3 Exploring villa development

After having explored the frameworks and datasets in previous chapters, I will now move on to focus on the main theme of this study: villa development. Using considerable amounts of the high-resolution data on rural settlement available, I will attempt to reconstruct long-term development trends as well as short-term transformations on the level of the settlement and associated community. This chapter specifically approaches the developments exclusively from a spatial-architectural perspective, focusing on both the organisation of settlement space and house building. The social and economic dimensions of the reconstructed developments remain underexposed here, but will be the central theme of chapters 4 and 5 respectively.

As has been discussed in detail in previous chapters, the approach taken in this study is broad, diachronic and focuses on both long-term and short-term developments. With regard to rural settlements, more long-term developments include trends towards durability, stability, nucleation and structuration. Short-term transformations include the adoption of new materials, new building techniques, new forms and concepts. In this study I would like to explore villa development within the tension field between continuity and change and, consequently, between these long-term trends and more rapid transformations of settlement and house construction. The main aim of this chapter is to reconstruct, visualise and analyse settlement and house development trajectories, with the intention of providing additional insight into the complexity of processes of change within the extensive research region.

From an architectural perspective, ‘the villa’ is traditionally viewed as a monumental, Roman-style house, typically characterised by white plastered walls, red tiled roofs and porticoed facades, or, from a higher viewpoint, as a settlement with such a monumental house as the main residence. In order to understand the complex processes concerned with regard to villa development, it is however essential to opt for a broader approach, such as outlined in the introduction. One basic point involves the non-essentialistic approach of the villa concept. I purposely avoid discussions regarding detailed definitions of settlements and villas or at what point the concept of a ‘true villa’ came into being. Much more importantly, I will focus on significant development trajectories in rural settlements, of which the development of the stone-built houses, traditionally referred to as villas, is a mere part. Nevertheless, it is neither possible nor desirable to avoid the term villa completely. Generally, I will use the term ‘villa house’ for monumental, multi-roomed houses and ‘villa settlement’ for well-organised and monumentalised settlement compounds.

In this chapter I will firstly provide a brief exploration of how views on villa development have developed from the early days of Roman archaeology up until professional discipline in the late 19th century. Subsequently, using the best quality settlement data, settlement development trajectories will be reconstructed per subregion, followed by an attempt to classify settlement types and settlement development trajectories in particular. The long, general lines of settlement development between the Late Iron Age and Roman period will also be analysed. Next, I will construct a more detailed picture of houses, again reconstructing their development trajectories per subregion, once more followed by an attempt to classify these development trajectories. Several specific elements of change will then be studied in greater detail. For the sake of contextualisation, urban house development will be explored as well. In the concluding section I will assess how these analyses improved our understanding of villa development, as a phenomenon within the tension field between continuity and change.

3.1 Changing perspectives on villa development

Views on the development of the villa are intimately related to ways in which the villa phenomenon is interpreted and defined. Therefore, it is important to understand how villa development has been studied and understood through the ages.

In the early days of Roman archaeology, a Romanist perspective was predominant, causing the villa to be regarded as a phenomenon imported from the Roman world and inhabited by Roman officials,
officers, and wealthy tradesmen. Excavations were limited to the most monumental parts of the villa, disregarding the broader settlement context and less monumental building phases. As a result, they supported the colonist view. Indicative is the interpretation of the large central halls in many provincial villas as open courts, similar to the Mediterranean atrium. With regard to the villa, Swoboda thus suggests that ‘…dieser Typus sich in Italien gebildet und von hier aus seine Verbreitung in die Provinzen gefunden habe’. From the early 20th century onwards, such Romanist views were challenged by emerging theories of romanisation, recognizing processes of social, economic and cultural change in the confrontation between the Roman conquerer and the native subject peoples. The German scholar Franz Oelmann was a protagonist within the field of villa development. His famous excavation at Mayen-Im Brazil, carried out in the 1920’s, demonstrated a traditional wood-built architecture being succeeded by a stone-built villa of the portico-pavillion type. For the first time, it became evident that the villa was not simply an exponent of colonisation, but could be linked to a gradual development that involved native people, who had ‘…früher oder später die überlegene Zivilisation übernommen…’. In the slipstream of this new insight, Fremersdorf recognised early building phases at Köln-Müngersdorf (late 1920’s). In addition, in Britain and the Netherlands, wood-built predecessors were documented at Park Street (1943-5), Ditchley (1935) and Kerkrade-Spekholzerheide (1950). Also, the discrepancy with Italic house building was first recognised, creating a link to traditional local house building.

