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NATIVE NEIGHBOURS

LOCAL SETTLEMENT SYSTEM AND SOCIAL STRUCTURE IN THE ROMAN PERIOD AT OSS (THE NETHERLANDS)

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1. Introduction

Since the Bronze Age, and possibly even before that, people occupied the area around Oss. They built timber farmhouses, worked fields, herded cattle, and buried their dead. They also worshipped gods and had contacts with people from other regions. Somewhere around the middle of the first century BC the Romans, in the form of Caesar's armies, reached the area south of the Rhine. From that moment onwards (although officially from 15 BC), the farmers from Oss lived in what we consider to be the Roman period. After AD 47 Oss was part of the Roman Empire. This study is concerned with the settlement system at Oss during the Roman period. What were the processes of change compared with the Late Iron Age, and how did these come about? What was the social structure of the community that lived in the farmhouses? Were the changes influenced by the integration into the Roman Empire? How did the settlement system in the area develop and what happened in a wider region?

Oss in the Roman period is situated in a border zone, both temporal and spatial. The transition from prehistory to the Roman period generated transformations in economic, social, political and ideological arenas. Because we are dealing with rural settlements these changes are subtle, slow and specific. The Maaskant area in which Oss is situated is part of the frontier zone. It is not part of the *limes* proper, but close enough to romanised places such as Cuijk, Rossum and Nijmegen to be influenced by what was going on there. The large-scale and long-term settlement excavations at Oss offer the opportunity to study in detail an indigenous community and the changes taking place in it.

The main object of study is the structure and the development of four rural settlements (fig. 1), excavated between 1976 and 1992 (chapters 2 - 5). The picture of Oss is further completed by a cemetery, several other settlements, and elements in the area outside the settlements (chapter 6). Oss is then placed in a wider framework, that of the Maaskant region, and set against the backdrop of events in a wider landscape (chapter 7). These data are the bases on which an analysis of the settlement system and the local community is built (chapter 8).

This introductory chapter provides a general framework for the study of Oss in the Roman period. It presents a (scientific-)historical and theoretical background, and outlines the research goals of this thesis. Being part of a long-term project, the Oss excavations cannot be considered without mentioning their history and the work of many other people. Attention is paid to location and to finds that fall outside the chronological scope of the present work, i.e. prehistoric and medieval finds. Finally dating and (typo)chronology, as well as the definition of settlement, are discussed. In the final paragraph of this chapter I will outline the methodology and the set-up of the rest of this thesis.

1.1 Oss in context

This paragraph is concerned with the scientific-historical and theoretical background against which the present study should be seen. A short historical overview of Provincial-Roman research in the Netherlands is presented, after which the research goals and the theoretical framework chosen for this study will be outlined.

1.1.1 Provincial-Roman archaeology in the Netherlands

The history of Provincial-Roman archaeological research in the Netherlands is usually divided into two phases. The first, from the birth of the discipline in middle of the 19th century until well into the 1970s, was marked by a historical-philological tradition which put the emphasis on military-historical research in the *limes* area (Slofstra 1994, 15; Derks 1998, 2-3). Changes in material culture were seen as an indication for Roman presence, and a strong dichotomy was postulated between the primitive indigenous communities and the civilised Romans. The 1970s saw a general change in Dutch archaeology with the emergence of large-scale excavation projects, usually focusing on settlement complexes. Towards the end of the decade several regional projects were formulated that concentrated on research into protohistoric periods, amongst others the Assendelver Polder project (Brandt, Van der Leeuw and Wijngaarden-Bakker 1984; Brandt, Groenman-van Waateringe and Van der Leeuw (eds) 1987), the Kempen project (Slofstra et al. 1982) and the Eastern River Area project (Bloemers, Hulst and Willems 1980). Around the same time, in 1980, a conference was organised in Amsterdam, where the participants of these regional projects presented their new approaches (Brandt/Slofstra 1983). Although they did not subscribe to a

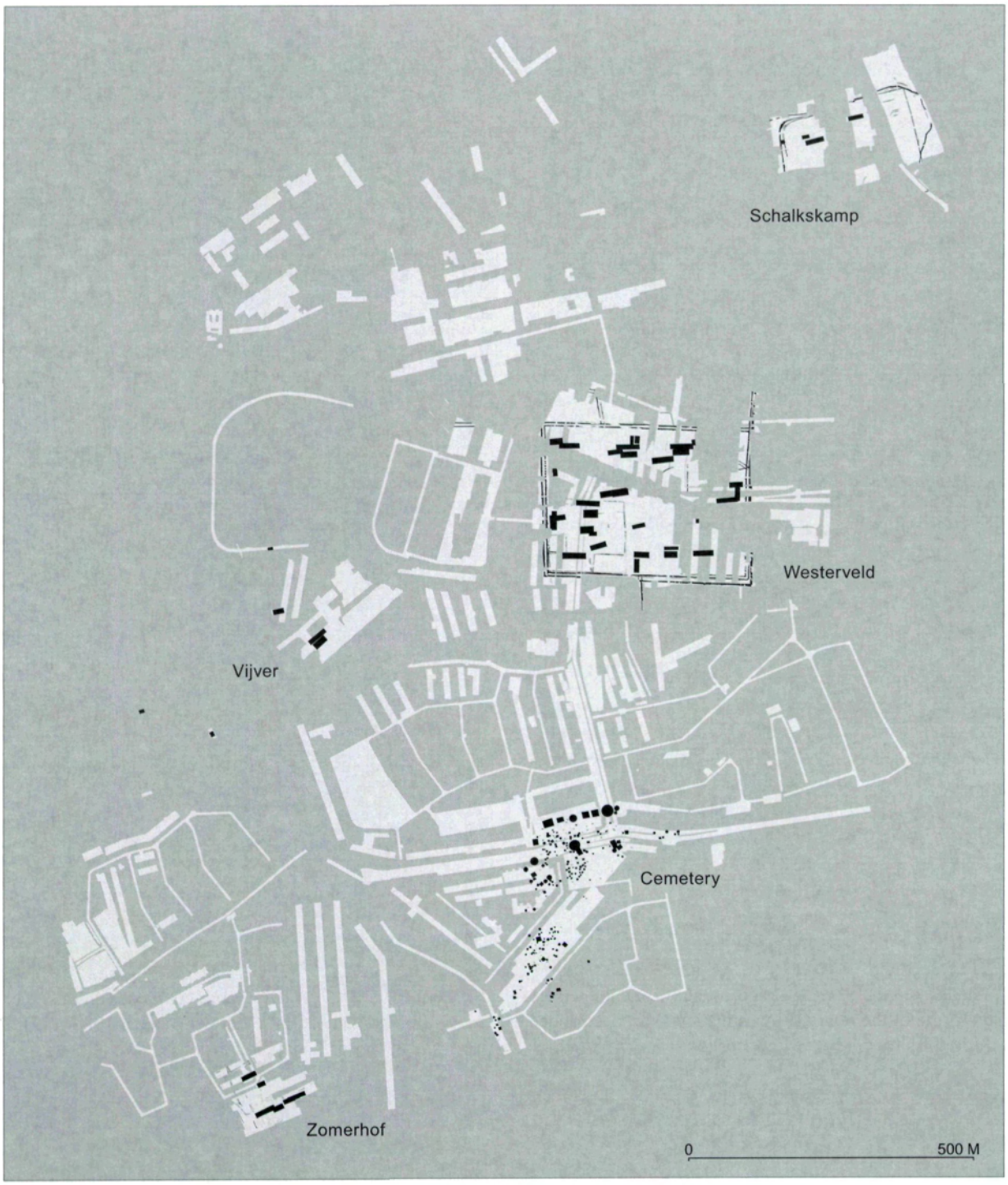


Figure 1. Survey of the four Roman period settlements (and the cemetery) featuring in this study.

single theoretical view, it seemed that processual archaeology had gained in influence. An important new element was the emphasis on the interaction between Romans and indigenous communities. Romanisation, i.e. changes in socio-political organisation, economic system and social structure of the indigenous population as a result of becoming part of the Roman Empire, was studied from a native perspective and preferably concentrated on long-term developments (Derks 1998, 5-6).[1] What was the place of the excavations at Oss in all this? The IJsselstraat campaign, started in 1974, was in fact a continuation of the research goals of Verwers' work at Haps (Verwers 1972). It was not until 1979 that the Maaskant project was born, and the excavations at Oss became part of the objectives of this project (G.J. Verwers 1981). The initial objectives of the Maaskant project were basically in line with the traditional cultural-historical approach, i.e. a detailed reconstruction of the occupation history of the area (Fokkens 1996, 198-199). Only the emphasis on the role of the natural environment could be called processual. Although settlements from the Roman period had been discovered right from the start, romanisation was not mentioned as a specific subject of research. Verwers worked at the Leiden Institute of Prehistory (IPL) and, true to its name, concentrated on prehistoric archaeology. Although features from the Roman period were excavated, the main aim was the reconstruction of prehistoric occupation. So despite starting around the end of the 1970s and a concentration on Iron Age and Roman period occupation, the initial goals of the Maaskant project were not similar to those of the regional projects mentioned above (cf. Louwe Kooijmans 1994, 44). However, the project changed hands in 1983 and with that its objectives changed too, partly under the influence of the 'stimulating investigations in [...] de Kempen' (Van der Sanden 1988, 117). The new project leaders were younger than Verwers and although educated at the IPL (Van den Broeke) and the Groningen Biological and Archaeological Institute (Van der Sanden), they were open to the new ideas that had been developed in Amsterdam and abroad. Romanisation, with an emphasis on the transition from prehistory to the Roman period, was now mentioned as the main theme of the regional investigation (Van der Sanden 1988, 117). This was in line with the interest for social and systemic processes that the New Archaeology had advocated.

Since 1980, at least as far as excavations are concerned, Provincial-Roman research in the Netherlands has been thriving. Many new regional projects were started, including the Central River Area project (Van Es/Verwers 1985), the South Netherlands project (Roymans/Theuws 1993, 7-8, Roymans 1996d) and the Tielerwaard excavations by the Free University. Sites such as Houten (Van Dockum 1990; Van Dockum/Hessing 1994), Wijk bij Duurstede-de Horden (Van Es/Hessing 1994), Weert (Roymans 1995a; Roymans/Tol 1996) and Tiel (Kortlang/Stafleu 1998) have yielded important new results. On most of these sites excavation is still in progress and, as at Oss, archaeologists are aiming to investigate the occupation system on a micro-regional level. Unfortunately analysis and publication are lagging behind. Many key-sites from the famous projects that started in the 1970s still await final publication.

In the meantime the paradigms have changed as well. Although today romanisation is still an important topic, the cultural-historical and the processual approach have given way to an increased interest for the cultural landscape as a whole. Research now concentrates on the study of the relationships between land use and landscape perception, a subject that implies more attention for so-called 'off-site' features (Van Dommelen/Prent 1996, 138). This is also the main research goal of the present-day Maaskant project (Fokkens 1996, 203/204), of which the excavations at Oss still form the core. A more recent development is the focus on mental aspects, ideas and values (Derks 1998, 6-9), which could be seen as a first attempt at a post-processual or at least contextual archaeology.[2] Examples of the latter approach (sometimes referred to as 'interpretative archaeology') include the work of Derks (1998) and Roymans (1993; 1995b; 1995c; 1996b). Although Anglo-American theoretical developments certainly influenced Dutch Provincial-Roman archaeology, the long-term and large-scale settlement research was continuous in character and does not show a strict dichotomy between processual and post-processual views (cf. Roymans 1996d, 243).

1.1.2 Theoretical framework and research goals of the present study

The previous section mentioned the new direction pursued by the Maaskant project in the 1990s, that being an enquiry into the transformation of a cultural landscape. The subject of this thesis - the study of the settlement system in the Roman period - dates from the earlier days of the project. In 1985 the main objectives of the 'Ussen project' were described as 'the analysis of the development of the settlement system in the period 700 BC - AD 250 and, coupled with this, the process of Romanization' (Van der Sanden 1988, 117). Due to practical and personal circumstances (see 1.2.1) the research object became more segmented. Schinkel took over from Van der Sanden and completed the analysis for the prehistoric period (Schinkel 1994; 1998); meanwhile the cemetery from the Roman period had been included in a regional study on mortuary ritual (Hessing in prep.). In 1992 the Roman settlements were more or less waiting to be analysed. Three of them (Vijver, Zomerhof and Westerveld) were part of Ussen, on which Van den Broeke, Van der Sanden and Schinkel had already done much basic work. A fourth settlement (Schalkskamp) was in the middle of being excavated. When it became clear that Schinkel would

concentrate on the prehistoric occupation, Louwe Kooijmans (professor and dean of the Faculty of Prehistory), Fokkens (project leader of the Maaskant project since 1986) and Van der Sanden (then curator at the Drents Museum at Assen) decided that the analysis of the Roman period settlement would be the subject of a separate study. In the grant application written for the Netherlands Organisation of Scientific Research (1992) the aim of the study was described as 'the analysis of the settlement system from the Late Iron Age and the Roman period in the Maaskant region in order to gain insight into the social, economic and political organisation of indigenous communities in the southern part of the *civitas Batavorum*'.

As a consequence, the initial objectives of this thesis were still very much rooted in what could be called a processual tradition, though this did not imply a single-minded emphasis on environmental aspects. However, the hierarchical division of the study into discrete geographical levels of analysis, so reminiscent of processual work in settlement and landscape archaeology, remained. Through study of the micro-region (Oss-Ussen) and the region (Maaskant), it was thought the final goal could be reached: a model for the social, political and economic organisation in the region. Romanisation, until then mainly discussed on a regional scale, could thus be studied at settlement level. Analysing the cemetery as part of a different study was almost a leftover of the systemic approach, which considered mortuary ritual to be part of a separate sub-system.[3] However, the first tentative influences of new approaches could be equally sensed in 1992: the original set-up of the study mentions the cultural landscape as something that should be possible to reconstruct on a micro-regional level. As such, the project that I embarked upon sat on the fringe of the processual and the contextual paradigms, although they were never strictly divided.

During the five years (1993-1998) that I worked on this thesis, approaches to Provincial-Roman (and prehistoric) archaeology have changed further. The cultural landscape is now a must, and attention is increasingly being paid to its cultural biography, or the ongoing interpretation and appropriation of older features into later phases of occupation. However, at Oss the majority of the data from the Roman period were collected in the 1970s and early 1980s, when excavation methods were not yet aimed at uncovering pre- and protohistoric landscapes. With the aid of results from later excavations and surveys I have nevertheless tried to incorporate the areas outside the settlements. Although I mainly concentrate on the settlements, the settlement *system* (Fokkens 1997a, 86)

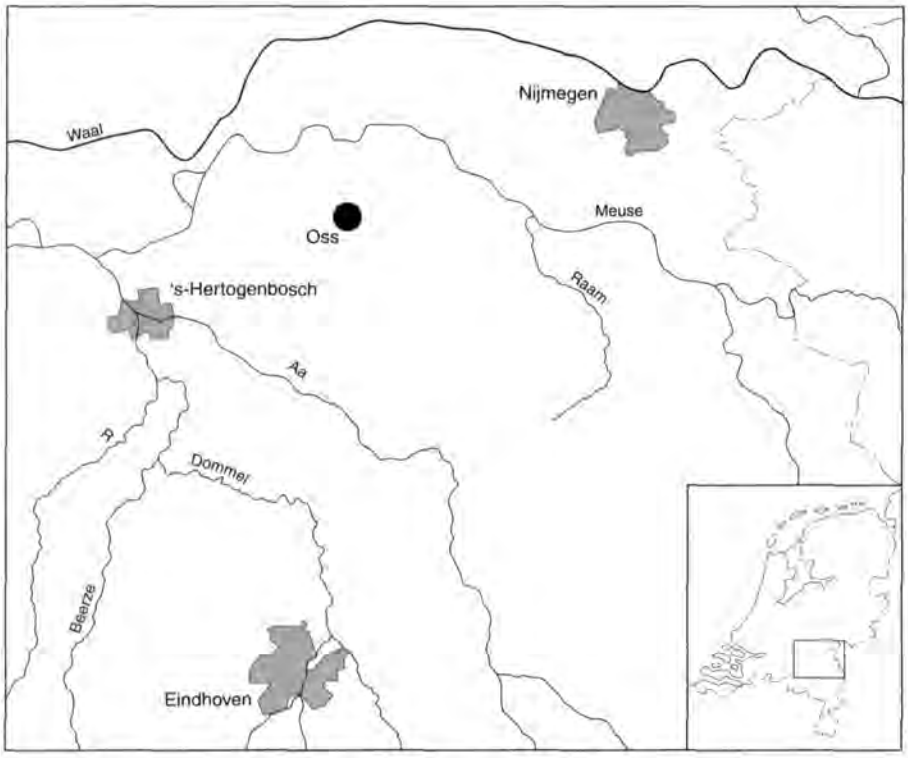


Figure 2. Map showing the northeastern part of the province of North-Brabant and the location of Oss.

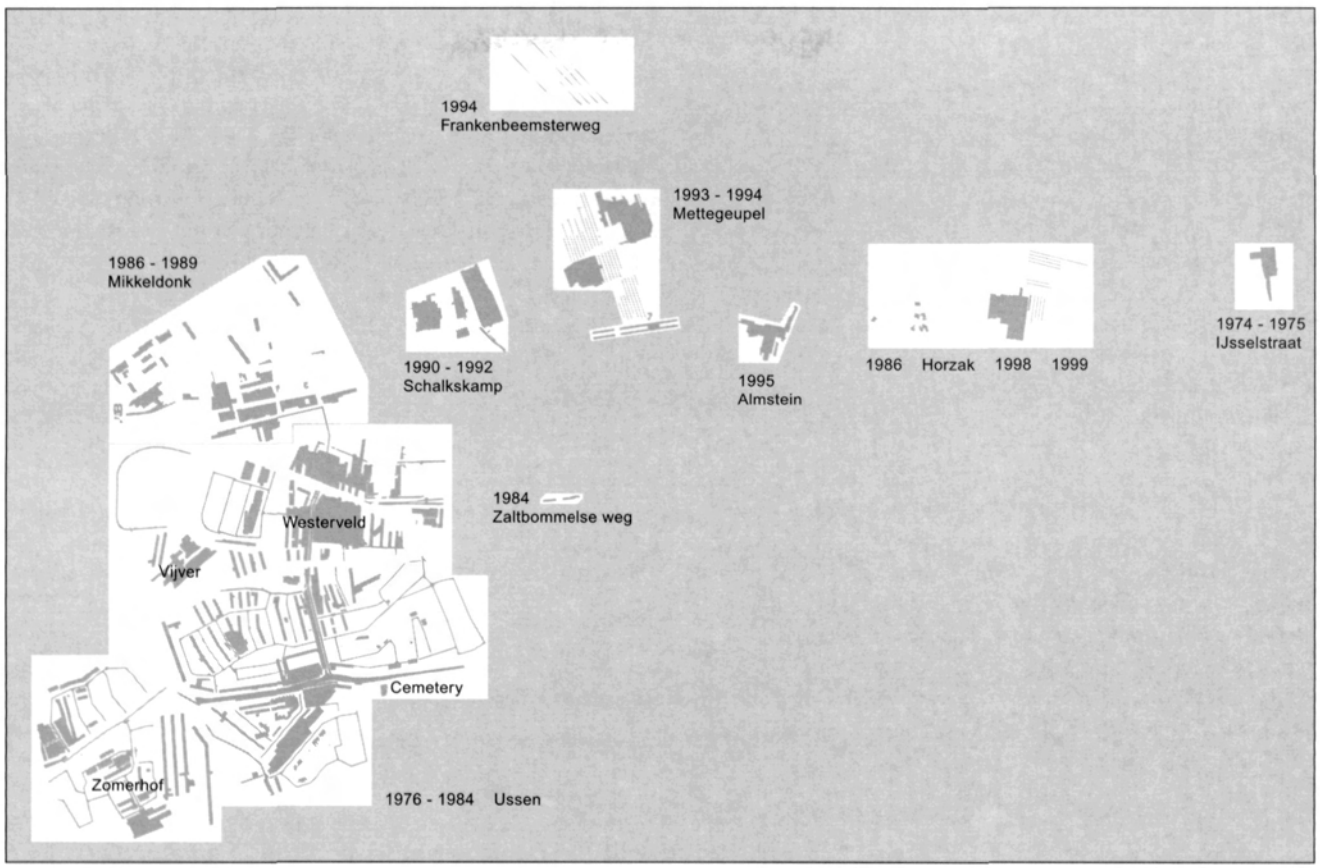


Figure 3. Survey of all areas excavated between 1976 and 1998 (shaded dark grey) in Oss. The white areas and the names indicate the building estates.

cannot be considered without taking into account the historical landscape in which the houses are built. It goes without saying that the cemetery is an important part of that landscape, especially in an ideological sense.

The aim of this study was to give a detailed account of the settlement system at Oss during the Roman period. How did people live? In what ways did they organise the surrounding landscape? Which economic, social and ideological factors structured this specific form of settlement and were in turn influenced by it? Just as the initial objectives of this thesis were a mix between processual and cultural landscape archaeology, the final results balance between the remainders of the processual approach, supplemented with some historical-anthropological and landscape archaeology, and the recent developments in contextual and 'interpretative' archaeology. A preference for a native perspective as far as romanisation is concerned is combined with an emphasis on long-term processes on the local level. In my opinion the strength of the data from Oss lies in the local developments, and the specific character of this particular indigenous community is lost when the results of the analysis are generalised to make them fit into a (supra)regional overview.[4] Only when discussing the perspective of space have I tentatively tried a more ideological approach, also because the subject lent itself well to this. Although one could question whether the data are sufficient for this kind of analysis, it was a rewarding exercise, which convinced me that the new attention to mental aspects will generate many new insights.[5] However, if it is to become the paradigm of the 21st century (Derks 1998, 8), excavation methods will have to change accordingly.

1.2 Long term and large scale: history and strategy of the Ussen excavations

In 1976, the municipality of Oss began implementing the 'Ussen' plan, according to which a housing estate was to be built to the northwest of the town (fig. 2). This provided the Leiden Institute of Prehistory (IPL) with the opportunity to carry out large-scale excavations in an area known to have been intensively occupied during the Iron Age and the Roman period (figs. 3 and 4).[6] Throughout, the various

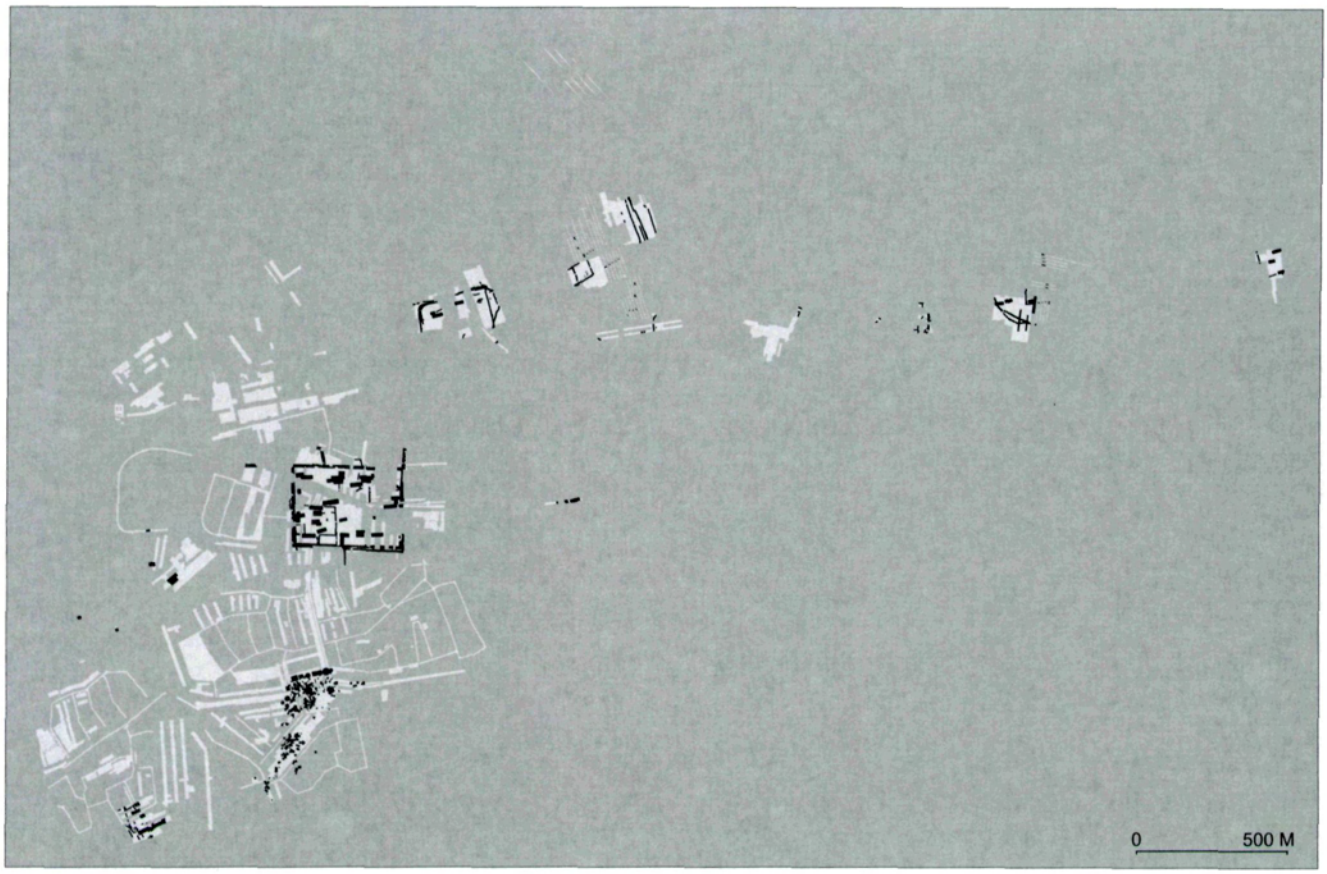


Figure 4. Survey of features from the Roman period.

building activities took place under archaeological supervision from a scientific project assistant. When necessary, a team of students and a field technician were called in from Leiden to extend the excavation beyond the road and building trenches. Furthermore, part of the work took place as part of the students annual training excavation.[7]

Investigations were carried out in this fashion until 1984 but in the meantime, goals, directors and circumstances were changing. From 1979 onwards the excavations at Oss were incorporated into the Maaskant project, forming the key site of this regional research project (G.J. Verwers 1981). In 1980 the first features of what would turn out to be a large enclosed settlement dating to the Roman period were discovered. Later the settlement became known by the name of 'Westerveld'. The exceptional nature of this site was quickly recognised, and the area was excavated prior to the building activities instead of just following construction trenches. The enormous amount of data collected led Verwers to officially close the excavations in December 1981, in order that they could begin the giant task of analysing the material. Despite this action it was decided that the enclosed settlement should be investigated further. When Verwers left the Leiden Institute in 1982, Van der Sanden together with Van den Broeke took over the scientific responsibility and continued excavating until 1984, when as much as possible of the Westerveld settlement was uncovered. So far the eight years of investigation had yielded numerous features from the Iron Age as well as three settlements and a cemetery from the Roman period.

In 1986, Bronze Age finds from an area north of Ussen gave reason to renew the IPL connection with Oss, this time with Fokkens as project leader. New housing estates were planned, and from 1986 onwards the excavations in Oss have been taking place every summer, while local archaeologists have been supplying information from building activities and surveys throughout the year.[8] It is now common practice to excavate prior to the digging of road and building trenches, and archaeologists from Leiden are involved in the building plans at an early stage.

This study is concerned with results from excavations between 1976 and 1992, a period during which the basic field methods remained virtually unaltered. The dark *plaggen*

soil was removed with a hydraulic digger, after which the top layer was shovelled clean by hand. In each trench only one horizontal level was laid out. Features were drawn at a scale of 1:40, sections (scale 1:10 or 1:20) were drawn only of larger pits and house plans.[9] Initially only the depth below excavation level was recorded for all features. After 1982, section drawings were made of all features. Soil samples for botanical analysis were taken from the fill of some of the postholes and of almost every deep pit and well.[10] Wood samples for determination of wood types and tool marks were taken from well linings and remnants of roof-bearing posts. Metal detectors were not used systematically; only occasionally were small areas surveyed by amateur archaeologists using a detector. Those surveys did not yield large numbers of finds: the relatively low number of metal objects is probably a fairly true reflection of the original use of metal. The use of computers started in 1986, but none of the older data were entered. No use was made of programs such as dBase: the Oss documentation, including all the information on finds, is still only available on paper.[11] Computers were mostly used as drawing facilities: from 1986 onwards the field drawings have been digitised, and for Schinkel's dissertation (1994, part III; 1998, maps) a complete plan of all the existing drawings was made in AutoCAD.

Some remarks should be made on the excavation strategy in relation to the horizontal completeness of the excavated features. As mentioned above, regular excavation trenches were dug only to extend existing building trenches in which features had been recorded. The layout of these trenches was dictated to some extent by the position of the modern road trenches, the borders of which could not be excavated. This situation, together with recent disturbances such as ditches, gullies and sand-winning trenches, caused the overall plan to be far from complete. After 1986, the strategy was altered and a more open-area excavation was aimed at.

Being a long-term project, 'Oss' has known many directors and people working on the results. Starting off in the mid-seventies and still continuing in the new century, it is a project that clearly reflects not only the ideas of many different people but also the changes in paradigm in Dutch archaeology (Fokkens 1996). This has had its effects on the analysis and the questions asked, and therefore on excavation methods. In that respect a division should be made between the periods 1974-1982, 1982-1986 and post-1986, with many tasks being undertaken in new ways in each. As a consequence, the quality of the data from the Roman period is varied.

1.2.1 Analysis and interpretation

Systematic study of the data did not start until 1982. Since then, an enormous amount of work has been done by several people. Wijnand van der Sanden, contracted for the analysis of the features and other find categories, started the cataloguing and completed various plans. In 1987, after five years of hard work and two preliminary reports (Van der Sanden/Van den Broeke 1987; Van der Sanden 1988), Van der Sanden was appointed at the Drents Museum at Assen. However, he still planned to finish the analysis of Oss-Ussen. In 1989, when this turned out to be too large a task, Kees Schinkel was contracted to continue the work. Schinkel finished the catalogue of all features and wrote up the analysis of the prehistoric occupation traces (Schinkel 1994; 1998).[12] During his work period the excavation plans were digitised and for the first time a complete plan was available. Because Schinkel lacked time it was decided that the analysis of the settlement system of the Roman period would be the subject of a separate study. From 1982 onwards, Peter van den Broeke has been working on the analysis of the handmade pottery (Van den Broeke 1987a; 1987b; 1991b; 1996; in prep.). Together with Van der Sanden, he wrote the preliminary report on Ussen, in which the first results of his work were presented (Van der Sanden/Van den Broeke 1987). Wilfried Hessing is preparing a dissertation on Late Iron Age and Roman period cemeteries, in which the cemetery from Oss-Ussen is incorporated (Hessing in prep., see 6.1).[13]

The present study could thus be started with a complete catalogue of settlement structures and a basic analysis of most of the Roman finds, although re-analysis of the Roman wheel-thrown pottery also meant a re-analysis of the datings of most structures. The settlements IJsselstraat (Wesselingh 1993) and Schalkskamp had to be completely catalogued (and analysed). Furthermore I have studied some of the find categories more closely, such as wheel-thrown pottery, glass bracelets, roof-tiles and brooches. Extra time was spent on the aspects of the menu (Bakels/Wesselingh/Van Amen 1997) and the use of space (Symposium Archeologie & Theorie 1998). The core of this thesis is the study of the nature and development of the four settlements, including intersite and regional analysis.

1.2.2 Landscape and location

The name 'Oss', and probably also 'Ussen', might derive from the river name *ouse* meaning 'higher place near water' or 'water through hilly country' (Van de Ven 1975, 22; Kok 1994, 50). The first meaning could refer to the fact that the settlement is situated on a local rise of the soil, jutting out into the river-clay area. Oss is located on the northern rim of the Pleistocene coversand area of North Brabant, on the transition to the Holocene river deposits of the Meuse-basin (fig. 5).[14] The subsoil is formed by Pleistocene riversands, with an aeolian sand deposit on top (Twente formation). North of Oss the riversands are covered by river deposits

Figure 5. Geological and pedological situation of Oss and the surrounding area. a. Ossermeer; 1. river area; 2. coversand covered with a thin layer of clay; 3. coversand covered with anthropogenic soil; 4. coversand.

(Betuwe formation). A thin layer of clay, covering the sandy soils, separates Oss from the basin deposits proper.

The Peelrand Fault has divided the clay area north of the coversand into two different landscape zones (fig. 6). East of the line Oss-Teeffelen/Lithoijen we find a geologically complex area with many creeks, sandy dunes and generally more differences in height. The western clay area has a more even structure, with north-south levees formed by streams, flood-basin deposits and the coversand area itself. The archaeological survey of the clay area by Modderman (1950) already showed that no habitation traces could be found on the flood-basin deposits in the western half of the clay zone of the Maaskant. Most of the low-lying Pleistocene fluvial deposits were probably wet and thus uninhabitable, but higher stream levees may have been suitable as arable land (Willems 1986, 44-45). Especially in the eastern clay zone they have yielded numerous finds from the Roman period (Modderman 1950). Both the transitional area from clay to

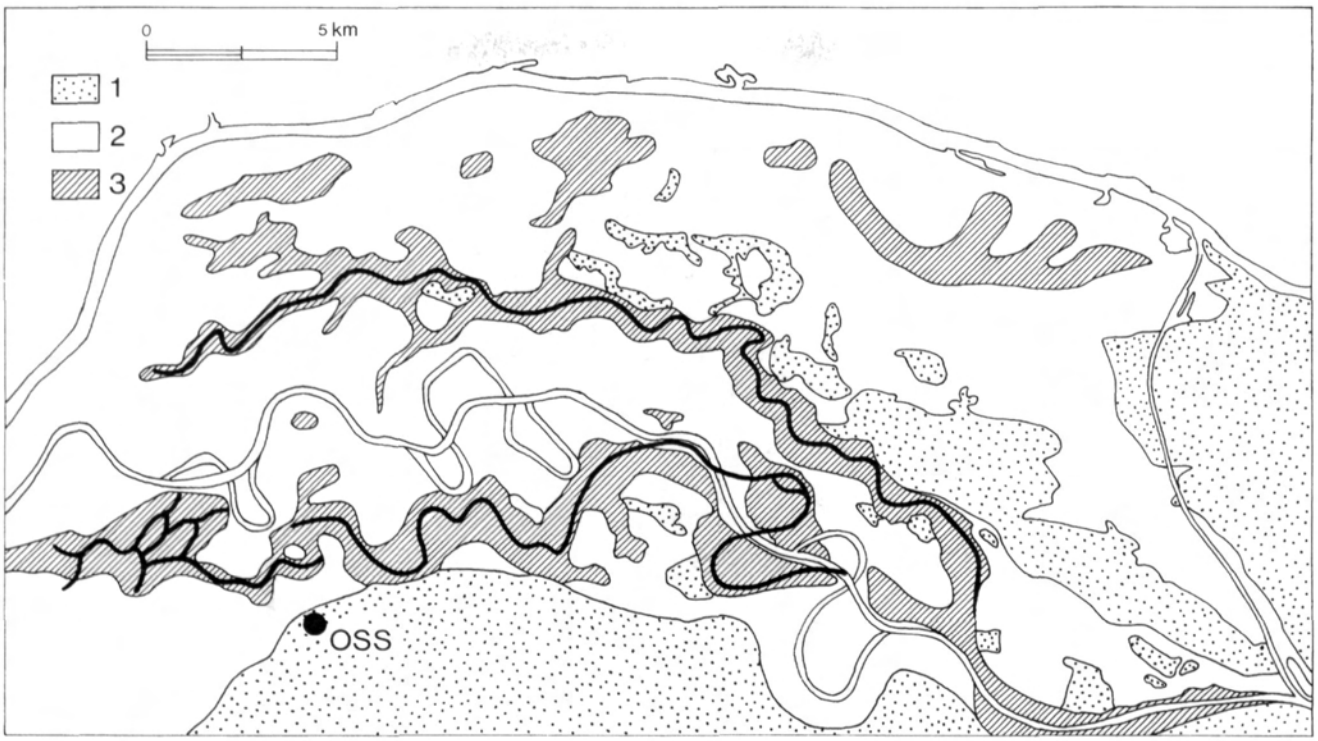


Figure 6. Geological map of the area traversed by the rivers Meuse and Waal. 1. coversand; 2. flood basin; 3. pre-Roman levees with residual gulleys (after Louwe Kooijmans 1985, 141).

sand, directly north of Oss, and the western edge of the coversand near Geffen would have been marshy and swamp-like (Kok 1994, 52-53). South of Oss there was an area with heathlands and perhaps the occasional fen. Here a rich Early Iron Age (Hallstatt C) barrow burial (Holwerda 1934, Modderman 1964, Fokkens 1997b) and other prehistoric graves were found.

An important issue is the reconstruction of the course of the river Meuse, which today is situated at a distance of 5 km to the north of Ussen.[15] At least during the entire Roman period, the river had two branches from Grave onwards (see fig. 6) (Willems 1986, 62). The northern branch, the so-called Wijchens Maasje, started to silt up in the fifth century AD (Henderikx 1986, 512). A remainder of the fossil channel of this branch is the present-day Wijchense Meer. The southern branch, which forms the northern boundary of the Maaskant area[16], had its course through the present-day Ossermeer, a small oxbow lake some 2.5 km to the north of Ussen. The suggestion that this lake was part of a functioning river during the Roman period is partly confirmed by pottery and fishing net weights found during dredging activities (Verwers/Beex 1978, 32-33).[17]

Apart from the Ossermeer section, the exact reconstruction of the southern branch of the Meuse is difficult. It is supposed to have flown partly in the same location and partly slightly to the south of its current course. According to Pons (1957), the southern branch would have run past the present-day villages of Lienden, Haren and Macharen and through to Maren-Kessel, where its traces have been eroded by the present-day Meuse. Near Herewaarden the Meuse branch converged with the river Waal (Verhulst/Blok 1981, 141; Henderikx 1986, 453, note 1). Around AD 250 important changes took place in the river pattern of the Central Netherlands, resulting in increased sedimentation (Berendsen 1990, 248). Whether this was induced by a climatic change, and whether the increasing sedimentation influenced the end of Roman occupation, remains uncertain. There are no indications of extremely wet conditions, such as occurred during medieval times when the Ussen area was regularly flooded (see below). After the Roman period, or maybe even during the last phases of it, the Meuse began to follow its present course. Some of the larger bends between Alem and Megen were straightened during the water-regulation works undertaken in the 1930s (see Roymans/Van der Sanden 1980, fig. 9).

A reconstruction of the vegetation of the area is hampered by the lack of sufficient pollen diagrams. However, the results from pollen-analysis carried out on the fill of a

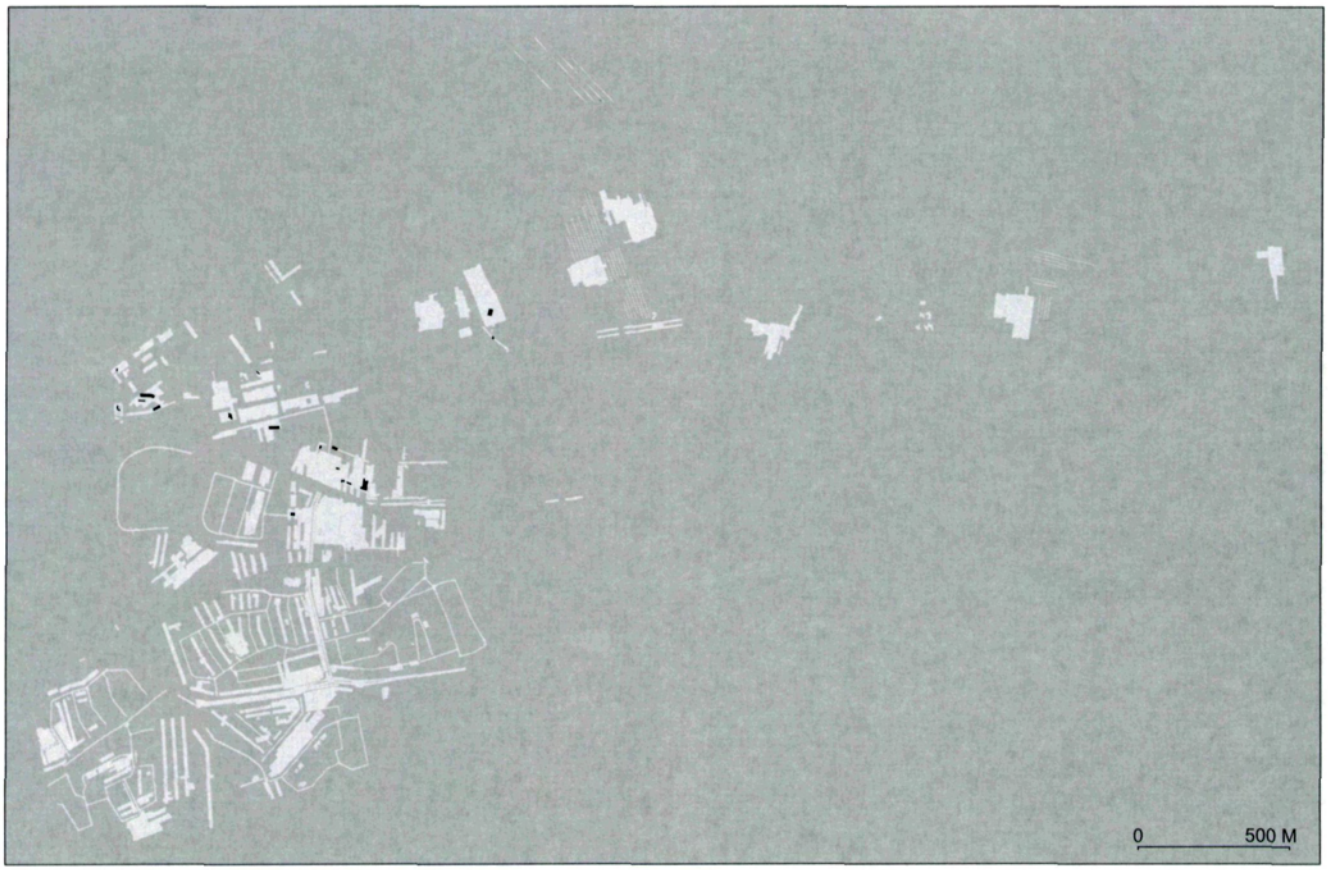


Figure 7. Survey of features from the Middle Bronze Age.

number of grave-ditches from the Roman period indicate an open landscape (De Jong 1982; Schinkel 1994, part I, 8). This was probably caused by the expansion of arable land. On the higher stream levees grew a dry forest, including mainly oak trees, mixed with hazel, elm and ash. In the lower wet areas pastures and alder carrs would have been situated, with reed lands and willow in the flood-basin deposits. Around the settlements grew oak trees, alternated with beech trees and hazel. Further south was the heath area, with the occasional birch tree.

During most of the medieval period Ussen was uninhabited, but several important events have influenced the appearance of the landscape. Nowadays the Ussen area is covered by an *es*, a layer formed in the Middle Ages through ploughing and prolonged fertilisation with a mixture of manure and *plaggen* (grass, heather or peat sods), with an average thickness of 80 cm. During the formation of this *es* most of the original Roman period surface was disturbed by digging activities: we should take into account the loss of at least the upper 20 cm of the features. On the other hand the *es* has helped to keep what was left of the features intact and undisturbed for many centuries. The *plaggen* soil has influenced the local relief to some extent, but no extreme differences in height are present in Ussen. A gradual decline can be seen from the south-east (+ 6.4 m NAP) to the north-west (+ 4.2 m NAP) of the Ussen area (Schinkel 1994, part 1, fig. 6).

Finally the development of the *Beerse Maas* should be mentioned (Van Diepen 1952, 161-176; Van de Ven 1975, 67-68). The diking-in of the river Meuse started in the thirteenth century and led to frequent flooding of the areas north and south of the river. At the end of the eighteenth century a solution for the floods was sought in the construction of spillways (Dutch: *overlaten*). In times of high water these lower parts of the dikes made it possible to control the flooding to some extent. As a result of two of these spillways near Beers, the water of the Meuse would flow through the low areas north of Oss, and this stream was called the Beerse Maas. The edge of the coversand area functioned as the border of the Beerse Maas, but often the water would reach the village of Oss. The *Beerse overlaten* were closed in 1942. Until the new housing estates were

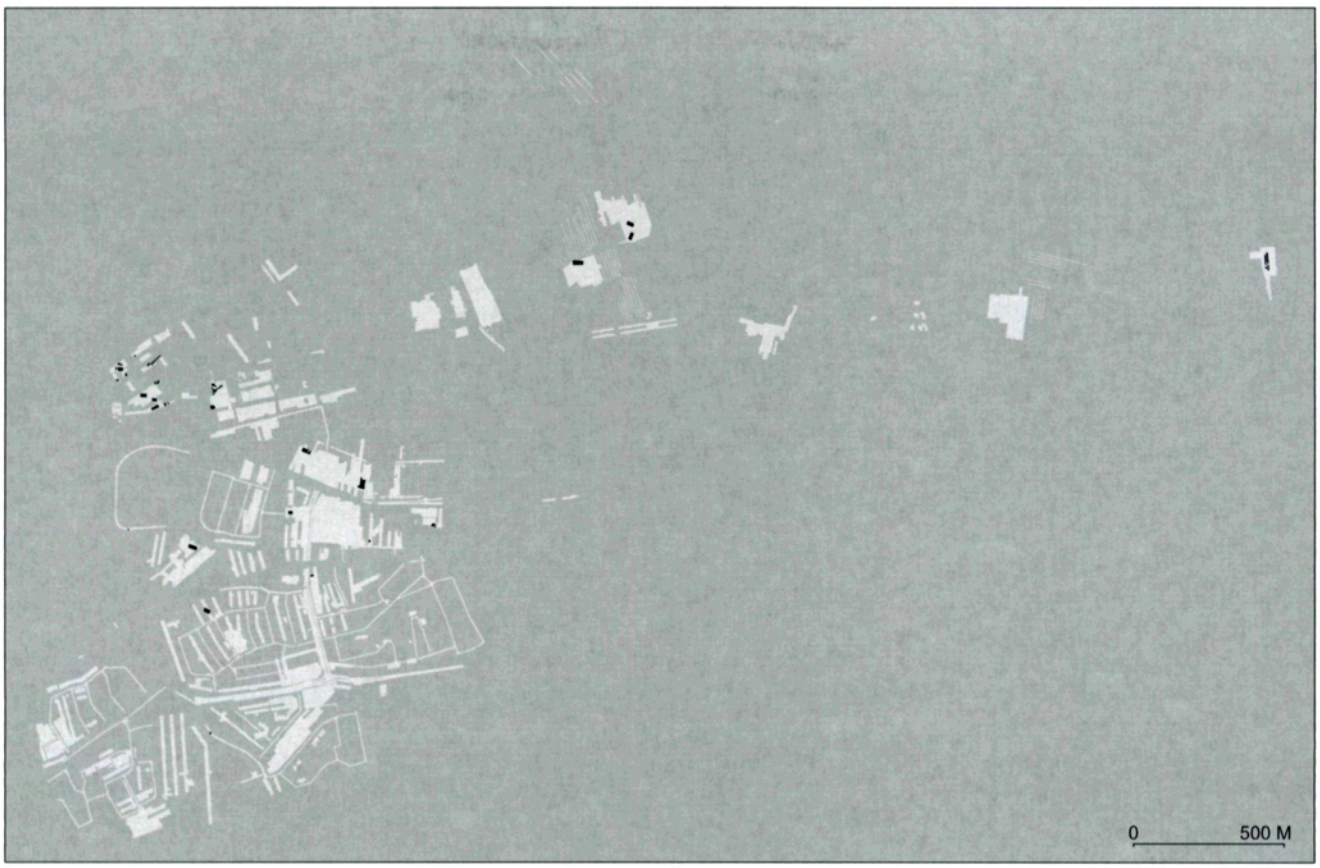


Figure 8. Survey of features from the Late Bronze Age and Early Iron Age.

built in the 70s, the flat and open landscape still bore the marks of the riverine floods.

1.2.3 Prehistoric and medieval traces

In order to provide a better insight into the settlements of the Roman period, a short outline of the data from preceding and following periods will be presented. For the abundant prehistoric traces this is mainly based on Schinkel (1994; 1998). Medieval features are scarce. The direct predecessors of the Roman period settlements and the question of continuity will be discussed in chapters 2 - 5.

Prehistory

The earliest finds at Oss consist of a number of artefacts dating to the Neolithic. They include two fragments of flint axes, a flint arrowhead from the Bell Beaker period (Schinkel 1994, part I, 29-30), and a fragment of pottery from the same period (Fokkens 1993, 33).[18] Features from the Neolithic have not been found; the oldest features date to the Bronze Age (fig. 7). They consist of three house plans, wells, pits and a ditch found in Mikkeldonk, north of the Ussen area (Vasbinder/Fokkens 1987; Fokkens 1991c; Schinkel 1994, part I, 31-40) and further north during excavations in the 1990s (Fokkens 1992, 159-160; in prep.). The house plans can be dated to the Middle Bronze Age, but occupation during the Early and the Late Bronze Age was probably present too. At least one well was dated to the latter period.

From the Early Iron Age onwards, houses are continuously present in Oss, up to and including the final Roman settlements around AD 250. The prehistoric settlement traces are amply described and analysed by Schinkel (1994; 1998). In this paragraph only a short outline is given based on his work, but is combined with the data from the excavations at Schalkskamp (Fokkens 1991a; 1991b; 1992). From the eight hundred years of Iron Age occupation more than seventy house plans are known, many of which will have been surrounded by yards containing granaries, pits and wells.

Six settlement sites from the Early Iron Age have been distinguished (fig. 8). Each site seems to be a chronologically separated occupation phase of one and the same farmstead that was constantly being rebuilt at a different location. In the

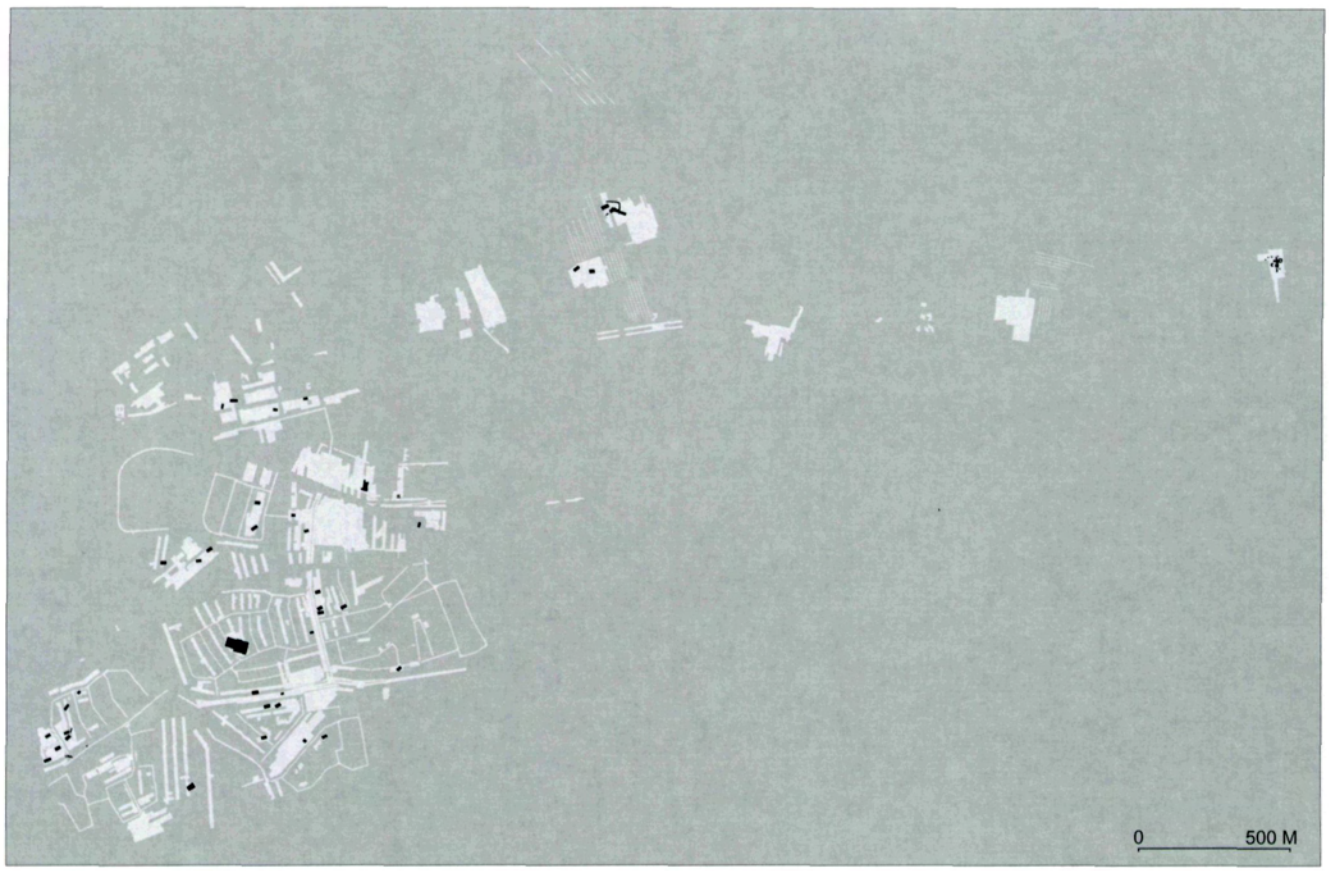


Figure 9. Survey of features from the Middle Iron Age.

course of the Early Iron Age a second farm might have been added, but the two farmsteads never clustered. Graves lie within the settlement area and are often directly associated with occupation remains. The exact location of arable land and pastures is unknown. Houses are relatively short, with a mean length of 17 m, and have wattle-and-daub walls.[19] Wells are lined with hollowed-out tree-trunks or vertically placed elements, while later in the Early Iron Age wattlework starts to be used for lining. Other elements in the yard were storage buildings, supported by four, six, or eight posts. The material culture, mostly represented by finds from deep pits and wells, points to various activities taking place in the farmyard. These include the grinding of cereals, spinning, weaving, and iron production.

During the first half of the Middle Iron Age the same area remained occupied, now containing three settlements (fig. 9). One of these contained five compounds (see section 1.4 for a description of this term), which were probably occupied successively. Between 400 and 350 BC the two northernmost settlements were abandoned. They were replaced by two new settlement areas situated further south, which had not previously been occupied. A slight increase in population can be detected. Only a few graves were found alongside three, possibly four cult sites, mostly dating from the second half of the Middle Iron Age. The house plans from the Middle Iron Age are slightly shorter than the Early Iron Age farms, with fewer added roof support posts. Around the end of this period houses started to be built in which the roof was supported by the wallposts (Oss-Ussen type 5A, see 1.3.3). Most of the wells were lined with wattlework. Besides the granaries known from the previous period a new type, supported by nine posts, was introduced.

At least two of the three Middle Iron Age settlements yielded evidence suggesting continuity of occupation in the Late Iron Age (fig. 10). A new area further north, which had been used during the Bronze Age, was occupied again. Population density was much greater now, which resulted in many houses built on top of the relics of older ones or houses being built close together. For the first time there is evidence for the rebuilding of farmhouses in the same yard. This increasing concentration of occupation is best illustrated by the ditches surrounding the northernmost settlement

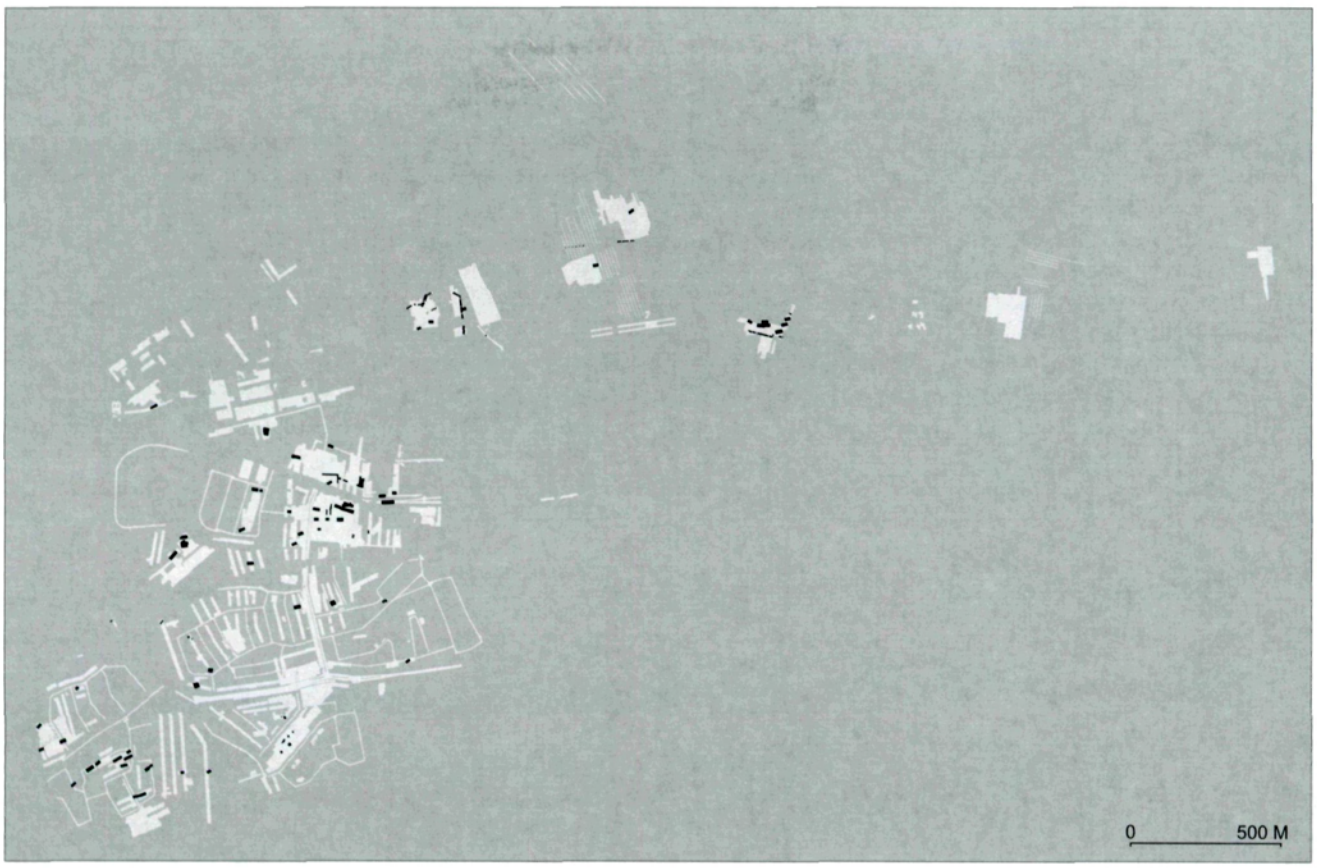


Figure 10. Survey of features from the Late Iron Age.

(Schalkskamp). The largest of the three settlements (Westerveld) comprised 27 house plans, representing three or four contemporary compounds. Only a few graves are known, four of which can be regarded as the first graves of what was to become an extensive cemetery in the Roman period. The housetypes of the Late Iron Age show a great variety. In the first phase we see smaller houses (Oss-Ussen types 4 and 5, see 1.3.3), while in the first century BC a different basic design was introduced alongside houses of type 5A. The new type of house (8C, see 1.3.3), with heavy central roof-supports and foundation trenches for roof-supporting walls, had a reduced number of roof-supporting posts inside the building. In each yard there are granaries but fewer pits and wells: concentrations of wells outside the farmyards seem to indicate communal water supplies.

Medieval period

The Roman period settlement came to an end around AD 250, after which the Ussen area remained unoccupied for a long time. Even though the third century is difficult to detect in pottery complexes, it seems that there were no proper settlements in Ussen after *c.* AD 250. Fourth century material was found at Oss-Eikenboomgaard (see 6.2), but no farmhouses could be documented.

The earliest medieval buildings in Ussen date from the twelfth and fourteenth century, but several pottery finds point to the (occasional) presence of people in the Merovingian, Carolingian and later periods. Settlements traces include a small cluster in the southwest of Ussen, comprising a barn, a pit and a well (Datema 1984), and two isolated structures (see Van der Sanden 1987b, 15-17, and Schinkel 1994, part I, 10-12). Furthermore a medieval ditch system was documented during the Schalkskamp excavations. The ditches, which had been re-cut three times, followed the same lines as the Roman period enclosure; proto-stoneware dated them to the first quarter of the thirteenth century (Fokkens 1992, 167).

From the Late Middle Ages onwards the area has been used frequently, leading to a disruption of the prehistoric and Roman period 'soil archive'. Numerous deep land boundary ditches and sand-extraction trenches have wiped out part of the earlier features.

1.3 Chronology and typochronology

The Roman period features in Oss have been dated in various ways, ranging from absolute methods to pottery typologies. The following deals with these distinct dating methods, the association between finds and features, and with the basics of the Oss-Ussen typology for structures as developed by Schinkel (1994; 1998). The dating of prehistoric features is discussed elsewhere (Van den Broeke 1987a; Schinkel 1994, part I, 15-22).

For the basic chronology use is made of the (calibrated) BC dates as listed in a chronology based on handmade pottery found at Oss (table 1, see Van den Broeke 1987a; in prep.). Whenever one of the phases A - N is mentioned, they conform to the dates of the pottery chronology. The only exception is the start of the Roman period, which is set at 15 BC.[20] Not all pottery phases can be linked to absolute dates,

Roman period		**N**
		M
----------	15	----------
		L
Late Iron Age		**K**
		J
		I
----------	250	----------
		H
Middle Iron Age		**G**
		F
		E
----------	500	----------
		D
Early Iron Age		**C**
		B
		A
----------	800	----------

Table 1. Absolute chronology (cal BC) based on typology of handmade pottery by Van den Broeke (1987a, in prep.).

but each Iron Age period can be divided into three equal phases. This results in phases with durations of approximately 58 years for the Late Iron Age, and up to 75 years for the Early Iron Age.

For the Roman period, which in Oss covers the years between the second decade BC and AD 250, I will not use the official subdivisions. In the usual periodisation the Roman occupation at Oss includes the Early Roman Period (15 BC - AD 50/70) and part of the Middle Roman Period (AD 50/70 - 260/270. For Oss the start of a new phase around the last quarter of the first century AD (Flavian period) is useful, but I will not use the term Middle Roman Period.[21] Roman period dates are given in the usual subdivisions, using the Roman numbers I to IV to indicate the centuries AD, capital A and B for first and second half and lower case a - d for the first to fourth quarters of a century. 'Pre-Flavian' refers to the Roman period before AD 69.

1.3.1 Dating methods

Various dating methods were used for the features from the Roman period in Oss. The presence of a relatively large amount of well-preserved timber made absolute dating methods possible. Although many ^{14}C-datings were obtained using wood from prehistoric features, and charcoal from the Roman period cemetery, only one settlement feature from the Roman period was dated in this way. The sample consisted of oak from the lining of well P17 (Zomerhof settlement), and yielded a date of 1850 ± 30 BP.[22]

Several good samples for dendrochronology, i.e. wood with sufficient tree-rings, were available (see Jansma 1995, 132-133). However, only a small number of structures were dated in this way (table 2). In most cases the results corresponded fairly well with the dates provided by the find material, but in some others the results were not satisfying (such as P305, see Van der Sanden 1987c, 48-49). The

structure	date	element	remarks
P207	AD 72	plank	
P253	AD 78	plank	
P272	AD 145	plank	
P305	AD 174		no correlation with date based on finds
S464	AD 50		
H101	12 BC	central post	
H104A	AD 53	central post	
H111	AD 79		
H134	AD 17 ± 5	central post	corrected

Table 2. Dendrochronological research (dates uncorrected unless stated otherwise).

quality of the samples (the degree to which the outermost rings were present) varied. Since in most cases at least some of the rings on the outside of the sample were missing, the calendar date of the last outer ring that could be measured is earlier than the actual felling date of the tree (Jansma 1995, 116).

The most important dating instrument for Oss-Ussen is the pottery. Native handmade forms were dated with the pottery-chronology developed by Van den Broeke (1987a; in prep.), while for the wheel-thrown pottery various existing typologies were used. These include Dragendorff 1895 (*terra sigillata*), Holwerda 1941 (Belgian ware), Gose 1950 (*mortaria*), Oelmann 1914 (Niederbieber, coarse ware), Ritterling 1912 (Hofheim, colour-coated ware), Vanvinckenroye 1991 (Belgian ware), Dressel 1879 and 1899 (*amphorae*), Loeschke 1909 (Haltern, *amphorae* and Italian *sigillata*), and Stuart 1963 (colour-coated pottery, *mortaria*, smooth-walled ware, coarse ware, grey ware). More information on the wheel-thrown pottery from Oss can be found in paragraph 1.5.

The dating of handmade pottery from the Late Iron Age and the Roman period can be problematic. It is not always possible to date a Late Iron Age pottery complex to one phase, because less pottery of this period was retrieved due to a smaller number of deep pits and wells. Furthermore it is often difficult to distinguish between handmade ware from the Late Iron Age and that from the (Early) Roman period. Unless a find complex contained a high percentage of indisputably prehistoric pottery or other artefacts, a feature or structure yielding both handmade and (more than the occasional sherd of) wheel-thrown ware was usually dated on the basis of the latter. As a consequence, some datings tend to be 'pulled over' to the Roman period (see also Van den Broeke 1987a, 41). This is visible in the data from Oss: there are hardly any features that can be dated exclusively to the last phase of the Late Iron Age, thus creating a false gap between Iron Age and Roman period. Due allowance should be made for this in considering the dates used.

1.3.2 The association of finds and features

A second important aspect of dating is the association between finds and features and the assessment of the (post-)depositional processes involved. When dating a feature by means of the pottery it contains, one should ask what is being dated. There is a difference in this respect between postholes and foundation trenches on the one hand, and pits, wells and ditches on the other. While the former group of features was backfilled directly after a post or a wall had been placed, the latter type remained open and thus formed an *artefact trap* for a longer time.

Since almost all occupation traces from the Roman period were situated in places that had been occupied before, debris from earlier periods would have been lying around. This material could have ended up in new pits and postholes when they were dug or when well-linings or posts were placed inside. Features that were backfilled shortly after having been dug are less likely to gather material from the use-period of the structure itself.[23] This type of refuse had more chance of ending up in open features like pits, wells and ditches. Finally, finds from later periods could end up both in old postholes (when the post had rotted away) and in derelict pits and wells.

Theoretically, closed features can be expected to contain more material from earlier periods (see also Verwers/Van den Broeke 1985, 19), which would then be found in the post*hole* and not in the post*shadow* (i.e. the rotted remains of the wooden post itself) This was confirmed by the dendrochronological date of H134 from the Schalkskamp settlement (see 5.1), where the wood was dated some 50 years younger than the pottery. But in Oss the fill from postholes showed hardly any stratigraphy, and only rarely could the remains of the actual post be discerned. Thus finds from postholes were collected while digging out the fill: no sieving or stratigraphic collecting was carried out. Furthermore the upper 20 - 30 cm of all features was disturbed by earlier agricultural activities (see 1.1.2).

The upper layers of open features like pits and wells are likely to contain pottery dating from after the period of use, and thus provide a *terminus ante quem*. Early pottery from the lower fill, especially directly outside the lining, would give a date for the construction (or earlier, if older debris was lying around), while material from inside the lining would originate from the actual period of use. If this whole complex is dated as one entity, the result is a rather large time span which encompasses the period before construction, the actual construction, use, disuse and gradual silting up of the pit. In Oss, the stratigraphic registration of finds was not introduced until the excavation of the Westerveld settlement in 1982. It must be said though that the analysis of the finds from different layers gives little additional insight into the precise dating of the pits. Even dates for wheel-thrown pottery are usually not more precise than several decades, while the life-span of a well probably did not exceed ten years.

The above-mentioned circumstances would imply that the dates of buildings (consisting of 'closed' features) have to be regarded as giving a *terminus post quem*, while most of the dates for open features such as pits and wells are based on later refuse and thus function as a *terminus ante quem*. This can not of course be applied as a strict norm, but should be taken as a rule of thumb. On the whole it seems that older material getting into newly dug features played a larger role than younger debris getting into features after they were out of use. The fact that the upper 20-30 cm of the features was

disturbed may be part of the reason for this. Mixing in of older material happens in places that have been inhabited before, which in Roman period Oss is almost always the case. In general, finds material from structures tends to lead to a date that is approximately 25-50 years too early, as was proved by the dendrochronological dating of H134 (see 5.1).

In the Westerveld, Zomerhof and Vijver settlements pottery from the late 2nd and early 3rd century AD was found in pits and wells, pointing to activities in this period that generated normal household refuse. However, none of the farms could be dated to this period on the basis of finds material. In the chapters on the settlements, the dates listed in the tables are based on finds material, sometimes complemented by dendrochronological datings and information derived from intersections. When combining the structures in settlement phases it will be argued that some of the farms might have to be set in a later phase. This will sometimes be visualised on the settlement plans.

The conclusion, based on the above, has to be that dating buildings in Oss is problematic. Early Roman period farms with only handmade pottery could end up in the Late Iron Age, but when only a few wheel-thrown fragments are found, the date is 'pulled over' to the Roman period. As a consequence, the first phase of settlement is difficult to pinpoint and there is a chance that a false 'gap' is created. During the rest of the Roman period buildings tend to be dated 25-50 years too early, causing the phases to be muddled and the last occupation phase to seemingly lack houses. In general, it seems that a sequence of farms is artificially compressed into a shorter period. To compensate for this one should close the gap at the beginning, pulling the dates of some Late Iron Age farms and the first Roman period buildings towards each other, and then add several decades to all the other dates, thus stretching the farms over the whole period of use. However, since there is no proof that this exercise should be carried out for each building and no good indication for the number of years to add, the result would be even more uncertain and unclear. The dates for individual buildings will therefore be based purely on finds material, but in the settlement descriptions I will take these notions into account as much as possible.

1.3.3 The Oss-Ussen typology of structures

Schinkel (1994; 1998) has drawn up a typology for the house plans, granaries, pits and wells, and palisades and fences found in Oss-Ussen. On the basis of the present evidence this typology, which covers Bronze Age, Iron Age and Roman periods, would appear to be representative for the southern part of the Netherlands. For an extensive description of the characteristics of each type, and for the reasoning behind this classification, the reader is referred to Schinkel (1994, part II; 1998) For the purpose of this study I will only list the basic characteristics of the types used (table 3) and depict them (fig. 11).

It should be noted that these types are discerned purely on the basis of form and construction, and their main aim was to categorise the enormous amount of data. Even though most house plans, pits and wells could be dated, the long use-period of various types of structures means that the typochronology cannot be used to date find-less features. It is possible to distinguish certain structures that started to be used from the Roman period onwards. Within the Roman period however, no chronological order can be inferred. The types presented here are all known from the Roman period, but only some of them exclusively. These include housetypes 6B, 7B, 7C, 8A, 8B, and all the subtypes of housetype 9, all the granaries of type III, well-types A4, A5 and A6 and possibly ditches of type IIIC.

1.4 Defining settlement

Before presenting the data from the Ussen excavations it is necessary to define what I understand by a settlement and the various elements it consists of. A settlement can be considered both as a spatial entity and as a social one, the latter reflecting the way in which the inhabitants themselves experience their dwelling-place. Even though spatial and social organisation are closely linked, many 'invisible' boundaries and connections cannot simply be deduced from a one-dimensional ground plan (see Schinkel 1994, 27). To reach conclusions about which inhabitants shared which activities, kinship links and beliefs and how this is reflected in and influenced by spatial elements, a contextual approach is necessary. In this paragraph I will only define settlement in a spatial sense, and explain which terms will be used. This is meant to be purely descriptive, although I am aware that even when describing space it is virtually impossible to ignore the various factors that generate it.

In order to be able to explain what I mean when using the term settlement I will first define a number of related concepts. Since the inhabitants of the Ussen settlements practised mixed farming, the terms 'house' and 'farm(house)' are both used to indicate the main dwelling house. Although the term 'farmstead' can have wider implications[24], I will use it in the same sense.

An important term is 'compound'. By this I mean a grouping of structures which represent a single (family) farm enterprise. This comprises a dwelling house, buildings and pens for animals, storage buildings, open (work) spaces, yards, pits and wells, including the ditches and fences that define the boundaries of the area. Even though the term was originally reserved for occupation in Africa and the Near East, it is now often used in North-European archaeology (see for instance Hingley 1989 and Slofstra 1991).[25] Furthermore I will use the term 'farmyard' as a synonym for

Oss-Ussen housetypes

Type Oss	5:	two-aisled, wall-posts, no external posts
	5A:	paired wall-posts
Type Oss	6:	one-aisled, foundation trench
	6A:	no external posts
	6B:	external posts
Type Oss	7:	partly one-aisled, partly two-aisled, foundation trench
	7A:	no external posts
	7B:	external posts
	7C:	one-aisled part between two two-aisled parts, external posts
Type Oss	8:	two-aisled, foundation trench, external posts
	8A:	no central roof-bearing posts in the short walls
	8B:	central roof-bearing post in one of the short walls
	8C:	central roof-bearing posts in both short walls
Type Oss	9:	partly two-aisled, partly three-aisled, foundation trench, external posts
	9A:	one part two-aisled, one part three-aisled
	9B:	three-aisled part between two two-aisled parts
	9C:	three-aisled part between two two-aisled parts, central roof-bearing post in one of the short walls

Oss-Ussen granary types

Type Oss	I:	two rows of posts
	IA:	four-post structure
	IB:	narrow six-post structure (length ⩾ width)
	IC:	wide six-post structure (length < width)
	ID:	more than six posts
Type Oss	II:	three rows of posts
	IIA:	nine-post structure
	IIB:	twelve or more posts
	IIC:	middle 'row' of posts consists of posts in the short walls only
Type Oss	III:	central floor surrounded by walls
	IIIA:	floor carried by nine posts
	IIIB:	floor carried by twelve posts

Oss-Ussen pit types

Type Oss	A:	deep pits, funnel-shaped, bowl-shaped or asymmetrical in section, with one or a combination of the following constructions:
	A1:	round/oval, wattlework
	A2:	round/oval, elements placed vertically
	A3:	hollowed-out tree trunk
	A4:	(wine)cask
	A5:	square/rectangular, elements placed horizontally
	A6:	square, elements placed vertically
	A7:	construction dug out or washed away
Type Oss	B:	deep pits, funnel-shaped, bowl-shaped or asymmetrical in section
Type Oss	C:	deep pits, funnel-shaped or bowl-shaped in section, with a post through the bottom of the pit
Type Oss	D:	deep pits, funnel-shaped or asymmetrical in section, with a flat bottom
Type Oss	E:	shallow pits, funnel-shaped or bowl-shaped in section
Type Oss	F:	shallow pits, asymmetrical in section
Type Oss	G:	shallow pits, cylindrical in section
Type Oss	H:	extremely shallow pits with a flat bottom
Type Oss	I:	shallow pits, irregular in section

Oss-Ussen types of palisades and ditches

Type Oss	I:	palisades made of thin posts, closely set together
	IA:	linear or L-shaped
	IB:	rectangular
Type Oss	II:	palisades with 'normal' sized posts, set apart
	IIA:	linear or L-shaped
	IIB:	rectangular
Type Oss	III:	ditches
	IIIA:	linear or L-shaped with a flat bottom
	IIIB:	linear or L-shaped with posts through the bottom
	IIIC:	rectangular or circular

Table 3. Oss-Ussen typology of structures (types used for the study of the Roman period).

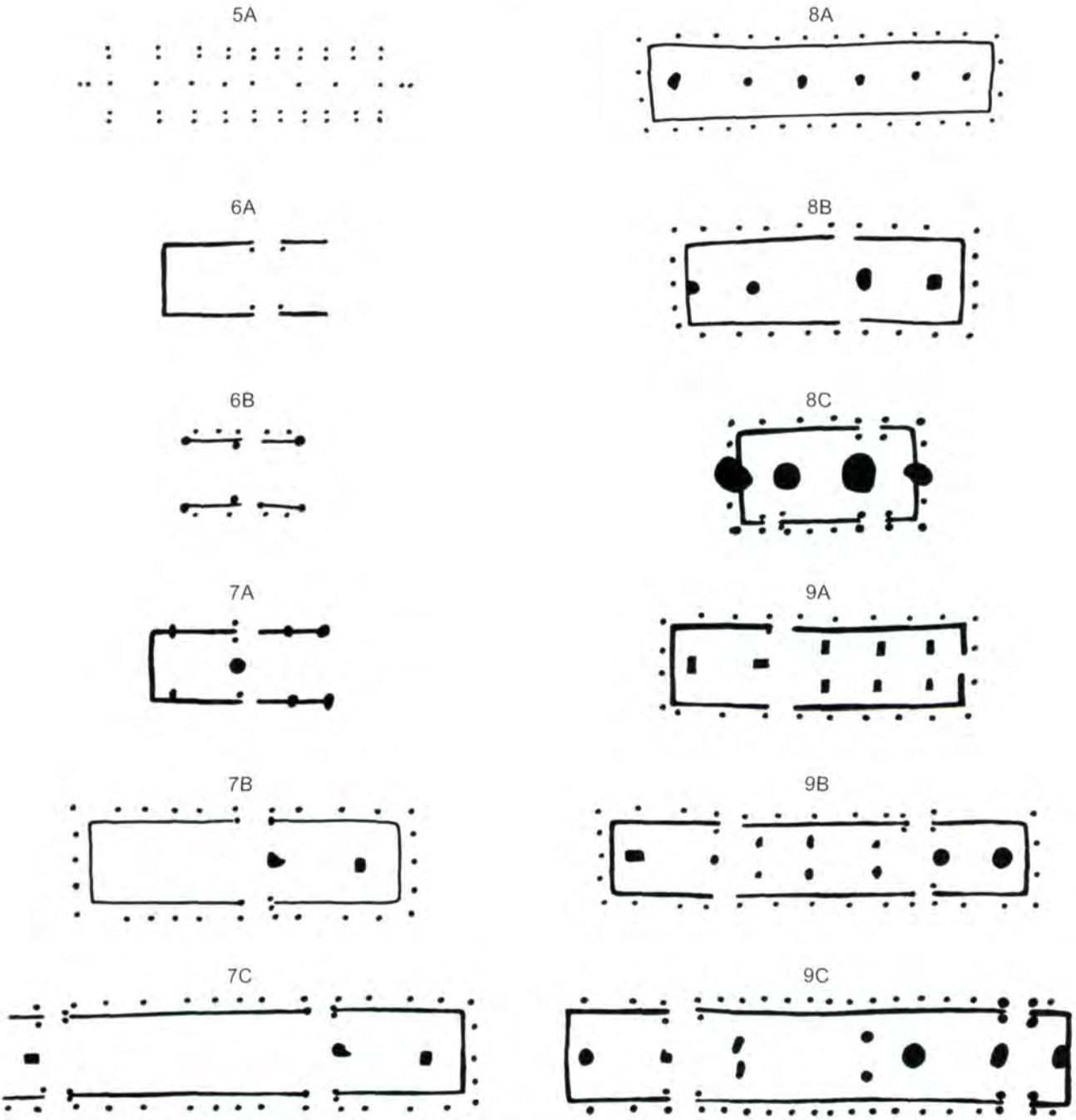


Figure 11a. Oss-Ussen typology of structures: house plans from the Roman period (after Schinkel 1994).

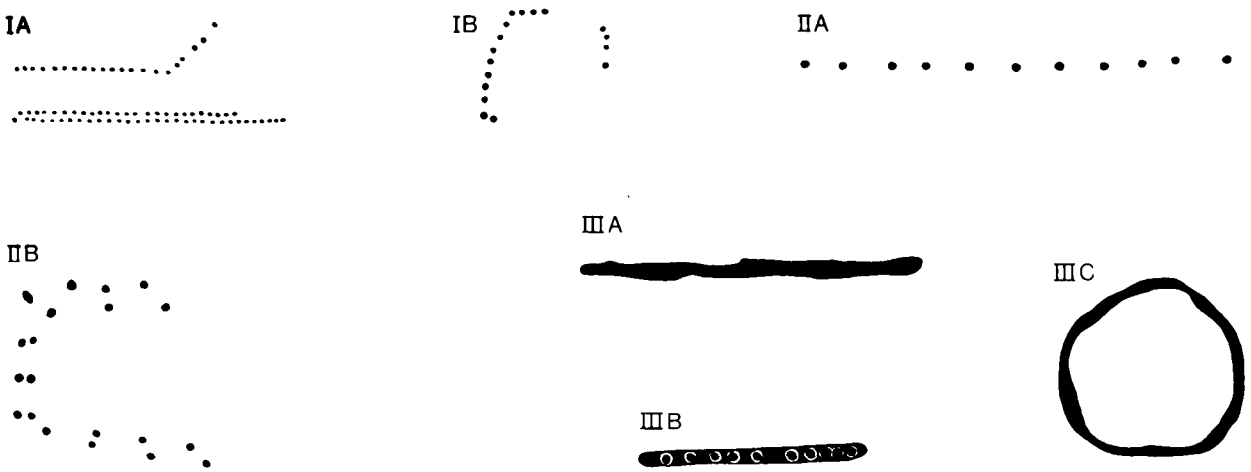


Figure 11b. Oss-Ussen typology of structures: palisades and ditches from the Roman period (after Schinkel 1994).

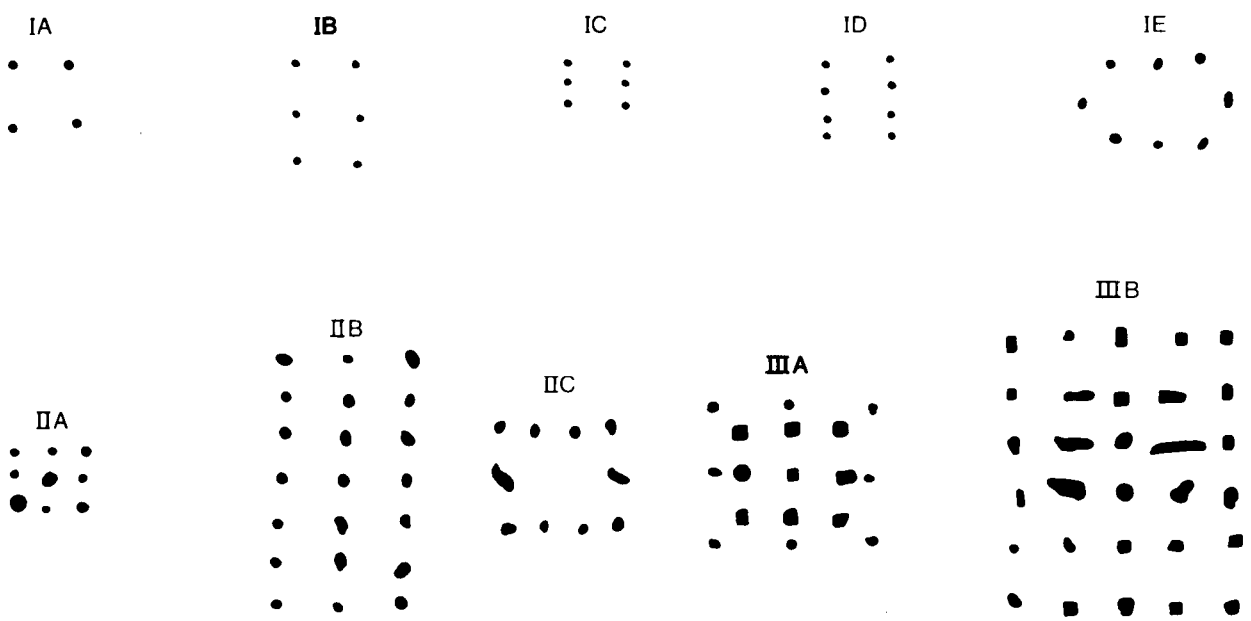


Figure 11c. Oss-Ussen typology of structures: granaries from the Roman period (after Schinkel 1994).

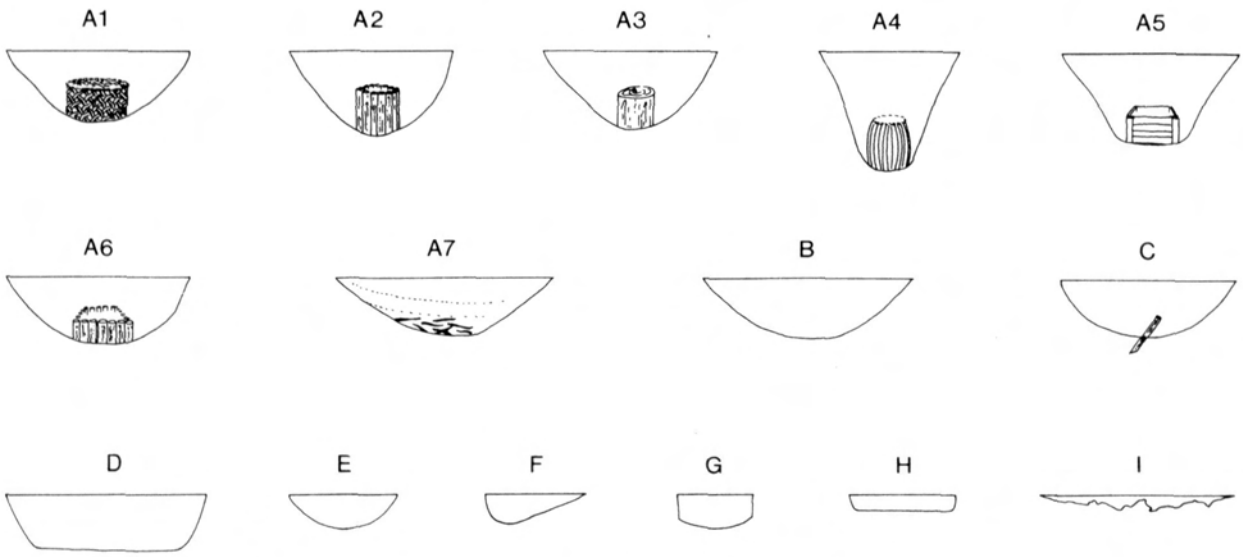


Figure 11d. Oss-Ussen typology of structures: pits and wells from the Roman period (after Schinkel 1994).

compound. Both terms will also be used in a purely spatial sense, i.e. to indicate the space that is occupied by the group of structures, often enclosed by ditches or fences.

A settlement can either be a single, isolated compound, or a distinct cluster of a number of compounds (Hingley 1989, 75). The question is, when can one speak of a 'distinct' cluster? How far away from other compounds does a single compound have to be, before we treat it as a separate settlement? Traditionally 150 metres is considered the maximum, since beyond this 'hailing distance' neighbours cannot be called anymore and a direct connection is lost (Roberts 1996, 24; Hingley 1989, 180). For a purely spatial definition I will employ this limit but, caution with regards to the social entity is necessary. Neighbours living outside the hailing distance could well be involved in all sorts of social and economic activities, or be regarded as part of the settlement on kinship or ideological grounds. Using a social or physical concept like 'hailing distance' shows again how closely spatial and social factors are intertwined.

Clustered and single compound-settlements can exist in the same area, forming a settlement pattern. This can be anything between wholly nucleated or wholly dispersed, with a dispersed pattern being regular, random, or anything in between. To prevent confusion it is important to stress the difference between dispersion and nucleation of *compounds* on the one hand and of *settlements* on the other. Roberts (1996, 24) uses the terms 'form' and 'pattern' to distinguish between the scales of viewpoint. Compounds within 150 metres of each other yield a nucleated settlement *form*, whereas several settlements might yield a dispersed *pattern* throughout the landscape. While the 150 metre-limit provides a grip for defining settlement form, it is much more difficult to distinguish dispersed settlement patterns from nucleated ones. In reality, mixed patterns occur almost everywhere. Wijk bij Duurstede-de Horden for instance is characterised as "a loose conglomerate of single farms and small groups of farms, dispersed over a wide area" (Willems 1986, 283), while Hvass (1993, 194) remarks on Roman Iron Age occupation in Denmark: "At any time, settlement can best be characterised [as] villages and isolated farmsteads in symbiosis…".

A specific case is formed by the so-called *Wandersiedlungen*, a category to which the prehistoric occupation in Oss belongs. Schinkel (1994, part I, 26-27; 1998, 26) claims to use the term 'settlement' in a technical-analytical sense only, and defines it as a "chronologically and spatially related group of features, separated from a different group of features by an 'empty' area". He then goes on to identify settlements as the territories within which one or more compounds 'wandered'. This adds a diachronic aspect to the definition, and also suggests that deserted or demolished buildings were part of the settlement. In a social lived-through sense, this is undoubtedly true, and it would be right to regard a settlement as a continually developing and dynamic phenomenon (Hingley 1990, 99). But for a purely spatial (or technical-analytical) definition Schinkel's territories are not useful. Looking at Iron Age occupation in Oss at one point in time we see a dispersed pattern of single and occasionally clustered compounds. There is no good argument why some of the compounds, which are more than 200 metres apart, should be grouped as one 'settlement' (see Schinkel 1994, part I, fig. 160), and the boundaries of the

various territories seem rather arbitrary.[26] Following the above-mentioned definition, each single compound as well as the few clusters can be regarded as a settlement, thus creating a mix of settlement forms in a basically dispersed pattern.[27] Since each compound lies within a distance of 500 metres of another one, the pattern of the whole group can be characterised as a loose conglomerate of settlements (Hingley 1989, 95). Study of Celtic fields and urnfields can help to establish whether this 'conglomerate' is also a group in a social sense (Gerritsen in prep.).

A final term that needs to be defined is 'hamlet'. By this is meant a settlement that is clearly more than an isolated single farm but smaller than a village. It is the smallest type of nucleated settlement, and its number of inhabitants can vary between 8 and 250 (Roberts 1996, fig. 1.4). I will use the term for all Roman period settlements from Oss. The term 'village' will not be used, since it implies a much larger settlement with several central functions. Simplified, I will distinguish compounds and clustered compounds, both of which can be called settlements.

The above-mentioned choice of terms for the various elements of occupation is meant to be more or less neutral, and does not imply social, political or economic characteristics, such as hamlets being administratively linked with other places upon which they are dependent (Roberts 1996, 18). Van de Velde (1991, 6) considers the distances between the Roman period settlements in Ussen too small to speak of settlements, and proposes the Dutch term *buurtschappen*, comparable with Flannery's *barrios* or residential wards (Flannery 1976, 72-75). Literally, *buurtschap* means neighbourhood. In Van de Velde's (social) model, the three residential wards in Oss (Vijver, Zomerhof and Westerveld) would be part of one larger community or village, each carrying out specific economic and/or ceremonial tasks and showing status differences. However, Flannery himself notes that it is difficult to distinguish between small hamlets (i.e. separate settlements) and residential wards of larger settlements, especially if they are the same size (Flannery 1976, 73). In my opinion, the (strictly spatial) definition of dispersed and clustered settlement forms and patterns, as described above, allows for the same scope of interpretation, without using the (social-economically laden) term residential wards. Even though each cluster of compounds (or a single compound for that matter) is called a settlement, this does not imply that the inhabitants are independent or form separate communities. The very fact that the settlement pattern shows the occupation clusters to be within 1000 meters of one another suggests that there are close links between the inhabitants on many levels, and that they are indeed neighbours in every sense of the word. This will be discussed further in chapter 8.

1.5 Methodology of the present study

In chapters 2-5, features and finds from four Roman period settlements in Ussen will be described separately. For this, much use was made of work carried out by others on the Ussen data. As mentioned in section 1.2.1, the catalogue prepared by Van der Sanden and completed by Schinkel also includes the Roman period structures. I have used their results and their way of describing and categorising. Tables with information on structures are directly taken from tables in Schinkel's part II (1994), apart from the datings based on wheel-thrown pottery (see below). The information in the tables, combined with the figures, supplies the basic description. Exceptions and additions can be found in the text.

The various structures from all periods were numbered consecutively; the letters H (houses), S (granaries, Dutch: *spiekers*), B (outbuildings, Dutch: *bijgebouwen*), P (pits and wells) and F (fences: ditches and palisades) are used to indicate the type of structure.[28] The numbers were mostly assigned after excavation, starting with the Zomerhof settlement. There is not however a strict chronological order in the numbers, since sometimes new pits or granaries were discovered on the drawing table. The analysis of the prehistoric data from Schalkskamp and other campaigns which took place after 1986 has not been completed yet (Fokkens in prep.). Therefore the structure numbers for Schalkskamp were chosen in order to make it possible for the rest of the data to be fitted in later. Since all house plans had been numbered already, the H-numbers link up with the last numbers from Schinkel's catalogue, starting with H134. The same goes for the palisades and ditches, starting with F136. For the pits, P600 was chosen as the new starting number. Part of the granaries had already been numbered, though S550 to 560 were kept open to allow for extra structures.

Length and width of the structures were measured between the centres of the outermost features. Since the wall of a building was sometimes flanked on the outside by a row of posts, these measurements cannot always be used to define the living space of a building. Depths were measured from the surface of the excavation trench.

Except for the house plans, the tables also include undated structures that are situated in the area of a Roman period settlement. This was necessary because only a small part of, for example, the granaries could be dated. In the case of the Schalkskamp settlement, structures from the Late Iron Age that had not been published before have also been included in the lists. Because of the enormous amount of material, I have not added a catalogue for the finds according to each individual find number. The pottery is listed for each structure on a basic level (see tables in chapters 2-5), and other find categories include references to the structures they were found in.

Lifespan of a timber building

When establishing the size of a settlement (i.e. the number of contemporaneous farmhouses) at a certain point in time, I have assumed that the life of a timber building will last for a period of 30 years. Although a comparable lifespan, based on the timber, is used by several authors (Fokkens 1991, 108, note 4; Schinkel 1994, part I, 27; Hiddink 1997, 19, note 65), this is not undisputed. Experiments have led to the assumption that a timber building cannot last longer than *c.* 30 years. However, dividing the total duration of a Roman period settlement by the number of house plans found often results in an average lifespan of 50 years or more (Slofstra 1991, 140, note 20). In a recent view, it is thought that a timber farmhouse was used as long as the lifespan of one generation of the family that built it (Gerritsen 1999; in prep.). This more social interpretation however, also generates a lifespan of approximately 30 years.

Wheel-thrown pottery

The original dating of the structures from the Roman period, as published in Schinkel's catalogue, has been adapted. This is the result of a re-analysis of all wheel-thrown pottery, carried out in 1998 and 1999. New insights were gained over the first analysis of the pottery almost twenty years ago, but the main reason for this exercise was the fact that the pottery from different settlements had been analysed by different specialists. The varying methods of analysis and the emphasis put on certain categories of pottery made intrasite analysis, which was one of the main aims of this study, almost impossible. Moreover, through the re-analysis it was possible to take into account the relative amounts of certain groups of pottery and other find groups found in each structure, thus minimising the possibility of dates based on material from an earlier or later phase (see 1.3.2). In this manner the structures could be dated more precisely, trying to reach a date that put the emphasis as much as possible on the use-period.
The (re-)analysis of the Roman wheel-thrown pottery (including handmade cork urn) was carried out in the framework of the study of the settlement system. The main goal was a set of well-dated structures, enabling the differentiation of settlement phases. Combined with restricted time available this dictated a limited, basic analysis only and consequently no drawings of wheel-thrown pottery could be made. The sherds were only looked at once but it is clear that several categories will need further analysis. This implies that the numbers as they are presented in tables 9, 19 and appendix I are by no means definitive. The Roman pottery from Oss deserves to be the subject of a separate thorough study, but this fell outside the scope of this thesis.

With the re-analysis of the pottery the term *'terra-nigra* like pottery' was abandoned. Instead the term 'grey ware' was used which is less confusing, since this type of material is often more like coarse ware than Belgic pottery. The large pots of type Holwerda 140-142, which were probably manufactured near the Belgian coast, were listed separately as *Waaslands* (see Brouwer 1986). Grey ware seems to be a local or at least a regional product (see Willems 1986, 162-164; Verwers 1998). The pots found in Oss were probably made in the Maaskant itself, and thorough research of these fragments will undoubtedly provide insights into dating and regional pottery sequences.[29] Some of the vessel forms are comparable to coarse ware, but grey ware shows its own development. The manufacture of grey ware may have replaced the handmade pottery 'industry' from the second century onwards. However, a general conclusion for Oss is that, although wheel-thrown pottery became more abundant, handmade vessels continued to be used thoughout the entire period of occupation. Although Willems (1986, 179-180) saw indications that handmade ware ceased to be used in the eastern river area in the 2nd century, he remarked that this was probably due to the strong acculturation in this region. At Rijswijk (Bloemers 1978) certain types of handmade pottery were still in use in the 3rd century. The material from Oss now partly confirms Willems' assumption that in the river area, on '...sites which were less strongly acculturated (which do not, for example, have stone buildings)...' native handmade pottery continued to be used too.

notes

1 The definition of romanisation has changed since the 1980s, especially with the greater emphasis on culture and ideology. A more recent description is 'the processes of socio-cultural change resultant upon the integration of indigenous societies into the Roman Empire' (Millett, Roymans and Slofstra 1995, 1).

2 Slofstra (1994) categorises the most recent approaches as the new historical-anthropological tradition, a paradigm that basically dates back to the 1980s. In my opinion, landscape archaeology and 'interpretative archaeology' are more than only new versions of the archaeology of the 1980s.

3 The original reason why the cemetery was studied in a different context was a practical one: the data fitted into Hessing's overview and it was thought that his analysis would be available in time to be used for the settlement study. Unfortunately this was not the case, but some of the results could be incorporated.

4 Although a regional overview generates other useful insights in aspects that may have influenced life on a local level.

5 Research on the perspective of space was carried out for a paper held at the 7th Symposium on Archaeology and Theory (Amsterdam, January 1998). The session was followed by a very stimulating discussion.

6 In 1974 and 1975, the IPL excavated an Iron Age urnfield and part of a native-Roman settlement at the IJsselstraat, in the northeast of Oss (Verwers 1978; Wesselingh 1993). Although the IJsselstraat

site was situated at Oss, it was not located at Oss-*Ussen*. Since Ussen is often used as a synonym for the excavations at Oss it is necessary to make a clear distinction between the two. Ussen covers only part of Oss, and excavations in this area were carried out between 1976 and 1990. In 1974/1975 (the IJsselstraat site) and again from 1991 onwards the Oss excavations have been taking place in other parts of Oss, mainly to the north of the town centre. However, several rescue excavations carried out between 1976 and 1990 concerned sites outside Ussen too, such as Zaltbommelseweg, Horzak and Eikenboomgaard (see 6.2). The four Roman period settlements that form the main subject of this study are all situated in Ussen, although, strictly speaking, half of the Schalkskamp settlement lies just outside the area.

7 J.J. Assendorp (1977-1980), R.R. Datema (1980-1982) and A.-B. Döbken (1984) worked as project assistants, while G.R. Tak was the field technician. From 1976-1982 G.J. Verwers directed the fieldwork, followed in 1983 by W.A.B van der Sanden and P.W. van den Broeke. From 1986 onwards, the supervision of the Oss excavations has been in the hands of H. Fokkens. Except in 1985, 1986, 1990, 1991, and 1996, the students annual training excavation has always taken place in Oss.

8 Local archaeologists, first united in the *Heemkundekring Maasland* and later in the *Archeologische Werkgroep Oss*, have been contributing to the investigations from the start in 1974. They assisted during the excavations, and made observations throughout the year. Their work was, and still is, of great value.

9 Since 1994 the 1:40 scale for the plans (originally started by Van Giffen and continued by Modderman to achieve greater precision) has been abandoned for a more common (and easier to draw) scale of 1:50.

10 The ecological study of the seeds and the plant remains from three settlements from the Roman period was carried out in the framework of an MA thesis (Van Amen 1995).

11 An exception is formed by the wheel-thrown pottery, which was re-analysed in 1998 and entered into a dBase file. Data from campaigns after 1986 are being computerised, but unfortunately this study could not benefit from that.

12 Schinkel's dissertation was translated into English and appeared in 1998 as Fokkens (ed.). In the English edition Schinkel's original text and the chapters by other specialists (Van der Sanden, Bakels, and Lauwerier/IJzereef) appear as separate articles. In this study I mostly refer to the 1994 chapters.

13 Many other people contributed to the analysis of the data from the Roman period during the years that Van der Sanden and Schinkel were working on Oss. The wheel-thrown pottery was identified by drs. M. Brouwer, prof.dr. J.K Haalebos and dr. W.J.H. Verwers. Various specialists looked at find groups, among them prof.dr. J.E. Bogaers (epigraphics), prof.dr. J.K. Haalebos and drs. J. van der Roest (*fibulae*), prof.dr. C. Isings (glass vessels), dr. G.M.E.C. van Boekel (terracotta figurines), dr. J.P.A. van der Vin (coins), and dr. M. Polak (potters' stamps on *terra sigillata*). Dr. R.C.G.M. Lauwerier and prof.dr. G.F. IJzereef studied the faunal remains, prof.dr. C.C. Bakels and W. Kuijper concentrated on the botanical evidence. Wood was analysed by dr. E. Jansma (dendrochronological study), dr. L.I. Kooistra and drs. C. Vermeeren. Work on the drawings was carried out by J.P. Boogerd, G.R. Tak, I. Stoepker, H. de Lorm, J.-E. Dilz, O. Dorenbos and G. van Alphen. Photographs in the field and of objects were taken by W.H.J. Meuzelaar and J. Pauptit. Over a period of more than 25 years, numerous students wrote theses on Oss subjects.

14 Since no recent detailed geological data are available for the area south of the Meuse, its characteristics were reconstructed from various sources. Van der Sanden (1987a; 1988), Schinkel (1994) and Kok (1994) had already done most of the research, based, amongst others, on Van Diepen's soil map (1952).

15 For an extensive discussion on the reconstruction of river courses, see Willems 1986, 45-62.

16 The border of the Maaskant research area is formed by the present-day Meuse (see 7.1).

17 Another find that is often used to strengthen the hypothesis that the Ossermeer was part of a navigable river is the so-called Roman boat, found in the lake in 1949 (Van Diepen 1952, 115-116). However, this 'canoe of Oss' was ^{14}C-dated in 1992 and turned out to be of medieval date (pers. comm. J. Lanting, Groningen: GrN-19278, 790 ± 35 BP).

18 Local archaeologists have found several Neolithic artefacts in the areas north of Ussen (Paalakkerweg) and north of Berghem. During the 1994 excavations at the Mettegeupelsestraat, trial trenches were dug near the Frankenbeemdweg. Features in these trenches yielded pottery that was quartz-tempered and which might have been Neolithic.

19 This figure is based on three house plans. In 1994, during excavations in Oss-Mettegeupel, another six plans were uncovered. These show that the mean length of Early Iron Age farms is considerably shorter at 14.6 m (Fokkens in prep.).

20 Originally the start of the Roman period in the Netherlands was set at 12 BC, a date based on the historical event of the invasion of Drusus' armies. This date is still used in the basic chronology of Louwe Kooijmans *et al.* in prep., and in many other studies. However, recent excavations at Nijmegen have proved that the earliest occupation took place around 15 BC (Haalebos *et al.* 1995, 11-12).

21 See Slofstra 1991 (133, note 3), who considers the Early Roman Period to be lasting until AD 260/270, but distinguishes two different phases, one before and one after AD 70.

22 GrN-10738. Calibrated (CAL20, Van der Plicht 1993) with a probability of 95.4% (2) this is cal. AD 86 - 96/ 118 - 244, with a probability of 68.3% (1) this is cal. AD 138 - 216.

23 However, experiments at Butser Hill farm (Great Britain) showed that while a building was in use, the timber rotted away and contemporary debris got into the postholes (Reynolds 1994, 9).

24 Roberts (1996, 15) uses 'farmstead' to characterise the grouping of agricultural buildings that comprise an individual farm enterprise, i.e. what I call a compound.

25 Some confusion is caused by the Dutch term *erf*. This is used to indicate both compound (group of structures) and yard (open area next to or around a house and between the various buildings).

26 In his introduction to the English edition of Schinkel's work, Fokkens remarks on this too and accordingly, the boundaries around the 'settlements' have been faded (Fokkens (ed.) 1998, 2-3).

27 Since hardly any clustering of compounds occurs during the (earlier phases of the) Iron Age, one could argue that the term 'settlement' is superfluous. When spatially defining occupation 'settlement' would be a synonym for 'compound'. For the Roman period however, 'settlement' is a useful term to describe the separate clusters of compounds, and is thus also used for single isolated farmyards.

28 The letter R was used for ritual structures and graves.

29 A basic typochronology for grey ware from Oss has been set up together with H. van Enckevort, but it was too preliminary to be used for the analysis in this thesis.

2. The Vijver settlement

The first Roman period settlement-traces in Ussen were discovered in 1976, when a pond (Dutch: *vijver*) was being dug. The features of what was to be called the Vijver settlement are scattered over an area of approximately 500 x 350 m, situated in the north-west corner of the Ussen excavations (figs. 3 and 12).[1] Only *c.* 1.3 ha of this area was excavated by means of regular excavation trenches, the rest of the information was supplied by local archaeologists. Their observations included the excavation of a large number of pits and wells found in road and cable trenches.

The Vijver settlement is far from complete. Because of its fragmentary nature, it is difficult to establish the boundaries of the settlement and the structures that form part of it. Documented structures include six house plans, 30 granaries and 34 pits and wells. However, a number of granaries and wells probably have to be dated to the Iron Age, since house plans from this period were found in the direct vicinity of the Roman period settlement. No outbuildings, palisades or fences were found, or at least not documented.

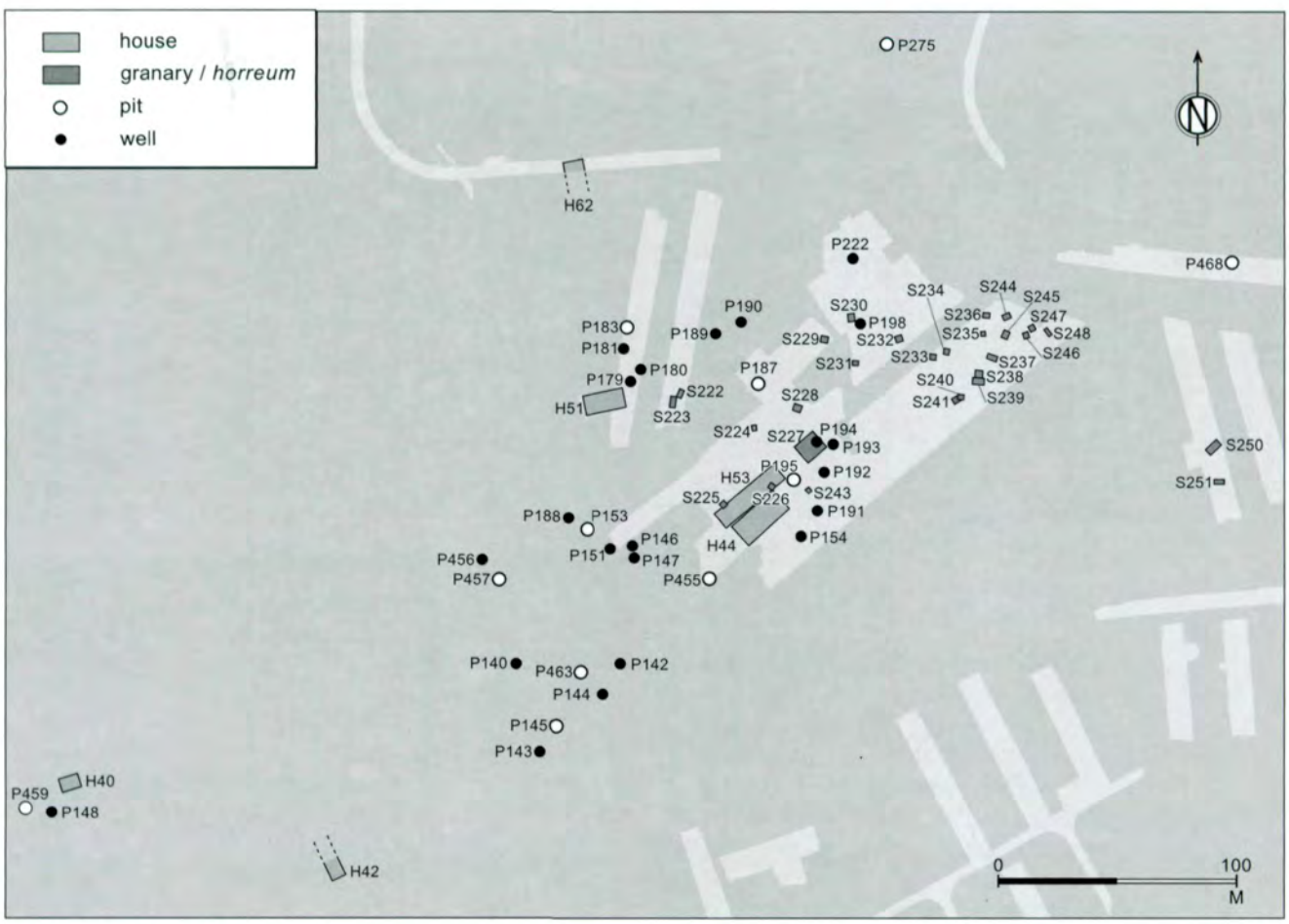


Figure 12. The Vijver settlement.

2.1 House plans

In the following section, six house plans (table 4) will be described, including two that are situated somewhat further away and are of uncertain date (H40 and H42). However, since these plans do not form part of any other known settlement, the Vijver settlement appears to be the best context within which to discuss them.

House 40

Apart from posts outside the short walls, the plan of H40 has all the characteristics of type 8B, in this case with a roof-bearing post in the eastern short wall (fig. 13). With a length of only 9.4 m this plan is the shortest complete house plan from Oss. As the features of H40 yielded no finds, its precise date remains uncertain. However, since the other four type 8B house plans from Oss-Ussen are all dated to the Roman period, and two wells from the same period (P148 and P459) are situated next to H40, a Roman period date seems likely.

No.	type	length (m)	width (m)	orientation	date
H40	8B	9.4	6.3	W-E	RP
H42	6A	> 10.2	6.2	NW-SE	RP
H44	6B	20.3	8.7	SW-NE	pre-Flavian
H51	7B	15.9	7.0	W-E	Id-IIa
H53	5A	> 31.5	5.9	SW-NE	LIA/RP IA
H62	7A	> 8.9	> 3.7	W-E	IIA

Table 4. House plans from the Vijver settlement. Date: LIA = Late Iron Age, RP = Roman period.

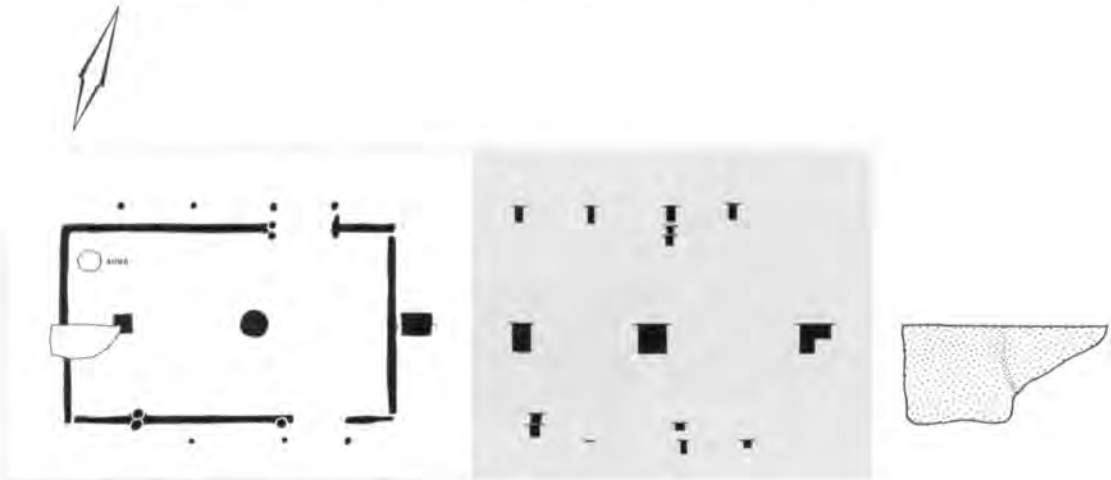


Figure 13. House 40. Scale: plan 1:200, posthole depths 1:100.

House 42

H42 is incomplete: at least half of it could not be excavated (fig. 14). Its orientation is northwest to southeast, which is rather uncommon in Ussen (Schinkel 1994, part II, 274-275). The excavated part forms the only known specimen of type 6A. Like H40, H42 yielded no finds, although the excavation report mentions pottery 'of Roman origin'.

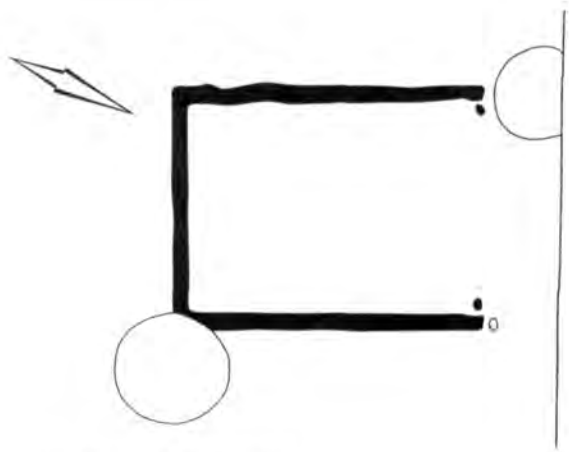


Figure 14. House 42. Scale 1:200.

