

# Early Medieval settlements along the Rhine: precursors and contemporaries of Dorestad

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## Abstract

*From the sixth century onwards, the northernmost branch of the Rhine in the Netherlands regained the transport-geographical importance that it had partially lost during the Migration Period. The high point of this development was the rise of Dorestad at the fork of the Rhine and the Lek in the mid-seventh century. This article examines a number of Early Medieval settlements situated along the Rhine, some of which were the immediate precursors of Dorestad. They are settlements of differing character and ancestry. Some go back to the days when the Rhine formed the frontier of the Roman Empire. Others emerged in Merovingian times, when the Franks and the Frisians came to oppose each other in the Rhine delta. The frontier character of this zone persisted into the eighth century. In these days, all settlements along the Rhine were part of a vast, international exchange network, with Dorestad evolving into one of the principal ports of the Carolingian realm. For this period, pottery is an important source of archaeological evidence.*

Keywords: Dorestad, Roman Period, Early Middle Ages, settlement systems, pottery

## 1 Introduction

For several centuries in the early part of the Christian era, the Lower Rhine – continuing as Kromme Rijn and Oude Rijn – formed part of the *limes* of the *Imperium Romanum* and this situation remained a determining factor in the history of the Netherlands for a long time after the end of the empire. This was evident in the Early Middle Ages, with the rise of Dorestad in this former frontier zone. At the same time, a missionary episcopate charged with converting the Frisians was established at Utrecht, which in the subsequent Middle Ages was to evolve into the town that became the first capital of the Netherlands. Another example is Nijmegen, where while Dorestad flourished became the northernmost residence of the Carolingian rulers. Utrecht and Nijmegen were granted more enduring success than Dorestad but in the Early Middle Ages none would predicted such an outcome. Dorestad made an overwhelming impression on its visitors and even though its name has vanished from today's map of the Netherlands, its fame has abided.



Fig. 1 Location of sites mentioned in the text: 1. Katwijk/Brittenburg; 2. Katwijk-zanderij Westerbaan; 3. Valkenburg-village and Valkenburg-De Woerd; 4. Rijnsburg and Oegstgeest; 5. Roomburg/Matilo; 6. Koudekerk; 7. Utrecht; 8. Vechten; 9. Wijk bij Duurstede-Dorestad and De Geer; 10. Rijswijk; 11. Tiel-Passewaaij; 12. Maurik; 13. Rossum; 14. Bennekom; 15. Wageningen; 16. Rhenen and Elst; 17. Arnhem-Meinerswijk; 18. Deventer; 19. Wijster; 20. Leeuwarden-Oldehoofsterkerkhof; 21. The Hague-Frankenslag; ; a. Rhine; b. Kromme Rijn; c. Oude Rijn; d. Vecht.

In the Roman period, the northernmost branch of the Rhine was not only a frontier river but also one of Europe's main traffic arteries. The Roman frontier defences in this zone consisted of a line of almost twenty *castella* alternating with smaller watchtowers and a road that interconnected the forts. Establishing such a system in this low-lying delta landscape required numerous labour intensive constructions and although less impressive than Hadrian's Wall or the *limes* in *Germania Superior*, this frontier too formed a monumental ensemble of great symbolic significance (Hessing 1999).

The defences were well maintained until c. AD 250. From then on, decay set in, starting with destruction during the Frankish incursions in the 3rd century, followed by neglect. Some of the *castella* were reoccupied from time to time, which presumably implies that some repair was carried out. Nothing is known about the state of the forts in the fifth century. By this time, the Roman Empire had retreated from the Rhine delta and the walls and buildings of many former frontier forts are likely to have been in a more or less ruinous condition. What did survive was

the Empire's glorious renown, perpetuated by the remains of these colossal stone structures. Subsequent rulers of these regions were happy to appropriate both.

What also survived was the river's importance in terms of transport geography. In the political constellation of the Merovingian and Carolingian eras, the Rhine was once more a shipping route of international significance, which linked the regions around the North Sea, the German Rhineland and the middle Meuse region of Belgium and northern France. The importance of the shipping route had only increased since Roman times, as after losing its frontier function the *limes* road had lost much of its serviceability. In these parts lack of maintenance would soon bring on disintegration. By the Early Middle Ages the Roman road may at best have been of local significance.

In the micro-region that gave rise to Dorestad, the Lower Rhine divided into two streams, the Lek (giving access to the Schelde region in the southwest) and the Kromme Rijn (through the Oude Rijn and Vecht providing a link to the North Sea coast). This transport and economic asset offered the local Early Medieval settlements, including Levefanum/Rijswijk, De Geer and possibly Lote (or Leut), special opportunities. Levefanum was one of the *limes castella*, De Geer a centuries-old farming settlement and Leut is as yet an archaeologically unknown quantity whose existence at the time of Dorestad is only documented in contemporary written sources.

The aim of this article is twofold. First, we present a summary of the current state of (mainly archaeological) knowledge about the settlements that made up the local roots of Dorestad. The second part presents a comparison of these sites with some other Early Medieval settlements along the Rhine, mainly Roomburg near Leiden, a *castellum* site like Levefanum/Rijswijk and nearby Koudekerk, which is a good parallel to De Geer (fig. 1). In recent times both have drawn the attention of archaeologists. Pottery plays a large part in these comparisons as in the relevant excavations this has been the most prominent, or indeed the only, category of finds.

## 2 Settlements in the Dorestad micro-region

### 2.1 *De Geer near Wijk bij Duurstede*

#### 2.1.1 Location

The site is situated to the northwest of the fourteenth-century town centre of Wijk bij Duurstede (fig. 2). Its name De Geer refers to the tapering shape of a residual plot of land in a medieval field system. The excavation site lies on the western edge of a broad river basin immediately beyond the bifurcation of the Rhine in which the meandering Kromme Rijn, after branching northward, has gradually shifted its bed from west to east. An early part of the riverbed survived until the early Roman Period, when it filled up with sediment. By the time Dorestad was built, the Kromme Rijn had shifted some 500 metres eastward. A natural levee formed along its left riverbank and this must have been habitable from at least the early phase of Dorestad, around AD 650/675. Maybe the main stream had been following roughly the same course from as early as the Late Roman Period, but there are no indications that Dorestad's levee was occupied before the seventh century. As long as this levee was not too high, habitation would have remained concentrated on the older levee of De Geer. The zone between the two levees was unoccupied, this low lying, wet zone is where the Kromme Rijn had twisted its way in intervening centuries.

Before the rivers were flanked by dikes, first built in the Wijk bij Duurstede area in the twelfth century, only the relatively high lying parts of the natural landscape were habitable. Apart from the De Geer levee, these included De Horden, a site just south of the levee. This field name is thought to refer to a 'corner' or 'angle'. The subsoil at De Horden contains rem-

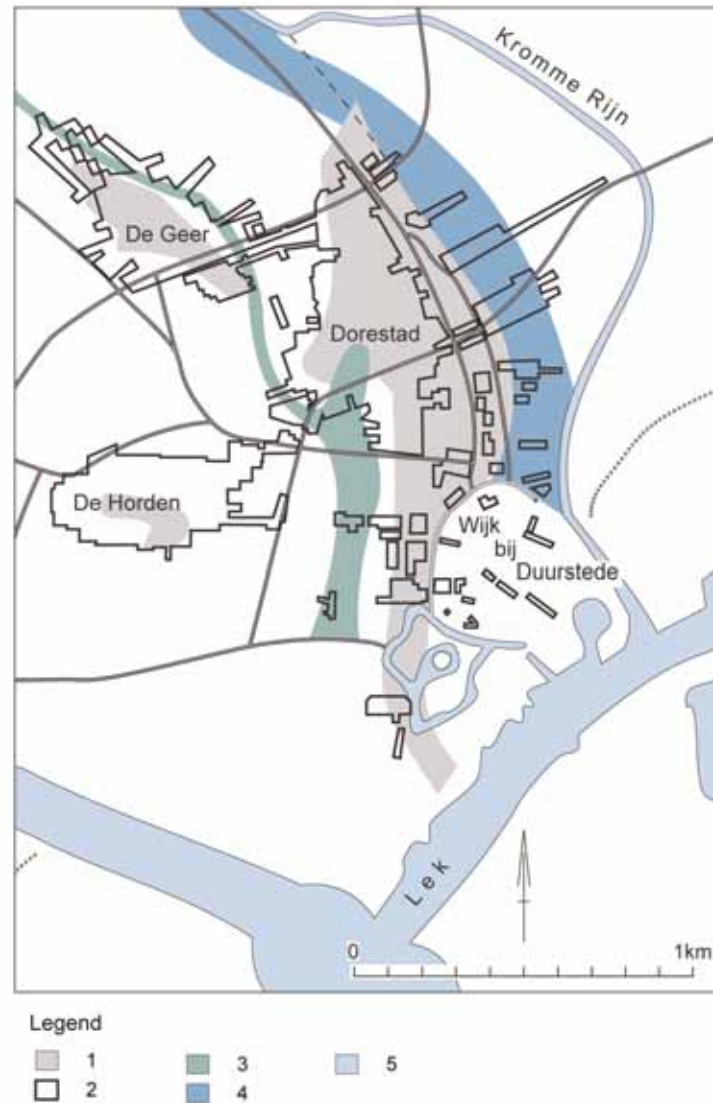


Fig. 2 The excavations at Wijk bij Duurstede. 1. phosphate concentration; 2. excavated areas: De Geer, Dorestad, De Horden; 3. prehistoric riverbed of the Rhine; 4. Carolingian period riverbed of the Rhine; 5. modern riverbed.

nants of an older river system, predating that of the Kromme Rijn, which after the Early Middle Ages was entirely covered by clay deposited by the river Lek. Here too, long habitation has been attested, but this settlement, in contrast with that at De Geer, failed to survive into the Middle Ages. Some Carolingian finds and the imprints of many cows' hooves, well preserved by the Lek sediments, tell us that during Dorestad's heyday the area was used as pasture. Yet the actual settlement here had been abandoned in the late 2nd or early 3rd century AD. For this reason, De Horden will not be discussed further in this article.

### 2.1.2 Occupation phases

The excavations at De Geer, which took place between 1989 and 1994, produced a vast quantity of data. These have not yet been studied in every detail but the outlines of the settlement history are clear. The use of metal detectors meant the recovery of a considerable number of metal finds. These include about 175 brooches, which have been dated by J. van der Roest. Table 1 shows their chronological distribution and offers a first impression of the periods during which De Geer was occupied. The High Middle Ages, which at De Geer constitute the final occupation phase (not counting modern times), are not represented by brooches.

occupation phase	% (ca.)
Late Bronze Age (c. 1300-700)	1.7
Middle to Late Iron Age (c. 500-0)	1.7
Late Iron Age to Early Roman Period (c. 50 BC-AD 70)	16.3
Middle Roman Period (c. 70-250)	29.1
Late Roman Period (c. 250-450)	34.9
Merovingian Period (c. 450-650)	13.4
Late Merovingian to Early Carolingian Period (c. 650-750)	0.6
Carolingian Period (c. 750-850)	1.4
<b>total</b>	<b>100.0</b>

Table 1. *De Geer*: percentual distribution of the brooches over the various occupation phases ( $N = c. 175$ ); after J. van der Roest.

### 2.1.3 Prehistory

The Bronze Age and Iron Age in the Netherlands are poor in brooches and the oldest brooches at *De Geer* are indistinct fragments. The first settlement traces at *De Geer* and *De Horden* date to the Middle Bronze Age (1500-1300 BC) (Arnoldussen 2008). No finds are known from the ensuing half millennium. Settlement at *De Horden* resumed in the Early Iron Age (700-500 BC) (Hessing 1989, 1991; Hessing & Steenbeek 1990).

An initial survey of the handmade pottery suggests that people returned to *De Geer* in the Middle Iron Age (from +/- 400 BC) (Linnemeyer 1995). By then, *De Horden* seems to be deserted once more, though there are thought to be burials dating to the Middle and Late Iron Ages. This site also shows how parts of the landscape changed through time. From the Late Iron Age on, both *De Horden* and *De Geer* were inhabited again and the amount of brooches increased steadily.