These few examples of villa development trajectories, connected to the concept of romanisation, long remained prominent within the study of villas. Two important syntheses on villas, Rivet’s and Percival’s, are based on the assumption that, in the majority of cases, the villa owners and builders were natives. However, the actual development of these villas from traditional house building was not yet discussed in any detail. Both authors principally regard the appearance and significance of the villa in socio-economic terms, in relation to the radically changed economic circumstances of the Roman province. Official tax demands, the increased town population and military consumption, the development of new markets and the availability of new material culture stimulated the production of a surplus, creating wealth for investments in house building. Wightman distinguishes between villas that accumulated luxury in stages and those that were luxurious from the start. Radical developments, such as the rebuilding and considerable enlargement of houses, she argues, cannot be explained by wealth acquired from the exploitation of nearby farmland alone. Consequently, villa studies started to set its sights on explaining the appearance of the villa in broader socio-economic terms, instead of exploring developments in rural settlements as such in greater detail. Furthermore, the main focus was still the monumental house, underexposing developments regarding the organisation of the broader settlement.

In more recent decades, both the quality and extent of rural archaeological excavations have improved dramatically. As a result, much more high-resolution spatial and chronological data on rural settlement are now available to those aiming to answer more complex research questions on settlement and house development. In the German loess region and in northern France in particular, remarkable archaeological activity has resulted in much more detailed knowledge on rural settlement and the Roman-period countryside. In northwestern France, rural archaeology concentrated on the development of so-called ferme indigène, enclosed indigenous settlements, towards villa settlements. This research topic was first touched upon by Roger Agache in his seminal study of the Picardie region. As rural archaeology developed further, this theme was explored in more detail at a conference held in France in 1994, resulting in the publication ‘De la ferme indigène à la villa Romaine. La Romanisation des campagnes de la Gaule’. This study

74 Derks 1998. 75 Oelmann 1921, 64-73, 1928, 117 ff. Oelmann argued that this space should be interpreted as a roofed hall. In many cases hearths were situated centrally within this hall, rendering an open court-interpretation improbable. 76 Swoboda 1919, 78. 77 Haverfield 1905/1906; Mommsen 1886. 78 Oelmann 1928. 79 Oelmann 1928, 137. 80 Fremersdorf 1933. 81 De Maeyer 1933, 128-131. 82 River 1969. 83 Percival 1976, 38; Bowen 1969, 1: ‘The native Celts supplied more than the background to Roman villas in Britain. It seems likely that they actually owned most of them.’ 84 River 1969, 215. 85 Wightman 1985, 113. 86 Wightman 1985, 111. 87 Agache 1978. 88 Bayard/Colliart 1996.
shed more light on developments of settlements and houses as such, including their non-monumental phases and, at the same time, the non-Roman elements of villa development. Generally, as a result of the increased knowledge, the Roman part in villa development tended to be downplayed, particularly in comparison to earlier views on the villa. For example, comparing provincial and Italic villa houses, Lenz argued that it was unlikely that Italic villas were an inspiration for provincial villa building. In this light, the introduction of the concept of ‘proto-villa’ by Jan Slofstra in 1991 is also of considerable interest. Slofstra defined proto-villas as ‘the architectural expression of the status of second-rate native chiefs who were not wealthy enough to build a Roman-style villa.’ Although frequently criticised, the term has caught on in archaeological literature to describe houses that displayed certain Mediterranean architectural influences, but failed to live up to what a ‘real villa’ should look like. While this concept implies an excessively essentialistic view on the villa and underexposes the context of development, it does direct attention to the variety and complexity of processes of change and the active role native people played in this. One of the few scholars who challenged this native model of continuous villa development is Gaitzsch, who has argued that the Hambach area was a colonised landscape, related to the foundation of Roman Cologne as a Colonia. According to this author, the settlement compounds excavated in the hinterland of Cologne were colonist foundations ex nihilo, founded within a more or less regularly organised landscape.