House 44

A remarkable feature of H44 is a set of trenches on the outside of the plan (fig. 15). It is possible that the external

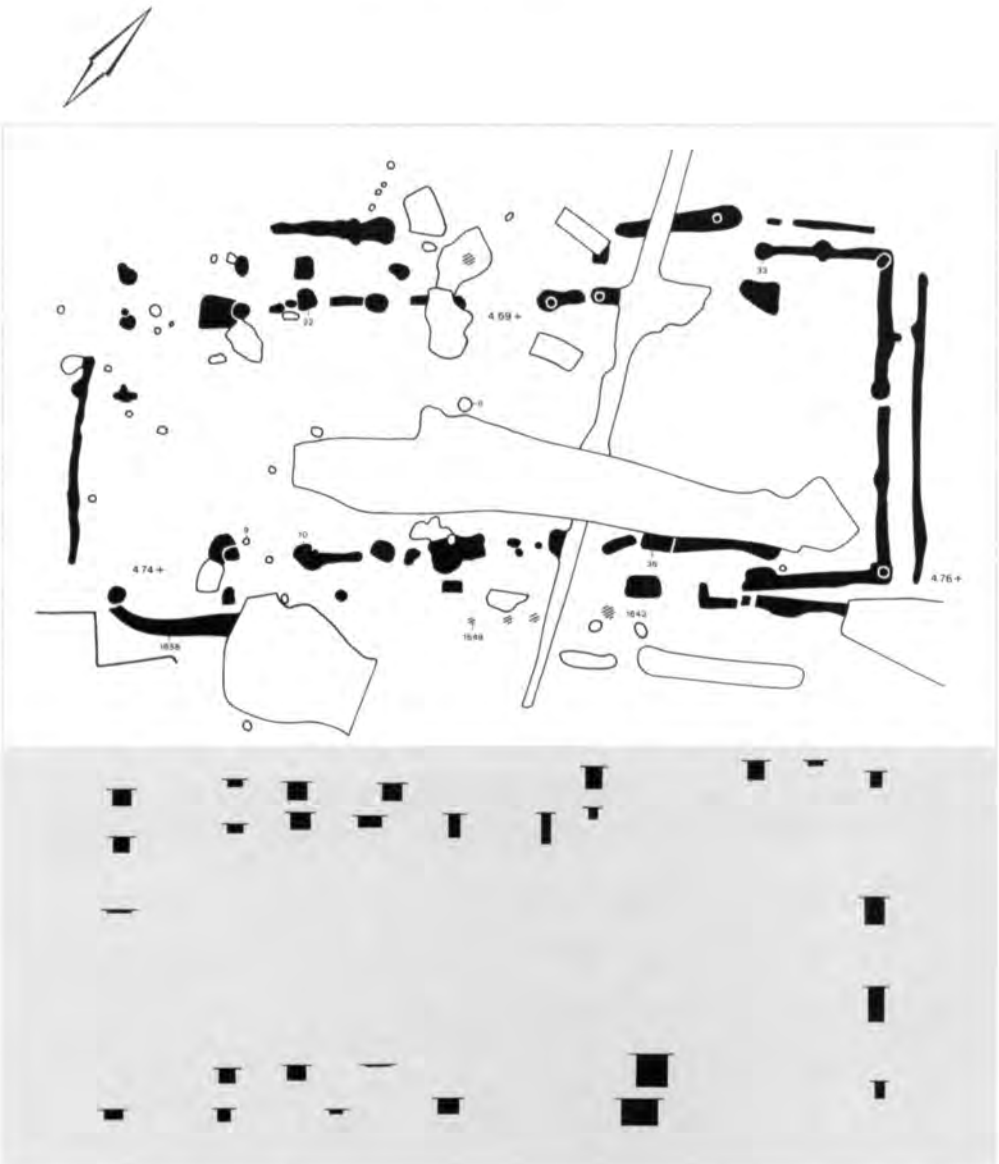


Figure 15. House 44. Scale: plan 1:200, posthole depths 1:100.

posts on the northeastern side were placed in one of them. The function of the second, outer trench is uncertain; it is too deep to have been a so-called drip-gully. It may have served as a drainage ditch, or it may have contained a fence.[2] The finds include ten fragments of handmade pottery and one sherd of wheel-thrown pottery.

House 51

The plan of H51 can be classified as possibly belonging to type 7B, although the external posts are not visible as such: their presence is indicated by a number of extensions to the foundation trench (fig. 16). A stabilising construction was found at the bottom of the posthole of the central roof-bearing post. It consisted of three small wooden planks lying at right angles to the long walls, with a second set of three wooden planks lying parallel to the long walls on top of them. Remnants of the roof-bearing post were found on top of this construction.[3] The trenches and postholes yielded a relatively large number of finds: 84 fragments of handmade pottery, including three decorated ones (comb, fingertip and groove). Another 31 fragments could be identified as wheel-thrown pottery.

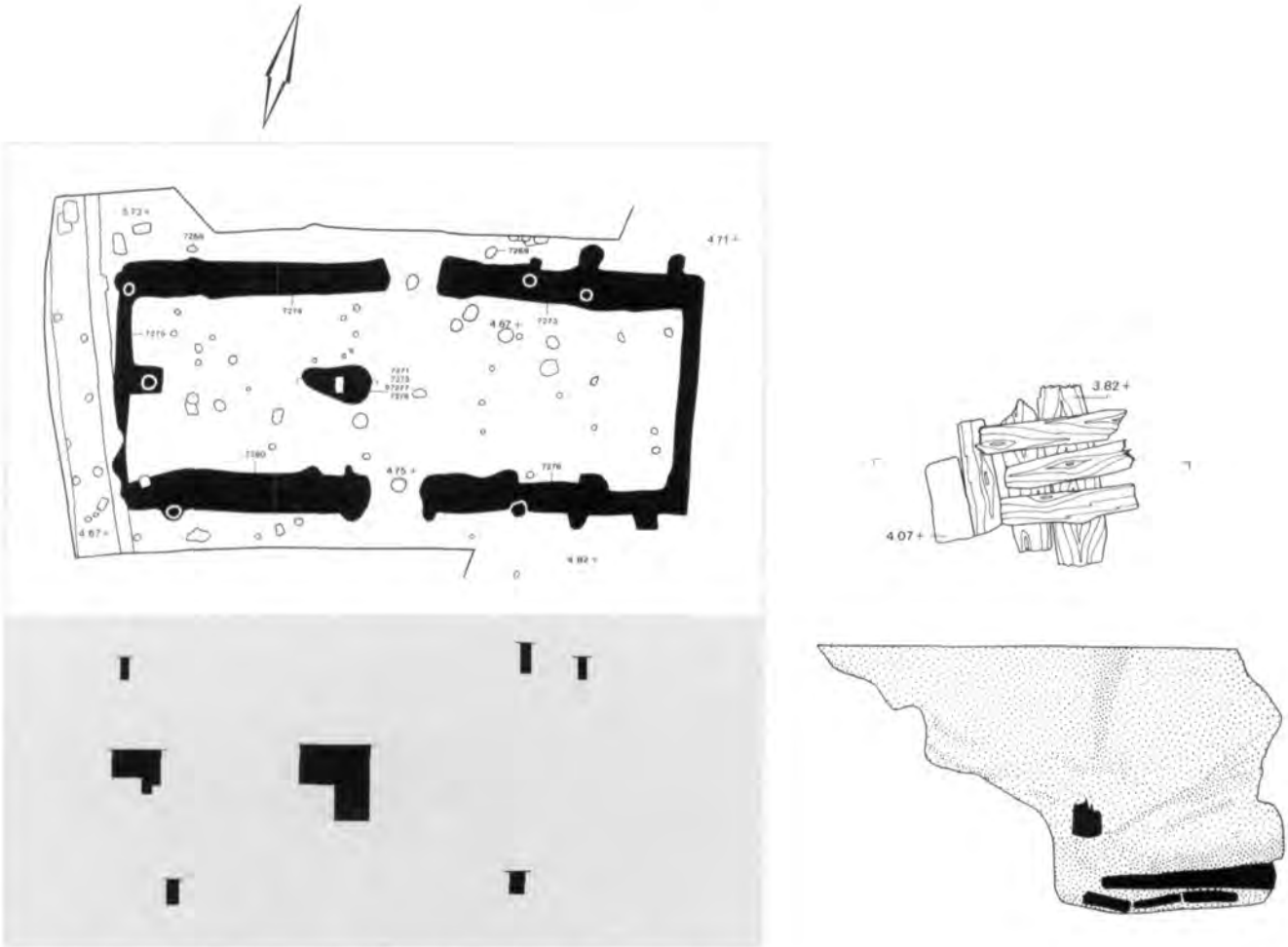


Figure 16. House 51. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

House 53

Taking into account the considerable length of H53, the possibility that this plan represents two houses cannot be dismissed (fig. 17). The finds include 20 fragments of handmade pottery and three sherds of Roman ware. Two of these were identified as cork urn (dated IA), one of which was *dolium*-shaped. A fragment of the spring of an iron brooch, dated before AD 50, was also found in one of the postholes (fig. 28). Nevertheless, the dating of this plan remains complicated. Typologically, the two-aisled plan with paired wall-posts is a type 5A. Plans of this type, more of which were found in the vicinity of the Roman period Vijver settlement, are usually dated to the Late Iron Age. However, some of the finds from H53 indicate a date in the early Roman period. A relative date is provided by H44, which lies alongside H53 at the relatively short distance of *c.* 1 m, and could thus not have been in use at the same time. H53 would then be the older one of the two and is thus dated in the first half of the first century AD at its latest. However, it is possible that the cork-urn fragments ended up in the postholes of H53 when it was already out of use, especially if the derelict farm was demolished to clear the yard for H44. H53 could then date to the last decades of the Late Iron Age, which would fit in with the type of building.

House 62

The plan of H62 is fragmentary (fig. 18). The scant remains that could be excavated show that the plan should probably be attributed to type 7A. Finds include four fragments of handmade pottery, and 31 fragments of wheel-thrown pottery, including 22 fragments of one colour-coated beaker (technique b, type Stuart 2).

Figure 17. House 53. Scale: plan 1:200, posthole depths 1:100.

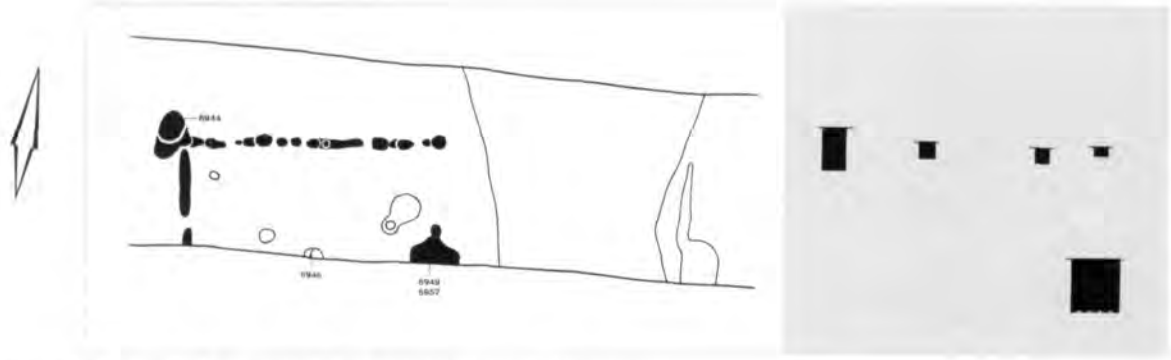


Figure 18. House 62. Scale: plan 1:200, posthole depths 1:100.

2.2 GRANARIES AND *HORREA*

In the area around the Roman period houses a total of 28 small buildings, interpreted as granaries, were documented (table 5). Only two of these, situated in the direct vicinity of H44 and H53, could be dated to the Roman period on the basis of finds. S243 is a four-post building (type IA), dated to the second century AD, while S227 (fig. 19) is dated Id-

No.	type	length/width (cm)	date
S222	IB	300/120	-
S223	IB	410/170	-
S224	IA	170/140	-
S225	IC	180/190	-
S226	IA	190/150	-
S227	IIIB	900/790	Id-IIa
S228	IC	220/250	-
S229	IA	220/190	-
S230	IC	190/270	-
S231	IB	200/150	-
S232	IA	230/210	-
S233	IB	160/160	-
S234	IA	180/150	-
S235	IA	140/140	-
S236	IA	240/170	-
S237	IB	340/160	-
S238	IIA	290/230	-
S239	IIA	420/190	-
S240	IA	180/150	-
S241	IB	350/220	-
S243	IA	170/140	II
S244	IA	250/200	-
S245	IB	300/250	-
S246	IC	170/230	-
S247	IIA	180/170	-
S248	IC	190/320	-
S250	IB	510/230	-
S251	ID	360/110	-

Table 5. Storage buildings from the Vijver settlement.

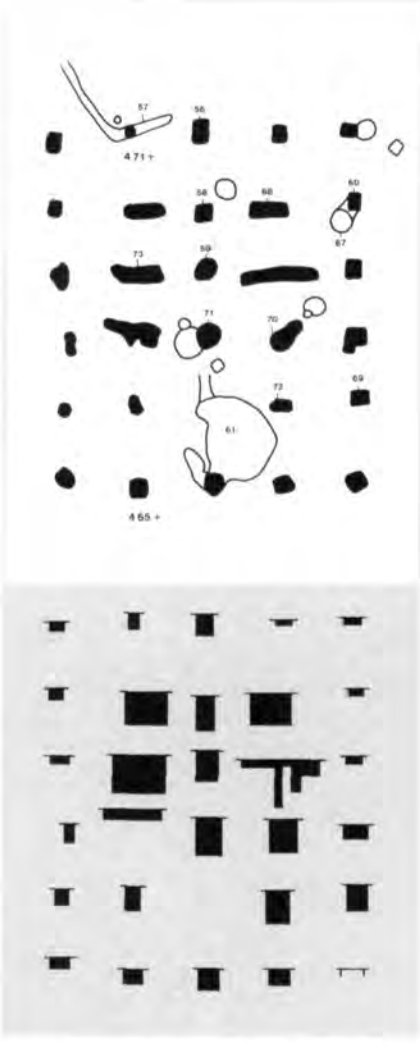


Figure 19. Granary S227. Scale: plan 1:200, posthole depths 1:100.

No.	type	depth (cm)	diameter (cm)	diameter lining	wood	date
P140	A1	120	-	-	-	pre-Flavian
P142	A5	110	-	35x70	-	IId-IIIc
P143a	A1	-	-	90	-	II-IIIc
P143b	A1	-	-	95	-	II-IIIc
P144	A1	-	-	125	-	pre-Flavian
P145	G	90	165	-	-	IIA
P146	A1	140	-	95	-	IIB (-IIIc)
P147	A1	120	-	90	-	IId-IIIc
P148	A1	120	-	-	-	Ib-c
P151	A1	125	-	40x80	-	II
P153	C	80	145	-	-	pre-Flavian
P154	A1	-	350	75x110	A Q S	IId-IIIc
P179	A1	170	400	90x110	A S	IIB
P180	A	100	230	-	-	IIA
P181	A1	175	450	100	F Q S	Id-IIa
P183	E-I	15	130	-	-	Id-IIb
P187	E	40	180	-	-	pre-Flavian
P188	A1	150	-	80	S	IIb-d
P189	A1	-	-	80x100	-	pre-Flavian
P190b	A1	-	-	110x140	-	pre-Flavian
P191	A1	150	340	80	A Q S	pre-Flavian
P192	A5	185	350	100	-	IIB
P193	A1	135	230	80	-	RP
P194	A-I	-	230	-	-	IB
P195	E-I	50	135	-	-	IIB
P198	A1	80	190	80	Q S	IB
P222	A1	130	100	-	A Q	IIA
P275	E	60	270	-	-	IIB-IIIc
P455	B-D	90	450	-	-	pre-Flavian
P456	A1	105	-	110	-	IId
P457	E	-	-	-	-	II
P459	E	65	-	-	-	II
P463	E-I	20	-	-	-	II
P468	E-I	20	180	-	-	II

Table 6. Pits and wells from the Vijver settlement. Wood: A = *Alnus* (alder), F = *Fraxinus* (ash), Q = *Quercus* (oak), S = *Salix* (willow).

IIa and belongs to the larger type IIIB (a floor supported by 12 posts, surrounded by walls). The Latin name *horreum* is often used for these larger storage buildings from the Roman period (Oss-Ussen type III). Since two other granaries in the same area (S242 and S249, see Schinkel 1994) were dated to the Early and Middle Iron Age, the exact date of the remaining 26 small storage buildings is uncertain.

2.3 Pits and wells

A total of 34 pits and wells are found in and around the Vijver settlement (table 6). Compared to the number of houses and data from other settlements at Oss, the amount of pits is quite large. Considering the shorter life-span of wells (see 1.3.2) it is quite possible that four wells to one house was the normal proportion. The large number in the Vijver area is due mainly to the fact that local archaeologists documented a number of pits and wells in construction trenches in an unexcavated area, directly to the south-west of the clustered houses.[4] Of 34 pits, 21 contained a form of wooden lining, and were therefore interpreted as wells. In 18 cases the construction consisted of wattlework (type A1), horizontal planks were found twice (type A5), and in one case the construction was uncertain (type A). Wattlework linings are present through the whole period, while the two wells with horizontal planks both date from AD 150 and later.

	whole area		structures only	
terra sigillata	60	2	47	2
Belgic ware	139	5	121	5
cork urn	19	1	19	1
colour-coated ware	169	6	150	6
smooth-walled pottery	373	12	335	13
mortaria	84	3	74	3
dolia	305	10	241	10
amphorae	256	8	216	8
Waaslands	87	3	79	3
coarse ware	689	23	606	24
grey ware	777	26	644	25
indeterminable	29	1	11	+
total	2987	100%	2543	100%

Table 7. Roman wheel-thrown pottery from the Vijver settlement: number of sherds and percentages.

terra sigillata	47	1
Belgic ware	121	3
cork urn	19	+
colour-coated ware	150	3
smooth-walled pottery	335	7
mortaria	74	2
dolia	241	5
amphorae	216	5
Waaslands	79	2
coarse ware	606	13
grey ware	644	14
handmade pottery	2126	45
indeterminable	11	+
total	4669	100%

Table 8. Wheel-thrown and handmade pottery from the structures of the Vijver settlement: number of sherds and percentages.

2.4 FINDS

2.4.1 Pottery

The structures from the Roman period in the Vijver area contained a total of 4669 pottery sherds; of which 54% (N = 2543) are wheel-thrown and 46% (N = 2126) handmade. If we add the pottery that was found in the area, but as stray finds or from features that could not be attributed to Roman period structures, the total number of Roman wheel-thrown sherds comes to 2987. For handmade sherds the total number is not known since most of the surface finds are without context and many of the native-Roman handmade wares cannot be distinguished from prehistoric handmade pottery (see 1.3). Table 7 shows that the relative proportions of the various wheel-thrown types from structures only differ slightly from those which represent the whole area. In order to be able to include the handmade pottery I will use the data set from the structures only.

Looking at the percentages in table 8, it should be kept in mind that this list represents the pottery use during a period of at least 200 years. More handmade pottery will have been used in the 1st century AD, whereas the majority of the coarse and grey wares date to the later phases of the settlement. Together these three groups make up almost three-quarters of all the pottery found. Only small amounts of tableware (*terra sigillata*, Belgic ware and colour-coated pottery[5]), slightly more smooth-walled and thick-walled sherds, and a few fragments of *Waaslands* and cork urn were present. The Vijver settlement yielded several fragments of *dolia* made in cork urn ware.

Table 9 shows the pottery from each of the structures. The majority of buildings and pits contain less than 40 pottery fragments, which makes conclusions on dates or comparisons between structures difficult. It seems that the use of handmade pottery continues even in the last phases of the settlement, although it is uncertain as to how many of the handmade sherds found in late structures are residual.[6] Although handmade ware did not go out of use, a gradual decline in numbers is visible. In wells dated to before AD 100 the amount of handmade material is 78%, while after AD 100 it accounts for only 38%. This could be expected as wheel-thrown pottery became more widely available from the later 1st century onwards. An exception is P154: dated to the last quarter of the 2nd century AD and later, it nevertheless contained almost 90% of handmade pottery.[7] This might be a question of depositional processes (see 1.1.2), but large amounts of handmade ware in the 2nd century AD are not unusual.

Higher percentages of tableware, which could say something about social stratification, are found in a couple of wells (P143, P151, P188 and P275). However, they were all dated to the (second half of the) second century AD, when imported pottery was widely available and not a true status symbol anymore. Since only one of the house plans yielded a reasonable amount of material it is impossible to detect social differences there. P143 contained the staggering number, for Oss, of nearly a thousand pottery fragments including a fair amount of tableware. When combined with the other refuse from the same pit (metal, glass, roof-tiles, see below), these could point to the nearby presence of a higher status compound. Unfortunately the pit was discovered in a modern construction trench and the surrounding area remained unexcavated.[8] Without an associated building that stands out in more than one way, the finds from a single well are not enough evidence for an 'elite' resident.

Most of the *sigillata* was of second-century production from Eastern Gaul, but the Vijver settlement yielded a small

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	total number of sherds
H44	-	-	-	15	-	-	-	-	-	-	8	77	-	13
H51	-	4	-	-	-	4	6	4	-	1	7	74	-	113
H53	-	-	9	-	-	-	4	-	-	-	-	87	-	23
H62	-	-	-	63	-	-	14	-	6	-	6	11	-	35
S227	-	-	-	-	-	-	-	-	-	-	6	94	-	17
S231	-	-	-	-	-	-	-	-	-	-	-	100	-	1
S239	-	-	-	-	-	-	-	-	-	-	-	100	-	5
S240	-	-	-	-	-	-	-	-	-	-	-	100	-	4
S241	-	-	-	-	-	-	-	-	-	-	-	100	-	3
S242	-	-	-	-	-	-	-	-	-	-	-	100	-	5
S243	-	-	-	-	-	-	-	-	-	-	100	-	-	1
S245	-	-	-	-	-	-	-	-	-	-	-	100	-	9
S246	-	-	-	-	-	-	-	-	-	-	-	100	-	5
S249	-	-	-	-	-	-	-	-	-	-	-	100	-	6
P140	-	-	-	-	22	-	3	-	-	-	-	75	-	36
P142	-	2	-	2	7	-	2	7	-	7	24	46	-	41
P143	2	2	-	5	13	1	10	4	3	32	3	22	1	1097
P144	-	-	-	-	17	6	-	-	-	6	-	72	-	18
P145	-	8	-	-	15	-	-	-	-	8	-	69	-	13
P146	-	1	1	3	16	1	1	7		18	24	25	-	67
P147	-	-	-	1	10	1	10	4	1	5	22	47	-	103
P148	-	2	+	+	8	-	3	1	-	1	1	84	-	462
P151	1	9	-	7	1	1	6	10	3	26	26	10	-	179
P152	100	-	-	-	-	-	-	-	-	-	-	-	-	2
P153	-	-	-	-	-	-	-	-	-	-	-	100	-	17
P154	+	+	-	-	1	+	1	1	+	5	3	88	-	243
P179	1	3	+	4	7	4	3	7	3	12	37	18	-	516
P180	1	5	-	5	8	1	4	17	-	-	39	20	-	100
P181	-	1	1	1	3	1	5	4	+	4	16	64	-	415
P183	-	-	-	4	4	13	-	13	-	4	8	54	-	24
P187	-	-	-	-	-	-	-	-	-	-	-	100	-	23
P188	5	5	-	2	5	1	11	8	2	17	33	10	-	242
P189	-	4	12	-	-	-	12	-	-	-	4	64	4	25
P190b	-	3	-	-	6	-	-	-	-	-	-	90	-	31
P191	-	1	3	-	3	-	1	1	-	-	-	91	-	139
P192	-	2	-	2	6	11	-	6	1	13	28	30	-	177
P193	-	-	50	-	-	-	50	-	-	-	-	-	-	2
P194	-	-	-	-	7	-	-	-	-	7	-	87	-	15
P195	-	-	-	14	21	-	-	-	14	7	-	43	-	14
P198	-	-	-	-	6	6	-	-	-	-	-	89	-	18
P222	20	20	-	-	-	-	-	20	-	-	-	40	-	5
P275	2	10	-	4	5	3	2	15	10	8	42	-	-	113
P455	-	-	1	-	4	-	1	-	-	2	-	92	-	118
P456	-	-	-	1	-	-	1	2	-	-	6	89	-	81
P457	-	-	-	-	6	-	11	11	-	6	6	61	-	18
P459	-	-	-	-	-	-	-	100	-	-	-	-	-	1
P463	3	-	-	-	7	-	-	-	2	10	14	64	-	59
P468	-	7	-	-	-	-	-	7	-	13	13	60	-	15
total %	1	3	+	3	7	2	5	5	2	13	14	45	+	4669 = 100%

Table 9. Pottery (percentages) from each structure of the Vijver settlement. 1. *terra sigillata*, 2. Belgic ware, 3. cork urn, 4. colour-coated ware, 5. smooth-walled pottery, 6. *mortaria*, 7. *dolia*, 8. *amphorae*, 9. *Waaslands* 10. coarse ware, 11. grey ware, 12. handmade pottery, 13. indeterminable.

	type	number of sherds	total
undecorated			
South Gallic?	Drag.37	4	5
	indet	1	
East Gallic	Drag.27	1	18
	Drag.31	9	
	Drag.32	2	
	Drag.33	2	
	Drag.37	1	
	Drag.45	1	
	bowl	1	
	indet	1	
South/East Gallic	Drag.31	2	2
indet	Drag.18/31	1	28
	Drag.33	2	
	Drag.37	7	
	Drag.45	2	
	plate	1	
	indet	15	
decorated			
South Gallic	Drag.37	1	1
South or Central Gallic	Drag.37	1	1
East Gallic	Drag.37	4	5
La Madeleine	Drag.37	1	
total			60

Table 10. Fabric, region and types of *terra sigillata* pottery from the Vijver settlement.

number of other early pottery imports. Nineteen fragments of cork urn could be distinguished. This handmade imported pottery is usually dated to the first half of the first century AD, but cork urn which is similar in fabric to grey ware can be of a later date (Haalebos 1990, 154). Another early vessel is a smooth-walled jug (type Stuart 101), a fragment of which was found in P148, and possibly also in P190b. Furthermore, there was a fragment of a grey beaker (type Stuart 204 decorated with scales) in P143, and several pieces of a Belgic beaker (type Holwerda 1941, 9 decorated with lines) in P148. The latter also yielded a fragment of an early jug-*amphora* (type Hofheim 77).

Figure 20. Fragment of *terra sigillata* with a *graffito* (P179). Scale 1:1.

An exceptional find is a fragment of a Dressel 1 *amphora*, found in P191.[9] This Italian *amphora*, originally a carrier of wine, is dated to the first century BC and the earliest Roman period (Haselgrove 1996, 168/169). Such an *amphora*, especially when filled with wine, was undoubtedly a prestige item. It is one of the earliest finds of this kind in all of Oss, and a rare example in the Netherlands.[10] Usually Dressel 1 *amphorae* are found on or near sites with a military character (Fitzpatrick 1985). The excavated part of the Vijver settlement does not show any signs of early social stratification which fit in with this particular find. Possibly

Figure 21. Fragment of mortar with two stamps (P179). Scale 1:1.

the *amphora* was not used in Vijver but belonged to an inhabitant of the Westerveld settlement, or ended up in P191 after a long life elsewhere (e.g. Nijmegen).

Terra sigillata

A total of 60 fragments of *terra sigillata* were found in the Vijver area, with more than half of the fragments from only two wells: P143 (20 sherds) and P188 (13 sherds). Seven fragments, all from bowls type Dragendorff 37, were decorated. Table 10 shows that most of the (identified) *terra sigillata* was made in Eastern Gaul during the second century AD, when this type of pottery was widely available in our region.

A wall-fragment, found in P179, showed a *graffito* (fig. 20). The pottery was made in Eastern Gaul, but the sherd was too small to determine the form of the vessel. The inscription, which reads N SPI, is probably a fragment of two names, for instance [GERMA]N(I) SPI[CVLI] (property of Germanus, son of Spiculus). There is also a possibility that it is a military text, for instance [>SILA]N(I) SPI[CVLI], which would mean '(property) of Spiculus, from the centuria headed by Silanus'.[11] *Sigillata* with name graffiti is rare outside military camps, where soldiers tagged their property to be able to distinguish it from similar objects in the possession of others. If the text was indeed a military one, the sherd must originate from Nijmegen or another camp. Like the Dressel 1 fragment it points to contact with (Roman) soldiers, but whether this was structural or a single event is uncertain.

Stamped mortaria

Among the mortar fragments was one stamped specimen (type Stuart 149B), found in P179 (fig. 21). This displayed two stamps of the well known potter Brariatus, who worked in the area around Pont-sur-Sambre during the period IB-II.

2.4.2 Clay objects

The majority of the clay finds consisted of undefined lumps, baked and unbaked. Some fragments of unbaked clay could be recognised by the wattle impressions as parts of wattle and daub walls or floors (H51?, P148, P181, P191 and P468). Artefacts made of baked clay include loomweights, spindle whorls and sling pellets. P179 contained one of each. A fragment of a spindle whorl was found in the foundation ditch of H51, another in P143. Four more sling pellets were documented (P143, P153, and two in P181). A stray find from the Vijver area (found in an undocumented ditch) consists of a fragment of a terracotta figurine (fig. 22). It could be of medieval date but does have a parallel with a Roman figure (*Fortuna*, signed by Alfius).[12]

Figure 22. Terracotta figurine (stray find). Scale 1:1.

2.4.3 Tephrite objects

Tephrite, imported from the German Eifel, was mainly used for quernstones. In the Vijver area tephrite was found in 24 features, but in only 15 cases could a fragment of a (rotary) quern be recognised. These included seven fragments of a top stone (P181, P188, three from P143 and two from P179), one fragment of a bottom stone (P181) and one complete top stone with a socket for the spindle and a double-conical hole for the handle (P193, fig. 23). P179 also contained a fragment that might have been part of a 'cocked hat' shaped quern (Van Heeringen 1985 type c), a type of saddle quern that was in use until phase K.

2.4.4 Stone objects

Stone frequently occurs in small quantities, but only in a few cases were stone artefacts documented. Three times fragments of whetstone were found, one made of quartzite (P151), the other two of sandstone. Two wells (P148 and P188) yielded whetstones made of schist. From P456 came a

Figure 23. Quernstone (P193)

fragment of quernstone made of coarse-grained quartzite. A small lump of granite was found in one of the features of H62. Slate (unworked) was present in six wells.

2.4.5 Building materials

Although there is no evidence for any buildings (even partially constructed) of stone in the Vijver settlement, there are a few finds that can be interpreted as Roman building materials (see fig. 24). In three wells a fragment of a roof-tile was found: twice of a *tegula* (P143a/b and P180, weighing 237 g and 543 g respectively) and one indefinable fragment (P179, 205 g). Other possible roofing materials are three fragments of perforated slate (P147, P154 and P188). All building materials were found in pits and wells dated to after the Flavian period. Both slate and clay roof-tiles were probably used secondarily as, for example, floor coverings or drain linings (Lammers 1994, 166-167). It is unlikely that tiles were used as foundation supports for central roof-

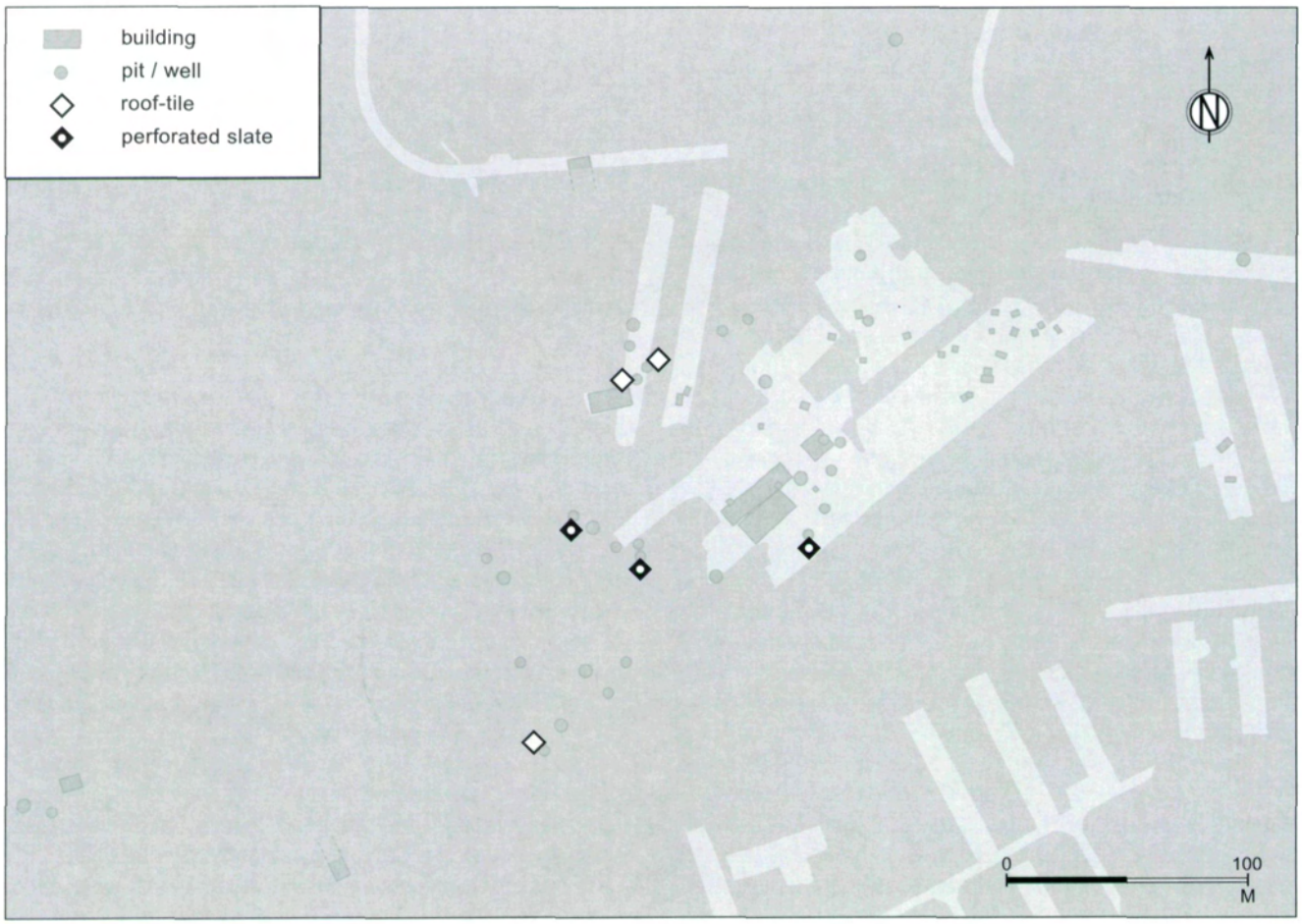


Figure 24. Distribution of building materials in the Vijver settlement.

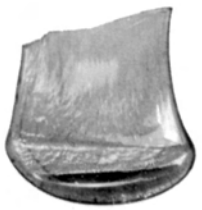


Figure 25. Fragment of a glass vessel (*trulla*) (P143). Scale 1:2.

Figure 26. Gaming counter made of glass paste (stray find). Scale 1:1.

bearing posts, as was the case in Houten-Molenzoom (Van Dockum/Hessing 1994, 223-224 and fig. 184), since no tiles were found at the bottom of postholes. Instead, wooden planks seemed to have fulfilled that function (see 2.4.9).

2.4.6 Glass objects

Four fragments of glass vessels were found, all in wells. The upper layers of P143a/b contained two fragments of blue-green glass, possibly from the same vessel. One was a rim fragment, perhaps from a small cup or a *trulla*, the other a fragment of the handle of a *trulla* (Isings type 75, dated I-III, fig. 25). A base-sherd from a blue-green pillar-mounted bowl (Isings type 3) was found in P179. P181 contained a small, flat fragment of green glass. A gaming counter, made of black glass paste and plano-convex in section, was documented as a surface find from the Vijver area (fig. 26). Contrary to the other settlements at Oss, the Roman period features of the Vijver settlement did not contain fragments of glass *La Tène* bangles.

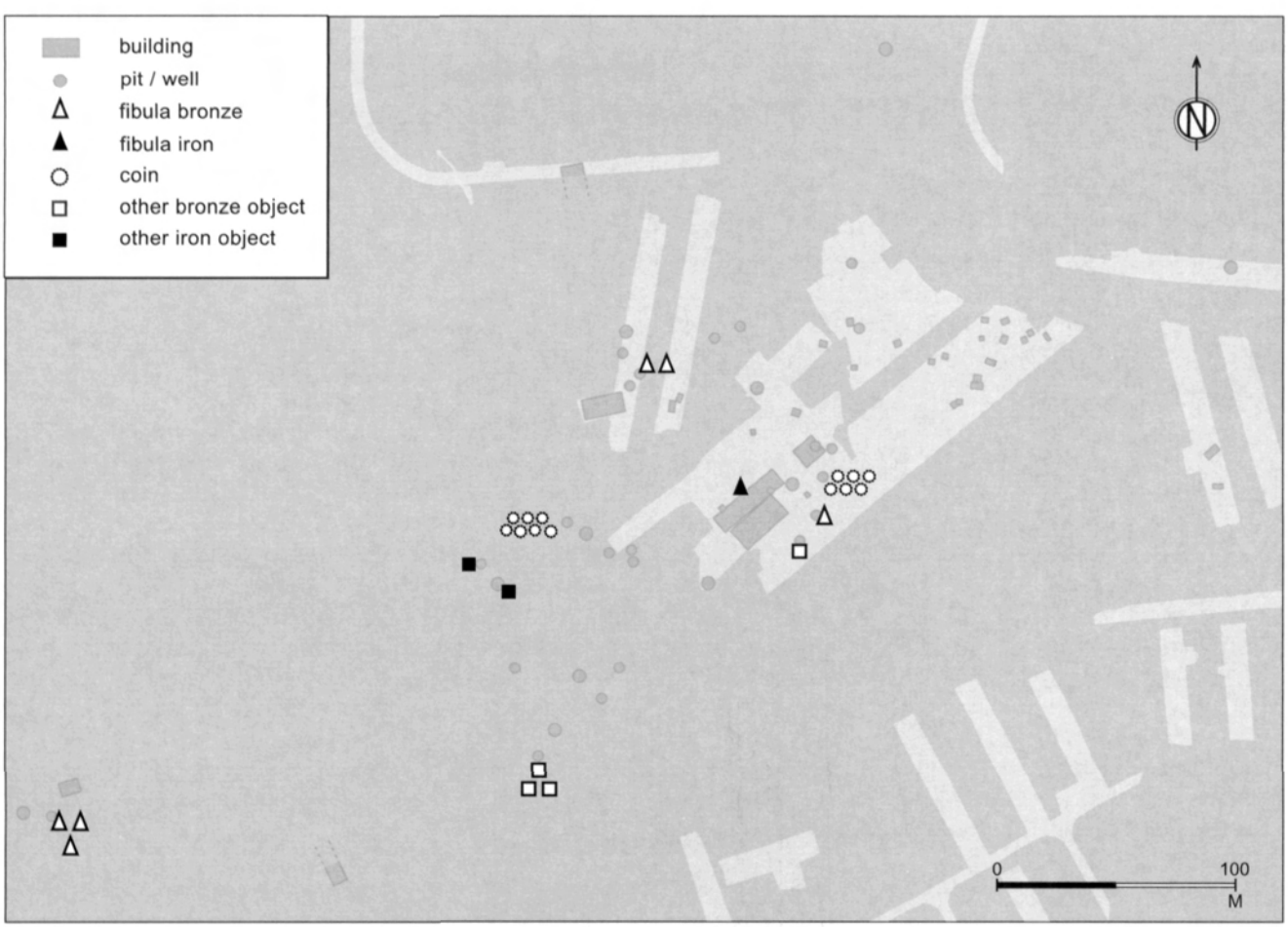


Figure 27. Distribution of bronze and iron objects in the Vijver settlement.

Figure 28. Iron brooch (H53). Scale 1:1.

2.4.7 *Metal objects*

Metal finds from the Vijver area consist of bronze and iron brooches, bronze coins, iron nails, various other bronze and iron objects, a sheet of lead, and several pieces of iron slag. A total of seven distinct brooch fragments were found (fig. 27), six made of bronze and one iron specimen. The iron brooch was found in H53, and is too fragmented to be able to say anything about the type or dating (fig. 28). The fact that it is made of iron points to an early date (possible Iron Age or early first century AD). Six bronze wire-brooches were all found in wells (P191, three in P148, two in P180, fig. 29). This type of brooch, dated AD 50 -150, was widespread in the Rhineland, especially after AD 70.

The coin finds were in two groups (table 11, fig. 27). P192 contained six bronze coins including four *asses* and two indeterminable coin fragments (fig. 30). The exact location was not documented, but at least two of the coins were situated at the bottom of the well. Seven other bronze coins were found in a road trench by a local archaeologist using a metal detector (fig. 31). All seven came from more or less the same spot close to P456, but they could not be associated with a feature. Table 11 shows that six of the 13 coins were indeterminable. Since the Vijver settlement was only partly excavated and metal detectors were not used systematically, no conclusions can be drawn about the use of money in the Vijver settlement. It is possible that both groups of coins were deposited around the end of the second century AD, when German raids caused a great deal of social unrest.

At least nine iron nails were found, all in pits and wells. P187 yielded approximately 21 heavily corroded iron hobnails from a shoe, partly stuck together in their original rows (Van Driel-Murray 1987, 147-152, fig. 1.4). Other iron objects (fig. 27) include a large nail or bar with a hammer-shaped end (P456, fig. 32), a buckle (?) (stray find, fig. 33), and an arrow-shaped object (P457, fig. 34).

Besides the brooches and coins, seven other bronze objects were found (fig. 27). From P143a/b came a fragmented bronze rod (a belt-hanger?) (fig. 35) and two bronze acorns, possibly originally part of a chest or box-grip (fig. 36). Since all three objects were taken off of some other object, they were probably intended for use as scrap metal. A bronze disc with a diameter of 53 mm (P154) may have been part of an

Figure 29. Bronze wire-brooches (P148, P180, P191). Scale 1:1.

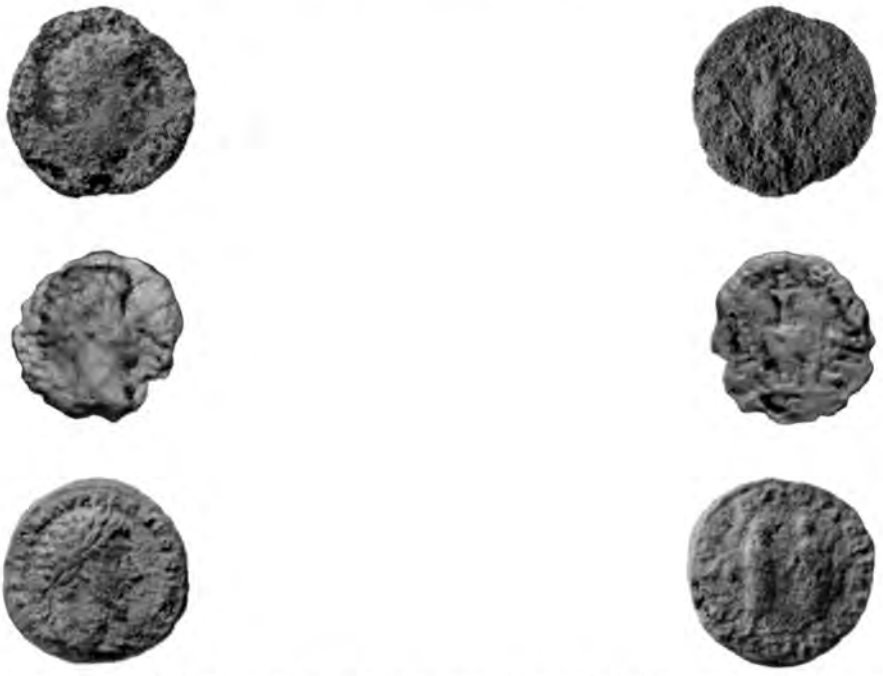


Figure 30. Three bronze coins (front and back) found in P192: from the reign of Nero; with M. Aurelius Caesar (from the reign of Antoninus Pius); from the reign of M. Aurelius. Scale 1:1.

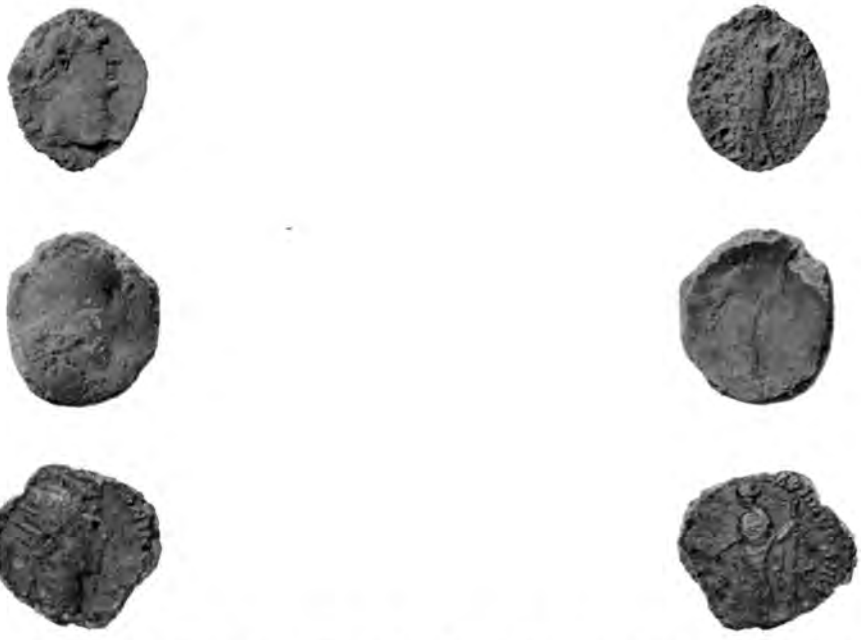


Figure 31. Three bronze coins (front and back) (stray finds): from the reign of Trajan; *dupondius* from the Antoninian period; *dupondius* from the reign of Commodus. Scale 1:1.

denom.	authority	date	RIC/BMC	find spot	remarks
as	Nero	AD 64-68	cf. RIC 318 and further	P192	
as	Trajan	AD 98-117	cf. BMC pl.27, no.9	near P456	
as	Antoninus Pius	AD 140-144	cf. RIC 1240a	P192	M. Aurelius
as	Antoninian period	AD 140-190		P192	
dup.	Antoninian period	AD 140-190		near P456	
as	M. Aurelius	AD 161	cf. RIC 801	P192	
dup.	Commodus	AD 181-182	cf. BMC pl.103, no.8	near P456	
?				P192	fragment of bronze coin
?				P192	fragment of bronze coin
?				near P456	fragments of 4 bronze coins

Table 11. Coins from the Vijver settlement.

Figure 32. Iron nail or bar (P456). Scale 1:2.

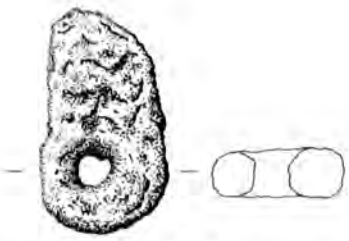


Figure 33. Iron buckle (?) (stray find). Scale 1:2.

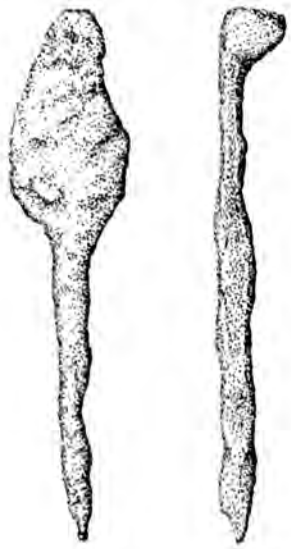


Figure 34. Iron arrow-shaped object (P457). Scale 1:2.

Figure 35. Bronze rod (P143). Scale 1:1.

Figure 36. Bronze acorns (P143). Scale 1:1.

Figure 37. Bronze silver-plated disc (P154). Scale 1:1.

ornamented mounting (probably 2nd century AD). It was silver-plated originally, and the loop to attach it with was broken off, again creating scrap metal (fig. 37). A small bronze rod was found in well P181. Two other bronze objects, a corroded mass (part of a knife?) and the enamelled lid of a small box (fig. 38), were documented as stray finds from the Vijver area.

P148 yielded a small flat fragment of lead. At least ten find numbers contained small quantities of iron slag, but they were not concentrated enough to indicate one place where iron was being smelted.

Figure 38. Enamelled lid (stray find). Scale 1:1.

2.4.8 Leather objects

Besides the hobnails mentioned under 2.4.7, evidence for footwear was also present in the form of shoe fragments made of cow's leather (fig. 39; see Van Driel-Murray 1987). P143b contained a complete heel-piece belonging to a simple type of shoe with hobnails. Four fragments of one shoe of the same type were found in P147. The sole of this shoe shows signs of repair.

2.4.9 Wooden objects

Wood was present in deep pits and wells, but apart from the well-linings none of it was worked. The central roof-bearing posthole of H51 contained the remains of the oak post itself with planking underneath (see Schinkel 1994 part I, 82 and 121). The same situation was present in H62, where the wood type of the plank could not be determined.

2.4.10 Faunal remains

The Vijver settlement yielded 27 bone fragments, with a total weight of *c.* 320 g (Lauwerier/IJzereef 1994, 238-243). Only 22 fragments could be identified, including cattle (N = 17), pig (N = 3), dog (N = 1) and a fragment of red deer antler (N = 1). These numbers are too small to allow conclusions about animal husbandry in this settlement to be drawn. The antler fragment could have been cast off by the animal itself, and is thus no indication of hunting.

2.4.11 Botanical remains

Samples for botanical research were taken from two house plans (H51 and H62) and from seven larger pits. Since H62 was not considered to be a part of the settlement, the botanical sample has not been studied. The results of the botanical research (Van Amen 1995) show that several grains were grown, such as barley, emmer and spelt. Other cultivated crops include flax, millet and beet, the latter being a Roman introduction. The crop weeds point to well-stocked fields. Wild plants, such as leafy vegetables and fruit and nuts, complemented the food range, while some other wild plants may have been used as dyes or perhaps for medicinal purposes (Kuijper 1987). Many of the seeds stem from plants

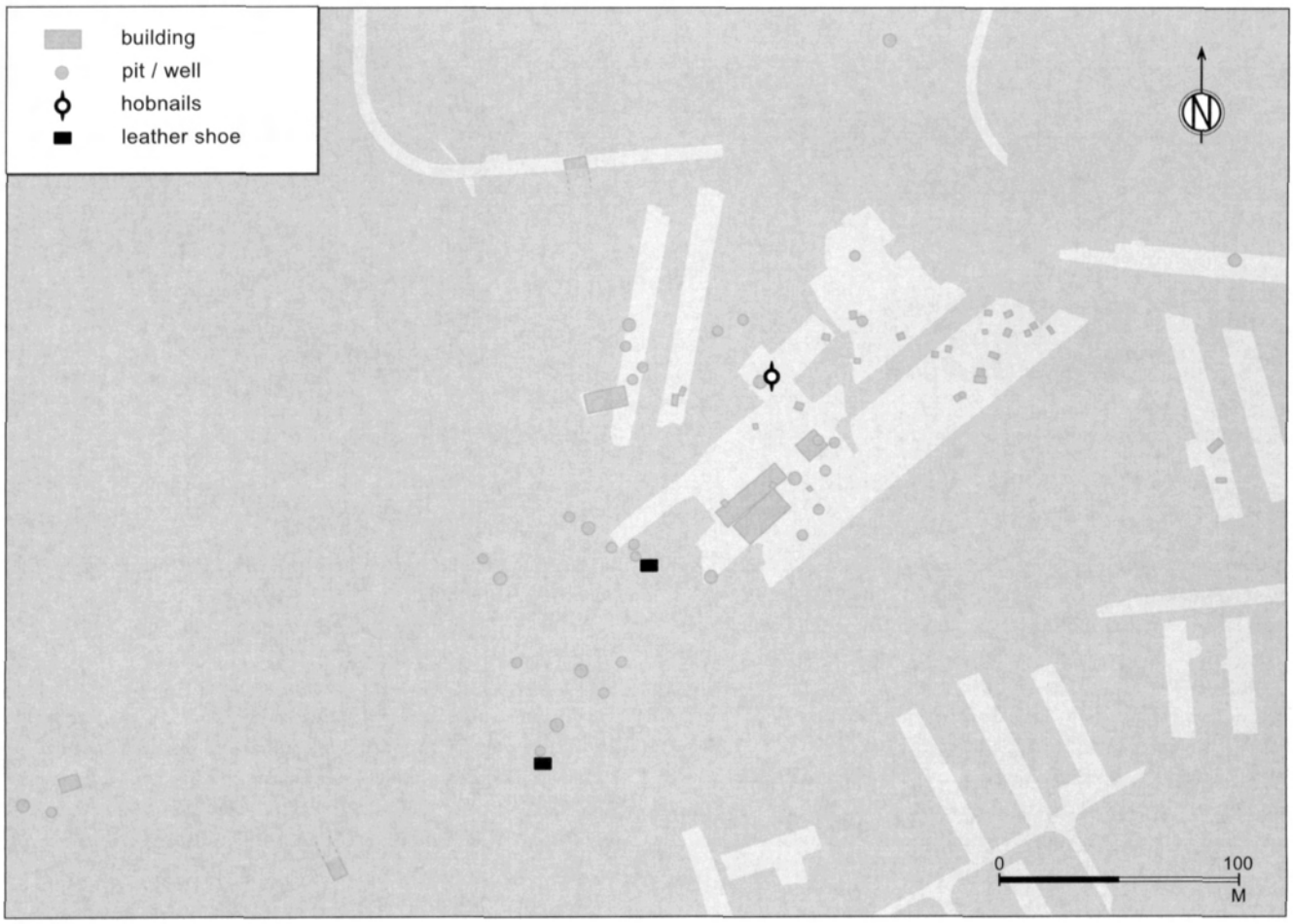


Figure 39. Distribution of (finds connected with) leather shoes in the Vijver settlement.

that were growing in farmyards and around wells. Some of the plants were originally found near the borders of the Meuse, but brought into the settlement for various purposes (clay sods, roof and floor covering, wattlework).

2.5 Analysis

2.5.1 Size and date

Due to the fragmentary nature of the Vijver excavation and the lack of any form of settlement boundary, it is difficult to give an indication of the exact size of the settlement. Six house plans, 33 pits and wells and a maximum of 28 small outbuildings cover an area of *c.* 500 x 350 m, of which large parts were not excavated (fig. 12). More than 17 ha seems far too large a territory for one settlement. However, not all of the area will have been inhabited at the same time. Following what was said on the definition of a settlement (see 1.3), the two southern houses (H40 and H42) are situated outside the hailing distance of 150 metres. Strictly speaking they would comprise a second cluster next to the settlement containing H44, H51 and H53. However, the lack of periodisation and the unexcavated area between the two supposed settlements prevents us from reaching a conclusion. The settlement as a whole could have shifted, and judging by the number of wells it is likely that more houses were situated in the area between the two clusters.

A valid argument to regard this group of features as an entity considers the observed distance between the Roman period settlements within Ussen. Looking at a map of Oss in the Roman period, an almost regular patterning of settlements appears (figs. 4 and 205). Van der Sanden (1990, 102) has already remarked on these distances and the fact that they agree with the distances between settlements in the Dutch Eastern River Area as noted by Willems (1986, 283). It is generally thought that the distance between settlements in this area lies between 500 and 1000 m. Roughly situated between the Westerveld and Zomerhof settlements, and at

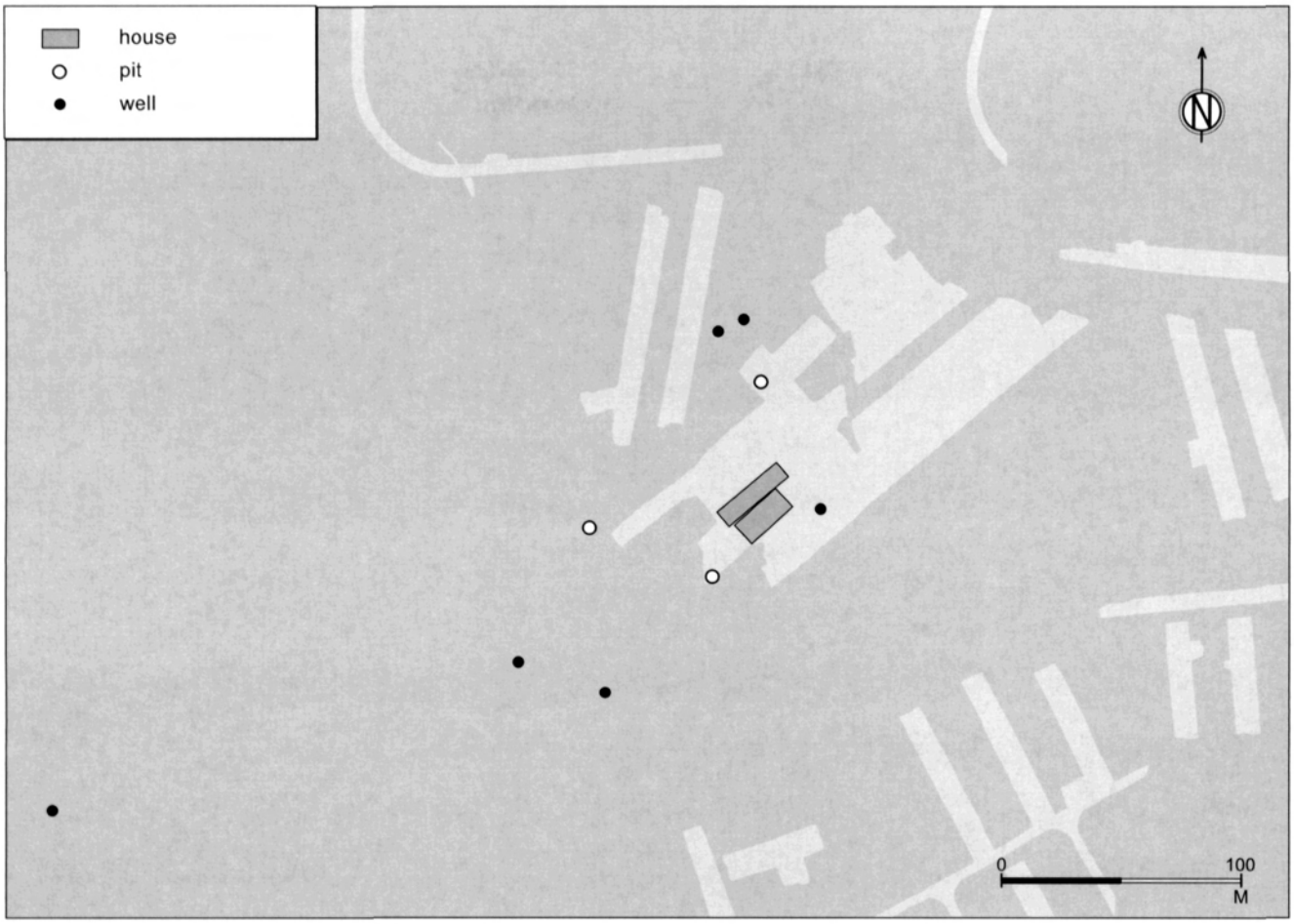


Figure 40. The Vijver settlement: phase 1 (pre-Flavian/Flavian).

the same distance from the cemetery, the Vijver cluster occupies a space that, following Willems, would not allow for more than one clustered settlement.

The dating of the settlement as a whole poses another problem. The occurrence of fragments of cork urn in one of the house plans (H53) as well as in eight pits and wells indicates a date in the first half of the first century AD for the start of the settlement. However, not many other finds can be dated (strictly) to this period. It is possible though that some of the handmade material, which is harder to date, should be placed in the first half of the first century AD. According to Schinkel (1994, part I, 265) the Vijver area shows continuity in occupation from the Late Iron Age to the Roman period. The preceding occupation, cluster XVII, is a single-farm settlement which shows a possible second compound during the last phases of the Late Iron Age (phase K-L). Even though none of the house plans could be dated strictly to phase L (75 - 0 BC), the fragmented nature of the Vijver excavations has left so many unexcavated patches that continuity in occupation is still possible. The fact that the earliest Roman period house plan is of a type that occurs mostly during the Late Iron Age suggests that the Vijver settlement was a direct successor of the Iron Age occupation in the same area.

Material from the fourth quarter of the second century AD and later was derived from a number of wells. This includes colour-coated beakers (shiny grey, type Niederbieber 33), *terra sigillata mortaria* (type Dragendorff 45), a flat bowl in *sigillata* (type Dragendorff 32), and plates in smooth-walled pottery and 'smoked' Belgian ware (type Holwerda 1941, 81). Another late find is the *dupondius* from the reign of Commodus. Although no buildings could be ascribed to this period there must have been some activity. It is possible that late second-century farms were present but remained undiscovered. But since dating house plans in Oss is problematic (see 1.3.2) there is also the possiblity that at least one of the farms should be dated to a slightly later period. Whether there

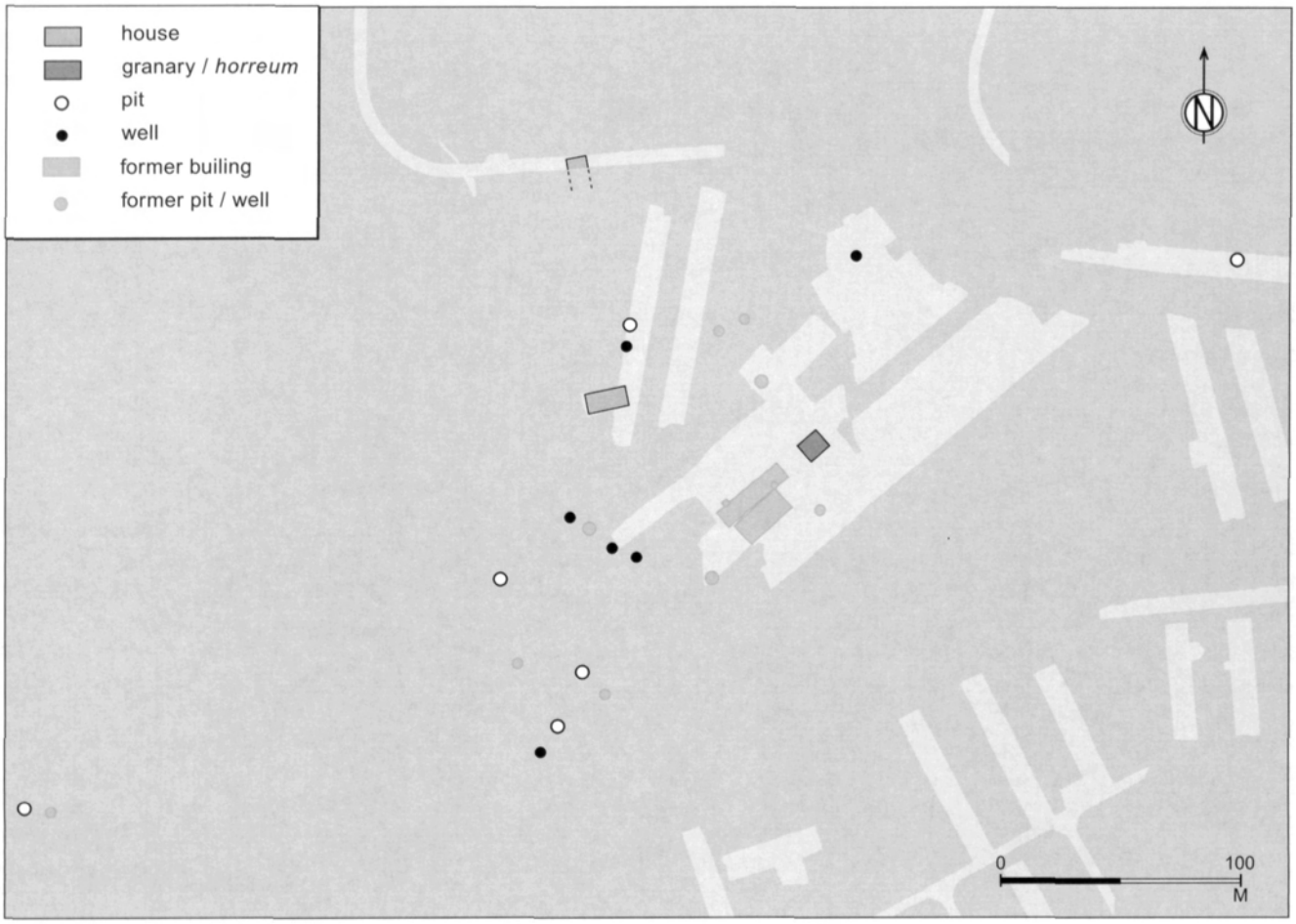


Figure 41. The Vijver settlement: phase 2 (post-Flavian).

was still occupation in Oss later in the third century AD is uncertain, although the pottery types mentioned can occur until AD 270. The settlement as a whole is thus dated in the period I-IIIa.

2.5.2 Layout and periodisation

Again the incomplete excavation of the settlement prevents definite conclusions on its layout or any phasing in the occupation. Only two house plans (H44 and H53) are situated close to one another, suggesting that they succeeded each other in time. Based on the finds material, H53 would be the first farm of the settlement, accompanied by several pits, at least one well and some small outbuildings. After *c.* 30 years H44 was built in the same yard. In the remainder of the settlement there are no indications of rebuilding on the same spot or of clearly defined farmyards. The large number of wells suggests that the original number of houses was greater than those excavated. H51 was built after the Flavian period and H62 seems to be the youngest house present, it was in use during the first half of the second century AD. Whether H40 and H42 formed a separate yard at the same time is uncertain. Only a broad periodisation is possible, separating structures from before/during the Flavian period, after the Flavian period, and after AD 150 (figs. 40, 41 and 42).

2.5.3 Development and nature of the settlement

The first farmhouse at Vijver, built during the first few decades of the 1st century AD, has a light construction of a type that was already common during the preceding Late Iron Age (fig. 40). It is replaced by a shorter and sturdier building after *c.* 30 years (fig. 40). The farms are accompanied by pits and wells, the latter lined with wattlework. Perhaps there is a second farm *c.* 200 m to the southwest, with a well nearby. Next to the farmhouses there are a number of small outbuildings, mostly serving as granaries. A fragment from a rare wine-*amphora* ends up in a well on the farmyard. Other Roman material includes bronze brooches.

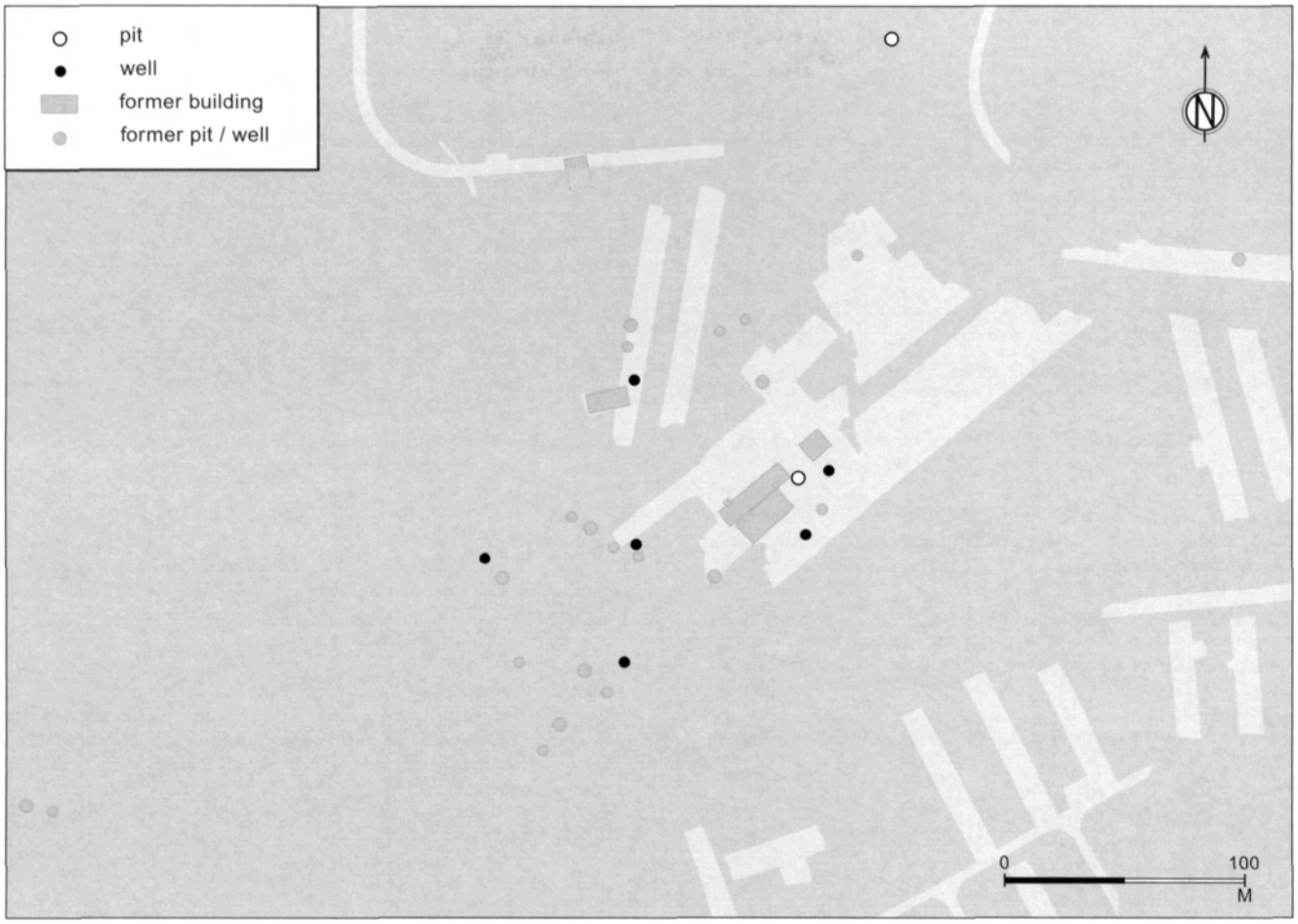


Figure 42. The Vijver settlement: phase 3 (after AD 150).

Just after AD 70 the northern farm is rebuilt again, although not in the same farmyard (fig. 41). A large granary could belong to the same compound. There may have been more farmhouses, to which the numerous wells belong. Somewhat later another farm is built slightly further to the north. More Roman material is available now: leather shoes, glassware and tableware from Gaul. Some of the objects are re-used: bronze fittings are turned into scrap-metal, roof-coverings such as roof-tiles and slate serve other purposes. Some of this material concentrates in the southern half of the settlement and ends up in one well. Perhaps it belongs to a large farm, which was not excavated.

After AD 150 there is still activity, and probably a farm (fig. 42). Two wells from this period have a new type of construction: they are lined with horizontally placed planks. A bronze, silver-enamelled disc, removed from a horses mounting, is found in one of the wells. Towards the end of the second century two small groups of coins are buried, one in a well. At some point after AD 200, the farms are not rebuilt anymore and the Vijver area ceases to be occupied.

Even though the evidence is fragmented, the excavated structures give an indication of the kind of settlement we are dealing with. In a fairly large area, part of which has been occupied since the Iron Age, one or two farmsteads are rebuilt a number of times during a period of approximately 200 years. No indications are found for clearly marked farmyards, frequent rebuilding on the same spot or in the same farmyard, nor for any other form of structuring of the settlement, such as a surrounding ditch. The occupants of the Vijver settlement form a small, mainly self-supporting community, but they probably have close contacts with the inhabitants of neighbouring settlements. They practice mixed farming, with crops including barley, emmer and spelt, but also beetroot, a Roman introduction. Although one of the wells yielded a large amount of wheel-thrown pottery, the settlement structure does not point to social stratification. The early presence of a fragment of a rare Roman wine

amphora is an exception and difficult to fit in with the egalitarian 'native' impression that the Vijver settlement otherwise creates. It should probably be regarded as an indication of close contacts with the neighbouring Westerveld settlement, where such products were more abundant.

notes

1 Co-ordinates 162.48/420.06 (Topographical map of the Netherlands, sheet 45E).

2 Even though Vijver is situated in the lowest lying part of Ussen, the conditions were probably not so wet that the buildings needed drainage (cf. Raemaekers 1993, 6-7: according to this study the mean groundwater table around the beginning of the era was 3.95 + NAP).

3 Similar constructions serving to stabilise the upright posts in wet conditions were found in peat areas. It is not clear whether these constructions had the same function in dry, sandy areas (see note 2).

4 During rescue-excavations, the number of pits and wells is often biased: not only do they show easily in an unshovelled construction trench, because of their dark fill, but they tend to hold the more interesting finds and are thus popular with (amateur) archaeologists.

5 Third-century smooth-walled plates should also be considered as tableware.

6 Four structures in the Vijver settlement contain wheel-thrown pottery only. Three occasions (S243, P152 and P193) concern only one or two sherds. P275 yielded 113 fragments of wheel-thrown pottery, but this pit is situated somewhat farther off and may not belong to the settlement.

7 A few sherds of handmade ware found in this well show typical early decoration. The material is clearly mixed with much older debris, indicating that the feature must have filled up slowly.

8 These find conditions may account for the large amount of material. The pit was excavated by local (amateur) archaeologists, who probably started collecting material as soon as the upper layers of the pit were visible in the building trench. In Oss most of these 'higher' finds get lost because a mechanical excavator takes off the upper layers. Further down, P143 turned out to consist of two separate wells (P143a and P143b), which also accounts for the numerous finds.

9 It is a fragment of the lower wall, 19.5 – 23.5 mm thick, weighing 315 g. In section the colour is orange-brown (Munsell 2.5 YR 6/6) with fine white inclusions. The analysis (by H. van Enckevort) was mainly based on similarity with Dressel 1 finds at Nijmegen-Kops Plateau.

10 Fragments of Dressel 1 *amphorae* in the Netherlands have so far only been found at Nijmegen-Kops Plateau, Velsen and Groesbeek (pers. comm. H. van Enckevort).

11 I should mention that the late prof.dr. J.E. Bogaers, who interpreted the *graffito*, specifically requested that the military variant should be ignored, since 'military stuff in Oss-Ussen would be rather exceptional'. Including it anyway is therefore my own responsibility.

12 Determination G. van Boekel.

3. The Zomerhof settlement

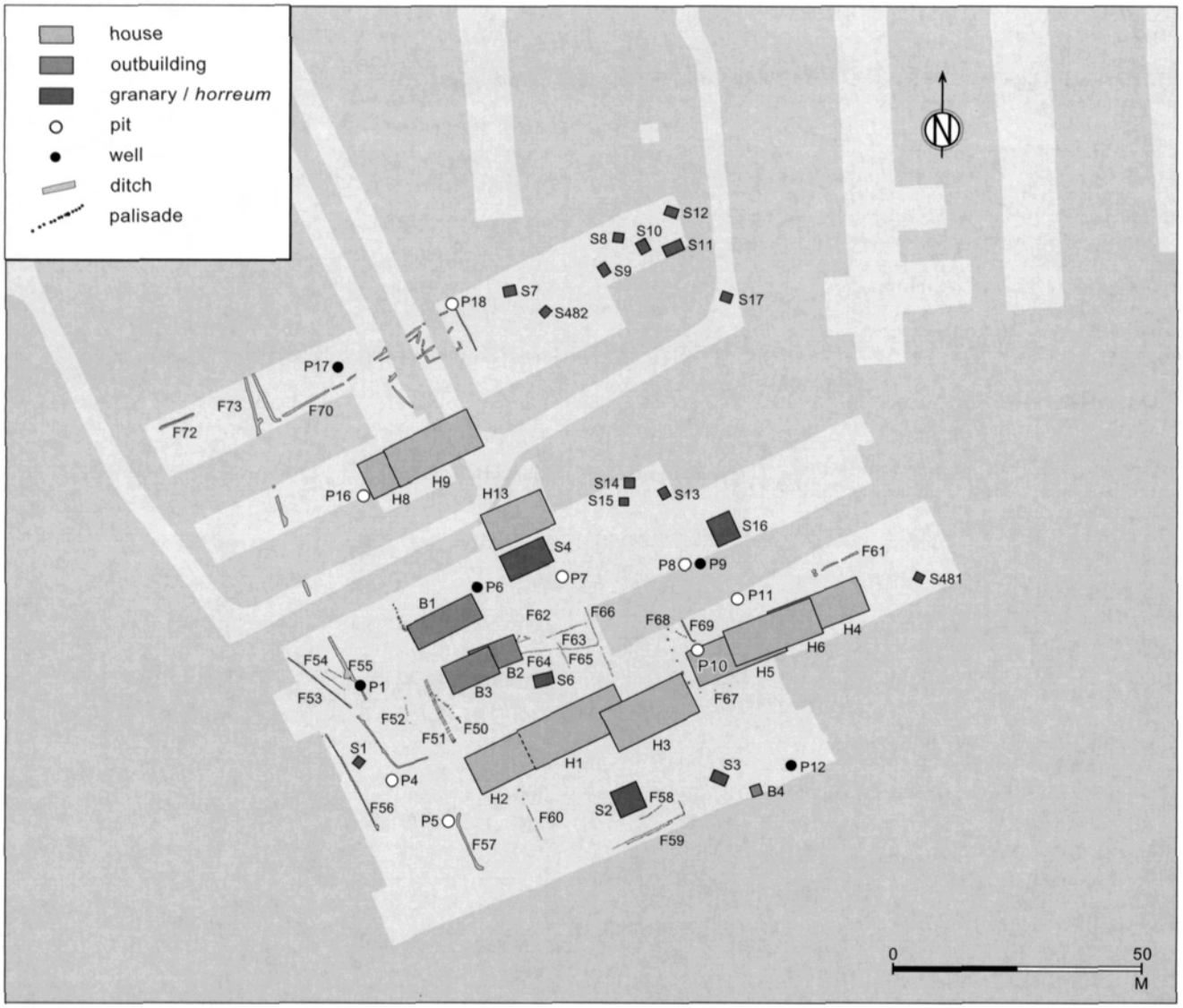


Figure 43. The Zomerhof settlement.

The first features of the Zomerhof settlement were discovered in 1977 in a road trench. The settlement was named after the toponym of the field on which this particular part of the housing estate was being built. From April to September 1978 various excavation campaigns took place, which made it possible to document a large

No.	type	length (m)	width (m)	orientation	date
H1	9A	21.1	7.8	SW-NE	Id-IIa
H2	9A	32.4	7.8	SW-NE	IIa(-b)
H3	7A?	16.7	6.9	SW-NE	IIB
H4	7A	18.2	6.0	W-E	before IIb
H5	9A	18.3	7.2	SW-NE	IIb-c
H6	8A	> 17.5	> 7.0	W-E	IIB
H8	6B	17.0	7.4	SW-NE	pre-Flavian?
H9	7B?	18.0	7.5	SW-NE	IIA(-c?)
H13	6B	10.5	7.2	W-E	IIB
(H24)	5A	7.7	5.4	W-E	II?

Table 12. House plans from the Zomerhof settlement.

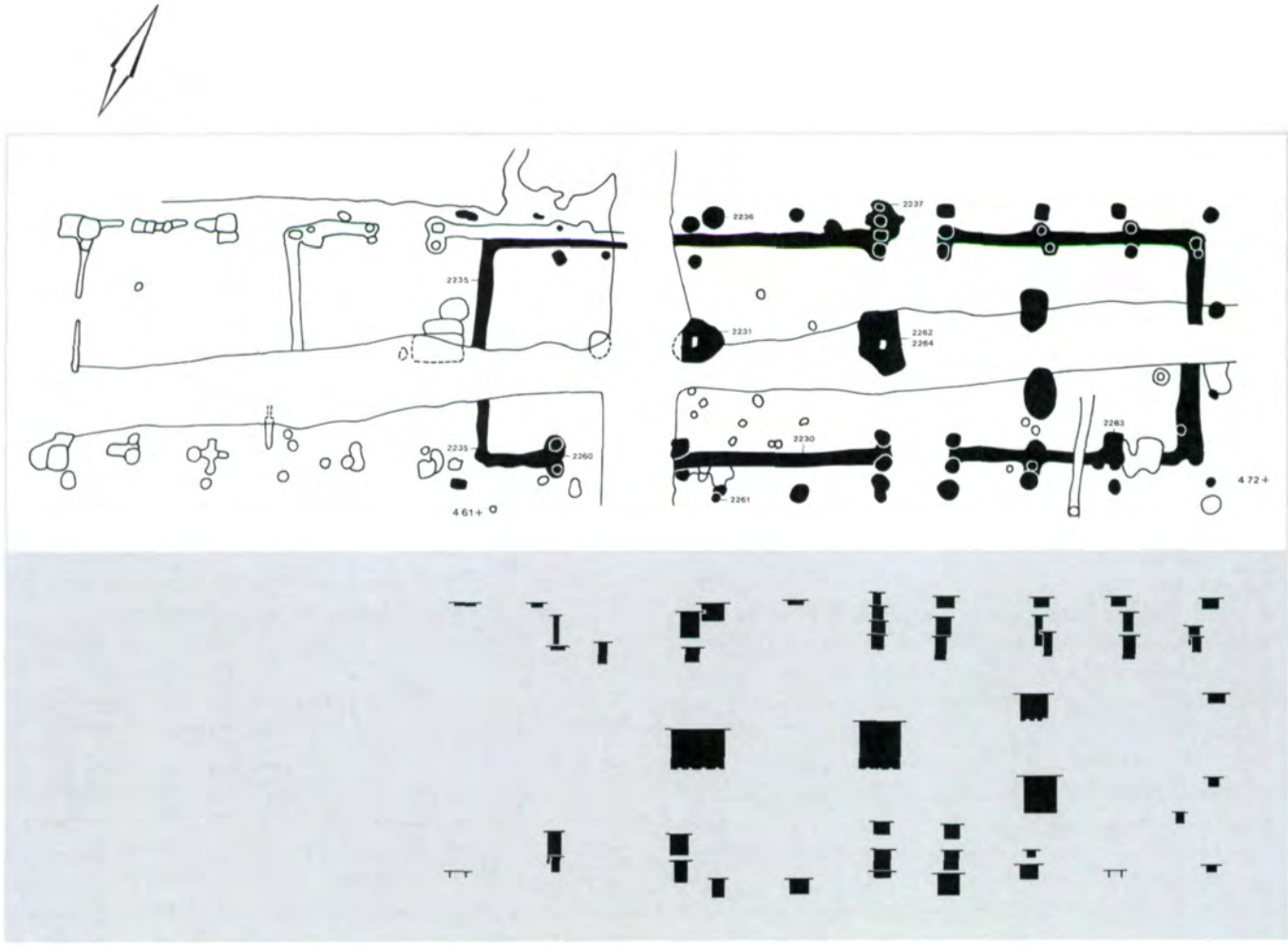


Figure 44. House 1. Scale: plan 1:200, posthole depths 1:100.

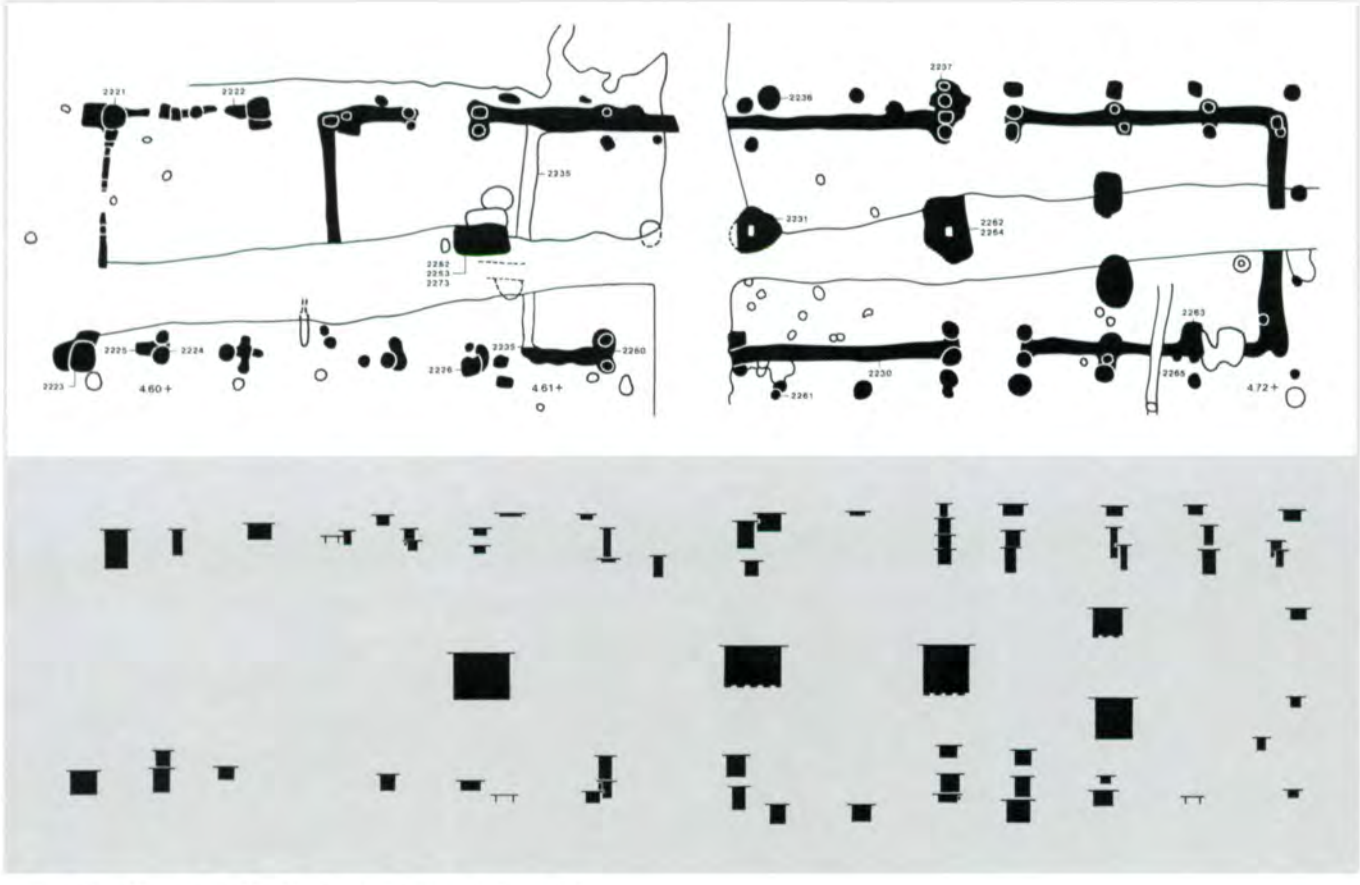


Figure 45. House 2. Scale: plan 1:200, posthole depths 1:100.

section of the settlement. The investigated part covers an area of approximately 125 x 125 m, which is situated in the south-westernmost part of Ussen (figs. 3 and 43).[1] Features include nine house plans, three outbuildings, 16 granaries, 14 pits and wells and 22 (fragments of) ditches and palisades. To the north and east of the Roman period settlement, a number of Iron Age house plans were found.

3.1 HOUSE PLANS

A total of nine Roman period house plans have been excavated, all of them oriented north-east to south-west (table 12). Some of the plans could be dated roughly on the basis of differing quantities of associated find material. Furthermore, the intersections and, to a lesser extent, the house typology provide a complementary relative chronology. A tenth house plan (H24) dated to the Roman period was found *c.* 150 m to the north-east. It is not likely that this building was part of the Zomerhof settlement but, as it was found relatively close by, it will be discussed here. It is however not included on the settlement plan.

House 1

Three central roof-bearing posts form the two-aisled part of H1, while its three-aisled part, which probably served as a byre, consists of one set of roof-bearing posts (fig. 44). The entrances were situated opposite each other in the long walls, separating the two-aisled from the three-aisled part. The wall-posts, some of which are paired, were set partly in the foundation trench and supported the wattlework. Roof-bearing posts were placed outside the walls at regular intervals. The plan is intersected by H3. H1 was dated to the Flavian period and later, but the

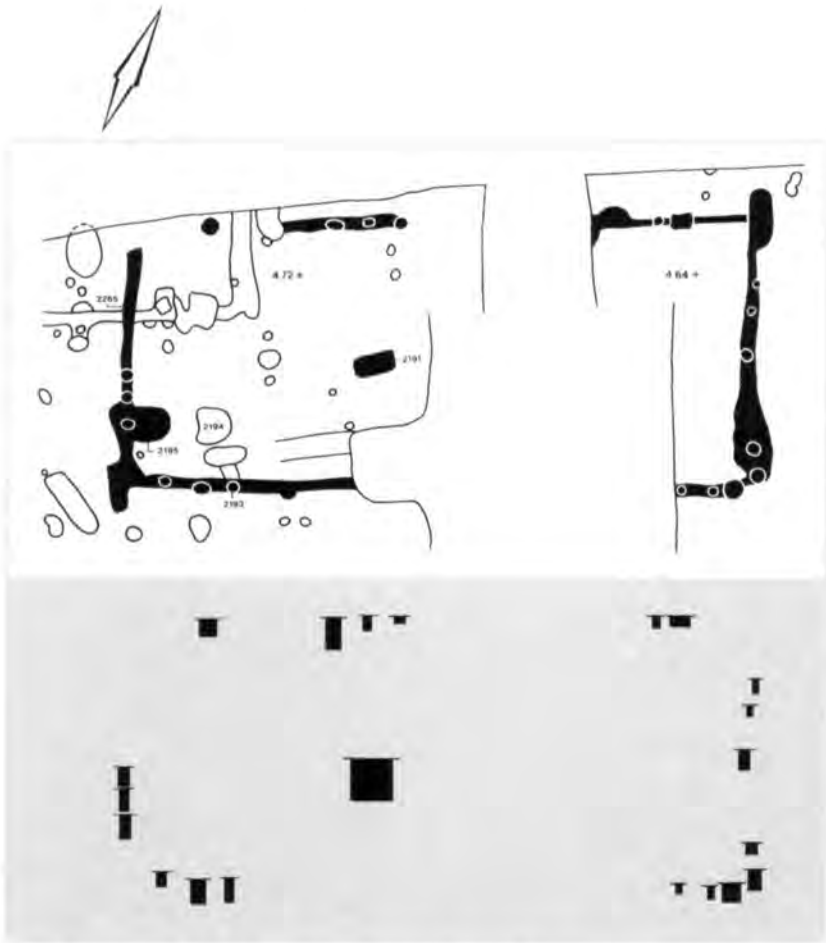


Figure 46. House 3. Scale: plan 1:200, posthole depths 1:100.

extension (see H2) restricts that to the period Id-IIa. The features comprising this plan yielded nine fragments of handmade pottery and six wheel-thrown sherds. Remains of two of the oak roof-bearing posts, both with flat ends, were preserved.

House 2

H1 had a 12.3 m-long extension built on, resulting in an enlarged plan that was numbered H2 (fig. 45). This two-aisled extension included one extra central roof-bearing post and an additional set of entrances in the long walls. Although the extension lacks roof-bearing posts outside the walls, H2 was classified as a type 9A. In the new postholes and foundation trenches seven pottery fragments were found: two came from handmade pots, and five from wheel-thrown pottery. A date in the first half of the second century AD (IIA or IIa) could be derived from a coin, found in one of the postholes that was part of a wall. It was identified as a silver *denarius* of Trajan, dated AD 103-111 (see 3.6.7, fig. 65). The coin provides the extension with a *terminus post quem* of AD 103. Assuming that a Roman period timber house did not last longer than *c.* 30 years, and that H1 would still be functioning when the extension was added, this indicates that H1 was built somewhere between AD 75 and AD 103.

House 3

The plan of H3 is incomplete: a recent or sub-recent ditch cuts through the middle part (fig. 46). Because of the recent ditch, only one central roof-bearing post could be documented. The walls probably consisted of wattlework standing in the foundation trenches. Posts that supported the walls and possibly the roof were also placed in the foundation trenches. In the north-western long wall, part of an entrance was found which may have had a counterpart in the opposite wall. Schinkel has classified this plan as a

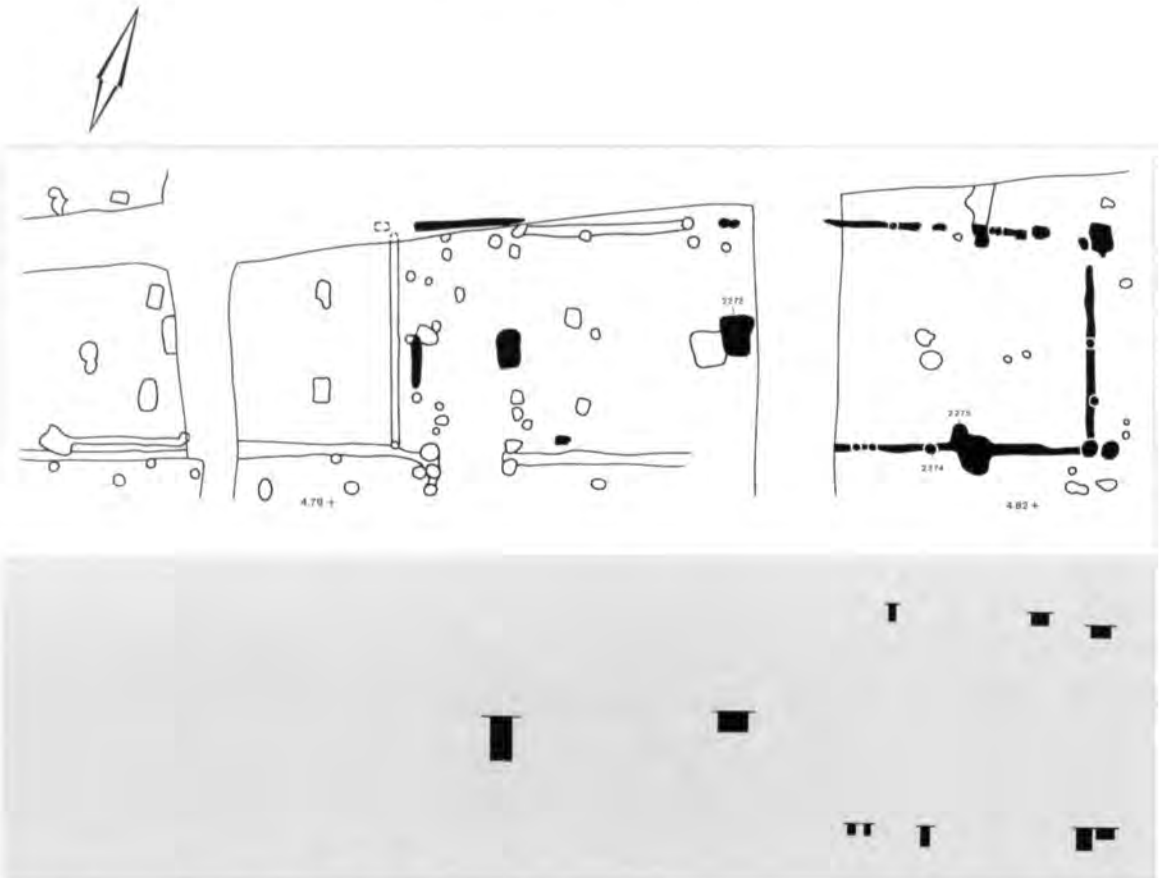


Figure 47. House 4. Scale: plan 1:200, posthole depths 1:100.

possible type 7A. This classification is based mainly on the absence of roof-bearing posts placed outside the walls, and assumes that the disturbed part was three-aisled. Finds consist of two fragments of handmade pottery and eight wheel-thrown sherds. The posthole of the central roof-bearing post yielded a complete Belgic beaker, which may well have been a building sacrifice (Van der Sanden 1987g, 98-99). H3 intersects the plan of H1 and H2 and is therefore dated somewhere in the (second half of the) second century AD.

House 4

Of H4, only two central roof-bearing posts and a foundation trench could be documented (fig. 47). A number of wall-posts were placed in the foundation trench. The exact location of the entrances remains uncertain. H4 is intersected by H5 and H6, and may therefore be dated before the (second quarter of the) second century AD. Only five pottery fragments were found, three from handmade vessels and two from wheel-thrown pots.

House 5

H5 is a type-9A plan, some parts of which are disturbed (fig. 48). Therefore the location of the entrances could not be reconstructed. The two-aisled part is formed by two central roof-bearing posts, while two pairs of roof-bearing posts make up the three-aisled part. The finds from this plan are relatively numerous, including nine fragments of handmade pottery and 59 wheel-thrown sherds. In addition, an iron nail and part of a whetstone were found. The plan was dated IIb-c.

House 6

Due to a recent or sub-recent ditch, the plan of H6 is incomplete (fig. 49). A row of three central roof-bearing posts and a foundation trench indicate a type 8A. Two entrances were situated opposite each other in the long walls. Two of the postholes yielded a total of seven fragments of wheel-thrown pottery. The plan intersects both H4 and H5 and is therefore the most recent of the three. A possible date in the second half of the second century (IIB) may be derived from this evidence.

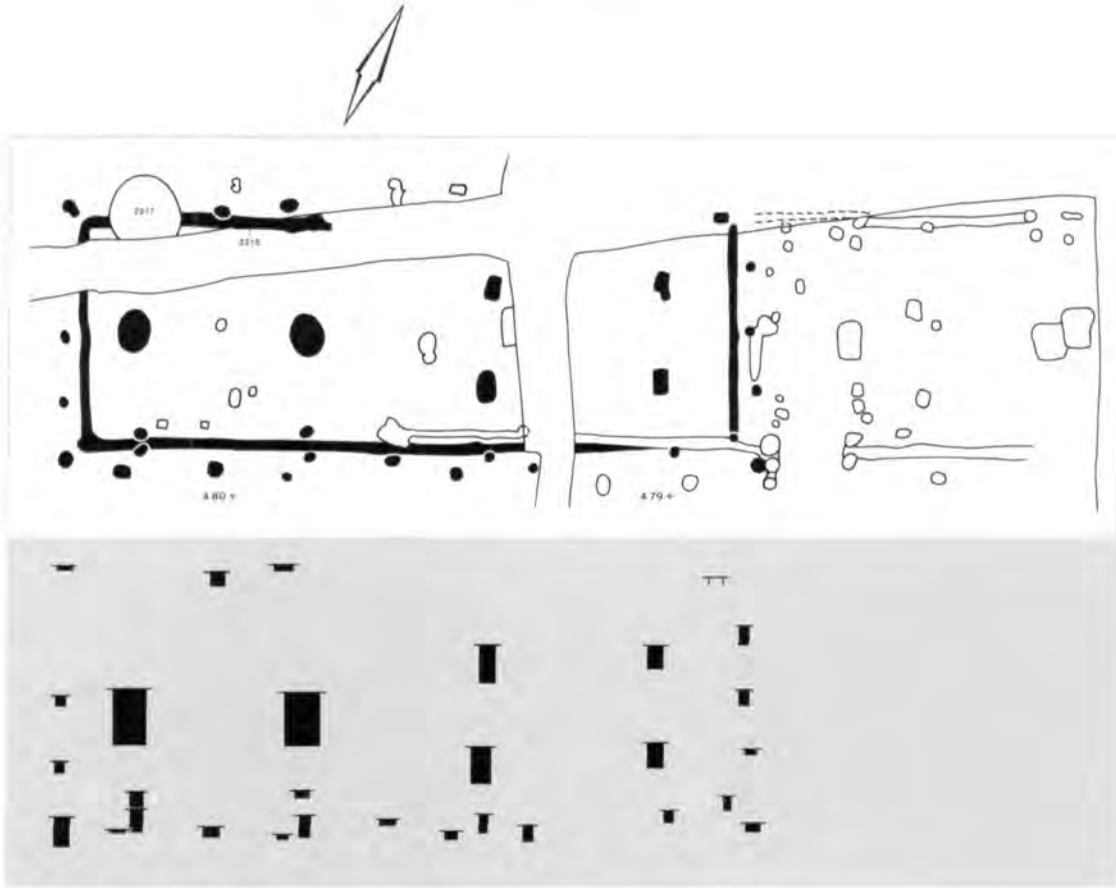


Figure 48. House 5. Scale: plan 1:200, posthole depths 1:100.

House 8

H8 has no central roof-bearing posts, and this characteristic classifies it as a type 6B, even though few posts are placed outside the walls (fig. 50). On the north-western short side a slightly narrower extension was built. The finds consisted of 15 handmade sherds, one of which had a roughed wall. The house was dated to the pre-Flavian period on the basis that only handmade pottery was found. However, since no other structures can be dated before AD 70, it is more likely that H8 was built later.

House 9

The plan of H9 intersects that of H8. Its south-western wall is missing, and two recent ditches have disturbed the plan (fig. 51). The entrances were situated opposite each other in the long walls, separating a two-aisled part with two central roof-bearing posts from a possible one-aisled part. Although it remains uncertain whether many posts were placed outside the walls, this plan was classified as a possible type 7B. It was dated IIA, possibly IIc. Postholes and foundation trenches yielded 42 fragments of handmade pottery and 18 wheel-thrown sherds, one of which could be identified as part of a colour-coated beaker. At the bottom of one of the central postholes, a complete rotary quern (top and bottom stone) made of tephrite was found (fig. 52).

House 13

The plan of H13 is quite fragmentary (fig. 53). Since no central roof-bearing posts are present, this plan was identified as a type 6B, although the presence of posts placed outside the walls could not be reconstructed with certainty. Finds included seven fragments of handmade pottery, 23 fragments of wheel-thrown pottery and an iron nail.

House 24

H24 was found *c.* 150 m to the north-east of the main cluster of houses. As well as being in a distinct location,

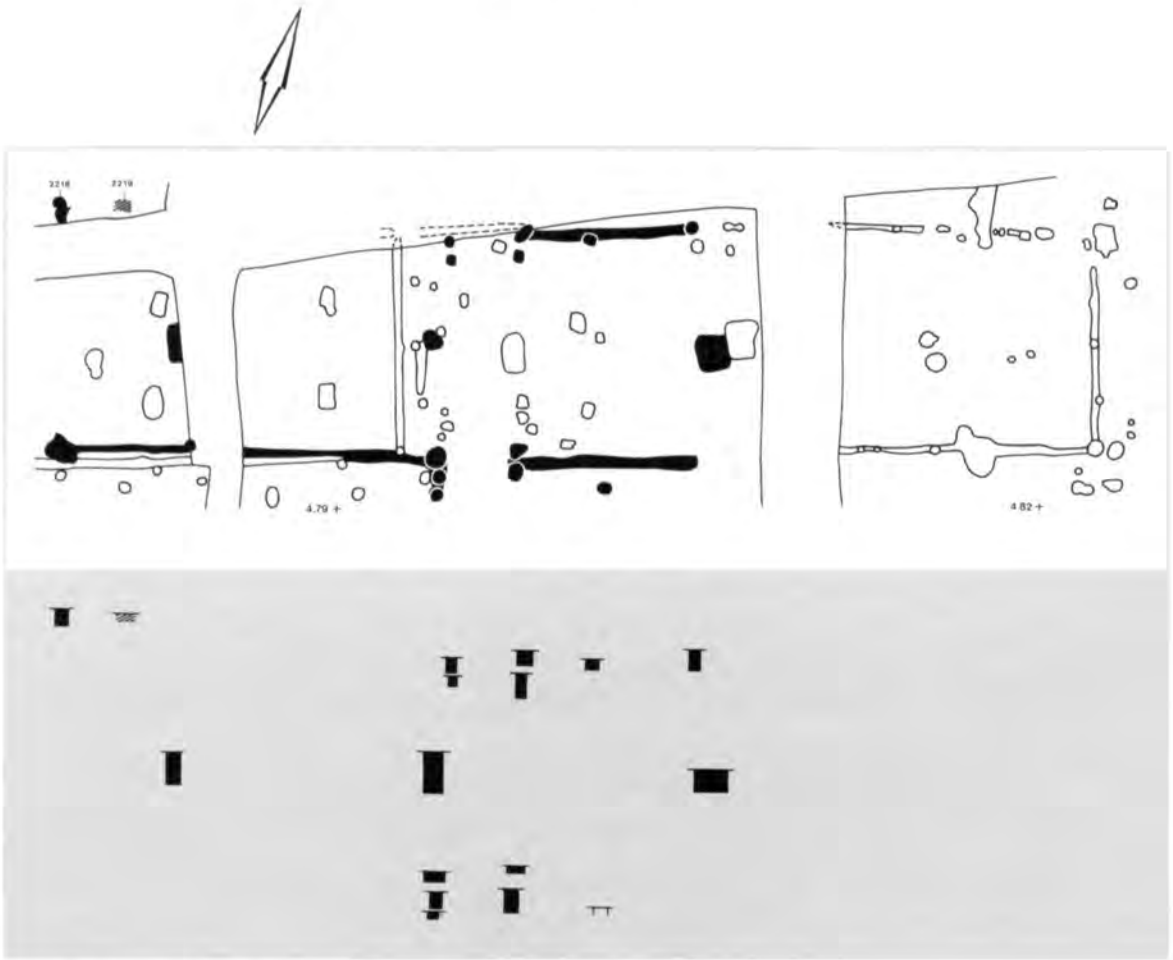


Figure 49. House 6. Scale: plan 1:200, posthole depths 1:100.

the plan of H24 is also a different type: a type 5A, which is usually dated to the Late Iron Age. A fragment of coarse ware (cork-urn shaped) was found in one of the postholes, which would date it to the second century AD. The plan is only 7.7 m long, but was possibly cut off by a recent ditch. Apart from the wheel-thrown fragment, three handmade sherds were found. The finds, location and type of this house lead to the conclusion that it probably does not date to the Roman period and did thus not form part of the Zomerhof settlement. Unfortunately the area in between was not excavated completely, but three other house plans (H12, H22 and H23) were found in road trenches. These were all type 5A and part of the Late Iron Age predecessor of the Zomerhof settlement (Schinkel 1994).[2]

3.2 Outbuildings

Four structures were characterised as outbuildings, mainly because their small dimensions precluded a dwelling function. They were numbered B1 - B4 (table 13). On the basis of pottery finds, B1, B2 and B3 could be dated to the Roman period. Furthermore, B3 intersects B2 and may thus be its direct successor.

Outbuilding 1

B1 is a two-aisled building, partly disturbed and not completely excavated (fig. 54). The long walls consist of a combination of double sets of wall-posts with foundation trenches. The exact location of the entrances and the short sides are uncertain. The features yielded a single handmade sherd and eight fragments of wheel-thrown pottery,

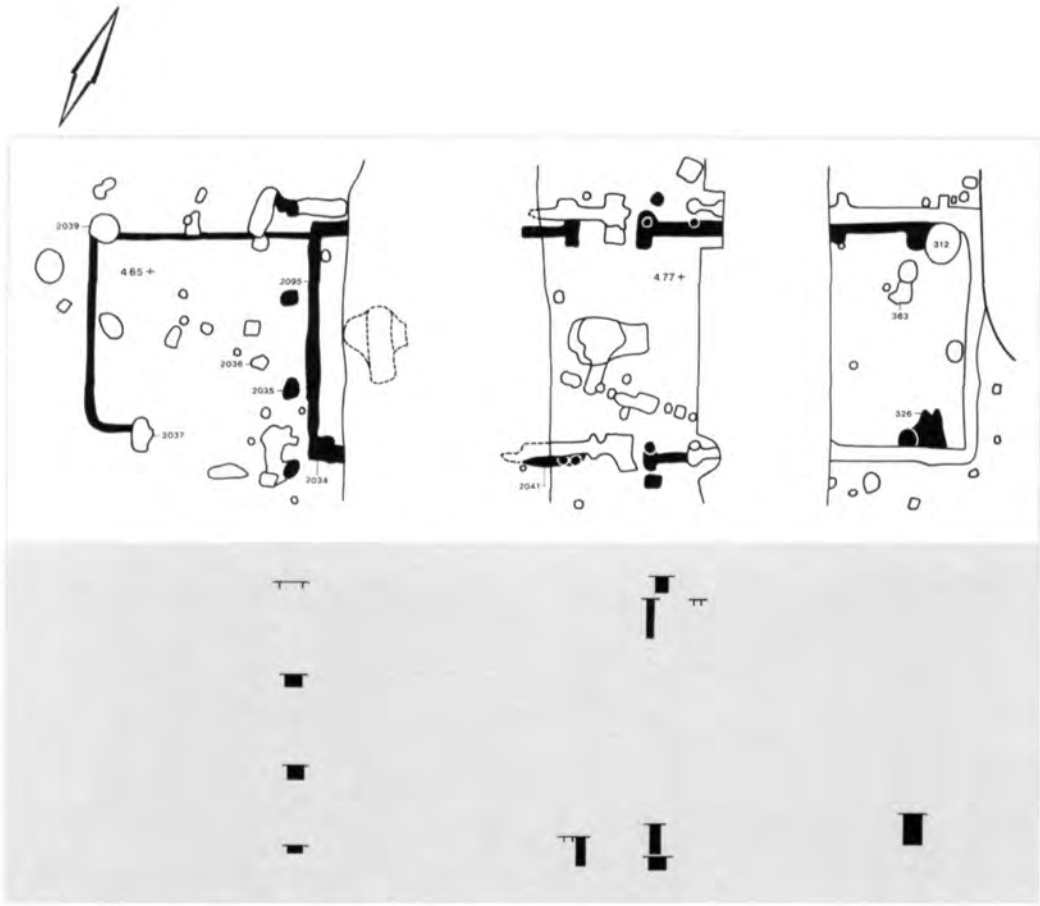


Figure 50. House 8. Scale: plan 1:200, posthole depths 1:100.

No.	length (m)	width (m)	orientation	date
B1	> 12.0	5.2	SW-NE	IB-IIA
B2	9.2	4.9	SW-NE	II
B3	> 10.0	4.5	SW-NE	II
B4	> 1.8	1.6	NW-SE	?

Table 13. Outbuildings from the Zomerhof settlement.

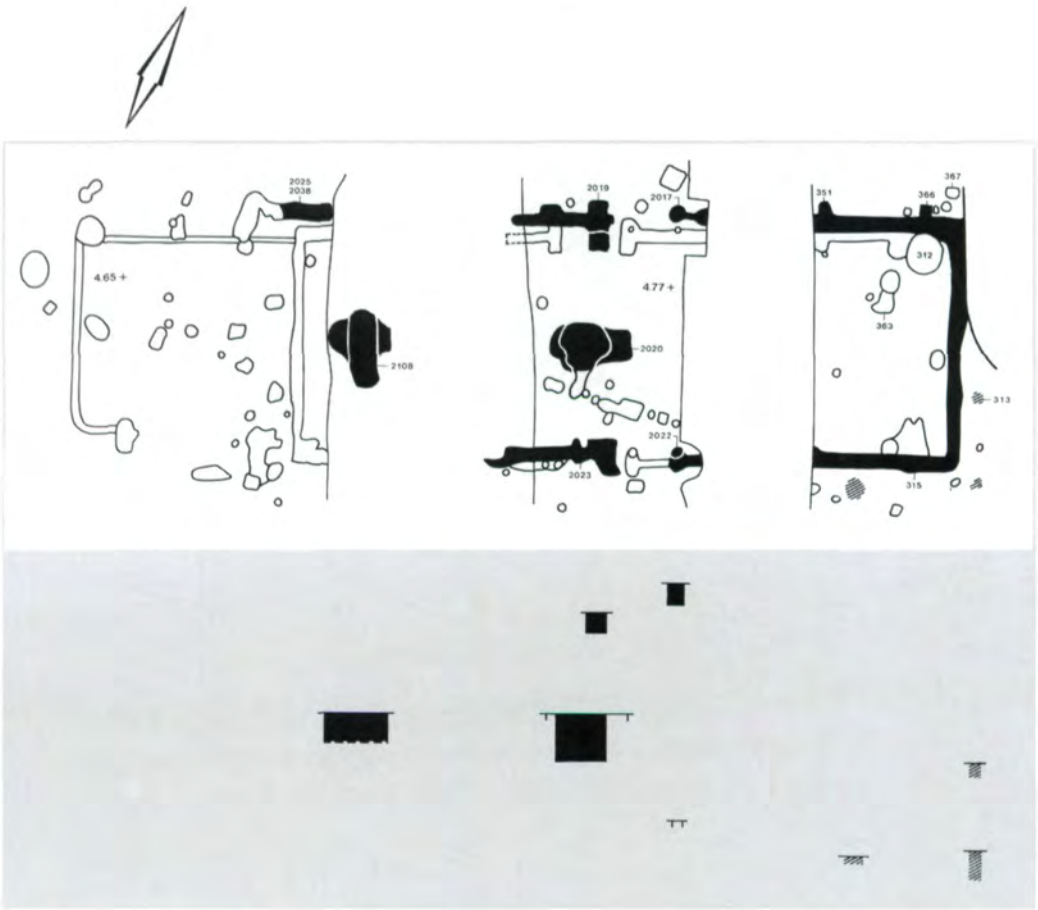


Figure 51. House 9. Scale: plan 1:200, posthole depths 1:100.

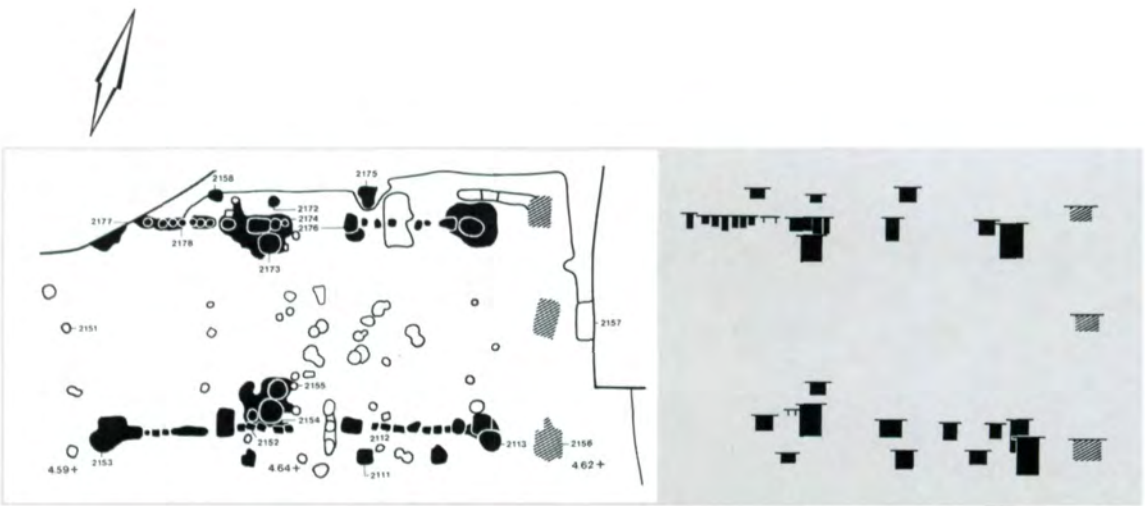


Figure 53. House 13. Scale: plan 1:200, posthole depths 1:100.

Figure 52. Two quernstones in H9, diameters 44 and 38 cm.

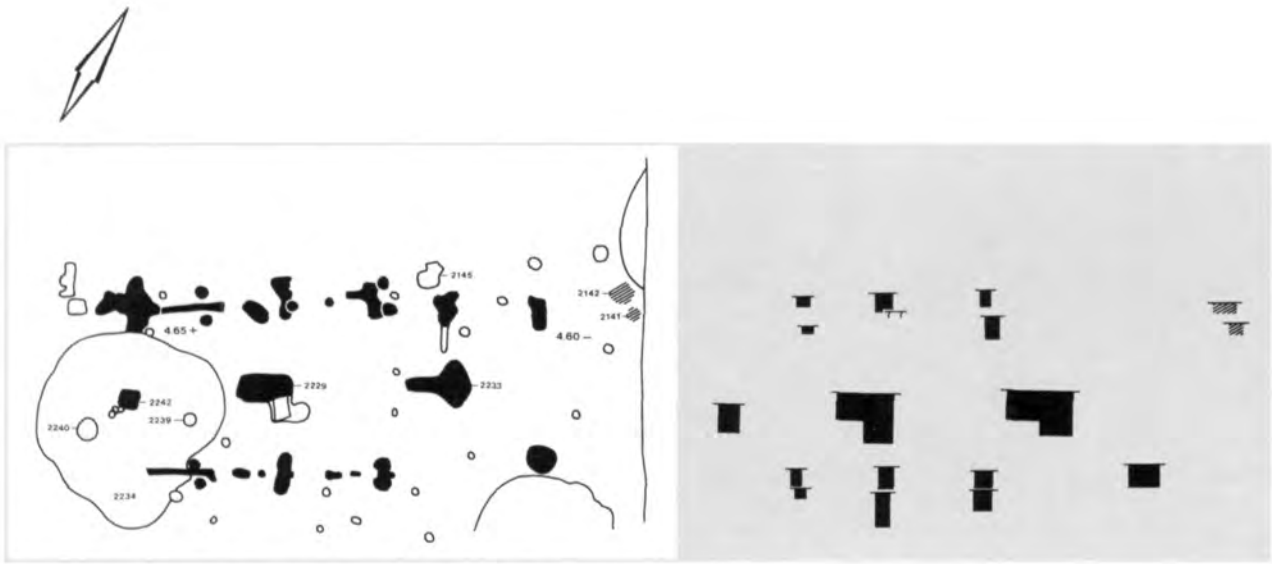


Figure 54. Outbuilding B1. Scale: plan 1:200, posthole depths 1:100.