### 2.1.4 The Roman Period

An important feature shown in table 1 is that there is roughly an equal amount of brooches from the Middle and Late Roman periods. As the two periods were of roughly equal duration and both rich in brooches, this must mean that *De Geer* was a substantial settlement in the Late Roman Period. This conclusion is supported by a comparison with *De Horden*. There 270 brooches came to light, dated by Van der Roest the final decades BC to the final quarter of the 2nd century AD (Van der Roest 1988). Late Roman brooches are absent from *De Horden* as the local settlement had by then been deserted. The Roman coins complete this picture. From a total of 240 coins at *De Horden*, 95% predate AD 260. Late Roman coins there are no more than incidental finds, reflecting occasional activities at a deserted dwelling site. At *De Geer* the ratio is quite different, c. 25% of the 280 coins predate AD 260 and 75% date from between 260 and 388 (Aarts 2000, 284, 291; see also Vos 2009, notes 136 and 222). Moreover, *De Geer* yielded numerous other metal finds from the so-called *Foederatenhorizont*, such as hairpins with faceted ornamentation and belt fittings (fig. 3). A very unusual find is a Byzantine coin weight dating from around AD 400 (Van Es 1991). All in all, the Late Roman period turns out to be particularly well represented at *De Geer*, making this a rather special site.

*De Geer* and *De Horden* were both inhabited during the first half of the Roman period. In his doctoral thesis, W.K. Vos recently devoted an extensive and most illuminating discussion to these settlements (Vos 2009, 59-116). He convincingly argues that since Flavian times these two, together other settlements, were united in a single system of field division which had been laid out by some higher authority (fig. 4). Within it, *De Horden* formed the principal local element. Here an estate developed comprising one or more farmsteads, which must have belonged in the top echelon of rural settlements in the Batavian Kromme Rijn region. At *De Geer*,





Fig. 3 De Geer: Late Roman pins and belt fittings.



Fig. 4 Field systems at De Geer and De Horden; after Vos 2008, fig. 3.32.

the second century saw the construction of an 'enclosure', smaller than that at De Horden, which probably was a continuation of Iron Age and Early Roman Period habitation. Around AD 200 De Horden had to be abandoned because of increasing drainage problems but habitation at De Geer continued into the third century.

Vos reckons that habitation in this area may have been interrupted between AD 250 and 350. There certainly was a discontinuity in this period due to the first Frankish incursions into the frontier zone of *Germania Inferior*. Around 250/275, and often even earlier, all known Batavian settlements sank below the horizon of archaeological visibility. Were they completely abandoned or did a remnant population stay on? This answer is not crucial to the current discussion. Even if De Geer was temporarily abandoned at this time, we may still safely speak of continuity (the briefer the abandonment, the better, of course). Order was restored by Constantine (the Great) in the early fourth century. Any settlement abandonment would not have lasted for more than a generation and traces of the Middle Roman-period field system would still have been clearly visible when the site was re-occupied.

### 2.1.5 Frankish pottery: Frankish colonisation

Pottery is among the most important finds from De Geer. The archaeological potential of this material is evident from E. Taayke's authoritative study of the local ware from De Horden (Taayke 2002). From this study it emerged that De Horden initially maintained contacts with the north-western coast of *Frisia*. Soon, however, the 'Batavian' component in the pottery eclipsed the Frisian ware.<sup>1</sup> This reflects the development of the *civitas Batavorum* as a socio-economic entity. The *limes* increasingly became a cultural border.

After the mid-third century, Germanic handmade pottery once more found its way south of the Rhine and even into Belgium through breaches in the frontier line (De Paepe & Van Impe 1991; Rogge & Van Doorselaer 1990). De Geer yielded many potsherds of the Rhine-Weser Germanic (RWG) style group. The coarse ware category is especially well represented mostly via large pots (cauldrons) tempered with crushed shell (the shell now has mostly disintegrated, leaving just cavities) and globular neckless bowls or pots with an S-shaped profile whose rim and/or shoulder may be decorated with (fingertip) impressions (fig. 5). By contrast, fine wares, especially the Von Uslar II *situla*, are very rare (Von Uslar 1938). There are some fragments in a comparatively thin and smooth walled, fine sandy fabric but these are more reminiscent of Anglo-Saxon *Schalenurnen*, or they are sherds of *situlae* of the types Wijster IA (especially IC and ID) (Van Es 1967).

Good parallels for the coarser ware have been found at Bennekom, a Free Germanic settlement on the far side of the Rhine a small distance east of De Geer (Van Es *et al.* 1985). There are just a few Wijster-type *situlae* there. These point to links with the coastal region of Germany and the northern Netherlands. Possibly the suppliers of this ware at De Geer came from Drenthe, where the pottery styles of the RWG group and the North Sea coast are found together. However, the provenance of the Late Roman handmade ware at De Geer may be anywhere along the western flank of the RWG region on the sandy soils north of the Rhine from Gelderland up to Drenthe. It is impossible to date this handmade pottery at De Geer more closely than to the third-fifth centuries AD.

This kind of handmade pottery is associated with settlements in which rectangular long-houses were the principal components. Unfortunately, there are no distinct house plans, a problem that affects all settlement periods at De Geer as a result of long habitation in a fairly confined area and medieval and later tilling. So far, it is only at Tiel-Passewaaij, not far from De Geer on the Roman side of the Rhine, that two distinct plans of Germanic houses of the Later Roman period have been uncovered (Heeren 2009, 71-74). One of these two is a short structure of the special type Wijster IIa, which is known from the sandy soils from Drenthe all the way down to the Rhine and thus is a positive indication of settlers from those parts (Van Es &





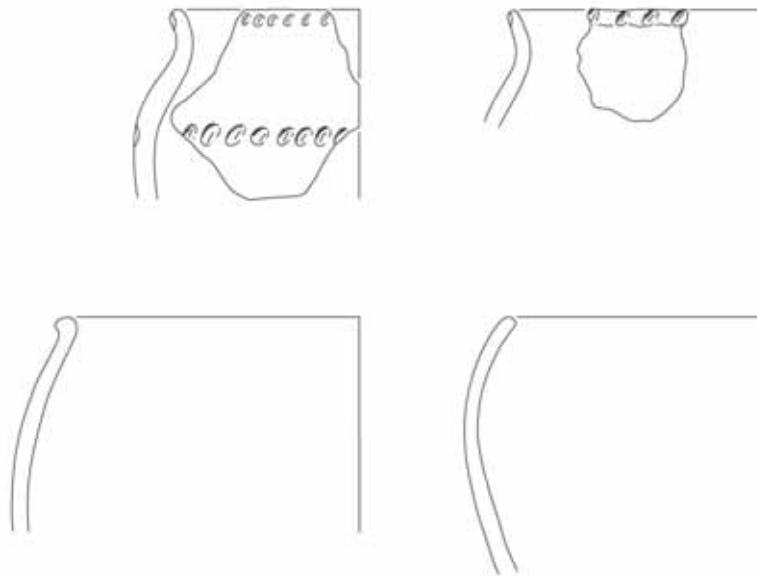


Fig. 5 De Geer: Late Roman handmade pottery. Scale 1:4.

Taayke 2001). The plans at Tiel are attributed to Phase 7, i.e. between AD 270/290 and 350. Similar houses would also have been introduced by Germanic settlers at De Geer. There, farmstead sites rather than house plans can be recognised, but the size of the settlement cannot be ascertained. It appears to be centred on an older Roman 'enclosure'.

The conditions under which Germanic settlers recolonised the frontier zone are unclear. Did they settle on their own terms or under Roman supervision? Probably it was a bit of both. Even in the case of autonomous colonisation, some form of accommodation with the Roman authorities would have been inevitable, certainly during episodes of revived Roman authority. In any case, people were happy to make use of what remained of the Roman infrastructure. Evidence of this is the presence of Late Roman coinage and ceramics. Not only did fourth-century cooking pots of Mayen ware reach De Geer, but also rouletted *sigillata* ware, painted ware in 'd' technique and *terra nigra*-like drinking cups of the type Chenet 342, although the latter can no longer be confidently traced to truly Roman production centres (Bakker 1997).

Near the Kromme Rijn and upstream, in the eastern river region, fourth-century settlements like that at De Geer were much less numerous than their predecessors from the Middle Roman period, but still far from rare. As in Batavian times, they would have had an agrarian basis but many of their young men are likely to have opted for a warrior's life in the Roman legions or elsewhere. In this respect too, very little had in fact changed. However, the inhabitants of the frontier zone now no longer called themselves Batavians, but Franks, and they were largely made up of (possibly) expressly invited Germanic colonists from beyond the Rhine. Not all of these Late Roman period settlements withstood the ravages of time. At Tiel-Passewaaij, for instance, habitation abruptly ceased in the first half of the fifth century but at De Geer the sequence of archaeological finds continues unbroken right into the days of Dorestad. Although archaeological finds never offer total certainty, we can rule out long periods without any occupation between the fifth and ninth centuries (fig. 6). Why continuity of habitation is clearly evident at De Geer and not throughout the region is a question that the current state of research cannot yet answer. Its location in the principal corridor of the Rhine system and close to a (former) Roman frontier fort may have played a part.

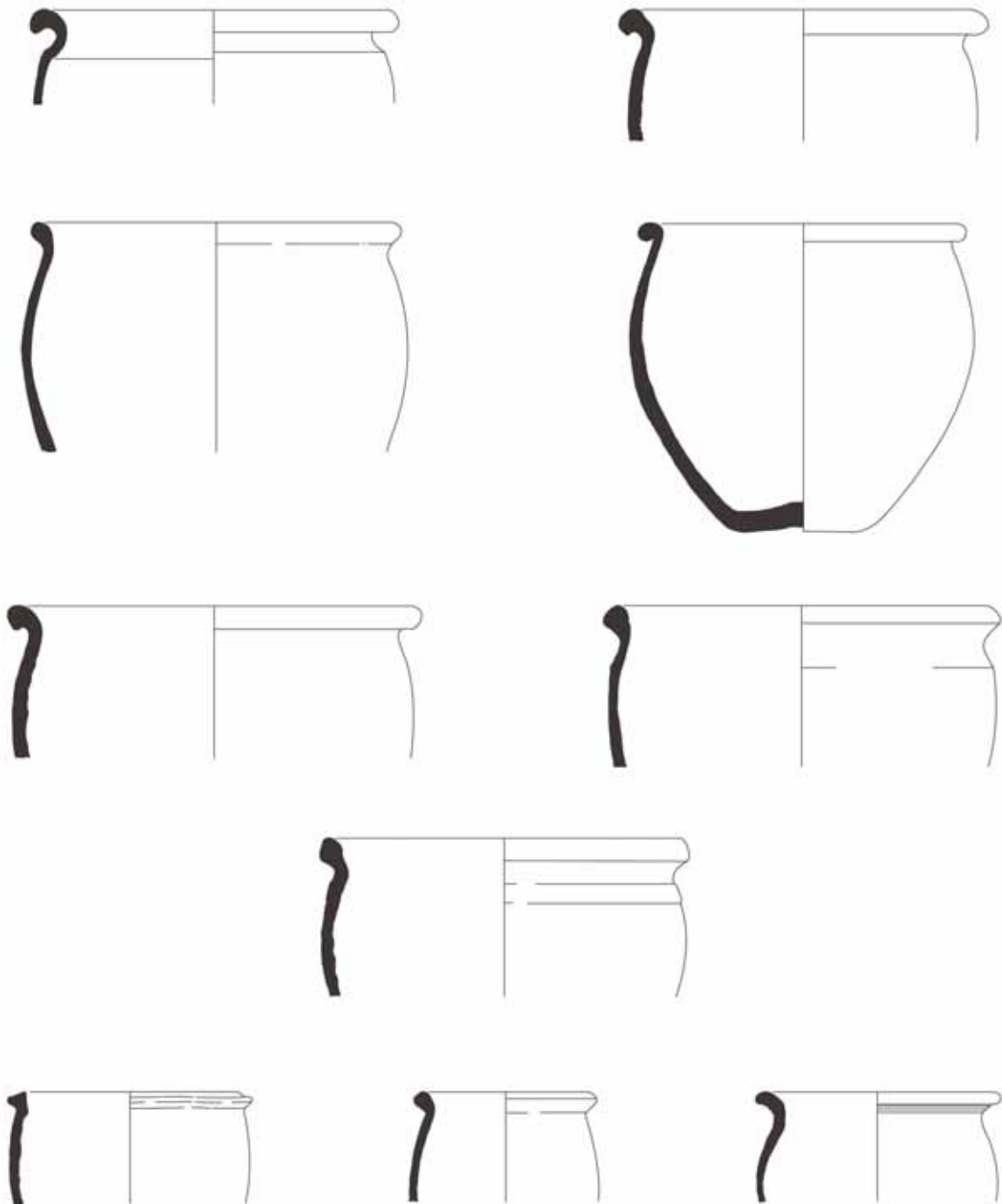


Fig. 6 De Geer: Merovingian rough-walled wheel thrown pottery (*Wölbwandtöpfe*). Scale 1:4.

