1998, Wesselingh 2000) and with the early medieval building types found in the southern Netherlands (Theuws 1996, 760-761).

66 Some close analogies from Limburg can be found in: Roymans/Tol 1996, 42; Roymans *et al.* 1998, 53-54. Some close analogies from Noord-Brabant: Verwers 1998-9, 268-269.

67 The site has only been published in preliminary reports, a final

report being prepared by Henk Stoeperker.

68 Although several other burial sites are known in and around Sittard, we shall not go into the details of these. Those interested are referred to Van Hoof 2000.

69 Only two Iron Age bone assemblages are known from southern Limburg, both from old river beds. One of these assemblages was found just south of the town of Geleen (Hiddink/De Boer 2005).

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