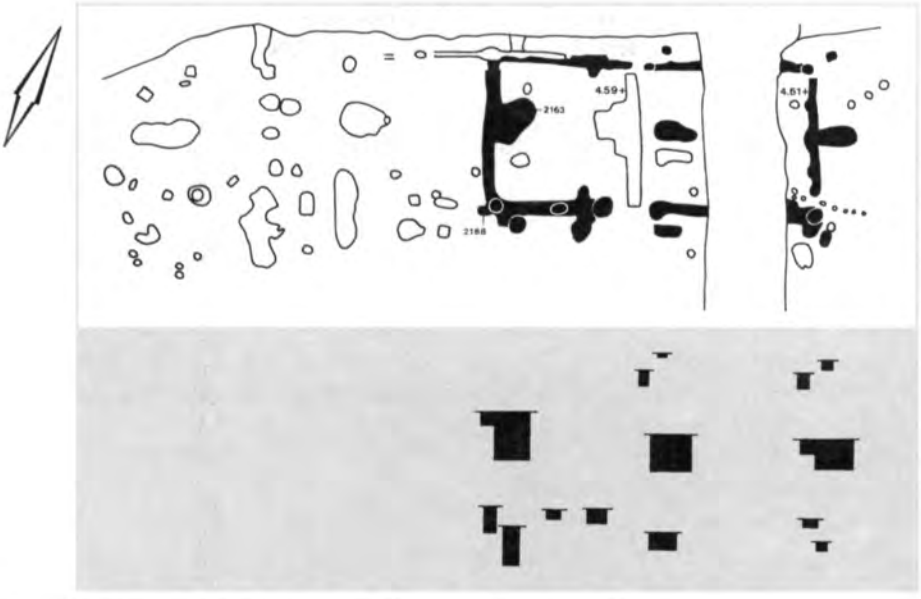


Figure 55. Outbuilding B2. Scale: plan 1:200, posthole depths 1:100.

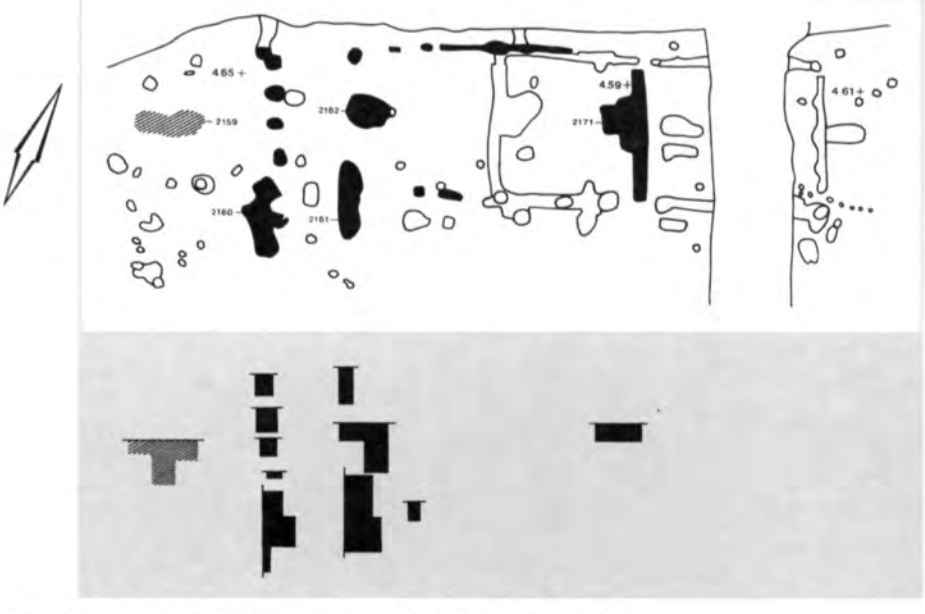


Figure 56. Outbuilding B3. Scale: plan 1:200, posthole depths 1:100.

including a complete pot of grey ware. This vessel was found in the central roof-bearing posthole, and might have to be interpreted as a building sacrifice (Van der Sanden 1987g, 98).

Outbuilding 2

The plan of B2 (fig. 55) is fairly complete, showing a two-aisled building with a foundation trench, external posts and central roof-bearing posts in the short walls (cf. housetype 8C). One of the long walls has a clear entrance. Finds included a single handmade sherd, five fragments of wheel-thrown pottery and a clay sling pellet.

Outbuilding 3

The plan of B3 was built partly on top of that of B2. It is another two-aisled building, but much more fragmented (fig. 56). Only one of the central roof-bearing posts is situated in the short wall (cf. housetype 8B), and one of the short sides is marked by postholes instead of a foundation trench. The features yielded one sherd of handmade ware and two fragments of wheel-thrown pottery.

Outbuilding 4

B4 consists of a shallow (3-15 cm) ditch, encircling a pit (fig. 57). The ditch contained no finds material.

Figure 57. Outbuilding B4. Scale 1:200.

3.3 GRANARIES AND *HORREA*

A total of 16 small outbuildings, interpreted as storage buildings, were documented in the Zomerhof settlement (table 14). Only four of these yielded pottery, in three cases the fragments were handmade and could not serve to date the granaries. A single sherd of Belgic ware was found in S2. Two other buildings, S4 and S16, were dated in the Roman period on the basis of their ground plan. Since another granary, lying within the boundaries of the settlement, was dated to the Middle Iron Age, we cannot be certain that the undated granaries were part of the Roman occupation. All three dated storage buildings belong to the same type (IIIA), consisting of a central floor made up of nine posts and surrounded by walls (fig. 58). This large type of granary is sometimes called a *horreum*. The remainder of the small storage buildings fall into either category IA (four-post granary) or category IB (narrow six-post granary).

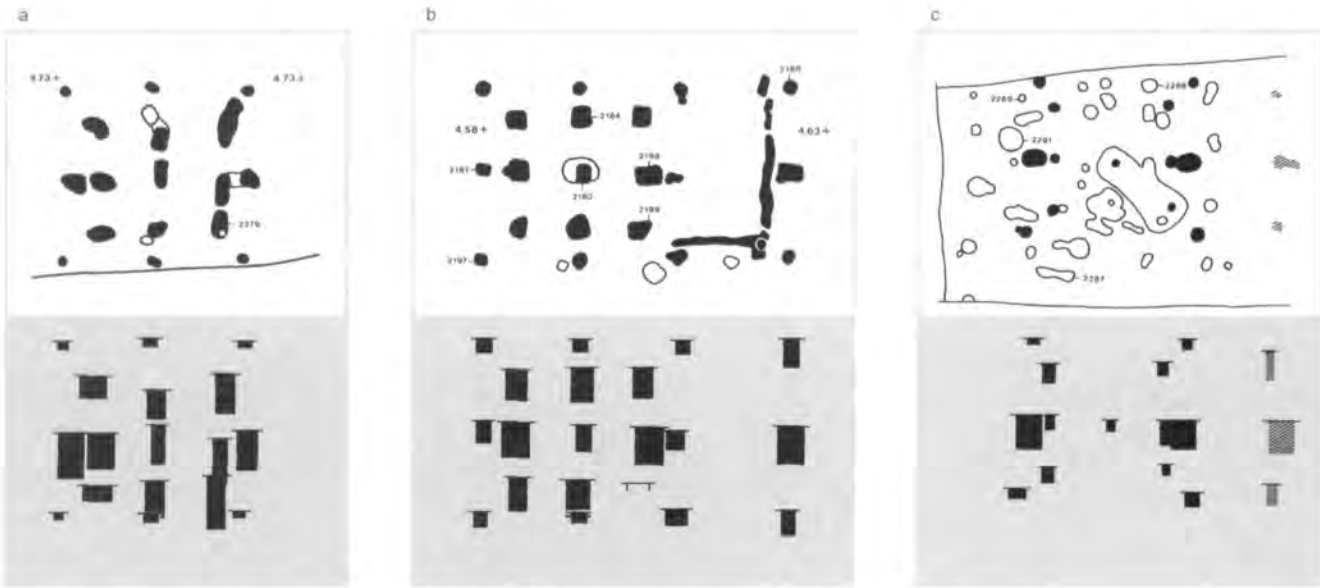


Figure 58. Granaries of type IIIA: S2 (a), S4(b) and S16 (c). Scale: plans 1:200, posthole depths 1:100.

In one of the postholes of *horreum* S2 part of a pointed timber post was conserved. The plan of *horreum* S4 is an exception (fig. 58). The main part is a regular type IIIA-plan, but on the north-east side a ditch encloses an area of 4.5 x 2.5 m. On the northwest side the ditch is interrupted, and an entrance seems to be present. Three deep postholes are situated alongside the ditch on the north-east side. Since no other features were found, it seems likely that this storage building had an annex without a raised floor.

No.	type	length/width (cm)	date
S1	IA	170/160	-
S2	IIIA	500/460	Id-IIA
S3	IA	220/160	-
S4	IIIA	850/470	RP
S6	IB	300/150	-
S7	IA	210/170	-
S8	IA	160/150	-
S9	IA	180/130	-
S10	IA	230/170	-
S11	IB	360/200	-
S12	IA	180/130	-
S13	IA	170/170	-
S14	IA	170/160	-
S15	IA	140/100	-
S16	IIIA	700/420	RP
S17	IA	180/160	-

Table 14. Granaries from the Zomerhof settlement.

3.4 Pits and wells

Within the Zomerhof settlement 13 pits and wells could be dated to the Roman period (table 15). In five cases parts of the wattlework lining were still *in situ*, indicating a function as a well. Wood from one of the wells (P17) was dated with the use of ^{14}C-dating (see 1.3.1), but the find material provided a more accurate date.

3.5 Palisades and ditches

A total of 22 fragments of palisades (fences) and ditches were found (table 16). None of these structures are complete and only six can be dated on the basis of find material. However, through association with other Roman period occupation traces, the majority of the palisades and ditches may be placed in the Roman period. Local archaeologists documented another ditch-fragment outside the excavated area, situated approximately 50 m east of H9. Since no measurements were taken, it was not included in the catalogue.

Twelve linear or L-shaped rows of closely set, thin posts were documented, classified as a type- IA palisade. One palisade, which rounded the south-western short side of H5, consisted of widely set posts with a larger diameter (type IIA). Six ditches were found in which no traces of posts could be seen (type IIIA); by contrast such traces were found at the bottom of three other ditches (type IIIB). In four cases a ditch could be linked to a well or pit. Looking at the layout of the fences, it appears that at least some of them served to indicate the boundaries of farmyards (F50, F60, F59, F61, F66, F67). Smaller fences F62 – F65 could have been marking off a path/entrance towards outbuilding B2/B3.

The western and northern set of ditches may have been part of an enclosure surrounding the settlement as a whole. Unfortunately, the excavated area outside this supposed boundary is too small to determine whether or not the number of features actually diminishes. Of the six ditches that yielded finds, five (F55, F57, F70, F72 and F73) belong to this enclosing system. All five contained wheel-thrown

No.	type	depth (cm)	diameter (cm)	diameter lining	wood	date
P1	A1	-	290	80	A S	II
P4	E-I	50	230	-	-	II
P5	E-I	60	180	-	-	Id-IIa
P6	A1	145	410	90	-	Id-IIA
P7	E-I	55	250	-	-	II
P8	G	65	100	-	-	IIA
P9	A1	-	-	80x150	-	II
P10	B-D	85	190	-	-	II
P11	E-I	50	-	-	-	IIB
P12	A1	100	260	80	A Q	II
P16	E	60	170	-	-	IIA
P17	A1	-	330	-	Q S	IId-IIIc
P18	E	80	190	-	-	IId-IIIc

Table 15. Pits and wells from the Zomerhof settlement. Wood: A = *Alnus* (alder), Q = *Quercus* (oak), S = *Salix* (willow).

material, the majority consisting of grey and coarse ware. Furthermore, F70 also yielded a fragment of a glass vessel from the Flavian period and a fragment of a glass *La Tène* bracelet. The enclosure could therefore have belonged to the earliest phase of the settlement, although some of the wheel-thrown pottery points to a slightly later date. There are no indications of the ditches having been re-cut. Three possible entrances are visible; one on the north side, one on the west side and one on the north-west side. All three are funnel-shaped, which means that cattle could have been guided through more easily. The northern entrance narrows towards the outside, which would mean that cattle were only guided out on this side of the settlement. The north-western entrance shows a possible earlier phase with a small square structure. Unfortunately these (unnumbered) ditches did not yield any finds. It is possible that a ditch fragment found by local archaeologists which yielded a fragment of a roof-tile, was also part of the enclosure.

3.6 Finds

3.6.1 Pottery

The structures from the Zomerhof settlement that were dated to the Roman period contained a total of 923 pottery sherds, of which 73% (N = 674) were wheel-thrown and 27% (N = 249) handmade. After adding the wheel-thrown pottery that was found in the area, but not in dated structures, the total number of wheel-thrown sherds comes to 1330. The total number of handmade sherds from the area is unknown (see 1.3 and 2.4.1). Comparing the relative amounts of the

	whole area		structures only	
terra sigillata	22	2	10	2
Belgic ware	85	6	55	8
cork urn	-	-	-	-
colour-coated ware	60	4	38	5
smooth-walled pottery	157	12	69	10
mortaria	40	3	15	2
dolia	154	12	71	11
amphorae	97	7	51	8
Waaslands	51	4	27	4
coarse ware	294	22	115	17
grey ware	369	28	222	33
indeterminable	1	+	1	+
total	1330	100%	674	100%

Table 17. Roman wheel-thrown pottery from the Zomerhof settlement: number of sherds and percentages.

No.	type	length (m)	width (cm)	orientation	date	particulars
F50	IA	13.6	-	NW-SE		
F51	IA	8.2	-	N-S		
F52	IIIB	35.5	20/30	NW-SE/E-W		
F53	IA	5.7	-	NW-SE		
F54	IA	2.9	-	NW-SE		
F55	IIIA	26.8	40/60	NW-SE	RP	linked up with P1
F56	IIIA	21.8	20/30	NW-SE		
F57	IIIA	13.0	50	NW-SE	Id-II	alongside P5
F58	IA	5.2	-	NE-SW		
F59	IA	18.7	-	NE-SW/NW-SE		partly double
F60	IA	7.4	-	NW-SE		
F61	IIIB	8.2	40	NE-SW	II	entrance?
F62	IA	2.5	-	E-W		
F63	IA	8.1	-	NE-SW		
F64	IA	16.5	-	E-W		
F65	IA	5.4	-	NW-SE		
F66	IA	15.5	-	NW-SE		
F67	IIA	9.8	-	NW-SE		
F68	IA	2.2	-	NW-SE		
F69	IIIA	19.5	40	NW-SE		
F70	IIIA	52.0	30/80	NW-SE/NE-SW	IIB-IIIa	running towards P18
F72	IIIB	7.4	35	E-W	Id-II	
F73	IIIA	32.2	50	N-S	Id-II	alongside P15

Table 16. Palisades and ditches from the Zomerhof settlement.

terra sigillata	10	1
Belgic ware	55	6
cork urn	-	-
colour-coated ware	38	4
smooth-walled pottery	69	7
mortaria	15	2
dolia	71	7
amphorae	51	6
Waaslands	27	3
coarse ware	115	13
grey ware	222	24
handmade pottery	249	27
indeterminable	1	+
total	923	100%

Table 18. Wheel-thrown and handmade pottery from the structures of the Zomerhof settlement.

various wheel-thrown types of the two assemblages, we see that the pottery from the structures (table 18) includes slightly more tableware and grey ware, and less coarse ware than the pottery from the whole area (table 17). Despite this difference and although 923 sherds is a rather small group to draw any conclusions from, I will work with the set from the structures in order to be able to include the handmade ware. The relative amounts in table 18 represent the pottery from the whole use-period and it is clear that the Zomerhof settlement did not start early in the first century AD. There are no fragments of cork urn, no *sigillata* from Southern Gaul (see below) and the amount of handmade pottery is much lower than that seen in the Vijver settlement. As could be expected, more grey ware was found, and also a slightly higher amount of tableware.

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	total number of sherds
H1	-	2	-	-	-	-	1	3	-	-	-	9	-	15
H2	-	-	-	-	-	-	1	-	-	1	4	2	-	8
H3	-	1	-	-	-	-	1	4	-	-	2	2	-	10
H4	-	-	-	-	-	-	-	1	-	1	-	3	-	5
H5	1	1	-	1	8	3	19	4	3	10	9	9	-	68
H6	-	-	-	-	-	-	4	-	-	-	3	-	-	7
H8	-	-	-	-	-	-	-	-	-	-	-	15	-	15
H9	-	1	-	2	3	-	2	1	-	5	4	42	-	60
H13	-	-	-	2	5	-	-	1	-	2	13	10	-	33
H24	-	-	-	-	-	-	-	-	-	1	-	3	-	4
B1	-	-	-	-	-	1	2	1	-	-	4	1	-	9
B2	-	1	-	-	-	-	-	-	-	-	4	1	-	6
B3	-	-	-	-	-	1	-	-	-	-	1	1	-	3
S2	-	1	-	-	-	-	-	-	-	-	-	-	-	1
S4	-	-	-	-	-	-	-	-	-	-	-	13	-	13
S7	-	-	-	-	-	-	-	-	-	-	-	4	-	4
S12	-	-	-	-	-	-	-	-	-	-	-	1	-	1
P1	1	1	-	-	-	-	2	-	1	1	4	-	-	10
P4	-	1	-	1	-	-	2	-	-	2	13	-	-	19
P5	-	1	-	-	1	-	-	-	-	2	1	-	-	5
P6	1	2	-	2	5	-	6	1	-	2	9	49	-	77
P7	-	-	-	-	1	1	-	-	-	-	4	-	-	6
P8	1	2	-	-	-	-	-	-	-	2	5	1	-	11
P9	-	-	-	-	-	-	3	1	-	5	2	-	-	11
P10	-	-	-	-	1	-	1	1	-	-	2	2	-	7
P11	3	19	-	9	4	-	6	21	8	21	53	7	1	152
P12	-	-	-	-	6	-	3	1	-	4	12	2	-	28
P16	-	2	-	-	2	-	-	-	-	-	4	4	-	12
P17	3	5	-	18	4	1	11	5	14	22	2	8	-	93
P18	-	-	-	-	8	-	1	4	-	5	8	6	-	32
F 55	-	-	-	-	-	-	1	-	-	-	-	-	-	1
F 57	-	-	-	-	-	-	-	-	-	-	1	-	-	1
F 61	-	-	-	-	4	2	1	-	-	4	2	12	-	25
F 70	-	2	-	3	12	5	2	-	1	19	10	28	-	82
F70a	-	-	-	-	-	-	-	-	-	-	-	5	-	5
F70s	-	13	-	-	1	1	-	2	-	1	8	-	-	26
F 72	-	-	-	-	1	-	2	-	-	-	-	4	-	7
F 73	-	-	-	-	3	-	-	-	-	5	38	5	-	51
total %	1	6	+	4	7	2	7	6	3	13	24	27	+	923 = 100 %

Table 19. Pottery (percentages) from each structure of the Zomerhof settlement. 1. *terra sigillata*, 2. Belgic ware, 3. cork urn, 4. colour-coated ware, 5. smooth-walled pottery, 6. *mortaria*, 7. *dolia*, 8. *amphorae*, 9. *Waaslands* 10. coarse ware, 11. grey ware, 12. handmade pottery, 13. indeterminable.

	type	number of sherds	total
undecorated			
South Gallic?	dish	1	1
Central or East Gallic	Drag.37	1	1
East Gallic	Drag.32	1	4
	indet	3	
indet	Drag.18/31	1	10
	Drag.31	3	
	Drag.37	1	
	indet	5	
decorated			
Central Gallic			
Lezoux	Drag.37	1	1
Central or East Gallic	Drag.37	1	1
East Gallic	Drag.37/38	1	2
Trier	Drag.37	1	
indet	Drag.37	2	2
total			22

Table 20. Fabric, region and types of *terra sigillata* pottery from the Zomerhof settlement.

The number of sherds found in each structure is small (table 19); in most cases less than 30 fragments. The relative numbers of handmade pottery decline towards the last phase of the settlement. Of the pottery from structures (partly) dated to second half of the second century AD, over 81% is wheel-thrown. In six structures from this phase (P1, P4, P7, P9, F57 and H6) only wheel-thrown ware was found, but in very small quantities. Comparing the structures we see that both P11 and P17 contain relatively large amounts of tableware (21 and 27%), but this may be a result of their later date rather than a sign of social stratification. Most of the house plans contain less than 15 sherds, only H5, H9 and H13 yielded slightly larger amounts. Of these H5 is the one with slightly more tableware, but the amounts are too small for conclusions. The Zomerhof settlement was built around the Flavian period (see 3.7.2) and there is no evidence for early imports.

Terra sigillata

A total of 22 sherds of *terra sigillata* were found in the area of the Zomerhof settlement, only nine fragments of which were retrieved from features that could be ascribed to a structure. Of the 22 sherds, six were decorated, all bowls of the Dragendorff 37 type. Traces of potters' stamps were still visible on three other sherds. Table 20 shows that the origin of half of the sherds is unknown, but the majority of the others were manufactured in Eastern Gaul during the second century AD. The potters' stamps were worn and fragmented. One (on a plate type Dragendorff 18/31) was completely illegible, another one (on a plate type Dragendorff 31) ended in 'F'. The third stamp (on a plate type Dragendorff 31) was deciphered as BA[ ], which is unfortunately not enough to determine the potter.

Stamped mortaria

Potters' stamps were present on two *mortaria* fragments. One was found in P7, and reads [VAR]IATVS (fig. 59)[3] This is a stamp from the potter Variatus, who worked in Pont-sur-Sambre (near Bavay).

Figure 59. Fragment of stamped mortar (P7). Scale 1:1.

Figure 60. Mortar with two stamps (stray find). Scale 1:1.

A stray find contained two identical stamps from the potter Martialis (MAR[TIALISF] MARTIALISF), who worked in or near Tongres (fig. 60).

3.6.2 Clay objects

Among numerous small fragments of baked and unbaked clay from the Zomerhof settlement were a few finds that could be recognised as (parts of) artefacts. H9 contained a baked clay fragment with one flat surface. No wattle impressions indicating wattle and daub walls were visible, so it may have been part of a floor or hearth. Clay sling pellets were found in B1 and in P6. Clay spindle whorls and loomweights were absent.

3.6.3 Tephrite objects

Many find numbers contained tephrite, in most cases small, worn fragments that may have been remains of quernstones. Recognisable fragments of rotary quernstones were found in H4 and in P17 (part of a top stone with ribbed sides). One of the central roof-bearing postholes of H9 contained a complete used rotary quern: top and bottom stone with diameters of 44 cm and 38 cm respectively. The top stone had ribbed sides, but no handle-hole was present.

3.6.4 Stone objects

The only stone artefacts found in the Zomerhof settlement are whetstones made of quartzite. P17 contained two fragments of two different whetstones (fig. 61). A third fragment with one flat side was made of an unknown type of stone. Other fragments of quartzite whetstones were found in H5, H13 and in the southern part of F70 (just above H9).

3.6.5 Building materials

The only finds that could be classified as building materials are four roof-tile fragments. A *tegula* fragment (140 g) was found in a small pit or posthole north of H8/9. A second fragment came from a ditch documented by local archaeologists, which is not present on the plan of the settlement. The tile (45 g) shows two ridges and is 28 mm thick. The other two fragments were surface finds, consisting of a *tegula* fragment and part of an *imbrex* (together 582 g). The number of tiles is too small to indicate a tiled building. If they were used at all, it was probably a case of secondary use (hearth or floor paving).

3.6.6 Glass objects

Three fragments of glass vessels were found in the Zomerhof settlement. A yellowish-green shoulder fragment of a conical bottle with 'optically blown' ribs (Isings type 55, Flavian period) was found in F70. P1 contained a base fragment of a blue-green cylindrical bottle. The third glass vessel was a surface find, consisting of the lower half of a blue-green ear with part of the shoulder of a square bottle attached. The ear has ten sharps ribs, which date the vessel to the first or second century AD.

Also found in F70 is a fragment of a blue 5-ribbed *La Tène* bracelet (fig. 62). A pit inside the plan of H9, which was not part of the construction, yielded another *La Tène* bracelet; a blue D-shaped fragment decorated with yellow glass paste (fig. 62). A glass 'stone' set in a bronze finger-ring is described under 3.6.7.

3.6.7 Metal objects

Metal finds from the Zomerhof settlement include brooches (bronze and silver), coins (bronze and silver),

Figure 61. One of the whetstones found in P17. Scale 1:2.

Figure 62. Fragments of glass *La Tène* bracelets (found in F70 and H9). Scale 1:1.

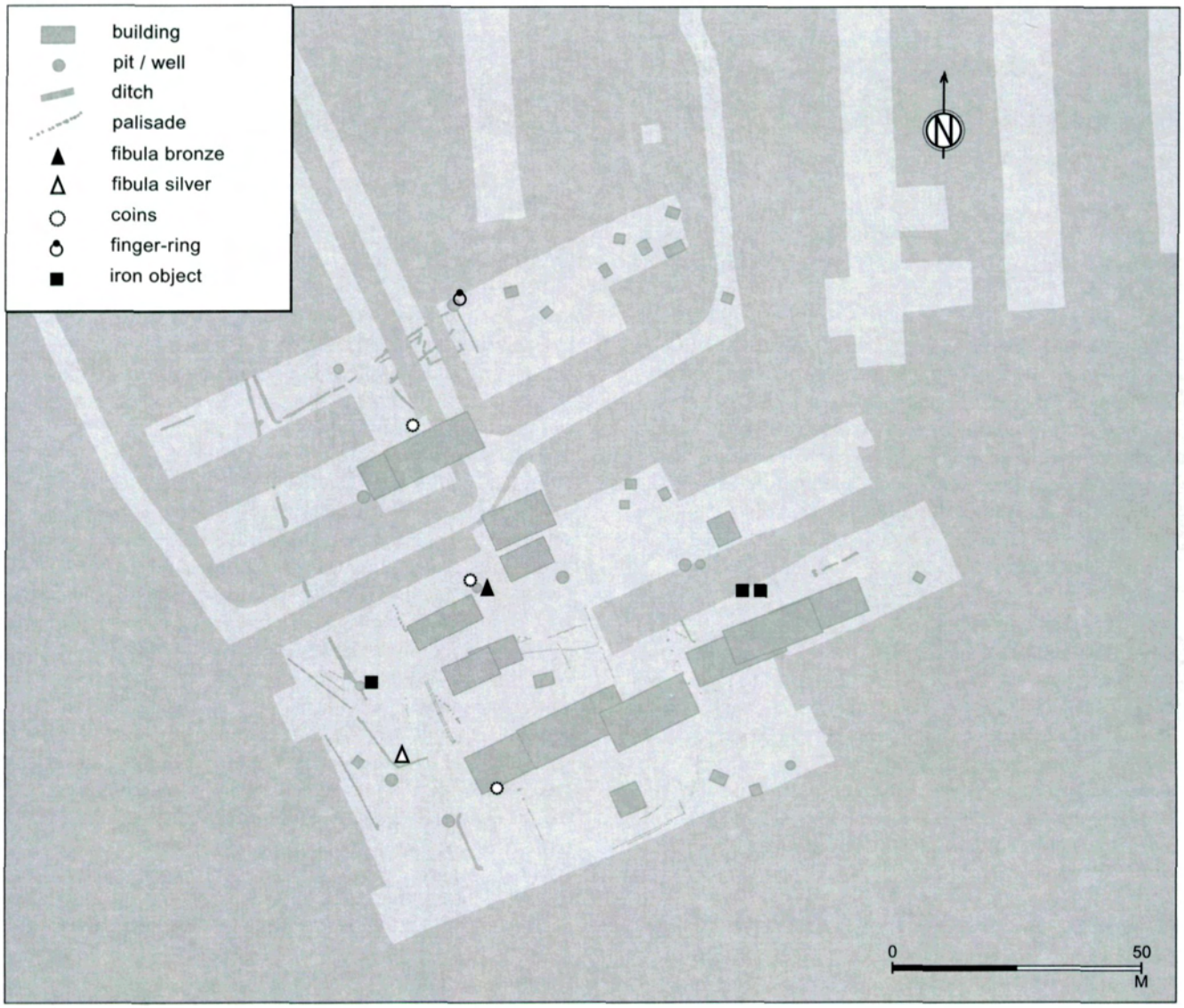


Figure 63. Distribution of metal objects in the Zomerhof settlement.

a bronze finger-ring, iron objects and possibly iron slag (fig. 63).

The Zomerhof settlement yielded three coins (table 21). One was found in a small pit north of H9 that could not be connected to a structure. The coin was too fragmented for further determination. The second bronze coin, found in P6, was an *as* of Titus Caesar (fig. 64). H2 yielded a silver *denarius* of Trajan (fig. 65). Metal detectors were not used systematically, so the original number of coins may have been higher. The silver coin from H2 was lost or deposited

denom.	authority	date	RIC/BMC	find spot	remarks
as	Titus	AD 77-78	RIC 787	P6	Lyons
den.	Trajan	AD 103-111	RIC 167	H2	
?					fragments of bronze coin

Table 21. Coins from the Zomerhof settlement.

Figure 64. Bronze coin (front and back) found in P6 (*as* from Titus Caesar). Scale 1:1.

Figure 65. Silver coin (front and back) found in H2 (*denarius* from Trajan). Scale 1:1.

Figure 66. Bronze wire-brooch (P6). Scale 1:1.

Figure 67. Silver arc-brooch. Scale 1:1.

Figure 68. Bronze finger-ring with glass *nicolo* (P18), height 2.2 cm.

around AD 103 at its earliest, which is a period during which the possession of a silver coin was no longer exceptional. Whether the coin was still considered an 'elite' item, as was the case during the Early Roman Period (Aarts 1994, 142), or already functioned as money in the Roman sense is uncertain. The low number of coins from the settlement does not allow a conclusion on whether the second century AD saw an authentic Roman use of money. Even if this was the case, silver coins may have been saved for larger transactions (Prins 1994, 148), perhaps with an 'elitist' character.

In well P6 a bronze wire-brooch with a slightly hooked upper bow was found (fig. 66). The only silver brooch from Oss was discovered in a small pit just north of the southern 'leg' of F52 (fig. 67). Its nearest parallel is an arc-brooch of a type that developed out of the *La Tène* brooch. However, silver brooches of this type (type E, Almgren 21) are smaller. Haalebos (1986, 30) identified the specimen from Oss as a type B, which is normally made of bronze. The brooch is probably of pre-Flavian origin.[4] Another exceptional object is an incomplete bronze finger-ring, found in P18 (fig. 68). It has a bezel inset with a blue glass *nicolo*, decorated with a figure of a hunter in plain grooves style (dated II). Besides two iron nails (H5 and H13), three other iron objects were found. One was a heavily corroded axe-head (P1), the other two (both in P11) are a knife and a punch-like object. Iron slag was present in very small quantities, but nowhere in an obvious Roman period context.

3.6.8 Leather objects

The only leather object from the Zomerhof settlement was found in P17: half of the back part of a small (children's) *carbatina*, made of cow or calf skin (Van Driel-Murray 1987). It has probably shrunk 10-20%.

3.6.9 Faunal remains

Faunal remains (18 fragments, 68.2 g) were scarce and fragmented. Twelve fragments could be identified, including cattle (N = 8), pig (N = 1) and horse (N = 3) (Lauwerier & IJzereef 1994, 240).
The numbers are too small to draw any further conclusions.

3.6.10 Botanical remains

Botanical samples were taken from two house plans (H1 and H2) and from six pits and wells. They included several cultivated crops, most of which were found in well P9 (barley, emmer, spelt, and rye). This last type of cereal does not have many parallels in Dutch native-Roman settlements south of the *limes*, but it was one of the main crops in Flögeln (Van Amen 1995). Only one sample contained small amounts of rye, and it is thus uncertain whether it was actually cultivated. Other crops were millet, beet (a Roman introduction) and flax. The occurrence of hull fragments means that flax was grown locally, since linseed is usually threshed before transportation. The menu was being complemented by wild fruits, such as blackberries,

blueberries and raspberries, and by nuts and leafy vegetables. Crop weeds and ruderals form a large and varied group, indicating rich fields and well-used farm-yards. Some plants were growing in boggy places within the settlement terrain, probably in or near (derelict) wells.

3.7 Analysis

3.7.1 Size and date

The excavated part of the Zomerhof settlement measures approximately 125 x 125 m, which is roughly 1.5 ha. A modern road prevented the extension of the trenches on the south-eastern side. To the north and east the excavation trenches yielded hardly any Roman period features, which suggests that here the limits of the Zomerhof settlement were reached (Van der Sanden 1987, 59). Since the enclosure indicates the western boundary this implies that the limits of the settlement were reached on three sides. However, it is not inconceivable that at least one more house plan was situated to the north or north-east of the excavated area, where a number of larger areas remained unexcavated. Thus the size of the complete settlement will have been at least 1.5 ha, but was probably larger.

The settlement was in use during the period Id-IIIa, a date based mainly on the Roman wheel-thrown pottery. The starting date of Id makes Zomerhof the last settlement to be established in Ussen, though some of the handmade material may originate from before Id (see 1.3.1). According to Schinkel (1994, part I, 265), there is discontinuity of occupation between the Late Iron Age and the Roman period in the Zomerhof area. In the Late Iron Age settlement XVI, consisting of two 'wandering' farmyards, the youngest farm is still occupied during the first half of the first century AD. Technically speaking this is the Roman period, but the house plan indicated is the uncertainly dated H24. Occupation in the Roman period does not start until Id at its earliest. This is a gap of 50 years 'only'. Schinkel states that the Zomerhof settlement is in use from the second century AD onwards, but this date was based only on the first (not very accurate) dating of the house plans. Taking into account the fact that the Zomerhof area was not completely excavated, continuity of occupation of the site cannot be excluded. There is, however, a shift in location between the Late Iron Age and the Roman period, which is not the case in any of the other Ussen settlements. Moreover, the Late Iron Age settlement XVI is the only one in Ussen where (early) house plans with foundation trenches are lacking, which could be regarded as an argument against continuity.

Pottery from the last quarter of the second century and later was found in three wells and one ditch, including colour-coated beakers (*Qualitätsware* and shiny grey, type Niederbieber 33), plates in 'smoked' Belgic ware and smooth-walled pottery (type Holwerda 1941, 81) and a fragment of a flat bowl in *terra sigillata* (type Dragendorff 32). It is possible that the settlement was already out of use not long after the start of the third century AD. There are no house plans that can be dated to the third century AD, but they could have been present in the unexcavated parts. However, considering the difficulties with dating buildings (see 1.3.2) it is also possible that one or more farms were in use in the first few decades of the 3rd century AD.

3.7.2 Layout and periodisation

The Zomerhof settlement has an organised layout. This can be inferred from the ditched settlement enclosure, the uniform orientation of houses and outbuildings, and the clearly delimited compounds on which houses are rebuilt several times in succession.

The settlement enclosure around Zomerhof is shallow, incomplete, and difficult to date. In earlier analyses of the Ussen settlements (Van der Sanden 1987d, 1987h and 1988), these factors were reason not to acknowledge the ditches as a boundary. At the time, this fitted in with the idea that in Ussen and the Maaskant region, settlement boundaries seemed to be restricted to larger, high-status settlements like that of Westerveld. However, during excavations in 1990 a ditch was discovered which enclosed the small, relatively low-status settlement of Schalkskamp (chapter 5), and later the analysis of the settlement of Oss-IJsselstraat also yielded the presence of a ditched enclosure. Bearing these data in mind, the features from Zomerhof were re-appraised, and the settlement enclosure could be established. Only the western and part of the northern side of the shallow ditched enclosure have been recovered.

Recent studies have shown that shallow ditches like this one, apparently unsuitable for defence, may have functioned as a boundary in other ways (Hingley 1990). Their function can be explained in the context of the social conventions of those who lived within such an enclosure. Thus, a boundary could have served to show status, but could also have been a form of social exclusion, or have ritual purposes. The Zomerhof enclosure seems to be expressing an organised layout, which is visible in other elements of the settlement too. There are no indications of ritual deposits, but creating a boundary is in itself a meaningful act. A hesitant conclusion could be that the structures/areas around the entrances to the enclosure account for a slightly higher amount of finds. This could have been a form of conscious deposition, emphasising the importance of the entrances and hence of the enclosure itself, but since none of the material is exceptional, it probably just reflects more activity in these areas. Further interpretation of these enclosures are discussed in chapter 8.

Three compounds could be discerned, which remained in virtually the same location for the period of *c.* 145 years

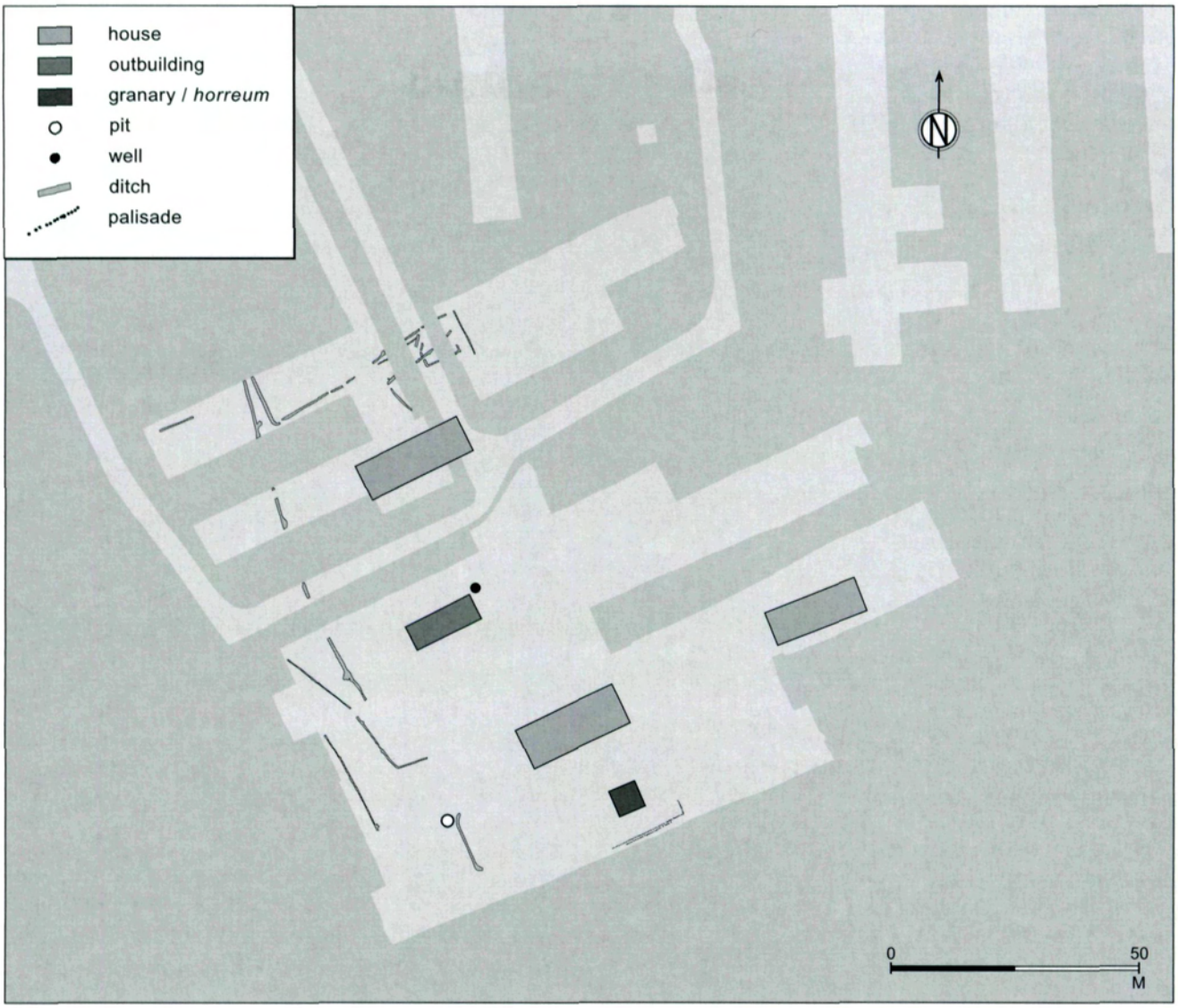


Figure 69. The Zomerhof settlement: phase 1 (AD 70-110).

during which the Zomerhof settlement existed. Each compound contained a farmhouse, probably one or more granaries, and a well. It is not clear whether or not the outbuildings belonged to one particular compound. They may have served communal purposes and as such were accessible to all. Each farmhouse was rebuilt twice, thus dividing the occupation of the Zomerhof settlement into three phases of roughly 50 years each (figs. 69, 70 and 71). These phases do not have clear-cut start and finish dates, but approximately run from AD 70 – 110, 110 – 160, 160 – 225. Since only a few of the granaries or outbuildings can be dated precisely, it is difficult to ascribe them to one of the phases. B1 was probably the first outbuilding, followed by B2/B3. It seems that most of the pits and wells date to the second century AD. However, these dates might have been influenced by later material, which was not separated from earlier fills during excavation.

The sequence of the houses in each farmyard can be established by looking at the finds and the relative dates provided by intersections. In the case of the easternmost cluster the sequence is clear: H4 is followed by H5, after which H6 is built on the same spot. In the neighbouring yard H1 is extended to form H2, after which their successor is H3. For the northern compound the situation is less clear. H9

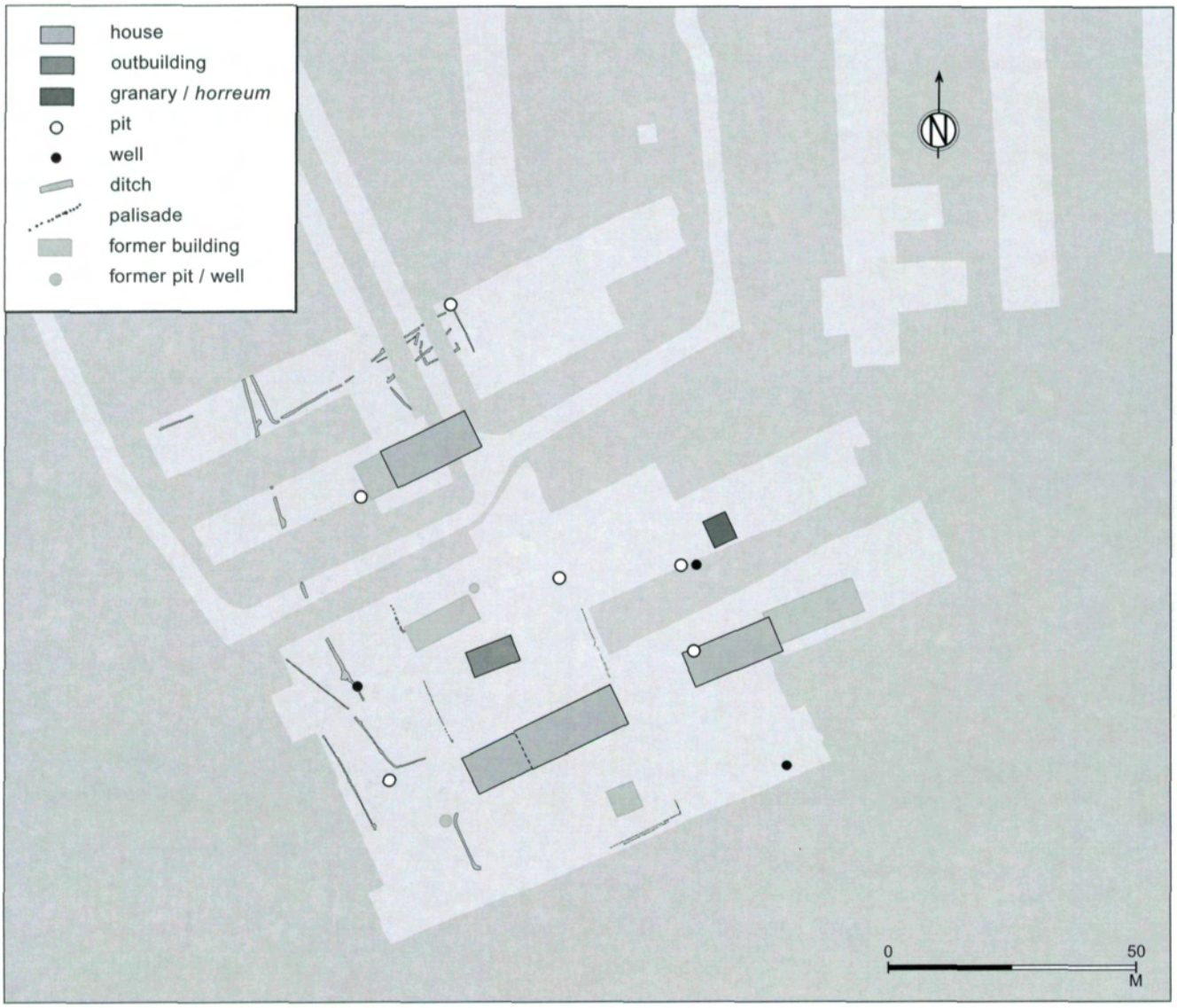


Figure 70. The Zomerhof settlement: phase 2 (AD110-160).

was built after H8 went out of use, H13 is the only house plan of which the relative date remains unclear since it does not intersect with H8 or H9. But, since the plan was dated IIB the sequence was probably H8/H9/H13.

Not all compounds were rebuilt at the same time. Apparently the farmyard containing H1/H2/H3 followed a slightly different pattern, since the main building was rebuilt only once after being first extended. H2 was probably in use before AD 120. The first farm in this yard, H1, is already slightly larger than its two counterparts, and the extension of the building increases this difference in size even more. It is interesting to note that it is the two-aisled part that is extended, which would mean the byre remained the same size. If (possessing large numbers of) cattle were indeed a status indicator (Roymans 1996b), it does not show in this case. Looking at the rows of posts that mark the compounds, there are two fences (F50 and F66) that run straight out from both ends of H2. The area they enclose resembles a 'forecourt', in which one or more outbuildings may have been situated. One of the entrances in the settlement enclosure is located near this compound. If the fences and H2 are indeed contemporary, this suggests that during the second phase (approx. IIa - IIc), the settlement was arranged around a kind of central space apparently associated with one

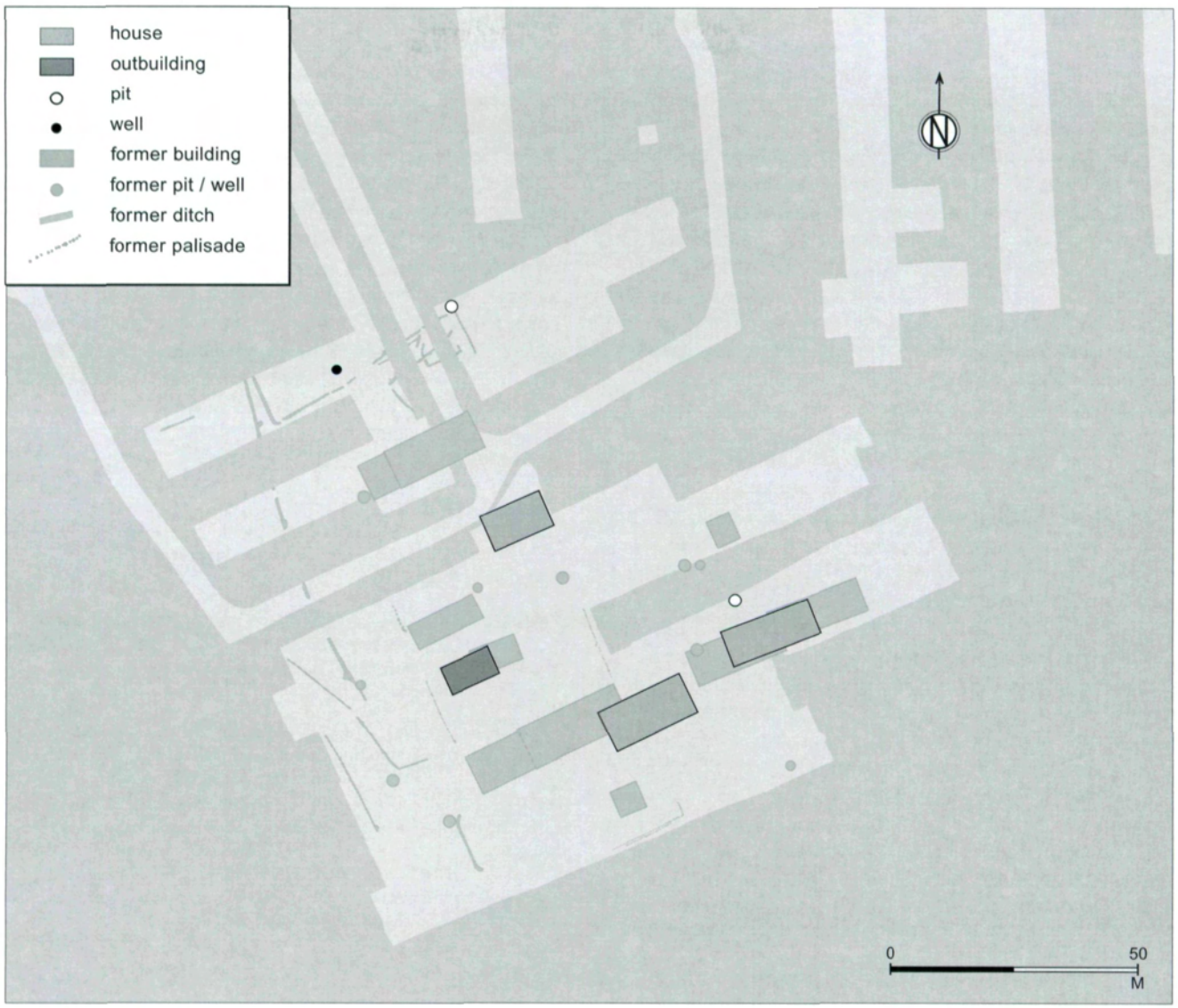


Figure 71. The Zomerhof settlement: phase 3 (AD 160-225).

large building. This situation did not last however: after a generation, the building was replaced by a much smaller farm with a different location.

3.7.3 Development and nature of the settlement

Due to the fact that large open areas were excavated, the character of the Zomerhof settlement as displayed by structures and layout is relatively clear. In the following sketch any extra unexcavated house plans are left out of consideration.

Around AD 70, in an area that has not previously been occupied, three farmhouses are built (fig. 69). All three buildings have roughly the same orientation, but each is built using a different construction. One of the three is slightly larger. The farms are situated close together but in separate farmyards, which are marked off by fences and ditches. Small granaries are present near each farm, a larger specimen is situated close to the southern farm. Between two of the farms is a large outbuilding, possibly serving communal activities. A complete cooking pot of grey ware is deposited in a central roof-bearing posthole, serving as a building sacrifice. Close to this building is a well, lined with wattlework. More wells may have been present. The whole cluster of houses, outbuildings and pits is enclosed by a

shallow, irregularly shaped ditch, which may have been dug after the farms were built. On at least three sides this enclosure has an opening, the northern one shaped to guide cattle out of the settlement, the others serving as entrances for both humans and cattle.

After approximately 40 years the farmyards are still in the same location, but the buildings have been replaced by new ones (fig. 70). The southernmost farm has not been rebuilt completely; instead an extension was added on to the two-aisled half of the existing building. The result is an exceptionally large farmhouse, with two fences enclosing the area to the north of it. In the farmyard an outbuilding is situated, this time closer to the large farm. The other two farms are replaced by larger buildings on almost the same location as before. A rotary quern in one of the postholes of the northern farm might represent a building sacrifice. This seems to be a short-lived growth phase, with large houses and an even more structured layout.

The final rebuilding stage takes place after another 40-50 years, when the northernmost compound shifts *c.* 15 m to the south (fig. 71). The westernmost farm will have been rebuilt earlier since it had only been extended before, and could thus not have lasted that long. The new farmstead is much smaller. When it is built, a drinking beaker is placed in a posthole as a building sacrifice. The outbuilding in that yard is replaced too. In this final phase, all three farmsteads are conspicuously smaller and situated more closely together.

During the final decades of the second century AD, when the last two farms are still in use, a well and a pit are dug on the northern edge of the settlement. Amongst the refuse in these pits is a fragment of a child's leather shoe and a bronze finger-ring. After AD 200 the farms are not rebuilt anymore, at least not on the part of Zomerhof that was inhabited before. Maybe the pits in the north are part of a farmyard that was in use still. Before the middle of the third century AD the whole Zomerhof area ceases to be occupied.

The Zomerhof settlement is a small group of farmsteads with an organised layout. Possibly it has been set up by direct descendants of the inhabitants of the other, older hamlets, at a time when structuring settlement space is already common practice. Access to Roman goods is possible from the start, and increases slightly, although no exceptional material was found. The inhabitants of the Zomerhof settlement are self-supporting, practising mixed farming. Next to crops such as barley, emmer, spelt and possibly even rye, they grow flax and gather wild fruits and nuts. In the first phases of the settlement there may be some indication of a slight social stratification, but after AD 150 there is no sign of hierarchy anymore and the settlement has become smaller and less structured.

notes

1 Co-ordinates 162.36/419.30 (Topographical map of the Netherlands, sheet 45E).

2 Schinkel (1994, part I, 192) suggests that H24 was the last farm of a Late Iron Age settlement, built during the first half of the first century AD, but this is based on the assumption that the Roman pottery fragment was cork urn (dated IA).

3 This stamp should not be read as [BRAR]IATVS, because of a small extra mark on the right leg of the A.

4 The silver arc-brooch could very well have been made out of two melted-down silver *denarii* (suggestion M. Erdrich). The weight of a first century *denarius* is 3.8/3.9 g (before Nero's reform of AD 64) or 3.2/3.5 g (after AD 64) (Sutherland 1984). Two *denarii* would thus weigh anything between 6.4 and 7.8 g. The brooch weighs 5.75 g, but the needle and part of the spring are missing.

4. The Westerveld settlement

The largest excavated settlement in Ussen is known as Westerveld; again the name originates from a field toponym. Discovered in 1980, this was the first part of Ussen to be excavated prior to the building activities instead of during the monitoring of the road trenches. This means that an open-area excavation could be aimed at. During various campaigns between 1980 and 1984, approximately 5 ha were unearthed.[1] Because of the presence of a rectangular enclosure, the original size of the settlement could be estimated at 7.5 ha. Gaps in the settlement plan were caused by an already existing road (the Gewandeweg), running northwest to southeast through the settlement, and by several modern buildings in the eastern part (fig. 72). The Westerveld settlement is situated northeast of the Vijver cluster, *c.* 200 m to the west of the Kennedybaan (fig. 3).[2]

A total of 37 house plans, seven outbuildings, between 13 and 116 granaries, 131 pits and wells and 43 (fragments of) ditches and palisades were excavated (fig. 72). Special features are a large rectangular enclosure marking the boundaries of the settlement and a smaller rectangular ditched structure, which has been interpreted as a rural open-air sanctuary (Slofstra/Van der Sanden 1987, 131-135). Because of the rectangular enclosure, there is no doubt as to which houses belong to the Westerveld settlement. No house plans were found outside the enclosure, but this may be due to the fact that only a small area outside the enclosure was excavated.

4.1 House plans

At the Westerveld settlement, 37 Roman period house plans were found, three of which were dated to the Late Iron Age or the Roman period. The dating of the individual house plans, mainly derived from the wheel-thrown pottery and complemented by intersections, is varying as far as accurateness is concerned. The majority of the plans cannot be dated more precisely than to a period of 50 to 100 years. No house plans were found outside the enclosure, nor were any of the house plans intersecting the enclosure ditches. All house plans belong to the types 7, 8 or 9 (table 22). H89 was incomplete to such an extent that the plan could only be classified as a type 6, 7, 8 or 9. However, since no other type 6-plans were found in the Westerveld settlement, it is unlikely that this plan should be the only specimen.

Orientation of the house plans is either west-east (29 house plans) or north-south (eight house plans). A northeast-southwest orientation, present in both the Vijver and the Zomerhof settlements, is absent. Schinkel (1994, part II, 8) notes that for Oss(-Ussen) the orientation of the house plans seems to be connected with period rather than with housetype. In all of Ussen, only eight house plans show a north-south orientation. These are the eight Roman period plans from the Westerveld settlement. Because of the lack of well-dated house plans, it is not possible to link the north-south orientation to a phase within the Roman period. Dates from north-south-orientated plans range from the pre-Flavian period to the first half of the second century AD (table 23).

Several times houses were rebuilt on the same location. In two cases houses were rebuilt twice on the same spot, and in both cases a change in orientation took place. H70 (north-south) was succeeded by H71 (west-east), which in its turn was overbuilt by H69 (north-south). H109 (north-south) succeeded H108 (west-east), and was succeeded by H110 (west-east).

The length of ten of the 37 house plans is unknown. The mean length of the other 27 is 24.8 m, but three of the incomplete plans are longer than that. The shortest complete house plan recorded in the Westerveld settlement (H119) has a length of 12 m, the longest specimen (H98) has a length of

type	6/7/8/9	7/8/9	7A	7B	7C	8	8A	8B	8C	9	9A	9B	9C	total
number	1	1	3	3	1	1	2	4	6	4	7	2	2	37
total	1	1		7				13				15		37

Table 22. House plans from the Westerveld settlement: number of house plans of each (sub)type.


house
outbuilding
granary
pit / well
ditch / palisade
0
100
M
S471
S454
S456
S455
S468
S453
S457
S467
S452
S461
S466
S458
S435
S436
S459
S437
S464
S465
S470
B12
H118
H119
S469
H121
H111
S438
H117
S462
H120
S460
S463
H115
S419
S418
H106
H105
H101
H116
S410
H104
H95
H94
S417
S397
S420
H110
S409
S408
S394
S406
S416
S480
S405
H109
S393
S396
S398
S407
H108
H96
H98
H99
B11
S384
S399
S400
S404
S403
S385
S383
S387
S391
S411
S401
S413
S382
S390
S388
S392
B10
H78
S402
S350
H69
S389
S486
S338
S342
S351
S386
S311
B6
S339
S356
S340
S343
S353
S358
H89
H71
S320
S323
S324
S312
S315
S355
S357
H70
S322
H82
H75
S313
H76
S325
S310
S344
S316
S319
S336
S335
S309
S326
S347
S346
S354
B8
S308
S314
S333
S348
H85
H74
S334
H90
S306
H72
H80
H84
S305
S349
S331
B9
S304
S317
S332
S302
S303
S318
S360
S327
S329
H79
S363
S321
S328
S330
B5

Figure 72. The Westerveld settlement (left: with numbered houses, outbuildings and granaries, right: with numbered pits, wells, ditches and palisades).

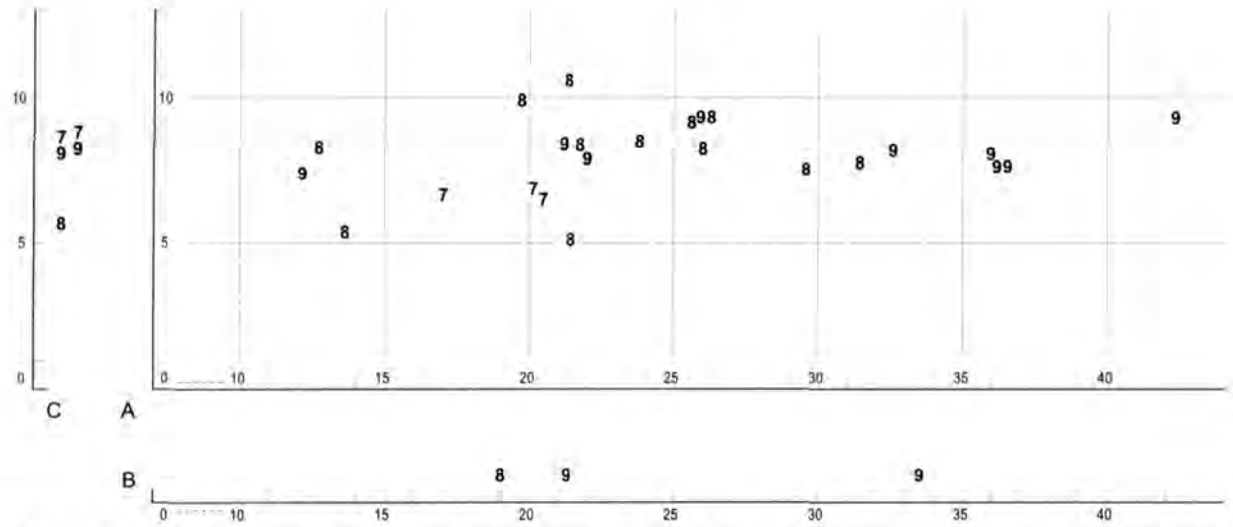


Figure 73. Size of Roman period house plans (numbers indicate types) from the Westerveld settlement. A. vertical: width, horizontal: length, B. length only (width unknown), C. width only (length unknown).

No.	type	length (m)	width (m)	orientation	date	dendro
H69	7A?	20.5	6.5	N-S	IIa	
H70	8A	29.6	7.4	N-S	Ic	
H71	9A	22.0	7.9	W-E	Id	
H72A	7B	>24.0	9.1	W-E	I	
H72B	7C	>35.7	8.5-9.1	W-E	Id	
H74	9A	26.0	8.2	W-E	Ib-c	
H75	8C	19.0	>10.5	W-E	Id	
H76	8C?	>11.2	5.8	W-E	LIA/pre-Flavian	
H78	8C	21.4	10.5	W-E	Id-IIA	
H79	7A	20.1	6.9	N-S	Id-IIa	
H80	8C	21.8	8.3	W-E	LIA/pre-Flavian	
H82	9A	21.3	>7.3	W-E	I	
H84	8C	19.8	9.8	W-E	IIA	
H85	8	21.4	5.1	W-E	IIA	
H89	6/7/8/9	>3.0	>4.9	W-E	pre-Flavian	
H90	8B?	31.5	7.7	W-E	Id-IIa	
H94	9	>10.2	>6.9	N-S	Id-IIa	
H95	7/8/9	>5.3	>5.5	N-S	pre-Flavian	
H96	9C	36.0	8.0	W-E	IB	
H98	9C	42.3	9.2	W-E	Ic	
H99	8B	25.6	9.0	W-E	Id-IIa	
H101	8B?	26.3	9.2	W-E	pre-Flavian	12 BC
H104A	8B	12.7	8.3	W-E	Ib-c	AD 53
H104B	9A	32.5	7.4-8.3	W-E	RP	
H105	9A?	25.8	9.2	W-E	Id	
H106	9A	23.8	8.4	W-E	Id-IIa	
H108	9	33.5	>6.8	W-E	LIA/pre-Flavian	
H109	9?	>27.7	8.1	N-S	I(B)	
H110	9A	21.2	8.3	W-E	Id	
H111	7B	>18.5	>9.1	W-E	Id	AD 79
H115	9	>31.6	8.3	W-E	Id-IIa	
H116	7B?	17.0	6.7	W-E	I	
H117	9B?	36.3	7.4-8.2	W-E	Ic-d	
H118	8C?	13.7	5.2	N-S	Id-IIa	
H119	8A	12.0	7.4	N-S	IIA	
H120	9B	36.2	7.9	W-E	II	
H121	7A?	>4.5	7.5	W-E	II	

Table 23. House plans from the Westerveld settlement. Date: LIA = Late Iron Age (phases I-L), RP = Roman period.

Figure 74. House 69. Scale: plan 1:200, posthole depths 1:100.

42.3 m. Comparing these numbers with the lengths and widths of all the Roman period house plans (fig. 73), it is clear that the houses from the Westerveld settlement were considerably longer than the average Roman period house plan from Ussen.

House 69

Because the central roof-bearing posthole may have disappeared under a recent disturbance, H69 can only be characterised as a possible type 7A (fig. 74). The foundation trench has been partially disturbed so that the exact location of the entrances is unclear. The characteristic location however, opposite each other in the long walls, is not possible. H69 intersects H70 and H71, both of which are dated to the second half of the first century AD. Finds include 33 fragments of handmade pottery and three wheel-thrown sherds. A combination of intersections and pottery yields a possible date of IIa.

House 70

The plan of H70 is the best and most complete example of a type-8A building (fig. 75). It is two-aisled with a total of six central roof-bearing posts, and posts all around the outside. The foundation trench has survived almost completely, showing only one clear entrance in the northern short side. A possible second entrance in the western long side is obscured by a pit (P475). H70 is intersected by H69 and H71. Combined with the pottery, that dates the plan to the second half of the first century AD, probably just before the Flavian period. A group of 45 handmade sherds includes fragments with fingertip and groove decoration, while the wheel-thrown pottery consists of 18 fragments. Besides the pottery, two iron nails were found.

House 71

Only the eastern short wall of H71, a type 9A, was disturbed (fig. 76). The majority of the western external posts are absent. In four of the postholes, remnants of oak roof-bearing posts were found. One of the roof-bearing posts (find no. 5385) was resting on an oak plank. A pointed wooden stick was found in the fill of the foundation trench. The finds consist of 94 fragments of handmade pottery and 16 wheel-thrown sherds, including two pieces of cork urn. The finds date the plan to the second half of the first century AD,

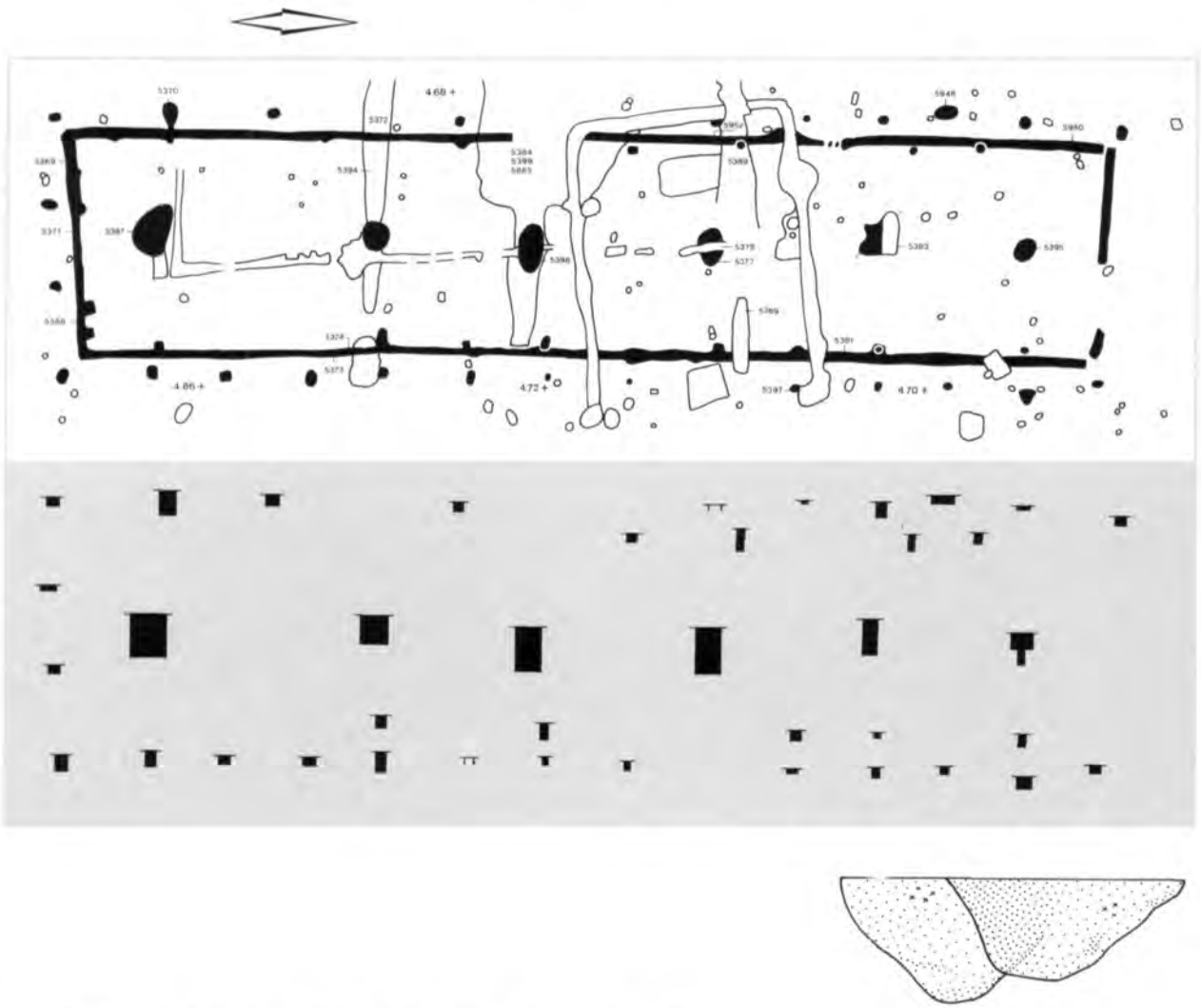


Figure 75. House 70. Scale: plan 1:200, posthole depths 1:100, section 1:30.

which can be reduced to Id by the intersections with H70 and H69.

House 72A

The foundation ditch, which is placed between double wall posts, is only present on the western side of this plan (fig. 77). The eastern half of the plan has two central roof-bearing posts and only a few external posts. Finds include 56 fragments of handmade material and 16 wheel-thrown sherds. Furthermore three iron nails were found.

House 72B

H72B is in fact an elongated version of H72A, which had an extension added to the west side (fig. 78). The most western part of the extension was not excavated. The combination of two type-7B plans makes this the only representative of type 7C: a two/one/two aisled plan with a length of more than 35 m. The finds from the extension, combined with the date of H72A, give the total plan a date of Id. They include 16 fragments of handmade ware and seven wheel-thrown sherds.

House 74

H74 is the most complete example of a type-9A plan (fig. 79). It has the usual two central roof-bearing posts in the western part, and three sets of double roof-bearing posts. Besides the entrances in the long walls there is a third entrance in the eastern short side, possibly functioning as a byre entrance. This plan has yielded a large number of finds:

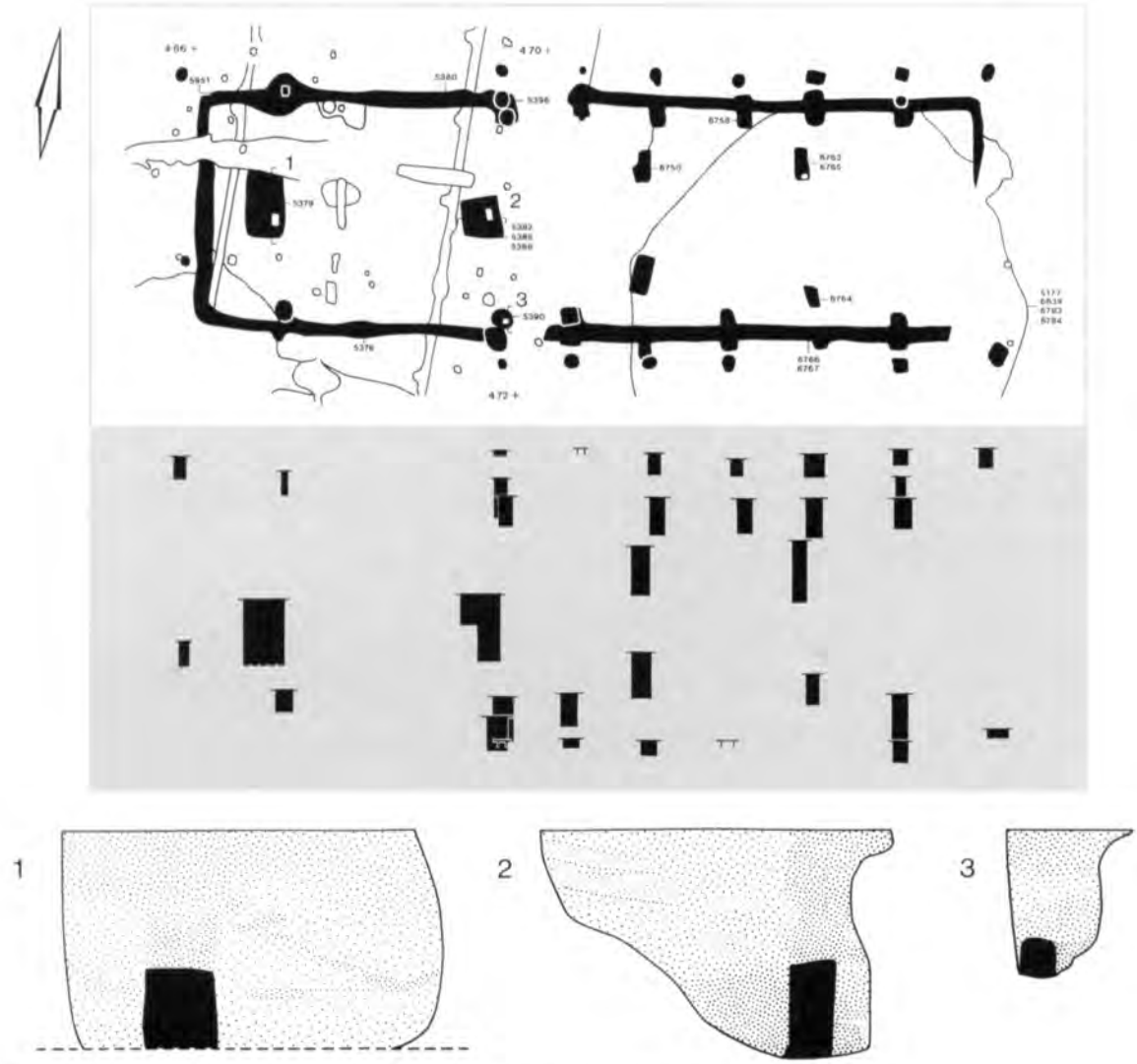


Figure 76. House 71. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

981 fragments of handmade pottery and 94 wheel-thrown sherds, including 20 fragments of cork urn and a complete smooth-walled jug type Hofheim 50/51 (AD 40-80), which may have been a building sacrifice. Other finds are two bronze *Augenfibel* (dated before AD 40) and (fragments) of eleven iron nails.

House 75

A sub-recent ditch has disturbed the southern wall of H75, and there are no external posts on the short sides (fig. 80). Wood was preserved in one of the postholes: the remnants of a central oak roof-bearing post (find no. 5167). The features yielded 29 fragments of wheel-thrown pottery and 184 handmade sherds, including so-called thin red coastal pottery (Van den Broeke 1996). Other finds included 14 iron nails and a (possible) fragment of a roof-tile.

House 76

The larger part of H76 has disappeared under a sub-recent ditch (fig. 81). No posts could be documented externally, and it remains unclear whether the western short side is complete. If it is, the plan would be one of the shortest in the Westerveld settlement, and might have to be classified as an outbuilding. The most western roof-bearing posthole contained oak (find no. 5189). H76 is intersected by H75, and contained 52 handmade sherds and some grit from coastal pottery.

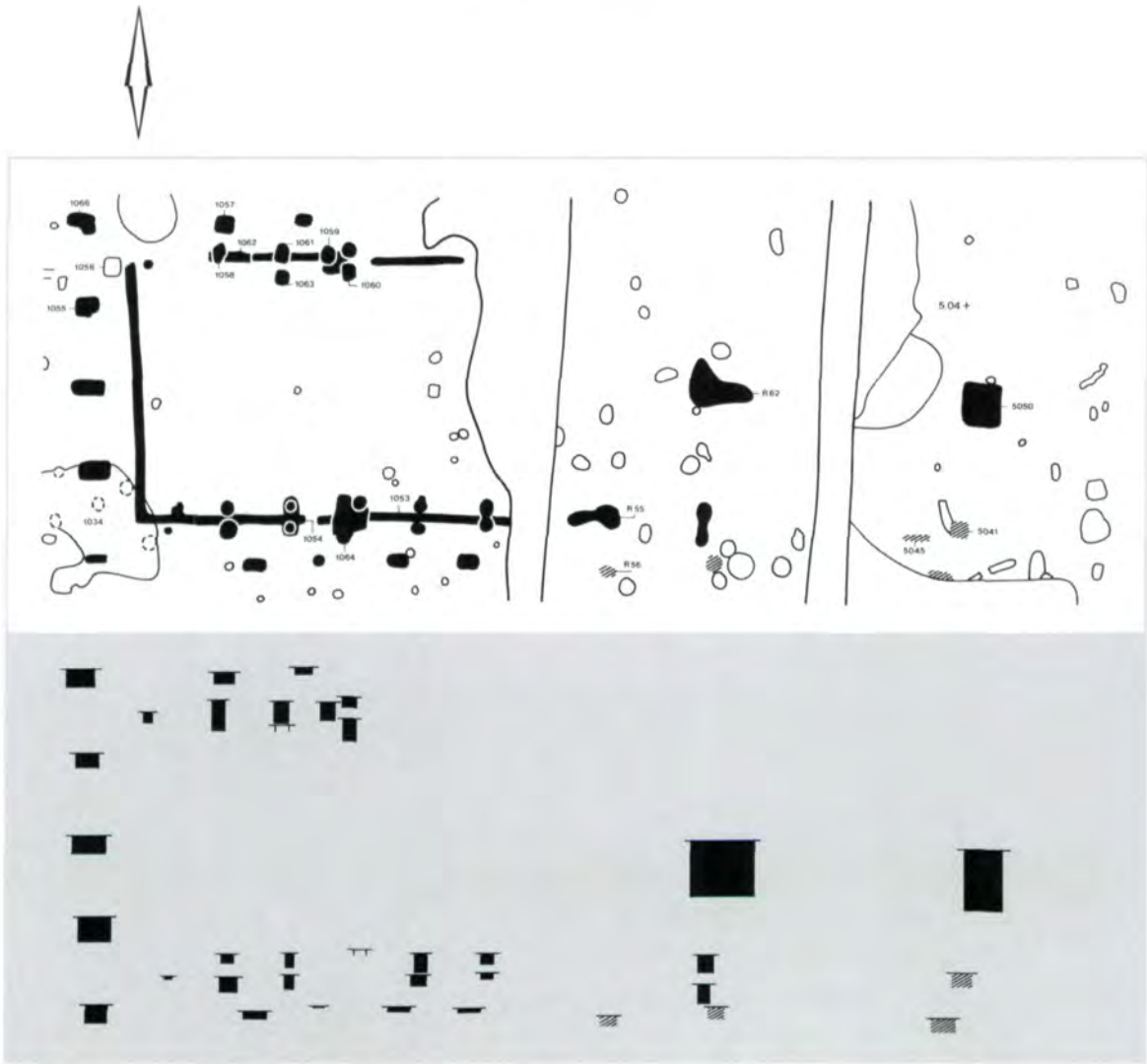


Figure 77. House 72A. Scale: plan 1:200, posthole depths 1:100.

House 78

H78 is an exceptional house plan. It is a complete type 8C, but instead of exterior posts a series of short trenches were lying at rights angles to the foundation trench (fig. 82). The sections of these trenches showed them to be bowl-shaped, while their deepest points were in line with the walls of the plan. Possibly the trenches contained posts, forming a kind of *porticus* all around the building. This situation is different from the regular roof-bearing exterior posts, as seen in other house types from Ussen, including type 8C. The trenches around H78 are much deeper (average depth 70 cm), suggesting that the posts standing in them were longer and supported more weight than the average exterior post. The extra weight might also have been caused by roof-tiles, which could have covered the roof of the *porticus*. Fragments of tiles were found in a nearby well (P300) and in some of the features from the plan itself. It is however uncertain whether the roof was tiled (see chapter 4.7.5).

Remnants of three central oak roof-bearing posts were found, one of which (find no. 5407) was resting on an oak plank. The amount of pottery from this plan is not only large (432 fragments of handmade pottery and 280 wheel-thrown sherds), but also shows a wide variation. The wheel-thrown ware includes a lot of *terra sigillata* and other tableware (see appendix I), dating the plan Id-IIA. Other finds are a

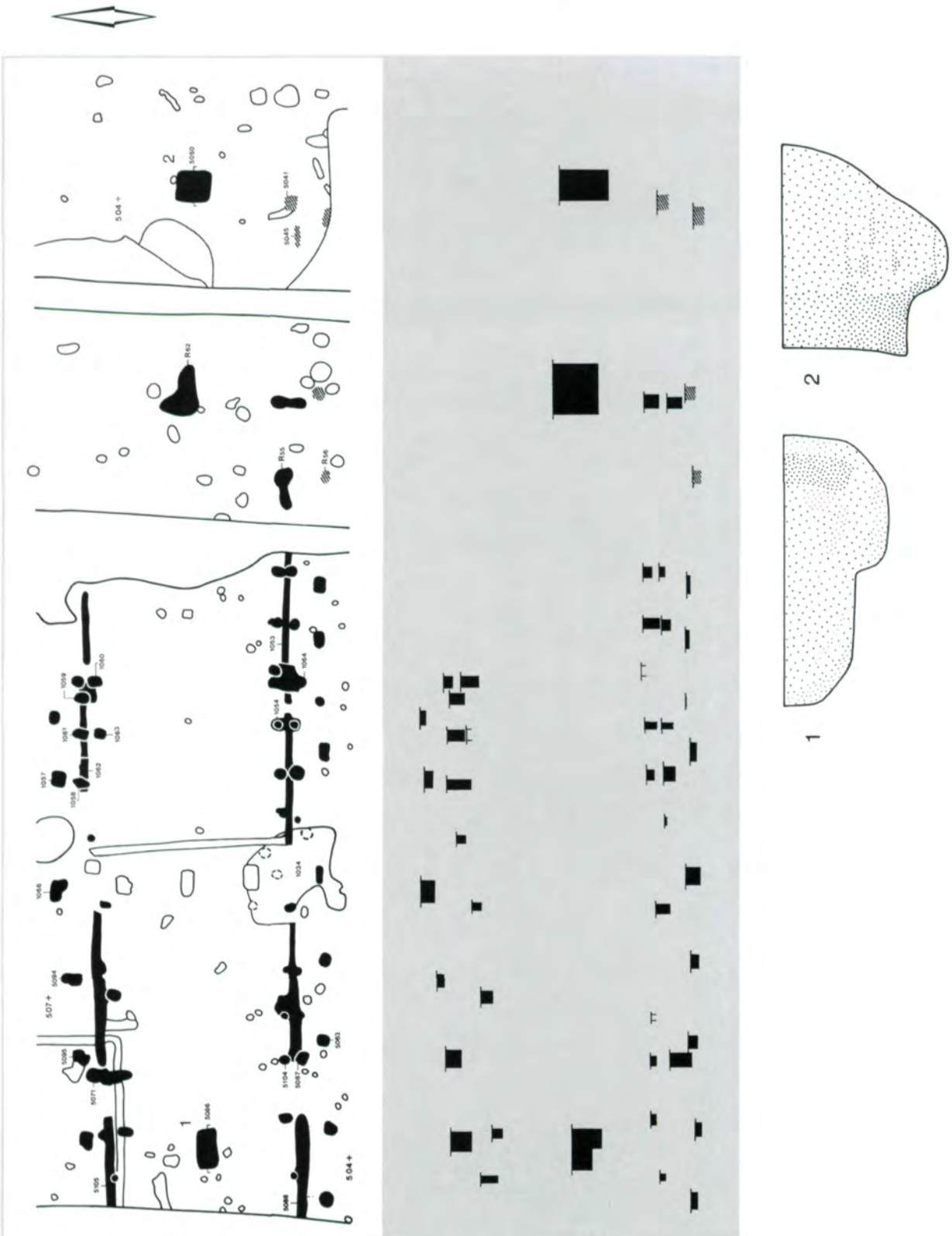


Figure 78. House 72B. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

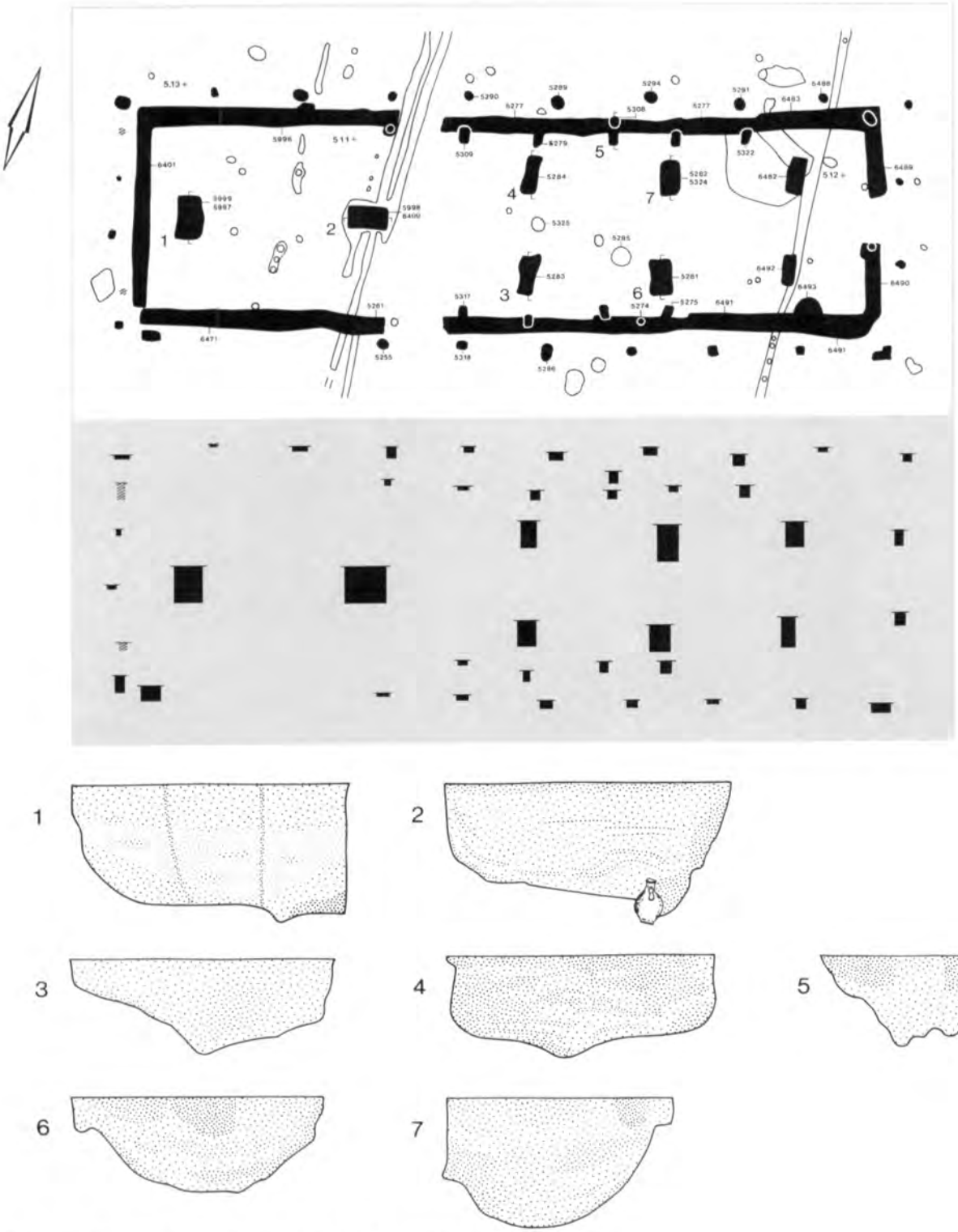


Figure 79. House 74. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

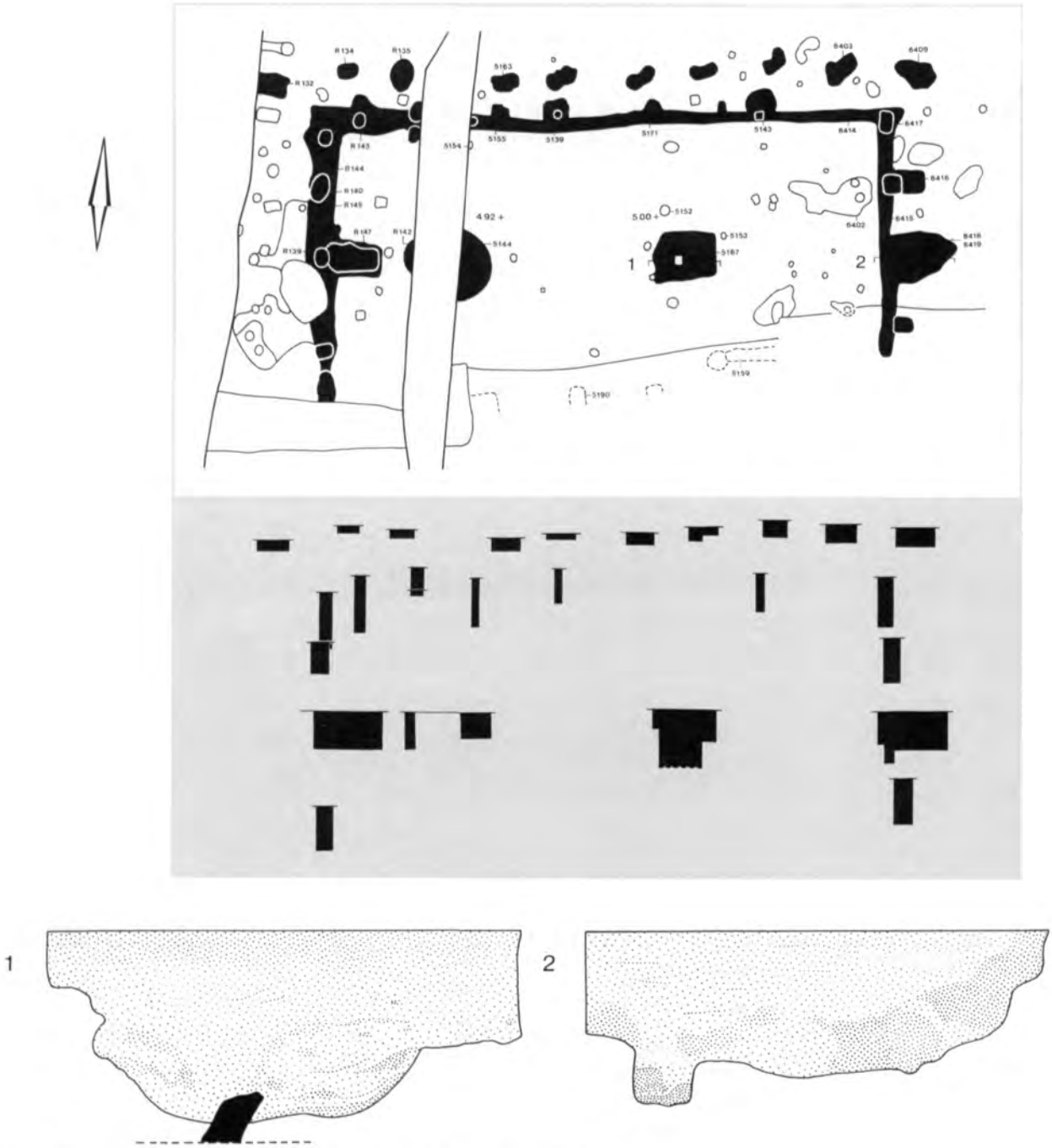


Figure 80. House 75. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

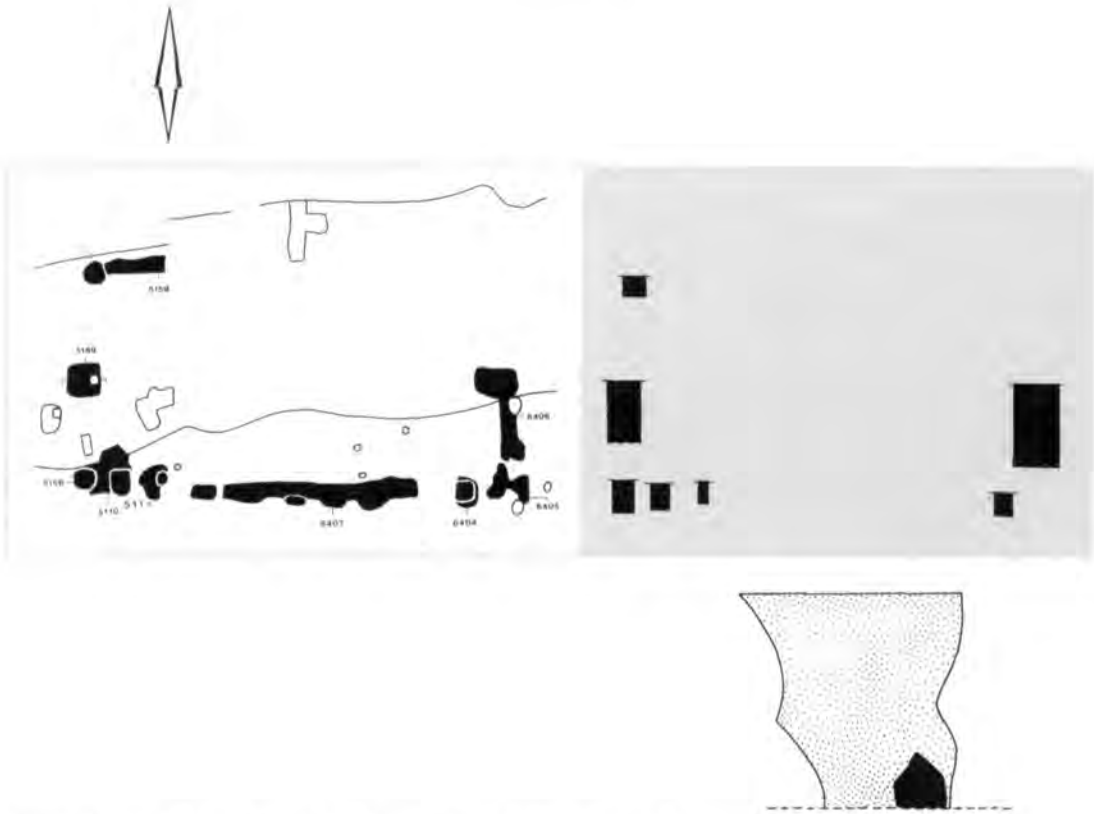


Figure 81. House 76. Scale: plan 1:200, posthole depths 1:100, section 1:30.

fragment of a glass *La Tène* bracelet, 38 (fragments of) iron nails and 22 fragments of (roof) tiles.

House 79
The short walls of H79 are missing, while the north-east corner has been disturbed (fig. 83). What remains is a type-7A plan. The single central roof-bearing post was resting on a wooden plank (wood species unknown). The postholes from the posts standing in the foundation trench were clearly discernible. A deviating aspect of this plan is its north-south orientation, which occurs only a few times in Oss (Schinkel 1994, part II, 10). Just 12 handmade sherds and three fragments of wheel-thrown pottery were found. The only other find besides the pottery was an iron nail.

House 80
The plan of H80 is a type 8C without exterior posts (fig. 84). Only one post, embedded in a narrow ditch on the short western side, could possibly qualify as an external post. Next to the usual set of entrances in the long walls there is a third, narrow entrance at the western end of the southern long wall. All four postholes that held central roof-bearing posts still contained remnants of the wooden posts themselves. Twice, the species of these remnants could be determined as oak. This is one of the two type-8C plans that could be dated to the Late Iron Age and/or the pre-Flavian period. In this case, the date is mainly based on the pottery ratio: 232 fragments of handmade pottery were found, as opposed to only three wheel-thrown sherds. In addition, 24 of the handmade sherds showed characteristic decoration. Besides the pottery, four iron nails were found.

House 82
The northern half of H82 was disturbed by a recent ditch (fig. 85). The plan, a type 9A, has an additional third entrance in the north-eastern short wall. Of the 84 pottery fragments found, 81 were of the handmade kind and three came from wheel-thrown pottery.

House 84
H84 has a complete type-8C plan, though the possible entrances have been disturbed by (sub)recent ditches (fig. 86). Wood (oak) was found in one of the central postholes.

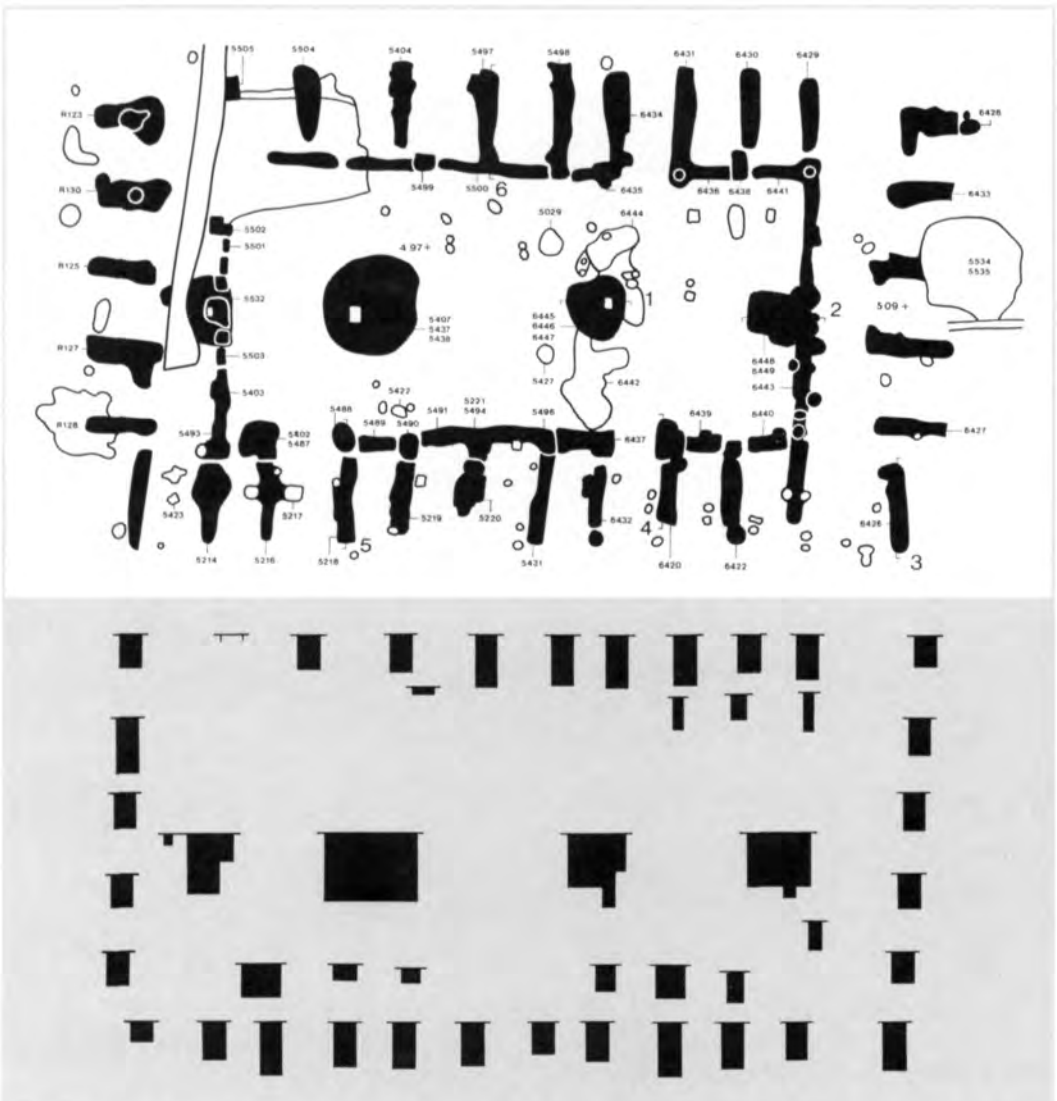


Figure 82a. House 78. Scale: plan 1:200, posthole depths 1:100.

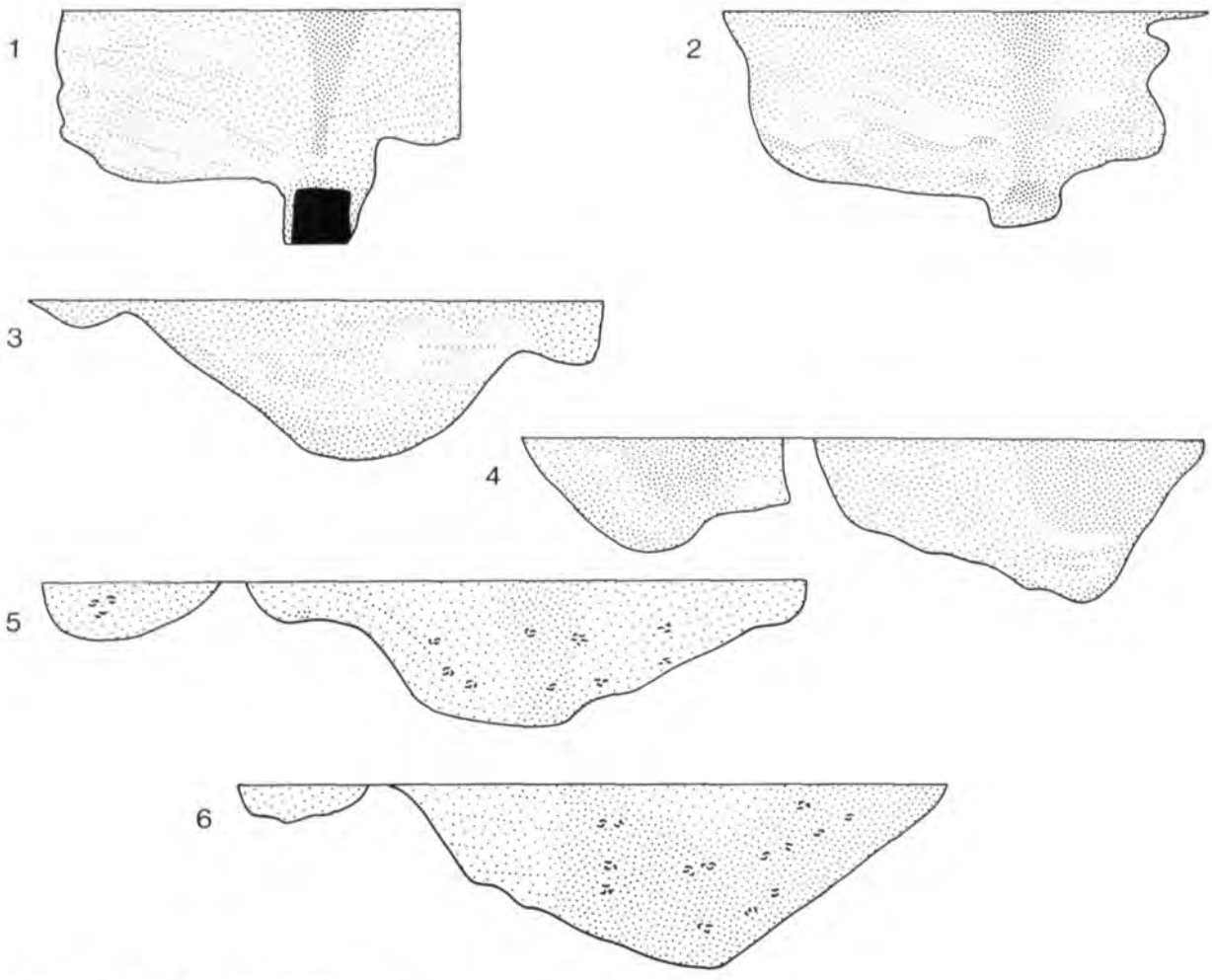


Figure 82b. House 78. Scale: sections 1:30.

A group of 15 handmade sherds and six fragments of wheel-thrown pottery account for a date in the first half of the second century AD. Furthermore an iron nail and fragments of slate were found.

House 85

H85 is a rather incomplete house plan (fig. 87). The deep-founded central roof-bearing posts were sufficient for a type 8. Exterior posts as well as any trace of the wall are missing, so that no further classification can be given. The row of postholes yielded 12 handmade sherds, two fragments of wheel-thrown pottery, some slate and a lead disc (possibly a spindle whorl).

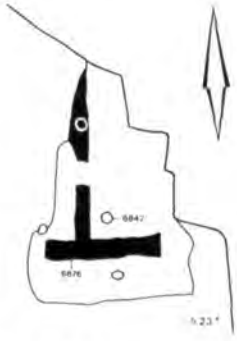


Figure 88. House 89. Scale 1:200.

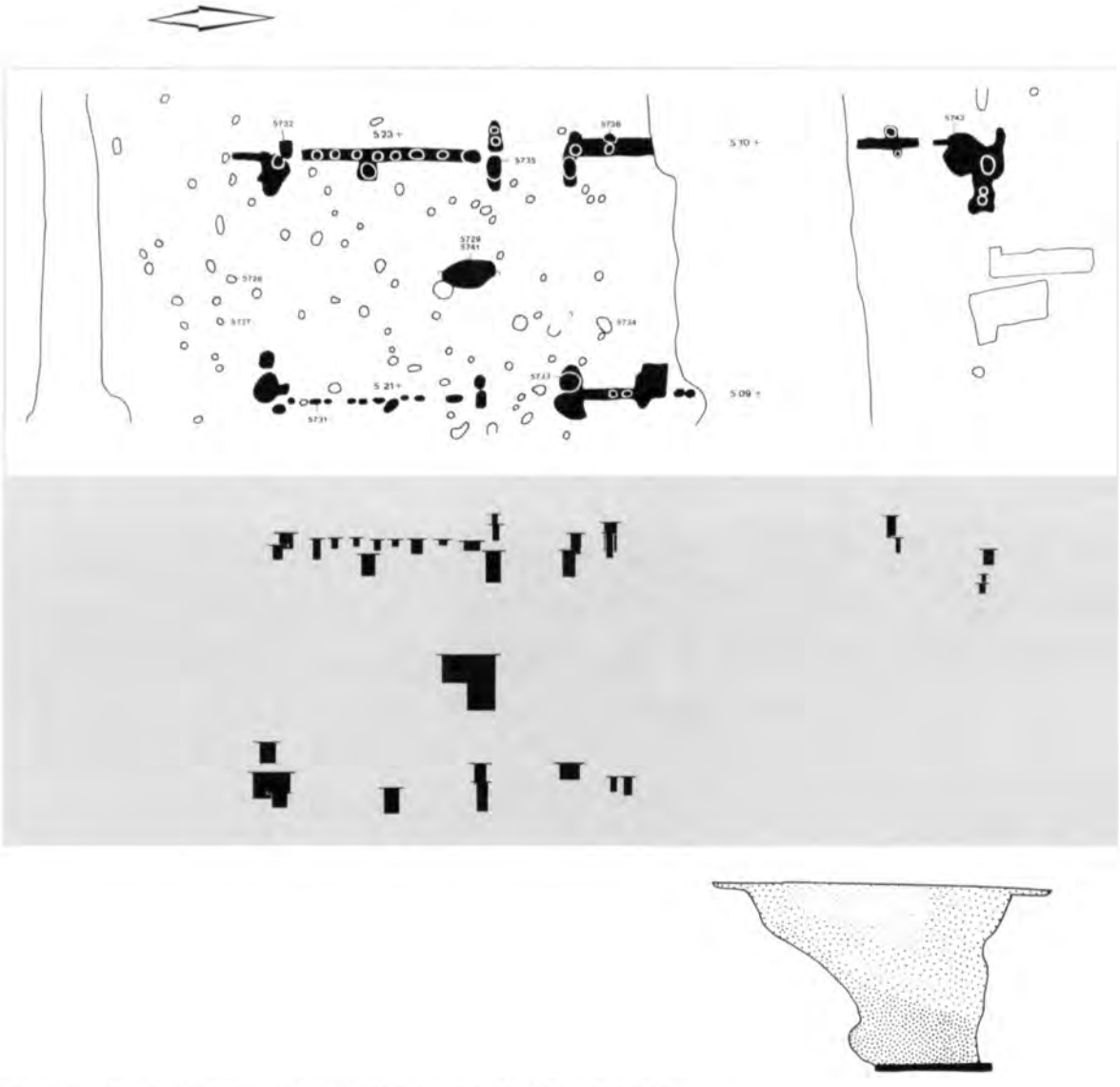


Figure 83. House 79. Scale: plan 1:200, posthole depths 1:100, section 1:30.

House 89

H89 consists of just a very small fragment of a foundation ditch that probably belongs to a house plan (fig. 88). Type 6, 7, 8 and 9 are all among the possible types for this fragment. Surprisingly enough the small feature yielded two brooches: one a complete *Augenfibel* and the other a fragment of a bent brooch (*Knickfibel*). No other specimens of the latter type were found in Oss (Lawende 1995, 6, see also 4.7.7).

House 90

The foundation ditch of H90 is missing in several places, so that the location of entrances is uncertain (fig. 89). Furthermore, no exterior posts were observed, and a fourth central roof-bearing post could have been disturbed by a recent pit. The remaining features classify as a possible type 8B. Besides some slate, 52 fragments of handmade pottery and 14 wheel-thrown fragments were found.

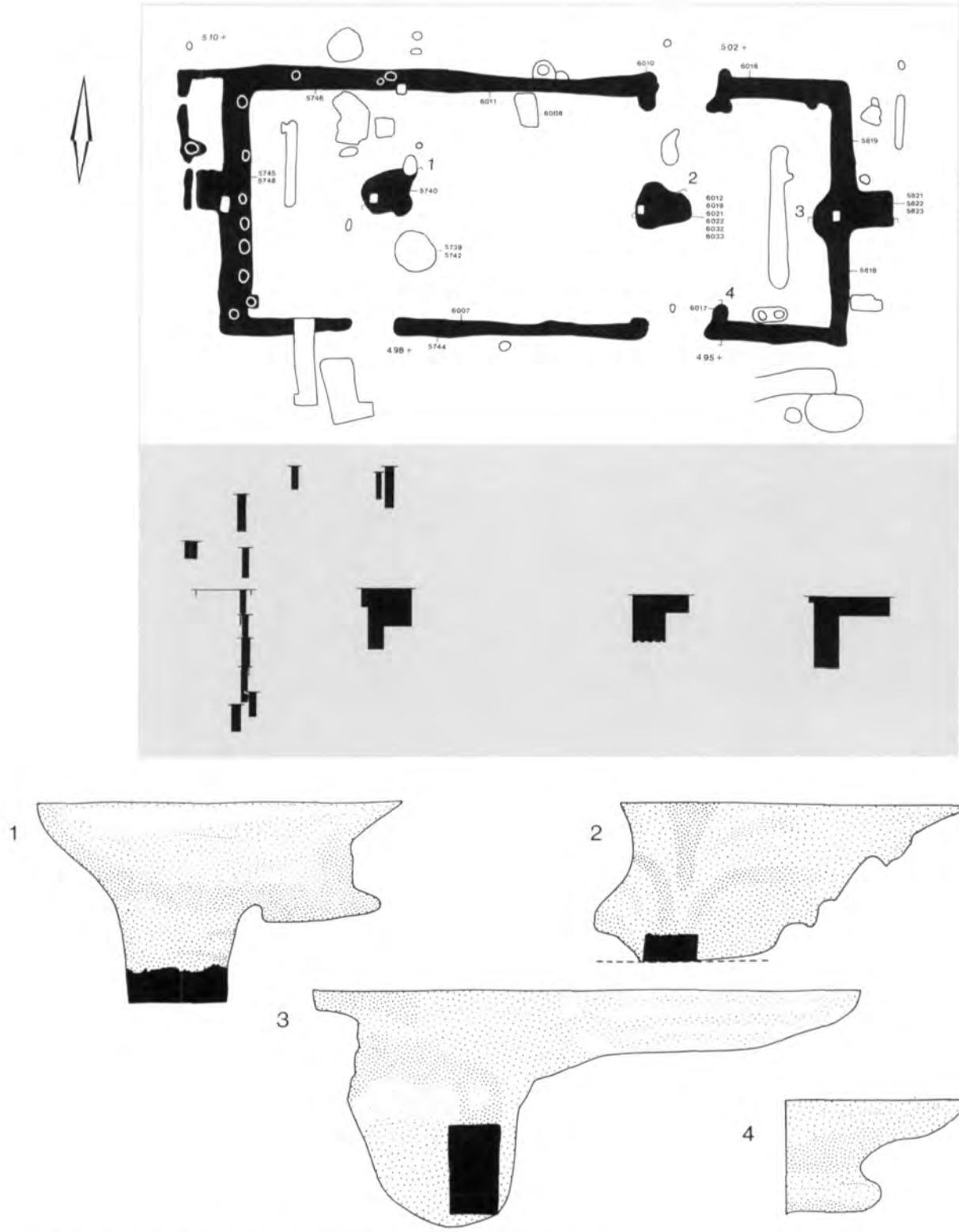


Figure 84. House 80. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

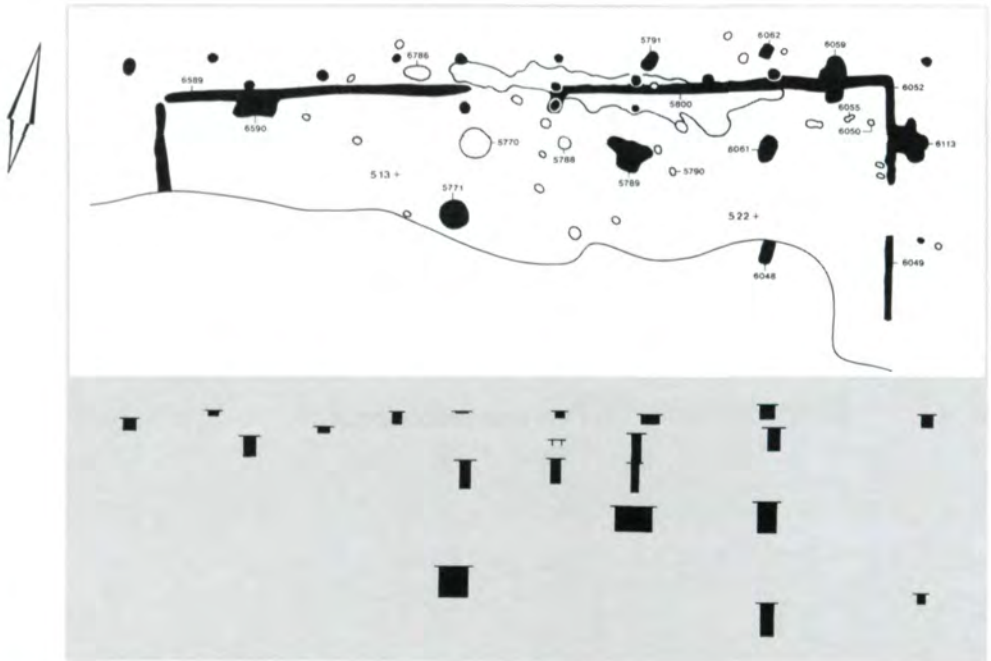
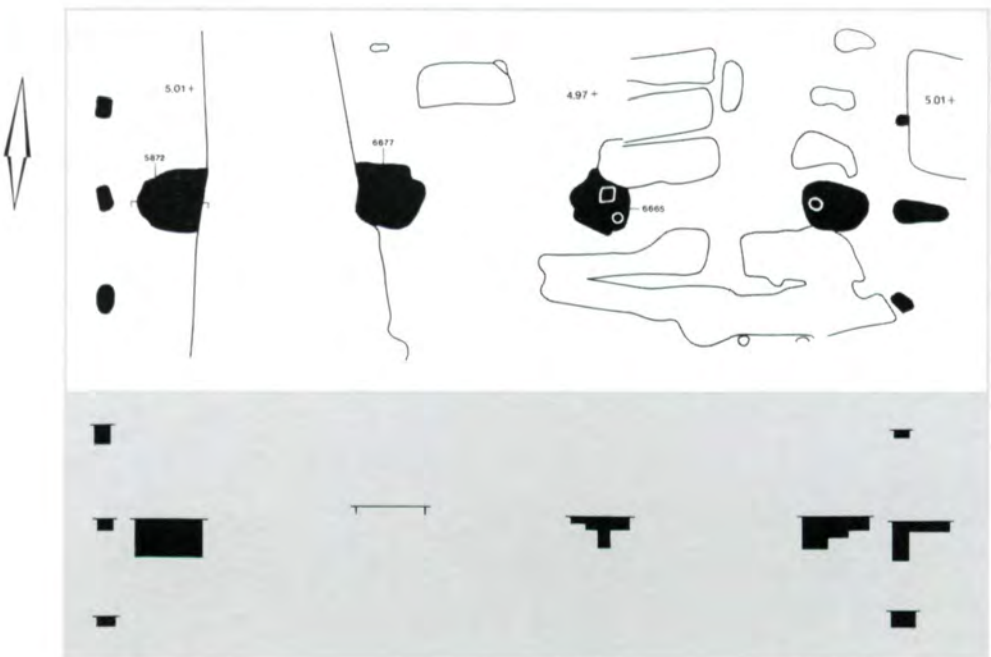


Figure 85. House 82. Scale: plan 1:200, posthole depths 1:100.