### 2.1.6 Early Middle Ages

The origin of the Early Medieval settlement at De Geer is as yet unclear. No clear-cut plans of dwellings have been identified. They must have been rectangular, timber-built farmhouses, probably quite like those of the types Odoorn A to C in Drenthe (Waterbolk 2009). Similar houses are known elsewhere in the Rhine delta, for instance at Rijnsburg and Oegstgeest (Van Es 1972; Hamburg & Hemminga 2007). Comparisons are also provided by Dorestad itself, where colossal timber houses were built (fig. 7) (Van Es & Verwers 1995). The sites of the actual houses at De Geer are often recognisable by rows of pits running parallel to the gable ends, a phenomenon also known from Dorestad where multiple rows of pits may accompany the same

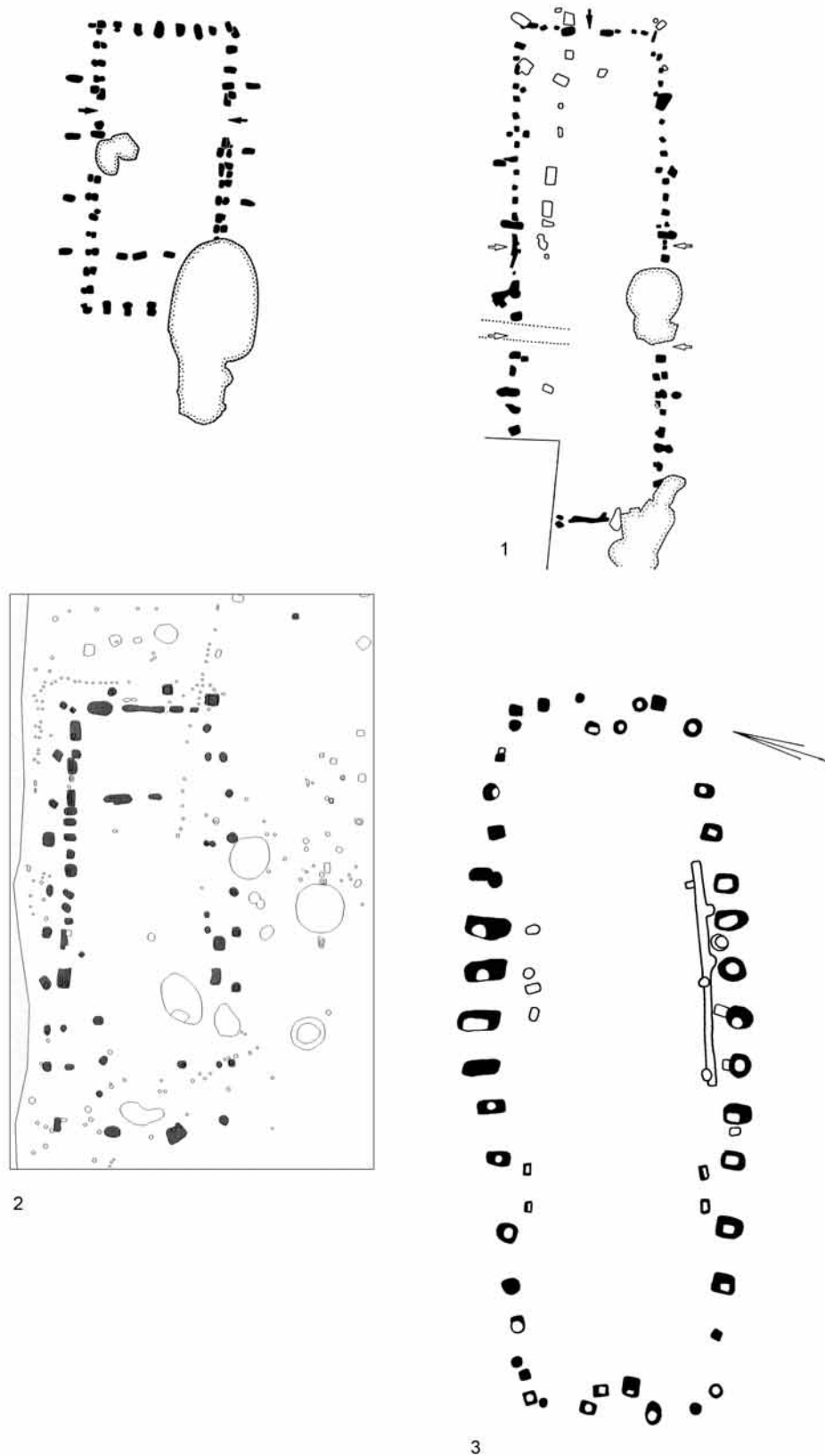


Fig. 7 Excavation plans of 1. Rijnsburg, 2. Oegstgeest, 3. Dorestad. Scale 1:200.

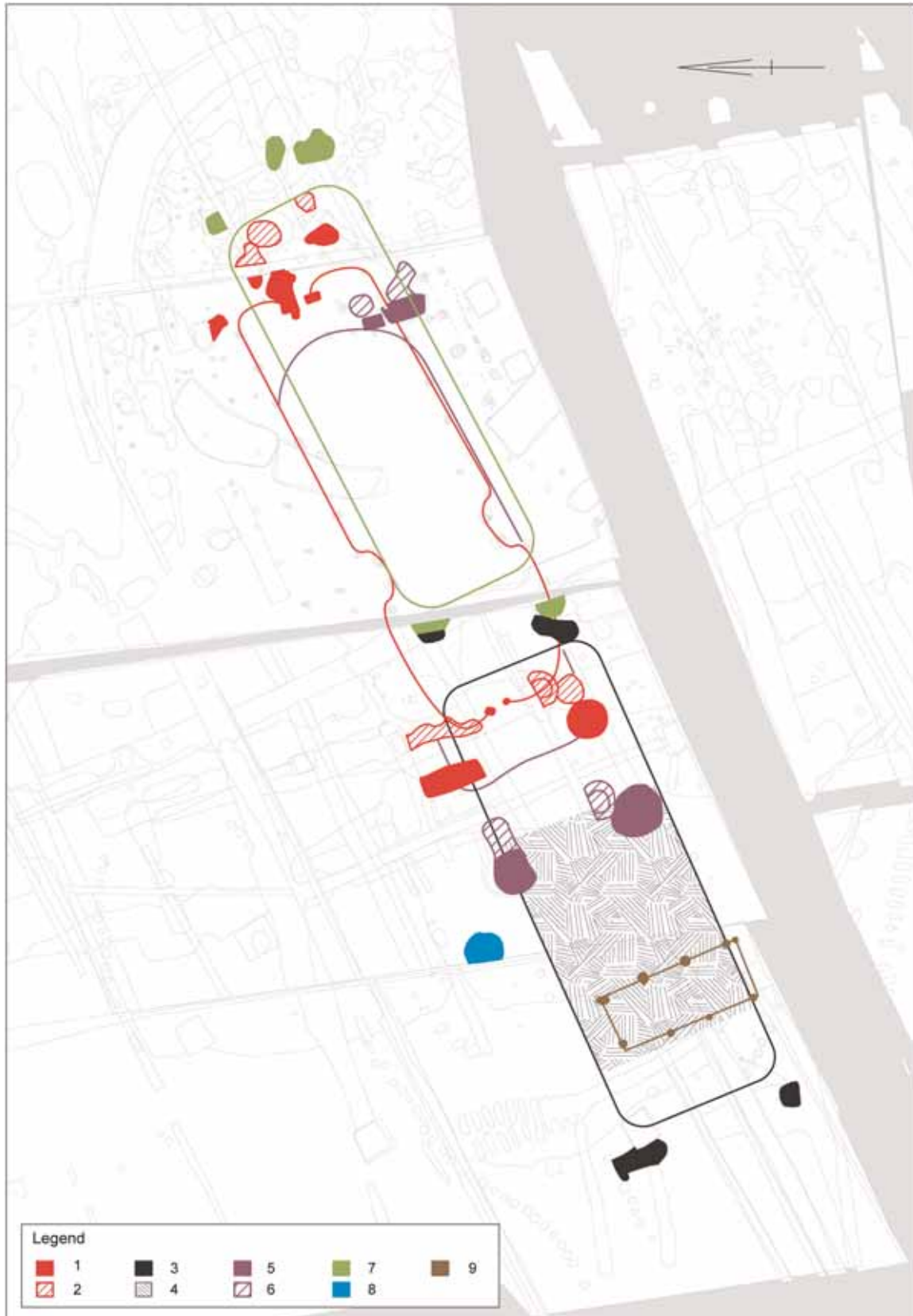


Fig. 8 Dorestad: plan of a timber farmhouse with pits. Scale 1:200. 1. house 1 phase 2; 2. house 1 phase 1; 3. house X; 4. wattle fencing?; 5. house Y phase 2; 6. house Y phase 1; 7. house Z; 8. Well; 9. spicarium, granary.

house (fig. 8). These pits may have served a variety of functions, such as rubbish pits or latrines. When the gable ends were moved in the event of refurbishment or extension, it seems that the

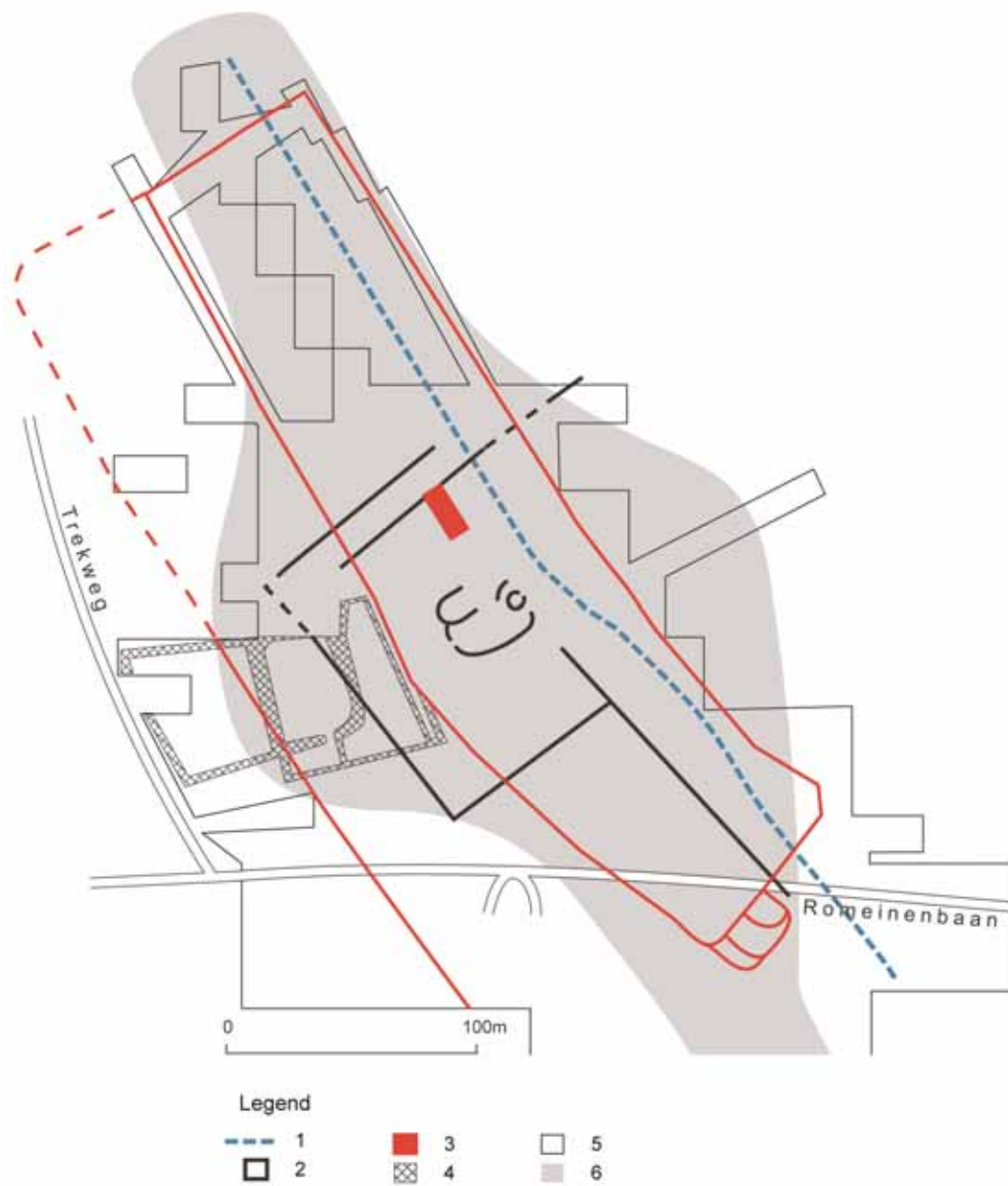


Fig. 9 De Geer: topography. 1. western levee along riverbed remnant; 2. Roman complex; 3. Carolingian complex; 4. moated dwelling site; 5. limits of excavated area; 6. phosphate concentration.

pits were also relocated. Moreover wells, lined with wine casks or hollowed tree trunks, were commonly used at De Geer (Verwers & Botman 1999). Their position relative to the farms is, however, difficult to ascertain. The latter seem to focus on the site of the Roman 'enclosure', which included the highest part of the site. Here, clusters of pits point to the presence of ten, possibly twenty, houses (the picture is quite uncertain), which of course need not have existed simultaneously. However, the settlement was not limited to this part of the site and has not been fully excavated. The settlement's size therefore remains uncertain but it must have been a fairly large complex comprising at least five, and probably more farmsteads. In as far as can be ascertained, the farmsteads were oriented roughly north-south, parallel to the axis of the levee, and were built on the levee and the sediment-filled riverbed remnant beside it.