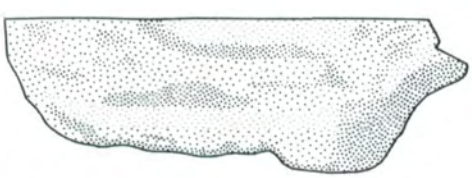


Figure 87. House 85. Scale: plan 1:200, posthole depths 1:100, section 1:30.

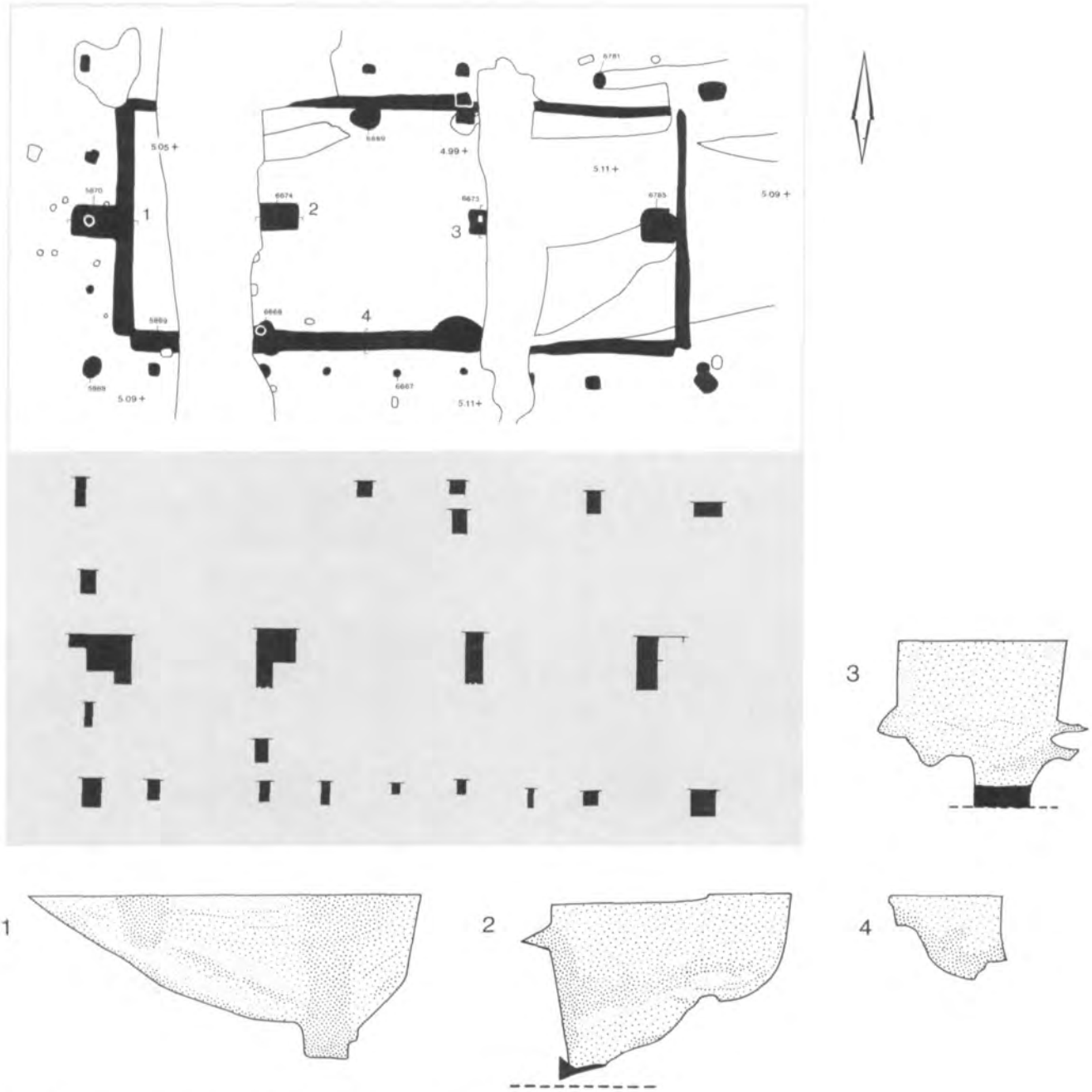


Figure 86. House 84. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

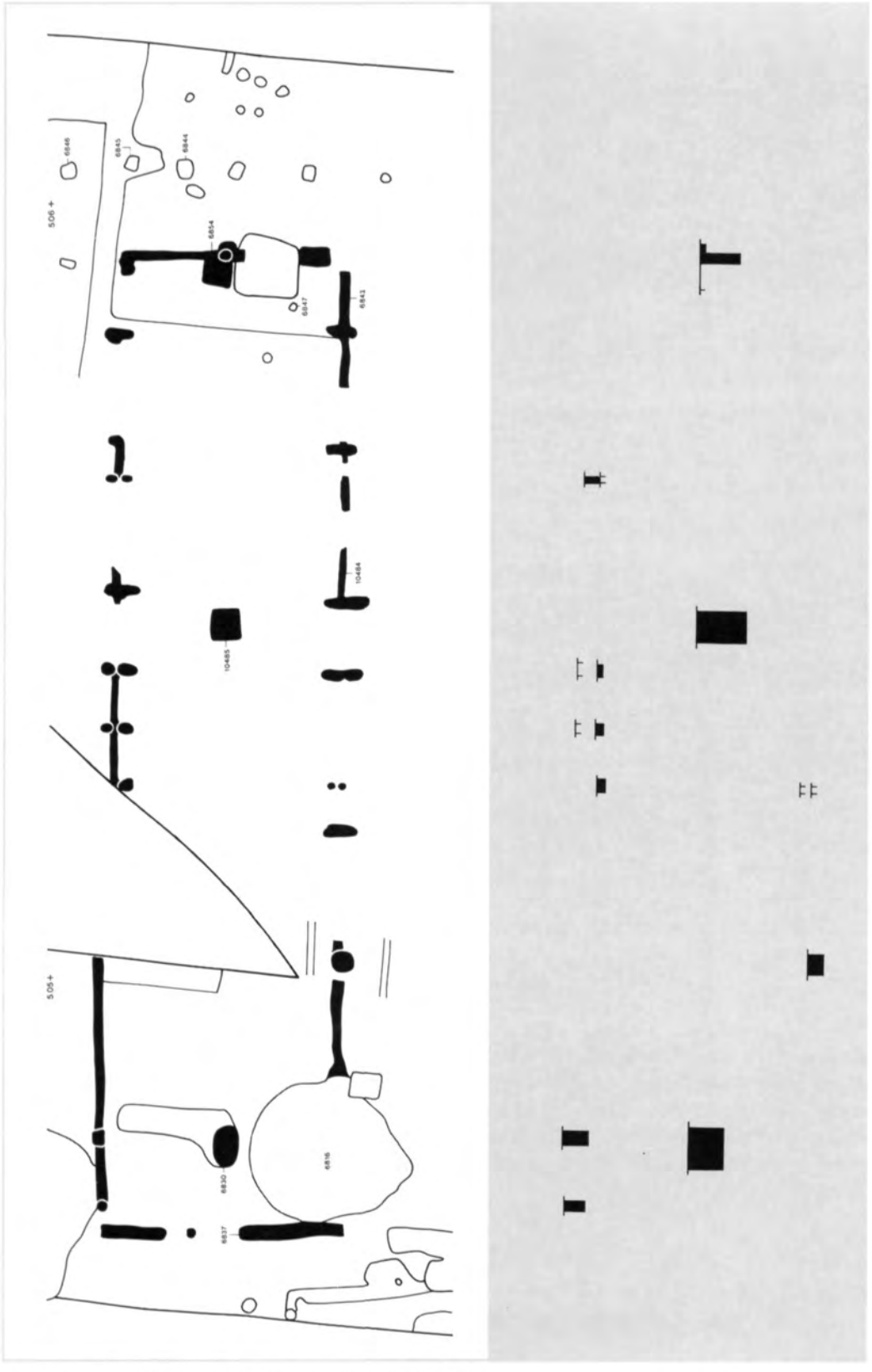


Figure 89. House 90. Scale: plan 1:200, posthole depths 1:100.

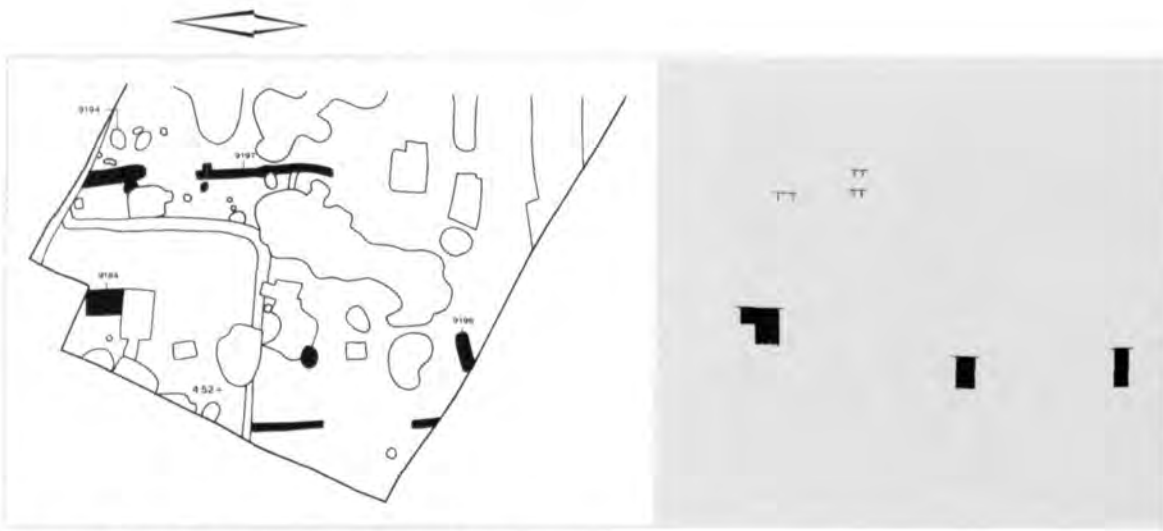


Figure 90. House 94. Scale: plan 1:200, posthole depths 1:100.

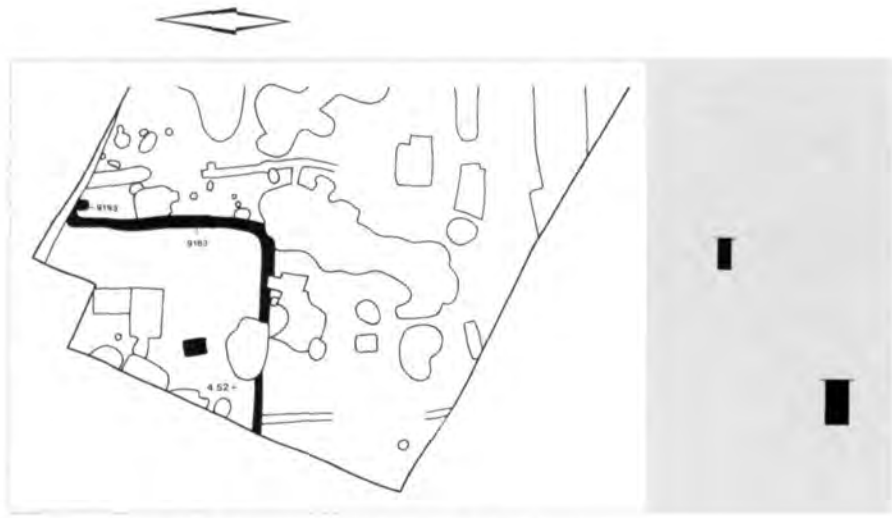


Figure 91. House 95. Scale: plan 1:200, posthole depths 1:100.

House 94

Most of H94 could not be excavated, and the part that lies within the excavation trench is heavily disturbed (fig. 90). Foundation trenches and a two-aisled and a three-aisled part could be discerned, classifying the plan as a type 9. Its north-east orientation is an exception in Oss. Finds consisted of 27 handmade sherds, five fragments of wheel-thrown pottery, and a clay sling pellet.

House 95

The small excavated part of H95 points to a two-aisled plan with a foundation trench, leaving types 7, 8 and 9 as possibilities (fig. 91). External posts could not be documented. The plan is intersected by that of H94, and has the same north-east orientation. A single wheel-thrown sherd and 29 fragments of handmade pottery were found.

House 96

H96 is a type 9C, with the three-aisled part consisting of only one set of roof-bearing posts (fig. 92). The second central roof-bearing post, seen from the west, has probably disappeared under a recent ditch. Only a few external posts could be documented. The three easternmost central roof-bearing postholes, and one of the set of roof-bearing

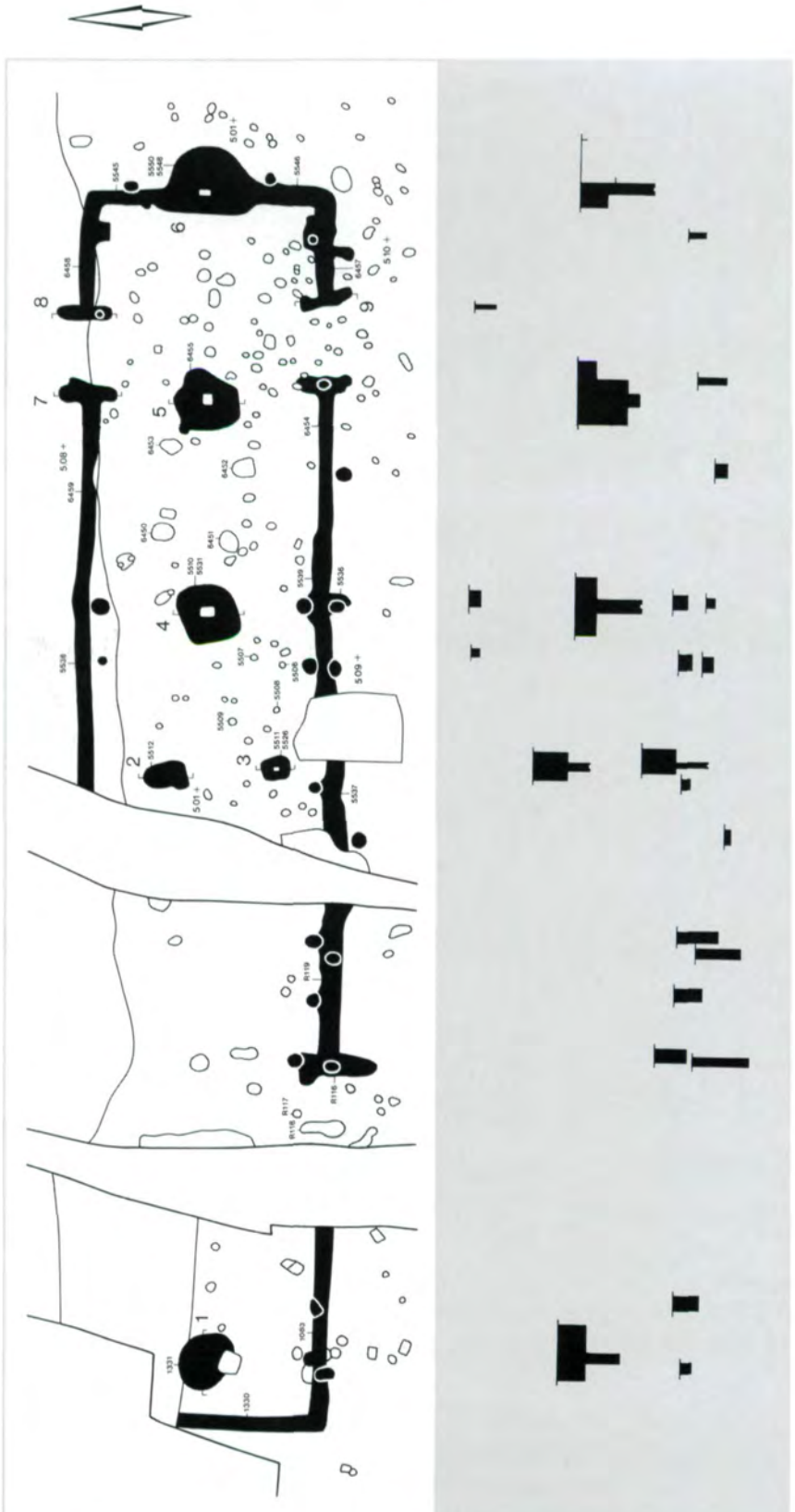


Figure 92a. House 96. Scale: plan 1:200, posthole depths 1:100.

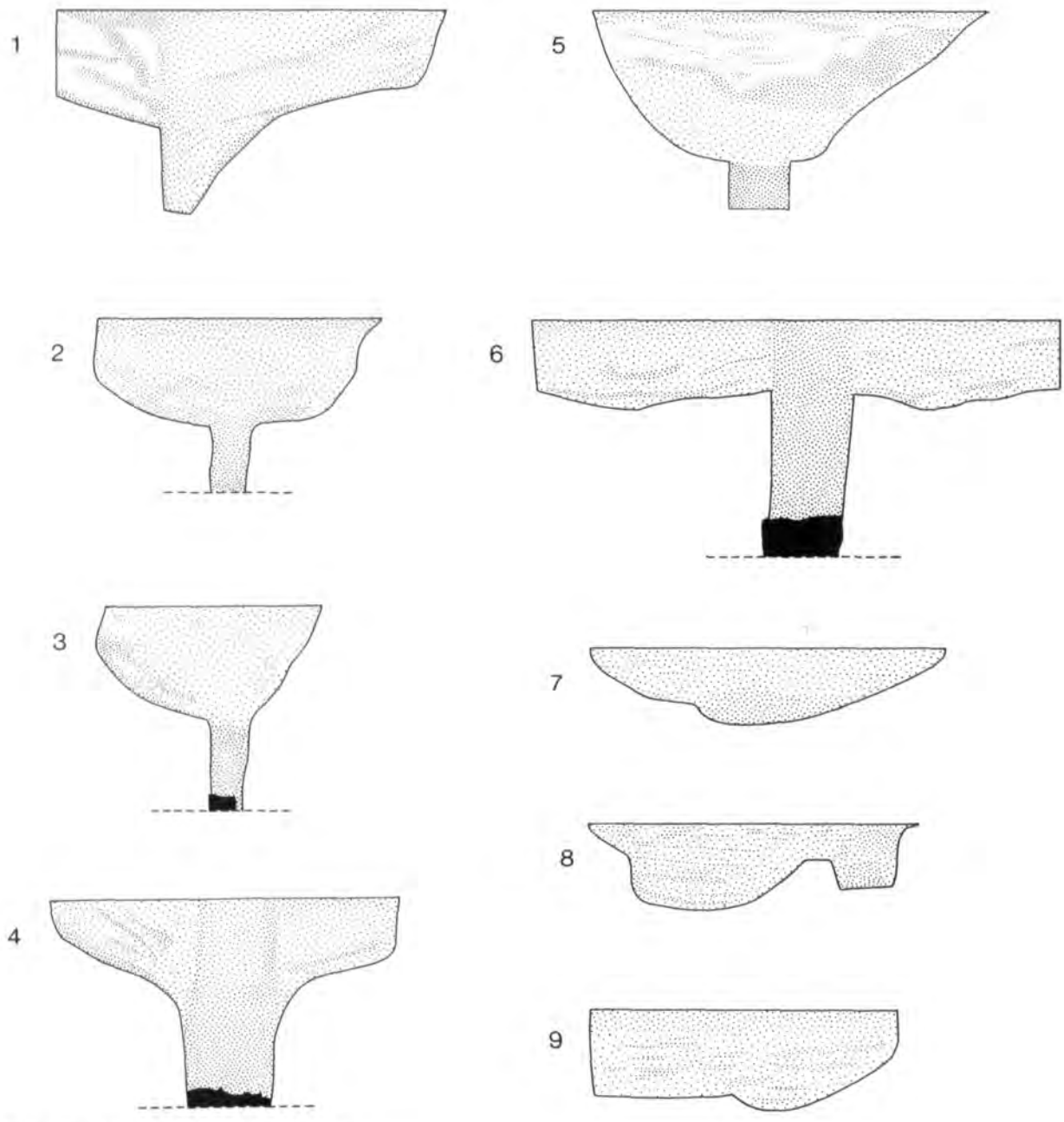


Figure 92b. House 96. Scale: sections 1:30.

postholes, still contained remnants of wood. Together, the postholes and ditches yielded 159 handmade sherds, ten fragments of wheel-thrown pottery, an iron nail and two indeterminable iron objects.

House 98

H98, the largest house plan from Oss, is an almost complete type 9C (fig. 93). The plan is intersected by H99, which has caused some disturbances. A possible roof-bearing post has been cut through, and a third set of roof-bearing posts has possibly disappeared under the westernmost short side of H99. Furthermore, no exterior posts could be documented on the short sides. Wood was found in three postholes belonging to central roof-bearing posts: oak remainders of posts and a plank supporting a post (find No. 6294). Finds consisted of 677 fragments of handmade pottery, 76 wheel-thrown sherds,

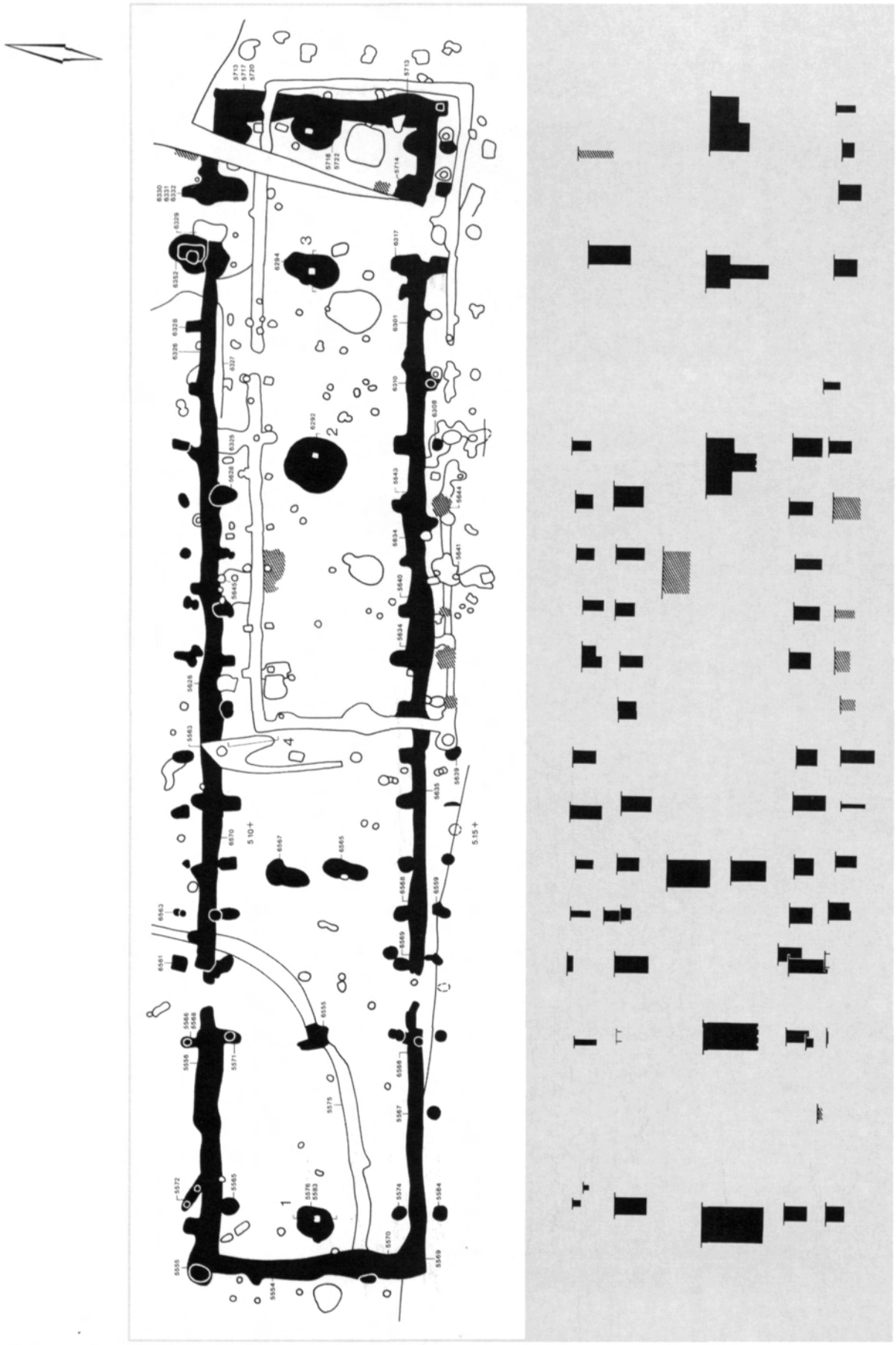


Figure 93a. House 98. Scale: plan 1:200, posthole depths 1:100.

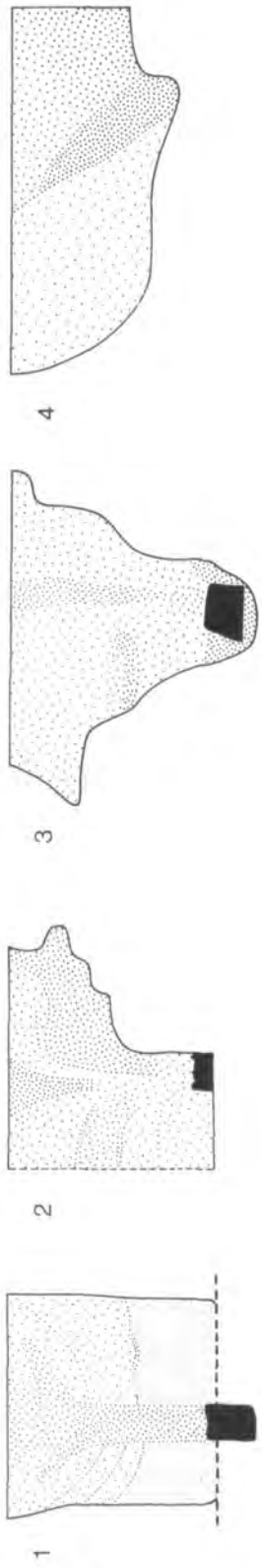


Figure 93b. House 98. Scale: sections 1:30.

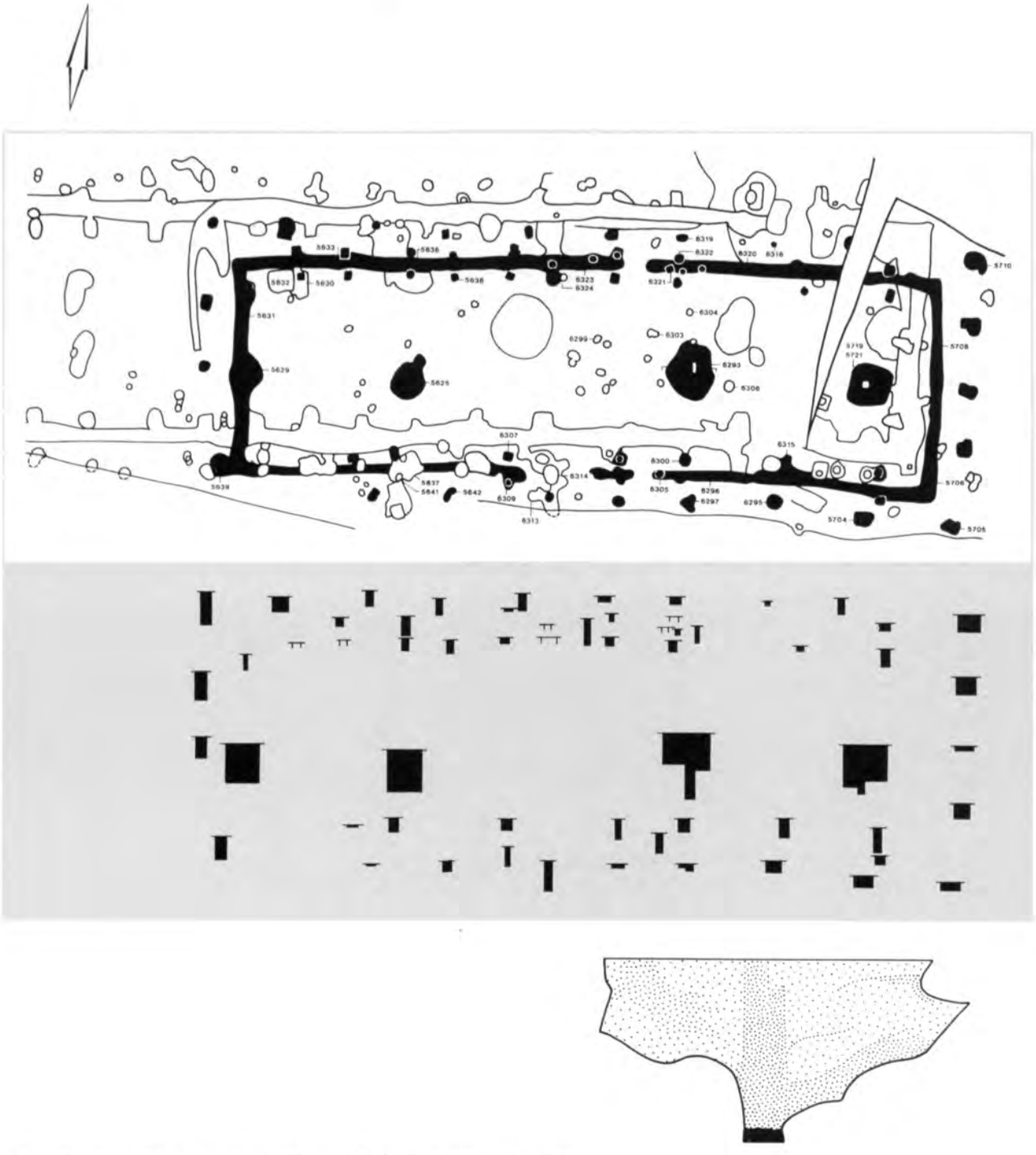


Figure 94. House 99. Scale: plan 1:200, posthole depths 1:100, section 1:30.

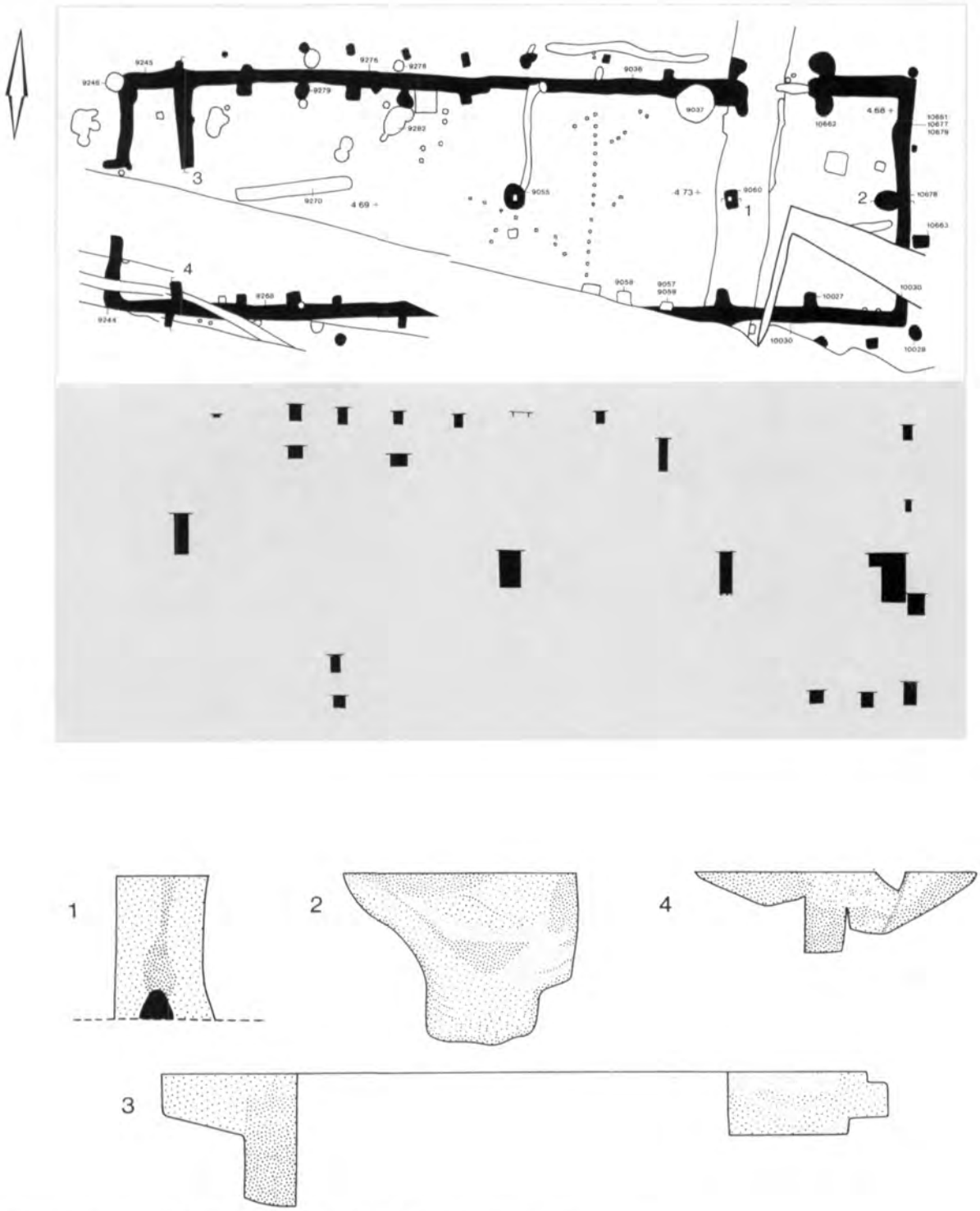


Figure 95. House 101. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

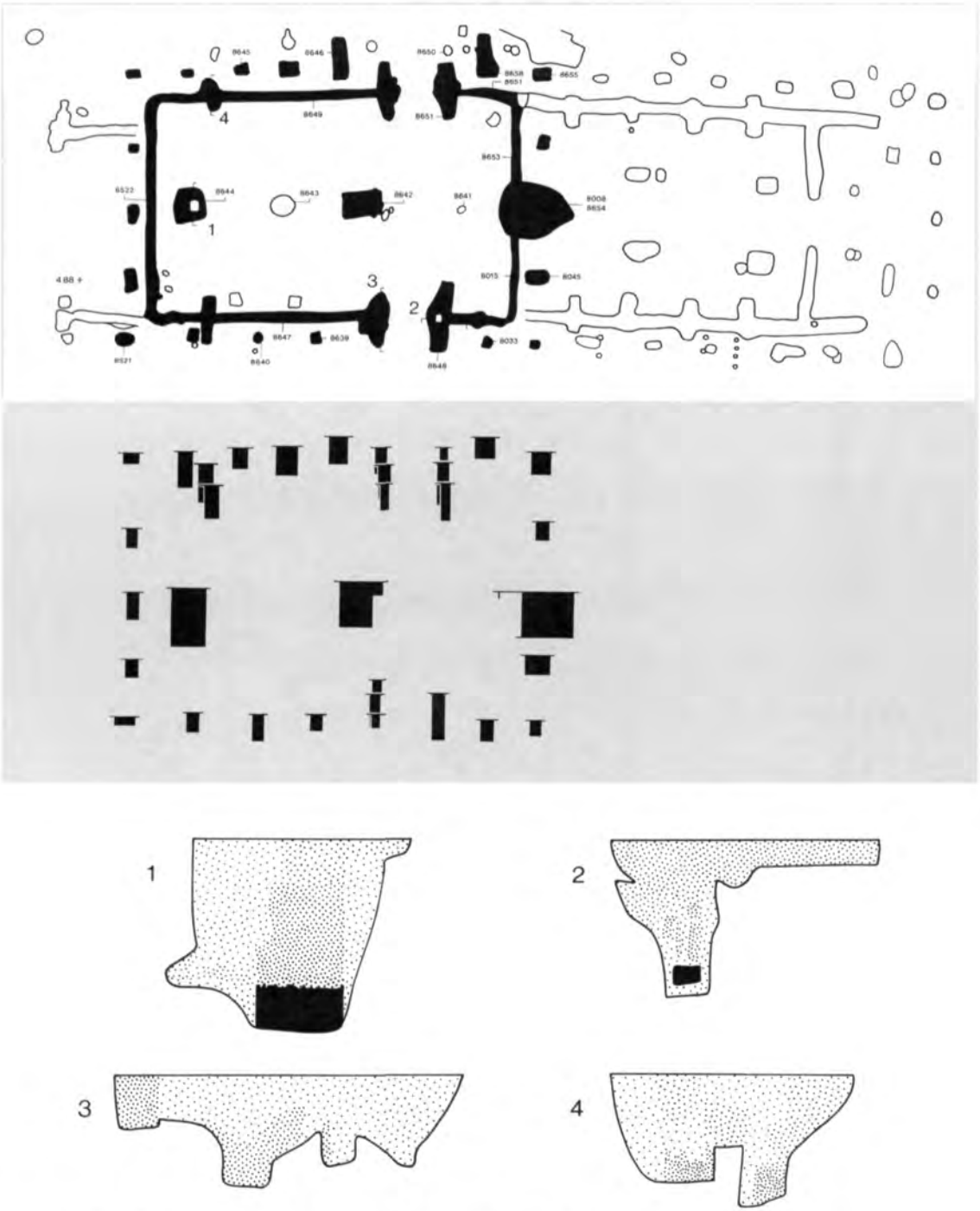


Figure 96. House 104A. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

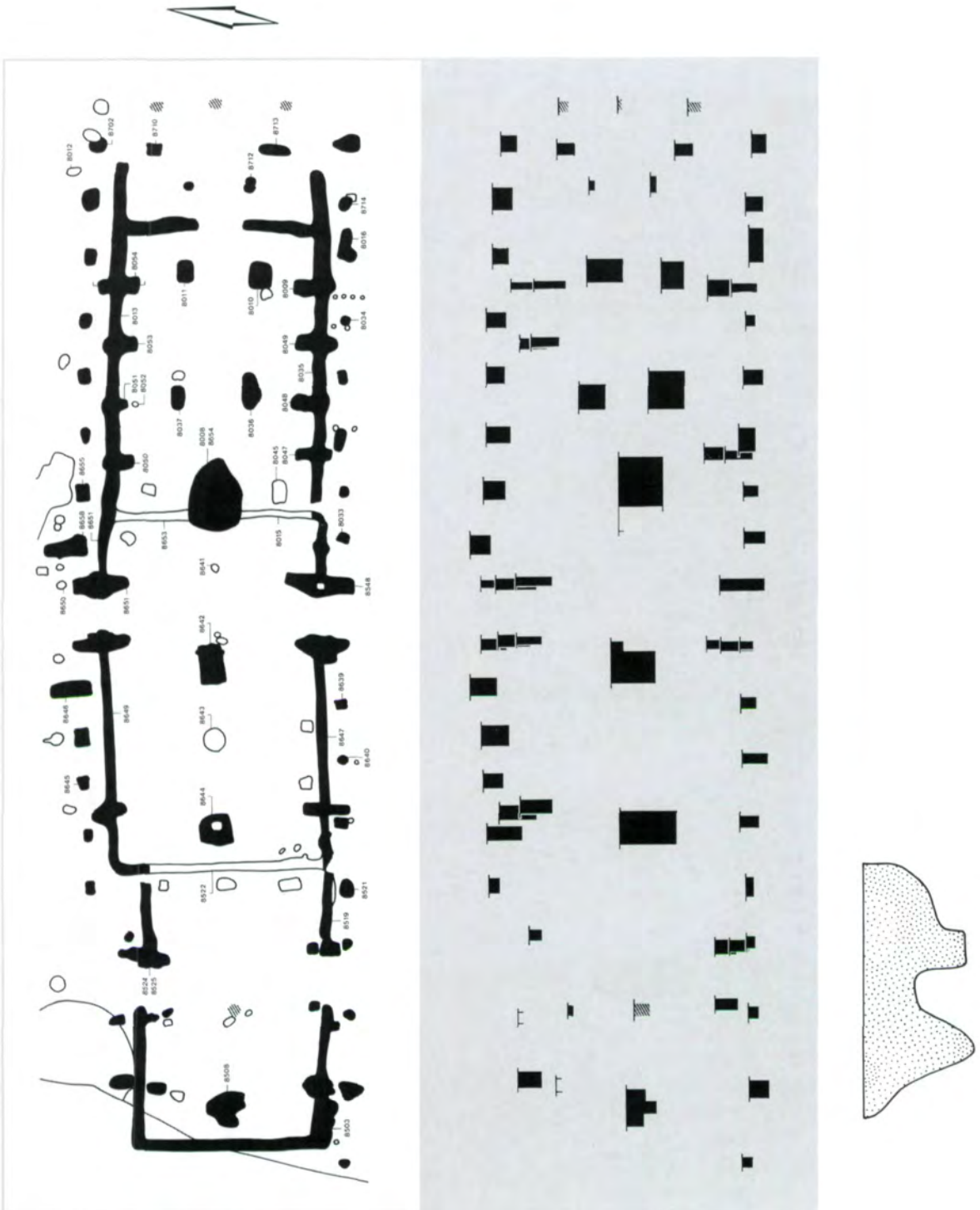


Figure 97. House 104B. Scale: plan 1:200, posthole depths 1:100, section 1:30.

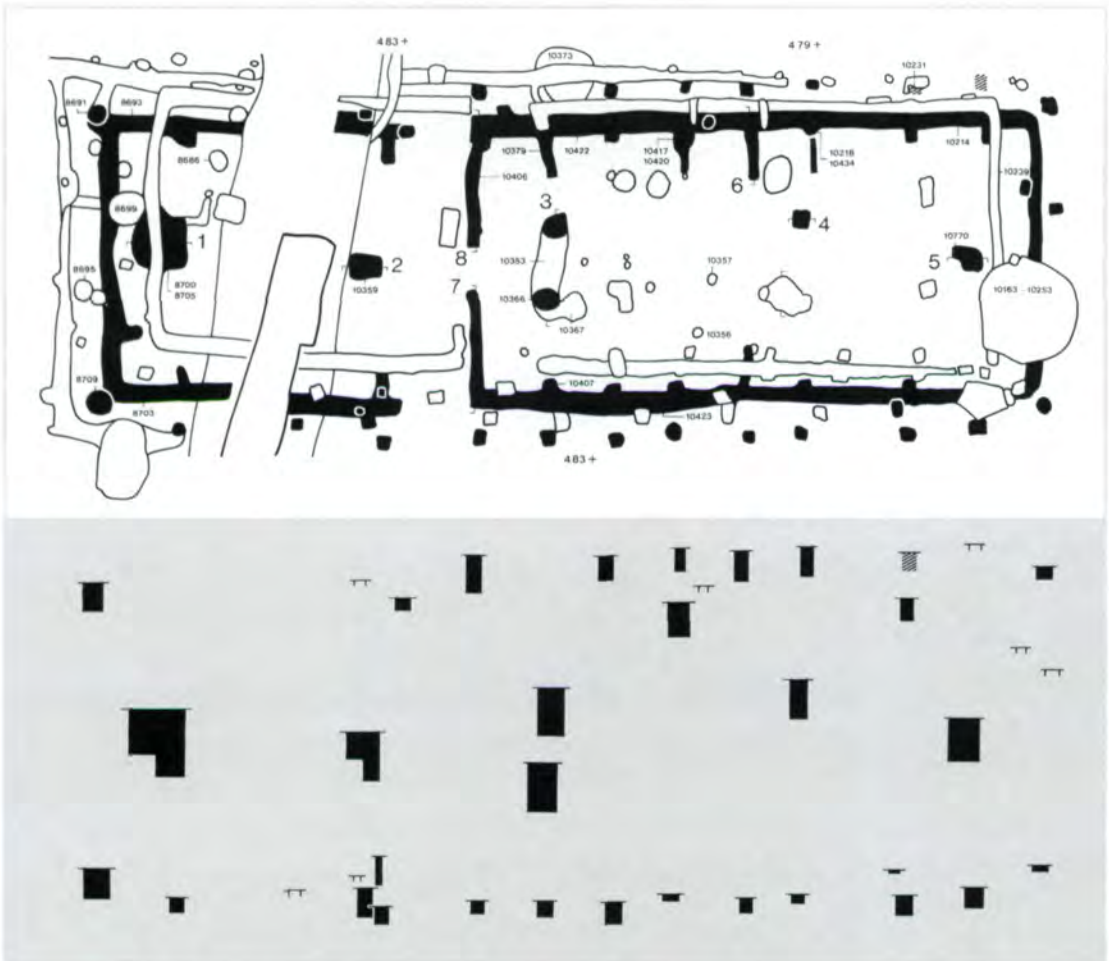


Figure 98a. House 105. Scale: sections 1:30.

a bronze wire-brooch, seven iron nails, a gaming counter made of glass paste, and an iron key.

House 99

The plan of H99 is a complete type 8B, with external posts all around (fig. 94). The long walls show paired wall posts, one on each side of the foundation trench. Two of the central roof-bearing postholes (find Nos. 5721 and 6293) contained oak remnants of upright posts. Finds consisted of 122 handmade sherds, ten fragments of wheel-thrown pottery and two iron nails. In one of the sherds the impression of a grain of millet was visible.

House 101

H101 is a possible type 8B: the (central) roof-bearing posts in the western part could not be documented because of a recent ditch (fig. 95). At the western end a section of *c.* 2 m in length seems to be partitioned off by a ditch lying at right angles to the long wall. Twice, wood was found in a central roof-bearing posthole; in both cases the species could be determined as oak (find No. 9055 and 9060). Dendrochronological research of one of the fragments (find No. 9060) resulted in a date of 12 BC (uncorrected) (Jansma 1995, 132; Van der Sanden 1987b, 50 and fig. 4). The finds included 32 fragments of handmade ware and eight wheel-thrown sherds, the latter from a later date than the wood.

House 104A

H104A is one of the shortest (complete) house plans in the Westerveld settlement (fig. 96). It is a complete type 8B, with remnants of an oak roof-bearing post in one of the central postholes (find No. 8644A). Dendrochronological research of this piece of wood yielded an uncorrected date of AD 53 (Jansma 1995, 132). Another small piece of a wooden post came from the southern entrance (find No. 8648), and was determined as oak.[3] The postholes and ditches yielded

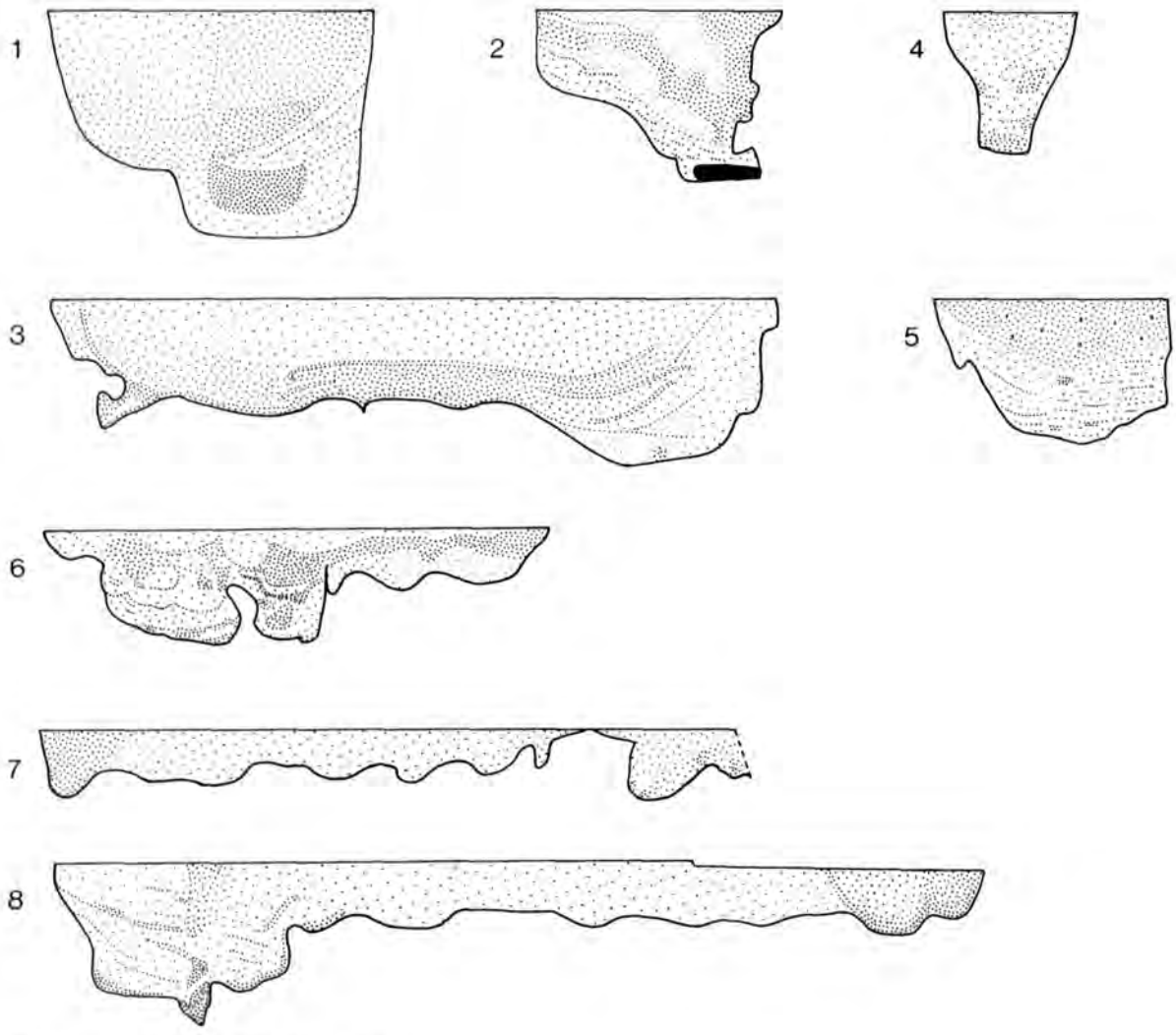


Figure 98b. House 105. Scale: sections 1:30.

88 fragments of handmade ware and 58 wheel-thrown sherds. Furthermore two iron nails, a piece of slate and a fragment of a glass *La Tène* bracelet were found.

House 104B

H104B is in fact an extended version of H104A, with parts added on both sides (fig. 97). The western extension, which is two-aisled, is slightly narrower than the rest of the plan. The eastern extension is three-aisled and seems to have an extra section at the short end. It is possible that the actual wall on the eastern short end is indicated by a (foundation) trench, at right angles to the long walls. The long walls continue for another 2 m, and the space thus created is closed off by posts only, possibly showing an open front.

Finds include 51 fragments of handmade pottery, 33 wheel-thrown sherds, and a fragment of a glass *La Tène* bracelet.

House 105

In H105, a possible type 9A, the three-aisled part is separated from the two-aisled part by the situation of the entrances, and also by two (foundation) ditches (fig. 98). Several shallow ditches lying at right angles to the long walls in the three-aisled part have been interpreted as byre-partitions. Most of the external posts have been disturbed. One of the central roof-bearing posts (find No. 10359) contained the remnants of a wooden plank (species unknown), on which the upright post would have been resting. Finds consisted of 97 fragments of handmade ware

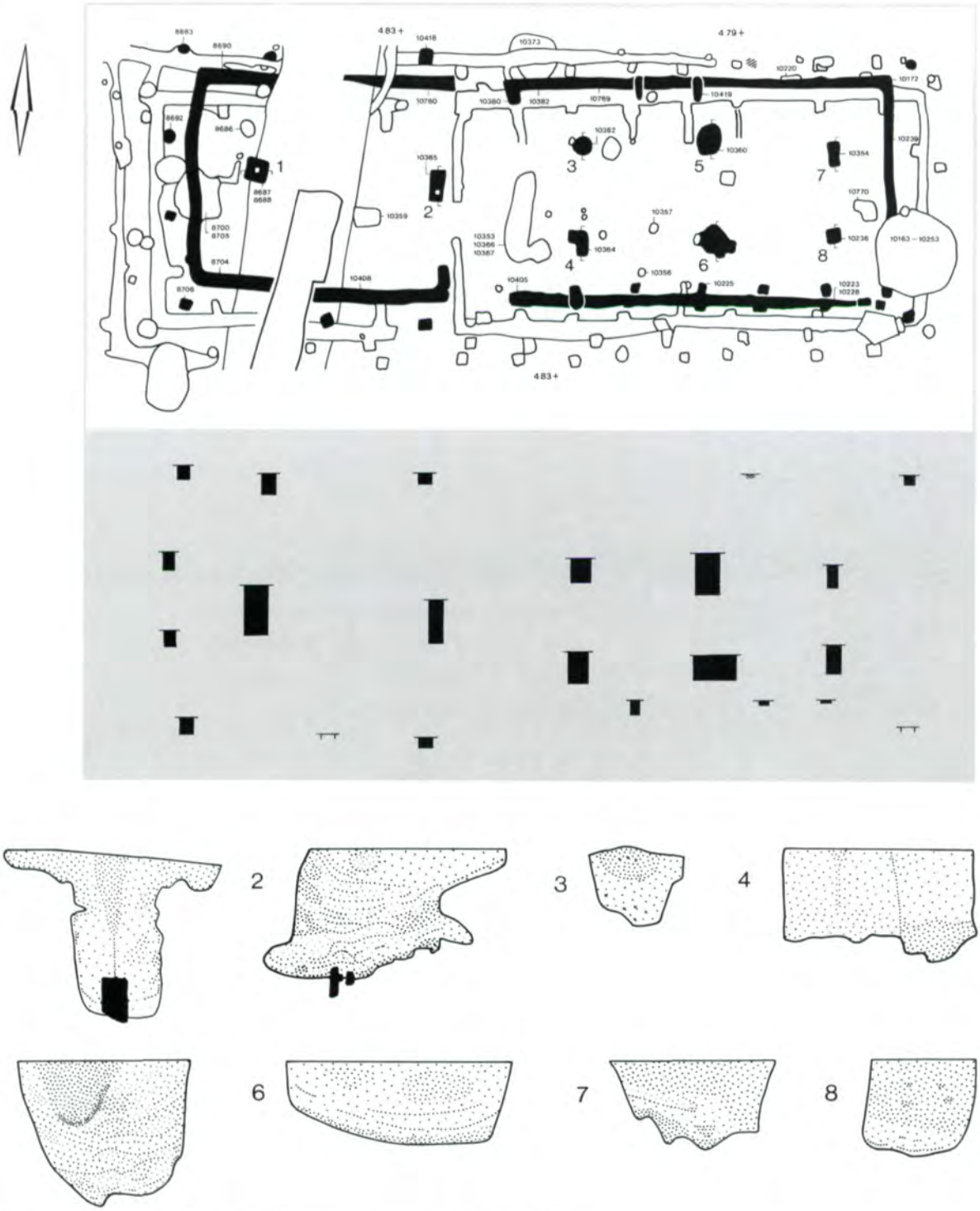


Figure 99. House 106. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

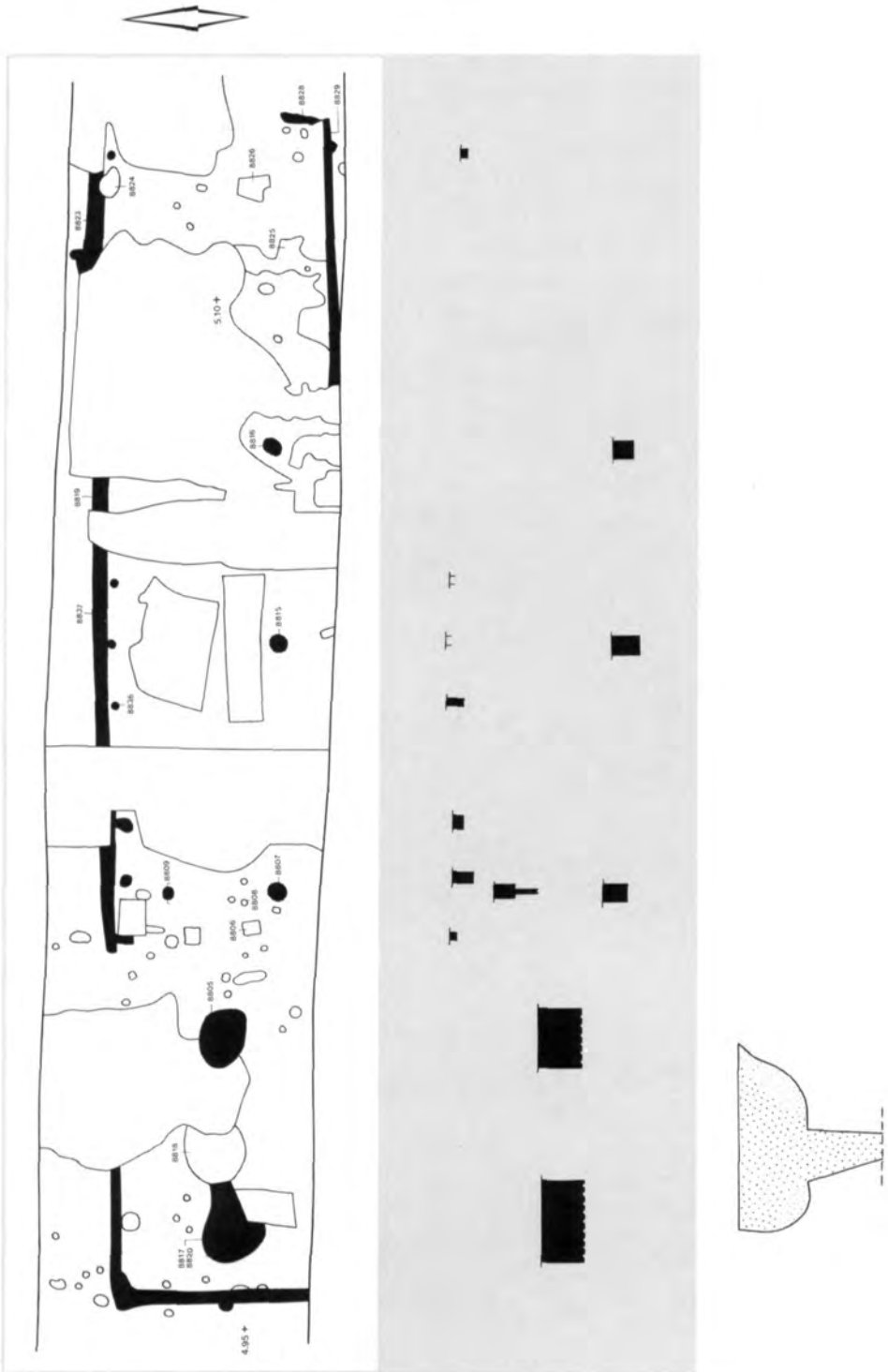


Figure 100. House 108. Scale: plan 1:200, posthole depths 1:100, section 1:30.

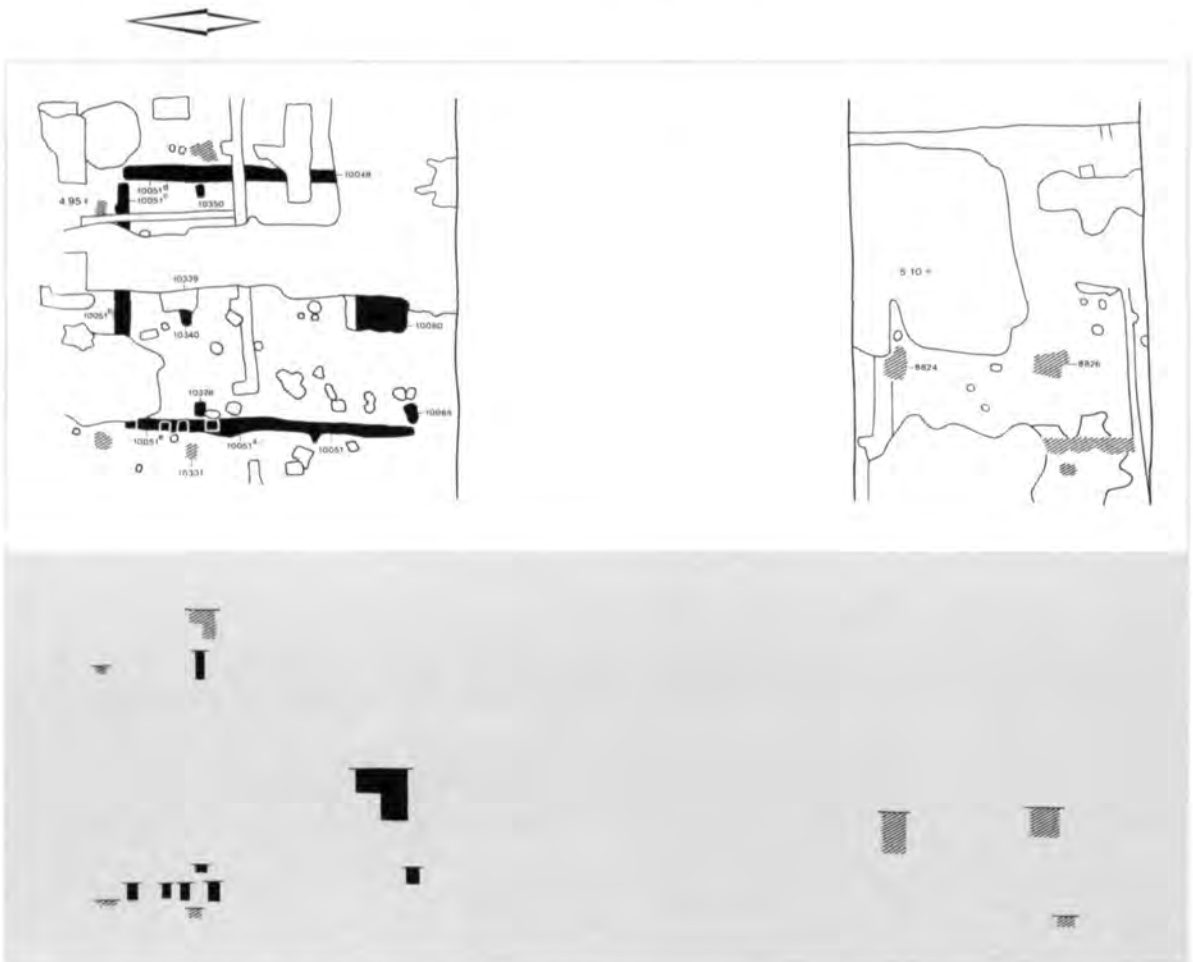


Figure 101. House 109. Scale: plan 1:200, posthole depths 1:100.

and 59 fragments of wheel-thrown pottery. Furthermore, a fragment of a bronze wire-brooch was found.

House 106

H106 is the direct successor of H105. In the eastern part the exterior posts were hardly determinable (fig. 99). The two central roof-bearing postholes in the two-aisled part both contained wooden remnants. One of these (find No. 8688) could be determined as oak, the other (find No. 10365, species unknown) showed cutting traces. Postholes and ditches yielded 137 fragments of handmade pottery, ten fragments of wheel-thrown ware and a bronze arc-brooch.

House 108

The plan of H108 is rather incomplete: part of its southern wall is outside the excavation trench, and its eastern half is disturbed by recent pits (fig. 100). Therefore the plan can be classified as a type 9 only, with no visible external posts. Finds included 81 fragments of handmade pottery and a single wheel-thrown sherd. One of the sherds showed the impression of a grain of barley. Furthermore a bronze acorn-cap and a silver *denarius* (RIC 350) of the emperor Augustus were found.

House 109

Most of H109 is disturbed or could not be excavated (fig. 101). Its possible southern half was documented under rather bad conditions, and no counterpart for one of the roof-bearing posts in this half could be found. The presence of exterior posts remains unclear, and the plan can thus be classified as a possible type 9 only. H109 intersects H108, and has a deviating north-south orientation. With H110 succeeding H109, the orientation changes back to west-east. The features, including those of the uncertain southern part,

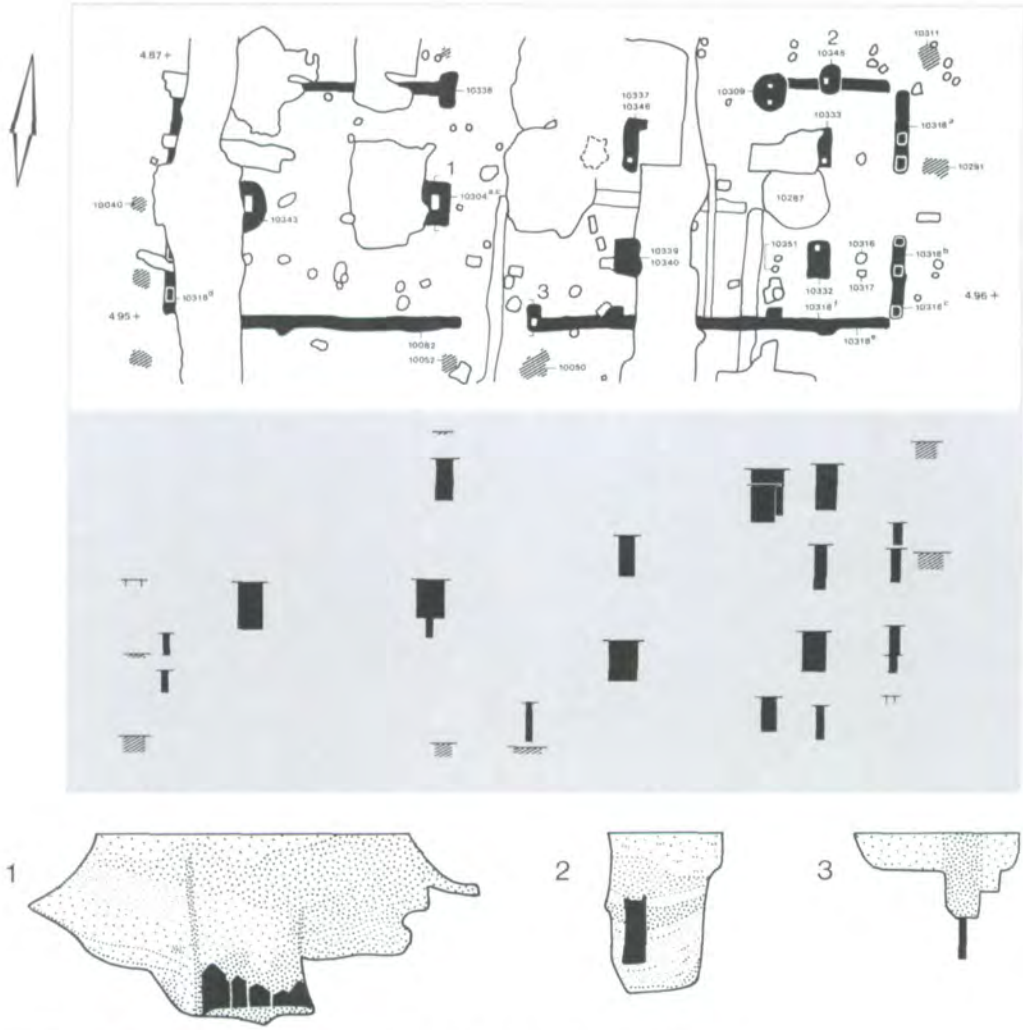


Figure 102. House 110. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

yielded 145 fragments of handmade pottery, six wheel-thrown sherds and an iron nail.

House 110

The majority of the external posts of H110, a type 9A, are either unclear or have been disturbed (fig. 102). This plan intersects the plan of H109. A large amount of wood was preserved in the postholes of H110 (a total of nine find nos., see Schinkel 1994, part II, 122). Unfortunately none of the remains was analysed, the only documentation concerns the fact that one of the central roof-bearing posts had a pointed end. Besides the wood, the features yielded 165 fragments of handmade pottery and 24 fragments of wheel-thrown ware. Other finds included two iron nails and some slate.

House 111

The larger part of H111 remained unexcavated. The documented features form a type 7B-plan, with one central roof-bearing post (fig. 103). In this posthole the remnants of an oak plank, serving to stabilise the upright post, were found (find No. 9668). Dendrochronological analysis dated this wood to AD 79 (uncorrected) (Jansma 1995, 132). Finds include 21 fragments of handmade pottery and 11 wheel-thrown sherds.

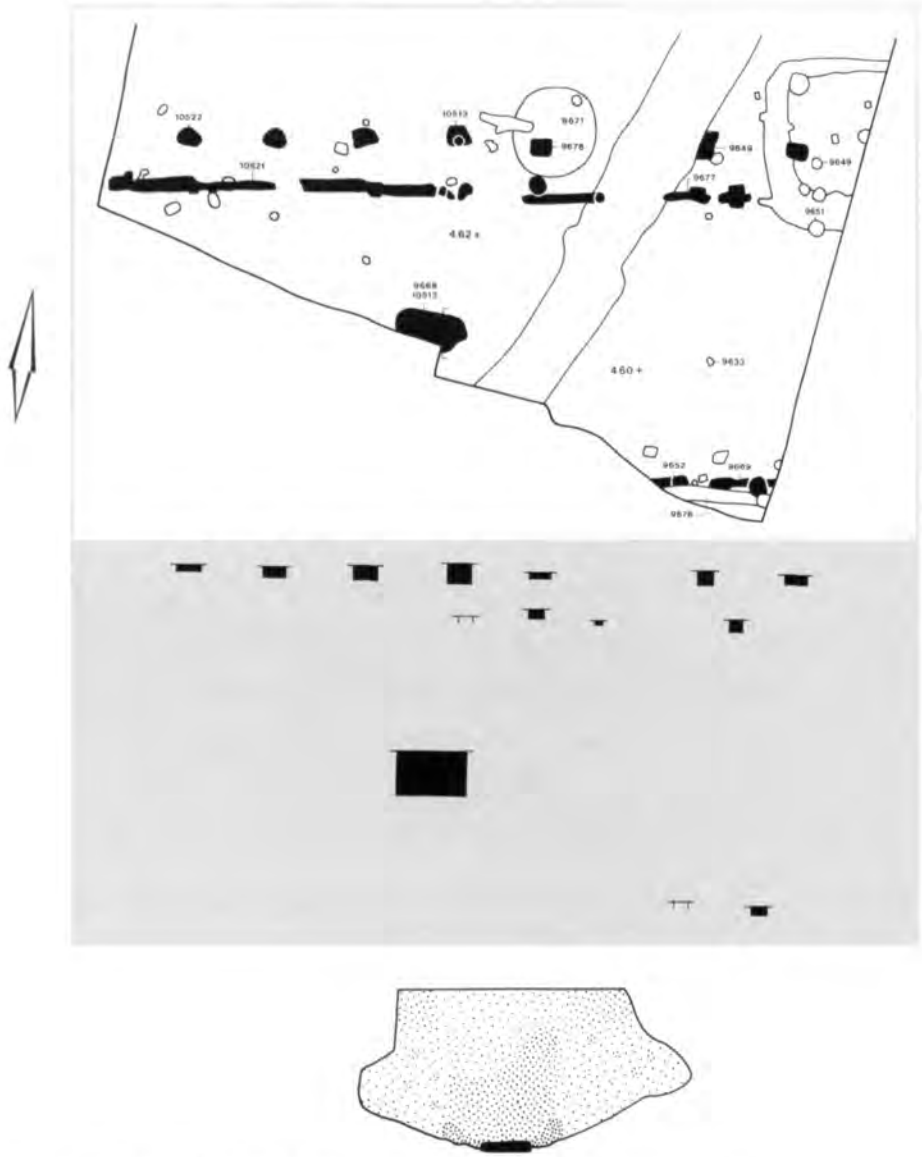


Figure 103. House 111. Scale: plan 1:200, posthole depths 1:100, section 1:30.

House 115

The western half of H115 is situated outside the excavation trenches; its eastern half is heavily disturbed (fig. 104). The plan intersects that of H111. Finds include 65 handmade sherds and nine fragments of wheel-thrown pottery.

House 116

H116 is a rather incomplete house plan: its eastern end is indistinct, external posts could only be documented in the western half and one of the central roof-bearing posts may have been disturbed by a recent pit (find No. 9211) (fig. 105). A group of 59 fragments of handmade ware, seven wheel-thrown sherds, and a glass *La Tène* ring were found.

House 117

A possible type-9B-plan, H117 displays external posts all around, but in the western part (central) roof-bearing posts have been disturbed by a recent ditch (fig. 106). Wood was preserved in three of the roof-bearing post-holes in the three-aisled part. H117 is intersected by H118. Finds include 104 fragments of handmade pottery and three wheel-thrown sherds.

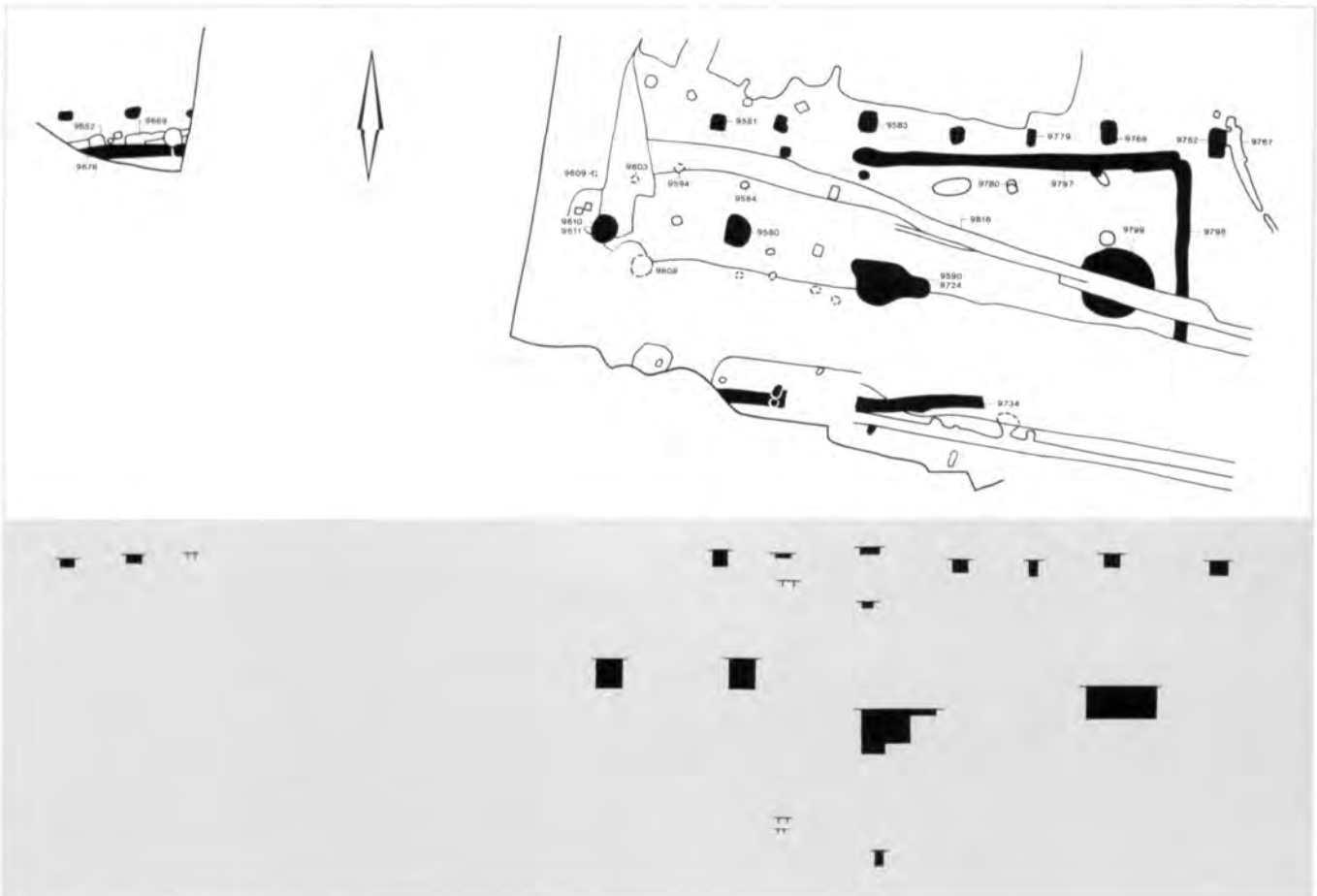


Figure 104. House 115. Scale: plan 1:200, posthole depths 1:100.

House 118

H118 is a small, especially narrow house plan of type 8C, with no visible exterior posts (fig. 107). The foundation trench had disappeared almost completely, only wall posts could be documented. Oak was preserved in one of the central roof-bearing postholes (find No. 9794). The plan of H118 intersects that of H117, and has a deviating north-south orientation. The postholes yielded 54 fragments of handmade pottery, 22 wheel-thrown sherds and a piece of slate.

House 119

H119 is a type-8A plan, with small dimensions and a north-south orientation (fig. 108). Its eastern entrance was possibly disturbed by a recent ditch, and external posts could not be documented around the southern half of the plan. Wood was preserved in two central roof-bearing postholes. One of the pieces could be determined as oak, and showed a hewn flat end (find No. 10698). Finds include 70 fragments of handmade pottery, 17 fragments of wheel-thrown ware, and an iron nail.

House 120

H120 is the only complete specimen of a type 9B, although there are no exterior posts around the central, three-aisled part (fig. 109). Finds include 69 fragments of handmade pottery and 13 wheel-thrown sherds.

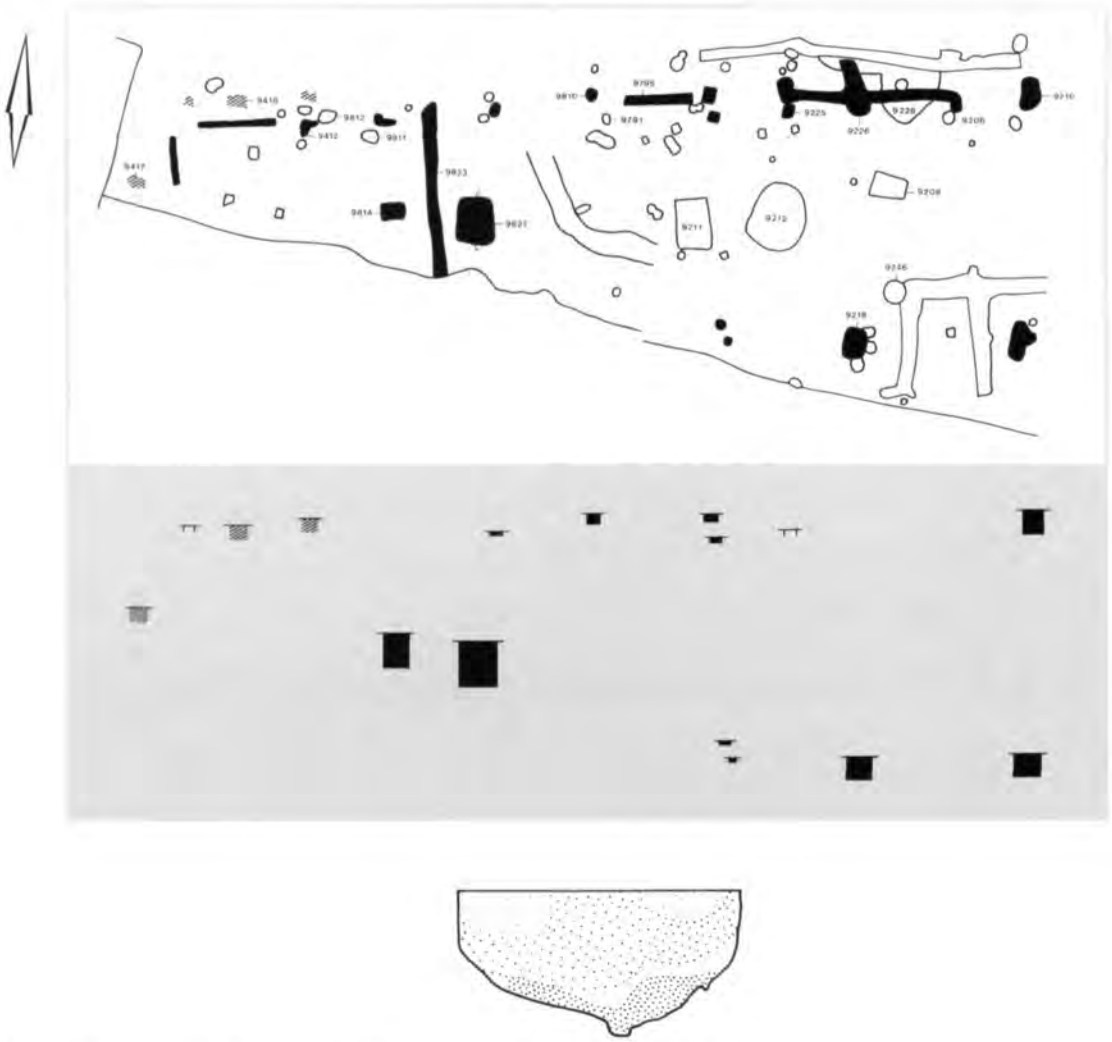


Figure 105. House 116. Scale: plan 1:200, posthole depths 1:100, section 1:30.

House 121

The major part of H121 could not be excavated. What remains is a possible type 7A, with no documented central roof-bearing post (fig. 110). This plan intersects that of H120. Finds consist of ten fragments of handmade ware and five wheel-thrown sherds.

4.2 Outbuildings

Eight structures, situated within the enclosure apart from one (B5), were labelled as outbuildings (table 24). One of these (B7) could be dated to the Late Iron Age. Of the remaining seven, three were find-less and could therefore not be dated. Outbuilding B10 was dated to the Late Iron Age or Roman period, the other three (B8, B11 and B12) contained wheel-thrown pottery and were placed in the Roman period. The precise function of these small buildings is unknown. In the following, the outbuildings that could be dated to the Roman period are described briefly.

Outbuilding 8

The plan of B8 could only be partly excavated. Visible are a foundation trench with an entrance in the short side, and three postholes forming a four-aisled interior (fig. 111). Finds consisted of 11 fragments of handmade ware and one sherd of wheel-thrown pottery.

Outbuilding 10

B10 consists of a foundation trench, forming an almost square structure with an interruption in the south-eastern

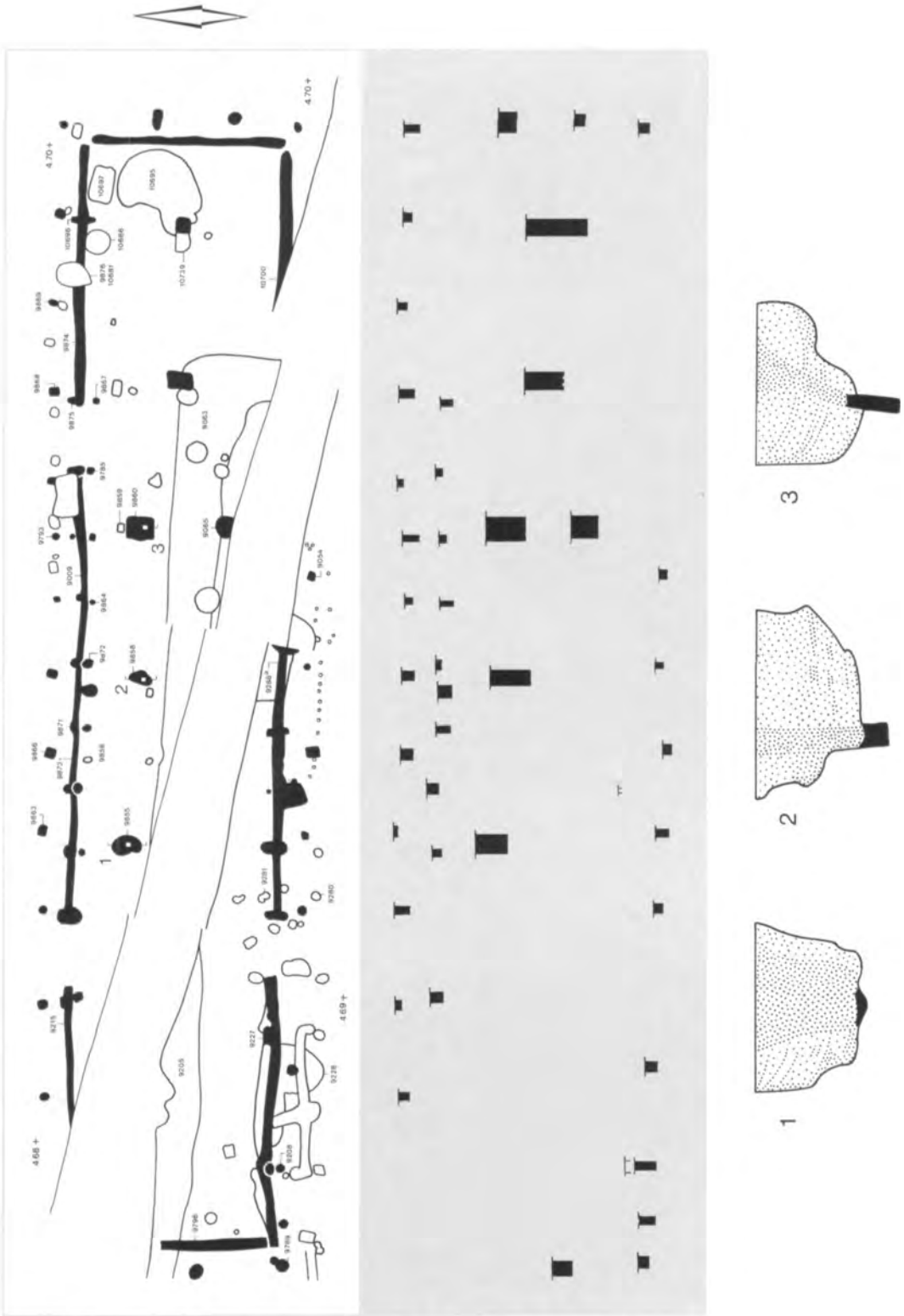


Figure 106. House 117. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

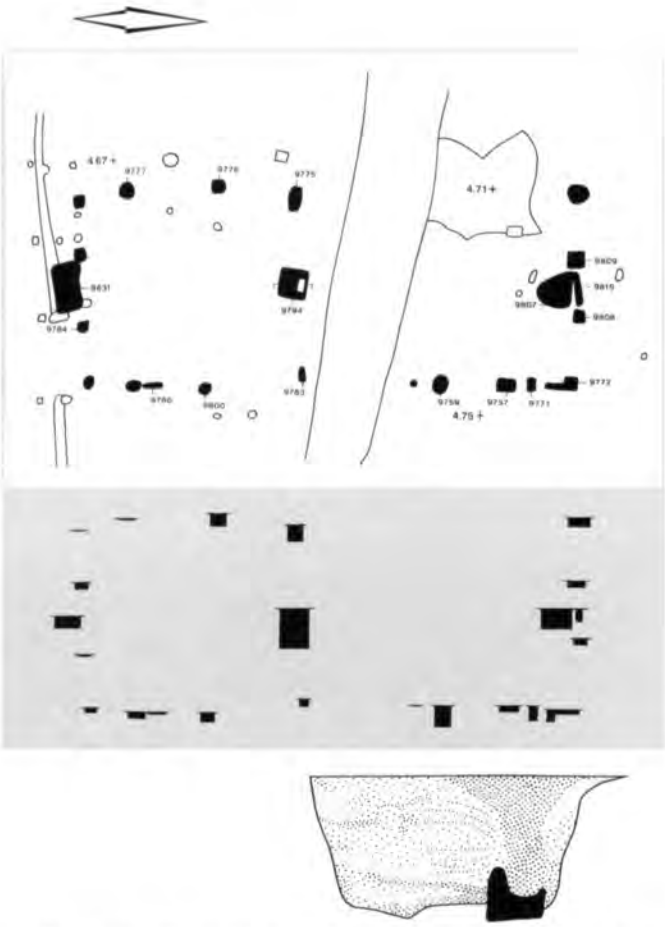


Figure 107. House 118. Scale: plan 1:200, posthole depths 1:100, section 1:30.

corner (fig. 112). Enclosed by the ditch is a pit with a depth of 80 cm. Finds from the ditch included three sherds of handmade pottery. The pit contained 16 fragments of handmade pottery and an iron nail.

Outbuilding 11

B11 is a one-aisled building, consisting of a foundation trench with traces of postholes in it (fig. 113). One of the long sides has a small entrance. The ditch yielded three

No.	length (m)	width (m)	orientation	date
B5	3.5	3.0	NW-SE	?
B6	5.0	4.0	W-E	?
B7	7.7	6.3	W-E	LIA K-L
B8	>5.5	6.0	N-S	Id and later
B9	4.0	>1.7	N-S	?
B10	3.9	3.7	W-E	LIA/RP
B11	>8.8	5.0	N-S	II
B12	4.0	>3.0	N-S	RP

Table 24. Outbuildings from the Westerveld settlement. Date: LIA = Late Iron Age (phases I-L), RP = Roman period.

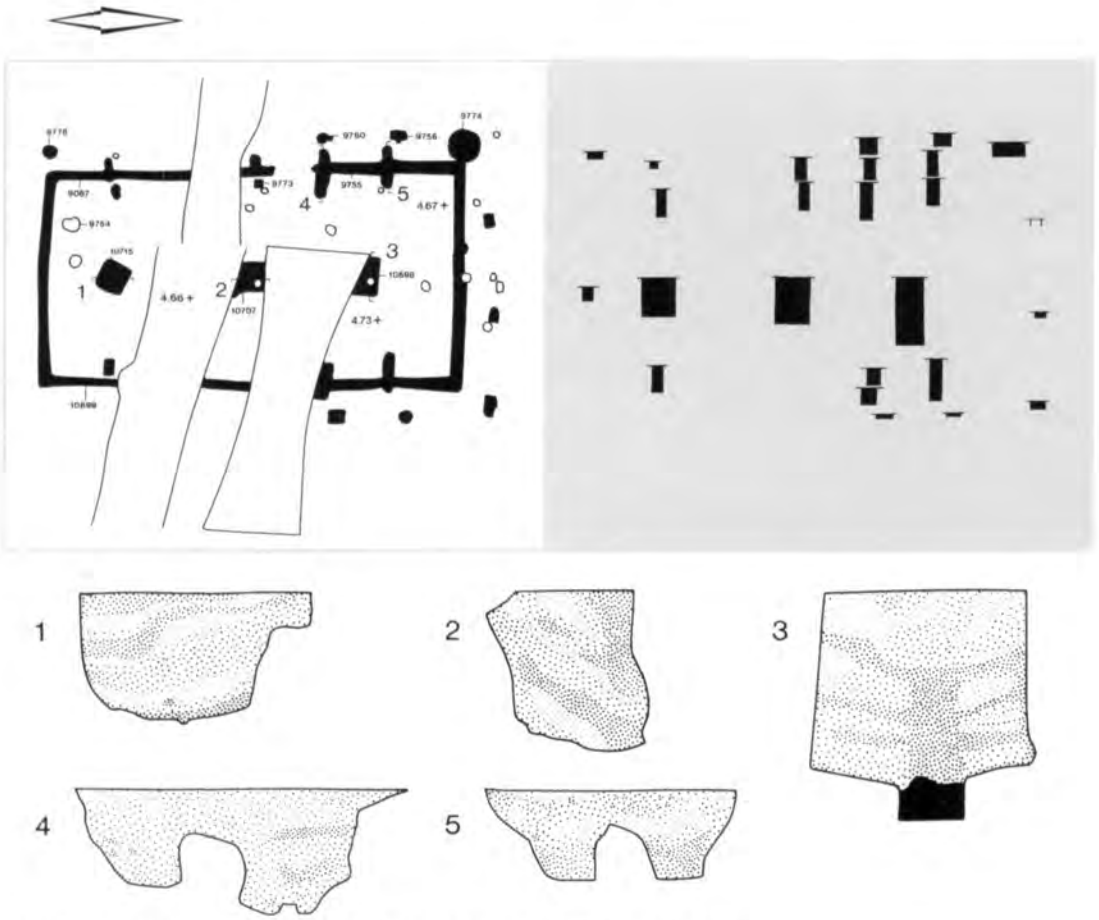


Figure 108. House 119. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

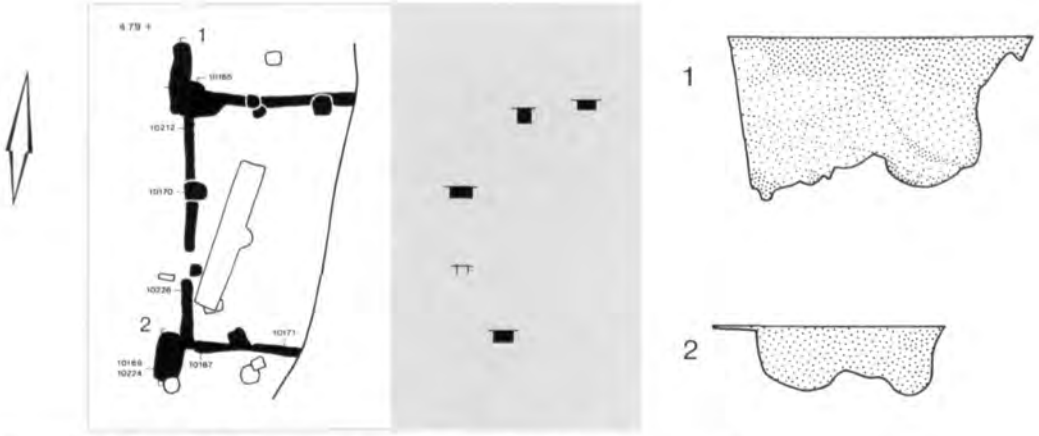


Figure 110. House 121. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

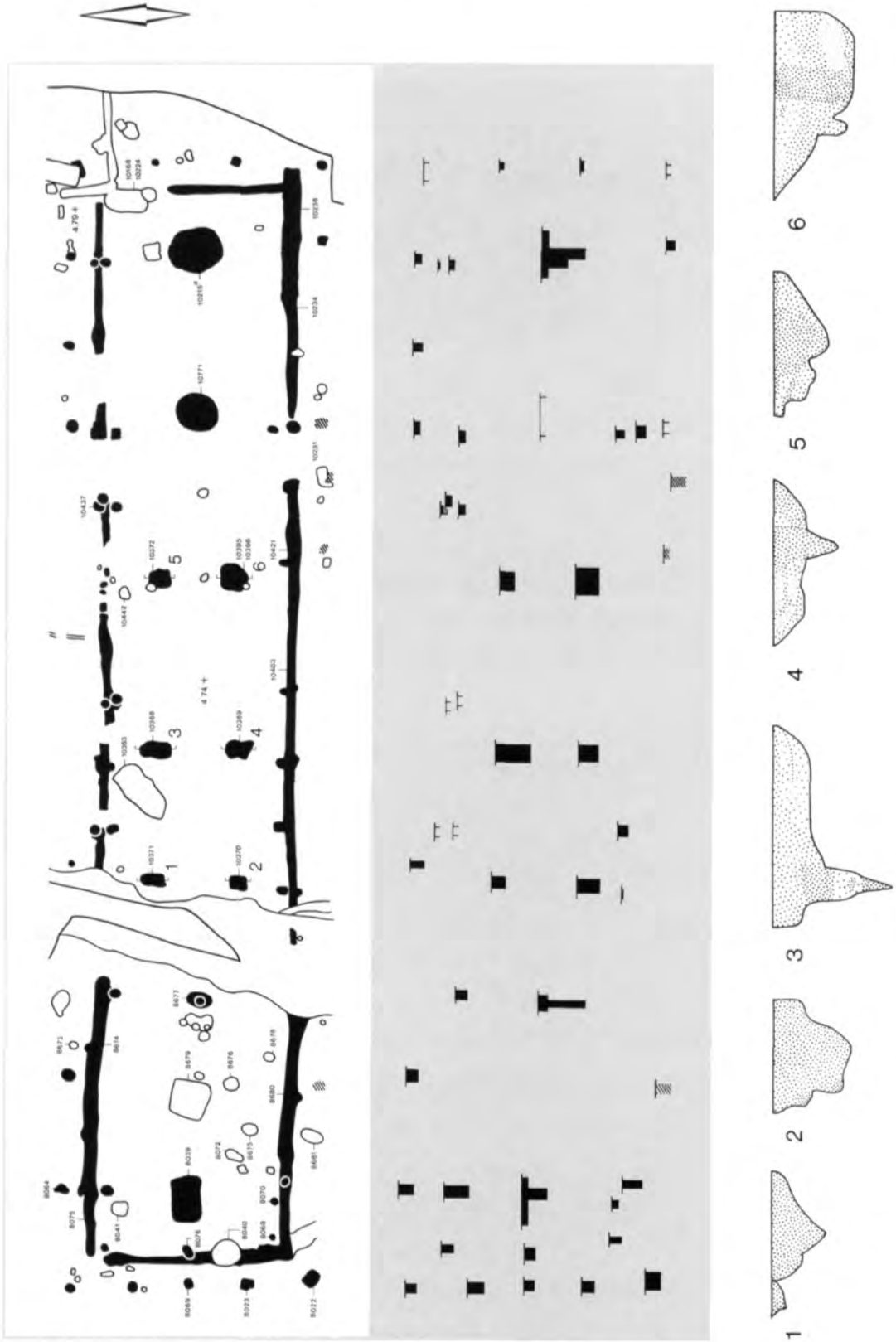


Figure 109. House 120. Scale: plan 1:200, posthole depths 1:100, sections 1:30.

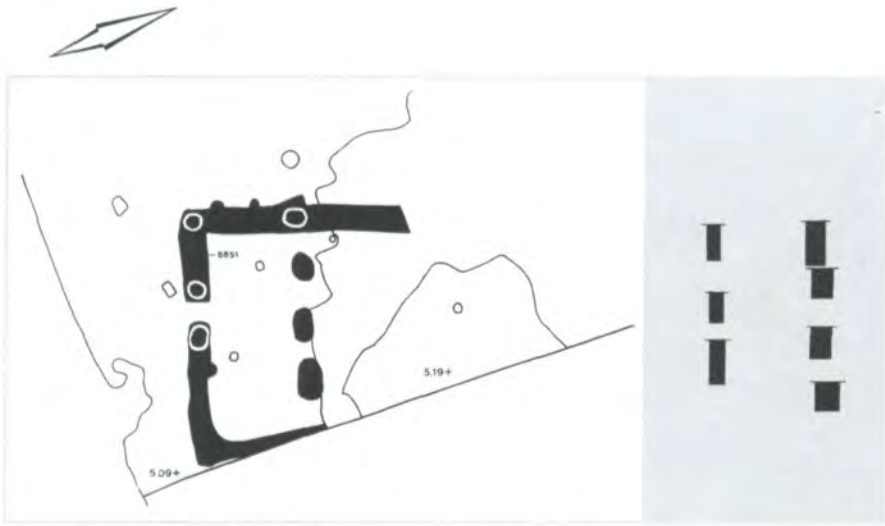


Figure 111. Outbuilding B8. Scale: plan 1:200, posthole depths 1:100.

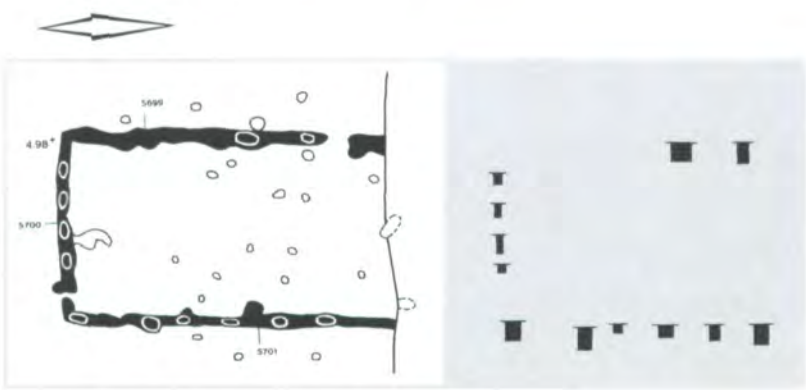


Figure 112. Outbuilding B10. Scale 1:200, section 1:30.

Figure 113. Outbuilding B11. Scale: plan 1:200, posthole depths 1:100.

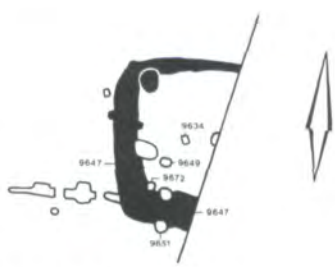


Figure 114. Outbuilding B12. Scale 1:200.

fragments of handmade pottery, including an almost complete 'mini-pot'. Furthermore, four fragments of wheel-thrown pottery were found.

Outbuilding 12

Of B12 only a wide foundation trench was preserved (fig. 114), which yielded 12 fragments of handmade pottery and three wheel-thrown sherds.

4.3 GRANARIES AND *HORREA*

Only 18 storage buildings found within the settlement enclosure can be dated to the Roman period, one of them with a possible date in the Late Iron Age. Another 86 groundplans that could not be dated were found in the enclosed area. One granary was situated between the two

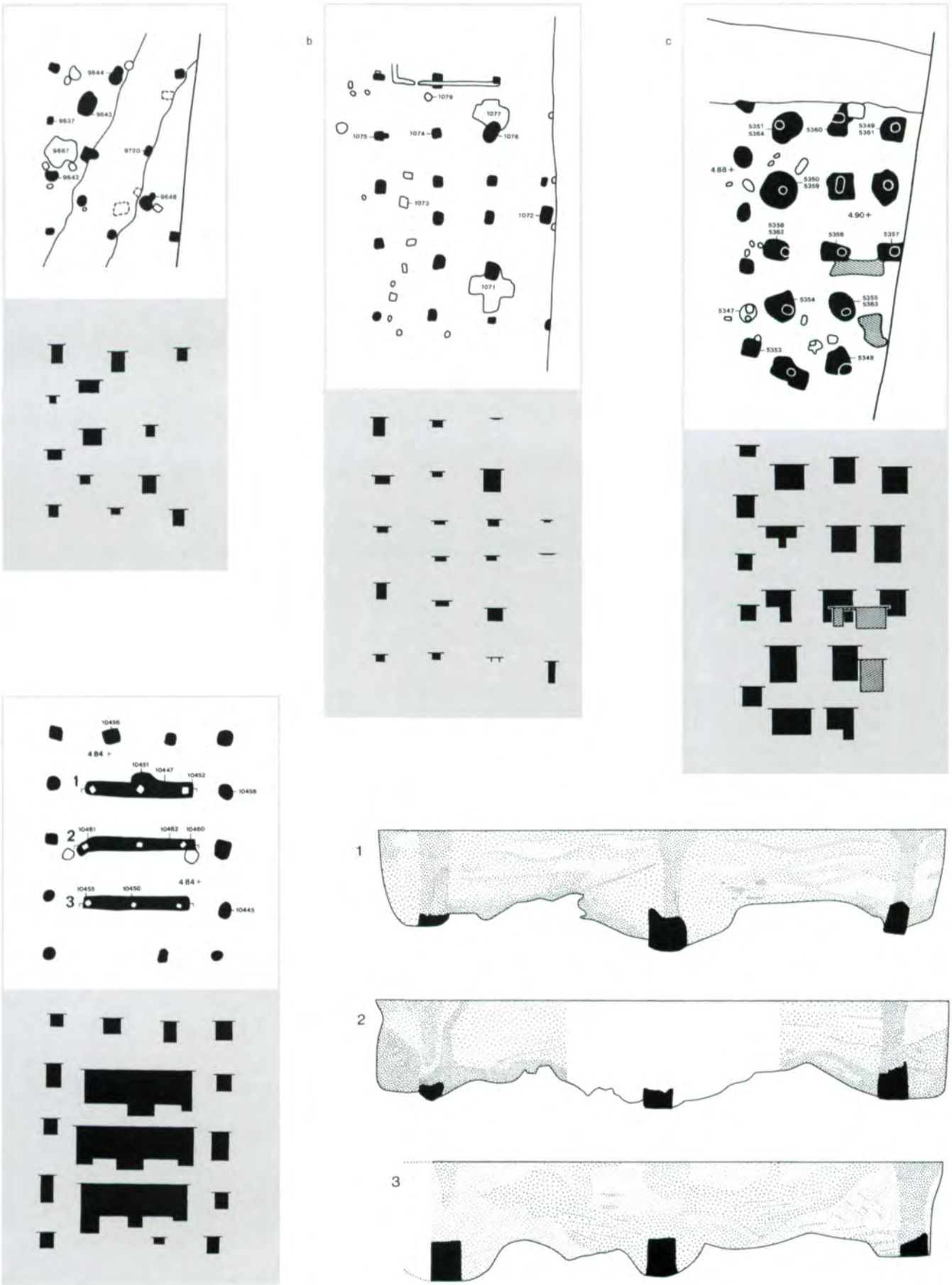


Figure 115. Granaries of type IIIB (a: S309, b: S315) and type IIIA (c: S436, d: S464). Scale: plans 1:200, posthole depths 1:100, sections 1:30.

type	IA	IB	IC	ID	IIA	IIB	IIC	IIIA	IIIB	?	total
number	63	26	11	5	4	1	1	2	2	1	116
total				105			**6**		**4**	**1**	116

Table 25. Granaries and *horrea* from the Westerveld settlement: types.

type	IA	IB	IC	ID	IIA	IIIA	IIIB	total
number	2	1	1	2	3	2	2	13
total				6	**3**		4	**13**

Table 26. Granaries and *horrea* from the Westerveld settlement dated to the Roman period: types.

enclosure ditches, another intersects the outer ditch. Furthermore there are ten undated granaries lying outside the enclosure, but possibly belonging to the Westerveld settlement. Together this makes a group of 116 storage buildings (table 27), of which 50 were find-less.

Most of the granary types distinguished by Schinkel (1994, part II, 139-143) are represented in the Westerveld settlement (tables 25 and 26). The larger types IIIA and IIIB are restricted to the Roman period (Schinkel 1994, part II, 143), and are usually referred to as *horrea* (fig. 115). One of them, S464, was dated with the aid of dendrochronology, and yielded an uncorrected date of AD 50 or 52 (Jansma 1995, 132).

4.4 Pits and wells

A total of 131 pits and wells dated to the Roman period were found within and just outside the Westerveld enclosure (table 30). In 62 cases a form of wooden lining had been preserved, indicating a well. All types of lining from the Oss-Ussen typology by Schinkel were present (table 28), including combinations of types. Of two wells, the type of lining could

type		number of wells
A	unknown	**2**
A1	wattlework	**27**
A2	round or oval: vertically placed elements	**1**
A3	hollowed-out tree trunk	**4**
A4	(wine)cask	**2**
A5	square: horizontally placed elements	**15**
A6	square: vertically placed elements	**1**
A7	construction dug out or washed away	**2**
A*	combination of linings	**8**

Table 28. Roman period wells from the Westerveld settlement: types of lining.

situation	number	pits and wells
within the enclosure	**115**	various
outside the enclosure	**2**	P207, P231
between F125 and F126	3	P342, P393, P418
intersected by F125	1	P348
intersects F125	**7**	P210, P337, P339, P340, P383, P416, P431
intersects F126	**3**	P288, P338, P417

Table 29. Roman period pits and wells from the Westerveld settlement: situation.

No.	type	length/width (cm)	date	No.	type	length/width (cm)	date
S302	IA	300/220	-	S387	IC	190/200	-
S303	IA*	320/300	-	S388	IC	180/190	-
S304	IA*	190/180	-	S389	IC	200/210	-
S305	IA	240/180	-	S390	IA	180/160	-
S306	IIC	390/360	-	S391	IC	160/220	-
S308	IA*	170/170	-	S392	IA	190/140	-
S309	IIIB*	1150/700	RP	S393	IA	220/210	-
S310	IC*	190/210	-	S394	IA	240/210	-
S311	IA	170/150	-	S396	IB	300/220	-
S312	IC	160/200	-	S397	IB*	210/190	-
S313	IB	490/220	-	S398	IA	300/150	-
S314	IIA	350/250	pre-Flav?	S399	IA	240/210	-
S315	IIIB	900/850	I	S400	IB	250/170	-
S316	IA	200/140	-	S401	IIA	340/300	-
S317	IB	330/210	-	S402	IA	220/200	-
S318	IB	340/180	-	S403	IB	200/170	-
S319	IC	150/180	-	S404	IB	150/130	-
S320	IC	530/650	LIA K/RP I	S405	IA	140/130	-
S321	IIA	340/300	IB	S406	-	-	-
S322	ID	150/150	IB	S407	IA	180/170	-
S323	IB	380/320	RP	S408	IC*	190/210	-
S324	IA	180/160	-	S409	IA	180/180	RP
S325	IB	140/120	-	S410	IA	180/170	-
S326	IC	420/500	-	S411	IA	140/120	-
S327	IA	190/190	-	S413	IA	200/180	-
S328	IA	200/180	-	S416	IA	190/190	RP
S329	IA	160/130	-	S417	IA*	210/180	-
S330	IA	180/170	-	S418	IA	140/140	-
S331	IB	350/180	-	S419	IB	400/310	RP
S332	IA	130/110	-	S420	IA	220/170	-
S333	IA	260/240	-	S422	IA*	210/200	-
S334	IB	450/350	RP	S435	IB	510/210	-
S335	ID	320/210	-	S436	IIIA*	700/600	RP
S336	IIA	320/230	RP	S437	IB	140/120	LIA/RP
S338	IA	180/170	-	S438	IB*	270/170	-
S339	IA	180/140	-	S452	IC*	220/230	-
S340	IA	170/120	-	S453	IA	200/170	-
S342	IA	190/190	-	S454	IB	310/190	-
S343	IA	200/180	-	S455	IIB	850/440	-
S344	IA	190/180	-	S456	ID	400/200	-
S346	IA	180/170	-	S457	IA*	180/100	-
S347	IA	190/170	-	S458	IB*	380/250	-
S348	IB	380/190	-	S459	ID	250/190	RP
S349	IA	440/440	-	S460	IB*	300/160	-
S350	IA	130/120	-	S461	IA	160/130	-
S351	IA	320/260	-	S462	IA*	180/170	-
S353	IA	150/150	-	S463	IA	340/260	LIA/RP
S354	IA	200/190	-	S464	IIIA	800/620	RP Ic
S355	IB	410/190	-	S465	IB	310/230	-
S356	IA	220/220	RP	S466	IA	190/180	-
S357	IA	200/180	-	S467	IA	190/180	-
S358	IA*	240/200	-	S468	IA	160/150	-
S360	IA	260/220	-	S469	IB	220/160	-
S363	IA	220/200	-	S470	IB*	210/130	-
S382	IA*	240/160	-	S471	ID*	280/250	-
S383	IB*	600/290	-	S480	IA	230/210	-
S384	IB	370/190	-	S486	IA	120/110	-
S385	IA	200/180	-				
S386	IA	230/210	-				

Table 27. Granaries and *horrea* from the Westerveld settlement. Date: LIA = Late Iron Age (phases I-L), RP = Roman period. * = plan is incomplete.

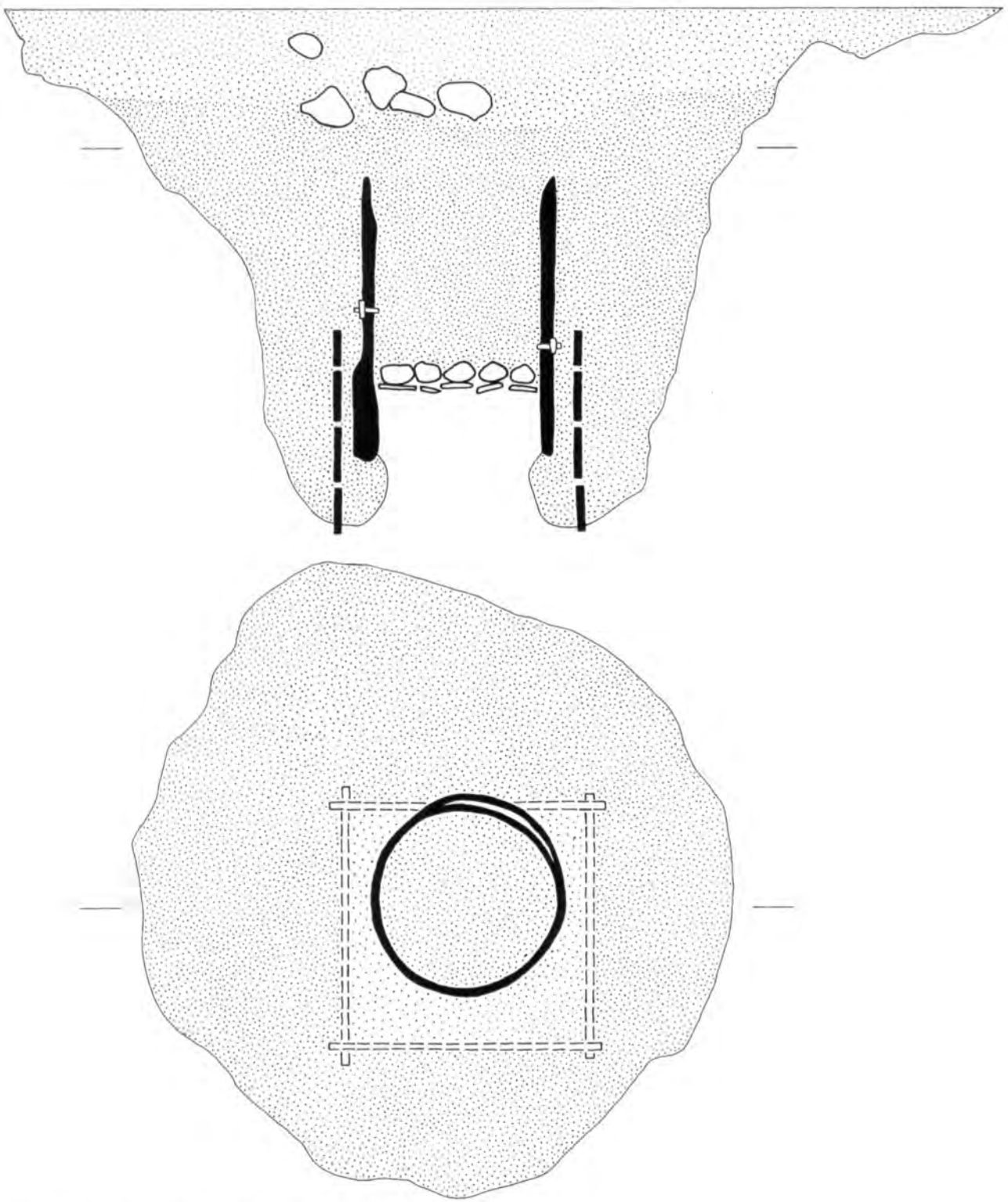


Figure 116. Well of types A3 and A5: P272. Scale 1:30.

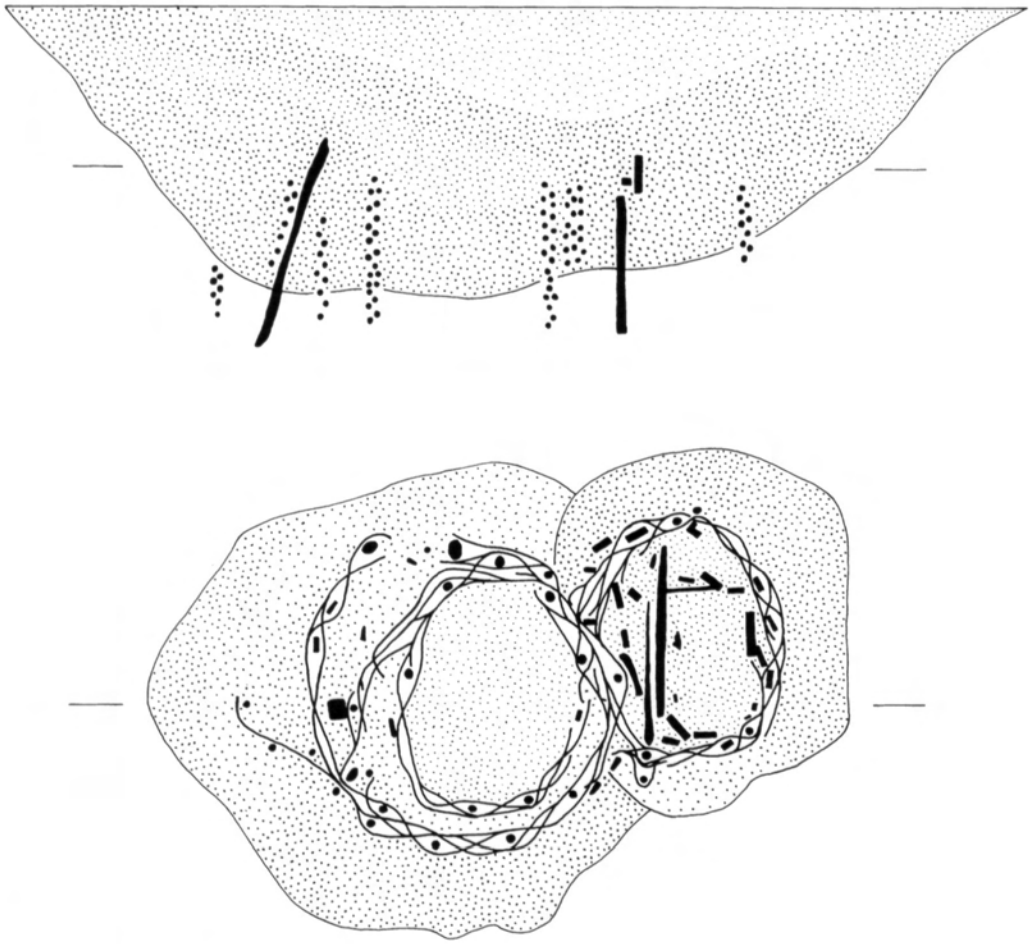


Figure 117. Well of type A1: P372a/b. Scale 1:30.

not be documented. Combined types of lining included three combinations with a hollowed-out tree trunk: a square lining made of horizontally placed elements (P272, fig. 116), wattlework (P422) and a round lining made of vertically placed elements (P412). In two cases, two linings made of wattlework were found in one well (P345 and P372a, fig. 117). Twice a square lining was made of both horizontally and vertically placed elements (P415 and P424) and once a square lining was combined with a round one, both made of vertically placed elements (P411).

The majority of pits and wells are situated within the settlement enclosure (table 29). Only two wells lie just outside the ditches, in the south-west corner. In three cases a pit or well is situated between the inner and the outer enclosure ditch. Apart from some nondescript ditch fragments, pits and wells are the only type of feature intersecting the enclosure ditches. Seven pits are dug out in the filling of the inner ditch (F125), three times this is the case for the outer ditch (F126), and in one case the inner ditch was dug through an old pit.

Wood from four wells was used for dendrochronology, and yielded the following uncorrected dates: AD 72 (P207), AD 78 (P253), AD 145 (P272) and AD 174 (P305). The latter date did not correspond with the date provided by the find material.

4.5 Palisades and ditches

In the area of the Westerveld settlement, 27 ditches and 16 palisades were documented (table 31). Apart from the ditches enclosing the settlement (F125 and F126) and two ditches enclosing smaller areas (F87 and F117), none of the structures are complete. This is largely due to the fact that the features were often shallow. The original number of ditches and palisades will have been larger than what has now been documented: many small ditch fragments, visible on the excavation plan, were not investigated or numbered.

No.	type	depth (cm)	diameter (cm)	diameter lining	wood	date	dendro
P207	A5			100x100	F Q	Id	AD 72
P210	A1		250			Id-IIA	
P213	B-D	90	150			RP	
P231	A1		280	70	A	RP	
P233	E	55	175			Ic	
P234	E	70	150			IB	
P235	E-I	30	110			Ic	
P237	E	85	185			Id-IIa	
P238	H	20	250			Ib-c	
P239	A3	120	150	40		IIb-c	
P240	A2	105	180	70	Q	Id-IIa	
P243	A1	120	230	100	Q	Id-IIa(b?)	
P246	A1	125	400	100x130	A Q S	IIA	
P247	B-D	100	200			Id-II	
P249	A5	180	400	135	Q	IIA	
P253	A5	170	380	120x120	A Q S	Id	AD 78
P254	A3	220	280	75	A Q	Ia-b	
P255	A3	160	270	110	Q	IIB	
P256	A4	165	200	65	Ab P	Ia	
P258	F	80	175			Id-IIa	
P259	F	80	190			IIA	
P260	I	30	220			IB-IIA	
P263	B	70	205			Ia(-b?)	
P264	A5		230	115x115	Q	IA-c	
P265	A1	110	360	80		I-IIa	
P266	A1	110	270	80	S	IIA	
P268	E-I	65	180			IIA	
P269	F	90	330			IIA	
P270	A-I					Ib-c	
P272	A3	225	520	80	F Q	IIA	AD 145
	A5			130	Q		
P288	A1		250	75	A S	IB	
P289	B	85	210			IB-IIA	
P290	E-I	65				RP	
P291	E-I	50	140			RP	
P292	A5		220	110x115		IIA	
P294	A5	120	240	110x110		IB	
P296	E	70	190			IB?	
P297	E	50	150			IB?	
P300	A1	100	250	100x120	Q	Id	
P302	E	40	275			IA	
P303	H	30	245			IId-IIIc	
P304	E	80	175			IIB	
P305	A5	140	310	130x130	A Q S	IB	AD 174
P306a	A4	260	300	95	A Ab P Q S	Ib-c	
P306b	A5	140	350	90x110		RP	
P307	A5		360	130x140	Q	Ic/d-(-IIIa)	
P308	B	100	210			II	
P309	A5	120	250	80x80	Q	Id-IIA	
P310	H	30	80x175			Id-II	
P313	A6	120	320	55x60		IIb-c	
P314	H	50	330			Ib-c	
P315	E	45	135			Id	
P316	E-I					LIA/RP	
P317	F	35	120			Id-IIA	
P318a	A1	195		90x100		IIA	
P318b	B	120				RP II	
P319	B	100	250			IId-IIIc	
P321	A7	80	180			Flav. and later	
P323a	B	120				LIA/RP	
P323b	A7	100				I	
P324a	A1		280	90	Q S	Id-IIB	
P324b	A5		280	102x106	Q	IIB	
P326	E-I	25	160			Id-II	
P327	E	50	210			IIA-c	
P329	A1	115	280	80x110		IIB	
P330	E-I	20	500			IIB	
P331	D	80	180			LIA J-L/RP	
P332a	A1	260	100		A S	RP	

No.	type	depth (cm)	diameter (cm)	diameter lining	wood	date	dendro
P334	E	40	190			Id-IIa(b?)	
P335	C	50	160			LIA L/RP Ia-c	
P336	A1	90	190	70		LIA L/RP I	
P337	A					pre-Flav.	
P338	A	90				Id-IIa	
P339	A1	70	210	65		IB (-IIa?)	
P340	F	50	300			IB-IIa	
P342	F	25	150			Id-II	
P343	A1	90	200	65		LIA L/RP	
P345	A1	100	250	90		IB-IIa	
	A1			70			
P346	H	35	110x200			IIB	
P347	H	20	100x150			IIB	
P348	C	90	280			LIA/RP IA	
P349	A1	115	270	100		IB-IIa	
P369	F	80	260			I(c-)d	
P370	E	75	120			pre-Flav.	
P372a	A1	130	360	70x90		Id	
	A1			110x120			
P372b	A1	130	360	70x90		RP	
P374	A5			93x93		Id	
P375	A1	115	370	80x90	Q	Ib-c	
P378	E	30	140			IB	
P379	E	50	110			IB-II	
P383	A5	100		90x110	F Q	II	
P392	H	40	80x280			Id	
P393	A1	115	160			I	
P394	A1		240	100		Id-IIa	
P395	E	45	180			Ic	
P396	A3	130	45			Id-II	
P401	B	80	150			LIA/RP	
P402	A1	90	260	75		RP	
P403	A1	100	180		Q S	IIA	
P407	A5	160	300	60x85		II	
P408	B-D	100	570			IId-IIIc	
P409	E	50	200			Id-II	
P410	E	7	250			IB-IIa	
P411	A2/6	200	100		Q	IA-IIb	
P412	A2+3	125	300	60	Q	IIB	
P413	A5		250		A	Id-II	
P414	B	60	210			pre-Flav.	
P415	A5/6	150	310	80x140		IIA	
P416	A1	110	210	80		IIB	
P417	A1					Id-IIa	
P418	E	40	140			RP	
P419	A1	110	260	90x110		Id	
P420	H	20	90x170			Id-II	
P422	A1		220			Id-IIa	
	A3			75			
P424	A5/6	110	360	100x100		Ib-c	
P429	A1			100x135	Q	Ib-c	
P430	E	60				RP	
P431	A1	105		120x140	A Q	Id-IIa	
P449	F	55				LIA J-L/RP	
P466	I	10	1000			Id-IIa	
P467	E-I	25	35			LIA/RP	
P475	B	90	800		A Q S	II	
P477	H	10	90x140			RP	
P479	H	30	100x280			IB	
P480	E-I	35	90			IB	
P484	G	45	90			IB-IIa	
P485	H	20	80x200			II	
P486	E	30	90			IIB	
P488	B	50	150			IIB	
P494	H	5	70x110			Id	
P501	F	25	100			IB-IIa	

Table 30. Pits and wells from the Westerveld settlement. Wood: A = *Alnus* (alder), Ab = *Abies* (silver fir), F = *Fraxinus* (ash), P = *Picea* (common spruce), Q = *Quercus* (oak), S = *Salix* (willow). Date: LIA = Late Iron Age, RP = Roman period.

Schinkel (1994, part II) discerned a set of different types, most of which occur in the Westerveld settlement (figs. 118 and 119):

I: palisades made of thin posts, closely set together
IA: linear or L-shaped (N=12)
IB: square
II: palisades with 'normal' sized posts, widely spaced
IIA: linear or L-shaped (N=4)
IIB: square
III: ditches
IIIA: linear or L-shaped with a flat bottom (N=22)
IIIB: linear or L-shaped with posts through the bottom (N=1)
IIIC: square or circle (N=4)

Five times there is a possible link between a palisade or ditch and a pit or well, and one of the ditches (F87, fig. 119) encloses a *horreum* (S309). Three of the palisades show double rows of posts, while in six cases palisades and/or ditches run parallel to each other. Only a small number of ditches and palisades contained finds and could be dated on the basis of these.

The large farmyard enclosure (F117)

Ditch F117 (a-e) encloses an area that can be defined as a farmyard (fig. 120). The western boundary is not clear, but may have been formed by the western ditches of the settlement enclosure itself. In that case, the farmyard would have covered *c.* 1.25 ha. If the area in the south-east corner, partitioned off by palisade F89, is also considered part of the same farmyard, the total surface area adds up to 1.4 ha. The find material from F117 suggests a date somewhere in the second half of the first century/beginning of the second century AD. Pits and wells dug through the fill of F117 indicate that the ditch was out of use in the second half of

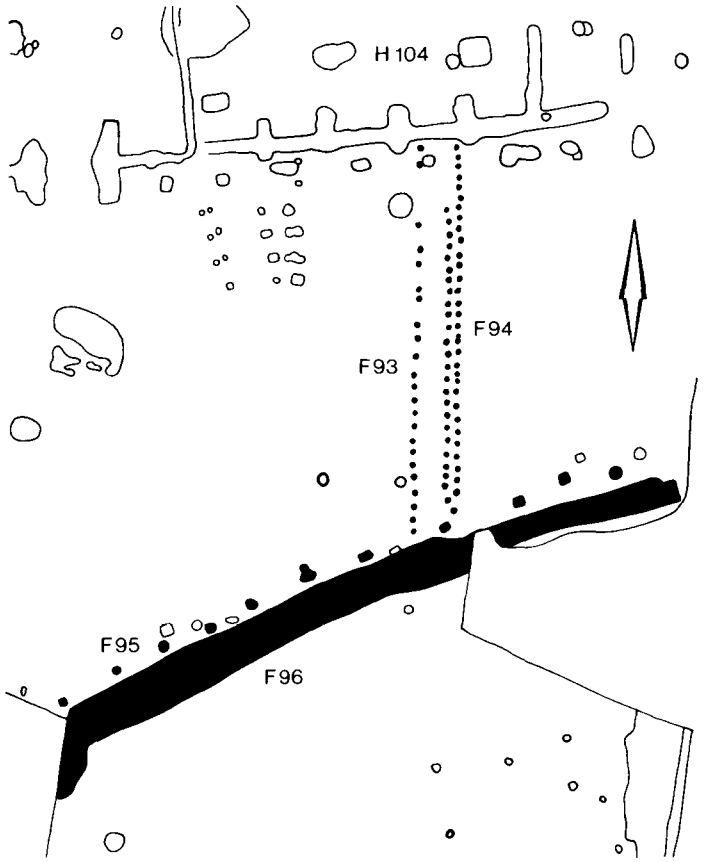


Figure 118. Palisades of types IA (F93, single; F94, double) and IIA (F95) and ditch of type IIIA (F96). Scale 1:200.

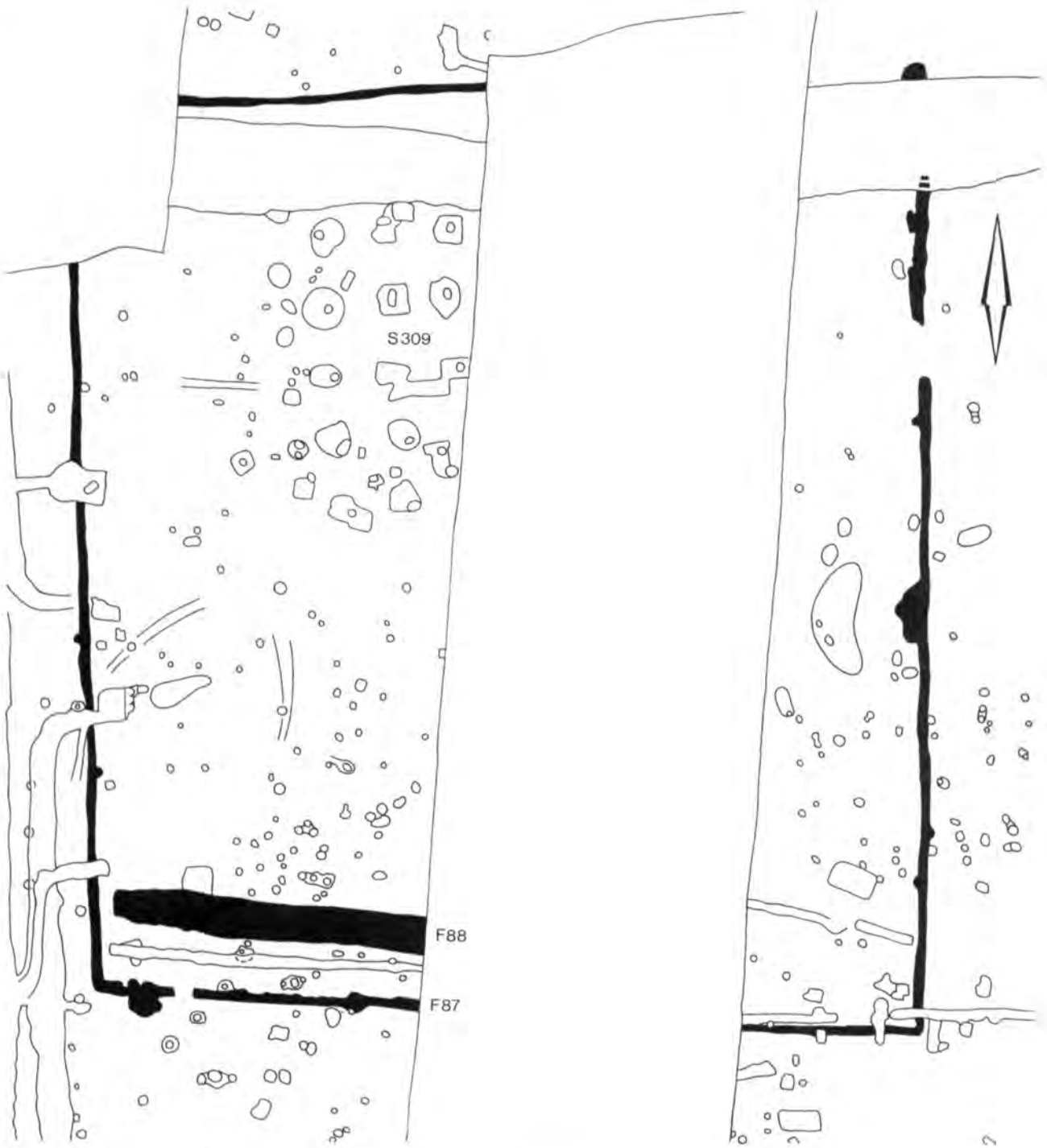


Figure 119. Ditches of type IIIA (F88) and IIIC (F87), enclosing granary S309. Scale 1:200.

No.	type	length (m)	width (m)	orientation	dating	particulars
F38	IIA	14.6		N-S		parallel to F117c
F43	IIA	35.0		N-S		
F44	IIA	24.5		N-S	IIB	
F45	IA	3.2		E-W		
F46	IA	24.0		E-W		double
F81	IA	6.5		NW-SE		partly double
F82	IA	5.9		NW-SE		
F83	IA	2.8		N-S		
F86	IA	7.8		N-S		
F87	IIIC	29.0x27.0	30/40	N-S/E-W	RP	encloses S309
F88	IIIA	10.2	120	E-W	Id-IIa(b)	parallel to F87
F89	IA	21.3		N-S		
F91	IA	38.5		N-S/E-W		corner double
F93	IA	10.1		N-S		parallel to F94
F94	IA	10.0		N-S		
F95	IIA	16.4		NE-SW	II	parallel to F96
F96	IIIA	17.3	60/110	NE-SW	II	
F97	IA	31.8		N-S		parallel to F99
F98	IA	5.0		E-W		
F99	IIIA	38.0	30/100	N-S	II	runnng towards P330
F117a	IIIA	44.0	30/40	N-S/E-W	RP (Ic-IIa)	
F117b	IIIA	47.0	30/40	N-S	RP (Ic-IIa)	double
F117c	IIIA	18.2	40/80	N-S	RP (Ic-IIa)	running towards P265
F117d	IIIA	42.6	40/120	E-W	RP (Ic-IIa)	
F117e	IIIA	28.0	40/100	N-S	RP (Ic-IIa)	
F118	IIIA	5.0	50	N-S/E-W		running towards P259
F119	IIIA	18.0	70/150	NW-SE	Id-IIa	
F120	IIIA	17.0	70	NW-SE	Id-IIa(b)	parallel to F119
F121	IIIA	16.3	100/150	E-W	IIA	
F124	IIIC	Ø 6.4	60	-	Id-II	circle
F125	IIIC	233x318	100/250	N-S/E-W	I-IIa	inner enclosure ditch
F126	IIIC	247x330	120/470	N-S/E-W	I-IIc	outer enclosure ditch
F127a	IIIB	728.0	20/200	N-S/E-W	II	in between F125 and F126
F127b	IIIA	134	60/150	N-S/E-W	II	
F128	IIIA	5.0	100	N-S	RP	
F129	IIIA	51.1	40/100	N-S	RP	
F130a	IIIA	57.0	120/210	N-S	RP (II?)	extension of F125
F130b	IIIA	52.0	320/400	N-S	RP (II?)	extension of F126
F131	IIIA	38.0	50	N-S/E-W	II	
F132	IIIA	66.5	40/100	N-S/E-W	RP	
F133	IIIA	60.0	60/150	N-S/E-W	IB (-IIa)	
F134	IIIA	25.5	150/190	E-W	RP	extension of F126
F135	IIIA	31.5	100	E-W	RP	extension of F125

Table 31. Palisades and ditches from the Westerveld settlement.

the second century AD. The south-eastern part (F177c) cuts through P266, which is dated Id, thus suggesting that at least that part of the farmyard-ditch was constructed after Id. As a whole, the large farmyard seems to have been partitioned off somewhere near the end of the first century AD, and stayed in use for approximately 50 years. This probably includes one or more phases of re-digging or enlarging, for instance illustrated by the double ditch (F117a/b) on the east side. This suggests that in an earlier phase the northern boundary of this farmyard was set slightly further to the south, and that the area was enlarged later on. Remainders of small ditches within the farmyard also indicate different phases and/or internal division into smaller patches. Because the ditches are shallow and could not be retraced everywhere, it is difficult

Figure 120. Farmyard enclosure F117.

to point out entrances. Possible openings are on the eastern side.

The settlement enclosure (F125 and F126)

Ditches F125 and F126 form a rectangular ditch-system, comprising an inner ditch (F125) and an outer ditch (F126), which encloses the Westerveld settlement (fig. 121). Sections through F125 show that this ditch was re-dug once. On the west side the younger phase was situated farther away from the settlement, on all other sides the re-digging resulted in the ditch lying closer to the settlement. Of both phases, form and fill were similar. An original depth of *c.* 80 cm means that the ditch did not contain water.[4] Find materials point to a date in the first century AD, which is confirmed by a number of pits and wells dug into the fill of the ditch. The majority of these were dated in the second century AD.

F126 was re-dug at least twice, with the younger phases all situated further away from the settlement than the original ditch. Only on the west side is the situation of the younger phases unclear, due to a lack of good sections. Through all three phases the (reconstructed) depth remained *c.* 60 cm, which means that the outer ditch did not contain water either.

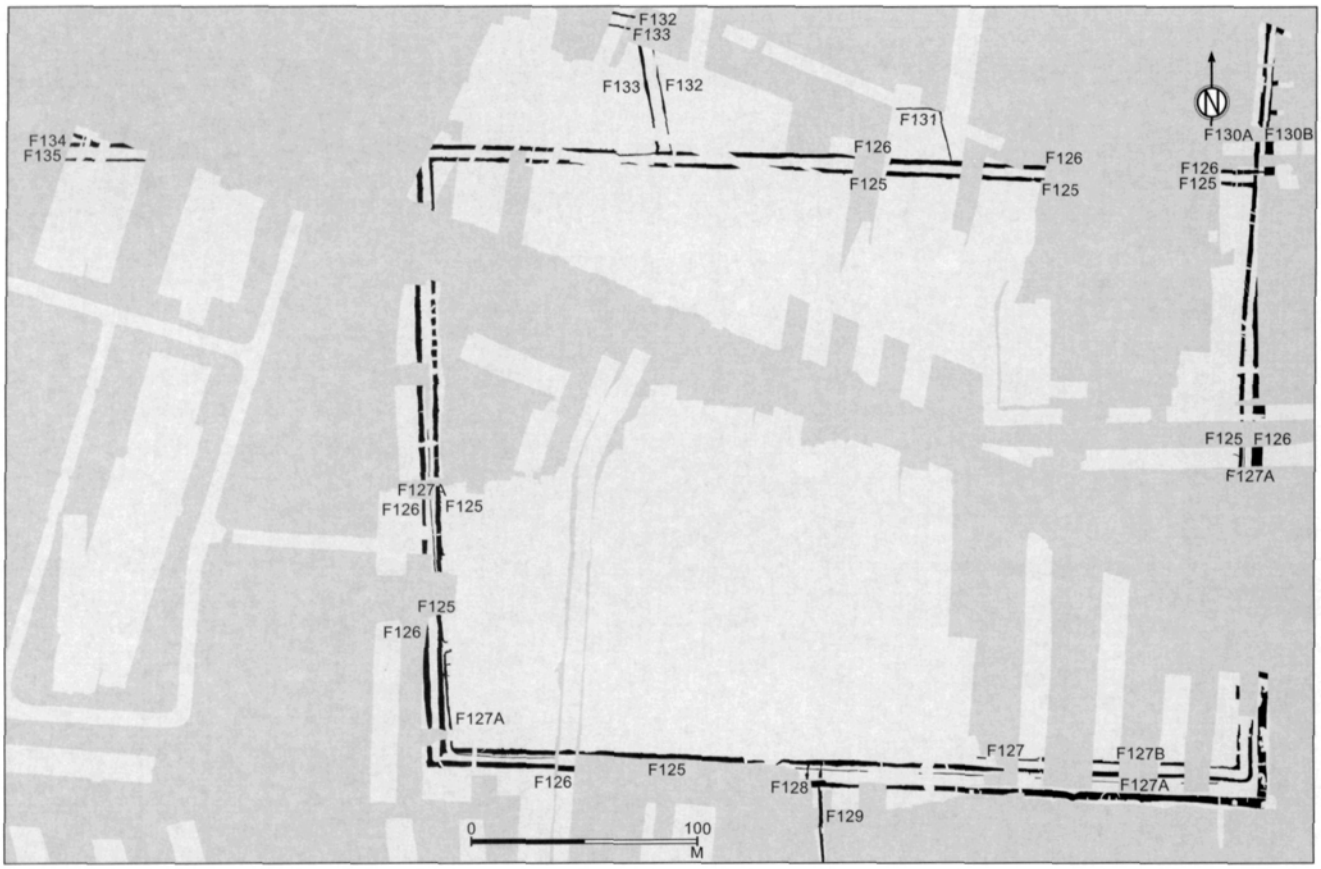


Figure 121. Ditches that enclose the Westerveld settlement (F125 – F135).

The finds from this ditch, and intersections with three wells, point to a date between the beginning of the first century AD and the end of the second century AD. Like F125, F126 cannot be dated precisely. Comparing the finds and intersections, it seems that F125 was out of use slightly earlier than F126. However, both ditches will certainly have been in use at the same time: they never intersect one another, and almost all connecting ditches are in pairs too. Moreover, the northern entrance for both ditches is situated in the same place, and was closed off in both ditches (see below). The double ditch system was probably constructed as a whole, somewhere in the first half of the first century AD. The outer ditch maintained its function until somewhere in the second century AD[5], while the inner ditch, after being re-dug once, was allowed to silt up after *c.* 50 years.[6]

The excavated parts of the enclosure show two entrances. On the northern side, just west of ditches F132 and F133, both the inner and outer enclosure ditch are interrupted over a length of *c.* 15 m. This opening was, at a later moment, closed off by two shallow ditches (*c.* 40 cm), one for each enclosure ditch. On the north side of the ditch that closed off F126, a row of posts with a regular interval of *c.* 2.5 m was placed, completing the 'barrier'. The shallow ditches could not be dated, but it is likely that the closing off of this entrance took place when both enclosure ditches were still in use, i.e. somewhere in the first century AD. This entrance was therefore in use during the earliest phase of the enclosure, but for some reason was closed later. The second known entrance could only be documented for the inner ditch. It is situated on the south side, just west of ditches F128 and F129. The outer ditch was not excavated on this particular spot, so whether or not this was also a double entrance is unclear. The eastern branch of F125 seems to bend southwards here, creating an opening with a maximum width of 4 m. Finally, there is a third possible entrance. On the western side of the enclosure two smaller ditches branch off of the inner ditch, towards the settlement. The distance between the two branches is *c.* 9 m. Situated just west of the enclosed *horreum* (S309 and ditch F87), they may have served as an entrance to that area. The southern of the two branches intersects F87. However, ditch F125 is not interrupted in this place, nor is F126. It is thus not certain whether a real entrance is present.

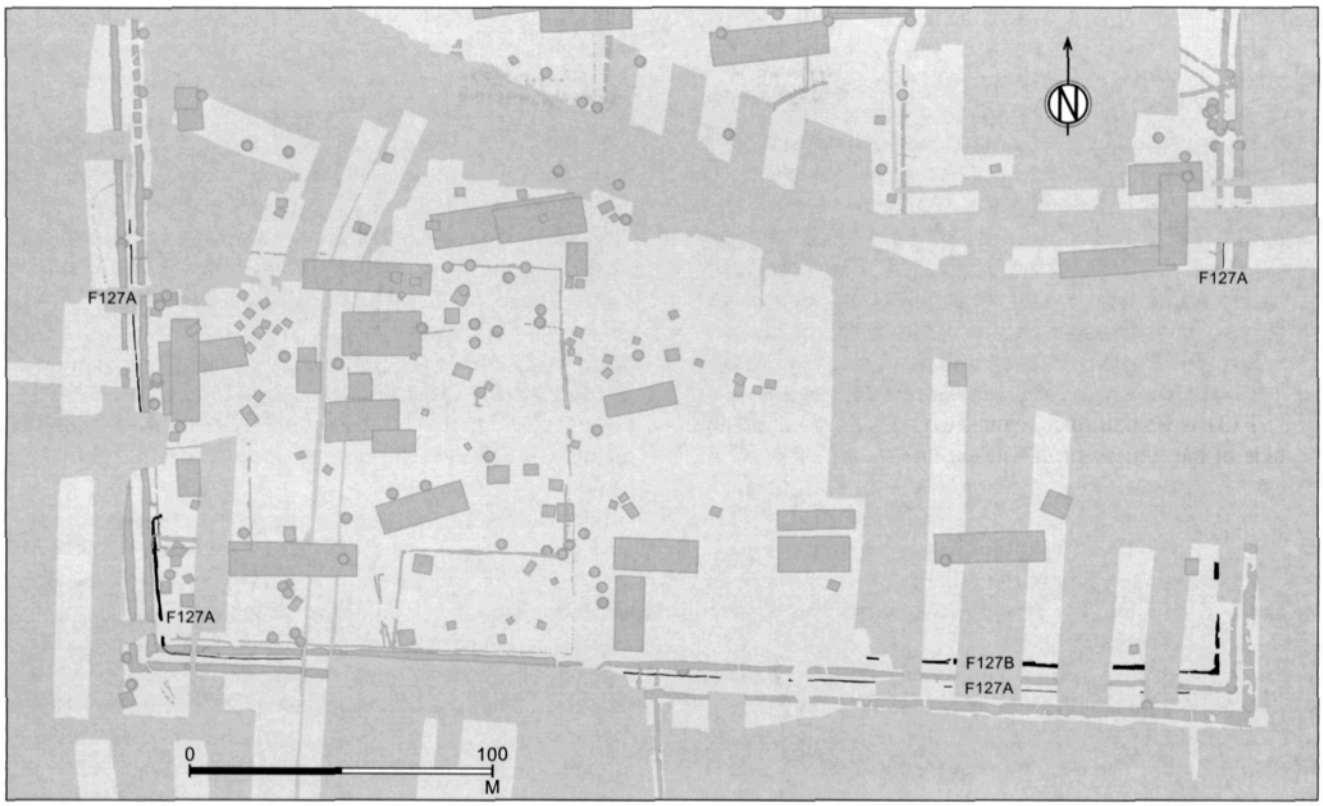


Figure 122. Ditches F127a and F127b.

Ditches following the line of the enclosure (F127a and F127b)

Between both enclosure ditches, on the west, south and east side of the settlement, a narrow palisade ditch (F127a) was documented (fig. 122). It was shallow, with a maximum depth of 20 cm. On the south side the ditch could be traced over a length of *c.* 260 m, with several interruptions. In the south-west corner it intersects F125, and runs just east of it for another 40 m. A section in this place revealed that F127a was re-dug twice. To the south-west of the enclosed *horreum* S309, the ditch bends eastward, just between the two branches of F125, one of which intersects F127a. This would suggest that the palisade ditch was dug later than F125, but that the branches of the enclosure were an even later addition. Further north the ditch was documented again, for a further 56 m, between the enclosure ditches. On the east side there is only a fragment with a length of *c.* 7.5 m, parallel to and in between F125 and F126. Finds from F127a include handmade and wheel-thrown ware, and a fragment of a glass vessel (dated IB-IIA).

In the south-east corner of the settlement a ditch (F127b) following the line of the enclosure was documented. The distance between F127b and F125 is *c.* 5 m. Visible were an interrupted southern branch of *c.* 103 m, a corner, and an eastern stretch of 33.5 m. Sections showed two phases in the eastern branch, with no definite answer as to which was the younger one. The depth of the ditch varies between 30 and 50 cm. Only a few pottery fragments were retrieved from F127b. The (rough) date in the second century suggests that F127 was perhaps the successor of F125/F126, or that it was dug to emphasize the enclosure.

Ditches linked with the enclosure (F128 - F135)

Several other ditches (F128-F135) are linked with the settlement enclosure (see fig. 121). They all continue outside the excavated area. F128 and F129 form a pair of parallel ditches connected to the southern, inner enclosure ditch at an almost right angle. The distance between both ditches is 5 m. F128 joins the inner enclosure ditch, and could be followed to the south for only 5 m. Its depth varies between 20 and 30 cm. F129 seems to have been re-dug once, both phases have a depth of 30 cm. The connection of this ditch with F125/F126 is less clear: F129 could not be followed all the way north to F125, and furthermore it seems to be intersected by F126. The part of F129 between the two enclosure ditches shows just one phase and a depth of only 15 cm. Finally, F129 was dug through the fill of a pit from

the Iron Age (P209). Only a few pottery fragments were found in both ditches, including one wheel-thrown sherd.

F130a and F130b are extensions of F125 and F126 respectively. In the north-east corner, the enclosure ditches extend to the north for at least 50 m. No sections were made through F130b.[7] F130a seems to have two phases, both *c.* 45 cm deep. One of the sections shows a good likeness to sections of F125. The ditch was traced for a further 100 m by means of a coring survey.[8] F130a may have been connected with one of the ditches around the Schalkskamp settlement (Fokkens 1991b, 131; Raemaekers 1993, 25/26, see also chapter 5).[9] Finds from F130a consisted of a large group of handmade pottery and some wheel-thrown fragments

F131 is a small ditch, connected with F126 on the north side of the settlement. It was cut into the fill of F126. F131 runs in a north-northwest direction for the first 21 m, and then bends to the west, where it continues for another 17 m. Its depth is 35 cm. No Roman features were found in the area enclosed by the combination of F131 and F126. Finds included seven fragments of handmade pottery and two wheel-thrown sherds.

About 100 m west of F131, also connected to F126, lie the parallel ditches F132 and F133. Both run in a north-west direction for *c.* 47 m (F133) and *c.* 52 m (F132), and then bend to the west. The bend itself was not excavated. The distance between the two ditches is 5 m. F132 is seamlessly joined to F126; no intersections are visible. Its depth varies between 16 and 40 cm, and only one phase was documented. The ditch intersects a pit dated to the Early Iron Age (P384). Finds include 36 handmade sherds and one post-Roman fragment. F133, with a depth between 25 and 50 cm, clearly shows two phases, the left (southern) one being the youngest. This ditch intersects another pit from the Early Iron Age (P392). F133 seems to have been dug into the fill of F126, thus dating this set of connected ditches later than the enclosure itself.

Finally, F134 and F135 form a set of double ditches situated at a right angle to the enclosure.[10] They seem to be an extension to the west of the northern stretch of F125/F126. The actual place where they would join F126 was not excavated. The distance between both ditches is 6 m. F134 shows two phases, which cannot be dated in relation to one another. Their depth varies between 20 and 40 cm. Finds from the 25 meter long stretch include nine handmade sherds and the base of a *terra sigillata* plate. F135 consists of one phase only, with a maximum depth of 35 cm. Only two handmade sherds and a fragment of a quartzite whetstone were found in this ditch.

4.6 An open-air sanctuary?

Within the Westerveld settlement part of a rectangular or square enclosure (45 x >40 m) was excavated (figs. 72 and 123).[11] The structure, numbered R57[12], consists of a ditch that was originally *c.* 2 m wide and *c.* 80 cm deep. Segments of the western and eastern side of the rectangle and the complete southern ditch could not be excavated. Building activities for houses in the Roman period (H101, H116 and H117) as well as for medieval features and sub-recent ditches have disturbed the enclosure to a large extent. Whether the opening in the north-western corner is really an entrance therefore remains uncertain. Pottery finds from the ditches consisted of 300 handmade fragments and 54 wheel-thrown sherds. Other finds were small amounts of animal bone, baked clay, a whetstone made of sandstone, an iron nail, and a small quantity of iron slag. Together the finds suggest a date in the 1st century AD, but an earlier date is possible (see this chapter note 17 and Van der Sanden 1994, 216).

In an earlier discussion this structure was interpreted as a rural open-air sanctuary (Slofstra/Van der Sanden 1988). A row of five posts in the southern half of the enclosed area was considered to be part of the monument. The main reasons for including the structure from Oss in a group of rural sanctuaries from the Meuse-Demer-Scheldt area were: situation and size of the monument, and; the presence of the row of posts, for which good parallels were present (Slofstra/Van der Sanden 1988, 135). Furthermore there appeared to be a continuity from the (Middle) Iron Age, during which a large enclosure in the cemetery at Oss-Ussen might have been used for cult practices (Slofstra/Van der Sanden 1988, 163; Van der Sanden 1994, 206-210). The arguments mentioned above seem to be no longer strong enough for an interpretation as an open-air sanctuary. After discussing a number of counter-arguments I will argue that an alternative interpretation is possible, which does not necessarily reflect a cultural link with the 'Belgic' sanctuaries in Northern France (Slofstra/Van der Sanden 1988, 155).

The fact that no unusual finds are present cannot be overlooked: none of the objects can be considered a votive offering.[13] Furthermore there are no indications for votive pits. The large size of the enclosure is comparable to the French monuments, but exceptional within the Meuse-Demer-Scheldt region.[14] The area within the enclosure is filled with features to such an extent that it is difficult to say whether the row of postholes is actually part of the structure. Even though fill, shape and colour are valuable arguments for a connection between ditch and posts, the finds (six fragments of handmade pottery) are not convincing. The orientation is the same as that of the northern ditch, but not exactly.[15] The same slightly deviating orientation[16] is used as an argument against a connection between R57 and the row of small posts partly following the track of the enclosure on the inside (F91). The situation of the monument in the

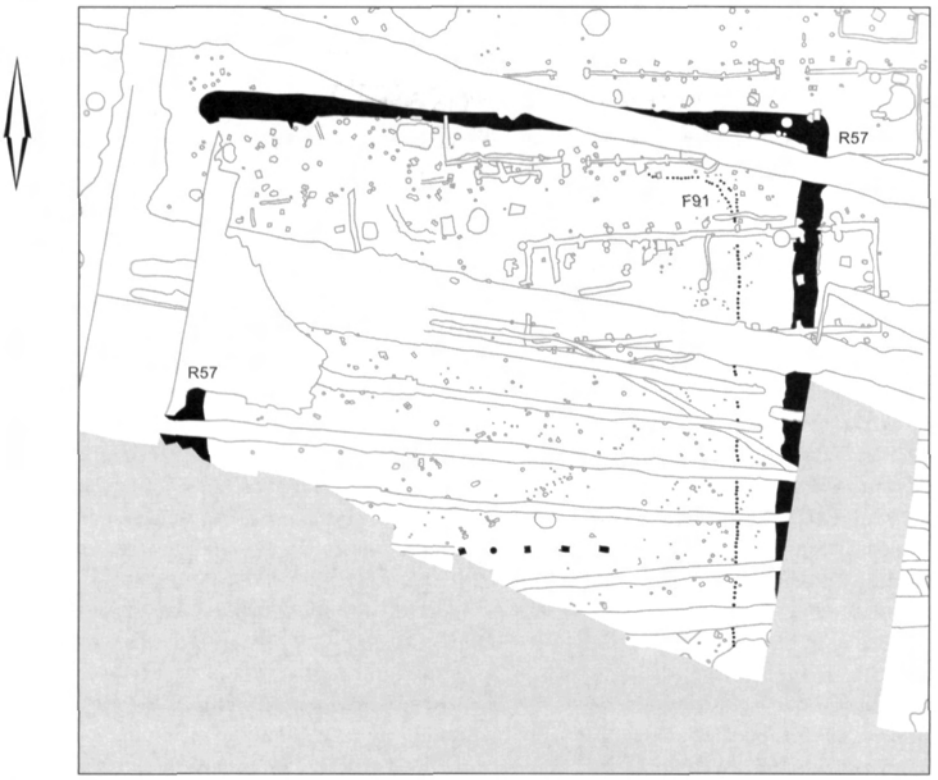


Figure 123. Ditched enclosure R57.

middle of a Roman period settlement is unusual and unlikely. Hoogeloon and Neerharen-Rekem are mentioned as parallels in this respect, but the sanctuary at Hoogeloon is situated *c.* 50 m south of the settlement enclosure (Slofstra 1987, 60; 1991, 149) and the interpretation of the structure at Neerharen-Rekem is questionable (Derks 1996, 227, note 102). It is unlikely that a cult oriented towards the dead and the ancestors was practised in the middle of a living area, while the cemetery was situated well away from the settlement (see 6.1). Moreover, in that case there would be no continuity from the Iron Age in Oss, when (cult) monuments were situated in or near the cemeteries. The fact that the enclosure was overbuilt by a farmhouse (H101) within *c.* 75 years[17] has to count as one of the strongest counter-arguments (see Derks 1996, 227, note 102). Even when out of use, a cult place was usually respected for a long period (Roymans 1995b, 9), something which can also be seen in Iron Age Oss (Van der Sanden 1994).

If R57 is not an open-air sanctuary in the rural tradition of the Meuse-Demer-Scheldt area, other explanations for this large enclosure must be sought. Before discussing its function, it is important to take a closer look at the structure's dating. The two extreme options consist of an origin in the Late Iron Age (*c.* 50 BC at the earliest) and one in the Roman period (the first decades AD). Theoretically, any date between these two is possible (see note 17). A choice for either one of the dates has consequences for two aspects: the amount of time that passed before the structure was overbuilt, and its location with respect to the occupation. If R57 was laid out in the Late Iron Age it would have been situated just north of a cluster of farmhouses (Schinkel 1994, part I, 186)[18], and was overbuilt after *c.* 75 years. If the ditches were dug at the start of the first century AD, around the same time as the large double enclosure, R57 would have been situated within a Roman period settlement, and went out of use after *c.* 25 years.

The finds material allows for an Iron Age date: most of the pottery is handmade. The wheel-thrown ware was found in the (heavily disturbed) western ditch and in the northern ditch, which is underneath a cluster of Roman farms. And as Van der Sanden (1994, 216) points out, it is possible that the ditches were dug during the final decades BC without any typical Late Iron Age pottery ending up in the fill. Since there are no indications that the ditches of R57 were re-dug, they would have been silted up after *c.* 25 years (see this chapter note 6). Building a farmhouse on top of a derelict structure 50 years after it was originally constructed does not seem an unlikely action in a densely occupied area. On the

other hand, a Roman period origin is not impossible. A pottery complex from the first decades AD is likely to contain a large percentage of handmade ware (especially if this includes older debris lying around). Moreover the size, shape, layout and orientation of the ditches show a remarkable similarity to the enclosure ditches F125 and F126. All three had a depth of *c.* 80 cm, a width of *c.* 2 m, and were mostly bowl-shaped in section. Furthermore, both R57 and the ditch system had right angles and a north-south orientation. In my opinion therefore, the large enclosure and the ditches enclosing the Westerveld settlement were dug at the same time, by the same group of people. Keeping this in mind, I will list a number of possible interpretations.

Strictly functional uses, such as a farmyard enclosure or a cattle corral seem unlikely. There are no good parallels for an enclosure of this type. Even though the size of the enclosed area (at least 1800 m2) is appropriate[19], it would not explain the large width and depth of the ditches. If palisade F91 had a similar function, R57 could be regarded as a reinforcement or a follow-up, but the difference in construction and size cannot be explained. The only building that is enclosed by the ditches is H100, which is dated to the (early) Late Iron Age (see note 18) and has a completely different orientation.

Another possibility is that R57 is a funerary monument. Some of the arguments listed above can be used again to weaken this hypothesis: the insignificant find material, the fact that the structure was overbuilt too quickly, and the location. During the Late Iron Age as well as the Roman period, graves were situated in the more or less open area south of the Westerveld settlement. Moreover, there are no indications for any form of interment: no cremation or inhumation remains, no grave goods or even a central pit. For a grave, the size of the structure would be unusually large.

Even if R57 is not a true open-air sanctuary in a regional tradition, it is clear that this large enclosure cannot be explained in a purely functional way or in the funeral tradition of the area. It seems that the fact that we are discussing an *enclosure* is significant. The construction of this enclosure, around the same time as the digging of the ditches that were to enclose the settlement, must have had a special significance. In a way, R57 and F125/126 may have had the same function: the marking of a boundary. Even though in the case of R57 we do not know what was being enclosed, the value of the actual act of enclosing seems clear during the first years of the Roman period in Ussen. Without using the term 'sanctuary', which separates the ideological from the everyday, this large enclosure might have been a statement in itself, or connected to what was being expressed by the large settlement enclosure. In that way, the arguments used by Slofstra and Van der Sanden about continuity from the Iron Age are still valuable. Enclosing an area, for a grave or a cult monument, is still meaningful at the start of the Roman period. But next to that, the practice has now exceeded the level of the funerary monuments, and is used in the settlements too. Precisely because of this link with everyday life a symbolic meaning could well have been combined with a more practical use. Elsewhere in this study I will discuss the meaning of boundaries in Oss in general (see 8.2).

I want to take this interpretation a little further by suggesting a direct link between R57 and the start, or even the foundation of the Westerveld settlement. The construction of R57 at the same time as the settlement enclosure can be regarded as a symbolic action, with the intention to enforce the foundation of the settlement. The digging of the small enclosure can be seen as a construction or foundation ritual, in the same sense as a foundation deposit or sacrifice.[20] Possibly the enclosed area was used on a single occasion for a ritual activity. Afterwards, the ditches were left to silt up, which emphasises this once-only use. According to Hingley (1990), the construction of a boundary *as well as* intentional acts to negate it, can be symbolic. The settlement enclosure was re-dug at least once, while R57 was left to silt up or was perhaps even backfilled. The subsequent overbuilding of the ritual enclosure with a *house* can be seen as a conscious act. One which, considering the part that R57 played in the *settlement's* foundation, was only fitting.

4.7 Finds

4.7.1 Pottery

The Roman period structures in the Westerveld settlement contained a total of 26,283 pottery fragments, of which 38%

	whole area		structures only	
terra sigillata	387	3	326	3
fine ware	9	+	8	+
Belgic ware	871	7	767	8
cork urn	154	1	136	1
colour-coated ware	366	3	307	3
smooth-walled pottery	1948	16	1574	16
mortaria	408	3	286	3
dolia	1146	10	941	10
amphorae	1479	13	1191	12
Waaslands	142	1	131	1
coarse ware	1617	14	1340	14
grey ware	3373	28	2876	29
indeterminable	47	+	40	+
total	11,947	100%	9923	100%

Table 32. Wheel-thrown pottery from the Westerveld settlement: number of sherds and percentages.

terra sigillata	326	1
fine ware	8	+
Belgic ware	767	3
cork urn	136	+
colour-coated ware	307	1
smooth-walled pottery	1574	6
mortaria	286	1
dolia	941	4
amphorae	1191	5
Waaslands	131	+
coarse ware	1340	5
grey ware	2876	11
handmade pottery	16,360	62
indeterminable	40	+
total	26,283	100%

Table 33. Wheel-thrown and handmade pottery from the structures of the Westerveld settlement: number of sherds and percentages.

(n=9923) were wheel-thrown and 62% (n=16,360) were handmade. Adding the wheel-thrown sherds that were found in the same area, but as stray finds or in features that could not be attributed to Roman period structures, results in a total number of 11,947 wheel-thrown pottery fragments. The total number of handmade sherds from the area is unknown (see 1.3). Comparing the relative proportions of wheel-thrown pottery from structures with those from the whole area (table 32) reveals only very slight differences in the percentages of tableware and grey ware. In order to be able to include the handmade pottery, I will mostly work with the pottery found in structures only (table 33).

The numbers in table 33 reflect the period during which the Westerveld settlement was used: most of the types date from the first and second centuries AD. Pottery from the late second century and the third century, such as the colour-coated *Qualitätsware* (technique d) and 'shiny grey' ware and *sigillata* mortars type Dragendorff 45, occurs in small quantities. Handmade ware, mostly used during the first century AD, accounts for the majority of the sherds found. Grey ware is present in reasonable amounts, all others categories are represented in smaller quantities. Eight fragments of fine tableware were found, a type of pottery that was not present in the smaller settlements.

At 62%, the relative amount of handmade pottery is large. The fact that the Westerveld settlement shows almost seamless continuity from the Late Iron Age occupation in the area certainly contributes to this. Finds from several structures dated to the Late Iron Age and/or the Roman period were included in the pottery lists, as well as some undated granaries and outbuildings. However, eliminating the pottery found in these structures hardly changes the proportions. Most of the larger find complexes derive from structures from the Roman period, such as the enclosure ditches and several house plans, pits and wells (see appendix I). Apparently debris including large quantities of handmade ware was lying around when the settlement was built and in use. The relative amount of handmade pottery from pre-Flavian pits and wells is 76%, after AD 150 it has decreased to 37%. Certainly more wheel-thrown vessels were used in the second century AD, but it seems that handmade pottery did not fall into complete disuse. The proportion of tableware found in all structures (just over 5%) is not exceedingly large, but some of the wells from the pre-Flavian period have relatively large amounts, such as P135, P270, P256, P314 and especially P254, in which four fragments of a vessel in fine ware were found. Among the houses from this early phase H70 and H74 yielded slightly more tableware, although the numbers are quite small. H74 contained a large number of sherds (1080), but 91% of these was handmade.

The Westerveld settlement shows an interesting group of early Roman pottery imports. The earliest ones include Arretine *sigillata* (see below), dated to the Augustan period. Other early *sigillata* finds include fragments of small drinking cups (type Hofheim 5, found in H74 and P272), and the slightly later and less exclusive version Dragendorff 24/25. Augustan or later is the lid of a Pompeian red-coated plate (type Oberaden 23) found in P375. Several fragments of early small colour-coated drinking bowls (type Hofheim 22, sand-sprinkled inside and outside) were found: in P253, as a stray find and a specimen in fine ware in P422. Fragments of a wine-*amphora* from the pre-Flavian period (type Haltern 70) were found in S314, while P234 yielded fragments of a jug-*amphora* (type Hofheim 77). Early grey ware included beakers type Stuart 204 (P249 and S314) and fragments of two Belgic *terra rubra* plates were found in H74. Finally, cork urn should be regarded as an early import, although with 136 fragments it was by no means an exclusive possession. These vessels came into the settlement during the first decades AD, when possession of such goods was an exception. The majority of the early pottery was found in the southwestern corner of the settlement, with slightly larger concentrations in and around H74 and H72. Apart from several fragments of plates, all early pottery imports can be connected with (wine) drinking which fits in with two wine casks found in wells (see 4.7.9). After AD 50 the Roman pottery imports seem more widespread, including such vessels as *terra sigillata* drinking cups (type Dragendorff 24/25) and wine-*amphorae* (type Dressel 2/5, found in F125 and R57). From the Flavian period onwards imported pottery is present in large quantities all over the settlement.

Terra sigillata

A total of 387 fragments of *terra sigillata* were found, 326 of which were in features that were part of structures dated to the Roman period. The majority of the (identified) pottery was

structure	form
P235	plate (Haltern 2)
P254	plate
P256	bowl (Haltern 8)
F125 (close to P233)	plate

Table 34. Arretine *sigillata* from the Westerveld settlement.

Figure 124. Arretine *sigillata*, two fragments of two plates (P254 and P235). Scale 1:4.

stamp	vessel form	potter (period AD)	region	structure
PACATVS F	Drag.27	-	Central Gaul	posthole near H96
ALBA[NVS] retrogade	Hofheim 2B/4B	Albanus (65-80)	La Graufesenque	F117d
M(a)CRIN : F	Drag.18/31	Macrinus (117-161)	Lezoux	stray pit
MVR[ ]	Drag.27	Murranus (41-80)	La Graufesenque	P308

Table 35. Potter's stamps on *terra sigillata* from the Westerveld settlement.

made in Southern Gaul during the first century AD (table 36). Fifteen fragments were decorated, and four sherds could be identified as Arretine *sigillata*, from four different vessels (table 34, fig. 124). No Argonne *sigillata* was found. Seven times a potter's stamp was documented, in three cases it was illegible (P272, P243, stray find). The other four are listed in table 35.[21]

Stamped mortaria

In eight cases a potter's stamp was found on a fragment of a mortar. One (P253) was illegible, of a another one (a stray find) only an 'o' was left. The other six are listed in table 37.

stamp	vessel form	potter	region	period	structure
VETERA	Stuart 149	Vetera(nus)?	Bavay	I -IIA	P318a
FRIOMASI / E.V.GONMAS	Stuart 149	Friomas	south of Tongres	I -IIA	P318b
DVRIO	Stuart 149	?			stray find
]IDV[/ OFE	Stuart 149	Candidus?			stray find
]IVS M PER[of VERER[	Stuart 149A	Vererius?	Bavay?		stray find
VECTOR	Stuart 149				P372b

Table 37. Potter's stamps on *mortaria* from the Westerveld settlement.

	type	number of sherds	total
undecorated			
Arretine	Ha.2	1	4
	Ha.8	1	
	plate	2	
South Gallic	Drag.15/17	2	88
	Drag.18	14	
	Ritt.2B	2	
	plate	9	
	Drag.27	15	
	Hofh.5	1	
	Drag.29	13	
	Drag.37	2	
	bowl	8	
	Déch.67	1	
	Drag.24/25	6	
	Curle11	1	
	Drag.35	1	
	Drag.35/36	1	
	indet	12	
South Gallic?	Drag.18	2	16
	plate	3	
	Drag.27	1	
	Drag.33	2	
	Drag.37	1	
	bowl	2	
	indet	5	
Central Gallic	Drag.27	1	1
Central or East Gallic	Drag.18 or 18/31	2	51
	Drag.18/31	9	
	plate	4	
	Drag.31	8	
	Drag.27	4	
	Drag.32	4	
	Drag.45	1	
	Drag.38	2	
	Drag.37	4	
	bowl	1	
	Curle15	1	
	Drag.33	9	
	Drag.43?	1	
	indet	3	
East Gallic	Drag.18/31	1	17
	Drag.31	4	
	Drag.27	3	
	Drag.45	1	
	Drag.37	2	
	Drag.33	1	
	indet	5	

	type	number of sherds	total
indet	Drag.18 or 18/31	1	42
	Drag.31	3	
	Drag.32	2	
	Drag.38	2	
	Drag.37	1	
	Drag.33	2	
	inkpot (late)	1	
	Drag.40	1	
	bowl	3	
	indet	26	
decorated			
South Gallic	Drag.29	6	10
	Drag.37	3	
	Déch.67	1	
Central Gallic	Drag.37	2	2
East Gallic	Drag.37	2	2
Indet	Drag.37	1	1
total			234

Table 36. Fabric, region and types of *terra sigillata* pottery from the Westerveld settlement.

4.7.2 Clay objects

Numerous fragments of baked and unbaked clay were found, including many that were recognised as parts of wattle-and-daub walls or floors. The majority of these were found in wells. Among the documented artefacts are spindle whorls (N = 34), loomweights (N = 27) and sling pellets (N = 61). Of most of these objects only fragments were present. The spindle whorls show various sizes and shapes, including discs, conical and tapered ones. As far as reconstruction was possible, the loomweights were all of the triangular kind with three perforations, which was the common type in the Roman period (Van den Broeke 1987b, 38). Contrary to what is documented for the Iron Age (Schinkel 1994, part I, 165-166), no large concentrations of sling pellets were found.[22]

An exceptional object is a fragment of a clay face mask, found in P243 (fig. 125). It was probably made in Cologne during the first decades of the 2nd century AD (Van Boekel 1987). Three fragments of terracotta figurines were found, one of which came from a well (P249) while the other two were stray finds. The fragment from P249 derives from the pedestal of a human figure, of which only the left foot is partly visible (fig. 126). The statuette probably originates from the Rhine/Moselle area.[23] Not much can be said about the other two fragments. One is too fragmented, the other, part of a small bird, might be of medieval origin.

4.7.3 Tephrite objects

A large number of features from the Roman period contained fragments of tephrite. In 46 cases, fragments of querns were recognised. Apart from one find, all querns were rotary querns. Top stones were documented 18 times, bottom stones only six times. Most fragments showed ribbed decoration on the sides, and often the surface was covered with zones of parallel ridges. The majority of the stones had an original diameter of *c.* 40 cm, the largest diameter being 44 cm. This size, together with the ribbed sides, indicates the later (after AD 50) version of Van Heeringen's type d (Van Heeringen 1985, 378).

4.7.4 Stone objects

As was the case with clay and tephrite, many stone finds could not be recognised as (parts of) artefacts. In the Westerveld settlement, unworked fragments were found of quartzitic stone, sandstone, granite, slate and flint. Artefacts included querns (at least four) and whetstones (at least 25).[24] The quern fragments were made of sandstone or quartzitic stone. One fragment (found in P319) was exceptional: it was made of 'Conglomerate of Burnot' and seemed to derive from a huge circular quernstone with a diameter of *c.* 70 cm. Whetstones, some of them oblong (at least seven specimens), were made of quartzitic stone, fine-grained sandstone, schist,

Figure 125. Clay face mask (h. 16.9 cm). Scale 1:2.

Figure 126. Terracotta statuette (P249). Scale 1:1.

Figure 127. Whetstone made of schist (P237). Scale 1:2.

(quartzitic) slate, diabase and fine-grained *Grauwacke* (a type of slate). Figure 127 shows a whetstone made of schist, found in P237. Finally, a piece of quartzite with a 'face' was found in P407.

4.7.5 Building materials

A relatively large number of (Roman) building materials were found, including brick, tuff and worked or perforated slate. The total number of brick fragments was 257. One of these was a piece of an actual brick (P309), the other 256 were tile-fragments. No stamped tiles were found. Table 38 shows the various types of tile that could be recognised.

Of the 129 *tegula*-fragments, only 11 could be recognised by the presence of (part of) a rim. All other *tegulae* were classified by thickness (between 15-20 and 45 mm, see Lammers 1994, 160). A convex shape was documented for 25 fragments, which were classified as *imbrices*. A complete set of roof-tiles would consist of an equal number of *tegulae* and *imbrices*. Lammers (1994, 160) already noted that for small fragments of *imbrices* the convex shape is not visible, thus causing the tiles to be classified as *tegulae*. Another reason for the smaller number of *imbrices* might lie in the possibility that the tiles from the Westerveld settlement were not part of one roof (see below).

Three fragments were slightly thinner, ranging from 12 to16 mm. They may have been part of *tubuli*, box tiles that

type	number
tegulae	129
imbrices	25
tubuli (?)	3
floor-tiles (?)	4
indet.	95
total	256

Table 38. Tile fragments from the Westerveld settlement: type.

structure	number	weight (kg)	%	date
P249	154	17.5	45.5	IIA
H78	23	3.1	8.0	Id-IIA
P318	14	2.0	5.0	IIA
P259	10	1.7	4.5	IIA
others	55	14.2	37.0	mostly II
total	256	38.5	100	

Table 39. Tile fragments from the Westerveld settlement: structures.

were used in hypocausts. However, the characteristic patterned ridges on the outer surface were lacking. Four fragments were thicker than a regular *tegula*, measuring between 45 and 50 mm. They could have been part of another type of tile that was used as flooring rather than a roof covering. Of the 256 fragments, 95 could not be ascribed to a form of brick, mainly because they were too small and their thickness could not be measured.

All brick material was weighed, usually per find number. Together the 256 tile fragments weighed 38.5 kg. The mean weight of the Westerveld tiles is 150 g per fragment. This number gives a good indication of the fragmentation of this find group. The largest piece of *tegula* that was found in Oss measured 180 mm in width, and this was an exceptionally large fragment. A complete *tegula* would have measured approximately 495 x 345 mm, with a weight of more than eight kg (Lammers 1994, 165).[25]

The spatial distribution of the tile fragments shows a clear concentration (fig. 128). More than 45% (17.5 kg) were found in a well (P249) close to H78. Two other wells (P259 and P318) contained 1.7 kg and 2.0 kg respectively, while the features of H78 itself yielded 3.1 kg (see table 39). All other find numbers with tiles contained less than one kg, and in most cases just a single fragment. As is visible in figure 128 the tiles concentrate around H78, although smaller quantities were found all over the settlement.

Roof-tiles or a tiled roof

The presence of roof-tiles does not automatically mean that a building with a tiled roof was present in the settlement. For the smaller settlements in Oss the small quantity of brick already led to that conclusion, but even in the case of the 38.5 kg from the Westerveld settlement a tiled roof is not certain. Van der Sanden (1987b, 64-65) carefully formulated a 'direct connection' between H78 and the roof-tiles found in and near the house plan. His reconstruction of a house with a tiled *porticus* was preliminary, but has since then been quoted so often that the tiled roof of H78 has become an undisputed fact.[26] Lammers' analysis of the roof-tiles from the Horden (Lammers 1994) is one of the first attempts to get more detailed information out of roof-tiles. His methods to establish the presence of a tiled roof will be followed here for Oss-Westerveld.

If there was one building in the Westerveld settlement that had a tiled roof, it was probably H78. The main reason for this choice is the concentration of tiles in and around this house plan, combined with at least 40 iron nails. The unusual layout of the plan (see 4.1) is another good argument: the deep-set posts that formed the *porticus* did not have a roof-bearing function. In spite of that they seem to have carried a heavy load, which may have consisted of roof-tiles. Finally, the distribution of other find categories shows a number of exceptional finds, such as large amounts of tableware, glass vessels, metal objects and Roman kitchen herbs, concentrating in and around H78. Apparently the inhabitants of H78 were in a position to obtain a range of high-quality goods, either through wealth, status, or a combination of the two. H78 was dated Id-IIA, and roof-tiles were introduced in these areas by the Roman army during the first century AD. Around the time that H78 was built, tiles were probably not yet available to everyone.

So while there are grounds to suspect that H78 was adorned with a tiled *porticus* at least, we have to take a closer look at the tiles themselves to see if this was indeed possible. For a rough estimate of the amount of tiles needed to cover the roof of the *porticus*, I will use the reconstructed measurements and weights mentioned above. The surface of the *porticus* is *c.* 40 m^2. A reconstructed *tegula* would have a surface of *c.* 0.17 m^2, so in order to cover the whole *porticus* one would need 235 *tegulae*, together weighing 2021 kg. Adding the same number of *imbrices*, the total weight of the (*porticus*) roof adds up to 2844 kg. The 38.5 kg that were found make up only 1.4% of the weight of the complete roof.[27] However, the small percentage does not mean that we have to discard the option of a tiled roof completely. At Hoogeloon (Slofstra 1987), a proper villa was built, complete with baths and a heating system. Even though a tiled roof was certainly present, the tile fragments found made up only 3% of the reconstructed weight of the roof.[28]

For the above estimate, it is assumed that all tiles came from one and the same roof. If this is true, the tiles need to be fairly similar, at least in size. Of the 128 *tegulae*, only five had a rim that could still be measured. The height varied between 50 and 64 mm, with only two rims of the same size. The thickness of the *tegulae* themselves could be measured in 111 cases, and varied between 18 and 42 mm, covering 21 different measurements. The number of rims is too small to reach a final conclusion, but the variation in thickness is rather large, which makes it unlikely that the tiles were all part of a well-fitted roof. It is not unthinkable that the tiles were on the *porticus* anyway, and that the owner took the badly fitted roof for granted. Since it was only the *porticus* that was tiled, and not the whole roof, leaks or the odd tile falling off would not have caused a large problem. Perhaps the possession of a partly tiled roof during a period when roof-tiles were still a scarce item, outweighed the fact that the tiles did not function properly. Another option could be that the roof was originally properly fitted, but that the usable tiles were transported elsewhere once H78 was out of use.

If there was no tiled roof at all, the brick material may have had a secondary use. This is difficult to prove: the fragments are rather small, while paving, drainage pipes or foundation supports require relatively large pieces of tile. Furthermore, no traces of soot or secondary firing, which

could have indicated hearth paving, were documented.[29] One type of secondary use is certain though: several perforated tile-fragments found in the Ossermeer were interpreted as net-sinkers (Verwers/Beex 1978, 32-33, see also 6.2).

Dating and origin of the tiles

The earliest evidence for brick in the eastern river area dates to around AD 50, when it was imported and used by the Roman army. After AD 70, when the tile-works at De Holdeurn (Berg en Dal) were established, tiles and bricks were produced locally (Willems 1986, 183). After the initial production and use by the army, brick became available to the non-military population of the area at some point during the first century AD. From the second century onwards the use of brick was widespread.

The brick from Oss is hard to date. Stamped tiles, which when military in origin usually give a good indication of production and thus date, were not found. The only clues are the features in which the tiles were found. It turns out that the majority were found in second-century wells, as could be expected. Three wells are dated Id-IIa(-b). Unfortunately there is no information available as to the exact find-spot of the tiles. They may have ended up in the wells long after the wells themselves were out of use (see 1.3.2). The most interesting date is that of H78: Id-IIA. Even though the plan could not be dated very precisely, it still has one of the earliest dates of all features with tiles found in them. The dates allow for the scenario where tiles were on the roof of the *porticus* at the end of the first century AD and ended up in wells during the second century AD. In that case, H78 can be considered a relatively early example of a non-military tiled building. This possible first century date is especially interesting considering the fact that in the eastern river area virtually all settlements with Flavian roof-tiles had stone buildings at some point (Willems 1986, 183). For some reason, the Westerveld settlement never reached that point (see chapter 8).

Due to the lack of stamps, the origin of the tiles from Oss is uncertain. For the eastern river area, the tile-works at De Holdeurn are considered to be the main supplier, with smaller civil tile-works supplementing a minor part of the production.[30] Whether the Westerveld tiles came from a military or a civil production centre cannot be established. If the tiles were a military product they could have been supplied directly to the Westerveld settlement, though an intermediary such as a military settlement, seems more likely.

Other building materials

At least 54 fragments of worked slate were found, together weighing *c.* 50 kg.[31] Of these, 23 fragments were perforated, while most of the others showed signs of working, such as sawing. Apart from a few stray finds and a fragment from F125 or F126, all worked slate was found in pits and wells. Worth mentioning is P272, which contained a total of 27 kg of slate, of which eight pieces were worked. Two fragments were exceptionally large, measuring 36 x 37 cm and 33 x 38 cm

Figure 129. One of the sheets of perforated slate found in P272 (h. 42.7 cm) with a close-up of its perforation (diam. 7.5 mm).

structure	worked slate	tuff	mortar	trachite	lead	iron ore (blocks)	roof-tiles	nails	date
P210	1	-	-	-	-	-	-	-	Id-IIA
P255	4	-	-	-	-	-	-	2	IIB
P266	1	-	-	-	-	-	-	-	IIA
P269	4	-	-	-	-	-	-	1	IIA
P272	8	x	x	-	-	-	x	8	IIA
P307	1	-	-	-	-	-	x	14	IIc/d(-IIIa)
P313	1	x	-	-	-	-	-	-	IIb-c
P318	6	x	-	-	x	-	x	18	IIA
P319	4	x	-	-	-	-	x	5	IId-IIIc
P330	1	x	-	-	-	-	x	-	IIB
P347	1	-	-	-	-	-	-	-	IIB
P407	8	x	-	x	-	x	x	-	II
P408	3	x	-	-	-	-	x	-	IId-IIIc
P466	10	-	-	-	-	-	x	1	Id-IIa
P488	5	-	-	-	-	-	x	-	IIB

Table 40. Pits and wells from the Westerveld settlement with building materials other than brick (number of fragments or x = present).

respectively (fig. 129). Such sheets of slate, especially perforated fragments, may have been used as roofing material (Bult/Hallewas 1986, 23). Table 40 shows pits and wells that contained various kinds of building material, other than brick.

All pits with building material contained fragments of slate that were worked or perforated. Tuff was found in seven of the pits, in two cases (P313 and P407) shaped in a large block. These regularly shaped fragments could have been used to build walls. Mortar, blocks of iron ore or iron slag, a wedge-shaped fragment of trachite, and lead, occur only occasionally but always in combination with slate and roof-tiles. The majority of the pits containing building materials date from the second century AD. Iron nails could also have been used for building purposes. They are usually associated with timber, although there is a possibility that roof-tiles were fastened with nails. Tiles with holes in them were not found, but the slate sheets may have been held in place by nails. A total of at least 277 iron nails, usually with a square or rectangular section, were found in the Westerveld settlement (see also 4.7.7).

The distribution of the other building materials is different from that of the roof-tiles: while the tiles concentrate around H78, the other materials are present in other locations (see fig. 128). The highest concentrations were found in the north, near P407/P408 and further south near P318/P319. The number of finds associated with (partly) stone buildings is too small to conclude that such a building was present. Tuff, lead and trachite could have been used for other purposes. The slate, just like the tiles, could have been used on a wooden building, or for a secondary purpose.

4.7.6 *Glass objects*

Glass finds from the Westerveld settlement include beads, gaming counters, *La Tène* bangles, and vessels. A total of eight glass beads were found. Three of these were so-called melon beads, made not of proper glass but of the sintered *faience* variety (fig. 130). One, a stray find, was complete,

structure number	number of fragments	date
P323a	2	LIA/RP
P449	1	LIA/RP
H116	2	I
F125	1	I-IIa
F126	4	I-IIc
P314	1	Ib-c
H104A	1	Ib-c
P395	1	Ic
P305	1	IB
P345	1	IB-IIa
P410	1	IB-IIa
H104B	1	Id
P300	1	Id
P372a/b	2	Id
P466	2	Id-IIa
P334	1	Id-IIa(b?)
H78	1	Id-IIA
P324a/b	1	Id-IIB
P272	1	IIA

Table 41. Structures from the Westerveld settlement with *La Tène* glass bangles, sorted by date.

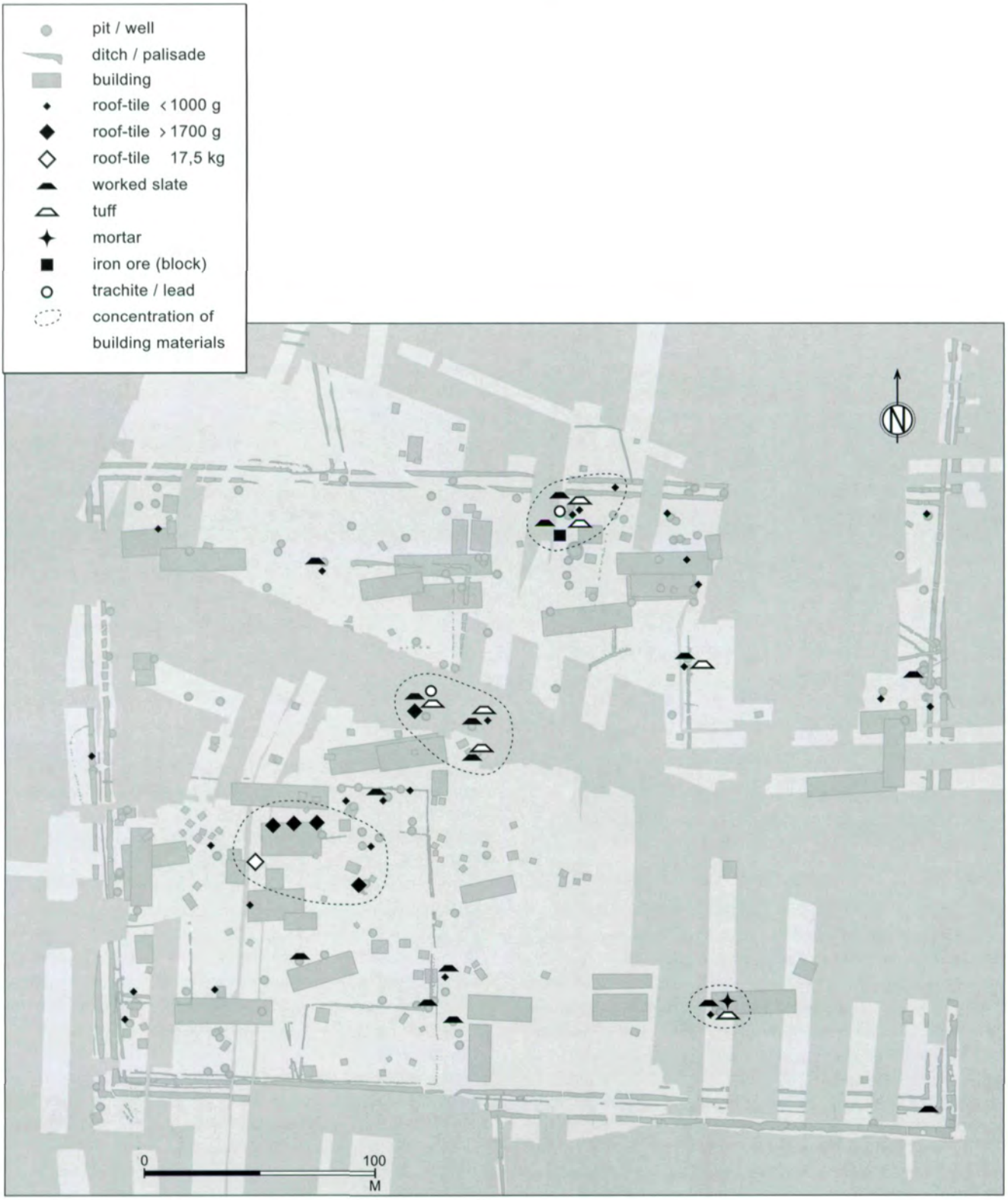


Figure 128. Distribution of building materials in the Westerveld settlement.

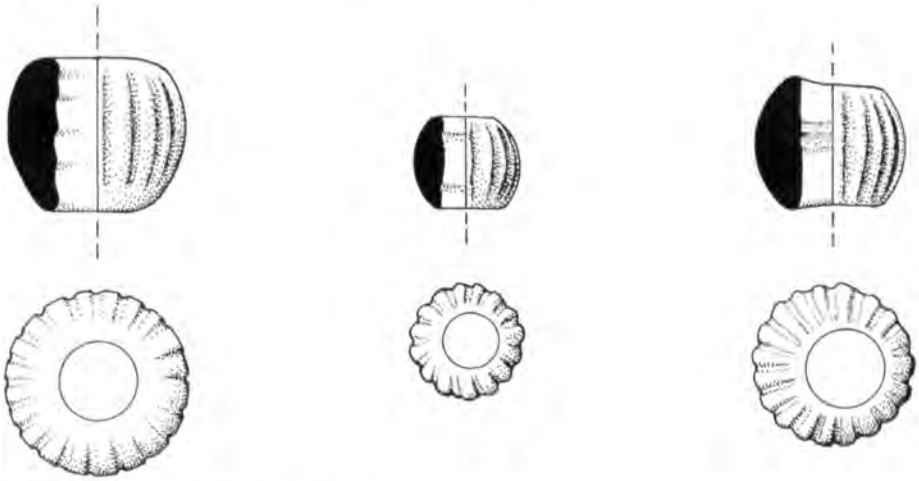


Figure 130. Three melon-beads. Scale 1:1.

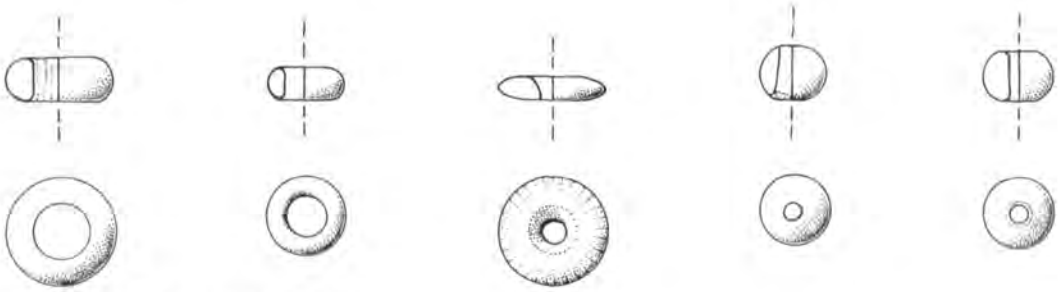


Figure 131. Five glass beads. Scale 1:1.

Figure 132. Three gaming counters made of glass paste. Scale 1:1.

the other two (from P253 and F125) were fragments. All three were bluish green. The other five glass beads were of different shapes and colours. Two (stray find and F126) were flat and white, two were blue (stray find and P270) and one (stray find) was round and brown (fig. 131). Apart from the melon bead the stray finds could be of post-Roman date. Three gaming counters were found, all plano-convex in section but of different colour: one white (H89), one black (near H105) and one blue (F133) (fig. 132).

Features dating from the Roman period yielded 30 *La Tène* bangle fragments (figs. 133 and 134). Most fragments were found in pits and wells (N = 16), others in houses (N = 5) and in ditches (N = 5).[32] Based on grave finds from Central Europe, the current tentative hypothesis regards the bangles as women's jewellery (Roymans 1996c, 59), but other functions have been suggested (cf. Willems 1986, 196) and a combination of different functional and ideological meanings is possible. Van den Broeke (1987b, 40) was the first one to state that *La Tène* bangles were still in use during the Roman period, even though the manufacturing had probably stopped by then. Just how long the bangles were still in use is difficult to assess. In the Westerveld settlement fragments of *La Tène* bangles were found in several features dating to the second century AD (table 41), but especially for pits and wells any such date should be regarded as a *termini ante quem* (see 1.3.2).

Table 42 shows the various types and colours. Both colourless fragments had yellow foil on the inside. Two bangle fragments were re-heated and bent to form a ring or pendant, a third one had been burnt. The variation in colour and type seen in Roman period Westerveld corresponds to percentages from the Lower Rhine area (Roymans/Van Rooijen 1993, 4/5).[33] The D-shaped or 1-ribbed type

Figure 134. Selection of fragments of glass *La Tène* bracelets. Scale 1:1.

	3a	3b	7a	7b	7c	7d	total
blue	5	3	8	1			17
purple	5	3	1		1		10
brown						1	1
colourless			2				2
total	10	6	11	1	1	1	30

Table 42. *La Tène* glass bangles from the Westerveld settlement: colour and type (Haevernick).

(Haevernick 3a and 3b) and the 5-ribbed type (Haevernick 7a and 7b) are dominant, with 53.3 and 40% respectively. In the Lower Rhine area, this is 51.9 and 35.1%. The slightly higher percentage of ribbed bangles in the Roman period seems to confirm the older hypothesis that the development goes from the D-shaped type to the ribbed types (Suter 1984; Van den Broeke 1987b, 39-40). However, recent finds have shown that ribbed and D-shaped types both occur in the earliest find complexes in Switzerland, and it is more likely that there is no development in that respect (pers. comm. N. Roymans).

As in the Lower Rhine area, roughly half of the D-shaped bangles belong to the subtype that is decorated with a thread of yellow glass paste (Haevernick type 3b) (fig. 135). The other 50% is of the plain subtype Haevernick 3a. Within the group of 5-ribbed bangles the undecorated subtype (Haevernick 7a) is clearly dominant (fig. 136). In accordance with the pattern seen elsewhere in Europe, the most common colour is blue (56.6%). Different from the general European pattern, but similar to what is known from the Lower Rhine area, is the relatively large number of purple fragments (33.3%). Brown and colourless bangles are represented in small quantities only, green fragments are absent.

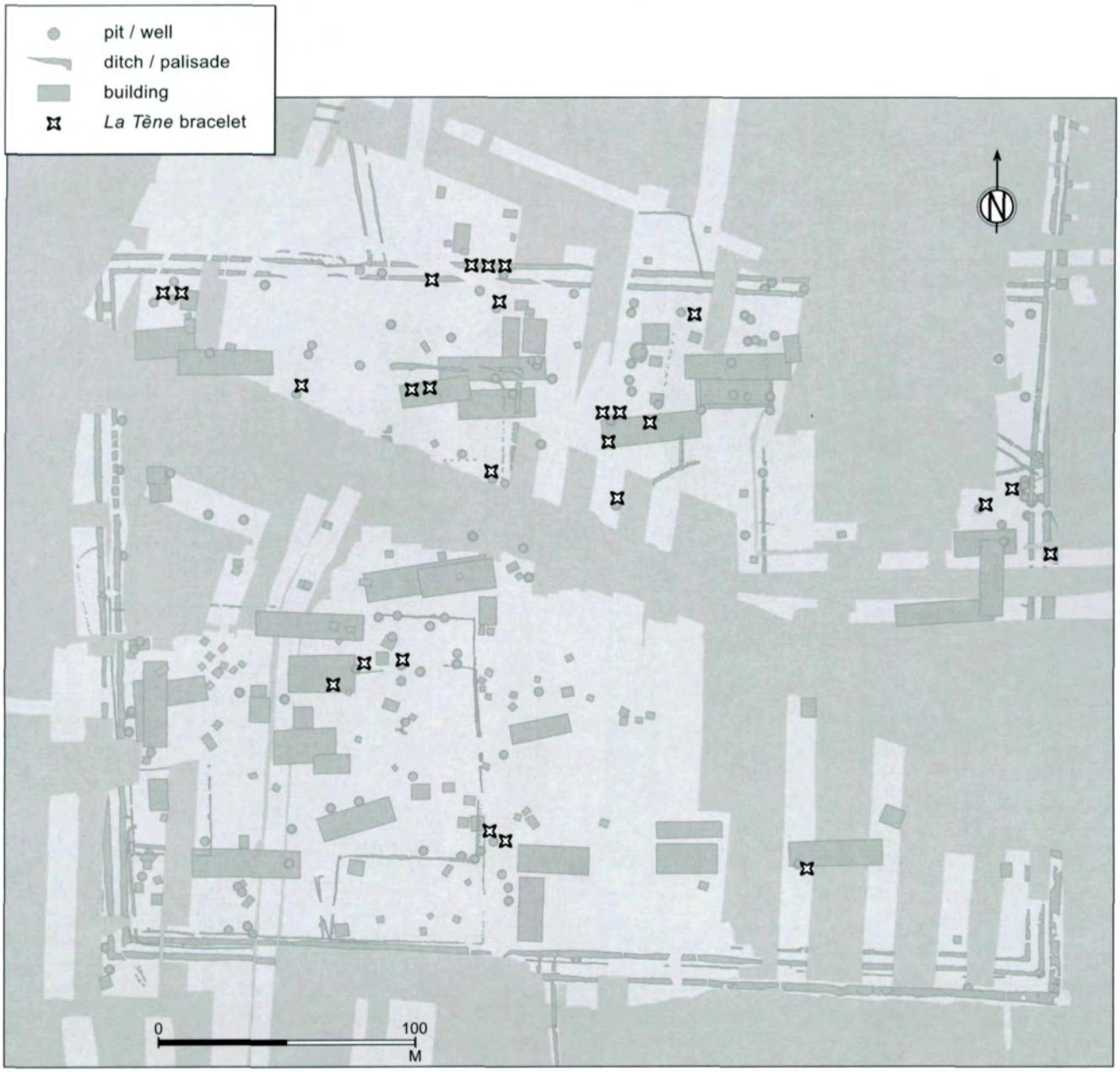


Figure 133. Distribution of glass *La Tène* bracelets in the Westerveld settlement.

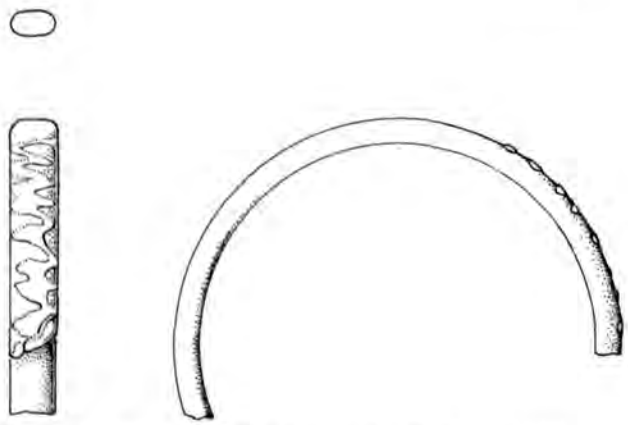


Figure 135. Large fragment of a bracelet of type 3b. Scale 1:1.

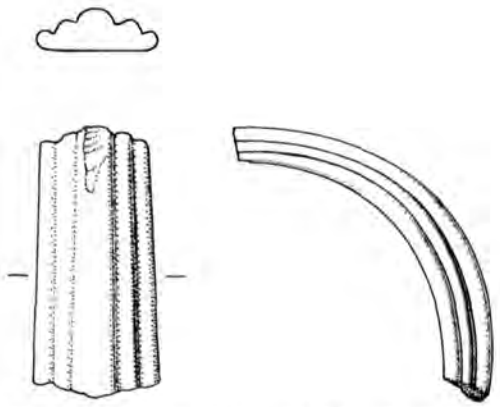


Figure 136. Large fragment of a bracelet of type 7a. Scale 1:1.

Figure 138. Fragment of a glass pillar-mounted bowl . Scale 1:2.

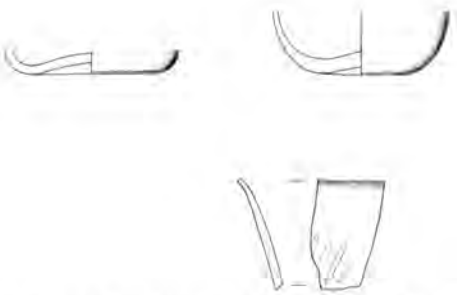


Figure 139. Selection of fragments of glass vessels. Scale 1:2.

Figure 140. Rim-fragment of a glass vessel. Scale 1:2.

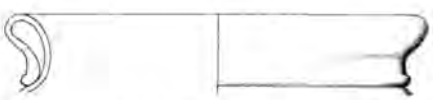


Figure 141. Rim-fragment of a glass vessel. Scale 1:2.

Although no centre of manufacture has yet been found, there are strong indications for a local production of glass bangles in the Lower Rhine area (Peddemors 1975, 105-108; Roymans/Van Rooijen 1993, 5-8). The tribal organisation in this region, with its less hierarchical structures, suggests that production took place in the larger settlement complexes, where the local elite was residing. In the Ussen area, the Westerveld settlement would be the only likely candidate for such a production centre, but no indications such as raw materials or semi-manufactured products were found. Moreover, the 7-ribbed type, which seems to be exclusive to the Lower Rhine area and therefore counts as an argument for local production, was not found in Ussen.

A total of 35 fragments of glass vessels were found in the Westerveld area (fig. 137). Of only 16 finds could the form of the original vessel be established. These include four fragments of a square bottle (type Isings 50), all with a blue-green colour (S464, P466, F117d and F127). This fairly common type of vessel was in use between AD 50 and AD 300, with an emphasis on the period AD 70 - 200. From the same period came two fragments of bluish-green glass (P240) that were part of a cylindrical bottle (type Isings 51). Six other blue-green fragments stemmed from pillar-mounted bowls (type Isings 3), a typical 1st century form that was in use until *c.* AD 117 (fig. 138). One of them (P466) could be classified as a pre-Flavian subtype. The fragment from P249 was burnt. The other fragments were found in H78, P412, P422 and a posthole that was not part of a structure.

Two fragments, one green (P378) and one light-green (single post-hole) are from cups or beakers dated to the

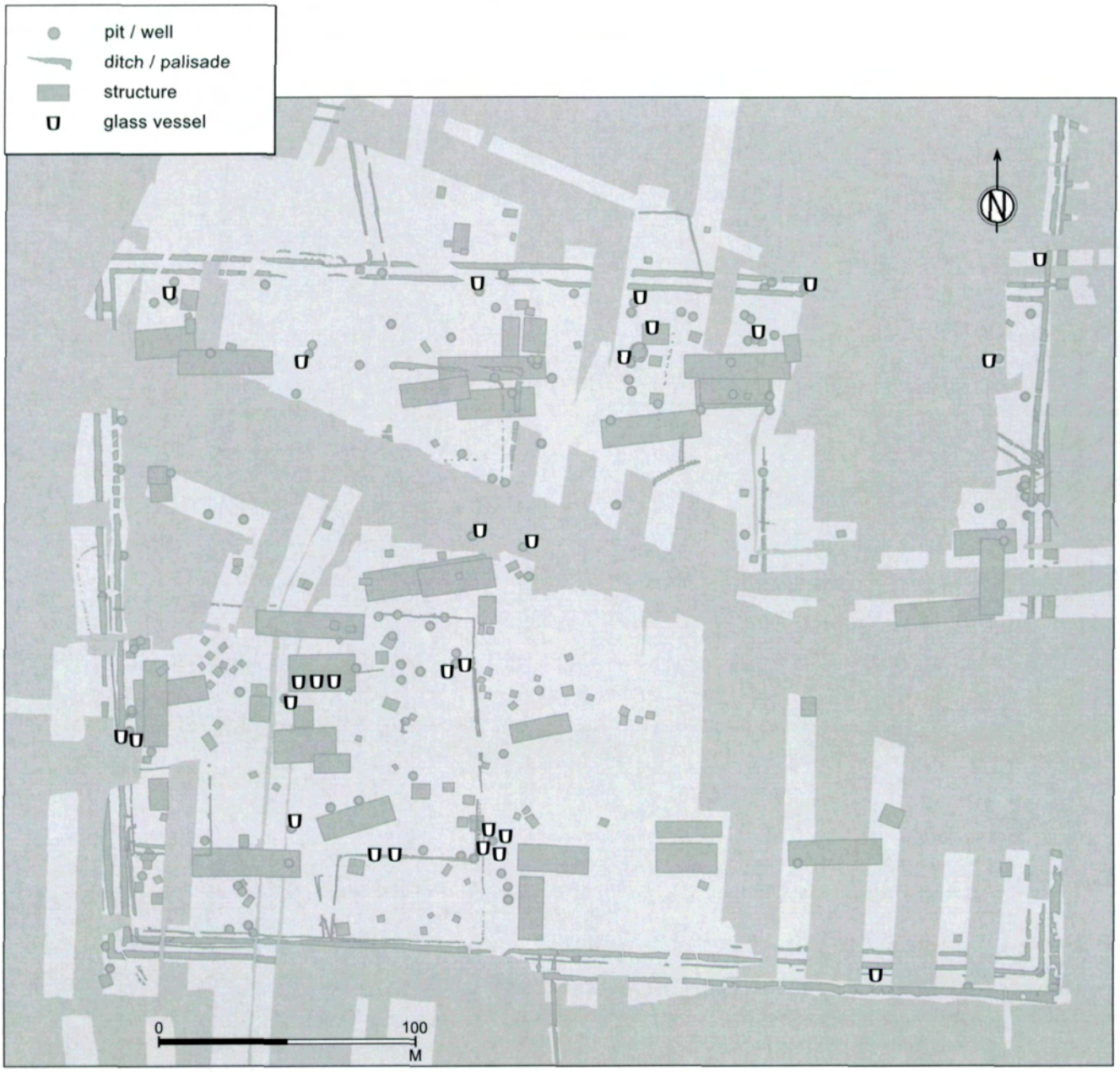


Figure 137. Distribution of glass vessels in the Westerveld settlement.

second half of the 1st century AD (fig. 139). Possible types are Isings 12, a so-called Hofheim-cup decorated with wheel-cut lines, and a beaker Isings 34. A bright-green rim-fragment (P309, fig. 140) could be from a number of vessel-types, including a square jar Isings 62 (AD 50-200, with an emphasis on the 1st century AD), an ovoid jar Isings 67b (AD 50-100) or a bulbous jar Isings 67c (AD 50-150). Finally a light-green fragment with part of an optically blown rib (P253, fig. 141) may be from a bulbous or conical jug (Isings 52 or 55) or an ovoid jar (Isings 67b). The relatively good quality of the glass indicates a date between AD 70 and AD 125.

A number of glass sherds cannot be ascribed to a vessel type, but they have a colour distinct from the common blue-green. Besides the aforementioned pillar-mounted bowl fragment, H78 also contained two other fragments of

Figure 142. Distribution of coins in the Westerveld settlement.

vessel-glass. One is colourless but very small, the other is a strong dark-blue, which points to an early date (Ia-c). Other fragments with different colours are a yellowish-green fragment (P408) and a stray find that is opaque white, which dates it to the first half of the 1st century AD. From the same period dates a dark-blue fragment with white wavy rolled-in decoration (P372a). Another early sherd (Ib-c), probably of Italic origin, is dark-blue decorated with white blobs. Unfortunately it was found on a spoil-heap.

The remaining 12 fragments, all in various shades of blue-green, could not be dated. They include two foot-fragments (P319, P466), two base-fragments (F117d, P466), two ear-fragments (P394, stray find) and six wall-fragments (P309, P318, P418, P419, F130 and a post-hole that could not be ascribed to a structure).

denom.	authority	date	RIC/BMC	find spot	remarks
den.	Augustus	2 BC - AD 14	RIC 350	H108	
as/dup.		I/II		surface	rev: personification
as/dup.		(I)/II/III		surface	rev: possibly personification

Table 43. Coins from the Westerveld settlement.

Figure 143. Silver *denarius* (front and back) from the reign of the emperor Augustus (H108). Scale 1:1.

type	number	date
wire-brooch (iron)	1	*c.* 50 BC - AD 50
spoon-bow brooch *(Schüsselfibel)*	1	*c.* 25 BC - AD 50
sprung brooch	2	*c.* 25 BC - AD 50
bent brooch *(Knickfibel)*	1	Ia-c
arc-brooch *(Bogenfibel)*	2	Ia-c
eye-brooch *(Augenfibel)*	5	I
wire- brooch	19	IB-IIA
hinged brooch (silver-plated)	1	Ic-IIA
indet	5	-
total	37	

Table 44. Brooches from the Westerveld settlement (bronze, unless stated otherwise).

4.7.7 Metal objects

Metal finds include bronze and silver coins, iron nails, bronze, iron and silver-plated brooches, various other bronze and iron objects, some lead, and iron slag.

Only three coins were found in the Westerveld settlement (table 43 and fig. 142). Two were stray finds, too damaged to be classified more precisely than *'as* or *dupondius'*. They were found in the same area, *c.* 6 m to the south-east of H78. The third coin is a silver *denarius* of Augustus, found in one of the foundation ditches of H108 (fig. 143). The *denarius* from H108 could be dated to the period 2 BC - AD 14, and is thus one of the earliest dated Roman imports in Oss. However, it is unknown whether the coin came into the settlement during an early phase. In the Early Roman Period silver coins in non-military settlements did not function as a commodity according to Roman fashion, but were considered a valuable prestige good. If this was the case for the *denarius*, its presence in the Westerveld settlement fits in with other early imports. However, the building it was found in does not stand out in any way. The other finds from this house plan mainly consist of handmade pottery, dating it to the Late Iron Age or the first half of the first century AD. H108 is thus the earliest dated house plan of type 9.

A total of 37 brooches was found, none of them complete (table 44, fig. 144). An iron brooch was found inside the plan of H96, but not in one of its features. A date in the Iron Age is therefore still possible. The rather small fragment could be classified as a bow with an internal chord (fig. 145). A hinged brooch, found in the upper layers of the fill of P335, was made of silver-plated bronze. It is a small specimen with a rolled-over head, and the bow is decorated with a single groove (fig. 146).The brooch is dated to after AD 70, and must count as a residual find in an older derelict well. The other 35 brooches are made of bronze.

The spoon-bow brooch was found in P466 (fig. 147). It is a brooch of the 'Nijmegen' variant (Haalebos 1986, 16-17), which was in use between the end of the last century BC and the middle of the 1st century AD. According to Haalebos (1986, 18) this type of brooch was popular with Roman soldiers along the Dutch part of the *limes*. The five *Augenfibel* include three early types, where the 'eyes' are proper holes (H74, P305 and P313), one later version, where the 'eyes' are reduced to dimples (H89) and one brooch that is too corroded to allow further determination (H74). Around AD 50 the eye brooch is one of the most worn brooch types in military settlements (Haalebos 1986, 37). Of the two arc-brooches, one was tin-plated and decorated with grooves (P305, fig. 148), the other could be classified as a type B, dated to after the middle of the 1st century AD (H106). The bent brooch, found in H98, was too fragmented for further determination. Both sprung brooches (P314 and a stray find) had rolled-over heads, the one from P314 could be classified as a Langton

Figure 145. Iron wire-brooch (stray find, near H96). Scale 1:1.

Figure 146. Bronze hinged brooch (P335). Scale 1:1.

Figure 147. Bronze spoon-bow brooch (P466). Scale 1:1.

Figure 148. Bronze arc-brooch found in P305. Scale 1:1.

Figure 149. Bronze sprung brooch (type Langton-Down) found in P314. Scale 1:1.

section	number	found in
circular	11	P319, P336, P375, P431, F125 (2x), F126, stray finds (4x)
flat strip	2	P269, P392
triangular	2	P372a, P372b
polygonal	4	H98, P407, P424, F125

Table 45. Bronze wire-brooches from the Westerveld settlement: section of the upper bow.

Down type (fig. 149). This particular brooch is often regarded as women's wear, and dates between 20 BC and AD 30. The five brooches that could not be classified at all were too fragmented: three times only the needle was found (P272, P307 and a stray find), and in the other two cases it was just a fragment of the spring (H105 and a stray find).

The majority of the brooches from the Westerveld settlement are wire-brooches (single-piece brooches with a coiled spring), a type that is widespread in the Rhine area after AD 70. They can be classified according to the section of the upper bow (table 45). Four of the bronze wire-brooches had a decorated bow, the decoration consisting of one or two rows of punched dots (H98, P269, P372a and P392).

Brooches are usually regarded as a common clothing attribute, serving to fasten the clothing of native people and

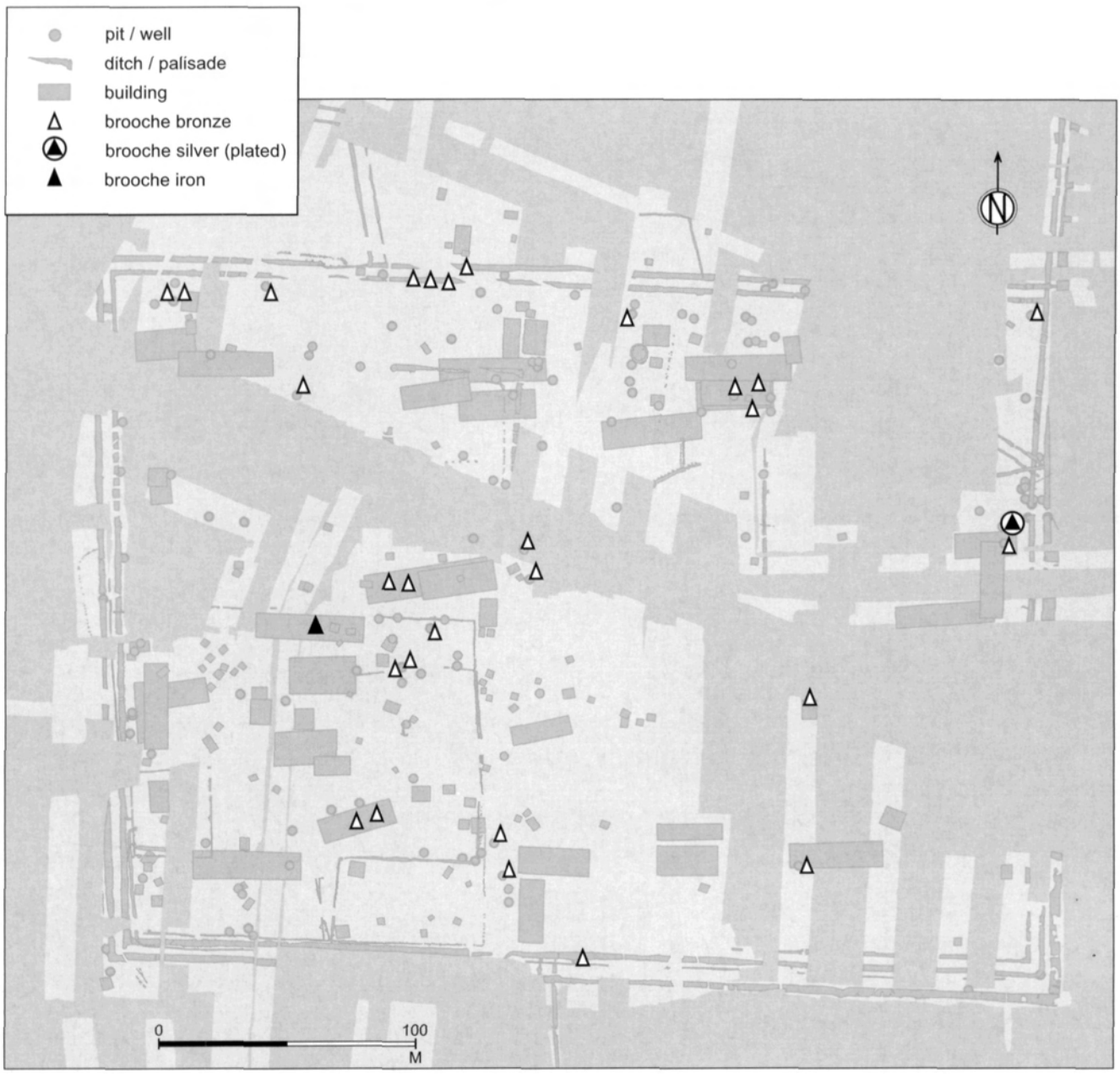


Figure 144. Distribution of brooches in the Westerveld settlement.

of the Roman military. Only the very poor did not use metal brooches (Van der Roest 1994, 145). However, the increase in brooches compared to the Iron Age (eight brooches in the whole of Oss) could be more than just a result of the general increase in (Roman) material. They were part of dress and appearance of individuals, and could thus be used to express people's changing identities (Jundi/Hill 1998, 130). An further indication of this could be the more elaborate, more visible brooch-styles that replaced the simple wire-brooches. In Oss the number of brooches increases in the first century AD, but the majority are still wire-brooches: not very elaborate or visible. The distribution of brooches over the Westerveld settlement is fairly even, thus a group of brooch-wearers that would

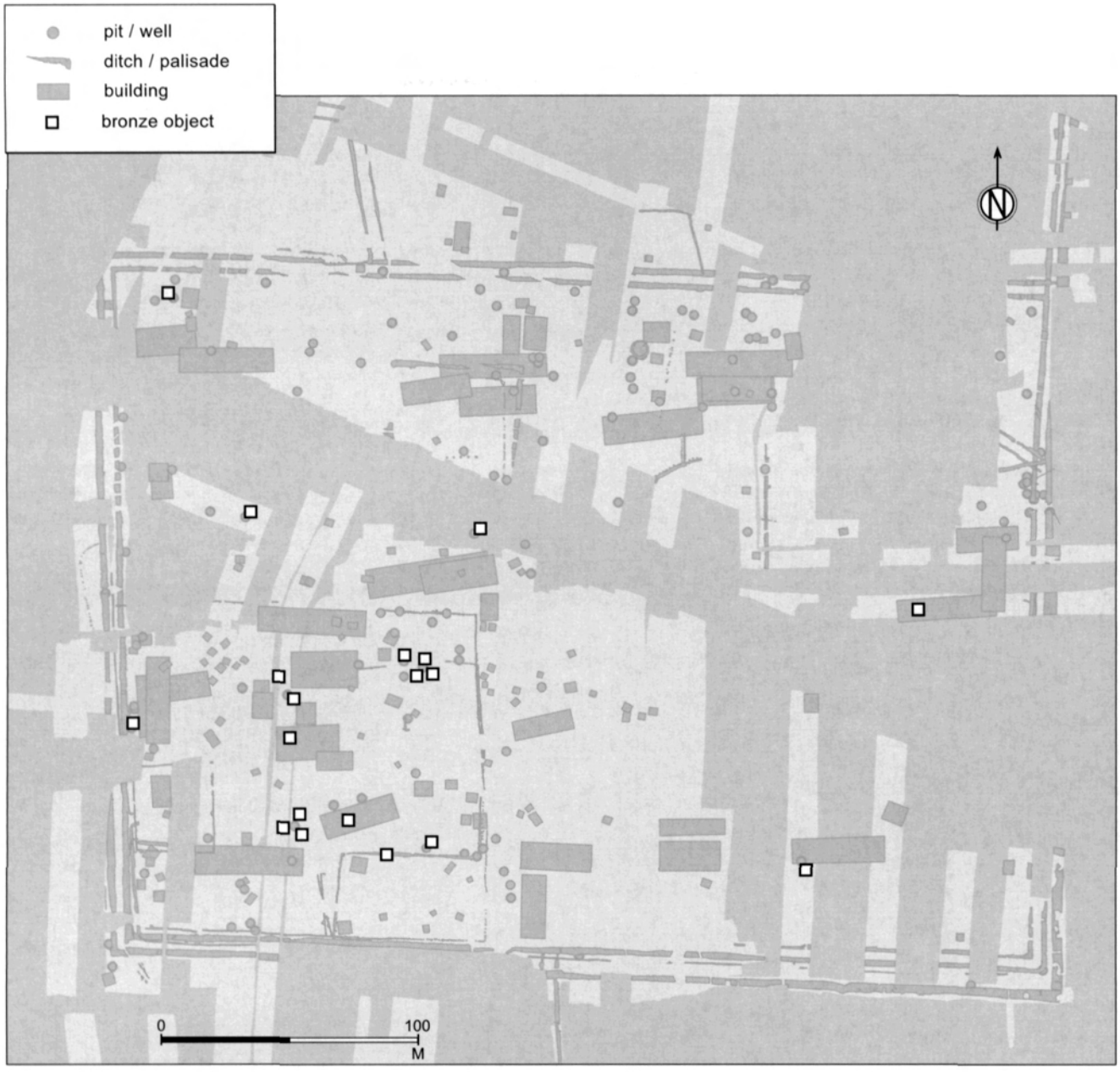


Figure 150. Distribution of bronze objects in the Westerveld settlement.

emphasise new social and cultural status cannot be distinguished within the settlement. However, the fact that the number of brooches in the Westerveld settlement is much larger than in the smaller settlements can be significant. It is important to note that brooches are an Iron Age phenomenon that continues, in an altered way, in the Roman period.

At least 25 recognisable bronze artefacts were documented (fig. 150). Next to this group there are several cases where very small scraps of bronze were found. The artefacts are listed below, grouped according to the structure they were found in. Many of the objects, especially the broken or damaged ones, should be regarded as scrap metal.

H74: Handle-attachment of a bronze vessel (Eggers type 92, *Fußbecken*, dated IA), with rilled decorations and traces of solder (fig. 151). For a parallel see Franzius 1993, 159/160, and Franzius 1995, fig. 9.1.
H78: Fragment of bronze plate, with the remains of a nail.
H108: Small bell in the shape of an acorn-cap, the iron clapper is missing (Schinkel 1994, part I, 170, fig. 124*m*).
P240: Ring (max. diameter 1.7 cm)
P249: Fragment of bronze-plate
Handle or haft of a knife or a key (bits of iron still attached) (fig. 152)
P253: Ornate fitting with nail (fig. 153)
(Belt/strap-mount) fitting or stiffener (fig. 154)
Horse equipment, comparable to a martingale stop (Dutch: *riemgeleider*) (dated II/III) (fig. 155)
P263: Small rod, square-sectioned (poss. part of brooch)
P272: Flat fragment with nail (fig. 156)
P294: Needle or bracelet, broken and bent into a small ring, attached to the handle of an iron knife
P305: Massive ring (max. diameter 5 cm)
P306a: Fragment of bronze-plate (sides perforated), possibly used to repair vessels (fig. 157)
Fragment of bronze-plate with nail (fig. 158)
Bent rod (part of bracelet?)
P318a: Horse equipment, comparable to a martingale stop (Dutch: *riemgeleider*) (dated I) (fig. 159)
P372a: Half a handle (poss. from bucket)
F117d: Slide key (dated II) (fig. 160)
stray finds: Bronze-plate
Fragment of a bronze thimble (fig. 161)
Two small casting jets
Bronze rod
Crushed object (jewellery?)
Half of a bracelet or needle with knob, originally inlaid with silver (dated II) (fig. 162)

As was the case with the bronze objects, the iron ones were preserved badly. Some of them were too encrusted to be analysed or preserved. Besides several small fragments of iron, 31 objects could be recognised (fig. 163). They are listed below.

H78: Hook or clamp
H96: Object, poss. split pin (fig. 164)
H98: L-shaped lift key (fig. 165)
H99: Object, poss. tweezers (fig. 166)
H109: Slide key (fig. 167)
P234: L-shaped lift key (fig. 168)
P249: The bit of a (slide) key, poss. belonging to bronze handle
Part of a handle (bucket)
P253: Key? (heavily corroded)
P272: Pen-like object (fig. 169)

Figure 151. Bronze handle-attachment (H74). Scale 1:1.

Figure 153. Bronze ornate fitting (P253). Scale 1:1.

Figure 154. Bronze belt stiffener (P253). Scale 1:1.

Figure 152. Bronze knife handle (P249). Scale 1:1.

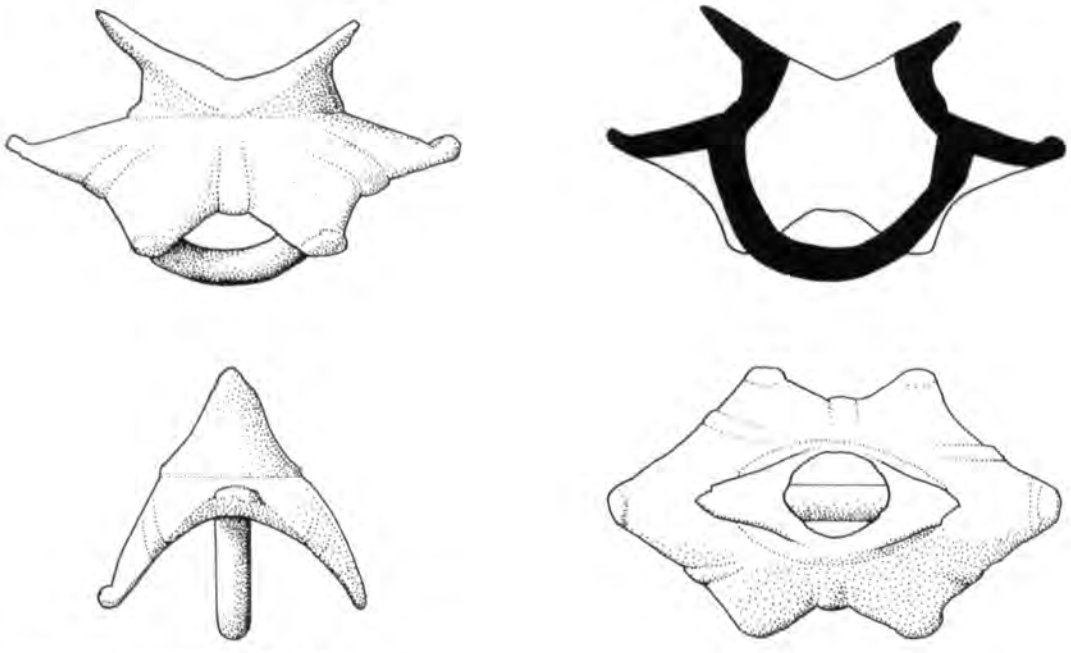


Figure 155. Bronze horse equipment (P253). Scale 1:1.

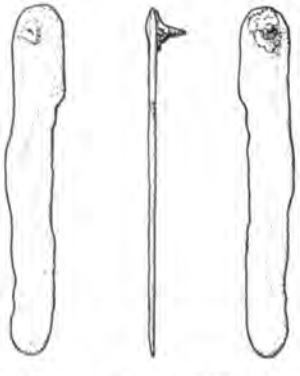


Figure 156. Bronze fragment with nail (P272). Scale 1:1.

Figure 158. Bronze-plate with nail (P306a). Scale 1:1.

P294: Knife (native type) with bronze ring attached to handle (fig. 170)
P300: Fitting (thick fragment)
P306a: Ring (cylindrical, max. diameter 2.3 cm) (fig. 171)
P307: Fragment of a knife (fig. 172)
P308: Handle (of a bucket)
The bit of a (lift) key
P319: Knife (fig. 173)
P329: Half a ring (max. diameter 3 cm)
P372a: Object, fork-shaped (fig. 174)
P431: Knife
Half a ring (conical shaped)
P466: Buckle or clasp, triangular with eye (fig. 175)
P494: Ring
F126: Clamp
F133: Small ring

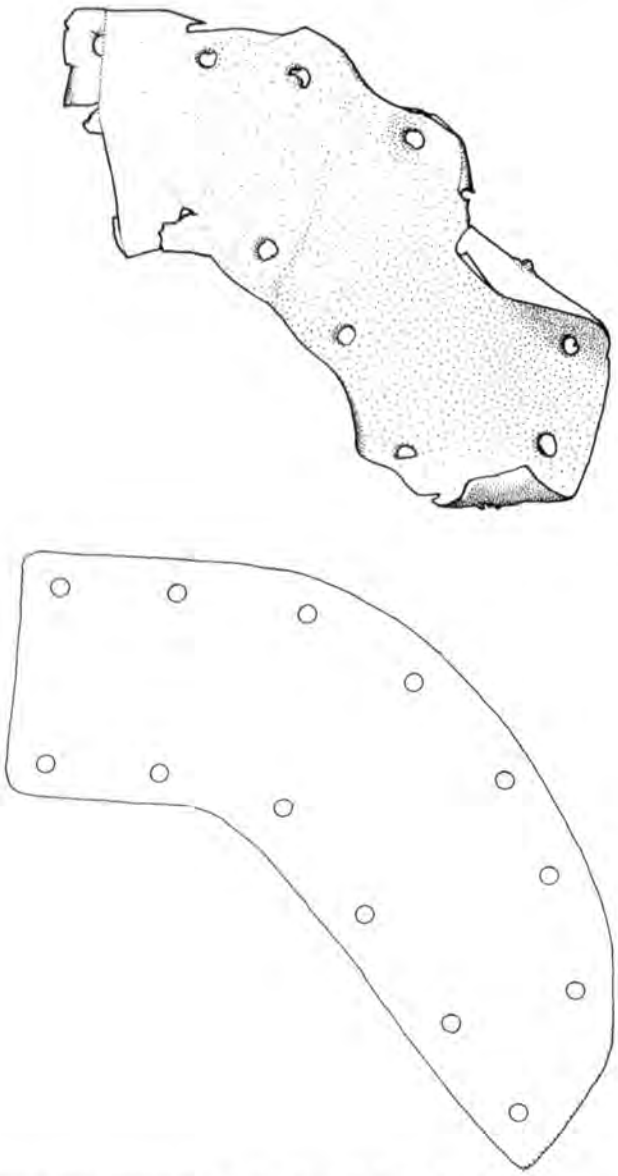


Figure 157. Bronze-plate found in P306a. Scale 1:1.

Figure 160. Bronze slide key (F117d). Scale 1:1.

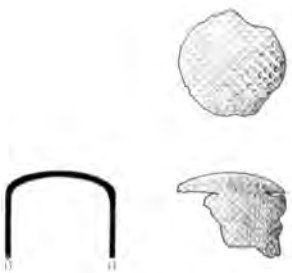


Figure 161. Bronze thimble (stray find). Scale 1:1.