Major changes occurred at De Geer towards the end of the Dorestad's lifespan or perhaps somewhat later. An elongated 'enclosure' measuring 90 x 380 m was laid out partly on the levee and partly on the former riverbed beside it (fig. 9). The surrounding ditches were mostly over



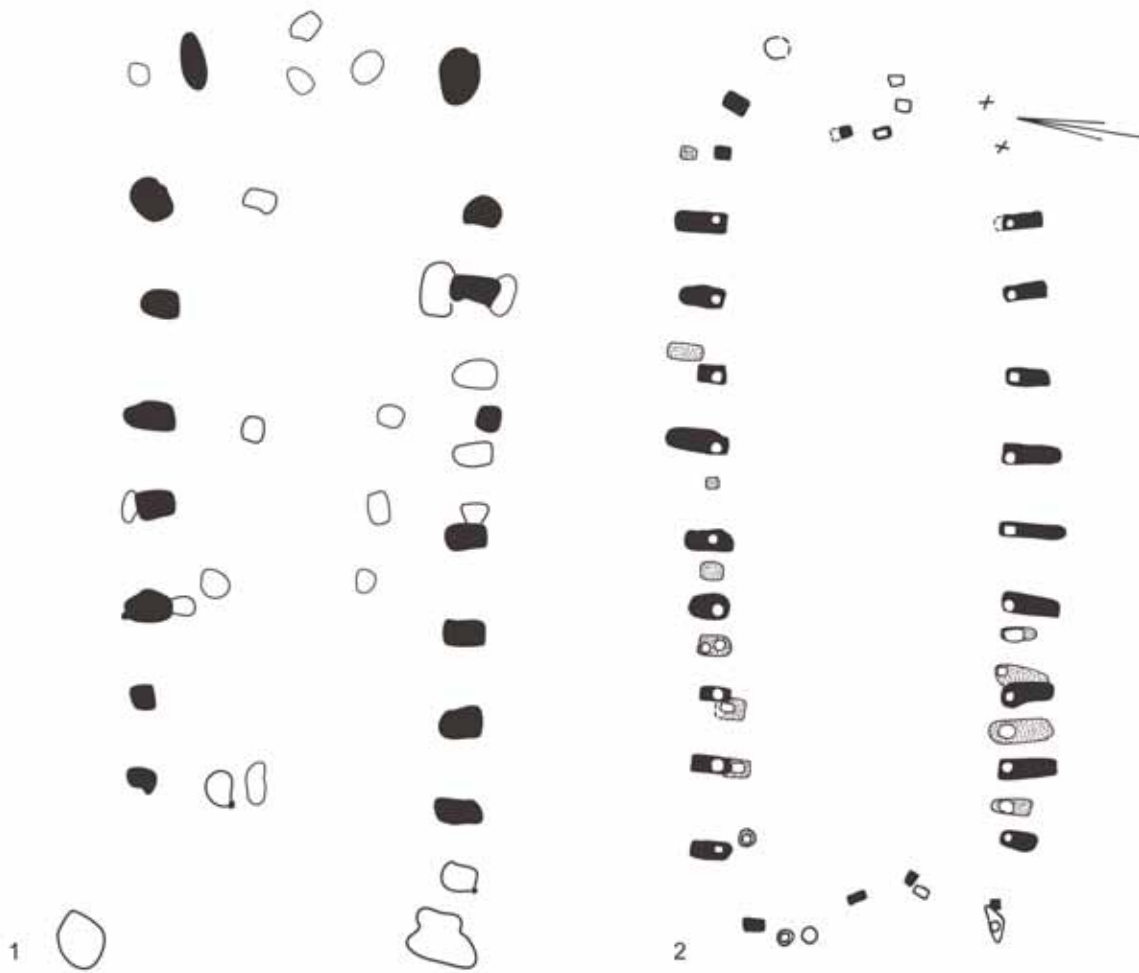


Fig. 10 De Geer and Dorestad: plans of timber-farmhouses. Scale 1:200. 1. De Geer; 2. Dorestad (Van Es & Verwers 1995, no. 18).

2 m wide and it seems likely that the excavated soil was made into a bank. No traces of any bank could be identified, however, since the excavation level lay below the Early Medieval surface. The 'enclosure' consisted of at least two parts which connected at a slight angle. The northern part was c. 220 m long and the southern part, c. 160 m. Possibly the two parts were not constructed at the same time and the fact that the join coincides with the old Roman 'enclosure' can hardly be coincidental. A ditch running parallel to the complex on the west side and disappearing beneath associated ditches hints at an even more complex site biography. The ditches of the large 'enclosure' cut across Early Medieval habitation features in several places. One of the very few distinct house plans at De Geer possibly belongs to the 'enclosure'. It is a timber structure of 9 to 10 x 25 m and these dimensions match the large and comparatively late farmhouses at Dorestad (fig. 10) (Van Es & Verwers 1995, e.g. fig. 8). The distinctive plan at De Geer also indicates a late date. That this building, most probably a farmhouse, is coeval with the system of drainage ditches is suggested by its position parallel to the longitudinal axis of the ditch system and in line with the kink where the two parts of the system link up. This does not mean that the house was the only one within the ditch system but no other clearly associated features were distinguished.

The dating and interpretation of the large 'enclosure' remain problematic. The earliest pottery in the ditches is Carolingian but many or all of these sherds may have been brought to the surface from older settlement features as the ditches were dug. Among this pottery the youngest varieties are late Badorf/early Pingsdorf ware dating from the latter half of the ninth century,

possibly even the early tenth. There doesn't seem to be very much of this late material. Younger pottery is absent from the 'enclosure's' ditches. All of this suggests that the ditch system dates from the ninth century, possibly contemporary with late Dorestad or even somewhat later.

After the Carolingian occupation phase, De Geer seems to have been abandoned for about three centuries. This was followed by a final occupation phase between c. 1250 and 1400. Then a moated dwelling site (*begraven hofstad*) arose at De Geer: a small, brick-built castle with a farmhouse surrounded by a system of moats which, in contrast to the older system, was laid out in a neatly rectangular fashion (Van Doesburg 1994). The east side of the dwelling site exactly coincides with the centre of the older enclosure.

Just as may have happened in the Middle Roman period, after the Carolingian period De Geer temporarily changes from a 'site' into an 'off-site' without there necessarily being a break in the chain of owners or users. The founder of the thirteenth-century moated dwelling may have been a descendant or some other legal successor of the owner of the large ditch complex. The seigneurial (knightly) status of the High Medieval owner is beyond doubt. Might his predecessor also have belonged to the elite of his day? The huge array of ditches (and possibly banks) seems to suggest this. Thus far we have regarded this complex as a fortified refuge coeval with the (final) phase of Dorestad (Van Es & Hessing 1994, fig. 193). We now consider this explanation a little fanciful. The defensive potential of the ditches and possible banks cannot have been very great. We are now more inclined to regard it as a demesne, the seat of a rich landowner or his representative. At any rate it is evident that at the end of the Dorestad epoch or shortly after, a far-reaching reorganisation took place at the settlement of De Geer but it is hard to archaeologically determine what happened with a degree of precision. Unfortunately, we lack any documentary evidence that might shed light on the course of events.

## 2.2 *Rijswijk and Leut near Wijk bij Duurstede*

### 2.2.1 The *castellum* Levefanum

It had long been assumed that the name Levefanum on the Peutinger Map referred to a Roman frontier *castellum* in the vicinity of Rijswijk (province of Gelderland). This hypothesis was corroborated in 1979, when dredging in the floodplain of the Lower Rhine at Rijswijk brought up large numbers of Roman finds among the sand and gravel. In conjunction with our excavations at Dorestad, archaeologists aboard the dredgers over a period of about six months collected samples of these finds. However voluminous, the gathered material represents just a fraction of what must have been dredged up in the way of artefacts (Van Es 1984). The vast majority were lost and others were dispersed in poorly accessible private collections. Our findings relating to Levefanum are largely based on the material from the sample. This consists mainly of potsherds but also includes parts of Roman military equipment, especially fragments of helmets, which demonstrate the military character of the site. Moreover, the composition of the ceramic assemblage points to a fully Roman rather than a Batavian settlement (Table 2).

Thanks to the dredging finds, the *castellum* Levefanum has now been approximately located. In all probability, the actual fort was eroded away by the Rhine as the finds came from a deep sandy deposit covered by three metres of clay. The strategic location of Levefanum, where the rivers Lek and Rhine diverge, is comparable to that of Vechten and Utrecht, the next frontier forts downstream which guarded the forking of the Kromme Rijn and Vecht. On this basis we may assume that Levefanum covered about the same area as these two *castella*, between 1 and 2 hectares. The history of Levefanum will in the main have matched that of the other forts in the Dutch frontier zone. Hence this *castellum* would also have been rebuilt in brick and stone during the third century. The defensive wall and the (main) buildings within are likely to have been kept in a more or less serviceable state right into the early fifth century.

A standard feature of every frontier fort was the *vicus*, the 'civilian' service settlement adjoining the fort on two or three sides and covering an area at least equal to it. The name Levefanum has been emended by Stolte to '*Haevae Fanum*', the sanctuary of the otherwise unknown and possibly regional goddess Haeva (Stolte 1963). If this is correct, her temple may have stood within the *vicus* of the *castellum* or in its immediate vicinity. In that case, this area was of more than local significance, maybe even from before the arrival of the Romans. The dredged-up helmets may have belonged to a deposit of votive gifts.

The third century must have also resulted in great changes at Levefanum. Our Roman dredging finds mainly date to the Middle Roman period. Late Roman finds are absent from our collection. We are unaware of any fourth-century potsherds or other finds, such as coins, in private collections.

Given the conditions under which the archaeological documentation of Levefanum took place, a lack of certain finds does not justify the conclusion that the site was deserted. Hence it remains an open question whether the *castellum* Levefanum *cum annexis* ever accommodated a Late Roman or Frankish settlement, like those so clearly evident at De Geer and arguably present at the nearby *castellum* of Traiectum (Utrecht) (Van Lith de Jeude 1993).

There are no other dredging finds for subsequent periods until the Merovingian period. It is difficult to tell exactly when, but in the course of the seventh century at the latest there definitely was habitation at the site of Levefanum and sherds indicate that this occupation phase continued beyond the days of Dorestad.<sup>2</sup> A comparison with the pottery excavated at Dorestad suggests that the *castellum* site was reoccupied before the middle of the seventh century. Whether the site was unoccupied throughout the intervening centuries remains a moot point because of the scarcity of the available evidence. The name Levefanum at any rate was lost, as at the end of the seventh century the written sources speak of '*castrum* Dorestad', which must refer to the former Roman frontier fort.

	rim sherds	rims, %	wall and base sherds	total number	overall %
Terra sigillata	65	22,8	166	231	22,7
Terra nigra(-like)	13	4,6	40	53	5,2
colour-coated	20	7,0	109	129	12,7
smooth-walled	37	13,0	76	113	11,1
rough-walled	114	40,0	244	358	35,1
Dolium			10	10	1,0
Amphora	6	2,1	56	62	6,1
Mortar	30	10,5	33	63	6,2
<b>total Roman</b>	<b>285</b>	<b>100,0</b>	<b>734</b>	<b>1019</b>	<b>100,0</b>
native	73	20,4	701	774	43,2
Roman	285	79,6	734	1019	56,8
<b>total</b>	<b>358</b>	<b>100,0</b>	<b>1435</b>	<b>1793</b>	<b>100,0</b>

Table 2. Rijswijk/Levefanum: sample of Roman pottery (dredging finds 1979); after Van Es 1984.