Figure 162. Bronze knobbed bracelet (stray find). Scale 1:1.

stray finds: Buckle?
Fragment of knife (with fragment of bronze handle still attached?)
Large nail or peg (square-sectioned with triangular, flattened head) (fig. 176)
Ring (max. diameter 5.5 cm)
Handle? (fig. 177)
Ring
Hoe

Two lead artefacts were found (fig. 163): a flat fragment (P318, fig. 178) and a spindle-whorl shaped object (H85, fig. 179). The latter weighed 54.8 g, which is the exact equivalent of two Roman ounces or *unicae*. It could therefore have served as a weight for scales. Iron slag was present in many features, usually in small quantities. An exception to this is P272, in which 17.5 kg of slag and 7.5kg of possible cinders were found. This material was concentrated in the upper fill, together with large fragments of slate and other stone material.[34] The blocks of iron ore or iron slag found in P407 are mentioned under 4.7.5.

At least 277 iron nails or fragments of nails were found, the majority rectangular-sectioned. Most structures contained

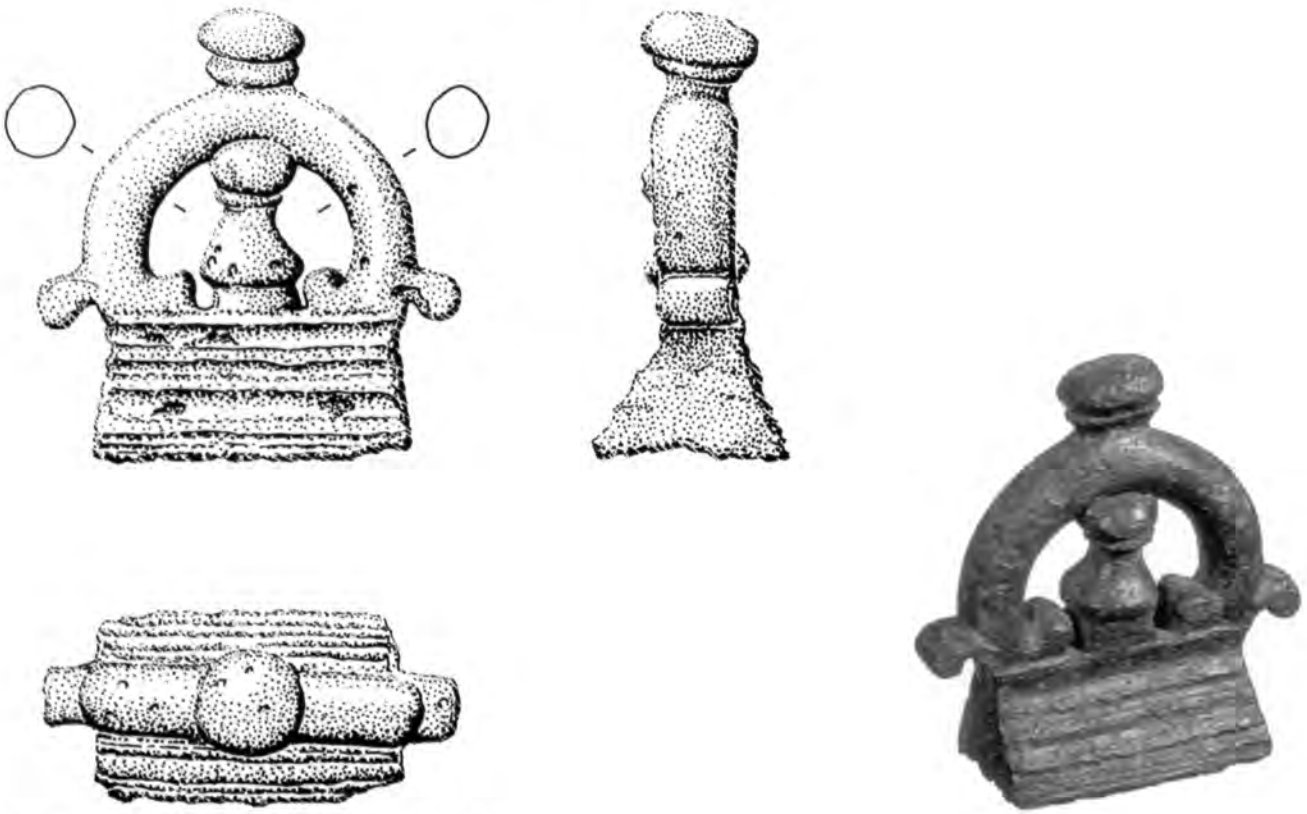


Figure 159. Bronze horse equipment (P318a). Scale 1:1.

Figure 167. Iron slide key (H109). Scale 1:1.

Figure 168. Iron lift key (P234). Scale 1:1.

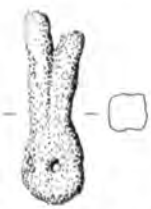


Figure 164. Iron split pin (?) (H96). Scale 1:2.

Figure 165. Iron lift key (H98). Scale 1:2.

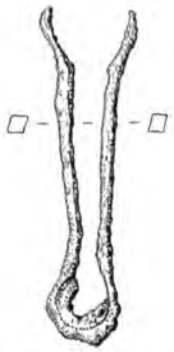


Figure 166. Iron tweezers (?) (H99). Scale 1:2.

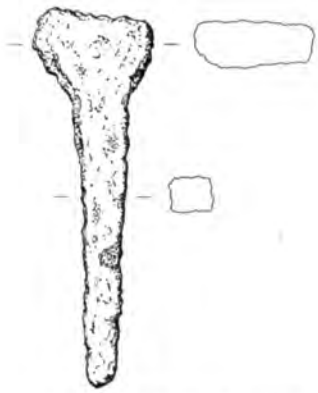


Figure 169. Iron pen-like object (P272). Scale 1:2.

Figure 170. Iron knife with bronze ring (P294). Scale 1:2.

Figure 171. Iron cylindrical ring (P306a). Scale 1:2.

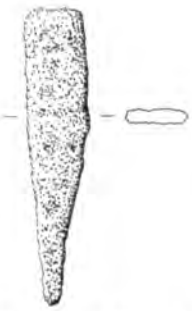


Figure 172. Fragment of iron knife (P307). Scale 1:2.

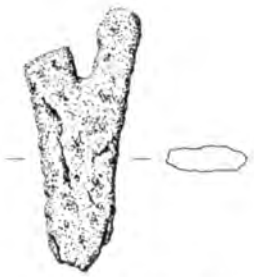


Figure 174. Iron fork-shaped object (P372a). Scale 1:2.

Figure 173. Iron knife (P319). Scale 1:2.

Figure 175. Iron buckle or clasp (P466). Scale 1:2.

Figure 176. Iron peg/nail (stray find). Scale 1:2.

Figure 177. Iron handle (?) (stray find). Scale 1:2.

Figure 178. Lead object (P318). Scale 1:2.

Figure 179. Lead spindle whorl (H85). Scale 1:2.

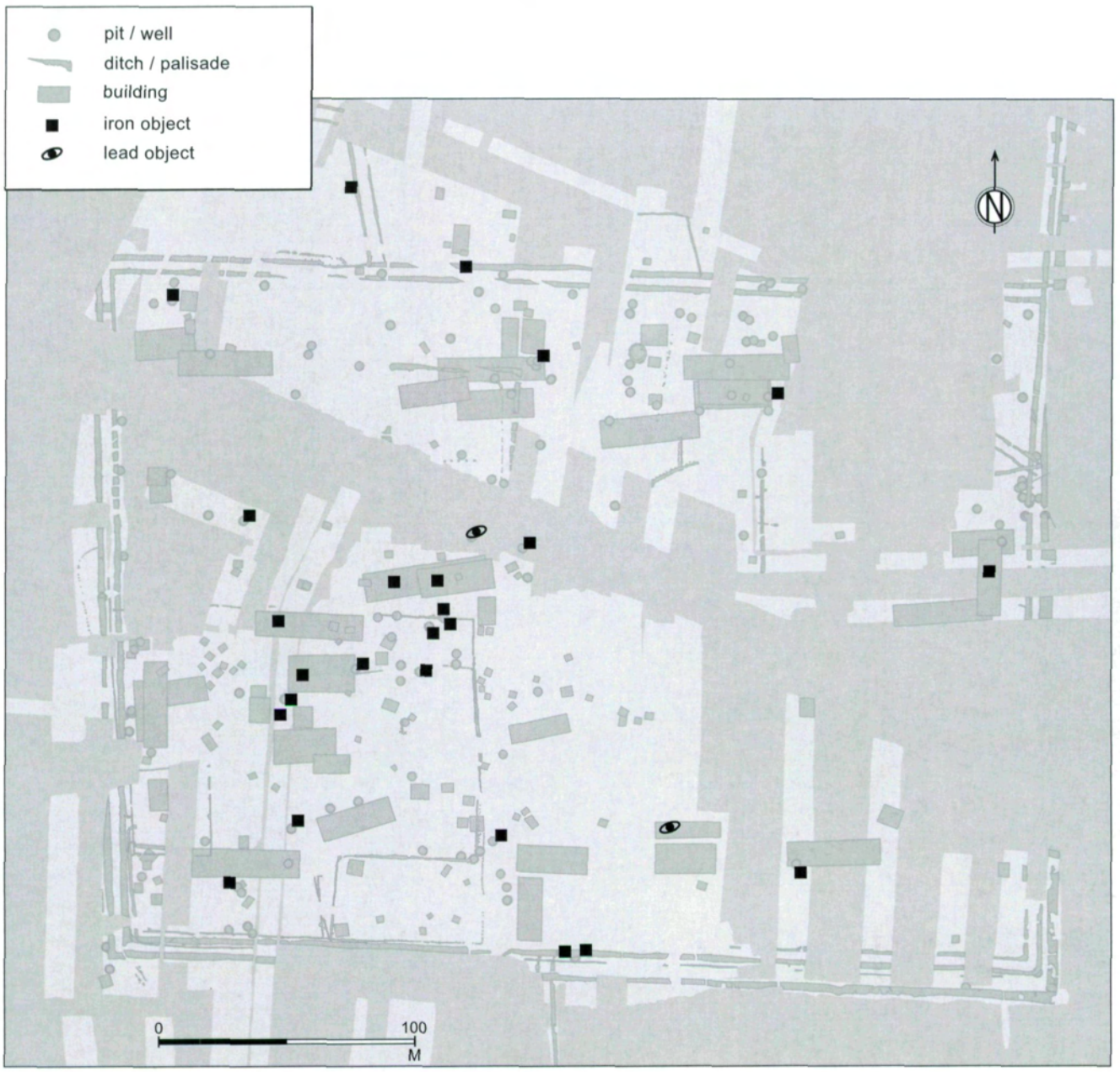


Figure 163. Distribution of iron and lead objects in the Westerveld settlement.

between one and ten nails, only in a few cases the number was higher. These include H78 (*c.* 40 nails), P253 (*c.* 20 nails), P307 (*c.* 14 nails) and P318 (*c.* 17 nails). Table 40 shows the occurrence of nails in combination with other building materials.

4.7.8 Leather objects

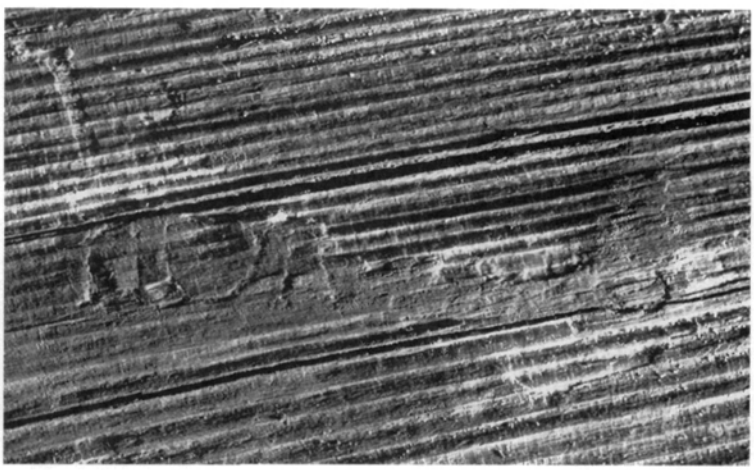
The only leather in the Westerveld settlement was found in well P255. The find consisted of three fragments of a goatskin shoe, probably the heel parts of one *carbatina*. The leather is decorated with two or three rows of parallel slanted incisions. This type of shoe dates from the 2nd and 3rd century AD (Van Driel-Murray 1987).

4.7.9 Wooden objects

Worked wood was present in the form of well-linings, remains of wooden posts in buildings and a small number of wooden artefacts. The first two categories have been

Figure 180. Re-used timber in P415. Scale 1:4.

Figure 181. Wine cask used in P256. Scale 1:10.



ə 182. Inscriptions on staves of the wine cask used in P306. Scale of two lower stamps 1:1.

Figure 183. Hollowed-out tree-trunk in P255 with clamps *in situ*.

Figure 184. Wooden mallet (P375). Scale 1:2.

described in Schinkel 1994, part II. Some of the wood used for well constructions appeared to be re-used timber. An example is P415 (Schinkel 1994, part II, 169, fig. 57), of which one of the re-used elements was part of a mortise and tenon joint (fig. 180).

Other artefacts that were re-used in well-linings are two (wine) casks (P256 and P306a). Only the lower two-thirds of the staves were preserved, the hoops made of split wicker that held them together could not be saved (fig. 181). Lid and base had been removed to make their use as well-linings possible. Assuming that the stopper hole for filling was originally halfway, the height of the barrels would have been 90 cm (P256) and 180 cm (P306a). The maximum diameters were 65 and 95 cm respectively. Both casks were made of a mix of silver fir (*Abies alba*) and common spruce (*Picea* sp.). The staves from the largest barrel showed three inscriptions, possibly the names of the cooper and the wine-merchant (fig. 182). Both the type of wood and the inscriptions suggest that the cask was made and filled in northern Italy or the south-east of France (see for an extensive description Bogaers 1987).

The fill of well P256 also contained a perforated, crescent-shaped wooden object, which may have been part of a clamp. Similar objects were found *in situ* in wells P255 and P272, where they held together the parts of hollowed-out tree-trunks (fig. 183). The two clamps from P255 were made of oak, the three from P272 of oak and ash. In four cases the wooden pegs were preserved too, while one of the clamps from P272 was fastened with four iron nails. The possible clamp from P256 was made of common spruce (*Picea* sp.), a type of wood that in Oss was only found as part of (wine) casks. This suggests that the clamp-like object may have been part of the cask.[35] From P375 came an object that looks slightly similar to a clamp. It is however much thicker and could therefore also be interpreted as a wooden mallet (fig. 184). Both the head and the remains of the handle were made of oak.[36]

Two wooden bowls, both made of maple-wood (*Acer* sp.), were found in two wells. One (found in P254) was only partly preserved. It was 13.5 cm high with a maximum diameter of 38 cm, and a concave base (fig. 185). The second one (found in P253) was more or less complete but smaller, with a height of 6 cm and a maximum diameter of 22 cm. This one had a flat base (fig. 186).

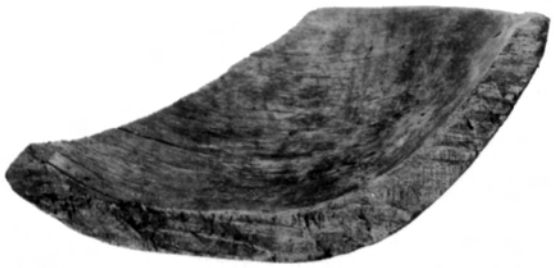


Figure 185. Wooden bowl from P254, height 13.5 cm. Scale 1:4.

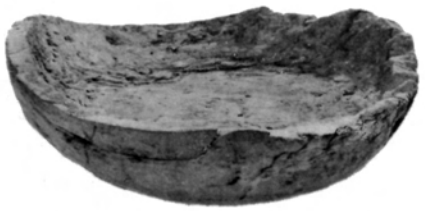


Figure 186. Wooden bowl from P253, height 6 cm. Scale 1:4.

4.7.10 Faunal remains

The faunal remains from the Westerveld settlement comprise more than 97% of all animal bones from Roman period Ussen[37] (Lauwerier/IJzereef 1994; 1998). Half of the (number of) bones could be identified (table 46). The remains were in poor condition and rather fragmented; larger animals may therefore be over-represented.

No remains of hunting or fishing were found. According to Lauwerier and IJzereef these activities cannot have been of importance for the local diet. Cattle constituted the most important source of meat, the horse is generally considered not to have been a source of meat. It is well-known that the cattle's size changed under Roman influence: the withers height increased from 110 cm or less in the Iron Age to 125 cm or more during the Roman period (Lauwerier 1988). Two reconstructions of cattle from the Roman period at Oss-Ussen suggest animals of Iron Age sizes. The (very tentative) conclusion drawn by Lauwerier and IJzereef is that Roman husbandry practices had no influence on cattle raising at Oss-Ussen.

species	number	%	weight	%
cattle	517	67	6751.2	73
sheep/goat	25	3	98.0	1
pig	32	4	195.6	2
horse	181	24	2218.7	24
dog	12	2	40.1	0
domestic fowl	1	0	0.9	0
total identified	768	50	9304.5	66
cattle/horse size	666	87	4630.6	95
sheep/pig size	65	8	92.3	2
mammal	38	5	170.0	3
total not identified	769	50	4892.9	34
total	1537		14197.4	

Table 46. Animal bones from the Westerveld settlement (after Lauwerier/IJzereef 1994, table 25; 1998, table 4).

In the central roof-bearing post of one of the house plans (H120), a chicken foot bone (*tibiotarsus*) was found. This animal was introduced into these areas with the arrival of the Romans (Prummel 1987, 187). An extra piece of information about the fauna in the Westerveld settlement came from a botanical sample: in P329 bones from at least three green frogs were found.[38] Either the frogs were living in an old well, or the bones were in clay sods from the river Meuse that were used to line the wells.

4.7.11 Botanical remains

Numerous samples for botanical research were taken from the features belonging to the Westerveld settlement (table 47).[39] A first scan showed that seeds were present in several of the samples, a selection was studied further by Van Amen (1995). No samples were taken from outbuildings. The one good sample from a granary (S309) was not analysed, but a first scan showed that it contained *Hordeum* sp. and *Spergula* sp. The samples from the house plans did not yield many seeds or any remarkable species. This is partly caused by the sandy soil which does not preserve these types of materials well. Wet conditions in pits and wells help to preserve uncarbonized seeds too and thus yielded a much more varied list of species.

Next to the normal range of crops such as barley, emmer, spelt, flax, millet, and beet, which were all present in the smaller settlements as well, the Westerveld samples gave evidence for the use (or at least the presence) of Roman herbs. They include coriander, poppy, savory, celery and dill. Apart from two poppy seeds, none of these species were found in the Iron Age settlements (Bakels 1994, 225; 1998, 347). They can therefore be interpreted as a Roman period phenomenon, of which the occurrence was restricted to the Westerveld settlement (Bakels/Wesselingh/Van Amen 1997). Several other species were found that were not present in the smaller settlements. Of flax, seen in Vijver and Zomerhof as well, remains of the stems were found. Together with the occurrence of its associated weed *Cuscuta epilinum* these are

type of feature	samples taken	samples with seeds	analysed samples
house plan	21	14	9
outbuildings	-	-	-
granaries/*horrea*	4	1	-
pits/wells	67	57	16
ditches/palisades	2	?	-
total	94	72	25

Table 47. Soil samples from the Westerveld settlement.

indications for local flax production. Turnip was grown for its oil and to be used as a vegetable and cattle feed. Another new plant is hop, which could be used for brewing beer. Whether this activity already took place in Ussen is not clear, since beer made from hops is mostly known from the medieval period and hops can be used for medicinal purposes too. Also new is the walnut, of which a piece of shell was found. The walnut tree occurs in the southern part of the Netherlands from the Roman period onwards (Bakels 1996, 141), but a single shell fragment does not constitute sufficient evidence to assume that a walnut tree actually grew in or near the Westerveld settlement. The nut could have been imported.

Something worth mentioning is a sample from P254, containing thousands of grain fragments, all smaller than 1 mm. In the same sample a blackberry pip was found with more grain fragments stuck to it, together with pieces of an apple core. All this gives the sample a cesspit-like character: perhaps faeces or food (bread, porridge) were in the pit. In P329 we see a similar situation: a sample contained carbonised pieces of grain, possibly the remnants of charred porridge.

An analysis of the culinary habits of the farmers at Oss, mainly based on the botanical results from the Westerveld settlement, has been published elsewhere (Bakels/Wesselingh/Van Amen1997). It appears that new foodstuffs, introduced by the Romans, entered the area from AD 50 onwards. Most of the culinary innovations remained restricted to the large Westerveld settlement, which led to the suggestion that they were consumed by the local elite only. However, the main part of the diet still consisted of the traditional cereals and meats. The 'Roman' addition was mostly flavouring in character: although this must have changed the appearance of the dishes, the menu remained 'native' in essence.

4.8 Analysis

4.8.1 Size and date

Of the total 7.5 ha of settlement indicated by the enclosure, approximately 5 ha were excavated. All Roman period house plans were found within the enclosure, but two Roman period wells, an outbuilding and several undated granaries were situated just outside the enclosure ditches. Both the wells (P207 and P231) and the outbuilding (B5) were found close to the south-western corner, while most of the granaries lie in an area directly north of the settlement. However, even though activities may have been taking place outside the enclosure, the settlement in the narrowest sense (i.e. the cluster of compounds) did not cover more than the *c.* 7.5 ha enclosed by ditches F125 and F126.

Continuity in habitation from the Late Iron Age onwards was established (Schinkel 1994, part I, 265, fig. 158): occupation cluster XVIII consists of three contemporaneous farmsteads shifting through a large territory. Towards the end of the Late Iron Age a stronger clustering occurs in the area where the subsequent Roman period settlement will be situated. Farms tend to be rebuilt closer to their predecessor and together with the appearance of new house-types (8C and 9) a change in orientation occurs from northwest-southeast to west-east.

The start of the Roman period settlement at Westerveld coincides with the beginning of the Roman period, i.e. 15 BC. However, this is an artificial starting point; since the settlement was continuously occupied there was not necessarily any change at that point in time. One of the elements that distinguishes the Roman period settlement from its Iron Age predecessor is the enclosure: the planned layout certainly marks a new settlement phase. Unfortunatley the digging of the ditches cannot be dated more accurately than the (beginning of) the first century AD. The end of the Westerveld settlement is equally uncertain. There are no farmhouses that can be dated to the second half of the second century AD on the basis of finds material, although approximately 15 pits and wells can be dated to that period. Pottery from the last quarter of the second century and later is present, including plates in 'smoked' Belgian ware (type Holwerda 1941, 81, colour-coated beakers in *Qualitätsware* (technique d) and 'shiny grey' ware (type Niederbieber 33), dented Belgian beakers (type Niederbieber 33), *terra sigillata*

bowls (type Dragendorff 32 and 40), *mortaria* (type Dragendorff 45) and a late type of inkpot. There could have been buildings from the late second century in the unexcavated parts of the settlement, but it is also likely that some of the farms have to be dated to several decades later (see 1.3.2). Occupation will not have lasted much after AD 225: the Westerveld settlement is dated I-IIIa.

4.8.2 Layout and periodisation

The Westerveld settlement was laid out in a structured way. This is clearly visible in the double rectangular enclosure, the marked-off compounds, frequent rebuilding on the same spot and to a lesser extent in the orientation of the house plans. The enclosure, including the two parallel ditches F127a and F127b, serves to mark the boundaries of the settlement. Its remarkably orthogonal layout creates a strict planned impression, bringing to mind Roman-style towns and military camps. The Westerveld enclosure is however a native version: the ditches do not have the well-known V-shaped section nor are they always regular in width. Moreover, the entrances are not situated on the axes.

Compared to the enclosure, the internal layout seems less organised, but this is partly due to the large areas that could not be excavated. Several structured elements can be discerned though. First, the orientation of the house plans is always either north-south or west-east. The north-south orientation is absent in the rest of Ussen. Furthermore, all north-south orientated house plans are situated on the edges of the settlement, close to the enclosure. Some of the west-east orientated house plans have a slight deviation in a south-west/north-easterly direction. Their short ends are parallel to a line that can be drawn from the northern to the southern entrance, the same direction that is visible in the pair of ditches just to the right of the northern entrance. Possibly this was an early route through the settlement. Later the northern entrance was closed off, and houses H98/H99 and the presence of the large farmyard in the south-eastern corner obstructed the diagonal route, probably forcing it off in a straight north-south direction.

A second element that suggests a structured internal layout are the farmyards. The yards are indicated by the rebuilding of farms on the same spot or in the same small area. In a few cases ditches or fences marking these compounds could be documented. The best example is the large farmyard (F117) which seems to have been enlarged at least once. It covers almost 1.5 ha, which is twenty percent of the total settlement. Within this enclosed area there is a second ditch enclosing a *horreum* (S309), and several smaller ditches (not numbered). All these ditches have the same north-south/west-east orientation as the settlement enclosure. Several other ditch and fence fragments, such as F99 and F94, will have served to mark off farmyards too.[40] It is difficult to establish the exact number and location of the farmyards, since they were not all occupied at the same time. The number of contemporary houses fluctuated between four and ten: layout and periodisation are thus closely connected.

Whether there was a central open space in the Westerveld settlement, as Slofstra (1991, 149) suggests, is difficult to establish. The area slightly east of the centre of the settlement could qualify as such, since it is not built upon and especially during the earlier periods the houses seem to be grouped around it. However, parts of it could not be excavated and in theory there could have been house plans here originally. Even if there were no farms on it, a central open space does not necessarily have to be devoid of structures. Outbuildings or wells might be present, especially if they served communal purposes. In Hoogeloon for instance, wells are situated in the central open area during the first and the second century AD, while in the latter phase granaries were built on the edge of the 'village square' (Slofstra 1987, 54-56 and 71). A different situation can be seen in the Zomerhof settlement (see 3.7.2), where a possible central space with outbuildings is associated with one particular farm. Thus 'central' does not necessarily mean 'communal' and 'open' is not always 'empty'.

Reconstructing the exact number of farmyards and the succession of the farmsteads is difficult. This is partly caused by the unexcavated areas, but a larger problem is posed by the dates of the individual house plans. Out of 37 house plans, 25 could be dated to a period of 50 years or less. The rest could not be dated more accurately than 75-100 years. Since the average lifespan of a prehistoric timber building is estimated at 30 years (see 1.5), it is difficult to base a sequence on the dates available. In some cases this is solved by intersections. Housetypes cannot be used for relative dating, at least not *within* the Roman period (Schinkel 1994. part II, fig. 1). Furthermore, it is possible that the sequence of farms is compressed into a period that is too short (see 1.3.2).

In order to obtain an impression of the development of the settlement and the sequence of the farmyards, I have chosen five phases of roughly 50 years each (table 48). Three of these phases overlap partly, and some of the house plans have been assigned to one phase while they could also have belonged to another. Theoretically, the eight farms that were dated between AD 70-125 could all belong to either the previous (AD 70-100) phase or the next phase (AD 100-150). When the new farm is built on top of the old one the sequence is clear, but this is not always the case. I have chosen to depict the period between AD 70 and AD 150 as three subsequent phases since within these 80 years, three farms could have been built and used for 25-30 years each. However the development may have been different to the impression that is created by letting the phases overlap.

Something else that should be kept in mind is the restricted lifespan of the buildings: the farms (30 years) will not have lasted a whole phase (50 years). Thus the number of farms within each phase is a maximum. This problem is partly solved by the fact that unexcavated areas could contain extra house plans, and by the overlapping of the phases. Taking all these things into account allows a number of conclusions to be drawn.

period	number of farms/farmyards
25 BC - AD 25	4
AD 25 - 70	9-11
AD 70 - 100	8-9
AD 70 - 125	8
AD 100 - 150	5-6
AD 150 – 225	0-1

Table 48. Number of farms/farmyards in each period of the Westerveld settlement, based on finds and intersections.

Table 48 and figures 187 to 192 show that the settlement expands rapidly during the pre-Flavian period, stays the same size (8-9 farmyards) until *c.* AD 125 and then diminishes again during the second century, before finally going out of use around AD 225. Unfortunately we cannot determine whether the settlement was at its largest before or after AD 70, when peace and prosperity followed the Batavian revolt. But even if it was after AD 70, the number of farms had already increased significantly well before the Flavian period. What is clear is that after AD 125 the number of farms decreases. However, considering the relatively large number of finds from the late 2nd and early 3rd century, it is unlikely that there were no farms at all during that period. Taking into account the remarks in paragraph 1.3.2 on the dating of buildings, some form of correction should be applied in order to solve this. Rigorously adding 50 years to each dated building and adding two extra farms for the first phase would create a completely different picture. The rapid expansion would then take place after AD 70 and the decline in the number of farms only starts after AD 150/175, with one farm still present at the start of the 3rd century AD. Although theoretically this could have been the actual development of the settlement, I will not apply this correction. There are no ways of differentiating this approach and if the dates for the Westerveld settlement are corrected then it would have to be done for the whole of Oss. Instead I assume that at least one farm was still present around AD 200, and judging by the distribution of the late pottery, this final farmyard was probably laid out in the northeastern corner of the settlement.

4.8.3 Development and nature of the settlement

In this section I will sketch the development and the nature of the Westerveld settlement. Information from structures and finds, including the botanical material, will be combined for each phase. Some conclusions on the character of the settlement will follow after that.

Around the start of the Christian era the inhabitants of the Westerveld area decide to lay out a rectangular ditch system (fig. 187). Having lived in the area for centuries in farms that lay scattered in the landscape, they now group their houses and emphasise this by surrounding the settlement with a double ditched enclosure. Two or three farms have just been built and are already in use, a fourth (H101) is built shortly after the ditch system has been dug. The building is placed on top of an almost square enclosure, which had a short-lived ritual function. Close to this yard, on the northern side of the settlement, is an entrance, flanked on the eastern side by two ditches. A second entrance is situated on the southern side, near another farm. It is possible that there are additional openings by which the settlement can be entered, for instance near other farmyards.[41] The ditch system stretches further than the settlement enclosure. More ditches are connected to it on the outside, dividing and structuring the landscape around the hamlet. There is a possible link with the enclosure around the smaller settlement Schalkskamp. Scattered between the farms lie several pits and wells, the latter lined with wattlework or a hollowed-out tree-trunk. In one well the lining consists of a re-used wine cask. Close to the smallest farmstead is a large granary, while other smaller storage buildings are situated on each yard. The four farms, all with a west-east orientation, are built using different constructions. All four have a foundation trench and external posts, but the two southern buildings are two-aisled, with central roof-bearing posts included in the short walls. The other two farmsteads are partly two, partly three-aisled, and slightly longer.

The inhabitants of this hamlet practice mixed farming, growing barley, emmer, spelt and millet. Other crops include flax, which is produced in the settlement, and turnip to extract oil and as a vegetable and cattle feed. The emphasis is on cattle-breeding, with cows as the most important animals for meat consumption, traction and secondary products. Sheep and pigs yield meat and other products, while horses are not eaten but used for transport, traction and carrying only. The diet is supplemented with wild fruits, such as apple, blackberry and raspberry. Next to relations with their direct neighbours from the surrounding settlements, the Westerveld people have contacts with other communities. They still use their own handmade pottery, but probably through exchange they obtain Roman wheel-thrown vessels. In this early phase of the settlement there are infrequent occurrences of *terra sigillata* vessels from Italy.

Figure 187. The Westerveld settlement: phase 1 (25 BC-AD 25).

Figure 188. The Westerveld settlement: phase 2 (AD 25-70).

Figure 189. The Westerveld settlement: phase 3 (AD 70-100).

These are discarded in wells in the south-western corner of the settlement, including the one lined with a wine cask. The cask may have arrived filled with 280 litres of wine, and as such was a valuable and rare possession. Perhaps the fine Arretine ware came with it as a gift. Other imported objects include a small bronze bell, and a silver *denarius* emissioned by the emperor Augustus, both found on the eastern farmyard. The coin is not used as a means of payment in a truly monetary way, but more likely kept as a prestige object. Bracelets of coloured glass paste have been fashionable for a long time, and are still being used. Occasionally a Roman type of bronze brooch is used for fastening clothing. Close to one of the farms (H80) there is a pit in which there is a stock of over 50 clay sling pellets, an object much used in earlier decades.

Over the next 50 years the settlement rapidly expands and comprises at least nine farmyards (fig. 188). On the northern and eastern yards new farms have been built very close to or on top of the old ones. The farm on the eastern side has a new orientation: north-south, which is parallel to the sides of the enclosure ditch. The same north-south orientation is used for two new farms near the western side of the enclosure. The original route between the two entrances is now obstructed by new farms. Various types of house-construction exist alongside each other including the partly one, partly two-aisled construction. At least three buildings show the partly two, partly three-aisled division. Next to wells lined with wattlework there is one well with a combination of a square and a round lining, and another one with a square construction. A second wine cask is re-used as a well-lining, this time twice as big as the one used before.

Although more imported wheel-thrown wares are being used, the majority of the vessels are still made by hand. New objects are the occasional glass vessel, and iron slide keys. Two bronze brooches end up in the postholes of H89. The inhabitants of the southwestern corner (H74) use a large amount of pottery, but less than 10% of the vessels have been made on the wheel. One of these vessels, a complete wheel-thrown jug, is deposited in one of the central postholes of their farm, probably as a building sacrifice. Other imported objects may belong to the owner of this house: two bronze brooches and the handle attachment of a bronze vessel. Perhaps he also possesses the so-called *Fußbecken* (bronze basin) that this piece of bronze was originally soldered onto. A new element of the menu is celery. Seeds of this kitchen herb end up in the well (P306) lined with a wine cask. The cask was made in northern Italy or southern France, and originally contained over 1300 litres of wine. The well may be part of the yard around H98, which is an exceptionally large farmhouse with a length of over 42 m. The inhabitants of H98 use and discard a lot of pottery, and a Roman-style glass gaming counter.

Several changes take place during the last decades of the first century AD (fig. 189). The Westerveld settlement remains large with eight to nine contemporary farms, including three buildings with lengths of over 35 m. All farms have foundation ditches and most of them are either two-aisled or two/three-aisled. New farms are built along the northern edge and in the south-western corner of the settlement. Next to several wells with wattlework linings there are many square revetments made of horizontally stacked planks. The northern entrance in the enclosure is closed off now. More products are being imported, but the wheel-thrown pottery does not outnumber the handmade kind. Tableware is more abundant, and glass vessels are used occasionally. Next to traditional objects such as clay sling pellets and spindle whorls the Westerveld people use metal articles, including iron keys, knives and bucket-handles. Bronze is used for brooches, which are widely used, and for fittings. Around a farm in the northern half of the settlement (H105) large amounts of pottery are discarded, as well as gaming counters and glass beads.

Around the transition to the second century more changes occur (fig. 190). Although the settlement stays the same size the mean length of the farmsteads has decreased slightly. Most wells are lined with wattlework, occasionally a hollowed-out tree-trunk is used or a revetment of planks. Most of the farmyards are still in use, but in the south-western corner the situation has changed. Previously containing four farms set close together, the area now shows a single building (H78), which is surrounded by a timber *porticus*. The owners of this particular house seem to have claimed a space previously inhabited by several families. This is emphasised by a ditch, marking the boundary of the farmyard, which measures nearly 1.5 ha. A large *horreum*, enclosed by another ditch, possibly belongs to this yard too. On this large farmyard a lot of pottery is being used and discarded, among which are many wheel-thrown vessels, but still more than half of the pottery is handmade. The inhabitants also use several glass vessels. A clay face mask, fabricated in Cologne, ends up in a well near H78. A large number of Roman tiles is present near the farm: perhaps these are on the roof of the *porticus*. Another type of building material is worked slate; holes are pierced in slabs of slate to attach them to roofs or walls. A new element in the kitchen is the herb coriander, which is used by the inhabitants of H78 but also near H106 on the northern edge of the settlement. The inhabitants of this farm also add other Roman ingredients to their menu, such as beet, savory, dill and walnut.

When the house with the *porticus* starts to fall apart after *c.* 30 years it is not replaced (fig. 191). During the first half of the second century AD the large farmyard contains only one small farm and some pits and wells. One of these gathers

Figure 190. The Westerveld settlement: phase 4 (AD 70-125).

Figure 191. The Westerveld settlement: phase 5 (AD 100-150).

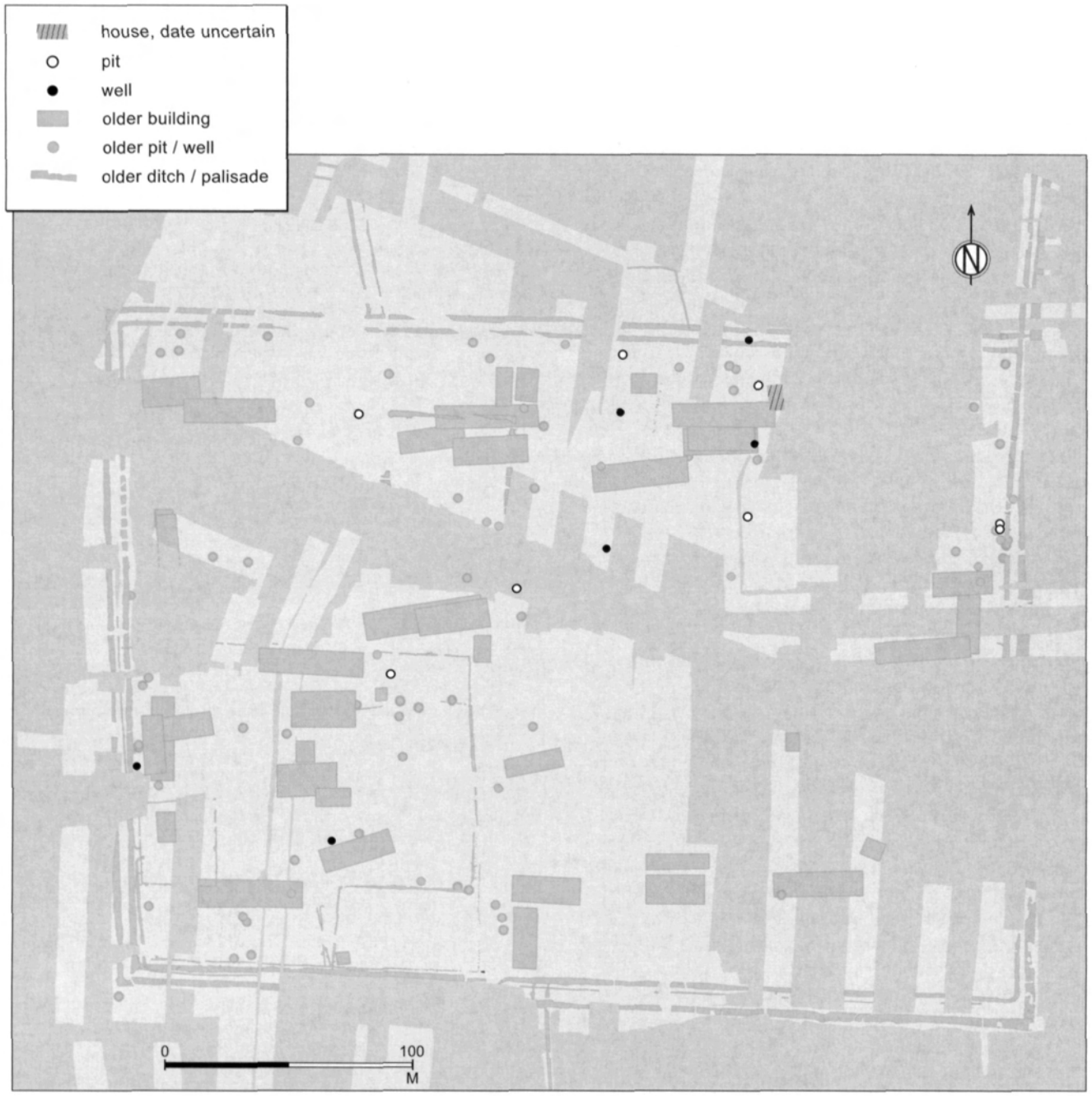


Figure 192. The Westerveld settlement: phase 6 (AD 150-225).

discarded material: glass ware, fragments of tiles, a glass melon bead, several bronze and iron objects and even a terracotta statuette. Among the bronzes are fittings, keys, brooches and a piece of horse equipment. Only three other yards are still in use, and the farm buildings are considerably shorter. The only larger farm is H120, and near this farm the bone of a chicken is discarded: a culinary novelty introduced by the Romans. The enclosure now consists of a single ditch: the inner ditch has silted up. Wheel-thrown pottery is available in large quantities all over the settlement. Some Roman building materials, such as tiles, perforated slate and tuff, are present, but probably re-used and not in the shape of a stone building. It seems to concentrate around the middle of the settlement and in the north, near H120. The timber farmhouses start to rot and many of them are not rebuilt. The enclosure ditch has not been re-dug, and is hardly visible any more. A small farm replaces H120 (fig. 192), and there may be another farmstead, accompanied by pits and wells. Many of these are clogged with discarded building materials and in one case a decorated goatskin shoe in Roman fashion. Somewhere around AD 225 the area is deserted.

The Westerveld settlement can be characterised as a large, structured rural settlement. Basically it is a self-supporting agrarian community, but at least some of its inhabitants have (indirect) contacts with the Romans. Especially during the first decades of the first century AD several imported goods enter the settlement, probably as a result of exchange between (military) Romans and the local elite residing in the Westerveld settlement (see fig. 220). Wine, fine drinking vessels and plates, and the odd silver coin and brooch will have been regarded as prestige goods. In the following years the settlement grows fast, farms become larger and after AD 50 more households acquire Roman goods. Around AD 100 the internal social ranking that was already present in the pre-Flavian period and possibly before becomes apparent in the settlement structure. A large yard surrounds a farm with a timber *porticus*, while many imported goods concentrate around this building. The owner of this farm is undoubtedly influential and well-off, although his Roman style house is still a medium-sized timber farm. As the settlement becomes smaller and less structured over the next decades, the signs of social stratification disappear too.

notes

1 Originally Verwers wanted to stop excavating in 1981 in order to begin the analysis of the enormous amount of data. However, the promising results of the first excavations at the Westerveld settlement made it clear to new project leaders, Van der Sanden and Van den Broeke, that excavating as much of it as possible would be worthwhile.

2 Co-ordinates 163.05/420.22 (Topographical map of the Netherlands, sheet 45E).

3 This wood sample is not mentioned in table 8 from Schinkel 1994 (part II, 121).

4 Based on Raemaekers (1993, 6-7), who has reconstructed the original groundwater level around the beginning of the first century AD at 3.95 m + NAP.

5 According to Van der Sanden (1987d, 66), F126 was in use for the larger part of the second century AD. Considering however that the ditch was re-dug only twice, it cannot have functioned very much longer after *c.* AD 150.

6 A rough estimate for the period after which a ditch such as F125 silts up is 25 years (Raemaekers 1993, 13, based on British experiments).

7 A preliminary plan of the Westerveld settlement (Van der Sanden 1987d, 62, fig. 7) shows that F130b was initially not recognised as a Roman period extension of F126.

8 The survey was carried out by P. Haane and G. van Alphen in 1986. In their report they use the term 'eastern ditch' (i.e. F126), but Van der Sanden (1987d, 66) mentions the inner, western ditch (i.e. F125) as the one that was followed.

9 Sections through the Schalkskamp enclosure ditch (F137) showed a striking similarity to sections of F125/F130a (pers. comm. W van der Sanden).

10 These two ditches are not visible on the plan of the Westerveld settlement, since they are situated more than 100 m west of the enclosure.

11 This enclosure has been discussed at great length in various articles. The most important is Slofstra/Van der Sanden 1988. It is further described in Van der Sanden 1987d, 61; 1988, 110/111; 1994, 215/216, and Schinkel 1994, part II, 253-255 and table 19.

12 The R-number (R for ritual, also used for graves) is a result of the interpretation as a cult-monument.

13 The finds that were labelled 'unusual' (Slofstra/Van der Sanden 1988, 162) include a handmade cup, several fragments of 1st century *terra sigillata* and two (fragments of) *La Tène* glass bracelets. The latter find group was found all over the settlement in a pattern that suggests the bracelets were treated as normal refuse (see 4.7.6). Apart from two fragments, the 1st century *sigillata* was found as stray finds within the enclosed area. No coins or other metal objects were found.

14 The other sanctuaries measure 22.5 x 20.5 m (Hoogeloon), 24 x 37 m (Alphen), 33 x 32 m (Wijnegem), and 13.5 x 11 m (Neerharen-Rekem). At Wijshagen no clearly recognisable peripheral structure was found.

15 The difference in orientation between the row of posts and the northern ditch of R57 is 4°.

16 The difference in orientation between the eastern ditch of R57 and F91 is 3°.

17 The exact period during which the enclosure was functioning and consequently the amount of time that passed before the ditches were overbuilt is unclear. The various problems were amply described by Van der Sanden (1994, 216). In the first place the pottery from the ditches as well as that from the house plans is mainly handmade and thus difficult to date. It is possible that R57 was dug during the last decades BC. Wood from one of the roof-bearing posts from H101 was analysed and yielded an uncorrected dendrochronological date of 12 BC (Jansma 1995, 132). The corrected date could lie somewhere between AD 3 and AD 16, but might also be younger, as the find material suggests. The use period of R57 could thus be anything between 25 and 75 years.

18 One of the house plans from Schinkel's cluster XVIII, H100, is situated *inside* the supposed open-air sanctuary. This plan cannot be dated more precisely than 'Late Iron Age', which is the period 250 BC - 0 AD. Theoretically it could have been present when the ditches of R57 were dug, but that is not likely. Because of its northeast-southwest orientation and its early type (4), Schinkel suggests that H100 is dated to early in the Late Iron Age (Schinkel 1994, 195-196). The house was thus out of use (and possibly invisible) when R57 was laid out.

19 Cf. the enclosed area around S309, which measures 783 m^2, and the large farmyard enclosed by F117, which covers an area of at least 10,000 m^2.

20 Although I consider the creation of R57 a foundation ritual, it is not a foundation deposit or sacrifice. This would require the sacrifice or deposit of an object (Van den Broeke 1977, 1/2), for which there are no indications. A common aspect however is the emphasis on the precise moment as well as the specific occasion (i.e. the construction of the settlement enclosure and thus implicitly the foundation of the settlement itself) on which the act is carried out (Van den Broeke 1977, 25).

21 The stamps were identified by different specialists: ALBA(NVS) by dr. M. Polak, M(A)CRIN: F by prof.dr. J.K. Haalebos and MVRI[ ] by drs. M. Brouwer. The PACATVS F stamp was only read, not identified. The sherd displaying it was identified as Central Gallic fabric, but the potter Pacatus worked in Rheinzabern, which is in Eastern Gaul (Oswald/Pryce 1966, 87).

22 It should be mentioned that one of the features containing a large number of sling pellets, P467, is dated to the Late Iron Age and/or Roman period. However, this is mainly based on the lack of wheel-thrown pottery. The fact that this pit contained so many sling pellets and was situated close to other (Iron Age) features with large numbers of these clay projectiles points to a late prehistoric date.

23 Determination G. van Boekel.

24 This list is incomplete, since it only covers the finds from structures. Many more fragments of querns and especially of whetstones were found in undated features or as stray finds.

25 In Rijswijk a complete *tegula* was found measuring 412 x 302 cm (Bloemers 1978, 314).

26 See for example Van der Sanden 1990, 102; Slofstra 1991, 163; Fokkens 1993, 47 and Roymans 1996b, 74, table 4.

27 Unfortunately the weight of *tegulae* and *imbrices* was not documented separately.

28 It should be noted that at Hoogeloon not all tile fragments were weighed, so the percentage will have been higher originally.

29 The fragments may have been used to pave the floors of the byres, as Lammers (1994, 167) suggests for the later farms of Hoogeloon. In H78, a byre section is not visible. Perhaps the *porticus* was in fact a series of partly outdoor stables, the floors of which were paved with tile fragments. This hypothesis is merely an idea, and cannot be proven.

30 Willems (1986, 183) suggests the presence of such a small tile-works south of the Meuse.

31 This weight is only an estimate, since worked and unworked slate were not weighed separately.

32 Of four fragments the exact find spot is unclear. They were listed as found in the Roman period settlement, two of them possibly in or near H110.

33 Roymans and Van Rooijen base their conclusions for the Lower Rhine area on the fragments from the Jansen Collection only. Since this particular collection totals more than 1700 bangles from all over the area, it is thought to be representative. When comparing Roman period Ussen with the percentages from the Jansen Collection it should be kept in mind that the latter covers the whole use period, thus including the Late Iron Age.

34 The excavators suspected this complex to be some sort of oven.

35 The height of the cask (only 90 cm) indicates that originally a second cask was on top of this one to form a well-lining. The clamp may have been part of this second barrel, which was not preserved.

36 An Iron Age mallet of the same size was found in Rockanje (Brongers/Woltering 1978, 66, fig. XIII).

37 The analysis was carried out on the find material from 1976 - 1986, so the Schalkskamp settlement was not included.

38 Determination by W. Prummel.

39 From several house plans, pits and wells, more than one botanical sample was taken. In table 47, only one sample for each structure was counted.

40 Several ditch fragments were on the original field drawings but not sectioned or numbered. Since they could not be dated they are not included on the settlement plan.

41 In 1997, rescue excavations directly to the east of the Westerveld settlement revealed a possible Roman period ditch (Jansen/Fokkens 1998, 9). If there was an entrance just south of H108, this ditch could have been leading up to it, in the same way that ditches F128/129 and F132/133 flank the other two entrances.

5. The Schalkskamp settlement

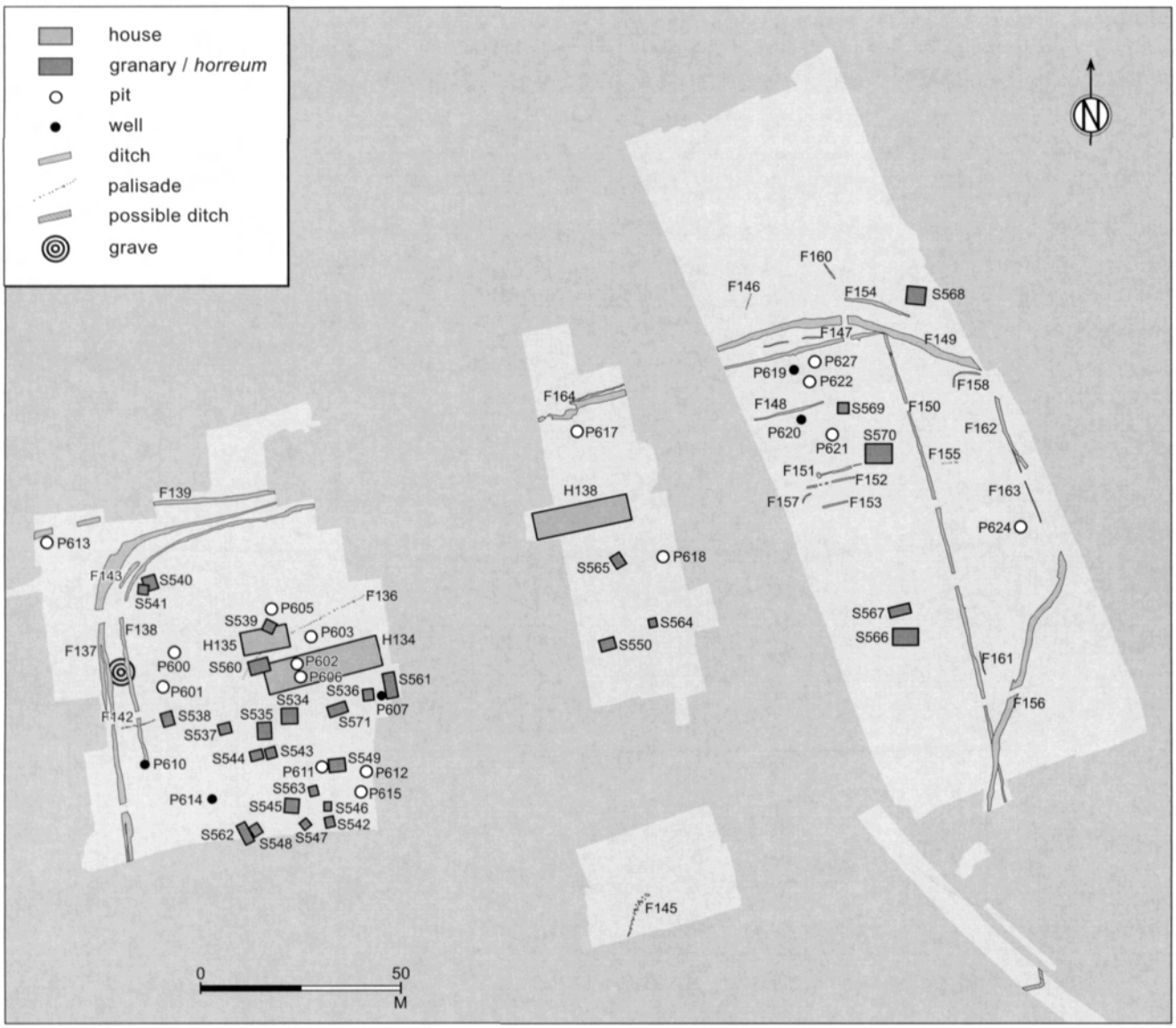


Figure 193. The Schalkskamp settlement.

The most recently discovered Roman period settlement, named Schalkskamp after the field toponym, was excavated during three consecutive summer campaigns (1990-1992). Half of the Schalkskamp settlement is situated on the eastern side of the Kennedybaan, and strictly speaking belongs to the 'Mettegeupel' housing estate instead of Ussen. The western part of Schalkskamp is in the north-westernmost corner of Ussen (fig. 193).[1] The excavated area covers *c.* 2.8 ha, of which the Kennedybaan and a sewer trench are the largest disturbances. Due to modern roads the southern boundaries could not be excavated. Even so, the Schalkskamp settlement seems to be fairly complete. Features include three house plans, 29 granaries, 21 pits and wells and 23 fragments of ditches and palisades. Since Late Iron Age occupation is also found in the same area, some of the undated features will have to be placed in the Iron Age. Since the Schalkskamp excavations took place after 1986, the data are not included in Schinkel's dissertation (1994). Several preliminary reports have appeared (Fokkens 1991a, 1991b and 1992).

5.1 House plans

For the Roman period, three house numbers were given out in Schalkskamp (table 49). One of these plans, H135, could possibly be regarded as an outbuilding.

No.	type	length (m)	width (m)	orientation	date	dendro
H134	9B	28.1	6.8	W-E	RP Ia	(AD 17±5)
H135	6A?	11.6	5.6	W-E	LIA/RP	
H138	8B	23.2	6.0	W-E	RP IA	

Table 49. House plans from the Schalkskamp settlement. Date: LIA = Late Iron Age, RP = Roman period.

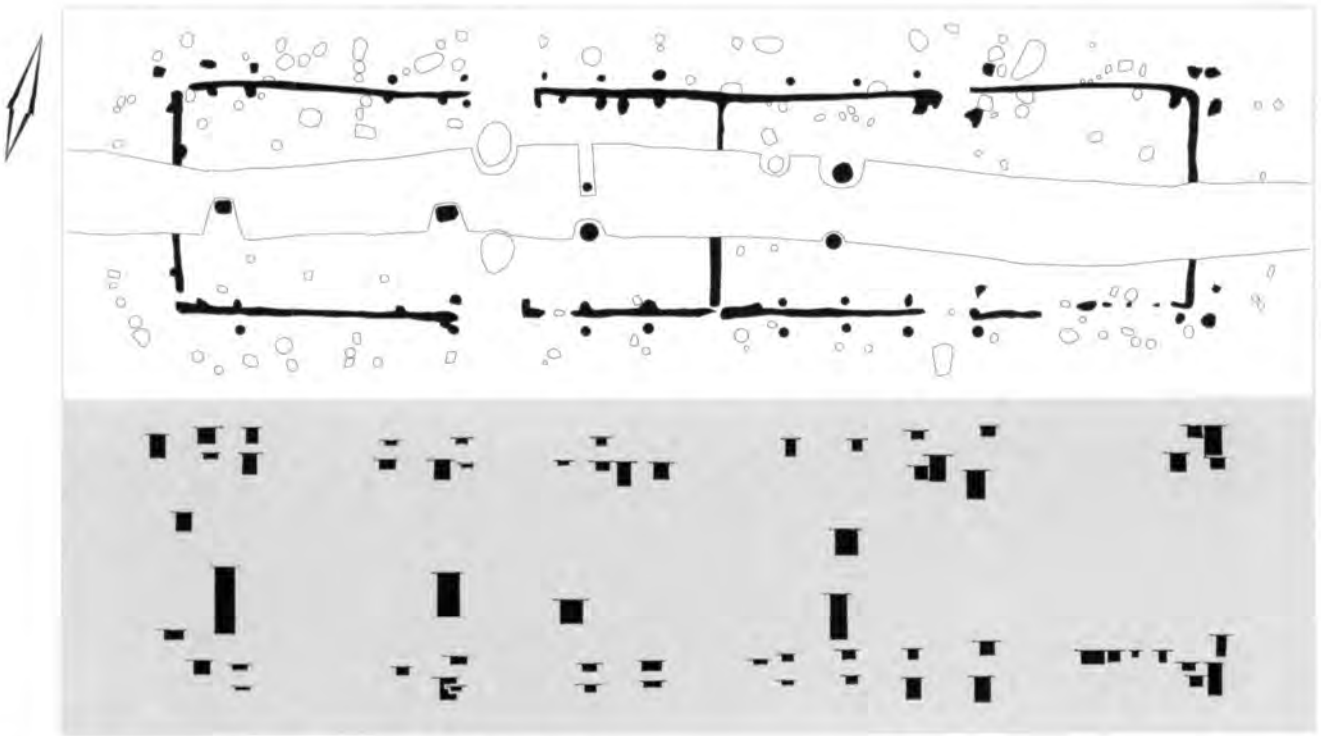


Figure 194. House 134. Scale: plan 1:200, posthole depths 1:100.

House 134

House 134 is disturbed by a recent ditch, which splits the plan in half lengthways (fig. 194). Two sets of entrances, set opposite each other in the long walls, separate the two-aisled parts from the three-aisled part. Possible entrances in the short walls are concealed by the recent ditch. A remarkable feature is a small trench, which seems to divide the three-aisled part, and therefore the whole plan, in half. Due to the recent ditch, it is not clear whether or not there was an opening in this partition.

This type-9B plan is deviant is several ways. Usually the combined two/three/two-aisled layout is associated with extremely long house plans, ranging from 36.0 to 42.3 m. H134 is only 28.3 m long. If the three-aisled part is interpreted as a byre, the question remains whether the two other parts were both living areas. In the longer western part two pits were situated just inside the walls, opposite the entrances. They were similar in location, size, shape and fill. Both no deeper than approx. 10 cm, they contained some pottery and a lot of charcoal. An interpretation as hearth-pits seems possible, but is difficult to support because of the location. And as the original Roman period surface has been disturbed, shallow features like hearths would normally have disappeared. These pits were originally at least 40 cm deep. They are certainly associated with H134: perhaps they did hold a fire and functioned in some kind of craft. Unfortunately no traces of special activities were found. Even so, an interpretation of this part of the building as a kind of crafts-area seems likely: activities such as weaving, production and repair of tools could have concentrated around a source of light and heat.

The 285 pottery fragments derived from this plan were all identified as handmade material, including some coastal ware. Further finds consisted of tephrite, a fragment of a triangular clay loomweight, and a small fragment of calcinated bone. This finds complex seemed to date the plan to the Late Iron Age (Oss-Ussen phase K/L, analysis by P. van den Broeke). However, dendrochronological research of the wooden remains of one of the western central roof-bearing posts yielded an absolute date of AD 17 ± 5 (see 1.3).

House 135

The plan of House 135, a one-aisled building, lies alongside that of H134. The walls are marked by a single row of posts, and in some places fragments of a foundation trench are present (fig. 195). Possibly the complete wall originally consisted of a foundation trench. In that case, H135 could be classified as a type 6A. The only parallel for a wall made up of a single row of posts can be found at Oss-Zaltbommelseweg (Van der Sanden 1990, 99-101; see 6.2). Although this building is of an unknown type, Van der Sanden considers it a proper house plan. It is, however, larger and of a later date than the one in Schalkskamp. An interpretation of H135 as an outbuilding rather than a house can therefore not be precluded. The pottery from H135, consisting of 109 fragments of handmade ware, dates the plan to the Late Iron Age or the early Roman period. Other finds include a nearly complete triangular clay loomweight, a small piece of calcinated bone, and a fragment of a blue glass *La Tène* bracelet (Haevernick type 7a).

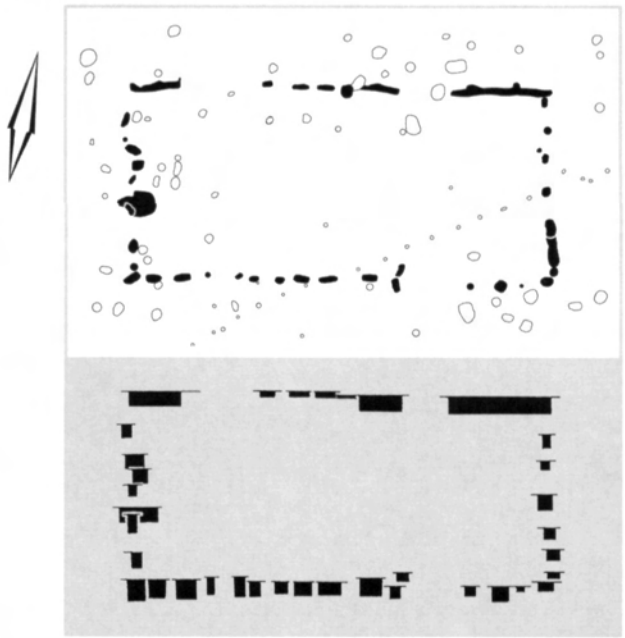


Figure 195. House 135. Scale: plan 1:200, posthole depths 1:100.

House 138

The eastern central roof-bearing post of H138 is placed outside the short wall, while external posts are lacking (fig. 196). Apart from the usual set of entrances opposite each other in the long walls, a third (byre) entrance may have been situated in the northern long wall, *c.* 2 m away from the corner. Remnants of oak central roof-bearing posts were found in four postholes, but the number of tree-rings was too small for dendrochronological research. The 120 pottery fragments derived from the features of H138 were all identified as handmade ware. Following the criteria of the Oss-Ussen pottery dating scheme (Van den Broeke 1987b), the pottery and therefore the house plan was dated to phase M (AD 0-50, see 1.3).

5.2 GRANARIES

The Schalkskamp excavations yielded 29 small outbuildings, interpreted as granaries (table 50). The majority of these (n=22) could not be dated. Two granaries, both of the larger nine-post type IIA, could be dated in the

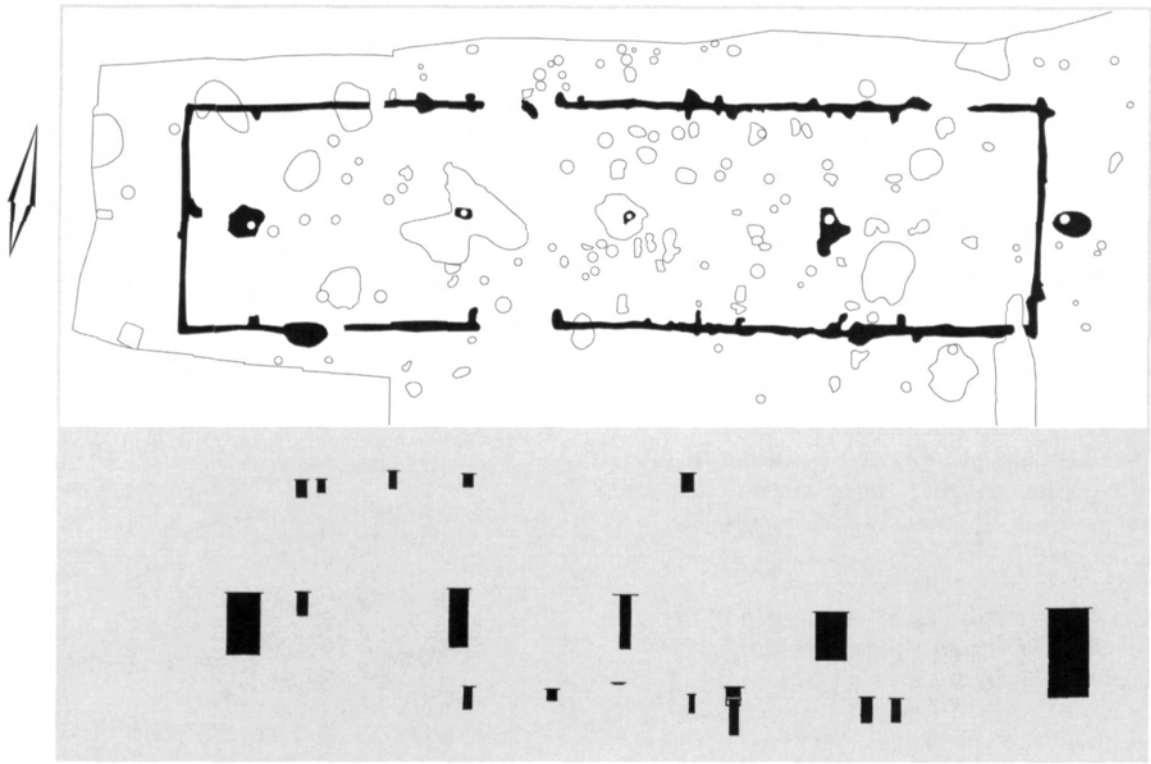


Figure 196. House 138. Scale: plan 1:200, posthole depths 1:100.100.

Roman period (S566 and S570). Their ground plans are very similar: both buildings seem to have had a small, step-like entrance construction on the east side (fig. 197). Five other storage structures could be dated to the Late Iron Age, which fits in with the occupation history of the Schalkskamp area. At least a number of the remaining undated granaries will have been contemporaneous with the Roman period houses.

5.3 Pits and wells

A total of 25 pits and wells were excavated in Schalkskamp (table 51).[2] Four of these formed part of the Late Iron Age occupation phase, while seven could be dated to the Roman period. Of these seven, four contained a wooden lining, indicating a well. In all four cases the lining consisted of wattlework (type A1), once in combination with horizontal planks (type A5), and once combined with both horizontal planks and a hollowed-out tree-trunk (type A3).

The remaining three Roman period pits all had a distinct function: two are the supposed hearth-pits of H134 (P602 and P606), and the last one (P618) may have served as a forge, laid out in a dry ditch from the Late Iron Age (Fokkens 1993, 63). The exact date of this forge is not certain, it could have been used in the Late Iron Age too. The location of the pit could throw some light on this question. Because of the heat and the debris, bronze casting is an activity that would preferably be carried out on the edge of or outside a settlement. If this fireplace was in use during the Iron Age, it would have been situated on the edge of the settlement, but rather close to a farmhouse (Fokkens 1992, 161-162). Unless this building was directly connected with the activities around the forge, this is not a likely situation. If bronze was cast here during the Roman period, it would have happened inside the settlement enclosure and not far from one of the farmhouses, but in an area which was otherwise empty. Since the fireplace was probably used for a few days only (Fokkens 1993, 63), it is difficult to reach a conclusion on its date.

5.4 Palisades and ditches

Of the 29 palisades and ditches documented in Schalkskamp (table 52), only five were rows of posts (type IA). None of these fences could be dated, and only in one case (F136) does a connection with another structure (H134) seem possible. Three of the remaining 21 ditches (F141, F142 and F144, all type IIIA) could be dated to the Late Iron Age

No.	type	length/width (cm)	date
S534	IB	340/320	-
S535	IC	260/320	-
S536	IA	230/180	-
S537	IA	240/170	-
S538	IA	230/230	-
S539	IB	200/180	-
S540	IA	280/240	-
S541	IA	220/200	-
S542	IB	200/180	-
S543	IA	180/180	LIA phase J-L
S544	IA	210/200	-
S545	IA	240/200	-
S546	IA	160/120	LIA
S547	IB	180/160	-
S548	IA	220/180	-
S549	IA	280/170	LIA phase J-K
S550	ID	320/250	-
S560	IB	400/300	-
S561	IE*	620/220	-
S562	ID*	560/180	LIA
S563	IA	200/160	-
S564	IB	200/140	-
S565	IA	300/220	IA
S566	IIA	460/380	RP
S567	IC	500/160	-
S568	IIA	360/360	-
S569	IB	210/200	-
S570	IIA	400/340	RP
S571	IB	500/250	-

Table 50. Storage buildings from the Schalkskamp settlement. Date: (L)IA = (Late) Iron Age, RP = Roman period. * = plan is incomplete.

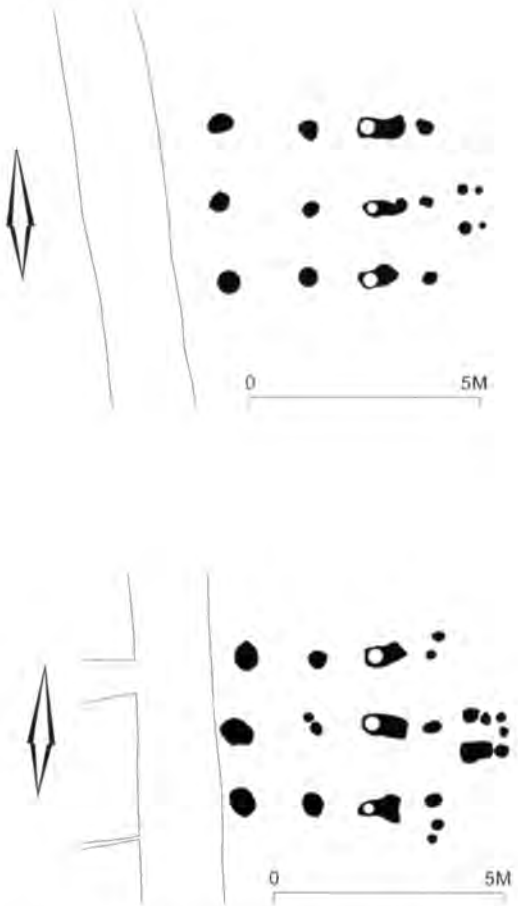


Figure 197. Two granaries with 'steps' (S566 and S570).

(phase K), and probably formed part of a ditch system, enclosing the Late Iron Age settlement.

Two fragments of ditches (F156 and F164) yielded Roman period material.[3] Together with several undated ditch-segments (F137, F138, F139, F149, F150, F162 and F163) they enclose the settlement. Since this ditch system is divided over different parts of the excavation, the exact connection between the various ditches is not always clear. On the basis of sections and the scarce finds it can be concluded that the enclosure has at least two phases, both probably not later than the first century AD. One of the ditches (F137 or F138) might have been connected to the ditched enclosure around the Westerveld settlement (Fokkens 1991b, 131). A series of parallel ditches (numbered F159) is of medieval date, but seems to enclose the same area as the Roman period ditches, following them on exactly the same track.

In an area c. 250 m to the north-east of the Schalkskamp settlement (Mettegeupel/Almstein, see 6.2) a number of ditches and palisades were excavated which probably date to the Roman period. This hypothesis was based on the finds, relative dates derived from intersecting features, and the orientation of the ditches, which seems to fit in with the Schalkskamp enclosure. The ditches may have been part of a field system (see chapter 6).

5.5 A GRAVE

On the western side of the settlement a single grave was found, intersected by the settlement enclosure. It consisted of the remains of an urn containing cremated bones, surrounded by a circular ditch with a diameter of *c.* 5 m (fig. 198). The bones were found to be those of one individual, at least older than 18. Mixed with the human remains were the calcinated bones of an animal, possibly a sheep. More faunal remains, which could not be determined, were found in the circular ditch. The dating of this grave remains problematic: the vessel is handmade and cannot be dated more precisely than

No.	type	depth (cm)	diameter (cm)	diameter lining	wood	date
P600	F	25	125	-	-	LIA/RP
P601	E	30	90	-	-	LIA/RP
P602	H	10	100	-	-	RP IA
P603	I	10	100	-	-	-
P604	B	75	470	-	-	LIA
P605	E	45	95	-	-	LIA/RP
P606	H	10	105	-	-	RP IA
P607	A1/5	140	380	140	A F Q	RP IA
P608	A1	80	260	100	A Q	LIA phase I
P609	B	100	440	-	Q	LIA
P610	A-I	-	200	-	-	-
P611	F	45	160	-	-	-
P612	E	60	110	-	-	-
P613	E	70	240	-	-	-
P614	A1	105	240	35	A Q R S	RP
P615	G	20	110	-	-	-
P617	E	70	240	-	-	LIA/RP
P618	E	80	380	-	-	RP?
P619	A1/3/5	100	410	30	Q	RP
P620	A1	100	220	70	-	RP
P621	E	20	80	-	-	-
P622	B	60	200	-	-	-
P624	I	30	180	-	-	-
P627	F	60	280	-	-	-
P635	G	90	40	-	-	LIA phase I

Table 51. Pits and wells from the Schalkskamp settlement. Wood: A = *Alnus* (alder), F = *Fraxinus* (ash), Q = *Quercus* (oak), R = Rhammus *Catharticus* (purging buckthorn), S = *Salix* (willow). Date: LIA = Late Iron Age, RP = Roman period.

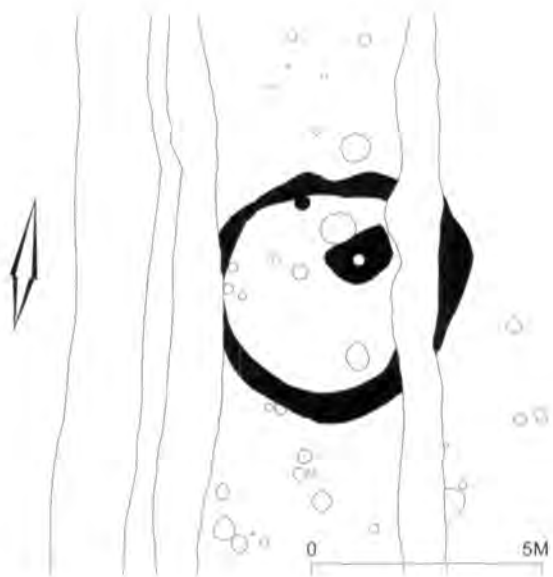


Figure 198. Grave.

terra sigillata	1	+
Belgic ware	4	+
cork urn	1	+
colour-coated ware	-	-
smooth-walled pottery	3	+
mortaria	-	+
dolia	6	+
amphorae	3	+
Waaslands	-	-
coarse ware	-	-
grey ware	2	+
handmade pottery	2026	99
indeterminable	2	+
total	2048	100%

Table 53. Wheel-thrown and handmade pottery from the Schalkskamp settlement: number of sherds and percentages.

No.	type	length (m)	width (cm)	orientation	date
F136	IA	35.0	-	NE-SW	-
F137	IIIA	90.0	120	N-S/E-W	RP?
F138	IIIA	72.0	120	N-S/E-W	RP?
F139	IIIA	60.0	120	E-W	-
F140	IIIA	72.5	120	NE-SW	LIA phase K
F141	IIIA	45.0	120	NE-SW	LIA phase K
F142	IA	8.4	-	E-W	-
F143	IIIA	7.5	120	NE-SW	-
F144	IIIA	125.0	250	N-S/NW-SE	LIA phase K
F145	IA	10.0	-	NE-SW	-
F146	IA	4.0	-	NE-SW	-
F147	IIIA	15.0	25	E-W	-
F148	IIIA	17.5	60	E-W	-
F149	IIIA	60.0	120	N-S/E-W	RP?
F150	IIIA	135.0	100	NE-SW/N-S	RP?
F151	IIIA	10.0	50	NE-SW	-
F152	IIIA	12.5	50	NE-SW	-
F153	IIIA	6.0	50	NE-SW	-
F154	IIIA	20.0	100	E-W	-
F155	IA	5.0	-	E-W	-
F156	IIIA	70.0	160	NE-SW	RP I
F157	IIIA	3.6	30	-	-
F158	IIIA	9.2	40	N-S/E-W	-
F159	IIIA	225.0	500	NE-SW/NW-SE	ME
F160	IIIA	5.0	40	-	-
F161	IIIA	5.8	20	-	-
F162	IIIA	20.0	80	NW-SE	-
F163	IIIA	20.0	30	NW-SE	-
F164	IIIA	23.0	120	E-W	RP

Table 52. Palisades and ditches from the Schalkskamp settlement. Date: LIA = Late Iron Age, RP = Roman period, ME = medieval.

No.	t.s.	BW	cork	smooth	*dolia*	*amph.*	grey	indet.	total
P607	-	2	1	3	2	3	1	-	12
P614	-	2	-	-	4	-	-	-	6
F156	-	-	-	-	-	-	1	-	1
F164	1	-	-	-	-	-	-	2	3
total	1	4	1	3	6	3	2	2	22

Table 54. Structures from the Schalkskamp settlement with wheel-thrown pottery (number of sherds).

to the Late Iron Age or Roman period. The find spot of the only other find, a bronze wire-brooch, does not shed any light on this problem either: it was found exactly on the division between the circular grave-ditch and one of the enclosure ditches that cuts through it. For the grave, a date in the Late Iron Age or in the early Roman period both remain possible. In the latter case, the grave monument would have been destroyed by the digging of the enclosure ditch, shortly after it was constructed.

5.6 FINDS

5.6.1 Pottery

The structures from the Roman period settlement contained 2048 pottery fragments (table 53), of which only 1% is

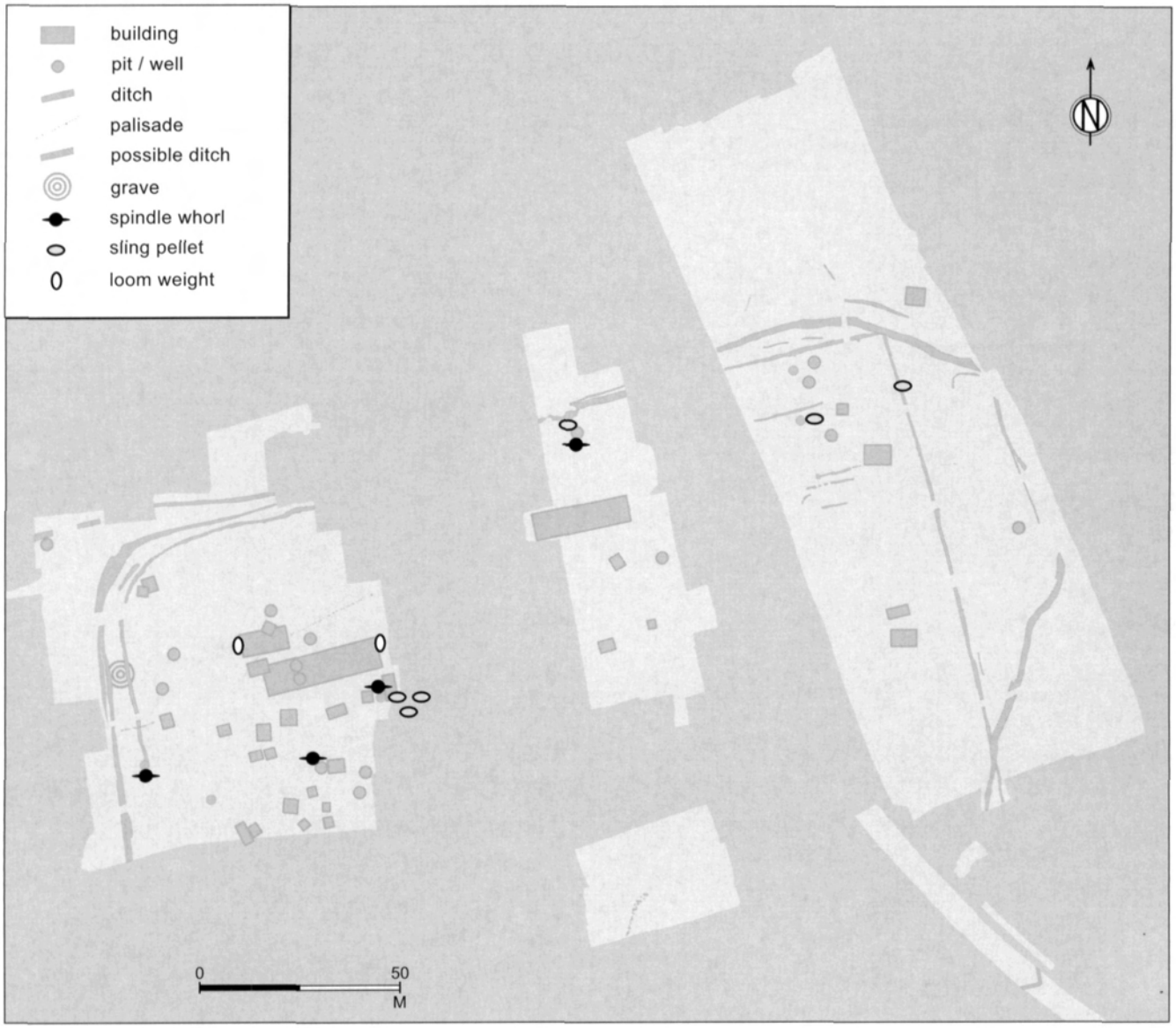


Figure 199. Distribution of clay objects in the Schalkskamp settlement.

wheel-thrown (N = 22) while the other 99% are handmade (N = 2026). The majority of the wheel-thrown pottery (N = 12) was found in one well (P607) (see table 54). Although the finds from the structures that could be dated to the Iron Age were omitted, some of the remaining assemblages containing only handmade pottery might have to be dated to the Iron Age too. Since the Roman period occupation only lasted until AD 50, the small amount of wheel-thrown pottery is not surprising. On the other hand that date is based mainly on the (lack of) wheel-thrown pottery, so a circular argument should be taken into account.

5.6.2 Clay objects

Four pits (P607, P610, P611 and P617) contained (fragmented) spindle whorls, all of them conical in shape. Clay sling pellets were found in P607 (three), P617, P620 and F150. Two triangular loomweights were found in house plans (H134 and H135). Figure 199 shows the distribution of clay objects.

5.6.3 Tephrite objects

At least ten structures contained fragments of tephrite, but none included recognisable quern fragments or other artefacts.

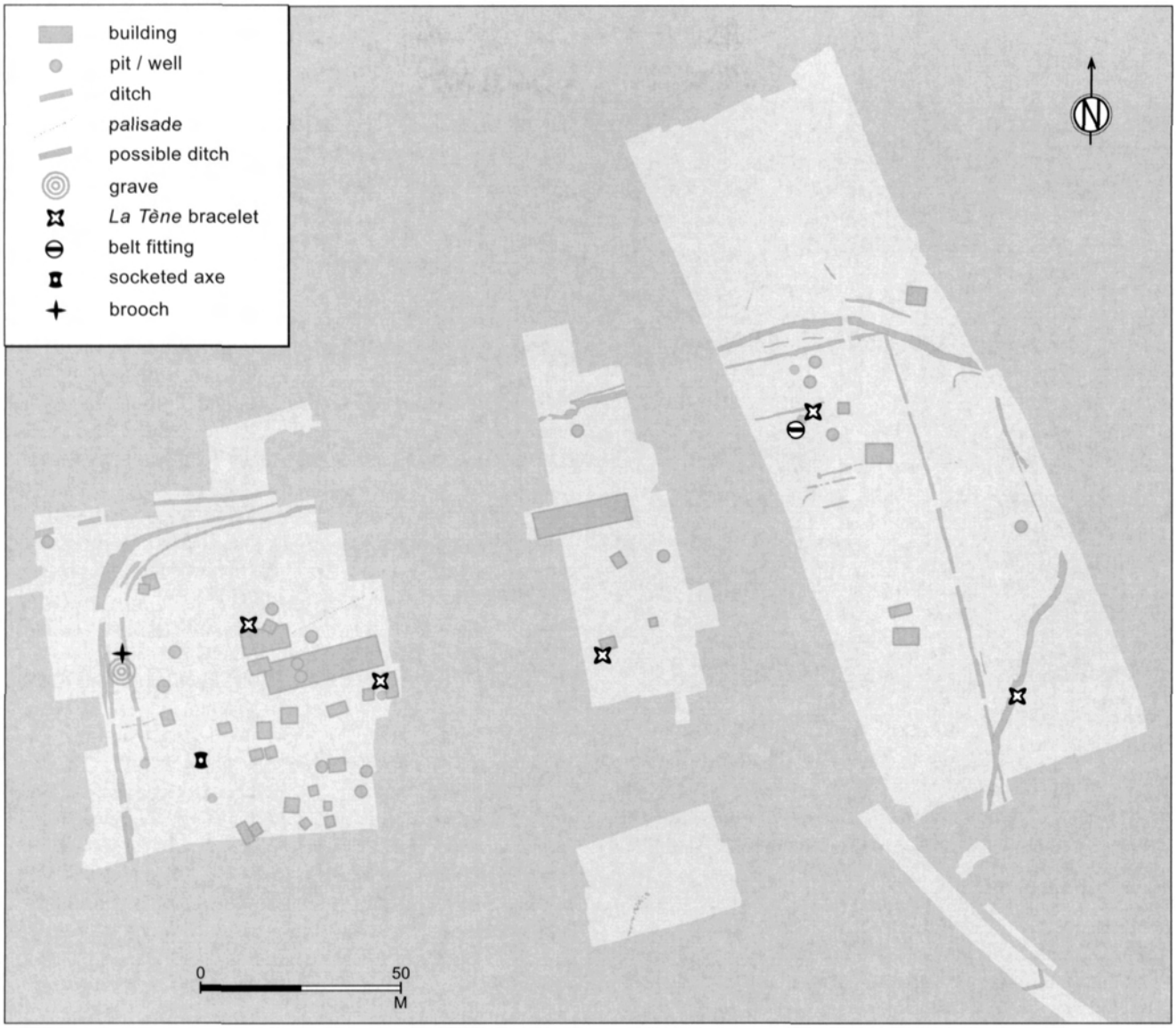


Figure 200. Distribution of glass and metal objects in the Schalkskamp settlement.

5.6.4 Stone objects

Although small quantities of stone were found in several places, no stone artefacts were documented.

5.6.5 Glass objects

Five fragments of glass *La Tène* bracelets were found (fig. 200), one of which was a purple type 3b that was bent to form a ring or a pendant (S550). The four other fragments included two blue type-7a fragments (H135 and P607), a purple type 3b (P620) and a purple type 7b (F156). There is no evidence for glass vessels in the Schalkskamp settlement.

5.6.6 Metal objects

Three metal objects were found in the Schalkskamp settlement (fig. 200). One was a forged iron socketed axe (fig. 201), found in a small pit that contained no other finds and was not part of a structure. This type of axe was in use around the start of the first century AD (pers. comm. D. Fontijn). A fragment of a bronze wire-brooch was found on the intersection of the circular grave-ditch and F136. The third metal find is a bronze object, possibly a belt fitting or a bridle fitting (dated IA). The object, found in P620, shows traces of silver or tin plating (fig. 202). Iron slag was found

Figure 201. Iron socketed axe (stray find). Scale 1:3.

in a few features (P618, P620, S570 and F156). No coins or iron nails were documented.

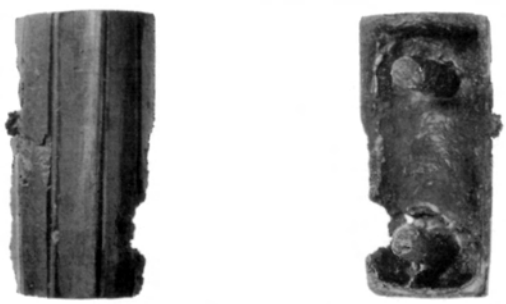


Figure 202. Bronze bridle fitting (P620). Scale 1:1.

5.6.7 Wooden objects

Apart from wood used in the construction of wells and remains of posts in house plans, no wooden artefacts were found.

5.6.8 Faunal remains

Animal bones and teeth were found in several deep pits and wells and also in ditches, but none of this has been analysed yet. The only faunal remains that were studied are the calcinated bones from the grave. Of the 11 fragments found in the ditch one could be identified as sheep or goat, the other ten could not be identified. Mixed in with the human remains were at least three bone fragments belonging to a sheep or goat, the other 42 could not be identified at all.[4]

5.6.9 Botanical remains

Several samples for botanical research were taken from Roman period features, but the majority are still awaiting analysis.[5]

5.7 Analysis

5.7.1 Size and date

Ditched boundaries clearly define the limits of the Roman period settlement, with only one (undated) granary lying outside the enclosure. A modern road and a sewer trench prevented two areas in the middle from being excavated, while the southern part was already built over. The settlement covers an area of at least 2.6 ha, of which *c.* 1.6 ha was excavated. The enclosure ditches could not be followed to the south, but an estimate of the original total size of the hamlet can be made. During a rescue excavation a ditch section was found that might form the possible south-eastern corner of the enclosure. Based on intersections, it was interpreted as a medieval feature. If this ditch actually indicated the corner, or if we picture the enclosure completed as a square, the remaining unexcavated area within the enclosure is relatively small. A maximum of two more farmyards could be fitted into it. Including the other unexcavated parts, the complete settlement would then cover approximately 3.8 ha.

Combining the dendrochronological date with the scarcely datable finds and the small number of houses, we arrive at a use-period of no more than 50 years. Only the supposed second phase of the enclosure can be dated to the second half of the first century AD; a date based on a single pottery fragment. Since there is continuity from the Late Iron Age onwards, it is difficult to pinpoint the exact start of the Roman period occupation. Theoretically this should be 15 BC (see 1.3.1), but since the earliest structure (H138) was dated with the Oss-Ussen pottery scheme, the first 50 years of the Christian era will be used. The Schalkskamp settlement was thus in use between AD 0-50.

Whether there was continuity in occupation from the Late Iron Age is uncertain. During the Late Iron Age, two small farms were occupied. The pottery from the youngest house plan (H139) is dated to phase K-L (150 - 0 BC). According to Fokkens (1992, 162), who bases this on an intersection with a phase-K ditch, this farm was probably in use during the first decades of the first century BC at the latest. That would leave a 'gap' of at least 75 years before the Roman period settlement was built. The intersection is uncertain however, and that leaves space for a date in phase L. Moreover, the fact that the enclosures from both periods partly follow the same track suggests that there was a form of continuity.

5.7.2 Layout and periodisation

The settlement may have consisted of one to three farmyards, in use at the same time. This depends on the contemporaneity of H134 and H135, and on the presence of more farms in the unexcavated parts of the settlement. An important aspect of the layout is the ditched enclosure, which has a Late Iron Age predecessor. During the first phase of the Roman period occupation, at least one corner of this ditch showed a 90° angle, laid out with the same orientation as the house plans. After re-digging the enclosure was more

irregularly shaped. If the Schalkskamp settlement consisted of one farmstead only, the enclosed territory around it was relatively large. The possible link between the enclosure with the one around the Westerveld settlement gives an extra dimension to this structuring of space. It is however important to realise that the areas between the other Ussen settlements were not systematically excavated and shallow ditches were easily missed. Thus, connecting ditch systems might not have been an exception.

There are only a few indications of areas being delimited within the enclosure. A fence (F136) north of H134 could be marking the limits of a farmyard, and in the north-eastern corner of the settlement there is a cluster of ditch-fragments that may have had a similar function. There seems to be a clustering of granaries and pits and wells in the western half of the settlement, but this is partly caused by the fact that the Iron Age occupation was situated in this area and many of the undated structures could stem from that period. Even so, the eastern and southern part of the settlement contain less structures. Since the number of contemporaneous farmsteads is unknown, it is difficult to establish any phasing within the period of *c.* 50 years during which the settlement was in use. The enclosure was re-dug once; since the ditch was shallow it would have needed re-cutting after 15-20 years. One rebuilding phase for the houses seems plausible, but whether H138 succeeded H134 or vice versa cannot be established.

5.7.3 Development and nature of the settlement

Combining the information derived from structures and layout, it is possible to sketch the development of the Schalkskamp settlement (fig. 193). Around the start of the Christian era a shallow straight ditch is dug, enclosing an area of approximately 3 ha. The western half of this area was already occupied during the Late Iron Age, when the settlement was also surrounded by a ditched boundary. The old enclosure may still be visible, since a forge is laid out in the eastern ditch. On the western side the new ditch is dug through a small barrow, which may not have been visible anymore. This stretch of ditch is connected to a larger ditch system, which encloses another settlement further south and is constructed at about the same time. Within the Schalkskamp enclosure at least one, possibly two, farmsteads are built aligned with the northern side of the enclosure ditch. Situated around the farms are several small granaries, some pits and at least one well, lined with wattlework. One of the farmyards is fenced off. Near the eastern edge of the settlement are two large storage buildings, the raised floors of which can be reached by a set of steps. The inhabitants of the Schalkskamp settlement are farmers, and they have close contacts with the neighbouring Westerveld settlement.

After approximately 20 years the enclosure is re-dug, this time less regular in shape than the original version. Maybe one of the farms is replaced by a new building, but it is possible that the settlement goes out of use before this is necessary. Occupation in the Schalkskamp settlement is of short duration: around AD 50 it comes to a halt. At that time other settlements in Ussen are thriving or have not even started to be built. It is possible that the discontinuity of this farmyard and settlement was connected to some form of social discontinuity: a family line ran out or was taken up in another family and hence in another settlement location. That would imply that, as in the Iron Age, the notion of (social) durability was not yet linked to the farm*yard* but to the farm*house* (Gerritsen 1999; see also 8.1). East of the derelict hamlet are plots of arable land: perhaps this was also the designated function for the area of the former Schalkskamp settlement.

The find material basically supports the impression created by the features: the Schalkskamp settlement is a small, briefly inhabited hamlet, with no apparent signs of social stratification. It is possible that we are dealing with a single-farm settlement[6], in which case internal social hierarchy would not be applicable. Only 1% of the pottery is wheel-thrown, and is found in some ditches and in two wells (P607 and P614). This small amount mainly reflects the early date of the occupation. Even though the majority of the imported ware is found in the two wells, the numbers are too small to indicate social differences. No glass vessels, coins, Roman building materials or leather shoes were found. Instead the features yielded relatively large quantities of clay sling pellets, spindle whorls and loomweights, as well as five fragments of glass *La Tène* bracelets. The only exceptional find is the bronze belt or bridle fitting with silver or tin plating. It was found in P620, a well that also contained 91 fragments of handmade pottery, a clay sling pellet and a fragment of a *La Tène* bracelet. These other finds can be considered 'normal' refuse.

An interesting phenomenon is the grave found on the western side of the settlement. The construction of a barrow in this particular location is an exception in Ussen: during both the Late Iron Age and the Roman period, graves are situated well away from the farmyards (Schinkel 1994, part I, 264).[7] In the Roman period a single grave next to a settlement would be an even greater exception, since all known graves are clustered within a large cemetery (see 6.1). The fact that a Roman period ditch was dug through the remains of the barrow seems to point to a date in the Late Iron Age. This is based on the assumption that a certain respect for ancestors existed: a grave that was still visible or still known of would not be deliberately destroyed. On the other hand, it might have been a meaningful act. Hingley (1990, 99) believes that on continuously occupied sites, any action with regards to enclosure ditches should be seen as a conscious, intentional act, undertaken with a knowledge of

previous acts. The intersection of this grave by a Roman period enclosure ditch can be considered in this light, as can the construction of a forge in one of the ditches of the Late Iron Age enclosure (see 8.2).

The Schalkskamp settlement differs from the rest of Oss in several ways. It is small and short-lived but nevertheless starts out promising, with a large enclosed area and a relatively large farmhouse. The impression of a different type of settlement is further created by the possible link with the Westerveld enclosure, the nearby grave, the lack of wheel-thrown pottery combined with the presence of an exceptional bridle fitting. The short use-period of this hamlet probably emphasizes all these characteristics since none of them are wiped out or mixed up with features and debris from younger phases. The question is what would have happened if the location stayed in use for a longer period.

notes

1 Co-ordinates 163.35/420.72 (Topographical map of the Netherlands, sheet 45E).

2 Eleven pits and wells dating to the Bronze Age will be left out of consideration here.

3 F156 contained one fragment of a grey ware vessel type Stuart 210, next to four sherds of handmade pottery and a fragment of a glass *La Tène* bracelet. F164 yielded 52 fragments of handmade pottery and three wheel-thrown sherds, one of which was classified as *terra sigillata* (see table 54). It should be noted that only some sections of these ditches were dug out to look for finds.

4 The faunal material was analysed by M. Marinelli, as part of a student project.

5 Carbonised seeds and plant remains from one of the Iron Age granaries (S562) were published earlier (Fokkens 1991a, 9; Schenk 1993, 17). The sample was studied by W.J. Kuijper.

6 Research in the British Fenland area (Hingley 1989, 75) showed that 70% of the so-called single-farm compounds dated to the first century AD. This would agree with the Schalkskamp situation.

7 In the southern part of the Schalkskamp settlement some cremation remains were found, without an indication for a grave monument (pers. comm. H. Fokkens).

6. Oss in the Roman period

In order to be able to fit the settlements from Ussen into an analysis of the micro-region Oss, several other elements will be described in this chapter. These include the cemetery at Ussen, other Roman period sites at Oss, and various isolated finds. Furthermore, a picture is sketched of the areas between and around the settlements. In the final paragraph I will give a chronological overview of the occupation at Oss during the last phase of the Late Iron Age and the Roman period.

6.1 The Roman period cemetery (by W.A.M. Hessing)[1]

Introduction

In 1976, while excavating the Zomerhof settlement, archaeologists from the IPL discovered the first traces of what turned out to be a large cemetery from the Late Iron Age and the Roman period (figs.1 and 203). Between 1976 and 1980 it was excavated, a task encumbered by the advanced building activities. Approximately 80% of the area that was used for burials could be unearthed, the remaining 20% was already disturbed by road and cable trenches. Since these unexcavated parts are distributed fairly evenly over the burial area, it is unlikely that they contained structures or clusters of burials that could considerably change the overall picture of the cemetery. A larger problem in this respect is the disturbance of the surface of the excavated area, caused by later human activity and soil processes. What was left of the original barrows and other grave monuments were removed, and the top 20-30 cm of the features was disturbed by medieval digging activities (see 1.2.2 and 1.3). Since the cremation remains were placed on top of the original surface or in a very shallow pit (*c.* 25-40 cm), in many cases the graves were severely disturbed. Almost one-third of the central burials were not present anymore, while the remaining grave pits showed depths of 10-20 cm only. The (quality of the) evidence was further affected by natural influences such as root- and mole-tracks and the activities of larger animals. The latter prove that barrows were indeed present: rabbits and badgers made their homes in these elevated structures.

Unfortunately information was also lost as a result of the excavation method. This was partly due to the fact that the first years at Oss-Ussen can be characterised as a rescue-excavation with only a small group of archaeologists and little time. Furthermore, research into Roman period cemeteries like this had only just started: knowledge about what could be expected and which type of observations would be needed for analysis was scarce. Thus, the method of interment was not documented consequently, and the contents of (possible) grave pits were not always sieved. Shortly after the excavation the analysis of the cemetery was started, and fortunately certain omissions could be reconstructed then. The work carried out by A.-B. Döbken (1982) has been of great value in this respect. A preliminary report on the Roman period cemetery of Oss was published by W.A.B. van der Sanden (1987e).

Archaeological landscape

Prior to its use as a cemetery the area was inhabited. From the second half of the Middle Iron Age (phases E - H, *c.* 375 – 250 BC) farmhouses were present on the edges of the area, with outbuildings, pits and wells situated nearer to the centre. Between these features, the area which was to become the centre of the cemetery remained relatively empty: it might have been in use as a field or pasture. Several hundred metres to the north and northwest was a possible cult site, combined with a small cluster of cremation graves (Van der Sanden 1998). Somewhere around the end of the 3rd or the start of the 2nd century BC a new cemetery with cremation graves is laid out further south. It is one of four small clusters started around this period; the other three also contain burials from the Late Iron Age but cease to be used in the Roman period. This fourth cluster of graves seems to be the starting point, both in time and in location, for what is to become the Roman period cemetery. Spatially it develops southwards and especially to the north. From the start, a northeast-southwest orientated axis seems to play a part, and may have originated from a route or path that connected two of the Iron Age settlements.

Burial ritual

Approximately 321 features that could be associated with funerary activities were documented within the area of the cemetery. These include 110 square or rectangular and 90

Figure 203. The Roman period cemetery.

circular grave monuments, in most cases with a primary and sometimes with a secondary burial still present. Furthermore, there were 61 flat graves and *c.* 54 pits with the remains of funeral pyres. In all cases the deceased had been cremated, probably on a newly erected funeral pyre. As far as the documentation allows conclusions in this respect, the cremation remains seem to have been sieved carefully from the remains of the pyre and deposited separately in the grave pit.[2] In some cases a small alcove or hollow was dug out in the wall or the bottom of the actual pit for this purpose.

The mean weight of the cremation remains in Oss is exceptionally low. This is partly caused by the above-mentioned disturbances, but even when the remains were on the very bottom of a pit the weight seldom exceeds 200-400 g. Next to that the degree of fragmentation is high; apparently after the actual cremation the remains were handled in such a way that they became more fragmented. It seems therefore that only part of the total cremated body has ended up in the grave pit.[3]

Most of the cremation remains were found as compact 'blocks', pointing to a container made of perishable organic material (such as leather sacks, woven cloths or wicker baskets). In one case only (grave 042) the remains had been packed into a small wooden chest, while in two other graves (226 and 283) urns made of handmade pottery were found. After the cremation remains were placed in the pit this was filled up with debris from the funeral pyre, which could contain fragments of burnt grave goods. The back-filled pit was covered with a small barrow, marked by a circular or rectangular ditch, sometimes combined with posts. If a barrow is lacking the grave (a so-called flat grave) could have been marked otherwise.

The presence of a number of large, relatively deep pits with a lot of charcoal could point to the location of the funerary pyres. These pits are mostly rectangular, sometimes circular or oval, and often situated just next to a grave-ditch. The majority contain charcoal only, but sometimes a fragment of burnt pottery is present. The most likely interpretation is that after the cremation remains had been picked out, the debris that remained from the pyre was deposited in these pits. Graves of the *Bustum* type, where the pyre is erected above an already dug grave pit, were not found in Oss.

In only a few cases exceptions to the above-mentioned burial ritual were found. Some of the larger monuments are further accentuated by a post setting, while three monuments are marked by posts only. All these graves are on the edges of the northernmost part of the cemetery. The largest monument is in the middle of the cemetery, and has an exceptional keyhole-shape. As far as the interments are concerned there are a few graves of the *Brandgruben* type (Bechert 1980), which means the cremation remains were not separated from the remains of the pyre, but deposited as a whole. In one or two cases the pit was not filled up with debris from the funeral pyre. The number of exceptions is small enough to assume that the burial ritual remained unaltered and highly uniform during the use-period of this cemetery. Nevertheless it is possible that there have been inhumation graves at Oss. These are usually only present in very small numbers (Hessing 1993; in prep.), and the chances of discovering them at Oss are greatly reduced by the sandy soil and the (sub)recent disturbances.

Grave contents

Finds material from the graves can be categorised according to function: remains of the funeral pyre itself, clothing accessories and jewellery, pottery and glass vessels, and finally remains of food and drink. Next to these groups there are a small number of other objects, such as tools and weapons.

In Oss, 14 different kinds of wood were found in the graves, but the majority of the wood was either *Alnus* (alder) or *Quercus* (oak).[4] In most cases it was a combination of these two, supplemented with one or more other kinds. Some of the wood was used timber, which is proved by iron nails still embedded in some pieces of (oak) charcoal. There is no apparent connection between certain kinds of wood and other aspects of the burial ritual.

Remains of clothing or personal jewellery are scarce. Only one grave (002) yielded a possible fragment of a brooch. The only other bronze object was a small disc, identified as a possible belt fitting. Three graves contained hobnails used on leather shoes. Grave 027 yielded a small, pierced bone plate, of a kind that has been associated with the decoration of clothing. All these finds point to a ritual where the deceased was dressed before being cremated. The conclusion that clothing was thus simple and mostly unadorned is a hasty one, as is proved by a find from grave 004. This consists of the skull of a small predator, possibly a marten, which may have been part of a flamboyant piece of fur clothing.

Pottery is the largest find group, consisting of burnt fragments from the funeral pyre and complete grave gifts that were placed next to the cremation remains in the pit. The latter category is relatively small: only 18% of the pottery shows no signs of burning. Both groups of pottery have the same composition: most of it was tableware or was designed to hold the food for the deceased. The amount of handmade pottery is 70%, which is exceptionally high. In other cemeteries north of the river Meuse this percentage seldom exceeds 10%. This might point to less contact or trade with Romans, though it might also be due to the use-period. But even if we take an early start into account, the number of handmade vessels is still relatively large. There seems to have been a preference for small and medium-sized

biconical cups, possibly used for drinking. The wheel-thrown ware also mostly consists of vessels associated with drinking: smooth-walled jugs and beakers in colour-coated and Belgic ware, some small bowls in *terra sigillata*. Other parts of the table-service, such as plates and dishes, are only few in number. Coarse-ware cooking pots are present in somewhat larger numbers. Typical Roman kitchenware such as *mortaria*, *dolia* and cork-urns are absent or very scarce. Only *amphorae*, including type Dressel 20, were used more frequently. Bottles and drinking bowls are the only types of glass vessel found.

In ten graves burnt animal bone was found mixed in with the human cremation remains, indicating a meal for the dead. It includes mostly bones of suckling-pigs, and only occasionally remains of birds (possibly chicken), sheep and cattle. Other objects include knives (3 times), metal parts of horse equipment (1-2 times), clay sling pellets (several in one grave), whetstones (2-3 times), a fragment of an oil-lamp, flint (3 times) and fragments of quernstones (2 times).

Chronology and spatial development

Pottery is the most important dating instrument, although graves that contain only handmade pottery are difficult to date precisely. Wheel-thrown ware can be dated more precisely, but this is encumbered by the fact that only a small number of graves contains more than two grave goods. Fifteen graves were dated with the aid of ^{14}C-dating. These dates support the basic chronology supplied by the pottery, but caution is necessary when dating an individual grave in this way. Just as in other native-Roman cemeteries it seems that ^{14}C-dates tend to be slightly earlier than those indicated by other archaeological evidence. A possible explanation could be the use of old timbers for the funeral pyre.

On the basis of pottery, ^{14}C-dating, or a combination of both, together with the horizontal stratigraphic sequence, a total of 116 graves and charcoal-pits can be dated. These dates have led to six overlapping phases (table 55), ranging from the Late Iron Age to the period AD 150-240. For the length of this last phase it is important to note that typical 3rd-century pottery, such as *terra sigillata* plates type Dragendorff 32 or colour-coated beakers types Stuart 3, Oelmann 33 and 53b, does not occur in the cemetery. Taking into account the small number of graves in the last phase, it is likely that the use of the cemetery ended earlier, perhaps even around AD 200.

The earliest graves can be dated to the Late Iron Age (graves 231, 241, 260, 261, 262, 272, 288). They are in the same area as the first graves that contain wheel-thrown pottery (mostly Belgic beakers), dated between AD 25 and 40. Continuity between phase 1 and 2 is possible, since earlier wheel-thrown pottery would have been very exceptional. However, there may have been a short period during which the cemetery was not in use at the end of the Late Iron Age. The perception of the ritual meaning of the location remained intact though, and could have been the reason why the Roman period cemetery was laid out in the same area.[5]

The oldest graves seem to have been laid out along a path or route west of the cemetery.[6] Until the middle of the first century AD the cemetery expands to the northeast only, then the path is 'crossed' and more graves are laid out west of it. A possible reason for the fact that there was no more expansion to the east could be the remains or the memory of the settlements from the Middle Iron Age in that area. All through the use and expansion of the cemetery the location of older farmyards are avoided/respected. After crossing the path the cemetery develops in a northeasterly direction and graves start

phase	number of burials (N)	percentage	N if total=300	N if total=400
1: Late Iron Age	8	6.9%	21	28
2: AD 25-70	10	8.6%	26	34
3: AD 40-120	38	32.8%	98	131
4: AD 90-150	22	19.0%	57	76
5: AD 120-180	23	19.8%	59	79
6: AD 150-240	15	12.9%	39	52
total	116	100%	300	400

Table 55. Number of dated burials, percentage and average total number of burials per phase.

to be laid out further away from the original path. Somewhere around the last quarter of the 1st century AD this development comes to a halt: a row of monumental graves (003, 004, 005, and later 001, 002, 006 and possibly 007) is laid out to mark the northern edge of the cemetery. A new path may have been running either north of the large graves or between these and the rest of the cemetery. During the 2nd century AD the area between the graves 001-007 and the old path gradually becomes filled in. The edges of the northern side of the cemetery seem to be reserved for the larger and exceptional grave monuments. Only one large grave is in the middle of the cemetery: it has a keyhole-shape and dates from the middle of the 2nd century AD. This grave (070) might have to be regarded as the successor of graves 001-007. There is also a shift in orientation: the earlier grave ditches, along the path, were laid out in a northeast-southwest direction, while the row of large graves showed a north-south orientation. With the keyhole-shaped grave this changes to northwest-southeast. During phase 5, somewhere between AD 150 and 175, the cemetery covers its maximum surface, and graves are laid out all over the area. In phase 6 there are only a few burials north of the old path.

Cemetery population

Physical-anthropological analysis of the cremated remains from *c.* 100 graves was carried out in 1989.[7] Due to the low mean weight of the remains the results were not always satisfying. In 39 cases the approximate age of the deceased could be established, while for 21 individuals the sex could be determined. This is a meagre base from which to draw conclusions on the physical population, but a few general remarks can be made.

In most graves only one individual has been buried. Only in two cases there is a double interment: grave 003 contains a juvenile person with an adult, grave 027 an adult woman with a child. Men, women and children were cremated and buried here. As in most cremation cemeteries graves of (very young) children are scarce, which could point to a different burial ritual (Hessing 1993). The mean age of the deceased lies somewhere between 25 and 30 years. More women (N = 14-16) than grown men (N = 2-5) could be identified. This tendency towards a 'surplus' of women is present in other cemeteries in rural areas. No clear connections can be established between age or sex and the shape of the monument.

The number of documented interments is 265. If we take into account the unexcavated 20% (53 graves) the minimum number of interments would have been 318. Several shallow interments may have been disturbed and thus not have been noticed though, which could bring the original number of graves to 350 or even 400. Table 56 shows the development of the population that has been buried in this cemetery, based on the method by Ascadi and Nemeskeri (1970). The population seems to grow from one or two families during the Late Iron Age to a maximum of ten families during the first decades of the 2nd century AD, after which it diminishes to three or four families. This development is very similar to what is known from other rural cemeteries in the Dutch River Area (Hessing in prep.). The size of the population is rather large, comparable to the cemetery at Tiel-Passewaaij only. As at Tiel, it is possible that this cemetery was used by the inhabitants of more than one settlement.

Variation in the burial ritual can point to vertical or horizontal stratification. The cluster of graves from phase 1 shows a high degree of uniformity, comparable to another group of Iron Age graves, R3-R8 (Van der Sanden 1998, 317). A parallel in both clusters is one slightly larger grave

phase	duration	population size if N total=300	population size if N total=400
1: Late Iron Age	150 years	4	5
2: AD 25-70	45 years	14-26	19-34
3: AD 40-120	80 years	31-50	41-68
4: AD 90-150	60 years	20-45	27-59
5: AD 120-180	60 years	25-39	33-50
6: AD 150-240	90 years	11-24	14-31

Table 56. Reconstructed size of the population at Oss-Ussen, based on an average life expectancy of 25 years.

with a post setting, although the one in the 'pre-Roman' cluster (grave 234) cannot be dated precisely. In phase 2 there is only one grave (266) that is different form the rest, containing a sling pellet and iron objects that may have been parts of horse equipment. This grave might have to be dated after AD 50 though. From phase 3 onwards there are clear signs of social stratification. The special location of graves 001-007 was already mentioned. These monuments are also larger and in five cases the ditches are combined with post settings. Seen in the context of Oss, the grave goods in these monuments are exceptional: four of them contain one or more glass vessels, five times animal bones were found and four graves contain clothing accessories. The mean number of grave goods (almost six) is conspicuously higher than elsewhere in the cemetery, and they include some special objects such as a tripod bowl in Belgic ware and the skull of small predator.

The oldest of the large monuments is 004, which was laid out shortly after the middle of the 1st century AD. The youngest is grave 001, which is probably dated around the middle of the 2nd century AD. Thus during a period of 100 years a special monument was erected every 10-15 years, pointing to a very small selection of the population. Even if these deceased belonged to the same family, only one or two persons from each generation were buried in these monuments. If there was indeed a local elite family at Oss, only the leader himself and his wife or son and heir would have qualified. With that in mind it is interesting to note that in the oldest of the large graves the remains of a young child (4-8 years old) were buried, while the other graves contain another juvenile and at least two females.[8] The presence of women and children in these large monuments point to a family-bound vertical stratification, and possibly a specific role for women from leading families in social and economic activities (Hessing in prep.). The relatively low number of male dead might be caused by men joining the Roman auxiliaries and not returning.

The largest grave (070, keyhole-shaped) dates to shortly after AD 150 and might be regarded as the successor of the seven special monuments. It was laid-out on top of an earlier grave, something that was usually avoided. Unfortunately the central burial was not present anymore and thus the status of the deceased in this grave remains unclear. Even in the last phases of the cemetery there is a group of graves with deviating sizes and shapes. They are situated on the eastern and western edges of the northern part and may point to a kind of subgroup in the social hierarchy, closely related to the local leader. Such a group seems to have been present during all phases of the cemetery, but is more prominent in phases 5 and 6, when the true elite is not visible anymore.

6.1.1 Cemetery and settlements

A number of conclusions derived from the study of the cemetery can be compared with what we have seen in the settlements. First, there is the type of find material. Although grave goods always differ from 'normal' refuse, it is important to note that both the cemetery and the settlements yield a relatively high amount of handmade ware, even in the later phases. A difference is the occurrence of early imports: in the Westerveld settlement we see a small range of early goods which apparently do not end up in the graves. This is unusual, since precious materials and vessels such as early terra sigillata are often used in burial rituals first (Van Enckevort/Huisman 1998, 72). The same goes for objects such as brooches, which are present in quite large numbers in the settlements, but scarce in the graves.

A second comparison concerns the chronology. Although the dates for the graves seem to suggest a gap between the Iron Age and the Roman period, this might be caused by the same dating problem that we encounter in the settlements (see 1.3.2). Other cemeteries in the Dutch River Area do not start before the Augustean period, but since occupation is thought to show continuity in Oss I will consider the cemetery to be continuous from the Late Iron Age onwards. This does not mean however that there were no changes during the first few decades of the Christian era. It seems that especially the *spatial* definition of the cemetery only took shape after AD 25/40, when the first graves with wheel-thrown pottery were laid out. I will return to this in chapter 8.

The last element is the question of who is buried in this cemetery. If we consider the original number of graves to have been *c.* 400, the population that used the cemetery goes from 5 individuals during the Late Iron Age (when there were at least three more clusters of graves) to a maximum of nearly 70 people between AD 40 and 120. After that it slowly diminishes to 15-20 individuals towards the end of the 2nd century AD. Hessing considers the size of this population large enough to assume that the inhabitants of more than one settlement were buried here. This is contrary to the preliminary reports, in which the finds, size and layout of the cemetery were thought to suggest that only the inhabitants of the large Westerveld settlement were buried here (Van der Sanden 1987e, 127). The vertical stratification that is so clear in the cemetery certainly seems to fit in with the local elite emerging from the Westerveld settlement (see chapter 8). But the size of the cemetery population does not preclude that at least some inhabitants from other settlements were buried here too.

When each farm is assumed to house a family of six, the maximum population sizes from the settlements and the cemetery do match reasonably well (fig. 204). Westerveld peaks earlier, with a maximum of 66 inhabitants between AD

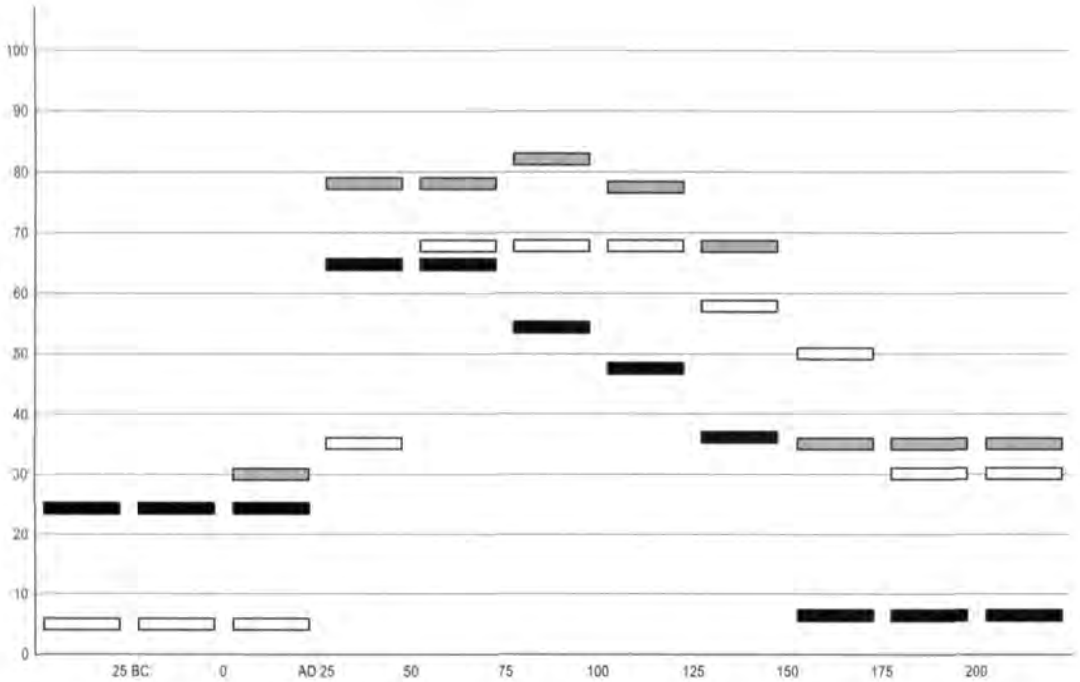


Figure 204. Graph depicting maximum population sizes from settlement and cemetery. White: cemetery, black: Westerveld, grey: Westerveld + Zomerhof + Vijver.

25 and AD 75, but it should be kept in mind that the house plans were probably dated slightly too early (see 1.3.2 and 4.8.2). Apart from that early phase the cemetery population is larger than the population of the Westerveld settlement alone. But since not all of the large settlement could be excavated, both populations are probably comparable in size. Adding the inhabitants from Zomerhof and Vijver, the settlement population is consistently about 10 persons greater than the cemetery population. This number will have been higher, since none of the settlements were excavated completely. However, the cemetery having fewer graves than there were inhabitants in the settlements seems to be a common phenomenon.

Taking into account the assumption that not every inhabitant ended up in a grave in this cemetery (for instance small children and soldiers), it is still possible that farmers from three settlements buried (some of) their dead here. The fact that the area of the cemetery is more or less enclosed by the farms of these three settlements fits in with that thought. Since it is clear from the large monuments that the local elite had a place in this cemetery, it might have been only a selection of other inhabitants that shared this graveyard. Whether the cemetery was used by the Westerveld settlement exclusively or by the inhabitants of three settlements, there must have been at least one more cemetery in the area, or perhaps several smaller clusters of graves. The grave near the Schalkskamp settlement points to other burials, but a true cemetery has not been discovered yet.

6.2 Roman period sites outside Ussen

In addition to the excavations in the Ussen area, several other sites from the Roman period were discovered in the municipality of Oss (fig. 205). The majority of the find spots were documented by local (amateur) archaeologists through fieldwalking or the monitoring of building activities. In six cases the finds resulted in (rescue) excavations, sometimes with the aid of the Leiden Institute. The six excavated sites are listed below.[9]

Oss-IJsselstraat[10]

During two consecutive campaigns (1974 and 1975), the IPL[11] carried out a rescue excavation at the IJsselstraat, situated in an industrial area to the northeast of the town of Oss. Besides a small urnfield from the Early/Middle Iron Age, the larger part of a native-Roman settlement was excavated (fig. 206). It consisted of at least three contemporaneous compounds, each with a farm, several granaries and a well. In two cases houses were rebuilt on the same spot. Furthermore, ditches and palisades were present, one of which may have enclosed the settlement. The

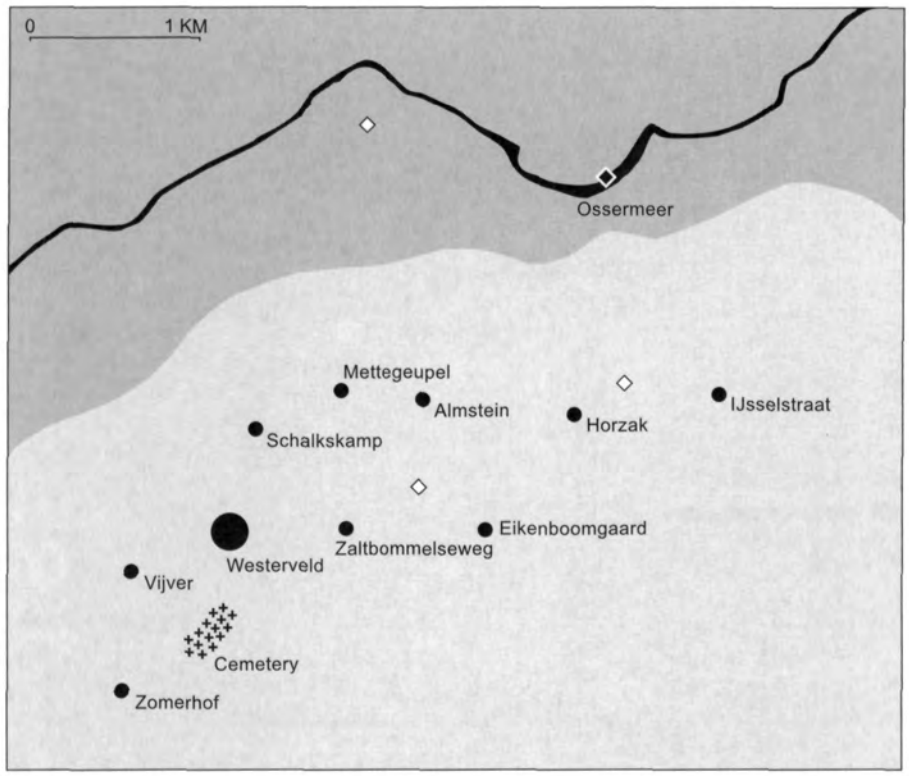


Figure 205. Map with all sites and stray finds (diamond symbol)) from the Oss region. The coversand area is indicated in light grey.

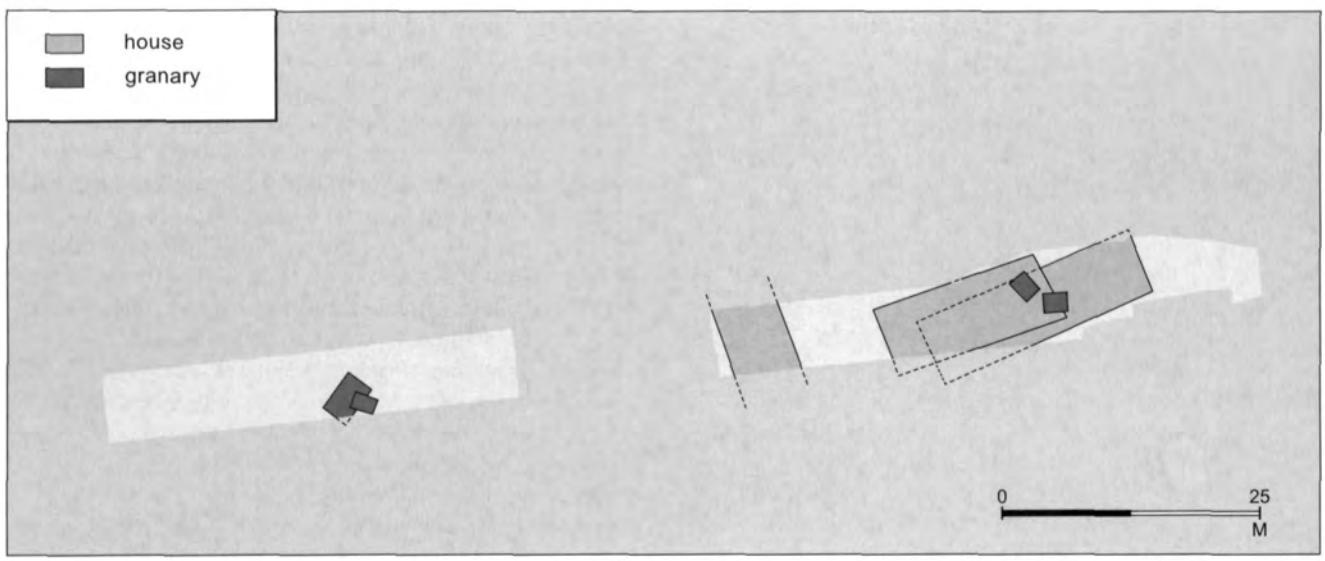


Figure 207. The Zaltbommelseweg settlement.

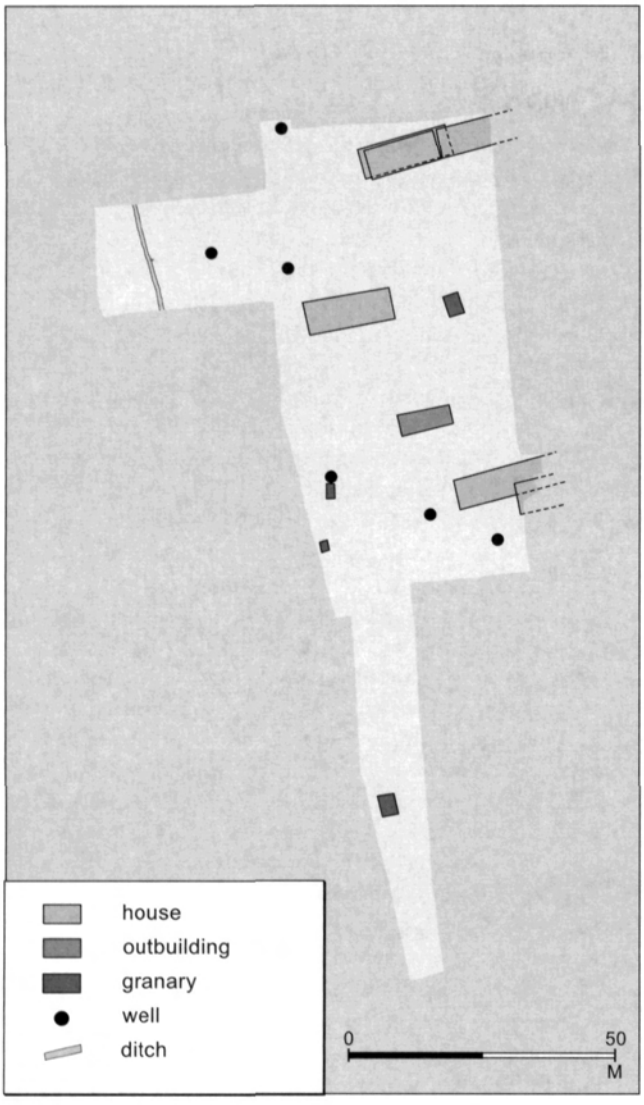


Figure 206. The IJsselstraat settlement.

settlement was in use between AD 50 and 250, a date which is based on the wheel-thrown pottery. No Roman building materials or early pottery imports were found. In 1986 and 1994, building activities took place directly to the south of the IJsselstraat site. The rescue excavations, known as Borgo I and II, carried out by members of the *Archeologische Werkgroep Oss*[12], revealed the southern limits of the settlement.

Oss-Eikenboomgaard[13]
In April 1979 members of the *Archeologische Werkgroep Oss*[14] discovered and excavated 26 wells and over 300 pits and postholes during building activities around the Eikenboomgaard in Oss. Among the features, which dated from the Iron Age to recent times, were a number of wells and pits from the Roman period. One of these wells, with a square lining made of timber beams, yielded *c.* 20 handmade and *c.* 50 Roman wheel-thrown pottery fragments. The wheel-thrown ware dates the well to the second half of the second century AD. Five other wells yielded rather small quantities of find material, and could therefore only tentatively be dated to the Roman period (first and second century AD). The linings of these wells included a hollowed-out tree trunk, wattlework, and a combination of vertical posts and planks. Finally, two wells with vertical posts and wattlework linings, probably date to the Late Roman Period. The pits and postholes, from which no buildings could be reconstructed, contained pottery from the first and second as well as from the fourth century AD. It should be noted that fourth-century material is completely absent in Ussen.

Oss-Zaltbommelseweg[15]
In 1984, a small team[16] from the IPL documented Roman period traces in two road trenches of the Zaltbommelseweg. Besides four granaries from the Early and Late Iron Age, three house plans were partially excavated (fig. 207). The pottery found in the features provides the buildings with three consecutive dates in the Roman period (I, I/II and II/III). The two youngest buildings were built on the same spot, one succeeding the other. The *c.* 400 pottery fragments (15% wheel-thrown) from the buildings do not show any early imports or exceptional types, nor were any Roman building materials found.

Oss-Horzak-I[17]
From 1987 to 1989, during the construction of the 'Horzak' housing estate, members of the *Archeologische Werkgroep Oss*[18] made observations in building trenches and road trenches. In some cases they carried out small excavations. Occupation traces from the Late Iron Age, the Roman period, and Late Medieval Period were found. A row of posts may have formed the wall of a house, from which the scarce finds date it to the Late Iron Age or the Roman period. In another building trench one half of a well could be excavated (fig. 208). It had a diameter of 250 cm and a depth of 150 cm. The construction consisted of two vertically split posts, one of which was stuck through the bottom of the pit (Oss-Ussen type C, see Schinkel 1994, part II, 183).[19] Besides a fragment of a colour-coated beaker the well yielded another, more unusual find. A set of bronze kitchen utensils was found, consisting of a basin with a matching dipper and strainer placed in it (dated AD 150-250). Earlier first-century examples were part of the drinking service, used to ladle and strain undiluted or spiced wine. Later versions, like the one from Horzak, are often found in third-century

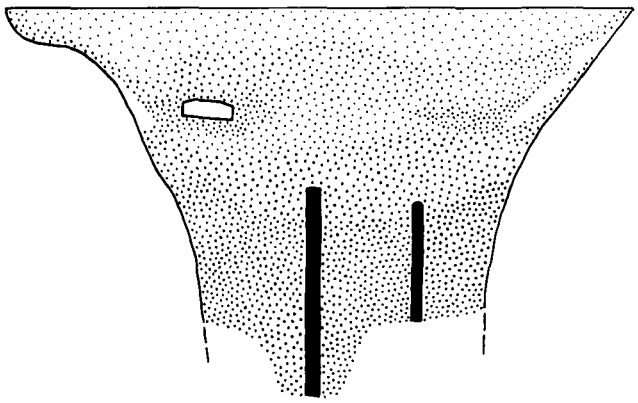


Figure 208. Well from the Horzak settlement. Scale 1:30.

bronze hoards in which kitchen utensils predominate. They may have served different purposes, such as straining stock (Koster 1997, 46).

Oss-Horzak-II[20]

In 1997 the Leiden Faculty of Archaeology carried out a survey in the Horzak area, *c.* 400 m to the east of the building trenches where Roman period features had been found. In 1998, 1999 and 2000 the survey was followed by a regular excavation, revealing a Roman period settlement with at least four house plans, enclosed by a ditch.

Oss-Mettegeupel/Almstein[21]

From 1993 to 1995, an area c. 250 m to the north-east of the Schalkskamp settlement was excavated as part of the IPL regular excavation program. No features belonging to houses or other buildings from the Roman period were found[22], but there are number of indications for Roman period activity in the area. A type-A2 well, containing only five fragments of handmade pottery, was ^{14}C-dated to the third or fourth century AD.[23] The section showed it to be one of the few good examples of a well-construction built to reach the original surface. Furthermore, a number of ditches and palisades were thought to date to the Roman period. This hypothesis was based on the scarce finds, relative dates derived from intersecting features, and the orientation of the ditches which is similar to that of the Schalkskamp enclosure. It is thought that these ditches represent a field system, indicating that the area was used as arable land (Fokkens 1996, 209; in press). The well could have been dug for agricultural purposes. The small number of finds from the well might be a result of the fact that there was no occupation nearby.

In addition to the excavations there are several locations from which local archaeologists collected Roman period pottery. Even though it is not at all certain whether these isolated finds represent occupation or even activity, they will be mentioned here to complete the dataset.[24] A single fragment of *terra sigillata* was picked up from a field in the south of Oss, at a distance of *c.* 2.5 km to the south-east of the Ussen settlements. During building activities in northern Oss a fragment of a coarse-ware vessel (type Brunsting 9) was retrieved. The find spot is situated roughly between the sites Zaltbommelseweg and Horzak, just 250 m north-west of Eikenboomgaard. Two sherds of handmade pottery and 12 fragments of Belgic ware were found in a Roman period pit documented in a building trench. This was situated between the sites Horzak and IJsselstraat, slightly further to the north. Some sherds of handmade ware and two possible fragments of *terra sigillata* were picked up from a field *c.* 250 m to the south-west of this spot. A single sherd (coarse ware type Stuart 201) was found on the northern edge of the municipality of Oss, *c.* 500 m north of the *Ossermeer* (lake of Oss).

Finally, the finds from the lake itself should be mentioned here. They were collected over the years by local archaeologists after dredging activities. As well as handmade pottery the finds also included wheel-thrown ware (Belgic ware and coarse ware) and net-sinkers made from Roman roof-tiles (see Verwers/Beex 1978, 32-33 for some of the earlier finds). The supposed Roman period wooden barge found in 1949 turned out to be of medieval date (see 1.2.2, note 17).

Of the excavated sites, Zaltbommelseweg and IJsselstraat represent rural settlements comparable to the smaller ones from Ussen. The sites at Eikenboomgaard and Horzak-I did not yield any buildings from the Roman period, but the presence of postholes and wells can be regarded as an indication for occupation. Even though excavations at Oss-Mettegeupel show that wells were not necessarily situated close to farmsteads, the reasonable amount of debris in the wells at Eikenboomgaard points to nearby occupation. The nature of the settlement cannot be reconstructed, but this is one of the few indirect indications for fourth-century occupation in Oss. At Horzak the situation is different, since the well found there only contained what should possibly be regarded as a bronze hoard. In this case it is the presence of several features that together may indicate settlement. Again the character of the occupation is unknown, but the bronzes would have been an exceptional possession. The house plans found at Horzak-II could be part of the same settlement, which would then have been rather large. In the case of the isolated finds the evidence for occupation is weaker still, especially when only a single sherd is found. Only the pit situated between Horzak and IJsselstraat is a certain indication for activities during the Roman period. The results from Ussen, the other excavations and the isolated finds yield a settlement pattern with at least eight clusters of farms, situated between 500 and 1000 m apart.

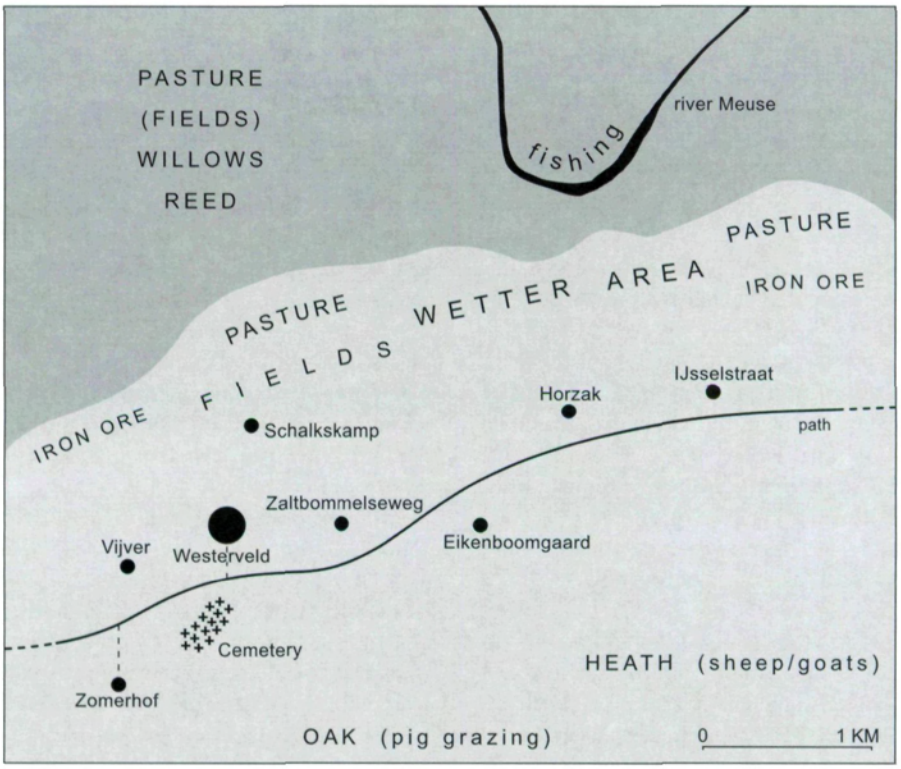


Figure 209. Oss in a micro-region. The coversand area is indicated in light grey.

6.3 The area between and around the settlements

The excavations at Ussen were aimed primarily at uncovering settlements, graves and other recognisable groups of structures. Due to these priorities and the limited time available, the areas between and outside the settlements and the cemetery were not excavated as intensively. Observations from building trenches and excavation trenches, dug to document prehistoric features, have yielded some information however. Outside Ussen the situation is even less clear: all other known sites in Oss were documented during rescue campaigns, which often lasted no more than a few weeks.[25] Starting just outside the settlements themselves and gradually working towards the outer areas, I will give an impression of what the space around the settlements looked like, how it was structured and which activities might have taken place in it (fig. 209). This is partly based on features and partly on stray finds.

Buildings and structures near settlements

Even though compounds were clearly clustering during the Roman period, the areas outside the settlements were probably not devoid of structures. Indication for this is found at the settlements Westerveld and Schalkskamp, where outbuildings are situated just outside the settlement enclosure. One nine-post granary lies c.10 m outside the north-east corner of the Schalkskamp settlement. At Westerveld, buildings are outside the enclosure in two locations: outbuilding B5 is c. 8 m away from the south-west corner, while there is a group of granaries (S453-S457, S467-468) situated outside the northern edge of the settlement. In all cases fragments of smaller ditches and palisades are present near the buildings, suggesting a delimited area (see below). None of the buildings in question can be dated to the Roman period with certainty. Since they were relatively near the enclosure (between 4 and 20 meters), one could argue that they were part of the actual settlement. In that case the fact that they are outside the enclosure is significant. The function of these buildings is unknown: possibilities are (extra) storage room or craft activities.

In addition to outbuildings there are also three occasions where wells have been dug outside the settlement enclosures. At the Zomerhof settlement well P17 is situated near the northern 'entrance', while wells P207 and P231 are close to outbuilding B5 near the south-west corner of the Westerveld enclosure. The Zomerhof enclosure could have been out of

use already when P17 (dated IId-IIIc) was dug. P207 however, is dated to the end of the first century AD, when the ditched boundary around the Westerveld settlement was still in use. Apparently enclosure ditches marked the limits of the actual settlement, i.e. the clustered compounds, but several activities could cross these boundaries.

Ditches and palisades

The plan of the Westerveld settlement shows several ditches linked to the enclosure, stretching outwards from the settlement (see 4.5). In two cases bends and corners are visible, and the majority of the ditches continue outside the excavated area. At least four of them seem to be connected with the entrances to the settlement, forming a droveway that might have been used by cattle and people. One set of ditches could even be directly linked to the enclosure around the Schalkskamp settlement.

It is possible and even likely that such ditches and perhaps palisades were present all over the area between the settlements. Shallow and narrow ditches are easily missed or, when excavated only fragmentarily, not included in the final settlement plan. Moreover, they are difficult to date since they often contain only small amounts of pottery.[26] In an area where several settlements are set close together the space between them will have been frequently and intensively used: some form of structuring could have marked this use. Even though there seems to have been no need for drainage in Oss, ditches could have led up to entrances or they could have flanked paths. It is often supposed that the inhabitants grew vegetables and herbs in small gardens near their farms (Bakels 1994, 232). These 'kitchen gardens' might have been situated (directly) outside the settlements, especially in the case of the densely populated Westerveld settlement. Ditches or fences could have marked these plots and kept animals out of them. Other areas might have been delimited for various activities, such as the cultivation of crops (see below), animal pens, the tanning of hides, or cremating the deceased near the cemetery.

Paths and routes

No traces of routes or paths were excavated in Oss. Even though no major (Roman) roads ran through the area (see 7.1.), paths passing and leading up to the settlements and the cemetery were undoubtedly present. The layout of the cemetery suggests a path along the north side, where six large grave monuments were lined up with their entrances facing north (Van der Sanden 1987e, 77; Hessing in prep.). The direction of this path would have been east-south-east to west-south-west, which is parallel to the edge of the coversand area. Since the Oss settlements are arranged along a similar line (see 6.4), this route could have functioned as a through road, passing most of the settlements. Smaller paths could have branched off this road, leading up to the settlements. Both the southern Westerveld entrance and the northern Zomerhof entrance could have been linked up in this way. Whether the Schalkskamp settlement was reached along the ditch connecting it with Westerveld or directly from the 'main' road is uncertain.[27]

Botanical research yielded an indirect indication for the existence of paths in the settlements themselves. In all three settlements that were analysed seeds from tread plants were found in pits and wells (Van Amen 1995). These included annual meadow-grass (*Poa annua*), knotgrass (*Polygonum aviculare*), ribwort plantain (*Plantago lanceolata*), greater plantain (*Plantago major*) and pearlwort (*Sagina* cf. *procumbens*). Of course, these plants could have grown on the farmyards themselves.

Location of fields and pastures

The excavations at Oss did not yield direct traces of agriculture, such as plough marks or (Celtic) field boundaries. However, on the basis of the geological characteristics of the direct surroundings of the settlements some suggestions as to where crops were sown and cattle were grazed can be made. The lower parts of the river area towards the Meuse were not suitable for agriculture: the flood basins were too wet and the clay was too heavy. But in certain parts cattle could have grazed when the groundwater was low in summer (Kooistra 1994, 126; 1996, 58). In these same areas reeds and willow for thatching and wattlework could be collected. At the foot of the flank of the coversand the vegetation was marshy. This area may have been a source of iron ore, although most of the iron ore would have been collected as bog iron in the Peel marshes. The strip of sandy soil between the settlements and the river area was approximately 1.5 km wide. It is unclear how much of this northern strip was dry enough for agriculture. Wetter areas could have served as pasture and hayfields.

One of the few indirect indications for the location of fields are the ditches excavated at Oss-Mettegeupel/Almstein (see 6.2). They are thought to be part of a parcellation system, indicating agricultural activities. A well and an outbuilding found nearby might have served agricultural purposes too. This would mean that fields were not only present in the higher area south of the settlements (Van der Sanden 1987f, 88), but also on the northern strip of land. Possibly these grounds were brought into use when more land was needed for agriculture. This might have been one of the reasons why the Schalkskamp settlement literally had to give ground. More fields will have been present south of the settlements and perhaps even in between, alternating with small wooded areas. Pigs grazed in these groves near the settlements and in the larger mixed oak forests further south. Sheep and goats could be herded on the southern

heathlands. More pasture for cattle, which could be grazed in wetter areas, was present west of the settlements.

Other activities

Next to agriculture several other activities took place in the areas around the settlements. The winning of bog iron (ore) in the marshy southern zone has already been mentioned. Hunting and fishing did not play a part in the food economy (Lauwerier/IJzereef 1994, 240), but occasionally fish could have been caught in the river Meuse (see 1.1.2). Fruits, nuts and various edible wild plants were probably collected in the forests south of Oss. Fruit farming is a Roman introduction (Van Zeist 1991), and although there are indications of higher fruit consumption in the Roman period (Van Amen 1995; Bakels/Wesselingh/Van Amen 1997) it is unlikely that orchards were laid out in or near the settlements at Oss. The majority of the consumed fruit consisted of forest fruits (raspberry, blackberry) and wild species (apple). Cultivated species such as plums, pears or cherries were not found. Various crafts will have been practised in the area around the settlements, such as the fabrication of ceramics, the tanning of hides, iron extraction, and bronze casting. Apart from the possible Roman period forge in the Schalkskamp settlement (see 5.3), no traces of any of these activities have been discovered.

6.4 Occupation at Oss from 100 BC to AD 225

After having discussed the settlements in chapters 2-5, with the cemetery and the areas between being described in the previous paragraphs, an overview of all of Oss from the Late Iron Age through to the Roman period can be given. Unfortunately the majority of the structures from the Late Iron Age could not be dated to a specific phase within the period (Schinkel 1994, part I, 179). A sketch of the situation directly preceding the Roman period is thus based on data from a period of *c.* 250 years, although I have tried to distinguish between the phases I-J and K-L. Moreover it is largely based on information from Ussen only, with some additional data from the excavations at Schalkskamp and Mettegeupel/Almstein. Although Schinkel did not make an inventory of surface finds from the whole of Oss, we know that (Late) Iron Age material was found in several places.[28]

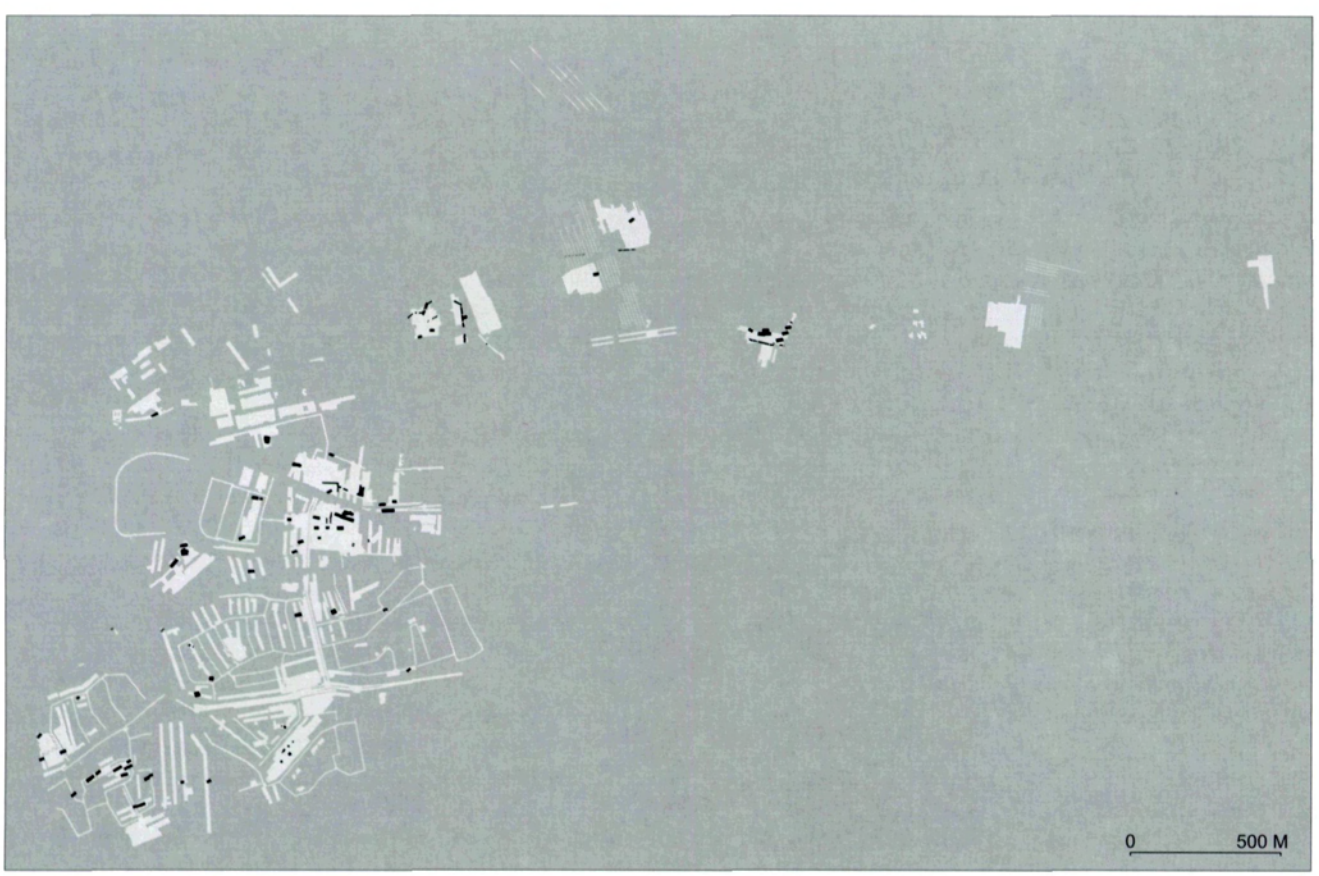


Figure 210. Features (houseplans and ditches) from the last phase of the Late Iron Age.

During the first half of the first century BC the Ussen area is occupied intensively by around 50 people (fig. 210). At least four settlements are in use at the same time, three of which consist of more than one contemporaneous compound. In the southwest, settlement XVI comprises two compounds, each containing a farmhouse with a slender, light construction. The farms have been built in compounds that were used before. North of XVI lies settlement XVII, which also comprises two compounds. However, since these are more than 250 meters apart they might be two single-farm settlements. In the northern of the two the farmhouse has been built on a previously occupied farmyard. The southern compound contains a farmhouse with a different type of construction, with foundation ditches for the walls.

Directly east of XVII the large settlement XVIII is situated. Around 100-50 BC it consists of three to four compounds. This settlement differs from its neighbours not only in size but in several other aspects. At least one farmhouse has a west-east orientation instead of the usual southwest-northeast or west-north-west/east-south-east. In the centre of the settlement one or two farms have been built with foundation ditches for the walls. The builders of one house (H81) have combined the new orientation with a new construction: the central roof-bearing posts are founded in large deep postholes, while the foundation ditch is also deep. Most farms have been built in the same compounds as their predecessors. In the northernmost settlement, Iron Age Schalkskamp, stands a single farm. Its compound is enclosed by a shallow ditch: a novelty in the area.

Burials are situated in an area that is more or less enclosed by the three southern settlements. The cremation graves are scattered in small groups and sometimes surrounded by circular or rectangular ditches. The 50 inhabitants of Ussen live off the practice of mixed farming, carried out on fields and pastures that are situated near the settlements.

Outside Ussen several other places are occupied during the last phases of the Late Iron Age. At a distance of *c.* 350 m east of the Schalkskamp settlement two compounds are still inhabited or about to go out of use (Mettegeupel, see Fokkens 1996, 208-209; Jansen 1997). They are separated from one another by shallow ditches. Further to the south-east (Almstein) at least two other compounds are situated.

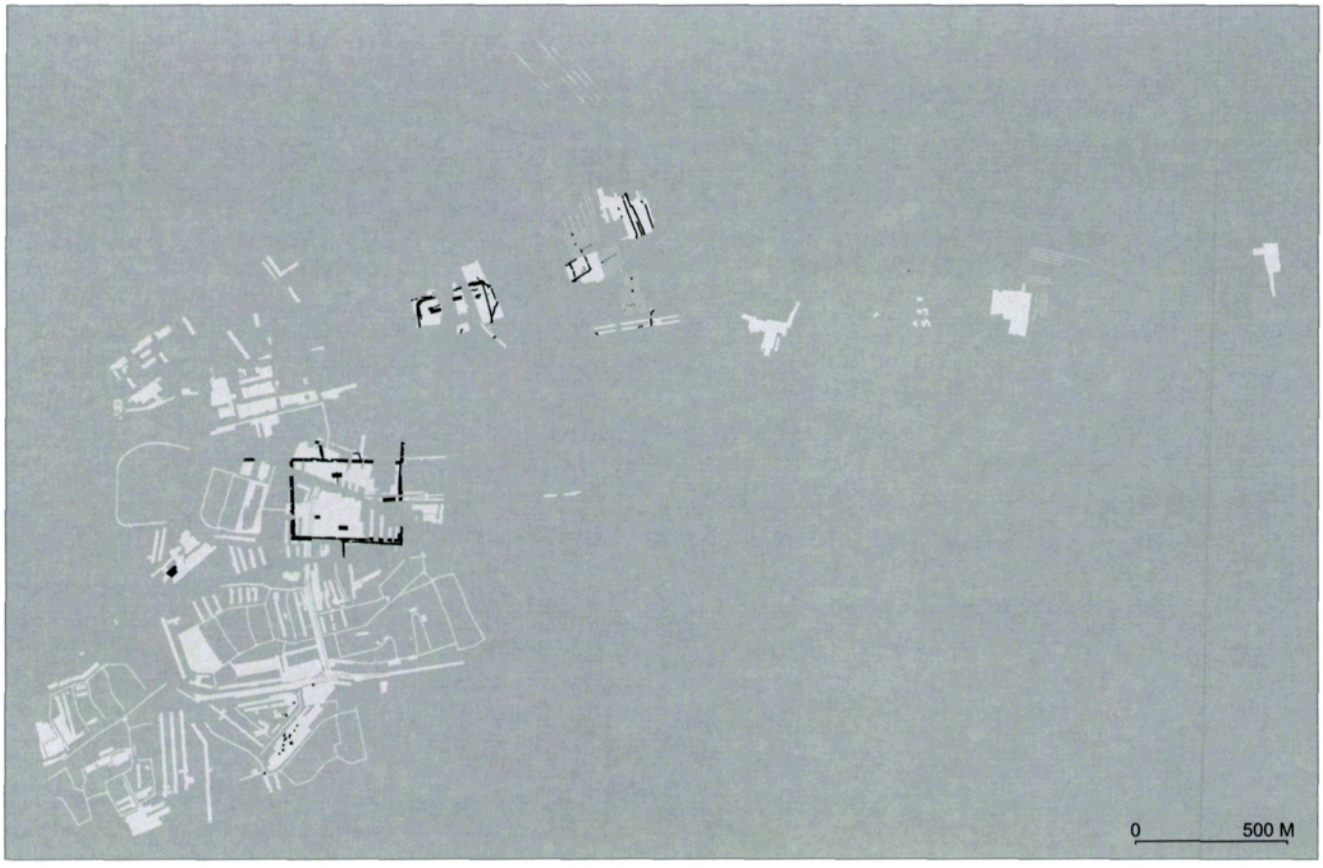


Figure 211. Features (houseplans and ditches) from the Roman period (first decades AD).

The houses in this settlement have been built in the same yards as their predecessors, and they have a construction that originated centuries earlier (Oss-Ussen type 4). Like their neighbours, the inhabitants of these farmsteads have dug shallow ditches to enclose the settlement (Van der Beek 1996). Other settlements are situated further south and east (Zaltbommelseweg and Horzak).

During the last phases of the Late Iron Age the first indications for a new type of settlement are just surfacing, such as the clustering of houses, frequent rebuilding in the same compound, the enclosed northern settlement, and the differences in settlement size and house construction. These changes seem to culminate in the Roman period. Unfortunately the process of change cannot be followed, because the last half of the first century BC is virtually undetectable in the archaeological data.

After 50 BC the population density in Ussen remains stable at first. At least two of the four settlements continue to be inhabited, the others shift or become re-occupied after several decades. In the Mettegeupel/Almstein area there is no settlement continuity after the Late Iron Age. Around the start of the Christian era three settlements are clearly distinguishable (fig. 211). In the area of the former settlement XVII, one or two farmhouses are present; at least one is built with the light construction used in the Iron Age. In fact, this settlement (Vijver) has not changed much, and is still rather unstructured. South of here the former settlement XVII is nearly deserted. The large settlement (Westerveld) is still in the same location, although the compounds have clustered even more. The farms still number three to four, but some new elements have been added. The group of farmsteads and some additional ground have been enclosed by a double ditched enclosure. One of the enclosure ditches extends to the north, meeting up with a smaller enclosed settlement (Schalkskamp). This contains one or two compounds.

The graves are no longer scattered, but concentrate in the area south of the Westerveld settlement. It is only a single, small group of burials; some of them covered by small mounds surrounded by circular or rectangular ditches. The area to the northeast of Ussen has been divided by ditches and seems to be in use as arable land.

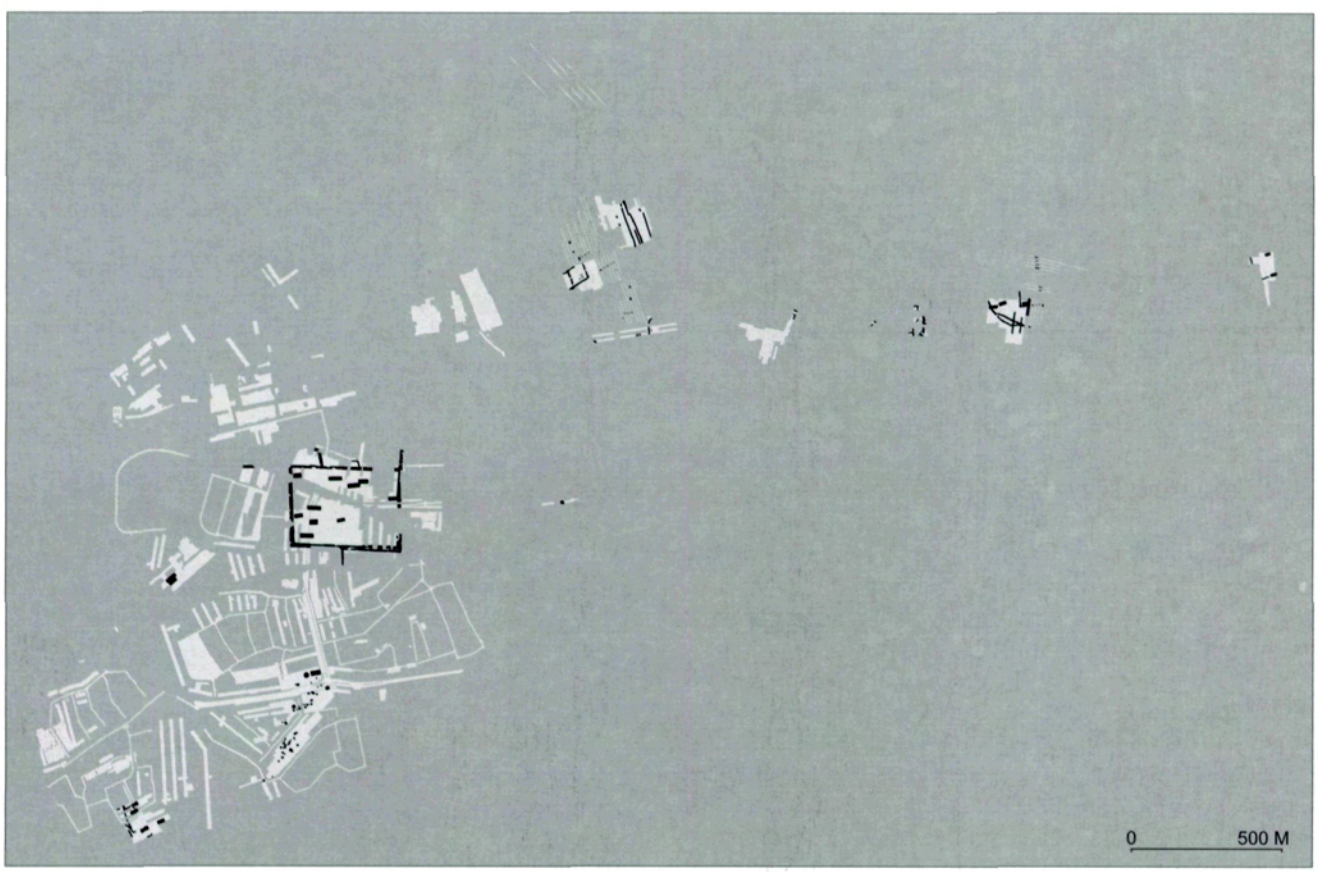


Figure 212. Features (houseplans and ditches) from the Roman period (after AD 70).

Shortly after AD 70 several changes have occurred (fig. 212). The Schalkskamp settlement in the north is no longer occupied: it is possibly replaced by fields. In the south the new Zomerhof settlement is now in use, comprising at least three compounds enclosed by a shallow ditch. One of the farms is slightly larger. The Vijver settlement remains basically the same, but the Westerveld settlement has quickly increased in size. Although the enclosure is not enlarged, the area within it is now occupied by approximately ten compounds. Some of the farms were built with a new north-south orientation, and the length of the farmhouses has increased. On the northern edge of the large cemetery at least two grave monuments have been constructed that are conspicuously larger than the others, containing special grave goods. Outside Ussen several other settlements are inhabited, possibly even continuously since the Late Iron Age. One of these is situated *c.* 700 m east of the Westerveld settlement, and comprises at least one compound (Zaltbommelseweg). Further along the route to the east we find the settlements at Horzak and at the IJsselstraat. The latter has been built in a previously unoccupied area, used as a cemetery 500 years before. It comprises at least three compounds and is enclosed by a shallow ditch.

Around AD 100 the growth and prosperity of the preceding phase are still present (fig. 213). Although the Vijver settlement structure shows no outward signs of this, the inhabitants now have more access to imported Roman goods. The largest farm of the Zomerhof settlement has been extended and is situated on the edge of an open area. At the Westerveld settlement several changes have occurred. The enclosure is still present, but the entrance in the north side has been closed off. One of the compounds is exceptionally large. This yard has been marked off with ditches and palisades, and comprises almost one fifth of the total settlement. The timber farmhouse inside, although not extremely large, has an new construction, resembling a *porticus*. This one house has usurped a space that was formerly used by at least four farms. Outside Ussen the other settlements are still thriving, although no conspicuous changes have occurred. Settlements and cemetery show a regular spatial patterning: they are separated by intervals of 500-1000 m, and orientated along the edge of the coversand.

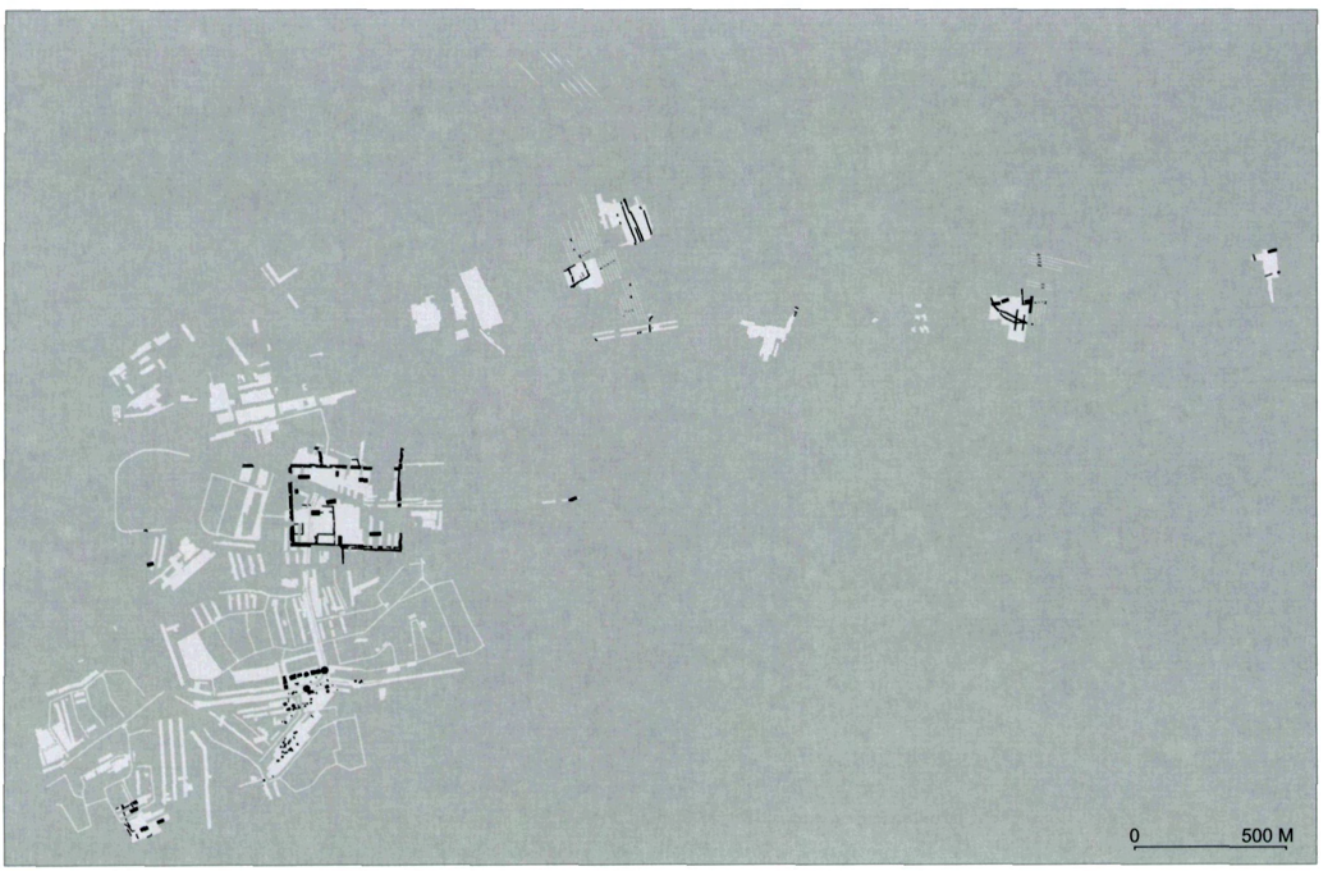


Figure 213. Features (houseplans and ditches) from the Roman period (around AD 100).

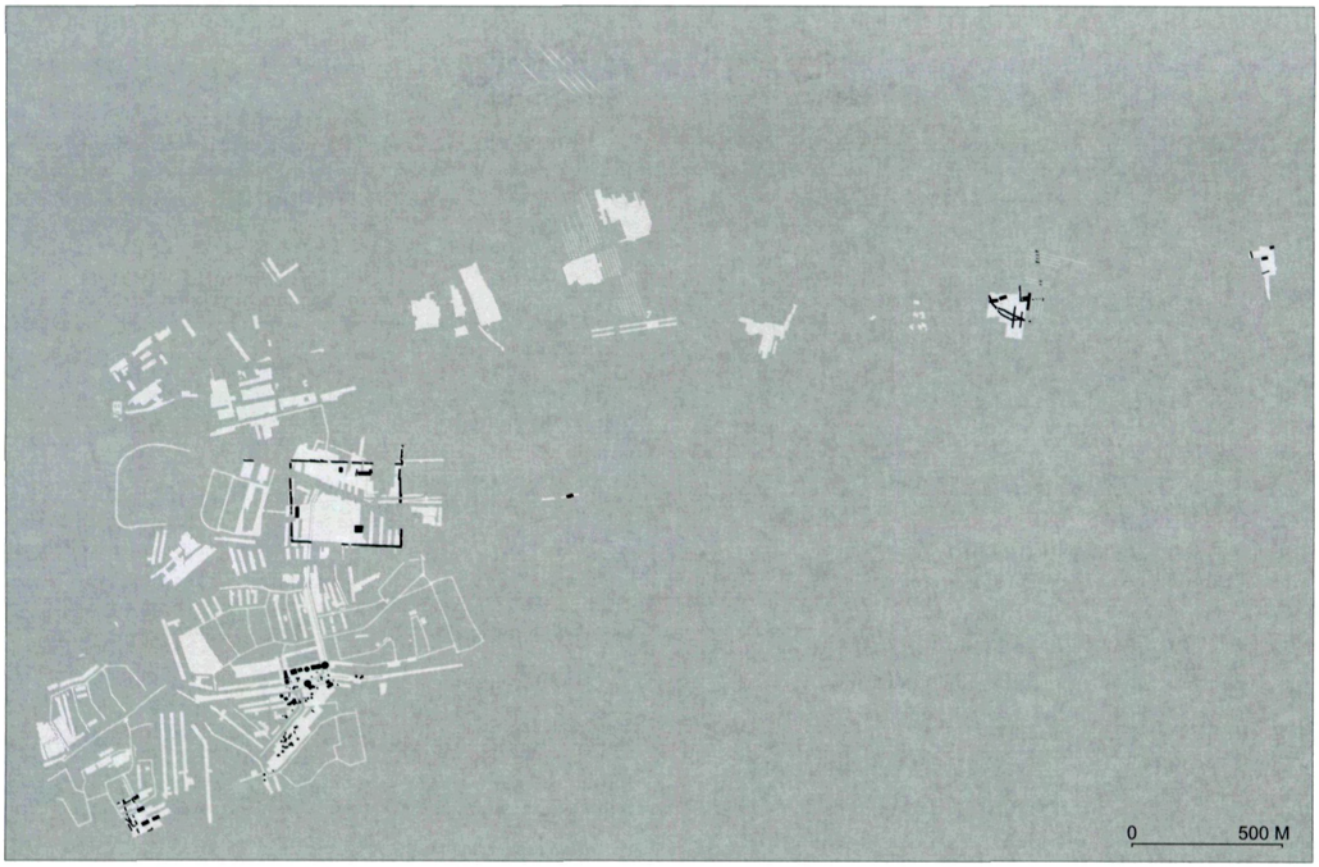


Figure 214. Features (houseplans and ditches) from the Roman period (around AD 150).

A path, following the same east-south-east/west-south-west direction, weaves through the settlements and past the northern edge of the cemetery, where more large grave monuments have been erected.

Towards the second half of the second century the population increase and growing prosperity seem to come to an end (fig. 214). At the Zomerhof settlement houses are rebuilt on the same compounds, but the buildings are smaller. The Vijver settlement is still inhabited, but after AD 150 no new farms are built. At Westerveld the inner ditch of the enclosure is invisible while the outer ditch is slowly filling up, and the large compound has been deserted. Only four farms are present in the settlement, and they are all smaller than their predecessors were. The cemetery is still in use, but after AD 150 no more large grave monuments are built. Not much is known about the settlements outside Ussen, but towards the end of the century someone at Horzak deposits (hides?) a set of bronze kitchen utensils in a well. It could be an indication that the situation in the area is becoming less stable and unsafe. Around AD 225-250 the settlements in Oss are no longer inhabited.

notes

1 This contribution is a summary of a more comprehensive analysis of the Oss cemetery, which is to appear in Hessing in prep.

2 Bechert (1980) describes this type of grave as a *Brandschuttung* (Dutch: *brandrestengraf*).

3 Haalebos (1990, 189) observed the same at Nijmegen – Hatert.

4 Charcoal from 94 graves was analysed by I. Stuijts (Biological Archaeological Institute, Groningen University). *Alnus* was found in 77 cases and *Quercus* in 73. Other types of wood included *Fraxinus, Salix, Fagus, Acer* and *Betula*, and only occasionally *Tilia, Rhammus, Corylus, Populus, Ulmus, Ilex* and *Pyrus/Malus* were found.

5 See Roymans 1995b and Fontijn 1996. Comparable examples, but with a clearer break between Iron Age and Roman period, can be

found at Wijk bij Duurstede – De Horden, Geldermalsen – Bottesteijn and Cuijk – Heeswijkse Kampen (Hessing in prep.).

6 It is assumed here that a number of paths and routes partly determined the layout of the cemetery, but their existence cannot be proved. However, there are a number of medieval ditches and cart tracks that follow the same directions. They can be dated before the development of the *plaggen* soil and it is not unlikely that there is a connection with the way in which the Roman period landscape was structured.

7 The analysis was carried out by M. Hoogland (Leiden).

8 None of the skeletons from the six graves show enough morfological characteristics to be determined as male.

9 In the original set-up for this study, Oss-Elzenburg was included as another Roman period site. However, apart from one possible pottery fragment, this find spot has only yielded material from the Bronze Age and the Iron Age.

10 Co-ordinates 165.83/421.10 (Topographical map of the Netherlands, sheet 45E). Literature: G.J. Verwers 1978a; Wesselingh 1993.

11 Supervision by prof.dr. P.J.R. Modderman and dr. G.J. Verwers. Part of the work was carried out by members of the *Heemkundekring Maasland*.

12 G. van Alphen, P. Haane and H. Pennings. Literature: Van Alphen 1986.

13 Co-ordinates 164.50/420.30 (Topographical map of the Netherlands, sheet 45E). Literature: Van Alphen 1980; Bakels 1984; Hagenaars 1981; G.J. Verwers 1983; W.J.H. Verwers 1984.

14 G. van Alphen, H. den Brok, M. van Eerd, P. Haane, G. de Haer, P. van Lijssel, L. Pinkse, P. de Poot and G. Smits.

15 Co-ordinates 163.66/420.22 (Topographical map of the Netherlands, sheet 45E). This site has been published by Van der Sanden (1990).

16 Supervision by A.-B. Döbken.

17 Co-ordinates 164.74/420.78 (Topographical map of the Netherlands, sheet 45E). Literature: Van Alphen/Datema 1987; Van Alphen/Hiep 1989; Koster 1993; Verwers 1990; Verwers 1991.

18 G. van Alphen and H. Hiep.

19 Even though Schinkel has included this type of well in the catalogue, its functionality is disputable. Schinkel himself dug an experimental version of a type-C well in Oss, but the water did not rise as expected. Oss type C should thus be regarded as a purely descriptive type of pit with a post stuck through the bottom.

20 Co-ordinates 165,10/420,95 (Topographical map of the Netherlands, sheet 45E). Survey and excavation were carried out under supervision of H. Fokkens and R. Jansen, with the aid of E. Ball and D. Schiltmans (1998). Although these campaigns are mentioned here, the results of Horzak-II will not be part of this study. References: Jansen/Fokkens 1997; 1999a; 1999b.

21 Co-ordinates 163.90/420.90 (Topographical map of the Netherlands, sheet 45E). Known as Mettegeupel 1993 and 1994, and Almstein 1995, these IPL excavations were carried out under the supervision of H. Fokkens, D. Fontijn (1994) and Z. van der Beek (1994 and 1995). Analysis includes Van der Beek 1995; Jansen 1997; Mietes 1998; see also Fokkens 1996; in press.

22 Fokkens (1996, fig. 5) situates a Roman period house plan in the Almstein area. However, this plan is of an unknown type, resembling types 8B and 8C. Only one possible Roman period sherd was found in the features belonging to this plan, and thus it cannot be dated to the Roman period with certainty. Even if the building dates from the Roman period, it is probably not a house but rather an outbuilding situated in a area used as arable land.

23 GrN-21508. Calibrated (CAL20, Van der Plicht 1993) with a probability of 95.4% (2) this is cal. AD 240 - 384, with a probability of 68.3% (1) this is cal. AD 250 - 306 / 310 - 336.

24 Most of this information was retrieved from ARCHIS, other finds were reported to the IPL by local archaeologists.

25 IJsselstraat is an exception, having been excavated during two summer campaigns. However, it was also the first excavation in Oss, and in the early 1970s 'off-site' archaeology was completely non-existent.

26 Indeed many ditch fragments, situated between the settlements, are visible on the original field drawings. However, none of these could be dated to the Roman period (or any other period for that matter). The majority of these ditches were not numbered.

27 Kok (1994, 114-115) suggests a path along the east side of the cemetery, which would bend off past the east side of the Westerveld enclosure and then run north to the Schalkskamp settlement. This would account for the oblong form of the cemetery which stretches alongside this second path. However, there are no indications for this apart from the shape of the cemetery.

28 An inventory of finds from the northern part of the Maaskant (between Oss and the river Meuse) was made as part of a student project (Ball/Schiltmans 1998).

7. The Maaskant region and beyond

Most of the everyday life of the farmers at Oss took place in the structured world of the settlements and the adjacent areas (the 'micro-region'). This includes the cemetery, fields, and pastures as described in chapter 6. Oss is situated in the Maaskant region. In the Roman period this larger area was probably well known to and visited by at least some of the inhabitants of Oss. It included other settlement clusters with cemeteries and fields, roads, and some regionally orientated sites such as sanctuaries. In order to place the settlement system at Oss in a larger perspective I will take a closer look at the Maaskant region. Finally a picture is sketched of the wider region around the Maaskant, which offers the opportunity to consider Oss against the background of (provincial-)Roman history.

7.1. Research history and physical boundaries of the Maaskant region

In 1992, when the present study started, the Maaskant region was defined as 'the area south of the river Meuse, roughly bordered by the small rivers Aa and Dieze in the west, the Graafsche Raam in the east and the now reclaimed Peel peat areas in the south'.[1] Originally, the name 'Maaskant' indicated only the zone of river clays and silts directly south of the river Meuse, between the villages of Ravenstein and Crêvecoeur. The sandy soils of Brabant were seen as the southern border. In this sense, the term 'Maaskant region' was used by Modderman (1950, 92) who, following the soil research by Van Diepen in 1948 (Van Diepen 1952), carried out an extensive archaeological survey of the whole area. But in 1979, when Verwers started the 'Maaskant project' (Verwers 1981, 38), its boundaries were interpreted differently. The Maaskant now comprised the area south of the Meuse and to the north of the line 's-Hertogenbosch - Oss - Herpen (Van der Sanden 1988, 100). In order to include the excavations near Oss, which were meant to be the key-site of the area, the Maaskant had been slightly enlarged to the south. It included part of the Heikant, which is the name for the sandy area south of the actual Maaskant. During the following 15 years when the Maaskant project was being carried out, the boundaries of the region changed gradually, along with various project leaders and research goals (see Fokkens 1996). The present-day study area is the one outlined at the start of this chapter, i.e. with the former Peel marshes as the southern boundary (fig. 215).[2]

Whether the Maaskant was also considered a separate region in Roman times is disputable. Obviously, both the river Meuse and the Peel marshes were physical boundaries of some kind. But the Meuse was probably also used as a route for travel and trade, and as such could have been a link with other areas instead of a boundary.[3] Moreover, the course of the river was different in the Roman period, which means that it was not on the edge of the area now called the Maaskant, but slightly more to the south (see 1.2.2.). Modderman (1950) has already demonstrated that even though the clay zones around the Meuse were wet, there were several drier outcrops where traces of habitation were found. Some of these places, such as Megen, Macharen and Oijen, were originally situated north of the river but are part of the present-day Maaskant study area. In the Roman period, the Peel was a large raised bog area. West of it, directly south of Oss, were extensive heathlands, with the occasional pool. Both heath and marshes were only sparsely inhabited because of the lack of good soil for living and arable farming, and possibly because of a (positive) connotation with ritual and myths (see Roymans 1995b). As such the southern 'border' of the Maaskant was probably a true boundary as far as settlement was concerned, but the area south of it certainly played a part in the ideological world of the inhabitants.

7.1.1 Sites from the Maaskant

The first inventory of the Maaskant area (the northern clay zone only) was carried out by Modderman (1950). Finds (mainly pottery) were collected on what Van Diepen (1952) had classified as ancient settlement soils (Dutch: *oude woongronden*). Roman 'influence' and occupation, characterised as 'native', was found in the whole area. Imported (wheel-thrown) pottery could be dated to the second century and to the first half of the third century only. The Late Iron Age pottery could not be distinguished from that of earlier Iron Age periods or from native-Roman material (Modderman 1950, 95-96). Only in the eastern half of the region, in a secondary stream-ridge landscape, occasional fourth-century material was found. Because they are based on surface material only, Modderman's sites are

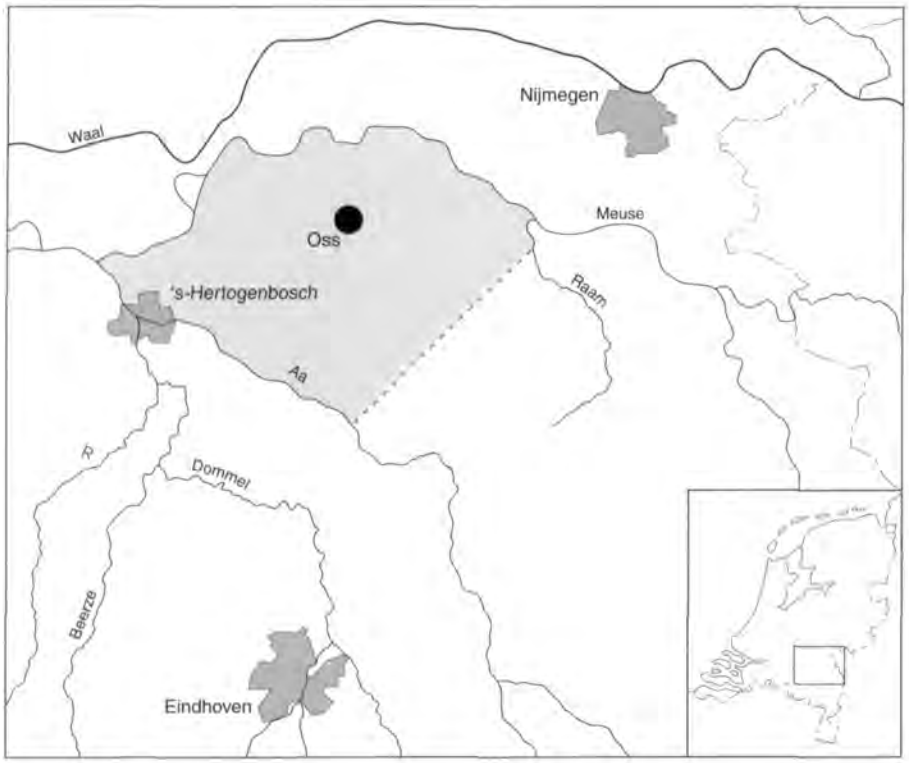


Figure 215. The (present-day) Maaskant with the study region in light grey.

difficult to classify. Since the inventory in 1948, only one of the 23 Roman period sites mentioned was excavated.[4] In the meantime numerous new surface finds were collected, especially by local (amateur) archaeologists.[5] The map of Roman period sites in the Maaskant was completed further by Beex (1973). His inventory covered the whole of the province of North-Brabant, including the southern part of the Maaskant, which fell outside the scope of Modderman's research. In his 1973 article, Beex gave a new overview this time taking into account the nature of the finds, which resulted in a (broad) classification of the sites. According to his map, mostly settlements and a small number of burials occur in the Maaskant. Besides the sites from Modderman 1950, Beex lists a large number of new sites, some of which were partly excavated.[6] The Eastern River Area (ERA) includes a small part of the Maaskant region, but no further information on the sites could be supplied at the time this regional project was carried out by the State Service for Archaeological Investigations (Willems 1986, 14 and 129, note 25). The only new site mentioned, next to the ones from Modderman and Beex, is Oss – IJsselstraat[7] (G.J. Verwers 1978a; Wesselingh 1993; see 6.2). Finally Verwers presented an overview of the whole of North-Brabant, based on Beex with a few alterations (Verwers 1998, 16/17).

For the purpose of this study I have constructed a map of the Maaskant region with the sites from all known inventories depicted on it (fig. 216). The majority can be found in Beex's article, although I have left out and combined a few sites. Several new sites found after 1973 have been added, including the excavations in and around Oss and finds by local archaeologists.[8]

Distribution

The distribution of the sites in the region (fig. 216) is largely determined by the geological situation: the Maaskant area is a mix of wet and dry, covered and uncovered areas.[9] This has influenced both the actual occupation during the Roman period and the chances of finding the archaeological remains of these activities. Modderman (1950, 94) already noted that no sites were found on the flood-basin deposits to the southwest of Lith. On Verwers' map this is also an empty area, but he suggests that the erosive power of the Meuse may have removed some traces of settlement (Verwers 1998, 102). During the Roman period, the heathlands (and peat moors) started south of Heesch, which would account for the lack of sites in that area. The small transitional area between sand and clay (just north of Oss) which would have been marshy too, is also nearly devoid of

finds. The majority of sites are situated on the sandy outcrops near Empel, the edge of the coversand area (Oss, Berghem, Heesch) and the north-eastern part of the river area, which is a stream-ridge landscape containing various sandy elevations.

Settlements

Following Beex's and Willems' classifications I have distinguished settlements, burial sites and other (special) sites. The majority of sites in the Maaskant can only be classified as 'traces of habitation' (see Beex 1973). They consist of surface finds only: in most cases pottery, sometimes combined with coins, brooches, metal objects, *La Tène* glass bangles or roof-tiles. On the basis of the character of these finds some subdivisions can be made, but the size of the settlements or the period during which they were in use is often unknown. Unless the finds gave rise to suspicion of a burial or a special site, these find spots were all classified as settlements.

Besides the sites at Oss-Ussen, only nine other settlements were partly excavated. Five of these were also located in Oss: IJsselstraat (six house plans), Horzak-I (one well), Horzak-II (at least four house plans), Eikenboomgaard (one well, possibly more) and Zaltbommelseweg (three house plans) (see 6.2). The other four are Grave - De Zitterd (three wells), Berghem - De Lallenberg (two house plans), Nuland - Kepkensdonk (one house plan) and Teeffelen - Noord ('features').[10] The house plans from Berghem and the one from Nuland cannot be dated to the Roman period with certainty. In Nuland local (amateur) archaeologists could excavate only a fragment of a house plan with a foundation ditch. Excavations by the State Service for Archaeological Investigations (ROB) yielded a second house plan, but this one dated from the Late Bronze Age or the Early Iron Age (Van Zoggel 1988). The plans from Berghem were accompanied by a well and (hearth) pits, but only handmade pottery was found. The house plans themselves cannot be ascribed to any of the Oss-Ussen types. Two-aisled, with single rows of posts, they look more like large outbuildings or granaries of type IIB. However, a Roman period grave was discovered nearby (Beex 1955; Bogaers 1970).

Most of the find material from the settlement sites, excavated or unexcavated, points to small settlements of a native character. However, some (unexcavated) sites comprised material that may indicate occupation of a different nature. Among these is Lith -Tussen de Stegen (see Modderman 1950, no.14 and Beex 1973, 176), where a 3rd century bronze enamelled brooch was found (Verwers 1990b, 150/151). Macharen - De Hoge Morgen (also called Harense Broek, see Modderman 1950, no.34 and Beex 1973, 176) is a site that yielded large quantities of (wheel-thrown) pottery, including 4th century *terra sigillata*, together with iron nails, bronze keys and brooches, glass ware, perforated slate and roof-tiles. The earliest wheel-thrown pottery dates from the beginning of the 1st century AD. Even when taking into account the fact that this settlement was in use longer than any of the Oss settlements, and thus occupied during a period when wheel-thrown pottery was widely available, it still seems that its inhabitants possessed a certain wealth, comparable to that of the Westerveld settlement. Finally at Teeffelen - Noord large quantities of pottery were found, including 4th century material. From the same site came many coins and brooches, two of which were early types (Verwers 1990a, 55). A special find from this site is a silver *triquetrum stater* (Verwers 1986, 34). In the Maaskant a large number of these coins, thought to be associated with the Batavians (Roymans/Van der Sanden 1980), were found at the river junction near Rossum/Lith. In nearly all cases, the coins turned up as a result of dredging activities, and the *stater* from Teeffelen is an exception in this respect.[11]

Burial sites

Burial sites are scarce in the Maaskant. This is partly caused by the fact that this type of site is almost impossible to detect without excavation (see Groenewoudt 1994, 20). The graves that are known were all excavated. Besides the large cemetery at Oss-Ussen, evidence for burial is present at Schaijk - Gaalsche Heide, Uden - Slabroekse Heide and at Berghem - De Lallenberg. At Berghem one relatively richly furnished grave was found (Beex 1955; Bogaers 1970). A wooden construction had been placed inside a pit, and within this framework a small wooden chest with bronze mounting and key was found. The chest contained glass perfume bottles, bronze rings and a pair of iron shears. Next to the cremated remains, which were mixed with green glass beads, three fragments of pottery and a glass beaker were found. Surface finds from the same field included *terra sigillata* and a fragment of a terracotta statuette. Bogaers (1970, 67) dates the whole complex between AD 180/190 and 270, and suggests that the surface finds derive from other graves.

At Uden, one of the barrows in an Iron Age urnfield could be dated to the Roman period on the basis of pottery and four bronze brooches (Remouchamps 1924). In Schaijk a group of 63 cremation burials was found, some of which were marked by a shallow circular or rectangular ditch. Grave goods consisted of pottery sherds or one or more complete pots, mostly smooth-walled jugs. Furthermore, fragments of three bronze brooches and some iron nails were found. The cemetery, which was only partly excavated, was dated Id – III (Modderman/Isings 1960/1961).

Special sites

Next to settlements and graves there is one excavated site with a different character in the Maaskant: the sanctuary at

Empel. At this cult place, which has a Late Iron Age origin, a Romano-Celtic temple was built around the end of the 1st century AD, functioning until *c.* AD 235. The 'temple of Empel' is considered one of the important sanctuaries for the god Hercules Magusanus, the principal deity of the Batavians (Roymans/Derks 1993; 1994; Derks 1998). The cult place lay next to the confluence of the rivers Dieze and Meuse.

A possible second sanctuary might have been situated near Kessel, in the area between Alem and Lith, where during the Roman period the rivers Meuse and Waal effectively converged (Verhulst/Blok 1981, 141; Henderikx 1986, 453, note 1). During dredging operations and sand extractions a large number of Late *La Tène* and Early Roman finds turned up here, including building materials (column fragments), a limestone votive altar and many metal objects such as coins and weapons (Roymans/Van der Sanden 1980, 191-203; Roymans 1990, 85 ff.; Van der Sanden 1983; Verwers 1988, 35-36; 1990, 152 and 155; 1998, 154-157; Bogaers 1991). Although the temple fragments might have been moved to be re-used as *spolia* in the Late Roman *castellum*, the original cult place was probably not far from Kessel.

Routes

In 1952, Modderman remarked that no traces of Roman roads had been found in the Dutch river area, but looking at the *Tabula Peutingeriana* it seems likely that main roads were situated along some of the large rivers (Modderman 1952, 21). Since then archaeologists have proved this by excavating stretches of road at Valkenburg and Vleuten-De Meern, while revetments and milestones were found in several other locations.[12] No roads have been discovered along the Meuse yet, but it is likely that they were present there too. What does this mean for the Maaskant? According to the *Tabula Peutingeriana*, two roads head for the coast from Nijmegen, one following the Rhine (the *limes* road) and one along the rivers Waal and Meuse. Another road from the Peutinger map that might be of interest for the region is the one that comes from the south (Maastricht) along the Meuse, crossing the river at Cuijk (Mioulet/Barten 1994) and continuing towards Nijmegen. According to the majority of the reconstructions, the Waal/Meuse road crossed the Cuijk-Nijmegen route, ran towards Wijchen and from there followed the northern bank of the northern Meuse branch, joining the Waal at Rossum (*Grinnes*) (Van Es 1981, 106-107; Modderman 1952, 27-28; Stolte 1960, 61, fig. 3; Willems 1986, 66 and fig. 22). Even though this road did not cross the Maaskant, its existence may have had some influence on the area.

Routes that are not on the *Tabula Peutingeriana*, but were deduced from archaeological and geological data[13] include two that are near the Maaskant. One route came from Belgium (Tongres) and went north, possibly all the way to Wijk bij Duurstede, going through the river area past Rossum (Bogaers 1964, 41). There is only one supposed route that possibly ran through the Maaskant itself. Willems (1986, 69 and fig. 22) gives only a suggestion but does not indicate the exact course of this route. Bogaers (1964, 41) mentions possible routes along both the northern ('Wijchens Maasje') and the southern branch of the Meuse. According to Beex, the road that ran from the south (Maastricht) towards Cuijk continued westwards along the southern Meuse branch. Either it went directly along the river, sometimes crossing it to cut corners, or it left the Meuse at Grave, following the edge of the coversand area past Schaijk, Berghem and Oss, through to Alem and Empel (Beex 1953, 127). In that case, Oss would have been linked directly with both the rural centre at Cuijk (see 7.2) and the sanctuary at Empel.

Whether a road ran along the southern branch of the Meuse or not, the river itself may have been a route for travel and especially trade. Already during the Iron Age salt and briquetage from the North Sea coast came into the Maaskant area via the river (Van den Broeke 1986; 1987c, 24). Large quantities of so-called *Waaslands* pottery point to a connection during the Roman period with the area around the Meuse estuary (Brouwer 1986).

7.1.2 Analysis

During the Roman period, the Maaskant region shows two different areas as far as occupation is concerned. The coversand area south of Oss consists of heathlands with only a few settlements, whereas the northern river clay area is densely populated.[14] Oss itself is situated in between; just on the edge of the coversand but close to the Meuse and the settlements in the river area.

Though the excavated evidence is scarce, most of the occupation in the Maaskant region seems to have a pattern comparable to what we have seen at Oss. A number of settlements (this can range from two to ten) are more or less grouped together, the distance between the settlements is roughly between 500 and 1000 m. Within this pattern a settlement can either be a single compound or a cluster of compounds. On the basis of this broad inventory a minimum of eight of these settlement clusters can be distinguished in the Maaskant (including Oss). Next to these clusters there are at least four sites where finds seem to point to a single settlement, possibly even a single farm, but this conclusion is based on scarce material. All these supposed single farms are situated on the sandy soils. It would mean that the settlement pattern in the whole region is dispersed, with a few distinct clusters in the northern half. Very few indications for burials are present, but if Oss can be regarded as a standard, each group of settlements will have had (at least) one cemetery.

Southwards there is an occupation cluster at Heesch and (single?) settlements at Nistelrode, Rosmalen and near

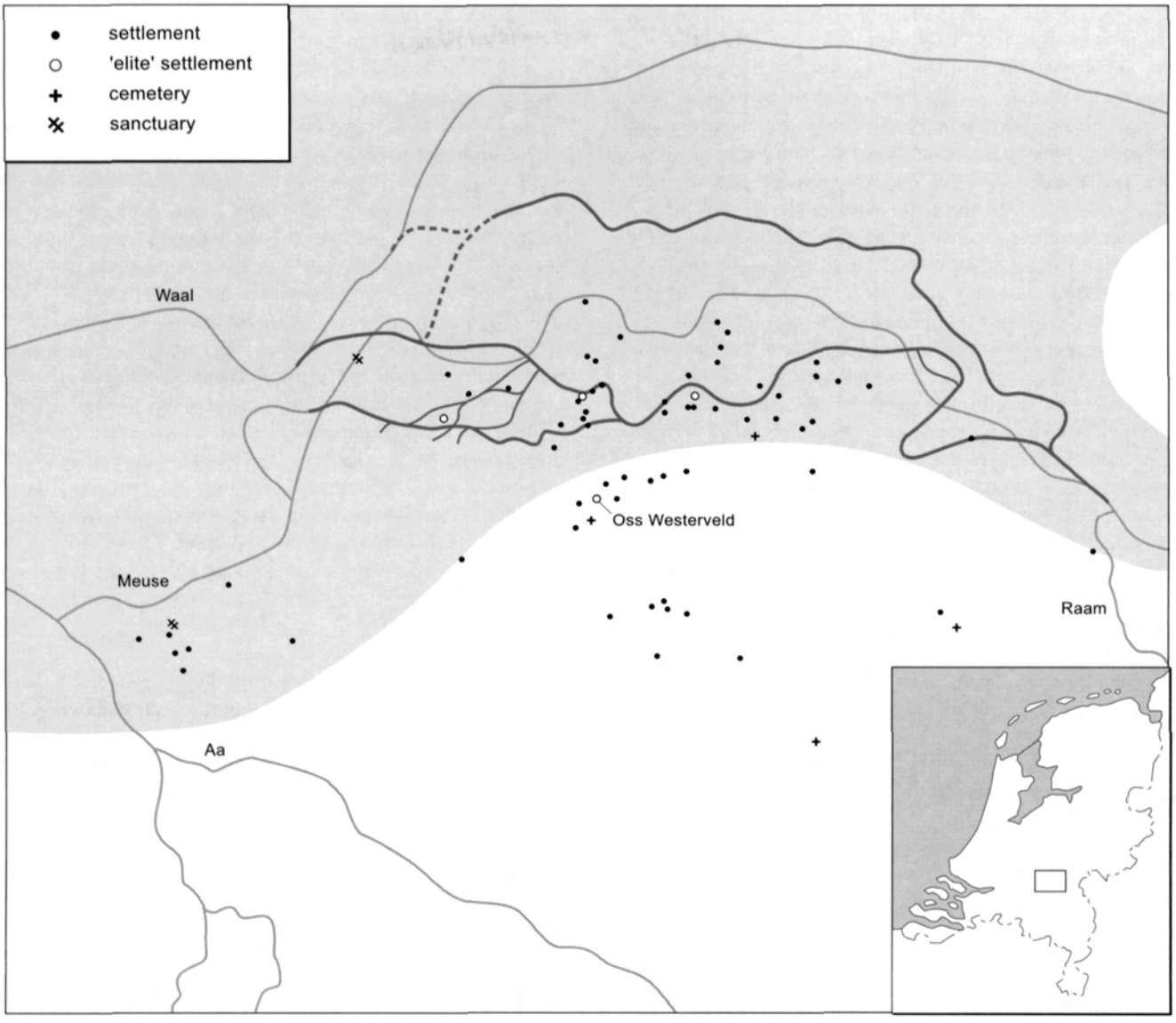


Figure 216. The reconstructed Maaskant region with sites. The supposed Roman period course of the river Meuse is indicated in dark grey, the coversand area is indicated in light grey.

Nuland. At Schaijk there is a cemetery and probably at least one settlement. Near Uden there is a cemetery. To the north there are several settlement clusters: one near Lith/Lithoijen, a group of settlements around Teeffelen/Oijen and a large cluster at Macharen/Megen. Close to Oss there is occupation at Berghem/Haren, and further east at Ravenstein. The distance between each of these clusters is approximately 2-3 kilometres. Fields and pastures are probably situated in the areas between the settlement clusters. The (southern branch of the) river Meuse runs through the area, possibly just between Oss/Berghem and the other clusters. Oss could thus be in a special position as the only large settlement cluster directly south of the Meuse. The Maaskant is also cut through by at least one road, which is situated close to or through the settlement cluster at Oss. This regional route, running from Grave in the east through to Empel in the west, is a branch off the Roman road between the cities Maastricht and Nijmegen. The region has two locations of regional (and possibly supra-regional) importance: the sanctuaries at Empel and near Kessel. Empel is probably visited by Batavians from a larger area, especially during religious feasts.

In some of the occupation clusters there is one settlement that distinguishes itself from the rest, comparable to the Westerveld settlement at Oss. This conclusion is based on (surface) find material only, but it is likely that this distinction was also visible in the size of the settlement and its internal structure. Finds point to such an 'elite' settlement at Lith (Tussen de Stegen), Teeffelen (Noord) and at Macharen (De Hoge Morgen), and possibly in some of the other groups of settlements. At Macharen, occupation at De Hoge Morgen is also present during the 4th century AD, although continuity is not certain.

Within the Maaskant region (some of the) inhabitants of these larger settlements comprise the highest level of hierarchy. There may have been quite a few of these local 'men of importance' in the area, each the head of a community of farmers living in a cluster of settlements. In Oss, around the end of the first century AD, the community totals at least 100 persons. Contact between the inhabitants of the various clusters is probably largely maintained by these local leaders, residing in the larger settlements. They meet at the sanctuaries at Empel and Kessel, and possibly travel to places outside the Maaskant, where they experience Roman culture. It is first of all the men of these families who leave the farming community to serve as auxiliaries in the Roman army.

Higher levels of settlement, such as villas, rural centres, towns, or military sites such as forts with adjoining *vici*, are absent in the Maaskant region.[15] Therefore a wider scope is necessary as a background for the settlement system at Oss.

7.2 Beyond the Maaskant

In 1985 Van der Sanden, formulating his research of the settlement system[16], proposed a larger region as a context for Oss: besides the Maaskant as it was then seen (i.e. including Oss), this so-called macro-region would also incorporate the Land van Maas en Waal (north of the Maaskant, between Meuse and Waal) and the Land van Cuijk (east of the Maaskant, directly west of the Meuse). But his research was not completed, and so far the only larger regional project in which the data from Oss were incorporated has been the Meuse-Demer-Scheldt (MDS) area, as used by the Amsterdam *Pionier* research group (see Slofstra 1991, 131-133).

Slofstra (1991, 135-136) argues that the military Rhine zone and the hinterland between Meuse and Demer should be regarded as one large frontier zone, at least in the 1st century AD. However, since his study does not incorporate the Rhine zone, Oss is grouped and compared with the southern settlements only. Towards the end of the 1st century, when the Maaskant becomes part of *Germania inferior*, the southern part of the MDS area falls within *Gallia Belgica*, and it is on this province and the relation of the MDS area with its capital *Atuatuca Tungrorum* (Tongres) that Slofstra's study focuses.[17]

Another larger region that the Maaskant is part of is the *civitas Batavorum*. Although the Batavians themselves and the area where they supposedly lived have been a popular subject of discussion (Bogaers 1960/61; 1972; Rüger 1968; Van Es 1981; 1994; Willems 1983; 1986), no attempt has been made so far to study all archaeological evidence from the *civitas*. Part of the Maaskant fell within the scope of the Eastern River Area (ERA) project, but unfortunately the data from the IPL Maaskant project were not available yet, although "it was thought to be useful to have at least a first link between [the frontier] area and the regions [...] in the hinterland" (Willems 1986, 14). In both larger regions (MDS area and ERA) Oss and the Maaskant are in the same position: that of a border area, situated on the edge of the larger region. As a transition zone, not only between clay and sand, but also between the military zone (between Rhine and Meuse) and the hinterland, the area is worth looking at in its own right. The well-researched frontier zone and hinterland can be used as a backdrop and for detailed comparisons.

7.2.1 Sites from a larger region

To compare and place the data from the Maaskant, a larger region will be used that roughly comprises the northern part of the MDS area, most of the Land van Maas en Waal, as well as the eastern part of the Tielerwaard and part of the Land van Cuijk (fig. 217). This is the central area of the supposed *civitas Batavorum*, and includes parts of both the Eastern River Area and the MDS area. Of this macro-region, no inventory such as the one of the Maaskant will be made. Published data on sanctuaries, rural centres, villas, towns and roads from the whole area will be used to create a general picture of the world around the Ussen settlements.

Rural centres[18]

In the larger region around the Maaskant six rural centres were excavated: settlements of some size fulfilling a diverse set of functions (Hiddink 1991, 201). Of these, Cuijk is the only one that can be called a rural centre with certainty. Elst and Halder are likely to be rural centres, while the information about Rossum, Wijchen and Blerick is scarce. At Cuijk (*Ceuclum* on the Peutinger map) there is evidence for pottery kilns, producing mica-dusted Belgic ware and grey pottery during the Claudian period, while later a temple complex is built. Grey ware and Belgic ware were also manufactured at Halder, between AD 65 and 80. A large Gallo-Roman temple and several other stone buildings were present at Elst. Rossum is thought to be the location of *Grinnes*, known from the Peutinger map, while Blerick

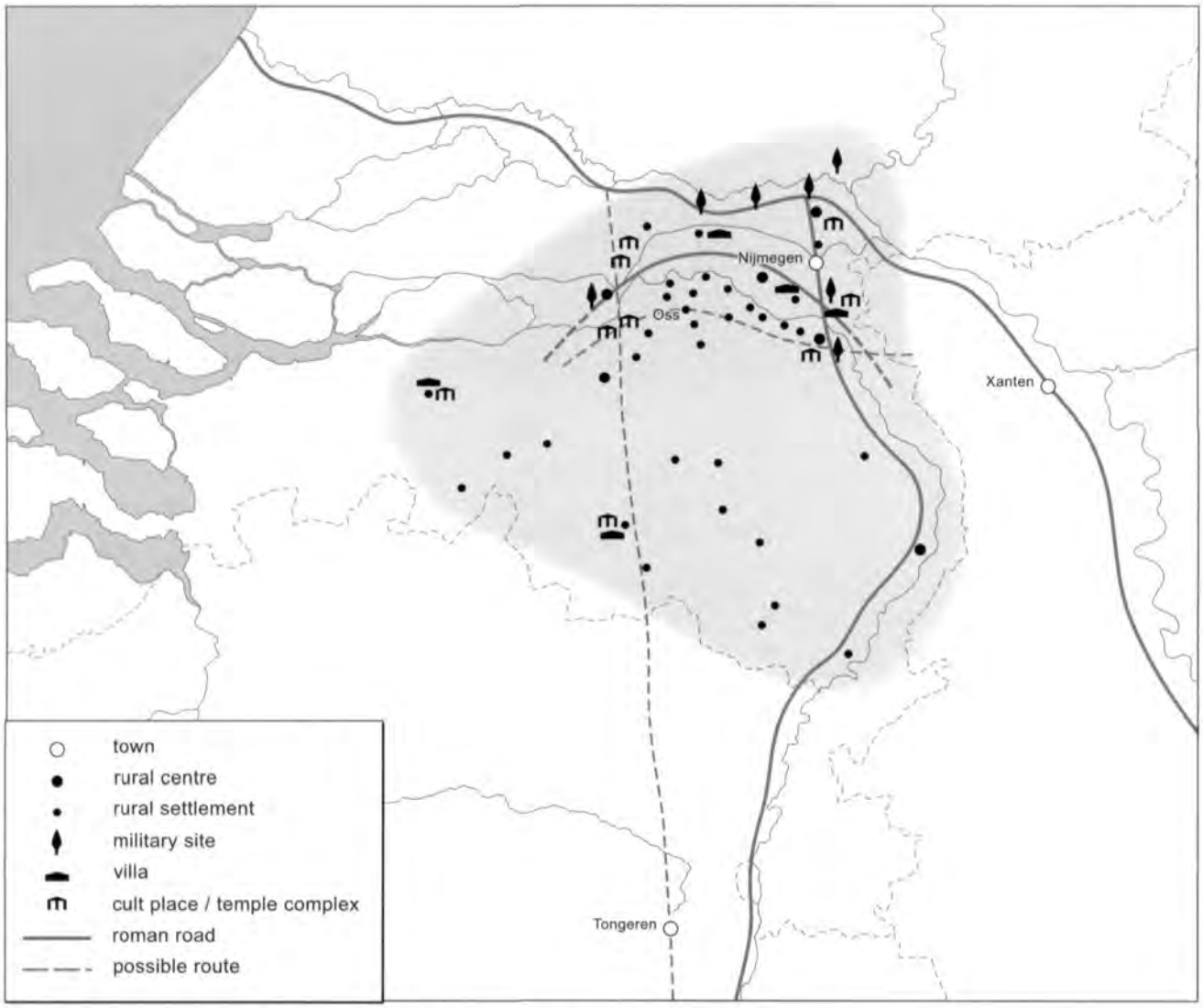


Figure 217. Macro-region with the sites and routes mentioned in the text.

corresponds with *Blariacum*. Wijchen was not excavated, but large quantities of surface finds may indicate a rural centre.[19]

Military sites[20]

Early Roman camps in the wider region were present at Arnhem-Meinerswijk and at Driel. After AD 47 these became *castella* on the *limes*, while from that period onwards there may have been *limes* forts at Kesteren and at Randwijk too. Whether Cuijk was an early Roman military post is disputable (see Verwers 1998), but after AD 47 it became a *castellum* in the hinterland, just like Rossum/*Grinnes* after AD 69. Cuijk stayed in use after AD 270. The largest military site in the macro-region is Nijmegen, with early legionary camps, including a *castra* where several legions stayed until the last quarter of the second century AD.

Villas[21]

In the larger region around the Maaskant there is little (excavated) evidence for villas, i.e. market-oriented farms with romanised domestic buildings.[22] In the southern area Hoogeloon is an exception, as the only villa (so far) on the southern sandy soils. Along the river Waal lies the settlement at Druten-Klepperhei, with a *porticus* and a stone-built bathhouse. This could be called a villa, but has also been interpreted as a large rural settlement with an elite compound (Slofstra 1991, 163, note 85). The same goes for Oosterhout

(North Brabant), where part of a house with a *porticus* was excavated, and also possibly for Overasselt which is situated just north of the river Meuse. A large romanised building was certainly present high on the slopes at Mook (Groesbeek-Plasmolen), although the socio-economic context of this villa is less clear. Willems (1986, 118-121) mentions several other sites that could have been villas, but none of these were excavated. Further south on the banks of the river Meuse more villas can be expected.

Towns

In the wider area around the Maaskant there is one Roman town: Nijmegen. This was the location of a supposed Batavian centre in the Early Roman period (*Oppidum Batavorum*) and later, as *Ulpia Noviomagus*, the administrative and economic capital of the *civitas Batavorum*.[23] The capitals of the *civitas Tungrorum* (Tongres/*Atuatuca Tungrorum*) and the *civitas Cugernorum* (Xanten/*Colonia Ulpia Traianensis)* were situated much further away.

Cult places and temple complexes[24]

The Gallo-Roman temples at Elst and Cuijk have already been mentioned under rural centres. At Nijmegen (*Ulpia Noviomagus)* there was at least one temple complex. At Zennewijnen there is evidence for a temple in the form of a building inscription. An open-air cult place was found at Hoogeloon. Finally there are find complexes that could be interpreted as having a 'sacred' character (Derks 1998, 158 note 105). In the macro-region these were documented at Groesbeek, Ophemert and Oosterhout (North Brabant).

Routes

The major Roman roads and other routes in the wider region were already mentioned when discussing the Maaskant. Summarised, they comprise the north-south roads Maastricht – Cuijk – Nijmegen (along the west bank of the river Meuse) and Tongres – Wijk bij Duurstede (past Rossum), the first one visible on the *Tabula Peutingeriana*. Also on the Peutinger map is the west-east road from Nijmegen to Rossum (a branch of the *limes* road which follows the Rhine further to the north). A supposed route runs through the Maaskant itself.

Rural settlements

A broad overview of excavated rural settlements in the macro-region around Oss shows that occupation is concentrated in a few areas. Further south along the river Meuse and to the southwest on the coversand islets of Brabant there are several settlement clusters. The majority of these were included in Slofstra's study (1991). These include the sites in the Kempen (Hoogeloon and Riethoven), and a selection of other excavated settlements in Brabant and Limburg (Gassel, Beers, Moergestel, Goirle, Den Dungen, Alphen, Mierlo-Hout, Oosterhout, Nederweert, Venray and Beegden).[25] Not yet included in his inventory are, amongst others, Weert (Roymans 1995a; Roymans/Tol 1996; Roymans/Tol/Hiddink 1998), Someren (Roymans/Theuws 1993), Lieshout (JROB 1992, 52; Verwers 1998, 68/69) and Son en Breugel (Verwers 1998, 72).

In the river area to the north of Oss there is a large string of settlements on the coversands and river dunes between Meuse and Waal. Most of these were mentioned by Willems (1986). Excavated ones include Druten and Overasselt. Worth mentioning is the recently excavated settlement at Oosterhout (Gelderland), just north of the Waal at Nijmegen (Haarhuis 1996; Van den Broeke 1999). Of the Tielerwaard no inventory has been made (yet), but near Tiel there is evidence for a settlement cluster with a cemetery (Kortlang/Stafleu 1998).

Willems, Slofstra and Verwers have compared and classified most of the rural settlements in the area. Whenever Oss was included, it usually played an important role because of the presence of a cluster of settlements with signs of social stratification. Oss-Westerveld is the classic example of a large enclosed settlement and as such was grouped with sites like Hoogeloon, Riethoven, Druten and Oosterhout (North Brabant). Most of the characteristics of this level of 'proto-villas' were actually derived from Oss. The subject of settlement hierarchy will be discussed in chapter 8. New research on rural settlement patterns in a wider region will take place outside the scope of this study (Roymans in prep.), and occupation in the larger Batavian area is the subject of a new project (Roymans 1998a).

7.2.2 *A wider scope: Oss and the events of the Roman period*

By looking at a wider region, various aspects of the Roman period and even of the Roman Empire come into view that were not distinguishable as such in Oss or in the Maaskant. The historical events starting with the Gallic wars may have had their effects on the inhabitants at Oss, but sometimes more direct influences are visible in the archaeological record of the wider region. This may help to bridge the gap between Rome and a group of farms just south of the river Meuse.

As for most of the Netherlands, Caesar's military efforts between 57 and 51 BC and the events during the following decades are invisible in the archaeological record from Oss. Occupation around this period consists of dispersed farmsteads with a tendency towards a more organised and structured landscape. The settlement structure shows no signs of hierarchy. In the wider area there are probably several comparable local communities, practising mixed farming on

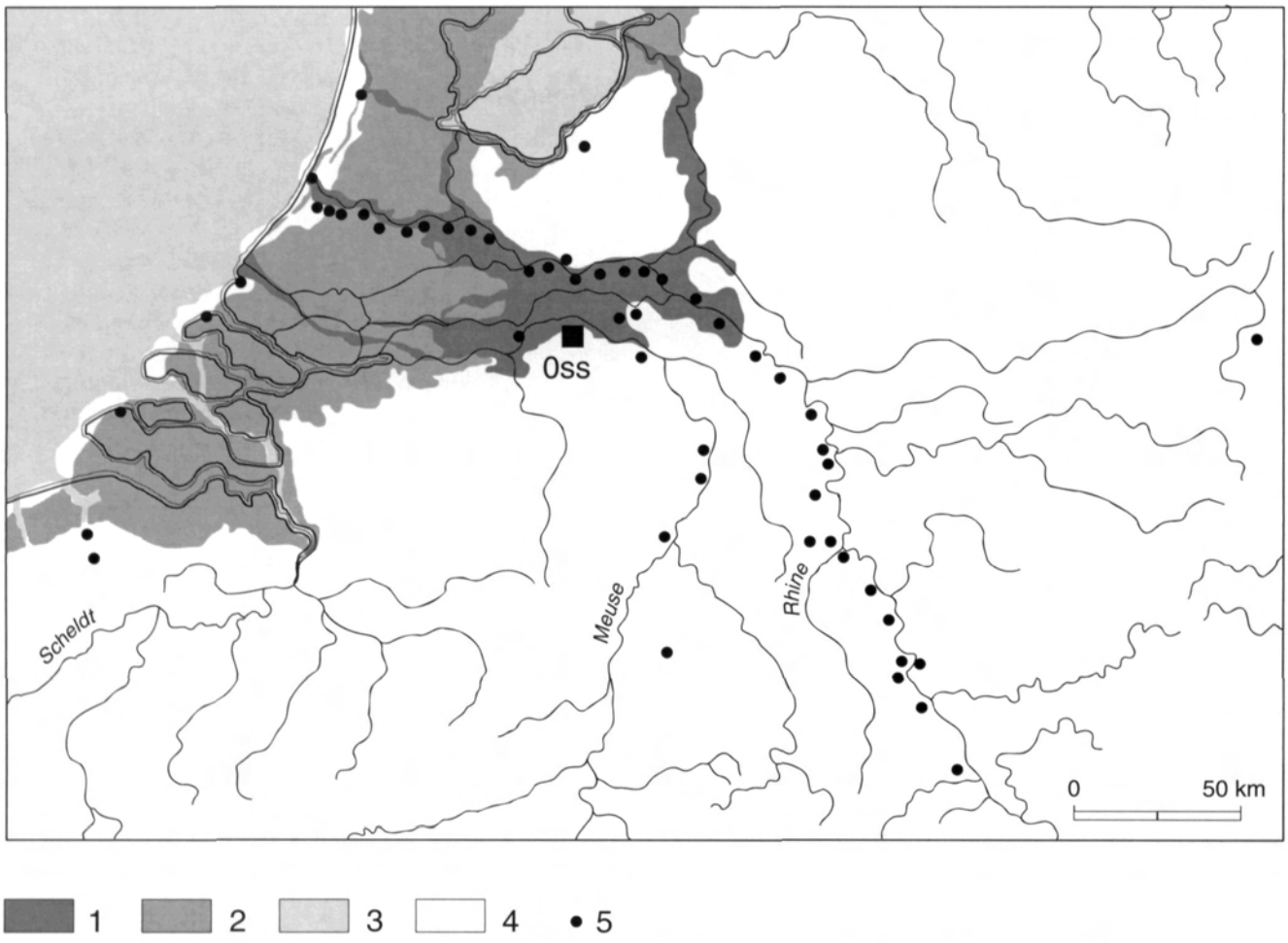


Figure 218. Location of Oss with respect to the Roman *limes*. 1. fluviate deposits; 2. peat and clay; 3. water; 4. coastal barriers and Pleistocene deposits; 5. military camps.

a self-sufficient basis. Social stratification, which is present on a low level, is mainly based on land-ownership and local warfare (Roymans/Theuws 1999, 16/17). There are some cult places with a regional significance.

It is unknown which tribe the inhabitants of Oss belonged to at the time of Caesar's conquest. Historical sources hardly mention the Maaskant region and, if they do, the exact locations of tribes and their associated areas are uncertain. Some sort of relation to the Eburones seems most likely.[26] But somewhere around 50 BC (Roymans 1998b, 30) the Batavians, a branch of the Chatti who lived in the Middle Rhine area, moved across the river and settled in the Rhine Delta. Probably helped along by the Romans, they were assigned to a place somewhere near Rossum (Van Es 1994a, 24). Archaeological remains of the arrival and first decades of settlement of this elite group are scarce. The most important indication is the distribution of silver (and bronze) *triquetrum* coins, notably of the Lith-type. These coins are derived from gold coins of the same type from the area where the Chatti lived (Roymans/Van der Sanden 1980). The majority of these coins were found around Kessel/Lith, with a concentration at the sanctuary at Empel (Roymans 1998b, fig. 6). In Oss no *triquetrum* coins were found, the closest find is from Teeffelen (de Honig). No other changes directly related to the settling of the Batavians can be seen in the Maaskant or beyond.

In 12 BC Drusus, as commander-in-chief, uses the Batavian 'island' as a base to try and conquer the other parts of Germania. The first signs of the new era in the region are the military camps. On the Hunerberg at Nijmegen a large *castra* is erected, and work on it was probably already beginning in 15 BC. Shortly after, it is replaced by a smaller

camp at the Kops Plateau. At Meinerswijk and possibly Driel, smaller *castella* are built. What about the Maaskant, and Oss? Did the presence of thousands of soldiers in Nijmegen have any influence upon them? The development of settlement structure continues seemingly uninterrupted. One very early find that could be related to this period is a fragment of a Dressel 1 *amphora*. Although the Italian wine trade with Gaul had started as early as the 2nd century BC, the number of imports must have risen as a result of an increased demand for supplies by the army (Haselgrove 1996, 169). Around this time the original Batavians, who maintain a special alliance with the Romans, have mixed with the local inhabitants and as a result, spread over a wider area. At the start of the Christian era, possibly as a Roman initiative, the centre of the Batavian area is established at Nijmegen: *Oppidum Batavorum*. As part of the alliance the Batavians supply soldiers for the Roman auxiliaries.

The transition from BC to AD has not left specific archaeological traces at Oss, although the development of a more structured form of settlement is now in full swing. Farms have been built in clusters and are surrounded by ditched enclosures. The one around the large Westerveld settlement stands out, and the start of this phase of the settlement is possibly marked by ritual. During the first decades of the first century AD Roman imports start to enter the settlements, quite early and in relatively numerous amounts. Amongst these is some rare tableware, originally from Italy and France. More tableware comes from Belgium, there is wine in casks and in *amphorae*, olive oil, the odd coin and some brooches and other metalwork. In the Westerveld settlement the imports cluster in the south-western corner of the settlement. A fragment of horse mounting ends up in the small but enclosed Schalkskamp hamlet, and other small bits of military equipment are found in the settlements. Since Oss is now part of the wider Batavian region, it is possible that around this time men from the settlements at Oss are joining the Roman auxiliaries. They could account for the accumulation of Roman imports, although some of it is probably acquired through contacts between the local elite and the Romans.

In AD 47 Claudius calls back Corbulo and starts to establish the *limes* along the Rhine. At the same time the development towards a formal *civitas* structure is speeded up. At Nijmegen the large *castra* on the Hunerberg is out of use, but there is still a military camp on the Kops Plateau and the Batavian centre is thriving. But before it can become the true capital of the *civitas Batavorum* the Batavian revolt starts in AD 69. Because of the large Batavian network (Roymans 1998b, 22-25) many other tribes join Iulius Civilis against the Romans. The Batavian city is burnt down together with the *limes* forts.

When the northern border of the Empire is set along the Rhine, the settlements at Oss do quite well. The number of farms is rapidly expanding, although the Schalkskamp settlement is given up, possibly for arable land. Roman goods become more numerous, and this in a period when they are still not regarded as common possessions. The cemetery is laid-out clearly now and the first graves with Roman imports appear. Shortly after AD 50 a young child from the local elite family dies, and is buried on the very north side of the cemetery under a large mound with some unusual grave gifts. In the wider region other changes are taking place: at Elst a small temple is built with a timber frame, and the same type of building replaces the open-air sanctuary at Empel. It is during this period that roads are being constructed, the number of inhabitants in the area increases and natural resources are being exploited to a growing extent. Next to the ones at Nijmegen, Driel and Meinerswijk new auxiliary forts are built in the *limes* hinterland at Cuijk (?) and at Rossum. During the Batavian revolt the Roman forts, the temple at Elst and the 'Roman' *Oppidum Batavorum* are demolished, but the native occupation in the Maaskant remains untouched. In fact, there is nothing in the archaeological record that marks this event, which must have had its impact on the inhabitants of Oss. Did the farmers identify strongly with Civilis and his men? Did their sons fight against the Romans? Did the local elite from the Westerveld settlement take part in the conspiracy? There are no indications, but it is unlikely that the event passed unnoticed. All we know is that not too long after the revolt, a new farm is built in the Westerveld settlement with a romanised construction and a large farmyard around it. This is located in the south-western corner of the settlement, where imports were present before. Apparently things are going well and the local leader feels a stronger need to express his status spatially. More large grave monuments are erected in a conspicuous location on the northern edge of the cemetery.

The revolt is suppressed and although relations between Romans and Batavians are restored, the conditions for the Batavians cannot be the same anymore. The days of their relative independence as a client tribe are definitely over, and with that the widespread Batavian identity is reduced to the core area again (Roymans 1998b, 25). The time of peace, the *Pax Romana* has come. The Romans quickly build a new capital at Nijmegen and after AD 83 the *civitas Batavorum* and its province *Germania inferior* are officially established. In the meantime the *limes* forts are restored, including a new large *castra* at Nijmegen, used by the *Legio X Gemina* from AD 71 onwards. The demolished temple at Elst is replaced by a larger building in stone.

The inhabitants of Oss seem to be prosperous as before. Whatever impact the revolt has had, after AD 70 life seems

to go on, with the farming community accumulating more Roman goods and the settlements and the space around them becoming more fixed and organised. The house with the Roman-style *porticus* is in use now, and a new group of farms is built at Zomerhof. Farms are becoming larger, the cemetery is expanding. In the Maaskant a few changes are taking place, such as the appearance of a new monumental temple building at Empel, comparable to the one at Elst.

Shortly after AD 100 the capital at Nijmegen acquires market privilege and the name *Ulpia Noviomagus Batavorum*. All the elements of a town are present, including a Gallo-Roman temple, Roman baths and several areas with industrial activities. But the departure of the Tenth Legion in AD 104 is a blow for the thriving new centre. Although *Ulpia* receives municipal rights around AD 150, the diminishing number of soldiers causes economic problems.

Between AD 100 and 125, the upward movements in Oss are slowing down somewhat. The number of farms in the Westerveld settlement slightly decreases and the individual buildings are diminishing in size. The *porticus* farm does not get a comparable follow-up. Wheel-thrown pottery is abundant, but the relative amount of more luxurious tableware is smaller. Around AD 150 the last of the large grave monuments is laid out. Is this development the same all over the Maaskant? Unfortunately none of the other settlement clusters have been excavated. The sanctuary at Empel seems to be in use as before, and only at the end of the 2nd century AD are there indications that part of the complex has burnt down.[27]

The *Pax Romana* officially lasts until at least AD 235 when the *limes* succumbs to the incessant pressure. Barbarian attacks combined with withdrawing soldiers cause the border to lose its status as a line of forward defence (Bechert/Willems 1995). Although there are periods of relative peace after that, the *limes* is not restored to its original state until AD 293. Perhaps the river Waal functioned as a border for a while. Cuijk, Wijchen and Rossum seem to be still in use in the later period. In AD 406 the crossing of the Rhine at Mainz marks the official end of central Roman authority in our area.

In Oss, decline set in long before AD 235. Occupation quickly diminishes at the end of the 2nd century. Someone buries a set of bronze kitchenware in a well, which may signify unrest. Although there is some evidence for activity in the 3rd century, the area is definitely abandoned by AD 225-250. Shortly after that the sanctuary at Empel is out of use too, and not many settlements are left in the Maaskant. Further away the cemetery at Tiel goes out of use around AD 250. Still the situation seems unstable: around AD 285 someone at Tiel hides coins in the former cemetery. Perhaps there is a short revival of occupation in the 4th century, but those inhabitants may have been new tribes from outside the area. Empel is visited in that period, although apparently not for ritual activities. Perhaps some farmers are still living on a dry outcrop in the clay area near Macharen. At Oss there is one well from this period, but whether there are settlements too is uncertain.

notes

1 Research application NWO, file No. 250-51-260.

2 Since both Maaskant and Heikant are included in this area, the name of the project should really be altered. Maas*land*, as most of the area was called from the Middle Ages onwards, would be more fitting. However, since the project has been known for so long as the Maaskant project, its original name has been retained, even though it has covered more than the actual Maaskant from the start.

3 Meffert (1998, 63) assumes the same for the occupation in the former Oer-IJ region.

4 Empel-De Werf (Roymans/Derks 1993; 1994; Derks 1998).

5 The collection of G. Smits (Oss) is one of the largest. His activities resulted in a number of newly discovered sites, some of which are on the map. Most of this information was retrieved from the site list used by Van den Dries (Van den Dries 1990, catalogue unpublished).

6 Excavated sites were Berghem - De Lallenberg (Beex 1955; Bogaers 1970), Schaijk - Gaalsche Heide (Modderman/Isings 1960/1961; NKNOB 1971) and Uden - Slabroekse Heide (Remouchamps 1924).

7 Because Oss-Ussen is situated just outside the Eastern River Area, the sites from Ussen were not included.

8 It should be noted that the main aim of the present study is not an inventory. The map of the Maaskant only serves to give an indication of the habitation in the region. The new information (gathered from finds reports, local archaeologists, ARCHIS, Verwers 1998 and Ball/Schiltmans 1998) can by no means be regarded as exhaustive.

9 De Bont (1993, 68) has plotted Roman period sites on a map with potentially habitable (drier) areas in Brabant around AD 800. Unfortunately the sites at Oss are not indicated, but the dry coversand area on which they are situated is clearly visible. For the stream-ridge area north of Oss this map is less useful, since the increased sedimentation of the river must have changed the pattern a great deal (see 1.2.2). Verwers uses De Bont's map and concludes that most of the stream ridges and silted-over Pleistocene dunes are not indicated on it (Verwers 1998, 102).

10 Grave - De Zitterd: Louwe Kooijmans 1986; Verwers 1988, 33. Berghem - De Lallenberg: Beex 1955; 1973; BKNOB 1956, 23; Bogaers 1970. Nuland - Kepkensdonk: Van Zoggel 1988; JROB 1979. Teeffelen - Noord: W.J.H. Verwers 1981, 49-53; 1986, 34; 1990a, 55; 1990b, 143; JROB 1983, 152.

11 A bronze AVAVCIA coin (often associated with the Roman army) was also found in a field at Teeffelen - De Honig (Roymans/Van der Sanden 1980, 199).

12 See for an overview and references Hessing 1999.

13 See for a discussion of this topic Modderman 1952 and Willems 1986, 63-70.

14 For the southern Maaskant the picture will not be complete, since most of the area is overbuilt.

15 Although the sanctuary at Empel may have been part of a rural centre (see Slofstra 1991, 155).

16 Research application ZWO, file No. 280-151-85/02.

17 The southern border of the *civitas Batavorum* has often been a point of discussion. Since no (historical or archaeological) information on the exact boundaries of the civitas is available, they are usually indicated by means of Thiessen polygons. The southern border then conforms to the natural border formed by the watershed between the basins of the rivers Meuse and Scheldt (Willems 1986, 15). Slofstra (1991, 168, footnote 99) follows Rüger (1968), who situates the southern border of *Germania inferior*, and thus of the *civitas Batavorum*, just above the peat areas of the Peel (i.e. the same border as that of the IPL Maaskant region). That way, after AD 84, most of the MDS area remains part of *Gallia Belgica*, while the Maaskant is incorporated in *Germania inferior*.

18 Cuijk: Bogaers 1966; Hiddink 1991, 213-214. Halder: Willems 1986, 111; Hiddink 1991, 214. Elst: Hiddink 1991, 218-219; Bogaers 1955. Wijchen: Willems 1986, 110. Blerick: Slofstra 1991, 166.

19 Excavations in 1999 revealed the presence of a villa at Wijchen.

20 Cuijk: Bogaers/Rüger 1974; Bogaers 1966; Willems 1986, 98; Verwers 1998, 114. Rossum: Van Enckevort/Zee 1996, 54. Kesteren: Bogaers/Rüger 1974, 70; Willems 1986, 90. Randwijk: Willems 1986, 90/91. Driel: Willems 1986, 92-95. Meinerswijk: Willems 1986, 169-196. Nijmegen: Willems 1986, 89; Van Enckevort/Zee 1996.

21 Hoogeloon: Slofstra 1987; 1991, 161. Druten: Hulst 1978; Van Es 1981, 171-172; Willems 1986, 113-115. Oosterhout: JROB 1985, 69; Verwers 1988; Verwers/Kooistra 1990. Overasselt: Braat 1934; Van Es 1981, 182-183. Mook/Groesbeek-Plasmolen: Braat 1934.

22 For a discussion on the definition of a villa, see Slofstra 1991, 179 and note 136. Here I will use a combination of the archaeological and the socio-economic definition.

23 For Roman Nijmegen, see Willems 1986; 1990; Van Enckevort/Thijssen 1996, 47-93.

24 Cuijk: Bogaers 1966. Elst: Bogaers 1955. Nijmegen: Van Enckevort/Thijssen 1996, 77-80. Zennewijnen: see Derks 1998, 262-263 for further references. Hoogeloon: Slofstra/Van der Sanden 1987, 127 ff. Groesbeek, Ophemert and Oosterhout: see Derks 1998, 267 for further references.

25 See Slofstra 1991 for further references. On some of the sites mentioned in his study new information has become available. As well as Oss these include Venray (Stoepker 1997; Van Enckevort in press), Riethoven (Vossen 1997), Beers/Gassel (Koolen 1989; Verwers 1991, 133-138), Boxtel (Verwers/Kooistra 1990) and Oosterhout (Verwers/Kooistra 1990).

26 See Willems 1986, 197-199; Van Es 1994a, 22; Slofstra 1991, 171.

27 Although there is no historical evidence for this some authors suggest a possible combination of the attacks by the Chauki and some regional/local problems as a cause for trouble in our region around AD 170 (Van Enckevort/Thijssen 1996, 73/74).

8. Oss: settlement system and social structure

From the previous sections it has become clear that the Roman period settlement at Oss has undergone two major changes compared to the preceding Iron Age. Firstly the *Wandersiedlungen* were replaced by a more permanent type of occupation, characterised by spatially separated clusters of farms which are rebuilt in the same yards. In the second place there are differences between the various settlements in layout, size, structures and material culture. In this section I will try and answer the question as to which economic, social, political and ideological factors structured this specific settlement situation, and how they were in turn influenced by the way in which the inhabitants of Oss organised the space around themselves.