### 2.2.2 Rijswijk / villa Risuuic

In a List of Landed Property of the diocese of Utrecht, Rijswijk features as '*villa* Risuuic' (Henderikx 1987, especially 95, 122). This list was compiled in the late ninth and first half of the tenth century in an attempt to reclaim lost possessions of the Chapter of St Martin's, and hence reflects an earlier situation. It relates to the Utrecht diocese's landed property acquired between the first quarter of the eighth century and the years of Viking domination (c. 860-885). At Rijswijk this included part of a villa, comprising a church with its land and three other *mansa*. The list tells us nothing about the full size and the layout of the settlement. The presence of a church suggests a fair-sized habitation, which we might envisage as an ordered complex of farms,

comparable to that of De Geer, but with a church. If we presume that the latter stood at roughly the same spot as the present-day village church of Rijswijk, the villa would have been at a distance of no more than a few hundred metres from the *castellum*. Maybe it was even located within the *vicus*. We might indeed speculate that the first (wooden?) church Christianised the old pagan cult site of Haeva. Such a (private) chapel is unlikely to have been founded before the late eighth century. The founder is unknown. It is generally assumed that the territories of the Roman *castella* became royal estates. Might the villa have been part of this?

There are two main possibilities for the origins of the villa. Either it was a new foundation in Merovingian times or it developed from an older habitation, going back to at least the Late Roman period. In the latter case, it may have evolved from the Roman *vicus*, possibly with a connecting Frankish phase. The parallels to De Geer would in that case be very strong, but without further evidence this must remain mere conjecture. Nor do we have any indication as regards the donor's identity.

### 2.2.3 Leut / Lote villa

Archaeologically nothing is known about the Lote villa. Not a single find can be attributed to it with certainty.<sup>3</sup> Even the location of Leut has never been pinpointed as it ceased to exist as a separate settlement when it was incorporated into the town of Wijk bij Duurstede. It is believed to have occupied the opposite (right-hand) bank of the Kromme Rijn but survives only in the field name 'Leuterveld' (Dekker 1983). There is no doubt about its existence as a contemporary of Dorestad as it is mentioned in the Utrecht List of Landed Property. Therefore it merits consideration as one of the possible roots of Dorestad. At the Lote villa, the chapter of St Martins possessed a church with its land and seven other *mansa*, but not the royal tithe (Henderikx 1987, especially 96, 122).<sup>4</sup> Much of what was said about Risuuic may also apply to Lote. In any case, the presumably private chapel also points to high-ranking donors.

## 3 Other Early Medieval settlements along the Rhine

### 3.1 Roomburg / Matilo

Close to present-day Roomburg lay the Roman frontier fort Matilo which guarded the *Fossa Corbulonis* where it joined the Rhine. Thus the site is a parallel to Rijswijk/Levefanum. Recent excavations have shed light on Matilo. This research focused mainly on the canal banks and on the *vicus* to the west of the fort.<sup>5</sup> We still know very little about the *castellum* itself and since what remained of the site after the building of a housing estate has been declared an archaeological monument, there is little prospect of new evidence emerging in the near future<sup>6</sup>. The occupation history of Matilo will on the whole be quite similar to that of other *castella* along the *limes* in the Netherlands. This means a transition from timber construction to building in stone and brick and regular use well into the third century.

So far, finds from the fourth and fifth centuries are rare at Roomburg. Only one brooch dates to the fifth century and the fourth is represented by one coin, a few brooches and some pottery. W.A.M. Hessing, the excavator at Roomburg, considers this insufficient evidence to prove continuous habitation at or close to the *castellum*. He believes the finds to reflect the occasional presence of small numbers of 'visitors', but in fact it is rather premature to rule out more intensive activity. The excavations have so far been quite small-scale and the fifth century in particular is notoriously hard to detect in this part of the world. We are dependent on handmade 'Frankish' or 'Anglo-Saxon' pottery, which is difficult to date and interpret.<sup>7</sup> As regards Matilo, it would be prudent to suspend judgment for the time being.



The same problem occurs with other frontier forts that have yielded fourth- and/or fifth-century finds. The 1986 survey by W.J.H. Willems remains an excellent overview (Willems 1986, 452-456). Evidence of Roman military use in the fourth century at the *castella* is mostly limited to the stretches of the *limes* upstream from Utrecht. One of these is the fort Maurik/Mannarium, situated near Wijk bij Duurstede not far east of Rijswijk. This also supports the likelihood of a Late Roman phase at Levefanum. Downstream from Utrecht, only the mouth of the Rhine seems to have remained fortified at the *castella* of Valkenburg (province of Zuid-Holland) and presumably also Brittenburg, which was subsequently lost to the sea. The rich river region east of the Utrecht-Rossum line remained more markedly Roman during the fourth century, being more closely linked to the Belgian-German hinterland.

There are only two *castella* where fifth-century and possibly also Merovingian finds might point to continuous habitation, Utrecht/Traiectum, and Meinerswijk/Castra Herculis near Arnhem. In both cases, the evidence results from comparatively small excavations. Therefore full continuity can be warranted in neither case or, as Willems concludes in the case of Meinerswijk, the finds are 'evidence for either continued, renewed or intermittent occupation'. But he is hopeful: '... future research will undoubtedly produce evidence for several Early and Late Medieval phases' (Willems 1986, 352-353).<sup>8</sup> Given its position not far from the mouth of the Rhine, there may yet be hope for Matilo in this respect, but any verification will require more digging there. At Nijmegen, which can boast a huge volume of excavations, there is no longer any doubt as to the continuous transition from the local Late Roman fort, via a Frankish and a Merovingian phase to the Carolingian imperial palace (Willems & Van Enckevoort 2009, 95-105).

From the sixth century onwards, habitation at Roomburg is no longer a matter of debate. Its start is impossible to pinpoint closely. A pseudo-coin brooch found close to the *castellum* dates from the end of the sixth century at the earliest, but habitation is likely to have started before then. The number of Early Medieval pottery finds is quite large, suggesting a settlement of some significance. These were mainly recovered from confined areas on both banks of the *Fossa Corbulonis* immediately west of the *castellum*. Clearly the former *vicus* site was in use during Merovingian and Carolingian days (possibly without interruption). This definitely applies for seventh and early eighth centuries, as new revetments are shown to have been put in along the *Fossa* between 620 and 625, between 680 and 690, and between 714 and 716. Evidently the settlement was oriented on the waterway. One of the definite attractions of *castellum* sites was that they offered good access to the Rhine. The old harbour facilities apparently were still quite serviceable after a few repairs.

There is not enough evidence to determine the nature and the extent of the Early Medieval settlement at Roomburg. Neither do we know whether it included the actual fort. Early Medieval reuse of a former *castellum* site on the *limes* has been attested at Utrecht and at Valkenburg (province of Zuid-Holland), not coincidentally two of the very few Dutch *castella* where excavations have taken place.<sup>9</sup> Utrecht became the seat of the Frisian missionary and Valkenburg may have been a manorial centre. This may also have been the case with the Roomburg *castellum*. The pits at the former *vicus* site contained evidence of artisanal activity but this does not necessarily mean that the settlement specialised in trade and industry. Artisans were also active at mainly agrarian *villae*. The harbour precinct on the Rhine and the *Fossa Corbulonis* would have belonged a larger complex which undoubtedly also included a number of farms and maybe the actual *castellum*. Its location and facilities made it possible for Early Medieval Roomburg to operate as one of the smaller trading settlements in the Dutch river delta that coexisted with Dorestad. Other examples are Utrecht, where a commercial district evolved beside the ecclesiastical precinct, and Meinerswijk near Arnhem, possibly the *vicus* where, according to a written source, Frisian traders vainly sought refuge against raiding Norsemen (Lebecq 1983, 2 (corpus), 314 & 336).



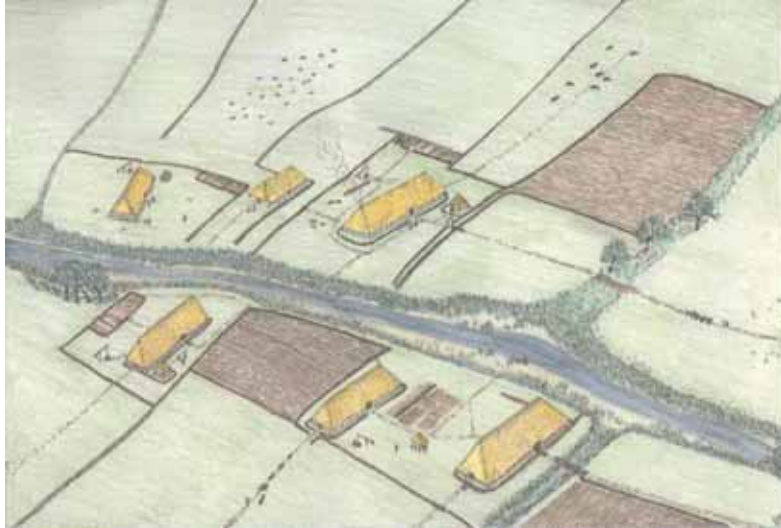


Fig. 11 Reconstruction of the Carolingian settlement at Koudekerk (after Van Grinsven & Dijkstra 2006).

All of this of course is strongly reminiscent of Rijswijk/Levefanum. Maybe we should also visualize Rijswijk/Levefanum as a complex encompassing a *castellum*, a revitalised *vicus* and a number of farmsteads in the background. Hessing (Brandenburgh & Hessing 2005) makes a similar argument for Roomburg. He surmised that in the eighth to tenth centuries Roomburg included 'several dispersed farms under the supervision of a steward, who was a member of the local elite, and whose home was on the site of the former castellum'. At Levefanum such farms may have occupied the site of today's Rijswijk (the Risuuic villa). It is hoped that the location of the farms at Roomburg will be revealed in the future. Maybe they were not all that dispersed after all. A clearer picture of an Early Medieval is offered at Koudekerk.

One final note about Roomburg, it is said that original crown land there had been donated to the church at Utrecht only to have been embezzled by the count of Holland during or in the wake of the Viking raids. Rodenburg castle was built here in the thirteenth century and it is reminiscent of the moated dwelling site at De Geer. However, the developments that prompted its construction fall outside the scope of this article.

### 3.2 Koudekerk

The archaeological evidence relating to Koudekerk is comparatively plentiful, mainly thanks to an excellent recent publication (Van Grinsven & Dijkstra 2006). Excavations in 1978-1979 covered an area of 1.7 hectares. The earliest habitation was found to date from around the beginning of the Christian era. This settlement is thought to have been abandoned as a result of the establishment of the Rhine *limes*. It lay on the opposite side of the river but probably still fell under the *prata legionis*, a fiscal zone where people might visit but not settle. On this basis, the chain of habitation and use may be extended into at least the third century and possibly the zone's Roman imperial status cast an even longer shadow. The thread of continuous use, however, is a thin one, as the next Merovingian-Carolingian habitation phase is thought not to have started until around AD 500. Maybe this starting date, given the presence of some fifth-century brooches and mortar fragments, could be brought forward a little but it still leaves a gap of two centuries or more. Continuous occupation from Roman times onwards is ruled out, at any rate in the excavated area. Interestingly, the Early Medieval habitation occupied roughly the same site as that of the beginning of the first century AD.

The Early Medieval settlement lay midway between two former *limes* forts, 6 km upstream from Roomburg (fig. 11). Thus there was no direct link with a *castellum* site. Neither was it

located on the bank of the Rhine, with which it had no navigable connection. An ancient crevasse gully connected to the Rhine bisected the habitation site, but by Merovingian times most of it had already become filled with sediment and was merely used for drainage. The distance to the river was just a few hundred meters. This geography is reminiscent of De Geer and parallels are also found in the nature of the settlements. Merovingian-Carolingian Koudekerk was a complex of farms laid out on a rectangular grid system on either side of the rudimentary gully (fig. 10). The complex consisted of six farmsteads, each with a farmhouse, a well and the usual outhouses. There were six farms and maybe more since the excavation did not cover the entire settlement. No house plans were recorded but the evidence of their clearly recognizable sites indicates that they were rectangular longhouses measuring about 6 x 20 meters. All six or more are thought to have been occupied contemporaneously.