8.1 Settled settlements

During the Iron Age the inhabitants of Oss built and rebuilt their farms, continuously shifting the location of the individual compounds. This picture of 'unsettled settlements', as they were aptly named by Schinkel (1994; 1998), is now generally accepted, although the reason behind this particular settlement pattern is still not clear. The shifting of the farms is often linked to a Celtic field system, where houses were thought to be rebuilt in a different place in order to let the fields lay fallow (Van den Broeke 1991, 254). For Oss such a link could not be demonstrated: even though the locations of the Iron Age fields are unknown, it seems that the farms still 'wander' at a time when fields and cemetery are laid out in a permanent location (Schinkel 1994, part I, 269-276). Although it is likely that agricultural methods influenced the settlement pattern, social and ideological factors will have played an important part in it. The fact that prehistoric farms were almost never built in a previously inhabited compound, not even in one that had been abandoned for decades, is especially striking.[1] It is possible that there was a strict taboo on living in old farmyards, or that they were explicitly meant to be used for other activities. Moreover, due to the virtually undatable structures we do not have a clear view of the exact lifespan of a farm and the behaviour with respect to moving and rebuilding. Perhaps new farms were built while the old ones were still inhabited, or only when younger members of a family 'moved out'. More emphasis on social and cultural practices with respect to the use of houses has led to the suggestion that the abandonment of used farmyards during the Bronze and Early Iron Age was a conscious act, expressing a notion of transience with regards to the deceased owners of the farm (Gerritsen 1999; in prep.).

An obvious change in occupation between the Iron Age and the Roman period is its more permanent character. This is the case on several levels: firstly that of the individual house plan which shows that farmhouses become sturdier, with deep-set roof-bearing posts and walls founded in ditches.[2] On the level of the individual compound houses tend to be rebuilt on the same spot or at least within the same compound, the limits of which are often marked by ditches or palisades. Several contemporaneous compounds are grouped close together, forming settlements that are separated from one another by ditched boundaries. This settlement pattern stays virtually the same for a period of over 200 years, with minor shifts in the number of settlements. Even though the difference between the settlement patterns of around 100 BC and AD 100 is large, it was in fact a gradual process that changed the picture. The earliest example of a farm with a heavily-founded construction was dated to around the middle of the first century BC (H81, Westerveld settlement[3]), while the rebuilding of farms on top of or very close to the remains of their predecessors had already occurred during the Late Iron Age (Westerveld, Almstein, settlement XVI). During that same period a tentative clustering of two, or in one case three, compounds can be seen (Westerveld, settlement XVI, Mettegeupel, Almstein) while boundaries between compounds are present too (Mettegeupel, Almstein). Finally, several settlements (Schalkskamp, Almstein) are enclosed by a ditch during the Late Iron Age.

The sudden emergence of a completely new house construction, alongside still existing types, is difficult to explain (Slofstra 1991, 139). It is tempting to focus on the one house plan dated to around 50 BC, and link these changes to Caesar's activities in Gaul and the consequent arrival of the Batavians (Schinkel 1994, part I, 253). But the fact that the introduction of this type of building, which probably lasted longer than its lightly constructed predecessors, coincided with several other spatial changes, is

significant. All were aimed at a more permanent settlement, something that is not necessarily a typical Batavian habit, but was clearly a goal for the farmers at Oss. Although it is impossible to pinpoint the exact start of this wish for 'settled settlements', it seems to be a process that started before any direct Roman influence was felt in the Maaskant region.

Since the reason for the continuous shifting of farmsteads is unknown, it is also difficult to find out the motives behind the new type of settlement. As with the Iron Age occupation, the agricultural system in the Roman period is often thought to have been an important factor in determining the settlement pattern (Roymans 1990, 181-182; Thomas 1997). Indeed, the (gradual) transition from a Celtic field system to intensively used permanent fields made it possible and perhaps necessary to live in the same place for a longer period of time. Whether Roman tax collection was the drive behind this agrarian intensification is a different issue (Slofstra 1991, 177). It could have influenced production at a later stage, but the change to more permanent settlement started earlier. However, since the Batavian civitas reportedly supplied soldiers in lieu of grain (Roymans 1993, 40), taxation would not have influenced the agricultural system to a great extent. The significance of cattle, as supposed by Roymans (1993; 1995c; 1996b), implies that pasture needed for stock breeding could have been much more important. There is only one meagre indication from Oss that could point to a greater need for land. Late Iron Age settlements to the north-east of Ussen were left at the start of the Roman period and the area was divided into lots. After AD 50, when the Schalkskamp settlement ceased to be used, more land became available further east. Since the whole strip of land, close to the edge of the coversand, might not have been dry enough to grow crops, this may be an indication for an increase in stock breeding.

It seems that the transition to more permanent settlement was not exclusively dictated by ecological or political factors. Such a fundamental change will have stemmed from a combination of various factors that were closely intertwined, and in which social and ideological reasons will have played an important part. Even without Roman influence the world around Oss during the last century BC was in motion, and things were changing.[4] Certainly, new field systems could have made it easier to stay in one place and combine forces with a few neighbours, but enclosing a settlement by a shallow ditch is a symbol as much as a practical deed. Apparently there was a wish for a more organised, more structured way of living, with a distinct notion of which space was used by whom. The use and ownership of land could have been important, but in an ideological rather than a purely economic sense. It is possible that control of land played a part in power relations, and that collective ownership (through the ancestors of the local community) existed alongside private claims on land (Roymans/Theuws 1999, 12-18). The rebuilding of a farm on almost exactly the same location may have expressed a closer bond with direct relatives, and as such emphasised the notion of durability of the 'biography' of a particular farmyard (Gerritsen 1999). Instead of a communal cemetery it was now the living area, notably the farmyard, that was more associated with values and subject to various rules. The use and perception of space, in particular the many ditches and palisades, expressed and shaped a changed set of ideas and values. In the next paragraph I will look closer upon this.

8.2 Boundaries and ordered space

The changes in the settlement data at the end of the Iron Age show a development in the use and perception of space in general: defining, marking, and even the closing off of space occurs on several levels. In this section I will outline this pattern and consider the structuring role of such organised space. In earlier discussions on the use of space the functional motive was often considered first, and only when there was no practical use for a specific element would a symbolic function would be attributed to it. Recently this dichotomy has been bridged and it is now generally accepted that social significance exists alongside functional use. Functional and symbolic significance are not necessarily mutually exclusive, and particularly in everyday life these aspects are closely intertwined. In the following I mainly discuss the ideological value of the use of space, but functional aspects can exist alongside this. The question is not so much as to *why* space was organised, but what was meant by organising it.

The basic assumption is that space is not a neutral container of (social) activities. Instead it possesses a symbolic dimension and is socially laden itself. This is twofold: space is structured and organised, and because of the social significance space itself directs and structures human action, thus reproducing the original perception of space and the ideas and values that lie behind it (Bourdieu 1977). This is true for all material culture, but in the case of organised space the directing function is almost literal: movement, action, and vision can be restricted and thus steered in a certain direction. In a discussion of architecture and space, Parker Pearson and Richards (1994) concentrate on *ways in which* space is ordered. Following their approach I want to distinguish several meaningful aspects. These include a focus (a pivotal central point, from the Latin word meaning hearth or fire) and location of elements with respect to that focus, orientation along axes, vision and visibility, and boundaries and divisions. Archaeological data from the Roman period settlements at Oss that fall within these categories can then be selected. Since most of the settlement

data have already been described at length in the previous chapters, I will only mention them briefly.

Next to the new solid housetypes there is also the emergence of the two/three aisled house plan. Both parts of the house, thought to represent a living and a byre area, are clearly separated from one another by a pair of entrances in the long walls. Unfortunately no hearth traces, which are outstanding examples of foci, have been found. There are four examples of foundation deposits: three times a complete wheel-thrown vessel and once a complete rotary quern was deposited in a central roof-bearing posthole. These deposits were all in the posthole immediately next to the entrance in the two-aisled part: a tentative conclusion could be that these depositions strengthen the dichotomy two-aisled-living area / three-aisled-byre area. It is possible that these particular posts had a focal function on the level of the individual house. The occurrence of lift keys may point to doors that could be locked from the outside, while smaller slide keys could have been used to lock chests. Keys were found in the Westerveld settlement only (fig. 219).

At the 'compound' level, we see their re-use with ditches and palisades marking the limits. The compounds themselves are arranged in clusters, forming settlements, sometimes leaving a central open space. A clear structuring of space is seen in the settlement enclosure, which is present in various forms. Entrances direct the movements of humans and cattle. The straight corners and strict north-south orientation of the enclosure around the Westerveld settlement are emphasised by houses built parallel to and close to the enclosure ditches. More space is bounded by the sub-square ritual enclosure R57. The ditches outside the settlements, including the parcellations used for fields or pastures, show that these extra-settlement areas are also organised. The assumed road that borders the cemetery is another example of this, just like the specific place and orientation that is assigned to the larger graves.

This selection of finds, features and structures can be summarised as 'structuring of space'. The development since the Late Iron Age shows that space inside and outside of houses, compounds and settlements is becoming more explicitly organised, with boundaries limiting two- and three-dimensional spaces. If this ordering of space is significant, the question is: what does it mean? This translation from tangible material culture to social relations, ideas and values is not straightforward. It seems we are looking for two different answers: the concrete causes, the context, the influences, and on the other hand the results of these: the social order, the world view, the realm of thought. In the case of space in Oss I am first of all interested in the latter group, since that is what is being continued through the structuring of space. Such ideas and values are often hard to get a grip on, especially if they do not concern one single highly valued concept.[5] There are many contextual factors that must have been influential during the beginning of the Roman period in Oss, for example: economic changes such as those discussed in the previous section, political events such as the integration into the Roman Empire, social factors such as changing status for the local elite, religious factors such as ancestor-cults and even binary oppositions. All these factors are linked to each other, and concentrating on one of them inevitably leads to a one-sided explanation of the spatial pattern. Since it is exactly the interaction which is crucial (Parker Pearson/Richards 1994) I will confine myself to a rough outline of the ideas and values of the inhabitants of Roman period Oss. In my opinion the structuring of space in Oss is a reflection of a view in which order and orientation have great significance. People as well as objects, activities and the space they are in (including land) are clearly distinguished from one another.

Firstly, there seems to be greater emphasis on ownership, and on the restriction and control of access to space, people and objects. The landscape is being used in a more systematic way. Next to that we see more distinction between people; groups as well as individuals. This is not just based on social ranking, but includes a sharper definition of (group) identity: within each household, each settlement, the whole micro-region and also with respect to outsiders. Related to these two aspects is a greater notion of public and private, and perhaps of the individual. This can be illustrated with finds from the sanctuary at Empel, where written vows of a private nature were sealed before they were deposited (Derks/Swinkels 1994, 149). Apparently, not only relations between people but also between people and gods were individualised and privatised. Finally, from the Roman period onwards the inhabitants of Oss must have broadened their world view, with the integration in the Roman Empire, the arrival of imported goods and military service in the Roman auxiliaries. This expansion seems to have triggered a scaling down on the level of the micro-region: settlement, landscape and society have become increasingly divided. Contacts with ordered and arranged aspects of Roman culture, such as the strict layout of army camps, or a concept like the *limes* itself, might have influenced this development.

If all this was present in the organised space in which the inhabitants from Oss lived their daily life, then how did this space direct them and structure these ideas and values? We cannot accurately reconstruct the settlements in a three-dimensional model, and it is thus uncertain to what extent ditches and palisades restricted view and movement. But on a more general level it is essential to realise that in the ordered landscape of Roman period Oss, one was always *inside* or *outside* a known, visibly bordered and perhaps named place. The boundaries were passable to a certain extent: you could move from one settlement or one

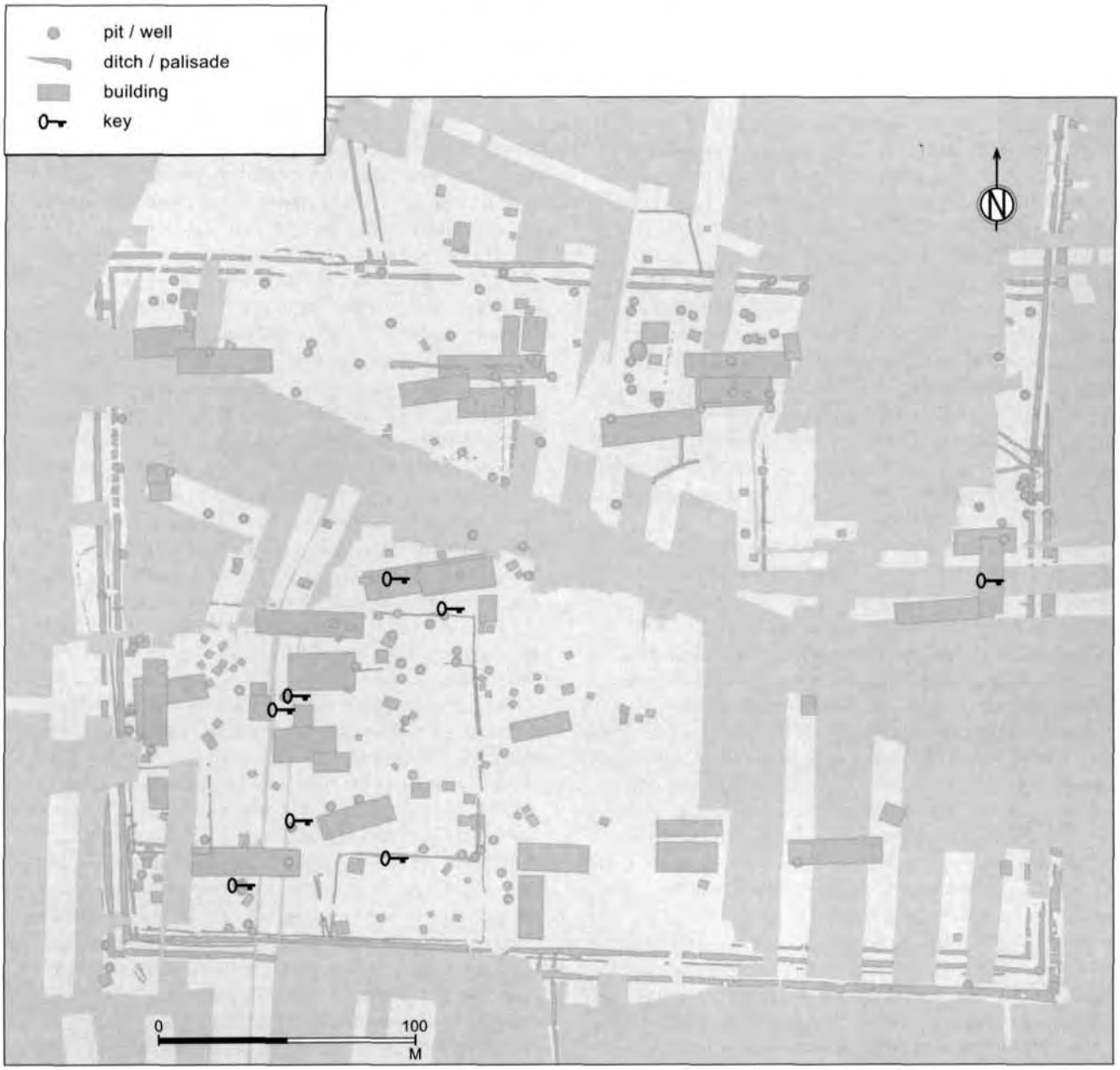


Figure 219. Distribution of keys in the Westerveld settlement.

compound to another. But wherever you went, you were always in one or more specified places, while at the same time other people and objects were in other fixed places. By organising it, space had become place (Tuan 1977), and this notion of determined place was now much more explicit and applied on a much wider scale than in the previous period.

Settlement enclosures have been discussed by several authors (Hingley 1984a; 1984b; 1990; Haselgrove 1984; Bowden/McOmish 1987; Thomas 1997). Since they are one of the most explicit expressions of the ordered world view it is worth looking at them more closely. Until recently the dominant explanation for enclosure boundaries surrounding late prehistoric and Roman period settlements was that they had a defensive function or served as drainage ditches. The enclosures from Oss are too shallow and too insubstantial to have a defensive function (Raemaekers 1993). Drainage was

probably not required on the sandy soil, although the northernmost settlements (Schalkskamp, Almstein/Mettegeupel) were situated on the edge of the coversand close to the river. It is possible that conditions were slightly wetter there and that the ditches held some water: during the Iron Age more ditches were present in these settlements than in the ones further south. After AD 50 this northern strip of land was not inhabited any more but used for agriculture (pasture?), which might have been due to the wetter soil.

Next to these functional explanations, the enclosures were part of the set of ideas and values as indicated above. Hingley (1990) stressed the need to consider enclosures in the social context of the inhabitants of the enclosed settlements. He proposed an alternative view, according to which the enclosure marked social divisions between social groups, functioned as a status indicator, and as a boundary with ritual significance. Thomas (1997) linked the shift to enclosed settlements with an intensification of agriculture and a consequent change in social power. Since land was now valued as property it would have to be prevented from being passed outside a group by marriage or inheritance. The stronger division between insiders and outsiders was expressed by settlement enclosures, with extra emphasis on the entrances. This is an interesting view since it manages to combine many 'factors', such as economic, social and ritual aspects, and shows just how connected these are.

Several aspects from the above-mentioned approaches to enclosures are useful for the interpretation of the situation at Oss. Both Hingley and Thomas discuss the presence of special deposits of material in enclosure ditches, which could have been a means to reinforce the initial division expressed by the boundary itself (Thomas 1997, 216) and its ritual significance (Hingley 1990, 110-102). In Oss, a search for such deposits did not yield much. The majority of the large amount of material that was found in the fill of the Westerveld enclosure ditches consisted of pottery fragments. A slight concentration of finds around the northern entrance could be the result of more activity in that area, although some of the material might have been deposited on purpose. Bone, which is often part of special deposits (Hill 1995; Therkorn 1987), was badly preserved in the sandy soil. No hoards of metalwork or other special find groups were found in ditches. There is however one ditch that yielded an unusual find: the Iron Age enclosure at Schalkskamp, which was dated to phase K (130-65 BC). The staggering number of 222 clay sling pellets were deposited in the corner of this ditch. Around the same period another 124 sling pellets ended up in and around House 81, in the Iron Age predecessor of the Westerveld settlement. Were these the remains of internal skirmishes in the Oss region, as Schinkel (1994, part I, 165) tentatively suggested, or perhaps even connected to the activities of the Roman army? It seems unlikely that these amounts of projectiles constituted a normal stock. Particularly, the sling pellets found in the enclosure ditch could have been the result of ritual activity, which during the Iron Age was often connected to either agriculture or warfare (Hingley 1990, 101). This deposition could have reinforced the original statement, expressed when the ditch was dug, but it could also be a way of changing that meaning or even negating it. The fact that around the start of the Roman period a forge was laid out in the same ditch, indicates that the meaning of this boundary was still changing. Even though there was an enclosure around the settlement during the Roman period, it was not laid out along the same line as the Iron Age ditch.

Another interesting notion is that a substantial and well-defined enclosure can be considered an indigenous symbol of social status (Hingley 1990, 97-98). This implies that it is not so much the presence of a ditched boundary in itself but rather its specific shape and size which indicates social divisions. In the case of Oss this would account for the difference between the Westerveld enclosure and the ditches enclosing the other, smaller settlements. The question as to just how large these social divisions were will be addressed in the next section.

8.3 Settlement hierarchy at Oss

In 1991, Slofstra published an article in which he proposed a settlement hierarchy for the region between the rivers Meuse, Demer and Scheldt (the MDS area) during the Roman period. For the first time data from large-scale settlement excavations in the Netherlands and Belgium were combined to form a regional case-study, linking changes in the settlement system to socio-political organisation. According to Slofstra, the most common settlement type in the area is that of the 'small rural settlement', which is the lowest level in the regional hierarchy. Slightly higher we find the 'enclosed rural settlement', followed by the rural centre, and finally by the town (although the nearest towns are situated just outside the MDS area). Next to results from the Kempen project (see Slofstra et al. 1982), data from Oss formed an important source of information for the two lowest levels in the hierarchy: the small and enclosed rural settlements. However, Slofstra could only base his conclusions on preliminary publications of the Ussen project, while at the same time the continuing excavations at Oss were producing new insights.[6] The present study offers the opportunity to incorporate newly published data and to discuss the presence and the value of a settlement hierarchy for the micro-regional or local level.

Although all settlements from Oss, including the ones outside Ussen, can be characterised as 'rural occupation in clusters of timber farmhouses', there are certainly

differences. The settlements vary in size and layout, and different housetypes and other structures can be distinguished, as well as an uneven distribution of various categories of finds. Furthermore, each cluster of farms develops in a different way after the Late Iron Age, showing variation in chronology and use-period. It is clear that the largest differences in almost every respect exist between the Westerveld settlement on the one hand and all other clusters on the other hand. This is basically what Slofstra concluded about Oss too. Following his distinction between the period up to AD 70, and the period from AD 70 to AD 260/270, the settlements from Oss fall into four categories:

up to AD 70	
small settlements:	Vijver, Zaltbommelseweg
enclosed settlements:	Westerveld
AD 70 - AD 260/270	
small settlements:	Vijver, Zaltbommelseweg, Zomerhof
enclosed settlements, villas and proto-villas:	Westerveld

The characteristics of the four categories can be summarised as follows: during the pre-Flavian period 'small settlements' consist of approximately 2-4 contemporaneous houses. They often have a Late Iron Age predecessor of roughly the same size. The settlement is furthermore characterised by continuity of habitation in one place, and internal social ranking is virtually non-existent. The majority of these settlements continue to be inhabited after AD 70, when the length of the individual houses as well as the relative amount of wheel-thrown pottery increases.

The development of the 'enclosed settlements' usually starts around the beginning of the first century AD. They are relatively large (more than 1 ha) and enclosed by ditches with a symbolic rather than a defensive function. The layout of these settlements is systematic, with a maximum of 6-7 farmhouses arranged around a central open space. A clustering of early Roman imported finds in and around one of the houses, combined with the occurrence of relatively rich graves in the associated cemetery, points to the presence of a local chief. This 'elite house' is not exceptionally large. In some cases an open-air sanctuary is situated in or near the settlement. After AD 70 some of these elite houses develop into villas (loess region) or 'proto-villas' (sandy soils). In those cases where an enclosed settlement becomes a true villa-complex, the enclosure often disappears.

The new data from Oss cause a few changes in the original categorisation. The settlements Schalkskamp and IJsselstraat can be added to the list, the first as a small settlement up to AD 70 and the second as a small settlement in both periods. The problem lies with the settlement enclosures. Both Schalkskamp and IJsselstraat, as well as the newly interpreted Zomerhof settlement, posses these surrounding ditches 'with a symbolic rather than a defensive function'. Since it is clear that they do not fit in with the other characteristics of Slofstra's 'enclosed' settlements, the choice of an enclosure as the distinguishing element can be abandoned. A more neutral, descriptive name for the category would probably have to be 'large settlements'. The characteristic 'sometimes with surrounding ditches' can then be added to the group of 'small settlements'. Since the partly-excavated Vijver is the only settlement without an enclosure, it seems likely that this way of structuring space was a common feature.[7] The updated categorisation according to the new characteristics gives the following results:

up to AD 70	
small settlements:	Vijver, Zaltbommelseweg, IJsselstraat, Schalkskamp
large settlements:	Westerveld
AD 70 - AD 260/270	
small settlements:	Vijver, Zaltbommelseweg, IJsselstraat, Zomerhof
large settlements, villas and proto-villas:	Westerveld

So what exactly is it that separates Westerveld from the other rural settlements during the pre-Flavian period? Size is one element: covering an area of 7.5 ha, the Westerveld settlement is considerably larger than the other clusters which do not exceed 3 ha. Moreover, the small settlements consist of approximately 1-3 contemporaneous houses, while pre-Flavian Westerveld shows a maximum of 11 compounds. Although the term 'large settlements' was used to name the category, it is not size alone but the combination of size with other elements that marks the difference. Although some of the smaller settlements are enclosed by a ditch system, the one around the Westerveld settlement belongs to a different league. It consists of double ditches and has a strictly rectangular layout. The ditches are deeper and wider than the ones which form the other enclosures.[8] The rectangular form of the enclosure is also reflected in the internal layout of the settlement: many of the farmhouses have a north-south or a west-east orientation, while some of them have been built alongside one of the enclosure ditches. Such an explicitly ordered layout is not present in the smaller settlements.

The find materials from the Westerveld settlement are also different from the objects found elsewhere in Oss. In the first few decades of the first century AD there are a small number of significant early imports. Pottery includes three plates and a bowl of Arretine *sigillata*, the lid of a Pompeian red-coated plate (type Oberaden 23), colour-coated drinking bowls (type Hofheim 22), *terra sigillata* drinking cups (type Hofheim 5

Figure 220. Distribution of early imports in the Westerveld settlement.

and the later type Dragendorff 24/25), a wine-*amphora* (type Haltern 70), plates in Belgic ware and a drinking bowl in fine ware (type Haltern 40b). Also acquired by inhabitants of the Westerveld settlement around this period is a silver *denarius* of the emperor Augustus, several bronze brooches, the handle attachment of a bronze *Fußbecken* and two wooden casks in which over 1500 litres of Italian or French wine were kept. The distribution of these finds is not restricted to one farm, which is makes it difficult to point out an early chief's house (Slofstra1991, 149-150), but some of them

Figure 221. Distribution of exceptional finds in the Westerveld settlement, after AD 70.

cluster in the south-western corner of the settlement, in and around H72, H74 and H98 (fig. 220). After AD 50 the imports seem more widespread, both within the Westerveld settlement and in the other settlements. But the relative amount of first-century *terra sigillata* found in the Westerveld settlement is higher than elsewhere in Oss.

After the Flavian period, when the *porticus* house is built to emphasise the social stratification, the find materials from

the Westerveld settlement are still exceptional in some respects. They include a clay face mask, roof-tiles and other building materials, many glass vessels, a silver-plated brooch, terracotta figurines, exotic foodstuffs such as chicken, celery, walnut and coriander, and several bronze and iron objects. The majority of these finds concentrate around the *porticus* house although some were found in other parts of the settlement, where large farms are present (fig. 221). Slightly earlier a cluster of large grave monuments is started in the neighbouring cemetery, in which special grave gifts were deposited.

It is clear that a local elite was residing in the Westerveld settlement, probably in the south-western corner, although internal social stratification in the settlement was not always strongly present. Before considering the role of the local elite (see 8.5) I want to concentrate on the smaller settlements. As well as Slofstra, several other authors (for instance Van der Sanden 1987h, 127-129; 1988, 118-119; Fokkens 1993, 45-48) have remarked in similar ways about the social stratification at Oss. However, for several elements the otherwise black-and-white distinction between the Westerveld settlement and the others is can be somewhat differentiated. The fact that the majority, if not all, of the smaller settlements had ditched enclosures too, albeit less impressive ones, was already mentioned. Clearly defined compounds were present at the Zomerhof settlement, where one of the farms may have been larger than the others and situated on a large, central yard. In several cases, exceptional objects were found in the smaller settlements. Examples are a silver-plated bronze bridle fitting found in Schalkskamp, while the Vijver settlement yielded evidence for at least two leather shoes, a gaming counter made of glass paste, several glass vessels, a fragment of a *terra sigillata* plate with *graffito* and possibly a terracotta figurine. The most exceptional find from this settlement is a fragment of an early Italian wine *amphora* (type Dressel 1). From the Zomerhof settlement came a bronze finger-ring with a *nicolo*, a silver *denarius* of Trajan, a silver brooch and a fragment of a leather shoe. At the Horzak site, which could not be categorised due to the lack of house plans, a set of bronze kitchen utensils was found. Even though the Westerveld settlement clearly stands out, the gap between its inhabitants and those of the other, smaller settlements is not extremely large (see Van Es 1994b, 46).

There is considerable variation in the category of small settlements. Even though size and number of houses cannot always be reconstructed with certainty, it is clear that Schalkskamp, Vijver, Zomerhof and Zaltbommelseweg differ in this respect. Schalkskamp consisted of two farms only, or may have even have been a single-compound settlement, while at Zomerhof at least three farms were inhabited at the same time. Internal layout also varies: the Zomerhof settlement is clearly more structured and shows a strict *Platzkonstanz* of the houses, especially compared to the Vijver cluster, which is almost a case of 'unsettled settlement'. Of course, the date of the settlements could account for some of these differences. The find materials in particular reflect the use periods of Schalkskamp (IA), Vijver (I-IIIa) and Zomerhof (Id-IIIa). It is certainly possible to point out the general characteristics and similarities of the small settlements, although the short-lived single-compound settlements would have to be added to the original definition, which would considerably broaden the category. But apart from being 'small' and less romanised than settlements of the larger Westerveld type, each small settlement has its own specific character, and each new occupation cluster will probably be different. If local variation is already this large, a classification of small rural settlements for the whole MDS area is only effective for studies on a very general level. Considering the settlements first of all at a local or micro-regional level does more justice to the subtle differences between the smaller settlements (see Hiddink 1997, 21-22). Indeed, the results of the large-scale excavations at Weert (Roymans 1995a; Roymans/Tol 1996; Roymans/Tol/Hiddink 1998) prove that there are various types of small settlements present in the micro-region, and that the settlement system documented so far is not the same as that in Oss.

8.4 Local group, segmented society?

Although the location of the fields is unknown, it is generally assumed that during the (Late) Iron Age the inhabitants of the shifting farms grew their crops and herded their cattle on communal land (Roymans/Theuws 1999, 13-15). Both communal land and the collective use of one area for burials, possibly combined with an open-air sanctuary that was used by all the farmers from Oss, seem to indicate a notion of community.[9] Despite the seemingly family-bound compounds that show no spatial coherence, the *c.* 50 people living at the edge of the coversand area can be regarded as one local group (Fokkens 1996; Gerritsen in prep.). What happened then to this notion of community during the Roman period, when farms started to be grouped together and settlements were clearly defined by distance and ditches?

The first way of answering this question is by looking again at the factors which exerted a binding influence during the Iron Age: fields, cemetery and sanctuary. Unfortunately, as in the Iron Age, not much can be said about the fields in the Roman period. It is usually assumed that around the start of the Christian era the farmers on the sandy soils changed from Celtic field systems to a more intensive, permanent type of agriculture (Waterbolk 1995, 17). Recently it has been suggested that the change was not that abrupt, and that during the later prehistoric periods the Celtic fields were

already exploited in a different way (Hiddink 1997, 18; 1999). The study of the botanical samples from Oss (Bakels 1994; Van Amen 1995; Bakels et al. 1997) cannot tell us whether yields were larger during the Roman period. It seems that more land was being used, and the occurrence of larger granaries might be an indication for intensified agriculture. However, this could also point to collective harvests for each settlement or even for the whole micro-region. Whether fields were still communal for all settlements is thus uncertain.

As for the cemetery, we have already seen (6.1) that the question of 'who was buried here?' cannot be answered with certainty. So far, only one large cemetery has been found, but it is uncertain whether it contains the dead of one settlement (Westerveld) only, or inhabitants of several settlements. In either case another cemetery or several smaller groups of graves must have been situated elsewhere, and the important communal aspect of the 'co-residing dead' is not as strong as before. It is possible that deceased from each of the settlements were buried in this one cemetery, although in that case some sort of selection would have taken place. One burial ground for several settlements would have knitted them together, even if after AD 50 internal social and spatial ranking became apparent in the burial rites too.

With the re-interpretation of R57 in the Westerveld settlement, we have lost the one local sanctuary that could be dated to the Roman period. Even if this square enclosure was a sanctuary of some kind, the question remains whether it was communal or exclusively used by the inhabitants of the Westerveld settlement. Although situated within the settlement enclosure, rituals performed there could have concerned the whole of the Oss community. Since there are no other indications for a sanctuary at Oss, it is possible that during the Roman period the cult place at Empel or the one near Kessel (see 7.1) was visited by inhabitants from Oss. In that case the sanctuary would have been a binding factor that exceeded the local group.

From the above it can be concluded that in order to find out whether Roman period Oss functioned as one community or was in fact a segmented society, we have to rely on the settlement data. The end of the shifting compounds not only meant that occupation became more permanent, it also caused a clear clustering of farms in different settlements. While each cluster had its own character, the largest differences existed between the Westerveld settlement and the other, smaller settlements. In previous studies the inhabitants of the large settlement, particularly the owners of H78, have been described as an elite family (Slofstra 1991, 149), villa occupants (Van der Sanden 1988, 119), and persons with a higher status, who acted as intermediaries with the Roman state (Van der Sanden 1988, 118). The Westerveld settlement itself was a villa-like complex (Van der Sanden 1988, 119), the house with the *porticus* functioning as a chief's house (Slofstra 1991, 150), or an elite compound (Slofstra 1991, 163).

It seems that these terms and interpretations were somewhat too strong. On a local level they emphasise the social differences, creating an image of a rather heavily segmented society. The emphasis on hierarchy and the search for diversity within the local community, often based on levels of romanisation, echoes a vision in which change is equal to (the pursuit for) increasing complexity.
Especially during the first century AD there was probably still a very present sense of community in the whole micro-region. Although collective land-ownership, a communal cemetery and religious activities cannot be demonstrated, they might well have been partly present (cf. Roymans/Theuws 1999). The settlements were clustered, but they were still small and situated close together. Enclosures marked the limits of each cluster, but the ditches stretch out beyond the settlements, and might even have connected rather than separated them. The stronger ordering of the landscape took place in the whole area, and as such was a collective change. At the same time there was definitely a form of social stratification on the local level. The Westerveld settlement as a whole distinguished itself by an even more ordered layout and the accumulation of certain valued goods, probably through contacts with Roman society. Internal ranking within the large settlement was only present on a low level. In the early phase none of the houses stood out spatially or by means of layout or construction, although early imports clustered in the south-western corner. Since the changes in layout originate in the Late Iron Age, the situation in the first few decades AD seems to be mainly a continuation of the previous period. The prehistoric tribal society at Oss formed one local community, but even if they were not visible in the settlement pattern, local 'men of importance' will have been present. The head of the kingroup, possibly also with religious power, will have formed the top of the social pyramid. Such a person was most likely a farmer, just like his relatives and neighbours, and as such is difficult to detect in the archaeological record. The more permanent houses and the arrival of imported Roman goods made the presence of these chiefs more visible. Even if they became more powerful, it was the stronger need for dividing people and places that emphasised existing social differences. Whether such an important person actually negotiated with the Roman army cannot be proved, but the early presence of Arretine *sigillata* and wine certainly indicates (good) contacts.

After AD 70 social ranking became more apparent. This does not necessarily imply that the gap between the leading man, his family, and the rest of the occupants of Oss became much larger. Although imported goods ended up in the large

settlement, the inhabitants of the smaller clusters acquired Roman goods too, and the length of farms increased all over the area. The supposed chief's residence had a conspicuous layout, but it was still a timber farmhouse in the native tradition, and not a very large one at that. The fact that H78 stood on a large farmyard and was divided from the other inhabitants by a (palisade) ditch is significant, but it is also revealing that this compound was still *within* the settlement.

The larger graves in the cemetery reflect the same combination of status and group membership: the local elite family was still very much part of the community, and distinguished itself by a special place *amongst* the other dead of the settlement (Van der Sanden 1987h, 128-129). Judging by the settlements there was a social upper layer present in the micro-region Oss, but not with a large difference in hierarchy. The basic social structure seems only slightly different from that in the Iron Age, although the outward appearance had certainly changed and existing differences were emphasised.

8.5 The limits of the possible

The conclusion that Roman period Oss was a community with a slight degree of social stratification leads to the discussion of the next issue: what exactly was the role of the local elite, especially with regards to economic organisation? In earlier interpretations it has been suggested that the Westerveld settlement had developed into a villa-like complex, but never managed to reach the final stage (Van der Sanden 1988, 119). The main building of this complex, H78, should have been a more representative structure, but was at most a proto-villa: 'the architectural expression of the status of second-rate native chiefs who were not wealthy enough to build a Roman-style villa' (Slofstra 1991, 163). Although on a local level an elite was clearly recognised, the comparison with real villas elsewhere in the region led several authors to interpret the situation at Oss as a failed attempt. The Westerveld settlement was turned into a 'would-be' villa settlement, whose inhabitants did not manage to reach the level of wealth and romanised status they evidently aimed for. Attention was mainly focused on the things they did *not* achieve, instead of the choices and adaptations the inhabitants could and did make. This is partly a result of the fact that the settlements at Oss have always been studied in the light of a regional or supra-regional overview (Slofstra 1991, 131). In the MDS area and outside it there are several examples of rural settlements that developed into a villa-like complex, such as Hoogeloon (Slofstra 1987), Neerharen-Rekem (De Boe 1982; 1985; 1987) and Rijswijk (Bloemers 1978). Compared to these 'proper' villas with stone buildings, H78 is at most a 'proto-villa', which never developed into the real thing. The question is whether we should interpret the situation at Oss as a stage in the development towards a villa at all.

A villa can be defined in several ways. Either there is emphasis on the (romanised) domestic buildings (Hingley 1989, 21) or the definition is concerned with socio-economic aspects (Rivet 1969, 177; Slofstra 1991, 179). Although H78 may have had a 'romanised' look to it and was set apart on a large farmyard, it is hardly comparable to main stone buildings with bathhouses and wall-paintings. If there are any, the villa aspects of the Westerveld settlement will have to be found mainly in the socio-economic organisation: market-orientated agrarian production and a social organisation in which the inhabitants of the smaller settlements worked for the 'landlord', in this case the local chief (Slofstra 1991, 179-184). However, there are no good indications for a large agrarian surplus or a market-orientated production, nor for the necessary patron-client relations. If this situation was never reached in Oss, it is difficult to demonstrate that what we find is even a kind of halfway stage. The fact that the rural elite at Oss tried to set up a villa-like system is often assumed, and interpretations have concentrated on why they did *not* succeed.

According to Slofstra (1991, 184) the villa stage was never achieved due to economic and political restrictions, such as its great distance from the urban market, undeveloped infrastructure and the low potential of the sandy soil. When urban culture finally came within reach near the end of the first century AD, it was too late for the native 'elite' to make the change. Only a closer contact with the Roman way of life, for instance through military service in the auxiliaries, combined with a strong regional power position, could have made the change-over and the upkeep of a villa possible. Some of these restricting factors were definitely at work in the case of Oss. The sandy soil had a limited economic potential, and the power of the lineage heads of Oss did not seem to exceed the local level. Especially in the pre-Flavian period the contacts with towns would have been sparse. On the other hand Nijmegen was not that far away and the infrastructure, especially with the river Meuse close at hand, was reasonable. Even if there is no military diploma to prove it, it is likely that at least some of the inhabitants of the Westerveld settlement joined the Roman auxiliaries, and the early imports suggest contacts with the military as well. Although the imported goods are not abundant, some of them are quite exceptional for a rural settlement at this early stage in the Roman period.[10] It seems that conditions were good at least at the start of the first century, but when H78 was built the fast increase of wealth was already coming to a halt.

Recently, Roymans (1995c; 1996b) has suggested a new approach that also concentrates on the reasons why a villa-system did *not* emerge in the Lower Rhine area. Instead of assuming that it was the ultimate goal, the argument focuses on the fact that the concept of a villa was not accepted for

ideological reasons, even if it would have been economically possible. The highly valued martial ideals made the native inhabitants of the area prefer an agricultural system in which cattle was much more important than arable farming. Even without good faunal material an emphasis on stock breeding seems likely for Oss. The wetter areas towards the Meuse would provide good grazing ground, and the farms all have large byre sections. When the size of the farms increases, this could reflect the significance of (the possession of) cattle. On the other hand there are several large granaries or *horrea*, suggesting increased crop production. The *porticus* house itself seems too small to have a byre section, and a large granary is situated in the same compound. One of the few finds that can be interpreted as a ritual deposit is a complete rotary quern at another farm, which seems to attribute significance to grain/arable farming rather than cattle. Can H78 be regarded as the expression of a martially orientated farmer's elite? If that was the case the inhabitants of Oss attributed little ideological value to their houses in this respect, but instead may have put more effort into worshipping Hercules Magusanus at the sanctuary at Empel.

The prevailing explanations for the lack of a villa system and a more Romanised settlement leave two options, both based on different assumptions. The first one suggests that a Roman-style villa, in the economic as well as the cultural sense, was something that the elite inhabitants of Oss strove to accomplish. The dependency relations necessary for such a system were present (Slofstra 1991,185-186), agriculture was intensified as much as possible, and the chief had even built a house with some villa features. However, the development came to a halt there because of economic and political restraints. This could be characterised as 'they wanted to, but could not'. In the second option the lineage head of Oss and his tribe attributed a great significance to cattle and horses. A villa economy based on the products of arable farming was something that did not fit into the system of ideas and values and was thus not desired. Simplified, this suggests that 'even if they could, they did not want to'.

In simplifying these two approaches, I have mixed the economic ('to be able to') and the ideological ('to want to') views on what a villa comprises. It was probably always a question of the environment allowing for a certain way of life, being able to afford it and at the same time striving for a certain cultural ideal. The recent studies by Roymans and Derks especially have certainly taken all this into account. In a wider pattern, they have proved that Oss fits the pattern of the 'non-villa-landscape' of the Lower Rhine Area. But the assumption that this development is partly based on martial elite ideals is less clear on a local level. For the inhabitants of Oss, a villa was probably not something that was aimed for at all cost, but neither something that was consciously rejected as a whole. What we see is a situation where some elements of the villa system, economic as well as cultural, have been adopted and transformed into a locally specific form. Farms were larger, which implies more cattle, and the fields may have yielded more crops. There must have been some sort of central socio-economic organisation, involving the local elite, but instead of working as peasants for the landlord, the inhabitants of the smaller settlements may have helped to work communal fields. Part of the crop could have been sold or traded at regional markets, which would have generated a flow of imported Roman goods. More direct contacts with the Roman world would have existed between the local chief and Roman soldiers or other inhabitants of rural centres or of Nijmegen. Especially during the early first century AD these contacts were frequent, and focused on drinking rituals. It is possible that some of these pre-Flavian meetings took place with the Batavians.

The local leader, or perhaps other inhabitants who had joined the auxiliaries, gradually and consciously picked up some taste for Roman culture. This could have manifested itself in changes in food (Bakels/Wesselingh/Van Amen 1997), clothing, maybe even speech, grave ritual, and ultimately a building such as H78. All these changes were on the outside though: basically the social structure and most of the habits stayed 'native' in character: a timber farm with a *porticus*, a dish of beans flavoured with coriander, a communal cemetery with larger graves on the edge. On the economic level limits might have been reached, but that does not mean that there was a wish for a more romanised situation. One could say that 'they could not, but nor did they want to'. This is a balanced solution in which the native population does not have a Roman villa as its highest ideal, nor do they reject Roman culture completely. Instead of interpreting the settlement pattern as a failed attempt for more, it should be seen as a consciously created situation, in which native values and habits were mixed with newly adopted and transformed Roman cultural elements, all within the limits of possibility.

The rapid decline of all occupation at Oss from AD 125 onwards is more significant than the fact that a true villa never emerged. It seems that around AD 100 the steady development towards larger farms and larger structured settlements was already coming to a halt. Only in Zomerhof was there a slightly longer prosperous phase, but around the beginning of the third century AD occupation was definitely over. Perhaps conditions became less favourable when the sandy soil prevented larger crops and the market shrunk as a result of the departure of the Tenth Legion from Nijmegen. The number of inhabitants may have declined, but it will not have caused a complete wipe-out. It is possible that the farmers left the Maaskant area and occupied rural settlements elsewhere, or went to work for a villa-owner in a different area. The local elite may have left the Westerveld settlement

earlier, and exchanged rural settlement for the town, thus widening the gap and effectively breaking the bonds between themselves and the rest of the community. Although moving may have been a conscious choice, economic and political reasons must have played an important part in the decision to leave the area in which this community had been living for almost a thousand years. Farming was no longer very profitable, and the political unrest towards the end of the second century AD may have speeded up their departure. Was leaving a sign that the strong local community had fallen apart? In that case the bond between a group of originally native families, close kin and close neighbours at the start of the Christian era, had diminished to such an extent that those who were left chose not to remain in the area inhabited by their ancestors. On the other hand, if the farmers chose to leave as a group, they may have kept their group identity but forsook the bond with the Oss region.

The study of the settlement data showed that the social structure of Oss in the Roman period is characterised by a local elite, and that structuring of space and place plays an important role. Both elements are increasingly present in the first century AD, and weaken after AD 100. So what about romanisation? To what extent can the observed socio-cultural changes be attributed to the integration of the community at Oss into the Roman Empire? Although there are certainly differences between Iron Age and Roman period Oss, most of the changes observed were actually Late Iron Age phenomena that continued after the settlements became part of the Roman Empire. Some form of social stratification was probably present in the Late Iron Age, as was the start of a development towards a more structured and organised type of settlement on all levels. The underlying values were there before the Romans, and they remained in essence unaltered. But incorporation into the Empire and contacts with a new culture increased the number of ways in which native values could be expressed and structured. Thus, romanisation did play a role, in that Roman culture accelerated the indigenous socio-cultural process, and enlarged its (archaeological) visibility. The eventual decrease of both social stratification and structured space could have been a more direct result of the new situation, but the end is less clear than the beginning.

Although incorporation into the Roman Empire is the driving force behind romanisation, the farmers at Oss probably did not undergo a lot of truly Italian-Roman influence. There may have been some military contacts at the start of the first century AD, when wine and pottery from Italy came into the Westerveld settlement, and obviously those men that joined the auxiliaries had a taste of Italian culture. But most of the later imported wares came from Gaul or Germania, and a term like 'gallicisation' (Jundi/Hill 1998, 134) might be more appropriate to describe the process. More impact may have come from yet another source of 'Roman' culture: the Batavians. Although there are no direct indications for Batavian presence or influence at Oss, it is thought that these elite warriors quickly expanded their client-network between 50 BC and AD 69 (Roymans 1998b, 24). Oss was close to the Batavian core area, and this is the period during which the socio-cultural changes at Oss are most apparent. Further research into the Batavian core region and comparisons with other rural settlements close by may throw more light on the exact nature of the Batavian influence.[11] After the revolt in AD 69 things changed for the Batavians and in the long run this may have had its (negative) effects on the developments at Oss. 'Batavisation', as a local variation of the influence of Roman culture, played a role in the socio-cultural process.

Considering this, it is interesting to note that underneath the changes the native character of the community at Oss was being kept intact. New Roman elements were added, but these were literally on the outside. Roman flavourings were added to the menu, but the main part of the daily diet continued to consist of the traditional cereals and meats (Bakels/Wesselingh/Van Amen 1997). A Roman-style *porticus* and roof-tiles adorned a house, but on the inside it was a timber farm of a type that had been built for decades[12] The same effect could have been produced with elements of dress and speech. This selective choice and transformation of Roman elements was not unknown to the Batavians themselves, and may have been influenced by contact with them.

Regardless of whether the appreciation of indigenous identity was native or native-Batavian, it does not mean that the Roman additions to native culture can be ignored. Even if they were superficial, they certainly changed the look, taste and smell of food, the appearance of buildings and, most importantly, of individuals. The public impact of these new aspects contained a message of a changed identity meant for fellow-inhabitants, neighbours and people from outside the settlement. It is exactly the combination of a native identity strengthened by new, well-chosen and transformed Roman elements that must have made it a message well worth deciphering.

notes

1 Although during the transition from Late Bronze Age to Early Iron Age farmyards that had been abandoned for several decades were built over again.

2 A more detailed description of this so-called 'Alphen-Ekeren type' can be found in Slofstra 1991 (137-139). Other characteristics include two aisles, an average width of 6-7 m and a length of 12-20 m. Schinkel describes this as Oss-Ussen type 8 (see 1.3.3 and Schinkel 1994, part II, 5), which has two aisles, a foundation ditch and external posts.

3 It must be noted that some (fragmented) Roman material was found in the features of this houseplan, which was at the time seen as a residual intrusion (hence it is not documented in Schinkel 1994/1998). Combined with the fact that house plans are structurally dated too early (see 1.3.2) a later date for H81 cannot be precluded.

4 Cf. Haselgrove's conclusions on southern Picardy: 'indigenous developments during the Late Iron Age were far more significant than Mediterranean contacts in providing a base on which Roman institutions could later flourish' (1996, 178).

5 An example of such a strong underlying concept is warrior's valour and hospitality during the Late Iron Age in Western Europe (Diepeveen-Jansen 1998) and the pastoral ideology combined with martiality in Northern Gaul during the Iron Age and the Roman period (Roymans 1993; 1996b).

6 Since 1991, publications and excavations have also produced new data on other parts of the MDS area, while at the same time the theoretical insights have been changing. The consequences of these developments for the study of the settlement patterns in the whole of the MDS area are subject of a study with a wider scope (Hiddink 1997; in prep.).

7 Vermeulen (1992, 185) reaches the same conclusion when he tries to define the different types of rural settlement in the sandy western part of Flanders. He distinguishes two basic kinds of settlement; 'large grouped settlements' on the one hand, and 'single farms or small grouped settlements' on the other hand. Villas do not occur in this area. Enclosures (without any indication for a defensive function) are a common feature of both the smaller and the larger settlements. In Vermeulen's definition however, there is no visible social differentiation in any of these settlements.

8 The original depth of F125 (Westerveld) was 110 cm, the Schalkskamp and Zomerhof enclosure ditches had an original depth of 60 and 70 cm respectively (Raemaekers 1993).

9 Urnfields are often interpreted as truly communal burial grounds (Roymans/Theuws 1999, 14/15; Roymans/Kortlang 1999, 40-42), but for Iron Age Oss that term is difficult to apply. Instead of a clearly clustered group of graves we see several smaller clusters, which are scattered through the landscape (Van der Sanden 1994). However, during the Late Iron Age these burials are all situated in roughly the same area. Although no sanctuary could be dated to the Late Iron Age with certainty, a continuous tradition from the Middle Iron Age, when such cult places were present, is suggested (Slofstra/Van der Sanden 1987).

10 An interesting exercise would be a comparison with the wheel-thrown pottery from rural settlements (in the region) that did develop into villas. Unfortunately the pottery from the Hoogeloon settlement has not been published yet. Riethoven - de Heesmortel is an enclosed settlement from the Kempen area that does not develop into a villa. The wheel-thrown pottery shows imported pottery in the late Augustean/early Tiberian period, but the total amount of South-Gallic *sigillata* is low (Vossen 1997). This could point to early military influence/contacts (pers. comm. H. van Enckevort).

11 Recently a number of settlements and cemeteries have been excavated that can reveal more about Batavian culture, including Tiel (Kortlang/Stafleu 1998) and Oosterhout (Gelderland) (Haarhuis 1996; Van den Broeke 1999). Research into this aspect is in progress (Roymans 1998a).

12 Cf. Woolf (1995, 13) on the formative period of Roman provincial cultures: '...outsides of rural residences often conformed to Roman taste more than did the insides'.

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appendix

Pottery (percentages) from each structure of the Westerveld settlement. 1. *terra sigillata*, 2. fine ware, 3. Belgic ware, 4. cork urn, 5. colour-coated ware, 6. smooth-walled pottery, 7. *mortaria*, 8. *dolia*, 9. *amphorae*, 10. *Waaslands*, 11. coarse ware, 12. grey ware, 13. handmade pottery, 14. indeterminable.

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	total number of sherds
H69	-	-	-	-	-	3	-	-	6	-	-	-	92	-	36
H70	3	-	8	-	-	5	-	2	3	-	2	7	70	-	60
H71	2	-	2	2	-	4	-	3	-	-	3	-	85	-	110
H72a	-	-	3	-	1	14	-	1	-	-	1	1	78	-	72
H72b	4	-	4	-	-	4	-	-	4	-	13	-	70	-	23
H74	+	-	2	2	-	3	-	1	-	+	+	1	91	-	1080
H75	1	-	2	-	+	6	-	+	+	-	2	1	87	-	215
H76	-	-	-	-	-	-	-	-	-	-	-	-	100	-	52
H78	2	-	4	1	2	7	+	5	4	-	5	9	61	-	712
H79	7	-	-	-	-	-	-	7	-	-	-	7	80	-	15
H80	-	-	-	-	-	1	-	-	+	-	-	-	99	-	235
H82	1	-	-	-	-	1	-	-	-	-	1	-	96	-	84
H84	-	-	-	-	-	5	-	5	5	5	-	10	71	-	21
H85	-	-	-	-	-	7	-	-	-	7	-	-	86	-	14
H90	-	-	2	-	-	8	2	2	-	2	3	5	79	-	66
H94	-	-	-	-	-	-	-	3	6	-	6	-	84	-	32
H95	-	-	-	-	-	-	-	-	-	-	3	-	97	-	30
H96	-	-	1	1	-	1	-	-	-	-	3	1	94	-	170
H98	-	-	1	1	-	4	-	1	1	-	1	1	90	-	753
H99	-	-	2	1	1	-	1	1	1	-	2	1	92	-	132
H101	-	-	-	3	-	-	-	3	5	-	5	5	80	-	40
H104a	-	-	5	-	1	7	-	-	4	1	8	14	60	-	146
H104b	-	-	7	-	1	4	-	1	11	-	7	8	61	-	84
H105	3	-	1	-	-	2	-	-	29	-	1	3	62	-	156
H106	-	-	-	1	-	1	-	1	-	-	3	1	93	-	147
H108	-	-	-	-	-	-	-	-	-	-	-	1	99	-	82
H109	-	-	1	-	-	1	-	-	-	-	1	2	96	-	151
H110	-	-	-	-	-	2	-	-	2	-	4	5	87	1	189
H111	-	-	9	-	-	3	-	-	13	-	3	6	66	-	32
H115	-	-	-	1	-	1	-	5	1	-	-	3	88	-	74
H116	-	-	3	-	-	3	-	2	-	-	-	3	89	-	66
H117	1	-	-	-	-	-	-	-	1	-	-	1	97	-	105
H118	1	-	7	-	5	4	-	3	-	-	1	8	71	-	75
H119	-	-	-	-	1	5	-	-	-	-	8	6	80	-	87
H120	-	-	2	-	-	2	-	1	-	1	2	6	84	-	82
H121	-	-	-	-	-	7	-	-	-	-	13	13	67	-	15
B8	-	-	-	-	8	-	-	-	-	-	-	-	92	-	12

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	total number of sherds
B10	-	-	-	-	-	-	-	-	-	-	-	-	100	-	19
B11	-	-	-	-	-	14	-	-	-	-	14	29	43	-	7
B12	-	-	7	-	-	13	-	-	-	-	-	-	80	-	15
S309	-	-	-	-	-	-	-	-	-	-	-	-	100	-	23
S314	-	-	-	-	-	-	-	-	-	-	14	14	71	-	7
S315	-	-	-	-	-	25	-	13	-	-	-	-	63	-	8
S320	3	-	-	-	-	-	-	-	-	-	-	-	97	-	39
S321	9	-	9	-	-	9	-	-	-	-	-	-	73	-	11
S322	-	-	17	-	-	-	-	-	-	-	17	17	50	-	6
S323	-	-	-	-	-	-	-	-	-	-	-	100	-	-	1
S334	-	-	-	-	-	100	-	-	-	-	-	-	-	-	1
S336	3	-	-	-	-	-	-	3	-	-	3	-	92	-	36
S356	-	-	-	-	-	-	-	-	-	-	-	100	-	-	1
S409	-	-	-	-	-	-	-	-	-	-	-	50	50	-	2
S416	-	-	-	-	-	100	-	-	-	-	-	-	-	-	1
S419	-	-	-	-	-	-	-	-	-	-	-	-	100	-	7
S436	-	-	-	-	-	-	-	-	-	-	-	17	83	-	6
S437	-	-	-	-	-	-	-	-	-	-	-	-	100	-	1
S459	-	-	20	20	-	-	-	-	-	-	20	-	40	-	5
S463	-	-	-	-	-	-	-	-	-	-	-	-	100	-	6
S464	-	-	-	-	18	9	-	-	9	-	9	-	55	-	11
P210	5	-	7	-	2	7	-	7	-	-	17	15	39	-	41
P213	-	-	-	-	-	50	-	-	50	-	-	-	-	-	2
P231	-	-	-	-	-	-	-	25	-	-	75	-	-	-	4
P233	-	-	-	-	-	11	-	-	-	-	16	-	74	-	19
P234	-	-	1	-	-	14	-	3	5	-	3	4	70	-	74
P235	3	-	9	7	-	10	9	5	-	-	-	-	57	-	58
P237	-	-	3	-	14	8	11	3	-	-	5	35	22	-	37
P238	-	-	11	-	-	6	-	-	-	-	-	-	83	-	18
P239	13	-	6	-	-	-	-	-	19	-	6	-	56	-	16
P240	-	-	13	-	1	7	-	2	-	-	1	13	63	-	86
P243	2	-	13	-	3	15	5	4	14	1	16	11	16	1	160
P246	1	-	4	-	1	7	+	19	6	-	7	5	49	-	255
P247	-	-	8	-	-	-	-	15	8	-	-	15	54	-	13
P249	2	-	2	+	4	8	3	6	9	+	11	34	20	+	503
P253	1	-	4	1	1	10	+	2	2	+	6	2	70	+	851
P254	2	3	3	2	-	1	-	-	2	-	2	1	84	-	123
P255	2	-	3	-	1	12	-	5	6	-	5	11	54	-	145
P256	+	-	3	1	+	+	-	-	+	-	+	-	95	-	394
P258	2	-	-	-	19	5	-	12	5	-	5	16	37	-	43
P259	3	-	5	-	-	8	2	8	11	5	12	15	33	-	66
P260	-	-	2	-	-	4	-	-	2	-	-	2	90	-	52
P263	-	-	1	3	-	3	-	1	-	-	-	-	93	-	107
P264	-	-	-	-	-	3	-	3	6	-	-	3	85	-	34
P265	-	-	1	-	-	14	-	-	1	-	10	20	54	-	80
P266	6	-	-	-	-	3	-	9	-	-	3	3	77	-	35
P268	10	-	4	-	2	6	-	8	4	-	8	36	22	-	50
P269	-	-	6	-	-	6	2	11	6	2	13	24	31	-	54
P270	4	-	4	-	4	8	12	16	-	-	36	8	8	-	25
P272	1	-	3	+	1	10	3	3	2	+	2	10	62	1	742
P288	3	-	-	3	-	8	-	13	3	-	-	5	67	-	39
P289	-	-	2	-	-	5	-	-	2	-	2	2	86	-	42
P290	-	-	-	-	-	-	-	-	-	-	-	-	100	-	2

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	total number of sherds
P292	1	-	2	-	3	3	+	1	6	1	2	25	55	-	405
P294	1	-	+	-	-	1	+	2	+	-	1	2	94	-	381
P296	-	-	2	-	-	8	-	3	3	-	3	2	78	-	60
P297	-	-	-	-	-	-	-	28	-	-	6	-	67	-	18
P300	-	-	2	1	1	2	-	1	-	-	3	-	89	-	88
P302	-	-	-	50	-	50	-	-	-	-	-	-	-	-	2
P303	4	-	3	-	3	12	-	-	-	-	8	30	41	-	74
P304	12	-	-	-	-	-	-	2	12	-	-	17	56	-	41
P305	1	-	5	1	2	1	-	1	1	-	6	23	59	-	158
P306	-	-	11	-	-	-	-	6	11	-	33	39	-	-	18
P306a	-	-	-	-	-	-	-	-	-	-	-	-	100	-	155
P306a/b	13	-	11	-	2	28	-	9	6	-	21	2	-	9	47
P306b	-	-	-	-	-	-	-	-	-	-	-	-	100	-	150
P307	3	-	3	-	3	8	2	2	5	2	8	30	34	+	795
P308	1	-	4	-	+	11	1	1	6	-	9	19	46	-	480
P309	-	3	-	-	-	-	-	12	36	-	6	-	42	-	33
P310	-	-	-	-	-	-	-	14	-	-	-	14	71	-	7
P313	2	-	11	-	-	2	-	7	-	11	7	9	51	-	45
P314	+	-	1	2	-	1	-	+	1	-	1	2	91	-	404
P315	5	-	-	-	-	-	5	-	-	-	-	9	82	-	22
P316	-	-	-	-	-	-	-	22	11	-	-	-	67	-	9
P317	3	-	-	3	-	-	-	-	-	-	12	-	82	-	34
P318	4	-	6	-	5	13	3	9	10	4	16	31	-	-	620
P318a	6	-	8	-	2	8	4	8	4	-	21	23	19	-	53
P318b	4	-	8	-	2	4	4		6	-	16	44	12	-	50
P319	5	-	3	+	5	14	1	10	7	1	10	15	28	+	228
P321	-	-	-	-	-	-	-	-	40	-	-	60	-	-	5
P323a	-	-	-	-	-	-	-	-	-	-	-	-	100	-	142
P323abc	-	-	-	-	-	25	-	-	-	-	50	25	-	-	4
P323b	-	-	17	-	-	17	-	-	50	-	17	-	-	-	6
P324a	6	-	12	-	6	-	-	-	-	-	29	29	18	-	17
P324a/b	-	-	7	-	7	-	-	14	14	-	29	29	-	-	14
P324b	-	-	3	-	-	-	-	-	-	-	6	-	79	12	34
P326	-	-	15	-	-	-	-	-	-	-	8	31	46	-	13
P327	-	-	2	-	-	4	-	2	-	-	-	30	62	-	50
P329	3	-	3	+	3	9	1	3	2	-	8	15	53	-	482
P330	5	-	1	-	2	10	2	9	7	+	15	31	18	-	257
P331	-	-	-	-	-	-	-	-	-	-	-	-	100	-	8
P332a	-	-	-	-	-	12	-	8	8	-	4	4	64	-	25
P334	1	-	5	-	2	6	-	4	2	1	3	14	63	-	130
P335	-	-	-	-	-	2	-	-	-	-	-	-	98	-	54
P336	-	-	-	-	-	-	-	2	2	-	1	1	95	-	120
P337	-	-	-	2	-	5	-	-	-	-	-	-	93	-	55
P338	6	-	-	-	-	14	-	-	-	-	4	10	66	-	50
P339	-	-	4	-	-	4	1	1	10	-	8	14	58	1	159
P340	-	-	2	-	-	2	-	-	2	-	-	2	92	-	49
P342	-	-	-	-	-	18	-	-	-	-	-	9	73	-	11
P343	-	-	-	-	-	-	-	-	-	-	-	-	100	-	32
P345	2	-	2	-	-	-	-	3	-	-	2	2	90	-	58
P346	1	-	-	-	1	10	-	-	5	-	13	26	44	-	78
P347	7	-	7	-	3	7	3	-	10	-	23	13	27	-	30
P348	-	-	-	-	-	-	-	-	-	-	-	-	100	-	6
P349	-	-	-	-	-	-	-	21	-	-	7	-	71	-	14

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	total number of sherds
P369	-	-	9	-	-	-	9	-	-	-	-	9	73	-	11
P370	-	-	11	-	-	-	-	-	-	-	-	-	89	-	18
P372a	-	-	-	-	-	-	-	-	-	-	-	-	100	-	20
P372a/b	5	-	9	-	1	26	6	16	5	-	7	22	-	2	215
P372b	-	-	-	-	-	-	-	-	-	-	-	-	100	-	5
P374	4	-	-	-	3	4	-	6	8	-	4	18	52	-	121
P375	-	-	4	1	+	19	-	12	3	-	3	7	52	+	223
P378	-	-	-	-	-	-	-	50	-	-	-	-	50	-	4
P379	-	-	-	-	-	20	-	-	-	-	-	20	60	-	5
P383	9	-	6	-	3	9	3	9	3	-	3	26	29	-	34
P392	1	-	3	-	-	4	-	2	3	-	14	6	67	-	96
P393	-	-	5	-	-	-	-	-	30	-	-	-	65	-	20
P394	1	-	11	-	-	2	-	1	2	-	14	34	35	-	134
P395	4	-	-	-	-	-	-	11	-	-	11	4	70	-	27
P396	-	-	-	-	-	11	-	9	-	-	7	11	63	-	46
P401	-	-	-	-	-	-	-	-	-	-	20	-	80	-	5
P402	-	-	-	-	-	3	-	-	-	-	3	-	95	-	38
P403	-	-	-	-	-	-	-	-	-	-	-	-	100	-	11
P407	3	-	4	-	3	7	1	2	29	3	18	24	6	1	194
P408	3	-	5	-	3	16	1	2	17	5	19	24	4	1	351
P409	4	-	-	-	36	4	-	-	4	-	4	12	36	-	25
P410	3	-	3	-	-	5	3	5	-	-	3	38	41	-	39
P411	-	-	6	-	-	3	-	3	-	-	-	-	88	-	33
P412	-	-	6	-	-	6	-	3	8	-	5	17	56	-	66
P413	-	-	4	-	1	2	-	2	2	-	6	20	62	-	81
P414	-	-	-	-	-	-	-	-	-	-	-	-	100	-	9
P415	4	-	2	-	3	6	+	6	7	1	9	22	39	+	216
P416	2	-	1	-	1	10	6	3	3	12	10	41	10	-	147
P417	3	-	1	1	2	11	-	2	10	2	15	42	13	-	189
P418	-	-	-	-	-	-	-	20	60	-	20	-	-	-	5
P419	1	-	15	-	+	5	-	4	4	-	4	6	59	-	202
P420	-	-	-	-	-	11	-	11	-	-	-	22	56	-	9
P422	1	1	5	-	6	11	+	3	7	-	19	15	33	-	232
P424	2	-	-	-	-	10	-	12	12	-	-	4	60	-	50
P429	11	-	6	-	-	6	-	11	-	-	6	-	61	-	18
P430	-	-	-	-	-	50	-	-	-	-	-	-	50	-	2
P431	1	-	1	-	2	4	-	3	9	-	6	22	51	-	218
P449	-	-	-	-	-	-	-	-	-	-	-	-	100	-	1
P466	1	-	3	+	1	10	6	7	5	1	9	24	33	-	762
P467	-	-	-	-	-	-	-	-	-	-	-	-	100	-	10
P475	-	-	2	-	-	3	2	4	7	-	+	10	71	-	212
P477	-	-	-	-	-	6	-	-	-	-	-	-	94	-	16
P479	-	-	15	-	-	-	-	-	-	-	-	8	77	-	13
P480	-	-	-	-	-	6	-	2	-	-	4	2	86	-	51
P484	-	-	-	-	-	10	-	-	10	-	-	19	62	-	21
P485	3	-	-	-	-	5	-	3	-	-	5	44	41	-	39
P486	-	-	-	-	12	18	-	6	12	6	18	18	12	-	17
P488	5	-	5	-	1	7	7	14	6	1	7	16	30	1	347
P494	-	-	-	-	-	-	-	-	-	-	-	-	100	-	34
P501	-	-	-	-	7	-	-	-	-	-	14	-	79	-	14
F 44	-	-	17	-	17	17	-	-	17	-	-	33	-	-	6
F87	-	-	-	-	-	13	-	3	-	-	-	3	81	-	31
F88	-	-	3	3	3	7	3	3	7	-	10	3	57	-	30

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	total number of sherds
F91	-	-	-	-	-	-	-	-	-	-	-	-	100	-	1
F95	-	-	-	-	-	-	-	-	-	-	9	18	73	-	11
F96	1	-	3	-	-	4	3	4	7	1	8	46	22	-	98
F99	-	-	-	-	-	8	-	-	4	-	-	8	80	-	25
F117a	-	-	-	-	-	-	-	-	-	-	5	-	95	-	20
F117b	-	-	-	-	-	-	-	-	-	-	-	-	100	-	12
F117c	2	-	-	-	-	2	5	10	2	-	-	12	66	-	41
F117d	1	-	5	-	-	4	+	5	1	+	2	6	76	-	256
F117e	-	-	4	-	-	-	-	4	4	-	4	19	67	-	27
F118	-	-	-	-	-	-	-	-	-	-	-	-	100	-	4
F119	3	-	5	-	-	8	3	3	13	-	-	10	56	-	39
F120	2	-	4	2	-	15	-	7	9	-	15	13	35	-	55
F121	1	-	3	1	2	14	1	5	10	-	16	16	32	-	147
F124	-	-	-	-	8	-	21	-	4	-	-	4	63	-	24
F125	+	-	3	2	+	4	1	5	5	-	1	1	77	-	2410
F126	+	+	2	+	1	3	1	2	7	+	3	11	70	-	1621
F127a	-	-	-	-	-	-	3	3	3	-	15	3	73	-	33
F127b	-	-	-	-	-	-	-	-	-	-	-	20	80	-	5
F128	-	-	-	-	-	-	-	-	-	-	-	-	100	-	11
F129	-	-	-	-	-	-	-	-	20	-	-	-	80	-	5
F130	1	-	-	-	-	1	-	2	12	-	2	2	80	-	127
F131	-	-	-	-	-	-	-	11	11	-	-	-	78	-	9
F132	-	-	-	-	-	-	-	-	-	-	-	-	100	-	36
F133	-	-	-	-	-	1	1	-	4	-	1	1	91	-	93
F134	10	-	-	-	-	-	-	-	-	-	-	-	90	-	10
F135	-	-	-	-	-	-	-	-	-	-	-	-	100	-	2
R57	1	-	2	-	-	3	1	3	2	-	1	5	83	-	320
total %	1	+	3	+	1	6	1	4	5	+	5	11	62	+	26,283 = 100%

samenvatting

Boeren als buren. Lokaal nederzettingssysteem en sociale structuur in de Romeinse tijd in Oss (Nederland).

Inleiding: langlopend en grootschalig

Vanaf de bronstijd en mogelijk al eerder woonden er mensen in Oss en omgeving. Ze bouwden huizen, bewerkten akkers, lieten hun vee grazen en begroeven hun doden. Ze eerden voorvaders en goden en onderhielden contacten met mensen uit andere streken. Ergens rond het midden van de eerste eeuw voor Christus bereikte het Romeinse leger het gebied ten zuiden van de Rijn. Vanaf dat moment (officieel vanaf 15 voor Christus) leefden de Osse boeren in wat wij de Romeinse tijd noemen. Na 47 na Christus maakte hun woonplaats deel uit van het Romeinse rijk. Dit proefschrift handelt over het nederzettingssysteem in Oss in de Romeinse tijd. Vragen over de wijzigingen ten opzichte van de late ijzertijd, over de sociale structuur en over Romeinse invloeden worden beantwoord door onderzoek naar de ontwikkeling van vier inheemse nederzettingen (hoofdstuk 2-5), opgegraven door de Leidse Universiteit tussen 1976 en 1992. Het beeld van Oss kan worden aangevuld met een grafveld, andere nederzettingen en elementen buiten de nederzettingsterreinen (hoofdstuk 6). Vervolgens wordt Oss bezien in een bredere context; de Maaskant regio, en tegen de achtergrond van de gebeurtenissen in de Romeinse tijd in een groter gebied (hoofdstuk 7). Op basis van deze data volgt een analyse van het nederzettingssysteem en de lokale gemeenschap (hoofdstuk 8).

De Provinciaal-Romeinse archeologie in Nederland laat een ontwikkeling zien van traditioneel *limes*-onderzoek naar grootschalige nederzettingsarcheologie met aandacht voor romanisering, lange-termijn processen en het culturele landschap. Meer recent is daar de belangstelling voor ideeën en waarden bijgekomen. De vraagstelling achter en de theoretische benadering van het langlopende Osse nederzettingsonderzoek zijn min of meer meegegroeid met deze ontwikkeling en ook het wisselen van de wetenschappelijke leiding heeft het project beïnvloed. Voor zover die dichotomie in Nederland al bestond lag de oorspronkelijke vraagstelling van deze studie (aan het begin van de jaren negentig) ergens tussen processuele en contextuele paradigma's. In de loop van het onderzoek zijn daar elementen uit de landschapsarcheologie en de recente 'interpretatieve' archeologie bijgekomen.

Twee elementen verdienen apart de aandacht voordat de verschillende bewoningsclusters kunnen worden geanalyseerd: de chronologie en de definitie van het begrip 'nederzetting'. Het belangrijkste dateringsinstrument is het aardewerk. Daarbij doet zich het probleem voor dat handgemaakt aardewerk uit de (vroege) Romeinse tijd moeilijk te onderscheiden valt van handgemaakte waar uit de (late) ijzertijd. Sporen of structuren die handgemaakt aardewerk en ook enkele scherven van gedraaid (Romeins) vaatwerk bevatten zijn vaak gedateerd op basis van de Romeinse vondsten. Een gevolg daarvan is dat een onbekend aantal structuren onterecht (te laat) in de Romeinse tijd is geplaatst. De laatste fase van de late ijzertijd lijkt daarom letterlijk 'spoorloos' en zorgt voor het bekende beeld van het gat van de (tweede helft van de) eerste eeuw voor Christus. Een ander dateringsprobleem wordt veroorzaakt door post-depositionele processen. Waterputten, kuilen en greppels lagen langer open en bevatten daarom vaak ook later materiaal dat na de gebruiksfase in zo'n spoor eindigde, terwijl paalgaten bij het graven ervan juist vervuild konden raken met rondslingerend materiaal uit eerdere fasen (opspit). Met name dit laatste lijkt in Oss een grote rol te spelen, waardoor de op vondstmateriaal gebaseerde dateringen van gebouwen bijna structureel 25 tot 50 jaar te vroeg uitvallen. Beide dateringsproblemen leiden tot een scheef beeld van de chronologie en gebruiksduur van een nederzetting. Boerderijen met alleen handgemaakt aardewerk eindigen in de late ijzertijd, maar enkele scherven gedraaid aardwerk kunnen ervoor zorgen dat de datering juist weer te laat in de Romeinse tijd wordt gezocht. Het begin van een nederzetting valt op deze manier moeilijk vast te stellen, terwijl ook de laatste fase weer 'gebouwloos' lijkt te zijn, omdat de boerderijen feitelijk een generatie te vroeg worden gedateerd. Een (globale) her-analyse van het Romeinse aardewerk heeft slechts ten dele bijgedragen aan het oplossen van dit probleem.

Juist voor de discussie over 'zwervende erven' en plaatsvaste boerderijen is het van belang de term 'nederzetting' en de verschillende bijbehorende elementen (ruimtelijk) goed te definiëren. De term 'erf'

(*compound/farmyard*) beschrijft een groep structuren die samen een enkel (familie)boerenbedrijf vormen. Dat behelst woonhuis, bijgebouwen, afgescheiden ruimtes voor dieren, opslaggebouwen, open (werk)ruimtes, kuilen en waterputten, inclusief de greppels en hekken die de begrenzing van het erf aangeven. Een nederzetting (*settlement*) kan bestaan uit één enkel geïsoleerd erf of een duidelijke cluster van enkele erven. Van een duidelijke cluster is sprake wanneer de afstand tussen de erven niet groter is dan 150 meter (de afstand waarover je je buren nog kunt roepen). Niet te verwarren met deze nederzettings*vorm* (enkel erf of geclusterde erven) is het nederzettings*patroon*. In één regio kunnen verschillende nederzettingen en dus ook nederzettingsvormen naast elkaar bestaan en samen een patroon vormen. Dat is vaak een mix tussen clusters van nederzettingen en een meer gespreid patroon. De 'zwervende erven' uit de ijzertijd vormen volgens deze definitie een gespreid patroon van nederzettingen die bestaan uit één enkel erf. De onderliggende sociale implicaties van de ruimtelijke nederzettingsvormen en -patronen in de Romeinse tijd zijn onderwerp van studie. Ondanks dat iedere cluster beschreven wordt als een aparte nederzetting zullen de bewoners niet in alle opzichten aparte gemeenschappen hebben gevormd. Juist het feit dat de nederzettingen op maximaal 1000 meter afstand van elkaar liggen doet vermoeden dat de Osse boeren buren waren in iedere betekenis van het woord.

De nederzetting Vijver: verspreid wonen

De opgraving van de nederzetting Vijver (1976-1977) gebeurde grotendeels door het uitbreiden van een wegcunet wanneer tijdens het bouwrijp maken een huisplattegrond werd ontdekt. Dat levert een fragmentarisch beeld waardoor datering, fasering en omvang lastig zijn vast te stellen. De sporen van in totaal zes huisplattegronden, 33 kuilen en waterputten en maximaal 28 spiekers zijn verspreid over een relatief groot gebied (ca. 500 x 350 meter), dat maar ten dele vlakdekkend is opgegraven. Er lijkt in ieder geval sprake van bewoningscontinuïteit tussen de late ijzertijd en de Romeinse periode. Een datering van de gehele nederzetting komt uit op de periode I-IIIa, onder te verdelen in drie globale fasen (pre-Flavisch/Flavisch, post-Flavisch en na 150 na Christus).

De nederzetting Vijver bestaat per fase uit maximaal twee gelijktijdige boerderijen. Waterputten zijn in de eerste fase beschoeid met vlechtwerk, later ook met horizontaal geplaatste planken. Er zijn geen aanwijzingen voor duidelijk afgescheiden erven, structurele herbouw op hetzelfde erf of een vorm van begrenzing van de nederzetting als geheel. Vondstmateriaal en nederzettingsstructuur wijzen niet op enige vorm van sociale stratificatie. De vondst van een scherf van een Dressel-1 wijnamfoor is een uitzondering en waarschijnlijk eerder het gevolg van contact met de buren uit de grote nederzetting Westerveld. Vanaf 70 na Christus is Romeins materiaal ruim voorhanden, inclusief leren schoenen, glazen vaatwerk en Gallisch tafelaardewerk. Er lijkt een concentratie van importmateriaal in de zuidelijke helft van de nederzetting, maar een eventueel bijbehorend huis is niet opgegraven. Na 150 na Christus zijn er nog steeds aanwijzingen voor bewoning, maar geen van de huisplattegronden kan in deze periode worden gedateerd. Aan het eind van de tweede eeuw worden op twee plaatsen enkele Romeinse munten begraven. Kort na 200 na Christus komt er een eind aan de bewoning.

De nederzetting Zomerhof: drie nette erven

Van de nederzetting Zomerhof is in 1978 het grootste gedeelte blootgelegd, alleen aan de noordkant zouden zich nog huisplattegronden kunnen bevinden onder niet-opgegraven gedeelten. In totaal beslaat deze cluster minimaal 1,5 hectare, met daarbinnen negen huisplattegronden, drie bijgebouwen, 16 spiekers, 14 kuilen en waterputten en 22 (fragmenten van) greppels en palissades. Met een datering van Id-IIIa is dit in Ussen de laatste nederzetting die in gebruik wordt genomen, maar het is mogelijk dat de dateringsproblemen (zie boven) het begin van de bewoning hebben vervaagd. Er is in ieder geval geen plaatscontinuïteit vanaf de late ijzertijd: de zwervende erven uit die periode lagen meer naar het noordoosten. Hoewel derde-eeuws aardewerk (onder andere geverfde bekers in glanzend grijs en *Qualitätsware* en borden van 'gesmookte' Belgische waar) in waterputten aanwezig is, zijn er geen huisplattegronden die in die fase gedateerd kunnen worden.

De nederzetting Zomerhof heeft een gestructureerde lay-out. Dat blijkt uit een greppel die de nederzetting begrenst, uit de uniforme oriëntatie van huizen en bijgebouwen en uit de duidelijk afgescheiden erven waarop boerderijen zijn herbouwd. De nederzettingsgreppel is ondiep en slechts gedeeltelijk opgegraven. Op drie plaatsen is een trechtervormige ingang aanwezig, geschikt voor het in- en uitdrijven van vee. Binnen de greppel zijn drie erven te onderscheiden, waarop telkens een boerderij twee keer is herbouwd. Dit verdeelt de bewoning in drie fasen van rond de 50 jaar, ruwweg lopend van 70 – 110 na Christus, 110 – 160 na Christus en 160 – 225 na Christus. Waterputten zijn gedurende de hele periode beschoeid met vlechtwerk. Tussen erven in ligt een serie bijgebouwen. In de eerste fase wordt in het paalgat van een van de middenstijlen een complete kookpot van grijs aardewerk gedeponeerd: wellicht een bouwoffer. De boerderijen uit de tweede fase zijn groter dan hun voorgangers. Een van de erven vertoont een afwijkend verloop: daar wordt de (grote) boerderij uit de eerste fase verlengd door middel van een aanbouw. Kort voor het midden van de tweede eeuw na Christus onstaat zo een extra lang hoofdgebouw (32,4 meter) met aan de noordkant een door een palissade afgescheiden groot erf. Wellicht is dit

aanwijzing voor sociale stratificatie. Een van de paalgaten van de aanbouw bevat een zilveren *denarius*. In het paalgat van de middenstijl van een van de andere boerderijen is mogelijk weer een bouwofffer geplaatst, dit keer een complete handmolen van tefriet. In de laatste fase valt het onderscheid tussen de erven echter weer weg en is de nederzetting als geheel ook kleiner en minder gestructureerd. Ook de opvolger van de grote boerderij is veel minder groot. Wel is hier mogelijk weer sprake van een bouwoffer: in een van de middenstijlen wordt een complete beker van Belgische waar gedeponeerd. Tijdens de laatste decennia van de tweede eeuw na Christus worden nog enkele kuilen en waterputten gegraven. In een ervan eindigen na 200 nog de resten van een leren schoen en een bronzen vingerring met glazen steen. Rond die tijd zijn de laatste huizen al in verval en vóór het midden van de derde eeuw houdt de bewoning in Zomerhof op.

De nederzetting Westerveld: groot en georganiseerd

Westerveld is de grootste nederzetting in Oss en de eerste waarbij een zoveel mogelijk vlakdekkende opgraving werd nagestreefd (1980-1984). Van de totale oppervlakte van 7,5 hectare werd zo circa 5 hectare blootgelegd. Het precieze formaat van de nederzetting is bekend dankzij een dubbele rechthoekige omgreppeling. Daarbinnen bevinden zich 37 huisplattegronden, zeven bijgebouwen, tussen de 13 en 116 spiekers, 131 kuilen en waterputten en 41 (fragmenten van) greppels en palissades. Van het gebied buiten de nederzettingsgreppel is slechts een klein gedeelte opgegraven.

De nederzetting Westerveld is een voortzetting van bewoning in de late ijzertijd: op deze plaats 'zwierven' drie gelijktijdige erven. Al aan het eind van de late ijzertijd werden deze boerderijen steeds plaatsvaster en tegelijk met het verschijnen van nieuwe, steviger typen huizen vond ook een verschuiving in de oriëntatie plaats (van noordwest-zuidoost naar west-oost). De bewoning in de Romeinse tijd onderscheidt zich van de voorafgaande nederzetting door de aanleg van de dubbele rechthoekige omgreppeling, die helaas niet nauwkeuriger kan worden gedateerd dan (het begin van) de eerste eeuw na Christus. Het precieze einde van de bewoning is eveneens onzeker. Er zijn geen huizen die gedateerd kunnen worden in de laatste helft van de tweede eeuw, maar uit deze fase stammen wel minimaal 15 kuilen en waterputten. Deze bevatten aardewerk uit het eind van de tweede/begin van de derde eeuw na Christus, waaronder borden van 'gesmookte' Belgische waar, geverfde bekers in *Qualitätsware* en glanzend grijs en *terra sigillata* (kommen type Dragendorff 32 en 40 en wrijfschalen type Dragendorff 45). Theoretisch zouden er nog boerderijen uit deze fase in de niet-opgegraven gedeelten kunnen liggen, maar het is ook mogelijk dat de gevonden huisplattegronden structureel te vroeg zijn gedateerd (zie boven). De datering van de nederzetting komt uit op I-IIIa.

Verschillende elementen van de nederzetting Westerveld wijzen op een gestructureerde lay-out. Het sterkst komt dit tot uitdrukking in de dubbele rechthoekige omgreppeling, maar ook in de oriëntatie van de boerderijen en de afgescheiden erven waarop boerderijen steeds worden herbouwd. De aanwezigheid van een centrale open ruimte is onzeker. Iets ten oosten van het midden van de nezerzetting ligt een relatief onbebouwd gebied, maar dat is niet helemaal opgegraven. De nederzetting laat een duidelijk sociale stratificatie zien, die zowel blijkt uit het vondstmateriaal en de gebouwen als uit het gebruik van de ruimte. De niet-opgegraven gedeelten van de nederzetting en de slecht te dateren huisplattegronden staan een goede fasering in de weg. Om toch een beeld te krijgen van de ontwikkeling van de bewoning zijn de gedateerde boerderijen verdeeld over vijf fasen van ruwweg 50 jaar, die deels overlappen:

fase	aantal boerderijen
25 v.Chr. – 25 na Chr.	4
25 na Chr. – 70 na Chr.	9-11
70 na Chr. – 100 na Chr.	8-9
70 na Chr. – 125 na Chr.	8
100 na Chr. – 150 na Chr.	5-6
150 na Chr. – 225 na Chr.	0-1

Op basis van deze verdeling blijkt dat de nederzetting al in de pre-Flavische tijd snel groeit, tot circa 125 na Christus ongeveer even groot blijft, in de loop van de tweede eeuw weer kleiner wordt totdat de bewoning rond 225 na Christus eindigt. Helaas laat deze (onzekere) fasering niet zien of de nederzetting op zijn grootst was vóór of juist na de Bataafse opstand in 69 na Christus. In beide gevallen is echter duidelijk dat de groei al vóór de Flavische periode begon en dat het aantal boerderijen na 125 na Christus weer afnam. Gezien het grote aantal vondsten uit de latere fase is het nagenoeg ontbreken van boerderijen aan het eind van de tweede eeuw waarschijnlijk geen juiste afspiegeling maar deels het gevolg van de dateringsproblemen.

Tegelijkertijd met de aanleg van het greppelsysteem (bij het begin van de jaartelling) wordt binnen de nederzetting een kleinere vierkante omgreppeling gegraven. Hoewel een interpretatie als openlucht-heiligdom niet houdbaar lijkt is het waarschijnlijk dat het markeren en begrenzen van ruimte een bijzondere betekenis heeft. De (bijzondere) functie van deze greppel was eenmalig: kort na de aanleg wordt er een boerderij overheen gebouwd. Al in de vroegste fase van de nederzetting zijn er aanwijzingen voor contacten die verder reiken dan de boerengemeenschap van Oss. Een van de waterputten is beschoeid met een houten wijnvat, daarnaast

zijn er uit deze periode scherven van Arretijnse *terra sigillata* en enkele andere vroege typen gedraaid aardewerk. Dit alles concentreert zich in de zuidwesthoek van de nederzetting. In de bloeifase die daarop volgt eindigt een tweede (groter) wijnvat als beschoeiing in een waterput en neemt de hoeveelheid geïmporteerd materiaal toe. Daaronder glazen vaatwerk, bronzen objecten, glazen speelsteentjes maar ook een nieuw ingrediënt als selderij. De boerderijen zijn behalve in aantal ook in lengte toegenomen: het grootste gebouw is meer dan 42 meter lang. Rond de overgang naar de tweede eeuw na Christus vinden enkele veranderingen plaats. De meeste erven worden continu gebruikt, maar in de zuidwesthoek ontstaat een nieuwe situatie. Waar eerst vier boerderijen stonden ligt nu één groot erf, dat door een greppel van de rest van de nederzetting is afgescheiden. Op dit erf, dat bijna 1,5 hectare beslaat, staat een boerderij met rondom een houten porticus. Naast geïmporteerd aardewerk en glazen vaatwerk vinden we hier onder meer bronzen paardentuig, een aardwerken gezichtsmasker en bouwmateriaal zoals dakpannen en doorboorde leisteen. Koriander verschijnt op het menu van deze bewoners. Dat Romeinse kruid is ook aanwezig op een erf in het noorden van Westerveld, waar ook dille en walnoot worden gegeten en later zelfs kip. In deze periode zijn in de hele nederzetting Romeins aardewerk en andere objecten voorhanden, hoewel handgemaakt aardewerk in gebruik blijft. Kort hierna lijkt de bloeitijd voorbij en als het huis met de porticus in verval raakt wordt het niet herbouwd. In de eerste helft van de tweede eeuw na Christus staat in de zuidwesthoek alleen nog een kleine boerderij en zijn in de rest van de nederzetting nog maar vier erven in gebruik. De buitenste greppel van de nederzettingsomheining is dan al dichtgeraakt. Tegen het eind van de tweede eeuw is de hele omgreppeling buiten gebruik en staat er nog slechts een enkele boerderij. Rond 225 na Christus komt er een eind aan de bewoning in Westerveld.

De nederzetting Schalkskamp: kort en klein

Omdat de nederzetting Schalkskamp is onderzocht aan het begin van de jaren negentig zijn in het veld andere methoden (en vraagstellingen) gebruikt dan in de rest van Ussen. Voor het eerst werd hier een omgreppeling rond een kleine nederzetting herkend. Daarbinnen liggen drie huisplattegronden, 29 spiekers, 21 kuilen en waterputten, 23 (fragmenten van) greppels en palissades en een graf. De toale oppervlakte binnen de greppel is minimaal 2,6 hectare, maar zeker 1 hectare kon niet (meer) worden opgegraven.

Ook in de late ijzertijd was deze bewoningscluster al omgreppeld. Continuïteit vanaf de late ijzertijd is echter onzeker. Er ligt een 'gat' tussen de laatste prehistorische boerderijen en de Romeinse bewoning van zeker 50 jaar, maar dat is mogelijk te wijten aan de gebrekkige dateringen van de huisplattegronden. De nederzetting Schalkskamp was maar kort in gebruik: van het begin van de Romeinse tijd tot aan het midden van de eerste eeuw na Christus (IA). Een fasering valt niet aan te geven. Gezien de korte gebruiksduur is het mogelijk dat de drie boerderijen tegelijkertijd werden bewoond, maar er zijn weinig aanwijzingen voor gescheiden erven. Voor één enkel erf is de omgreppeling wel behoorlijk ruim aangelegd. Opvallend is dat daarbij een grafmonumentje is doorsneden, dat niet veel ouder kan zijn dan de late ijzertijd. Dergelijke losliggende graven zijn in Oss niet bekend uit de Romeinse tijd en in de ijzertijd lagen ze nooit zo dichtbij een nederzetting. Doorgaans is er sprake van enig respect voor graven die nog zichtbaar waren of waarvan het bestaan nog bekend was, hier lijkt de nederzettingsgreppel bewust de kringgreppel te doorsnijden. Verder is er mogelijk een verbinding tussen de greppel rondom Schalkskamp en die rond de nederzetting Westerveld. Slechts een heel klein deel (1%) van het aardewerk is gedraaid en ander Romeins importmateriaal ontbreekt nagenoeg. In plaats daarvan zien we hier relatief veel slingerkogels, weefgewichten en spinklosjes. Een uitzondering daarop is een bronzen riem- of teugelbeslag, gevonden in een waterput. De nederzettingsgreppel was ondiep en is in ieder geval één keer opnieuw uitgegraven, waarbij de tweede fase minder regelmatig van vorm was dan de oorspronkelijke aanleg. Kort daarna eindigt de bewoning.

Oss in de Romeinse tijd: op loopafstand

Behalve de vier nederzettingen in Ussen zijn er nog verschillende andere elementen die het beeld van de microregio Oss in de Romeinse tijd kunnen aanvullen. Dat is in de eerste plaats het grafveld, daarnaast enkele andere vindplaatsen uit de Romeinse tijd en tenslotte de schaarse gegevens over het nauwelijks opgegraven gebied tussen de nederzettingen in.

Tussen 1976 en 1978 vond de opgraving plaats van een groot grafveld uit de late ijzertijd en de Romeinse tijd. Zeker 80% van de totale oppervlakte kon worden onderzocht, maar de graven zelf waren sterk verstoord. De eerste doden worden in dit gebied begraven rond het begin van de tweede eeuw voor Christus, vanaf 25 na Christus is het grafveld continu in gebruik tot het begin van de derde eeuw. Continuïteit tussen late ijzertijd en Romeinse tijd lijkt aannemelijk. Het grafritueel is vrij sober en verandert nauwelijks. Crematieresten worden verzameld van de brandstapel (een zogenaamd brandrestengraf) en gedeponeerd in een kuil, meestal gemarkeerd door een heuveltje binnen een vierkante of cirkelvormige greppel. In totaal zijn er 261 graven met 265 begravingen en daarnaast 54 diepe kuilen met houtskool, die wellicht afval van de brandstapel bevatten. Grafgiften zijn schaars en omvatten naast aardewerk (waaronder opvallend veel handgemaakte waar)

wat glas, dierlijk bot en een enkel bronzen of ijzeren voorwerp. De ontwikkeling van het grafveld laat zien dat de meeste doden zijn begraven tussen 40 en 120 na Christus. Vanaf het midden van de eerste eeuw na Christus wordt in een periode van 100 jaar aan de noordrand van het gebied een rij van zeven monumentale graven aangelegd. In sommige van deze monumenten is de heuvel gecombineerd met een paalzetting. Voor Osse begrippen bevatten deze graven rijke grafgiften: import-aardewerk en glazen vaatwerk, kleding-accessoires en veel dierlijk bot. Elke tien tot vijftien jaar was er blijkbaar een lid van de lokal elite dat op deze speciale wijze en plaats werd begraven, waarbij ook vrouwen en kinderen in aanmerking kwamen. Dergelijke statusverschillen zien we terug in de grote nederzetting Westerveld. De omvang van de grafveldpopulatie maakt het echter aannemelijk dat ook de bewoners van de kleinere nederzettingen in ieder geval sommige van hun doden in dit grafveld begroeven. Mogelijk bestonden er daarnaast nog andere begraafplaatsen.

Buiten Ussen zijn door de Osse amateurarcheologen nog diverse vindplaatsen uit de Romeinse tijd gedocumenteerd. Zes keer leidden die vondsten tot noodopgravingen, soms uitgevoerd door archeologen van de Leidse universiteit. Daarbij zijn huisplattegronden gevonden tijdens de campagnes aan de Zaltbommelseweg, de IJsselstraat en in de wijk Horzak: op die plaatsen lagen dus nog meer bewoningsclusters. Minder sterke aanwijzingen voor nederzettingen uit de Romeinse tijd zijn er aan de Eikenboomgaard en in de wijken Mettegeupel en Almstein. Alles bij elkaar zien we in Oss in de Romeinse tijd een regelmatig nederzettingspatroon, met tenminste acht bewoningsclusters die tussen de 500 en 1000 meter van elkaar vandaan liggen. Het dagelijks leven van de boerengemeenschap speelde zich voor het grootste gedeelte af in dit gebied en de directe omgeving. Naast de nederzettingen vonden ongetwijfeld verschillende activiteiten plaats: daar lagen in ieder geval enkele bijgebouwen en kuilen. Bovendien zijn er aanwijzingen voor greppels en palissades die het gebied indeelden en wellicht de nederzettingen met elkaar verbonden. Mogelijk liep er een pad langs de noordrand van het grafveld, parallel aan de grens van het dekzand. Akkers kunnen in het hogere gebied ten zuiden van de nederzettingen hebben gelegen en ook direct ten noorrden van de bewoning. Dichterbij de Maas was de bodem te drassig voor akkerbouw, maar wel geschikt voor het ('s zomers) weiden van vee. De vondst van netverzwaarders in het huidige Ossermeer toont aan dat in deze Maasarm in de Romeinse tijd gevist kon worden.

De Maaskant en verder: tussen Westerveld en Rome

Hoewel het dagelijks leven zich afspeelde in de micro-regio zullen in ieder geval sommige van de bewoners van Romeins Oss ook de rest van de Maaskant hebben gekend en bezocht. Daar lagen andere inheemse nederzettingen, inclusief grafvelden en akkers, wegen en enkele regionaal georiënteerde plaatsen zoals de heiligdommen bij Empel en Kessel. Mogelijk lag Oss aan een doorgaande route van Grave naar Empel, een regionale zijweg van de Romeinse weg tussen de steden Maastricht en Nijmegen. Villa's, rurale centra, steden en militaire lokaties kwamen alleen buiten de Maaskant voor.

Ten zuiden van Oss (onder Heesch) begon het heide- en veengebied, direct ten noorden van het dekzand was het drassig. De meeste vindplaatsen liggen dan ook op de hogere zandkopjes rond Empel, in het noordoostelijke stroomruggenlandschap van de Maas en aan de rand van het dekzand (zoals Oss zelf). Hoewel het beeld van de bewoning grotendeels op oppervlaktevondsten is gebaseerd lijkt er toch een vrij consistent patroon te zijn, vergelijkbaar met de situatie in Oss. Een aantal nederzettingen (variërend van twee tot tien) ligt bijelkaar, met onderlinge afstanden van rond de 500 meter. In de gehele Maaskant zijn zeker tien van zulke clusters te onderscheiden, bijna allemaal in het noorden en met een onderlinge afstand van 2-3 kilometer. Op de zuidelijke zandgronden zijn eerder aanwijzingen voor steeds een enkele nederzetting. Binnen enkele van de groepjes nederzettingen is er één vindplaats die zich onderscheidt van de rest, vergelijkbaar met Oss-Westerveld. Die conclusie is nu slechts gebaseerd op oppervlaktemateriaal, maar mogelijk was dit onderscheid ook zichtbaar in de omvang en de structuur van de betreffende nederzetting. Alleen opgraving kan uitwijzen of dat inderdaad zo was bij de vindplaatsen Lith-Tussen de Stegen, Teeffelen-Noord en Macharen-De Hoge Morgen. In dat geval vormden (sommige?) bewoners van deze (grotere?) nederzettingen het hoogste niveau van de hiërarchie in de regio. Zulke lokale leiders stonden dan ieder aan het hoofd van een boerengemeenschap. In Oss telde die gemeenschap aan het eind van de eerste eeuw na Christus ten minste honderd personen. Met name de mannen uit deze bovenlaag kwamen buiten Oss en de Maaskant: ze bezochten de regionale heiligdommen, misschien ook de rurale centra of de steden en verlieten uiteindelijk hun dorp om in dienst te gaan van de Romeinse hulptroepen.

Tot nog toe was Oss vaak gelegen aan de rand van grotere onderzoeksregio's, zoals het Maas-Demer-Scheldegebied en het Oostelijk Rivierengebied. Het is duidelijk dat juist de (recente) vindplaatsen in het Bataafse gebied ten noorden van de Maas en Waal veelbelovender vergelijkingsmateriaal zullen opleveren. Deze studie gebruikt alleen een heel globale inventarisatie van het centrale gedeelte van de *civitas Batavorum* als breder kader, om een beeld te geven van de wereld buiten de Maaskant. De historische ontwikkelingen vanaf de Gallische oorlogen zullen ook in Oss hun effect hebben gehad, maar zijn archeologisch beter zichtbaar in de

wijdere regio. Dat begint met de komst van de Bataven, rond 50 voor Christus en waarschijnlijk in de buurt van Rossum. In Oss zijn er geen veranderingen die direct aan die gebeurtenis lijken te zijn gerelateerd, maar juist de tweede helft van de eerste eeuw voor Christus is slecht gedocumenteerd. Ongeveer 30 jaar later zijn duizenden Romeinse soldaten gelegerd in Nijmegen en bij Arnhem. Rond het begin van de jaartelling is Nijmegen het centrum van de Bataafse regio. De overgang van vóór naar na Christus laat weinig sporen na in Oss, maar kort daarop is er sprake van gestructureerde nederzettingen en een relatief groot aantal Romeinse importen. Tafelaardewerk uit Italië, Frankrijk en België, wijn in vaten en amforen, olijfolie, af en toe een munt en diverse andere bronzen en ijzeren voorwerpen, inclusief paardentuig. Oss maakt nu deel uit van de wijdere Bataafse netwerk en het is waarschijnlijk dat rond deze tijd Osse mannen toetreden tot de Romeinse hulptroepen. Na het vaststellen van de Romeinse rijksgrens in 47 na Christus is de eerstvolgende mijlpaal de Bataafse opstand in 69. In die tijd lijkt het goed te gaan in Oss, waar steeds meer Romeins materiaal wordt gecombineerd met grotere boerderijen en imposante grafmonumenten. Terwijl het *Oppidum Batavorum*, de forten langs de *limes* en de tempel in Elst in vlammen opgaan blijft de inheemse bewoning in de Maaskant ongestoord. Sympathiseerden de boeren in Oss met Civilis en zijn mannen? Vochten ze mee, als leden van het grote netwerk van de Bataven? Er zijn geen aanwijzingen voor. Kort na de opstand wordt het huis met de porticus gebouwd en profiteert ook Oss van de *Pax Romana*. Nijmegen krijgt marktrecht in 100 na Christus maar het vertrek van het Tiende Legioen zorgt voor minder inkomsten. Na het eerste kwart van de tweede eeuw lijkt de bloeifase van Oss ook langzaam ten einde te komen. Huizen worden kleiner en na 150 worden er ook geen grotere grafmonumenten meer aangelegd. Is die ontwikkeling elders in de Maaskant hetzelfde? Helaas zijn er geen andere inheemse nederzettingen opgegraven. In 235 na Christus bezwijkt de *limes* langs de Rijn voor de eerste keer. De bewoning in Oss is dan al praktisch aan zijn eind.

Nederzettingssysteem en sociale structuur: begrensd gebied

Uit de analyse van de Romeinse nederzettingen blijkt dat er ten opzichte van de late ijzertijd twee belangrijke veranderingen hebben plaatsgevonden. De zwervende erven worden vervangen door meer plaatsvaste bewoning, gekenmerkt door ruimtelijk gescheiden clusters van boerderijen die worden herbouwd op hetzelfde erf. Daarnaast zijn er duidelijke verschillen tussen de nederzettingen wat betreft lay-out, omvang, structuur en vondstmateriaal.

Het zwerven van de erven in de ijzertijd is mogelijk praktisch terug te voeren op landbouwmethoden (Celtic fields), maar zeer waarschijnlijk speelden ook sociale en ideologische factoren een rol. Al in de late ijzertijd begint de bewoning permanenter te worden: boerderijen krijgen een steviger constructie, worden herbouwd op een plek dicht bij hun voorganger en erven worden gemarkeerd door hekjes of ondiepe greppels. Gelijktijdige erven groeperen zich tot nederzettingen die op hun beurt weer door een greppel worden begrensd. Vanwaar deze wens tot plaatsvaste, gestructureerde bewoning? Ook hier wordt vaak de invloed van landbouw genoemd, zoals de overgang van het Celtic field-systeem naar meer permanente akkers en privé-claims op grond tegenover collectief eigendom. Er lijkt meer aan de hand: een erf heeft blijkbaar nieuwe betekenis, ook (of juist) als het eerder bewoond is geweest. Het gebruik van ruimte wordt aan het eind van de late ijzertijd gestructureerd, op alle niveaus van de nederzetting. Bij de nieuwe solide huisconstructies zien we een duidelijke scheiding tussen woon- en staldeel. Mogelijke bouwoffers bevinden zich in alle gevallen in het paalgat van de middenstijl direct naast de ingang. Sleutels wijzen op het afsluiten van deuren en misschien van kisten. Erven worden steeds weer bebouwd en duidelijk begrensd, hetzelfde geldt voor nederzettingen. Ook in het grafveld zijn ruimte en plaats belangrijk: de grote monumenten beperken zich tot de noordgrens, waar de weg weer langs loopt. In grote lijnen lijkt er meer nadruk te komen op eigendom en op de controle over de toegang tot voorwerpen, mensen en ruimtes. Daarnaast ontstaat er meer onderscheid tussen mensen, zowel individueel als gebaseerd op (groeps)identiteit. Beide aspecten (eigendom en identiteit) zijn gekoppeld aan een sterkere notie van publiek en privaat. Dit alles in een periode waarin de bewoners van Oss geleidelijk aan hun blik zullen hebben verruimd met importgoederen, militaire dienst, het bezoek aan steden. Hoe grootschaliger de wereld om hen heen werd, hoe kleinschaliger ze hun directe leefomgeving maakten, waarin steeds meer plekken en gebieden werden begrensd, bestempeld en benoemd.

Greppels rondom nederzettingen zijn een van de sterkste uitdrukkingen van ander ruimtegebruik. Aanvankelijk werden functioneel geïnterpreteerd, als verdediging of voor afwatering. Juist bij de ondiepe exemplaren kwam daar al snel meer symbolische functise bij zoals sociaal onderscheid, status indicator of rituele begrenzing. Deposities, met name rond de ingangen, benadrukken deze betekenissen. Helaas zijn daarvoor in Oss nauwelijks aanwijzingen. Een van de weinige interessante vondsten is een depot van 222 lemen slingerkogels, gevonden in de hoek van de late ijzertijdgreppel rond Schalkskamp. In eerdere studies werd vaak de aanwezigheid van een greppel op zich als statusbepalend element beschouwd. Nu blijkt dat ook kleine eenvoudige nederzettingen omgreppeld kunnen zijn en dat een eventuele nederzettingshiërarchie eerder gekoppeld is aan

de vorm en lay-out van de greppel. In dat opzicht is er duidelijk onderscheid tussen Westerveld en de andere nederzettingen in Oss. Behalve omgeven door een strak aangelegde dubbele greppel is Westerveld ook aanzienlijk groter, zowel in oppervlakte (7,5 tegenover maximaal 3 hectare) als in aantal boerderijen (maximaal 11 tegenover maximaal 3). Daarbij komt de georganiseerde lay-out van huizen en erven. Tenslotte vertoont het vondstmateriaal een serie vroege importen, geconcentreerd rond het erf waar aan het eind van de eerste eeuw het huis met de porticus wordt gebouwd. De aanwezigheid van een lokale elite is onbetwist. Toch zal de kloof tussen deze bewoners en de rest van Romeins Oss niet zo extreem groot zijn geweest. Ook in de kleinere nederzettingen zien we verschillende gradaties van georganiseerd ruimtegebruik en enkele bijzondere vondsten. Het nadeel van een strakke hiërarchische classificatie (elite-nederzetting en satelliet-nederzettingen) is dat deze geen recht doet aan de grote variatie die juist binnen de groep van kleinere bewoningsclusters aanwezig is.

Terwijl in de ijzertijd grafveld, akkers, weiden en woonterritorium nog gemeenschappelijk waren toont de Romeinse tijd een versplintering van bezit en ruimte. Betekent dat dat de bewoners van de Osse regio eveneens waren opgedeeld of functioneerden ze nog als één lokale groep? Het is niet duidelijk in hoeverre de landbouw een bindende of juist een onderscheidende factor was geworden, omdat goede gegevens daarover ontbreken. Het bindende element van (tenminste één) gemeenschappelijke begraafplaats lijkt nog deels aanwezig te zijn, ook al waren er wellicht nog andere grafvelden. De nederzettingen zijn weliswaar van elkaar gescheiden maar liggen nog steeds dicht bijelkaar. De greppels die de begrenzing van elke nederzetting vormen zijn tegelijkertijd mogelijk met elkaar verbonden. En hoewel het landschap steeds strakker werd ingedeeld gebeurde dat in ieder geval overal tegelijk. Er lijkt dus nog sprake van één lokale gemeenschap. Dat er op lokaal niveau ook sociale verschillen waren is echter duidelijk, maar deze 'dorpshoofden' waren waarschijnlijk ook in de ijzertijd al aanwezig. De Romeinse importgoederen en de meer permanente nederzettingen en huizen maken hun aanwezigheid zichtbaarder en dat gebeurde mogelijk bewust. Echt ver gaat het onderscheid niet: de elite-woning blijft een houten boerderij, die zich nog binnen de nederzetting bevindt. Ook de monumentale graven weerspiegelen diezelfde combinatie van statusonderscheid en groepslidmaatschap: een speciale plaats *tussen* de andere leden van de gemeenschap.

De benaming 'proto-villa' laat zien dat dergelijke half-geromaniseerde boerderijen door archeologen vaak zijn beschouwd als tussenstation voor het einddoel: de villa. Van een stenen gebouw met badhuis en muurschilderingen was Westerveld nog ver verwijderd. Hoogstens waren de bewoners op weg naar een meer socio-economische definitie van een villa, waarbij sprake was van markt-georiënteerde productie en patroon-cliënt relaties. Ook daarvoor zijn geen goede aanwijzingen, maar dat is dan ook een stadium dat nooit is bereikt. Waarom niet? De daarvoor vaak genoemde redenen vallen uiteen in twee categorieën. De eerste benadering gaat ervan uit dat een villa, zowel in economische als culturele zin, inderdaad het streven was van de lokale elite in Oss. Economische en politieke beperkingen zorgden er echter voor dat de pogingen bleven steken. In de andere benadering hechtte de elite juist veel waarde aan vee en paarden. Een villa-economie gebaseerd op akkerbouwproducten paste slecht in het inheemse systeem van ideeën en waarden. Een combinatie van die twee invalshoeken is het meest waarschijnlijk: een villa was geen hoogstaand ideaal, maar ook niet iets dat bewust werd afgewezen. Sommige elementen van het villa-systeem worden in een lokale aangepaste versie overgenomen, andere niet. Die keuze wordt natuurlijk bepaald door wat (economisch of ideologisch) mogelijk is, maar houdt ook een bewuste selectie in. Dat geldt ook voor andere aspecten van de Romeinse cultuur, zoals aardewerk, sieraden, bouwstijlen en voedsel. Koriander en selderij zijn misschien gebruikt als smaakmakers, maar de hoofdmoot van het menu blijft bestaan uit traditionele granen en vlees. Een Romeins aandoende porticus en dakpannen laten een opvallend huis zien, maar aan de binnenkant is het nog steeds een houten boerderij van een traditioneel type. Toch zijn dit geen oppervlakkige aanpassingen: deze elementen veranderden wel degelijk het aanzien van voedsel, gebouwen en mensen. Het levert een interessante combinatie van nieuwe cultuur en een sterke inheemse identiteit.

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afterword

In May 1988, having already decided to specialise in the archaeology of Indian America, I arrived in Oss to properly excavate for the first time in my life. And I became hooked. In retrospect, it is hard to see why. Instead of Mexican blue skies or impressive mountains the background consisted of the outskirts of a small town and heaps of sand from construction activities. No figurines or beautifully decorated pots were discovered, but small grey sherds and bits of charcoal. Nevertheless, the atmosphere of an excavation, the way in which you could truly unravel a picture that became clearer and raised more questions at the same time, was fascinating. I found out that all this was part of prehistoric archaeology and changed my plans. Subsequently I went to Oss every summer, and when I cheated in 1991 and excavated in Geleen instead it raised my interest in Provincial-Roman subjects. So when Roman period Oss was waiting to be unravelled, I said yes. I found out that working on the results of 'old' excavations is like field archaeology itself: it kept raising more questions. Just as during an excavation, I needed knowledge, direction, insight and support from others.

A great deal of information came to me second-hand, since many specialists had already lent their knowledge to 'Oss' long before I came on the scene. Their names are mentioned in the first chapter. Here I want to thank the people that have previously carried out so much work on Oss, allowing me to overcome the final hurdle: the Roman period. It has been a team-effort and I have always felt that way when I read through their notes or deciphered their remarks scribbled on drawings. In one of the letters present in the Oss-documentation, Wijnand van der Sanden describes his work as 'slowly but steadily ploughing through a mound of rice-pudding'. Without his persistence in the early years this study and many others would not have been finished. He also read the final text and commented on it. Kees Schinkel was still working on the prehistoric features when I was given his desk, sharing a room and thus the final stages of his research. He helped me find my way into the large amount of material, and his thesis has been my guidebook since 1994. Peter van den Broeke was and is the most constant factor in 'Oss'. He was always available for questions, still knows the numbers of most features and commented on my final text. I learnt that 'Getekend Zand' was in many ways more than a preliminary report. Often 'my' conclusions turned out to be already written down in it, and although that was frustrating at times it also made me respect the work of the authors.

Among the specialists that helped with the different finds groups from the Roman period are Michael Erdrich (metal objects), Alain Vanderhoeven (potters' stamps on mortars), Jan-Kees Haalebos (*terra sigillata*) and Juan van der Roest (brooches). Valuable advice came from Joris Aarts (coins) and Mik Lammers (roof-tiles). Ilse van Amen, Corrie Bakels and Wim Kuijper concentrated on the botanical evidence. Work on the drawings was carried out by Henk de Lorm, Peter Heavens, Martin Hense and Jan-Maarten Luursema. The find materials were photographed by Jan Pauptit. Over a period of more than 20 years, numerous students wrote theses on Oss subjects. Especially valuable for my work were the results of Ruurd Kok (landscape and spatial studies), Daan Raemaekers (enclosure ditches) and Ilse van Amen (seeds and plant remains). I want to thank Wilfried Hessing for providing me with his data and insights on the Roman period cemetery. The English text was edited by Anthony Sibthorpe.

Harry Fokkens carried out preliminary work on the Schalkskamp settlement, but more importantly has been directing the excavations in Oss since 1986. The longer I worked on the project the more deft he became at producing drawings and overviews, thus enabling me to 'see' the prehistoric and Roman period landscape. Moreover he let me give students training in Oss during summer weeks, so that I would not forget what it was all about. In the excavation trenches I would always come upon the local archaeologists of Oss, drawing, digging or showing their recent surface finds which would trigger a whole new excavation campaign. I want to thank Gerard Smits, Piet Haane, Gerrit van Duuren and Gerard van Alphen for working with us and providing me with their documentation, drawings and knowledge. During the final years in Leiden I have been able to profit from some stimulating discussions with the Maas-Demer-Schelde group, a joint effort between archaeologists from Leiden and Amsterdam.

After nearly five years Harry van Enckevort finally managed to convince me that the wheel-thrown pottery

needed to be re-analysed. I don't think he knew what he was letting himself in for, I certainly did not. In March 1998 I arrived at the Nijmegen Municipal Archaeological Service, together with 15.000 pottery fragments. We saw every single one of them, and although Harry still thinks that most of them need to be looked at again, I am very grateful for his contribution. Not only did he spend a lot of his (free) time on the pottery from Oss; he was always ready for discussion and supported me through the final months.

Room 002b at the Leiden Institute of Prehistory holds the best memories for me. Liesbeth Theunissen practically lived in it, and simply working alongside her was a pleasure. Her optimism and persistence with her own research (and many other projects) kept me going. The rest of the PhD-students at the IPL provided a very strong 'local community'. We certainly had our own rituals, beliefs and *Siedlungskammer*. I especially want to thank David Van Reybrouck. He was one of the few people I trusted with early drafts of the manuscript, and has survived more than just a thesis with me.

While emerging blinking from a world of archaeologists I entered a new type of organisation with new inhabitants. The Cultural Heritage Directorate at the Ministry of Science, Culture and Education agreed to take me on, knowing there was a thesis that was 'nearly' finished. My colleagues at 'Immovable Heritage' gave me the time I needed and their refreshing views on archaeology certainly broadened my horizon. Willem Willems provided my personal link between Leiden and Zoetermeer and made sure I did not forget the contents behind all the policy and processes.

Closer to home but nevertheless abroad I want to mention my sisters and their husbands. They all know, either from personal or marital experience, what it is to share life with a thesis.

Finally I want to thank my parents, who often sheltered me and my thesis, sometimes literally. If she could have, my mother would have written the chapters herself. My father has a different notion of support. In 1992, when I hesitated between a well-paid job and doing research, he nearly forgot his background as an educational sociologist and told me that there was only one possible choice. He always refused to listen when I had my doubts afterwards and simply counted on me to bring this project to a good end. Which is why I dedicate this book to my father.

Leiden, June 2000

colophon

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Oss-Westerveld

Scale 1 : 550

Legend

H = house
B = outbuilding
S = granary
P = pit or well
F = palisade or ditch
R = ritual structure or grave

Oss-Westerveld

Oss-Schalkskamp

Scale 1 : 550

Legend

H = house
B = outbuilding
S = granary
P = pit or well
F = palisade or ditch
R = ritual structure or grave

Oss-Zomerhof / Oss-Vijver

Oss-Zomerhof

Scale 1 : 550

Legend

H = house
B = outbuilding
S = granary
P = pit or well
F = palisade or ditch
R = ritual structure or grave

Oss-Vijver

Scale 1 : 550

Legend

H = house
B = outbuilding
S = granary
P = pit or well
F = palisade or ditch
R = ritual structure or grave