This evidence pertains to the Merovingian period. It is, however, doubtful that the excavations fully cover this period. No habitation traces of Carolingian times were found, though there were finds of the period. Could it be that the Carolingian settlement lay just outside the excavated area or were its traces obliterated by subsequent land use such as clay digging? Unfortunately, Koudekerk resembles De Geer even in the poor preservation of its archaeological features. Therefore we can only assume that the settlement pattern remained essentially unchanged. It is the finds which make it plausible that occupation at Koudekerk was continuous between AD 500 and 800/850.

### 3.3 *Oegstgeest, Rijnsburg, The Hague-Frankenslag, Katwijk-zanderij Westerbaan and Valkenburg-De Woerd*

Parts of similar settlements have been uncovered near the mouth of the Oude Rijn (Hamburg & Hemminga 2006; 2007). Oegstgeest-Rijnfront and Rijnsburg are fine examples. Oegstgeest is dated between 525/550 and 800 and Rijnsburg from the seventh to the tenth centuries. No Roman precursors were found, probably because these Early Medieval settlements, like Koudekerk, lay on the opposite side of the Rhine in the former Roman military zone. Both had direct or indirect access to the river. It is clear that the excavations revealed parts of farmstead clusters laid out on a grid. Rijnsburg is thought to have been much larger than the excavated area. The same structure was observed at The Hague-Frankenslag. The excavations at Katwijk-zanderij Westerbaan were fairly extensive. Still, the recently published detailed excavation report does not manage to answer all the questions (Van der Velde 2008).

The sand quarry (*zanderij*) Westerbaan lies on the Roman side of the Rhine and here an earlier occupation phase did precede the Early Medieval settlement. The situation parallels that of De Geer in several respects. The Roman occupation phase ended in the second half of the third century and here too was followed by an episode marked by a lack of evidence either of occupation or of abandonment. This quandary is due in part to the difficulty of dating imported pottery from the late third and early fourth centuries and the fact that its production went into crisis in the second half of the fourth century (Steures 2009).<sup>10</sup> At any rate, the Early Medieval settlement in the north of the excavated area immediately adjoins the Roman settlement.

The beginning of the Early Medieval phase at this site is dated to about 450/475. From then on it was intensively occupied right into Carolingian times. Its heyday is thought to have been between AD 550 and 700. The layout of the settlement is hard to reconstruct. There seem to have been several habitation nuclei in a methodically parcelled landscape. The largest excavated settlement fragment is a complex of three or four adjoining farmsteads presumably laid out along a road. The full extent of this settlement site is unknown. The area as a whole may have accommodated some 16 to 22 farms, allowing 4.5 to 6 hectares of arable and grassland for each. Apart from farmhouses – longhouses – of normal length, there also were short houses with little byre space, which may indicate a differentiation in terms of wealth and/or occupation

among the occupants. The number of inhabitants of Katwijk-*zanderij* Westerbaan is estimated to have been about 100 to 165. There is no doubt as to their (mainly) agrarian way of life.<sup>11</sup> According to Blok, the Early Medieval name for Katwijk was Houerathorp, which is believed to mean 'village of farmhouse dwellers' and maybe this name referred to one or more of the habitation nuclei uncovered at the sand quarry (Van der Velde 2008, 409-410).

It remains unclear whether the Early Medieval farms of Katwijk-*zanderij* Westerbaan were part of any villa or *villae*. The settlements were of a fairly dynamic nature and in the course of the Merovingian-Carolingian era at least partially shifted their location. The origin of the settlers is uncertain. Those who exploited the third-century farms are called newcomers, arriving either from north of the *limes* or from elsewhere within the region. Given the problem of continuity in the Late Roman period, the question arises whether the fifth-century inhabitants can also be branded as newcomers. On the basis of his analysis of the metal finds, Knol's conclusion is that initially Frankish connections prevailed, followed by strong Frisian links (Knol 2008).

Thus far, all excavations around the mouth of the Rhine have only revealed settlements made up of multiple dwellings. There seem to have been no scattered, isolated farmsteads.

Imports and traces of artisanal production have been found in all of these settlements. This implies that they were part of a (supra-)regional, indeed international socio-economic exchange network (Van Es 1990) but not that they were specialised trading or production sites. Artisanal activities up to a certain point were an everyday part of the farming economy. There is no evidence that the settlements in question exceeded the agrarian 'standard'. The excavated part of Oegstgeest-Rijnfront does not appear to warrant the conclusion that that it 'occupied an important position in the region and functioned as a trading and (production) site of regional significance' (Hamburg & Hemminga 2006, 307). Such places without doubt did exist in this region and, in our opinion, are sooner to be expected at the former *vicus* sites near *castella*, as at Roomburg. Another good candidate is the (also very partially excavated) Early Medieval site of Valkenburg-De Woerd.

The history of Valkenburg-De Woerd begins at the establishment of the Roman *limes*. In the mid-first century AD a military entrepot harbour was laid out here, which must have been part of the *vicus* of *castellum* Valkenburg. The distance between the two is just over half a kilometre. After studying the recovered *terra sigillata* stamps, J.H.F. Bloemers and H. Sarfatij believe that the larger settlement which in the second century replaced the port, became more 'civilian' in character (Bloemers & Sarfatij 1976). Yet this is unlikely to mean that De Woerd ceased to be fiscal territory and that we are now dealing with a purely civilian *vicus*. Roman occupation ceased around AD 230. Between that year and the seventh century there is a lack of finds. If we want to propose any kind of continuity between the Roman and the Early Medieval occupation phases, this must again be on the strength of Early Medieval princes harking back to Roman imperial prerogatives.

Our image of Early Medieval Valkenburg-De Woerd can only be based on the very provisional evidence published in 1986 and 1988, immediately after the excavations (Bult & Hallewas 1987; Bult *et al.* 1990). The results were not very clear-cut, the reconstructed house plans in particular being quite different from what might be expected. In our opinion the settlement is best characterised as a miniature Dorestad. Its physiography perfectly matches the part of Dorestad excavated along the Hoogstraat. In both cases the settlement was laid out along the inner curve of a Rhine meander, on a natural levee originating in or directly after the Roman period in a river basin in which the meandering river shifted its bed from west to east. This natural process continued after the Early Middle Ages. At Valkenburg-De Woerd, the habitation might have reoccupied part of the site of the Roman settlement behind it (i.e., west of it). The layout of Early Medieval Valkenburg-De Woerd also seems to parallel that of Dorestad. The shore was divided into fairly narrow plots at right angles to the river. The width of the plots it still difficult to ascertain but a riverside abutment is thought to have been about 12 metres wide. According to the excavators, the houses were rectangular, measured 5.5 x 10 to 11 metres, and in



some cases were aligned one behind the other, all at right angles to the river, like the plots. Their plans are so unusual, however, that one wonders whether these posthole patterns are not more likely to represent substructures of houses. Just as at Dorestad, wells are remarkably numerous and often placed in rows. There is evidence of bone and antler working and of livestock rearing or, at any rate, the butchering of fairly young livestock.

If anywhere, it is at Valkenburg-De Woerd that archaeology has hit upon one of those small, secondary trading settlements of which there must have been many in the delta and which are occasionally referred to in written sources, *e.g.* at Meinerswijk. It is an interesting possibility that De Woerd and the *castellum* were still part of a single estate even in the Early Middle Ages. The church in the *castellum* is believed to have been one of the earliest in the western Netherlands and according to the List of Landed Property it belonged to St Martin's at Utrecht. The donor must have been none less than the king. It is possible that De Woerd was also crown land. The List of Landed Property expressly mentions the church *cum omnibus appendiciis ... totum et integrum*, but it is unclear whether this included De Woerd (Bult *et al.* 1990, 165). For the early church of Oegstgeest, a foundation date 'in the first quarter of the eighth century or a little later' has been suggested as part of a donation to St. Willibrord (Bult & Hallewas 1990, 86; Halbertsma 2000, 175-179, 203-205). That Oegstgeest-Rijnfront was anything other than a rural settlement is unlikely, if only because of its location on the Rhine across from Valkenburg-De Woerd but on the bank that started to be eroded in the Early Middle Ages. It is imaginable that De Woerd and Rijnfront were complementary settlements, which would present an interesting parallel to Leut situated across the river from Dorestad.

The farming settlement at Rijnsburg is one of those rare cases where the archaeological evidence is supplemented by the names and social background of its owners. In an important study, Sarfatij demonstrated that the excavated remains belong to the Rothulfuashem villa mentioned in the List of Landed Property, the precursor of today's Rijnsburg (Sarfatij 1977).<sup>12</sup> According to Henderikx it was an early donation dating from the early years or the first half of the eighth century. The donors were probably relatives, among whom Rothulf, presumably a descendant of the villa's original name-giver, seems to have been the most important. Also mentioned are Aldberga (Rothulf's wife?) and one Erulf. The family possessed more landed property in the region than just Rothulfuashem and donated other properties to Utrecht. They clearly were major landowners. The information about Rijnsburg in the document is exceptionally elaborate. It says that Rothulf and Aldberga lived locally at their villa. Did they move out after donating it or was their family line dying out? Of course we remain ignorant of most of the story. However, we do learn that the actual settlement (*ofstedi*) lay at Rijnsburg south of the river Vliet and the associated farmland (a total of 26 *mansa*) on the opposite side. This covered an area of about 157 hectares. Of the *ofstedi* Rothulfuashem, three houses (*i.e.* three farmsteads?) have been excavated. There must have been far more indeed, in order to farm such an expanse of land. We do not know whether the family's possessions included harbourage on the Rhine. If so, it was not immediately connected with Rothulfuashem as the distance to the river is about half a kilometre. The nearest harbour presumably was at Valkenburg-De Woerd.

There is a possibility that the villa excavated at Koudekerk belonged to a larger complex. It has been suggested that Koudekerk was one of the toll ports of the Carolingian realm (Verkerk 1992). If this was the case, it cannot have been at the excavated site, which lacked access to the Rhine. On the riverbank today we do find the church and it cannot be ruled out that this church had an Early Medieval predecessor. Harbour facilities might then be sought in the vicinity of the church, together with any dwelling for the owner or the steward of the estate. In the Early Middle Ages Koudekerk was known by a different name, now lost. It has been suggested that Koudekerk should be identified with a place called Holtlant, or with yet another still enigmatic place name mentioned in the Utrecht List of Landed Property (Van der Linden 1998). This would mean that Koudekerk had been wholly or in part donated to the diocese by wealthy landowners. Thus there are several pointers to suggest that in the Early Middle Ages Koude-

kerk was an estate comprising various elements, the excavated farmhouses representing the agrarian component.

### 3.4 *Upstream from Rijswijk / Levefanum*

To date, no Early Medieval farming settlements have been excavated upstream from Rijswijk/Levefanum. However, some cemeteries in the area attest to a fourth- and fifth-century Frankish phase, followed by Merovingian and (early) Carolingian phases.<sup>13</sup> The principal cemeteries are those of Rhenen, Wageningen and Elst, all located on the northern bank of the Rhine. Rhenen and Wageningen are at strategic locations where land routes from Free Germanic territory crossed the river (Rhenen: Ypey 1972; Wageningen: Van Es 1964; Hulst & Van Es 2007; Elst: Verwers & Van Tent in prep.). South of the Rhine, continuous development from Roman into Merovingian and Carolingian times may be expected at several sites, such as the *castellum* at Meinerswijk. Yet such developments did not occur without a hitch and problems are encountered in the fifth century. Just north of the Lower Rhine, the farming settlement at Bennekom in Free Germany but with close links to the neighbouring Roman province, was deserted (or at any rate vanishes from sight archaeologically) (Van Es *et al.* 1985). In the cemetery of Rhenen we see a shift, though not a break, in the abandonment of the old Frankish part (Van Es & Wagner 2000). Such changes are not a local phenomenon but occur throughout the sandy regions of the north-eastern Netherlands and adjacent Westphalia, where settlements 'disappear' (relocated) and funerary rites are altered.

No definite explanation has yet been proposed but there might be a link with the early stirrings of Merovingian ascendancy. The Franks from the eastern part of the Rhine corridor were trying their luck elsewhere, supporting Childeric and Clovis and their campaigns in northern Gaul. In the sixth century the Merovingian elite remembered the importance of the Lower Rhine and moved in from Ripuarian Cologne to put things straight here. From c. 530 until the early seventh century are represented in the cemetery of Rhenen by three generations of rich graves, probably belonging to a single family (Wagner 1994). Putting things straight meant that the (family) estates along the Lower Rhine were newly laid out, staffed and in some cases (temporarily?) reoccupied by their owners. After a dip in the fifth century, this may be what started the development of the agricultural estates which in later written sources appear as *villae*. In the eastern part of the river delta, many, but not necessarily all of these, might have had a Late Roman and fifth-century origin. Indeed, at De Geer some gold finds date to the sixth century.

At the same time, the Frisian newcomers in the western Rhine delta behaved in a similar fashion. They too set about organising their newly acquired estates. Ambitious leaders gained political power. Gradually the two power blocks came to oppose each other as Franks and Frisians started to vie for the Rhine delta. These power politics provided the backdrop against which we see the emergence of Dorestad in the mid-seventh century.

## 4 The pottery

### 4.1 *The Early Medieval pottery at De Geer and Roomburg*

This is the first publication of the Early Medieval pottery at De Geer and Roomburg (see tables 3 and 4). Two phases have been distinguished. The first covers the Merovingian period from the fifth century up to about the mid-seventh century. This is followed by the Dorestad period which ends between 850 and 900 with late Badorf and early Pingsdorf ware.



De Geer				
Merovingian				total
<i>Wölbwandtopf</i>	399			
Biconical pot	9			
Dish	46			
Miscellaneous	30			
<b>Total Merovingian</b>				<b>484</b>
Carolingian H				<b>subtotal</b>
H IA	53	10	15	78
H IB	7	4	2	13
H IC	18			18
<b>Subtotal H I</b>	<b>78</b>	<b>14</b>	<b>17</b>	<b>109</b>
H I	78	14	17	109
H II	1	2	1	4
H III	3	1		4
H IV	3	1		4
<b>Total H</b>	<b>85</b>	<b>18</b>	<b>18</b>	<b>121</b>

Table 3a. The rim sherds of Early Medieval pottery from De Geer (typology: see Van Es & Verwers 1980).  
W = wheel thrown; H = handmade.

De Geer	w-1	w-1b	w-1e	w-1x	w-3	w-3b	w-6	w-8	w-9	w-10	w-10b	w-11	w-12b	w-13	w-14	w-20	w-21	subtotal	total
Carolingian W																			
W IA		11		3														14	
W IB			6	2														8	
W IC		2?																2	
																			24
		3																	3
W IIA		13				1							1					15	
W IIB		45																45	
W IIC		123				1												124	
W IID		8																8	
W IIE		1																1	
																			193
W IIIA	42	1			51		20	18										195	
W IIIB	18				9		48	17										126	
W IIIC	15				3													18	
W IIID	14						6	2										25	
																			364
W IVA	1																	1	
W IVB	12																	12	
W IVC	2																	2	
W IVD	1																	1	
																			16
W VA														17				17	
W VB														2				2	
																			19
W VIA															13			13	
																			13
W VIIA	4																	6	
W VIIB																		1	
																			7
W VIII																			3
W IXA	5	1			1	3												10	
W IXC	2																	2	
																			12

Table 3b. The rim sherds of Early Medieval pottery from De Geer (typology: see Van Es & Verwers 1980).  
W = wheel thrown; H = handmade. (Cont. on next page).

De Geer		w-1	w-1b	w-1e	w-1x	w-3	w-3b	w-6	w-8	w-9	w-10	w-10b	w-11	w-12b	w-13	w-14	w-20	w-21	subtotal	total
Carolingian W																				
W XA		1																		1
W XB																				1
W XD		1																		1
W XE		3														1				4
																				7
W XIIB								1												1
W XIII									1											2
W XIVA		3				2											1			6
W XIVB		2				8											22			32
W XIVC		2				7											7			16
W XIVD		1				1											4			6
W XIVE																	5			5
W XIVF		2																		2
W XIVG																		6		6
W XIVK		3															1			4
																				77
Late Badorf B												1								1
Late Badorf C												1								1
																				2
Early Pingsdorf A											3									3
Early Pingsdorf B											2									2
																				5
<b>total W</b>																				<b>748</b>

Table 3b. The rim sherds of Early Medieval pottery from De Geer (typology: see Van Es & Verwers 1980).

W = wheel thrown; H = handmade.

The sherds from the latter period were determined in detail as to (sub-)type and fabric using the typology presented in Van Es & Verwers (1980; 2009). For the Merovingian period we still lack a detailed pottery typology that can be applied more generally to the settlement assemblages in these parts. We shall distinguish just three principal forms which comprise several (sub-)types and fabrics. For a more detailed classification of the pottery from De Geer the reader is referred to Bakker 1997.

#### 4.2 Comparison of the Early Medieval pottery from settlements along the Rhine

In table 5 the wheel-thrown pottery from the Dorestad period is divided into three groups. This distinction is in part chronological. The earliest group, comprising types W V-VII, IX, X and XIV, dates from between c. 650/675 and 750/775 and the two others are dated between ca.750/775 and 875/900. There may be a slight chronological difference between these two, in the sense that W IIIA and B occurred widely even in the second half of the eighth century while the Badorf ware of types W I, I/II, II and IV is mainly ninth century (Van Es & Verwers 2009, 295, table 36).<sup>14</sup> However, the difference is a mainly functional one: types W IIIA and B represent cooking pots, which are always a major constituent of crockery, while the Badorf ware, made up of amphoras, jugs and drinking cups (type W IV), will on the whole have served for the storage and serving of wine and other liquids.

Roomburg														
Merovingian:												total	total	
<i>Wölbwandtöpfe</i>	119												119	
biconical pot	10												10	
dish	8												8	
<b>total</b>														<b>137</b>
Carolingian:														
handmade (H)	H-1	H-2												
H IA	127	2											129	
H IB	4	4											8	
H IC	8												8	
<b>subtotal H I</b>	<b>139</b>	<b>6</b>											<b>145</b>	
H II	3												3	
H III	6												6	
<b>total H</b>	<b>148</b>	<b>6</b>												<b>154</b>
wheel-thrown (W)	w-1	w-1b	w-3	w-3b	w-6	w-9	w-11	w-12	w-13	w-14	w-18	w-20	total	total
W IB		1											1	1
W IIA		1		2									3	
W IIB		4											4	
W IIC		12											12	
W IID		2											2	21
W IIIA	20		14		3	5		13					55	
W IIIB	6				2	16							24	
W IIIC	13	1											14	
W IIIE							7						7	100
W VA	13								13					13
W VIA										2				2
W VIIA	1													1
W IXA	23												23	
W IXB	1												1	24
W X?	1													1
W XIVA	8		4										12	
W XIVB	4		2									5	11	
W XIVC	1										1		2	
W XIVF	1												1	
W XIVK		1											1	27
<b>total W</b>														<b>190</b>

Table 4. The rim sherds of Early Medieval pottery from Roomburg/Matilo (typology: see Van Es H = handmade).

The assemblages presented in the tables are very different in size. In fact, they all pale into insignificance compared with the roughly 30,000 rim sherds that we recovered at Dorestad. The finds from the harbour zone along the Hoogstraat (HS) and those from the settlement area outside it are presented separately. In addition, the finds from the harbour are listed by excavation area (HS o to IV).

The pottery assemblage at De Geer is of such a size that it may well be regarded as representative. In the case of Roomburg this probably is no longer so and the finds from Rijswijk are just a sample. The data relating to Katwijk-*zanderij* Westerbaan are taken from Dijkstra's (2008) description of the pottery.

Most of the other columns present data only for the Dorestad period. These are data that we gathered from different contexts (Van Es & Verwers 1985; Van Es & Verwers 1994). The absence of data relating to the Merovingian Period in these columns does not mean that Merovingian pottery was lacking in these assemblages. Apart from assemblages from individual sites there also are provincial pottery collections, comprising finds from various sites. The number of Dutch sites yielding wheel-thrown pottery from the Dorestad period is considerable (Van Es 1990, fig. 8).

#### 4.2.1 Wheel-thrown pottery from the Merovingian period

The Merovingian wheel-thrown pottery was distributed over large parts of the Netherlands. Apart from the central Netherlands, it is found along the coast right up to the province of Friesland, where fairly large amounts were recovered from Wijnaldum (Gerrets & De Koning 1999, 96-98). It is thought to constitute almost 64% of the pottery dated between 550 and 650. Recently it was also encountered at Leeuwarden-*Oldehoofsterkerkhof* (Dijkstra & Nicolay 2008, 124-129) although the quantity here is far smaller. Moreover, in Merovingian and Carolingian times there is an overwhelming preponderance of handmade pottery. The wheel-thrown wares did also occur in the sandy regions to the north and south of the Rhine delta, but in Drenthe they are almost entirely absent. A comprehensive study of Merovingian pottery in the Netherlands is an urgent desideratum. In the present context, suffice it to say that wheel-thrown pottery fulfilled an important part of pottery requirements especially in the Rhine delta and certainly from the fifth century onwards. It is unclear to what extent handmade pottery was also in use here at these times. At any rate it does not seem to have played a significant role.

De Geer, Koudekerk, Katwijk-*zanderij* Westerbaan and Roomburg show similar pottery assemblages in Merovingian times. The rough-walled cooking pot (the so-called *Wölbwandtopf*) in its various manifestations accounts for about three-quarters or more of the total, and the smooth-walled biconical pots are extremely sparsely represented. The latter are overrepresented at Katwijk because there the wall sherds were also counted.

The differences between the four assemblages are fairly minor. We will refrain from broad conclusions until the material has been analysed in greater detail. The assemblages from De Geer, Koudekerk and Katwijk-*zanderij* Westerbaan appear to be somewhat older than that from Roomburg. For De Geer we assume continuity from the Late Roman period onwards. The category 'various' of Koudekerk, which is remarkably voluminous, contains some comparatively early sherds of Alzei types and pitchers that probably date from the fifth century. At Katwijk, the rim sherds of *Wölbwandtöpfe* include some of types Alzey 27 and 32/33. Such early sherds are unknown from Roomburg. Yet this assemblage is too small and from too limited an excavation to permit any definite conclusions. The foundation date of Roomburg remains uncertain, while for Koudekerk the fifth century is plausible. The Merovingian potsherds from Rijswijk are of course too few to present a proper pottery assemblage, let alone to reveal a foundation date.

Against the background of the widespread occurrence of Merovingian wheel-thrown pottery in the region, its absence in (the excavated part of) Dorestad is significant. Apart from perhaps a few potsherds, there is no wheel-thrown ware older than roughly the mid-seventh century.<sup>15</sup> On the banks of the Kromme Rijn east of De Geer (and west of Leut?), the earliest habitation appears to have coincided with the start of Dorestad.

		Merovingian				total Mero- vingian	W V, VI, VII, IX, X, XIV	Dorestad W			other W	Dorestad H	
		Wölb- wand- topf	biconical pot	dish	miscel- laneous			W IIIA and B	W I, II, I/II, IV	subtotal, these W types		H	total Dorestad W and H
Dorestad total	n					5333	8678	9123	23134	2315	4252	29701	
	%					23,1	37,5	39,4	100,0				
west of Hoogstraat	n					3935	4431	5851	14217	1274	1839	17330	
	%					27,7	31,2	41,2	100,0				
Hoogstraat o-IV	n					1398	4247	3272	8917	1041	2413	12371	
	%					15,7	47,6	36,7	100,0				
HS o	n					203	559	188	950	84	159	1193	
	%					21,4	58,8	19,8	100,0				
HS I	n					186	810	928	1924	164	571	2659	
	%					9,7	42,1	48,2	100,0				
HS II	n					298	1531	1074	2903	324	958	4185	
	%					10,3	52,7	37,0	100,0				
HS III	n					425	900	831	2156	307	448	2911	
	%					19,7	41,7	38,5	100,0				
HS IV	n					286	447	251	984	162	277	1423	
	%					29,1	45,4	25,5	100,0				
De Geer	n	399	9	46	30	484	135	321	236	692	49	121	862
	%	82,4	1,9	9,5	6,2	100,0	19,5	46,4	34,1	100,0			
Koudekerk	n	763	37	40	168	1008	194	206	76	476	442	918	
	%	75,7	3,7	4,0	16,7	100,0	40,8	43,3	16,0	100,0			
Valkenburg-zanderij	n	178	15			193	46	67	21	134			
	%	92,2	7,8			100,0	34,3	50,0	15,7	100,0			
Roomburg	n	119	10	8		137	82	79	22	183	154	337	
	%	86,9	7,3	5,8		100,0	44,8	43,2	12,0	100,0			
Rijswijk	n					12	23	18	14	55			
	%					41,8	32,7	25,5	100,0				
Utrecht	n					9	30	12	51				
	%					17,6	58,8	23,5	100,0				
Vlaardingen	n					7	62	18	87				
	%					8,0	71,3	20,7	100,0				
Texel	n					14	89	30	133				
	%					10,5	66,9	22,6	100,0				
North Holland excl. Texel	n					34	115	56	205				
	%					16,6	56,1	27,3	100,0				
Zeeland	n					25	44	97	166				
	%					15,1	26,5	58,4	100,0				
Gelderland excl. Nijmegen	n					2	28	32	62				
	%					3,2	45,2	51,6	100,0				
Overijssel	n					7	164	351	522				
	%					1,3	31,4	67,2	100,0				
Groningen and Friesland	n					6	51	69	126				
	%					4,8	40,5	54,8	100,0				

Table 5. Comparison of some Early Medieval pottery assemblages from sites near the Rhine and from the northern Netherlands (typology: see Van Es H = handmade; HS o-IV = Dorestad, excavation areas Hoogstraat o to IV).

#### 4.2.2 Wheel-thrown and handmade pottery from the days of Dorestad

In the overall assemblage of wheel-thrown pottery from Dorestad, the early types are the least well represented (c. 23%), while the cooking pots W IIIA and B and the Badorf ware are roughly balanced and together overwhelmingly predominate. When the pottery from the various excavation areas is considered separately, the proportions of the three categories of wheel-thrown ware are found to fluctuate. We shall not seek to explain these differences in this paper since they do not fundamentally deviate from the overall spectrum. The cooking pots W IIIA and B and the Badorf ware jointly account for three-quarters and locally even more of the



wheel-thrown pottery. The fact that these two groups are roughly contemporary and cover about half of Dorestad's chronology prompts the conclusion that pottery imports significantly increased from the mid-eighth century onwards. This is connected to the transition from the small-scale and scattered production of Merovingian times, of which our 'early' group represents the final stage, to production on a more 'industrial' scale in the German *Vorgebirge*.

As might be expected, the pottery assemblage from De Geer, which was part of the Dorestad agglomeration, parallels that of Dorestad. The difference compared to Roomburg and Koudekerk is obvious. There, the early types make up 40% or more of the Dorestad-period assemblage and very clearly outnumber the Badorf ware. The increase of pottery imports in Carolingian times is far less evident at Roomburg and Koudekerk. The difference is mainly due to the Badorf ware, the 'drinking ware'. For a farming community such as Koudekerk this is only to be expected. At Roomburg, a former *vicus* beside the *Fossa Corbulonis*, this is more surprising. However, this pottery assemblage is not very voluminous and from a restricted area and is thus unlikely to be representative of the entire settlement beside (and within?) the *castellum*. This goes *a fortiori* for Rijswijk, which shares its high proportion of 'early' wares with Roomburg and Koudekerk. At both Roomburg and Koudekerk this 'early', i.e. Late Merovingian group is the tail end of a flow of Merovingian imports starting at an earlier date. The contacts pre-existed and did not need to be newly established in the second half of the seventh century. This must also apply to De Geer, but here the 'early' wheel-thrown wares have, in manner of speaking, been wholly overtaken by the subsequent spate of imports. The explanation may in part lie in changing relations between different types of settlement. During the heyday of Dorestad an ordinary villa may have had less direct access to the flow of imports monopolised by Dorestad.

Koudekerk and Roomburg have a far greater proportion of handmade pottery than Dorestad and De Geer: almost 50% against less than 20%. This is a Frisian feature. Whereas in the vicinity of Dorestad and upstream the handmade pottery seems to have become virtually extinct in Merovingian times, along the North Sea coast the *Kugeltopf* vessels continued to compete against the wheel-thrown cooking pots from the German Rhineland throughout the eighth century. The *Kugeltopf* vessels in Dorestad are presumably Frisian imports. They occur comparatively often in the harbour zone (Hoogstraat 0 to IV). Their high values around the mouth of the Rhine match those in other Frisian regions.

The right-hand half of table 5 (from the 'Utrecht city' column) should be regarded as an extra, relating only to the wheel-thrown pottery of the Dorestad period. The city of Utrecht and the coastal provinces from Zeeland right up to the isle of Texel show assemblages that are roughly comparable to that of Dorestad but the proportions of the 'early' category are rather low. This could mean that here too the flow of imported, wheel-thrown pottery accelerated during the heyday of Dorestad, i.e. the mid-eighth to the mid-ninth centuries. Yet as long as the Merovingian pottery from the region in question is not better understood, we should refrain from drawing conclusions. For the northern coastal zone (of Friesland and Groningen) and the sandy regions in the provinces of Gelderland and Overijssel, such an increment in pottery imports in Carolingian times is certainly plausible. Merovingian wheel-thrown pottery is rare there. Yet it appears that the western margin of Friesland (Westergo) is an exception, where at any rate locally this pottery does occur in some quantity. Westergo lay closest to the Rhine delta but here too the beginning and volume of Merovingian imports are yet to be determined. Dorestad must have played a major role in the exportation of Carolingian wheel-thrown pottery to the downstream Rhine delta and along the Dutch coast. For the interior, particularly the province of Overijssel, Deventer is a more likely transit port. This trading settlement on the IJssel emerged in the late eighth century, flourished in the ninth century and, in contrast to Dorestad, did survive the Viking raids (Bartels 2006). The wheel-thrown pottery in the province of Overijssel anyhow comes from excavations at Deventer. The assemblage of wheel thrown pottery at Deventer is somewhat 'younger' than that of Dorestad since it contains a larger proportion of Badorf ware (Van Es & Verwers 1985).

## 5 Conclusions

1. When Dorestad emerged in the mid-seventh century, there were already settlements of various types and origins along the Rhine.

In the first place, there were the former Roman *castella*. These combined the prestige of their Roman origin with the practical advantage of their location directly on the international waterway and were sites eminently suitable for the development of settlements of supra-local importance. The old (harbour) facilities, however dilapidated, were still present.

Second, there were rural settlements consisting of several farmsteads clustered together in an orderly arrangement. So far, no isolated farmsteads are known.

*Castella* and nearby farming settlements may have operated in a complementary fashion. This is what we presume for Levefanum and the Risuuic villa, which together seem to have constituted one of the precursors to Dorestad. Such a symbiosis may also have existed at Roomburg. Other known farming settlements lay too far from a *castellum* to make close relations likely. De Geer, another precursor to Dorestad, is an example of such 'autonomous' settlements, and maybe also Lote/Leut.

A third type is the smaller 'trading settlement' situated on the bank of the main stream, of which so far Valkenburg-De Woerd is the only excavated example. We imagine that it operated like a minor version of Dorestad. In this case too, there may have been operational links with a *castellum*. These smaller Early Medieval *vici* – Dorestad being a *vicus famosus* ('of renown') – probably incorporated an agrarian component, as did their illustrious example, but may also have maintained economic relations with surrounding farming communities.

2. In many cases, several settlements of similar or different types might be in the hands of a single landowner. Apart from the king and the church, whose landownership steadily increased, there were also large private landowners. At Rijnsburg we caught a glimpse of one of these families who lived on one of their estates in the region. Whether this was the usual state of affairs, we do not know. It is likely to have varied through time.

The *castella* are regarded as royal estates. If Levefanum belonged to the (Merovingian) king, might De Geer, separated from the *castellum* site by the river Lek, then have been in the possession of one or several regional potentates? As Dorestad emerged, two kings reigned in the Rhine region: a Merovingian king and a Frisian one. This situation goes back to the sixth century, following a fifth-century power vacuum in the Rhine delta. In the context of Frisian-Frankish antagonism, landed properties probably changed hands quite frequently.

3. The beginnings of the settlements that we know of in the seventh century are also quite varied. Some, like De Geer, went back to the (Late) Roman period. Others, such as Koudekerk, did not emerge until the Merovingian period. For the *castella*, continuity from Roman times is usually hard to prove, yet often quite plausible.

Upstream from Utrecht there seems to be more continuity of occupation than downstream in the delta, with the exception of the Rhine mouth, where the *castella* of Roomburg, Valkenburg and Brittenburg (now submerged) are sites of potential continuity.

East of Utrecht, we find evidence of Frankish colonisation in the Late Roman period which reversed at least part of the depopulation that marked the third century. Theoretically, in the

Late Roman period the area around the Rhine mouth could have accommodated a similar repopulation by Frisians, but so far archaeological evidence of this is rare. Any remaining population in the fifth century might have been outnumbered by an *adventus Frisionum* similar in time and process to the *adventus Saxonum* in Britannia, an influx of groups of newcomers under their own leaders. This could have laid the basis for the subsequent Frisian expansion in the Rhine delta.

4. In the central Netherlands, from the fifth century onwards imported wheel-thrown pottery wholly or largely replaced the native handmade pottery. As yet, little is known about the provenance of these Merovingian products but the German Rhineland must have played an important part even then. A reorganisation of production methods in the Eifel mountains and the *Vorgebirge* resulted in an increased stream of exports, which through the facilities offered by Dorestad was mainly directed towards the Rhine delta and the Dutch North Sea coast. The hinterland in the north-eastern Netherlands obtained these wares mostly through the port of Deventer.

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## Notes

1. 'Batavian' ware was not principally associated with the core of the *gens Batavorum*, which had split from the Chatti and was relocated near Nijmegen by the Romans in c. 50 BC. It was essentially a continuation of the regional (Eburonian) pottery tradition.
2. See also Van Es 1963, table 2.
3. Maybe the finds recovered from a former school site on the northeastern edge of the medieval town centre of Wijk bij Duurstede relate to Leut. Closer examination of this excavation might clarify the matter.
4. In his article on Rijnsburg, Sarfatij draws attention to the fact that *mansus* may refer either to a farm or to farmland (Sarfatij 1977, 291). At Rijnsburg, where the word certainly has the second meaning, the *mansus* was found to be c. 6 hectares in size, which for the entire villa in question would amount to almost 157 hectares. At Katwijk-zanderij Westerbaan, the area of farmland available to each farm is estimated at 4.5 to 6 hectares. Six hectares is roughly the area of farmland that one farming unit (a farm occupied by one extended family) could manage. In this way, the two meanings may coincide again. It should be noted that in the passages about Risuic and Lote the *land* belonging with the church is referred to as *terrae* ('*cum terris*').
5. For an overview of the research results, see Brandenburgh & Hessing 2005.
6. In the Dutch situation archaeological monuments are seldom submitted to research, since the governmental policy is to protect monuments as much as possible for the future.
7. What, for instance, to make of the fourth/fifth century 'Anglo-Saxon' pot found at the site of the Roman town of Forum Hadriani near Voorburg-Den Haag (De Jonge 2006)? Is the pot itself an import or does it point to the arrival of immigrants from the northern Netherlands who settled in the wholly or largely deserted urban area and thus formed a link in the (unbroken?) chain of local occupants? The latter interpretation is the more likely as there is further evidence of Frisian-Anglo-Saxon immigration in the coastal part of the province of Zuid-Holland. Waasdorp & Eimermann (2008) envisage

- a sparse remnant population in the fourth and fifth centuries which was augmented by an influx of 'newcomers' of 'Frisian' stock in the late fifth century. They date the Anglo-Saxon urns from Solleveld (Waasdorp & Eimermann 2008, 83 and 125) to the sixth century, which for an urn like Peeters VIII strikes us as rather late. They date the fragmentary urns of Tritsum ware very broadly: fourth to seventh centuries
8. For Utrecht see Van Lith de Jeude 1993.
  9. The excavations at Utrecht were quite limited in scope so the number of Early Medieval finds is rather small. However, the reuse of the *castellum* as the seat of the Frisian missionary episcopate is historically documented. Early Medieval reuse of the *castellum* at Valkenburg (Zuid-Holland) is evidenced by just one grave from the early eighth century (Stein 1967, 401, *Liste 2, Tafel 99*). The excavations failed to shed much light on the history of this *castellum* after the Middle Roman period. Theoretically, the single rich grave may belong to a cemetery around a (private) chapel in a manorial centre.
  10. Maybe a closer examination of the handmade pottery from Katwijk will succeed in filling this void.
  11. The recovery of two (possible) touchstones and part of a bronze plaque bearing what has been interpreted as a trial impression of a pseudo-Madelinus Dorestad *tremissis* has suggested the presence of a jeweller's or minter's workshop: Van der Velde 2008, 408-409. Conclusive evidence for this hypothesis is of course hard to come by.
  12. See also Henderikx 1987, 118-120, especially notes 19 and 30.
  13. After the mid-eighth century, graves only contain grave goods in exceptional instances, rendering them undatable. The associated settlements definitely continued.
  14. This table wrongly suggests that types W IIIA and B did not continue into the ninth century.
  15. There is a small proportion of Roman sherds dating to the Dorestad period.

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