The development of a more complex understanding of processes of change within the developing Roman provinces was also reflected by the more theoretical debate in British archaeology. The romanisation concept as explanatory model for change has in recent decades constituted an object of much criticism. The main objections of those opposed were the inherent Romano-centrism, the Roman-native dichotomy and modern-colonial background. It was argued that, in post-colonial times, the development of new models and concepts is pivotal. In the meantime, a number of new concepts and models have been introduced, including globalisation, creolisation, network-theory and consumption-theories.

The present study can be situated within the tradition of settlement archaeology, most strongly developed in the sand and clay landscapes of the Netherlands and the loess landscape of the French Picardie. It is this archaeological tradition that provides us with a broader perspective on the villa as part of settlement development, rather than viewing the villa as an isolated object of study. The ever growing settlement dataset now allows us to reconstruct development trajectories in more detail, creating a clearer picture of the heterogeneous and complex processes of villa development.

89 Lenz 1998.
90 Slofstra 1991.
91 Slofstra 1991, 163.
93 Gaitzsch 1986.
94 Whereas Gaitzsch thought of these colonists as military veterans, other scholars have suggested that these settlers had civil Gallic background (Lenz 1998; Heimberg 2002/2003).
3.2 Exploring settlement development trajectories

After having explored some backgrounds and defined a number of directions, this section constitutes a description, visualisation and analysis of development trajectories in settlement organisation. First, as defined in the previous chapter, the available data on settlement development will be explored per subregion. Subsequently, all data are joined together to create a useful classification of settlements and settlement development trajectories in particular. Thirdly, settlement development will be viewed from a long-term perspective, covering both the Late Iron Age and Roman period.

3.2.1 Developments in settlement organisation per subregion

The northern sand and clay areas

In recent decades, the northern sand and clay areas, directly south of the Roman limes and covering the Dutch river and coastal area as well as the sandy plains in Dutch Brabant and Limburg, have seen a considerable amount of good-quality and large-scale settlement research being carried out. These data will subsequently be explored, aiming to reconstruct rural settlement development trajectories in this region.

One of the best-researched micro regions of the Brabant sandy plains is that surrounding the city of Oss. With regard to this region, it is possible to follow developments in settlement organisation from the Middle Iron Age right into the Roman period. During the earliest periods, small numbers of farmsteads shifted through seemingly stable settlement territories. Each generation saw farmsteads being rebuilt at a new location. During the later Iron Age, the number of contemporary farmsteads increased to a maximum of four within a single settlement territory, whereas, in an increasing number of cases, farmsteads were being rebuilt at the same location. Settlement consequently became progressively more stable during this period. At two sites, Oss-Schalckskamp and Almstein, settlement space was even enclosed by ditches, something unusual for Late Iron Age settlements in this region. After 50 BC, in the transition period between Late Iron Age and Roman period, two settlements in the Oss region seem to have remained occupied, although, for this phase, habitation is not well-traceable archaeologically. In the earlier 1st century AD, the relatively dispersed and unstructured habitation at Oss-Westerveld was reorganised by the creation of a rectangular enclosed settlement compound, containing three or four contemporary farmsteads. During the Flavian period, the number of farmsteads even increased up to a maximum of ten contemporary farmsteads. Then, around 100 AD, a remarkable development took place. One farmstead was separated from the rest by a rectangular ditch system. Apart from this separation, the architectural character of the house (being a so-called portico-house) as well as the character of the material culture, indicate the special status of its inhabitants. A number of other settlements founded in the Oss region during the 1st century AD were also enclosed by ditches: Ijsselstraat, Horzak, Mettegeupel and Zomerhof. However, none of these settlements featured special-status farmsteads similar to that in Westerveld. Only the Zomerhof settlement included one especially large house, prominently positioned on the edge of an open area, potentially indicating a special status.

A development trajectory quite similar to Oss-Westerveld could be documented at Hoogeloorn-Kerkakkers. This settlement was founded in the early 1st century AD as an enclosed compound, probably containing four farmsteads, arranged more or less around an open space. Generally, houses seem to have been rebuilt at the same location or nearby. The maximum number of contemporarily inhabited farmhouses at Hoogeloorn was probably seven. In the period between around 120 and 150 AD, a significant reorganisation of settlement space took place. A separate compound, possibly measuring

95 Several syntheses on this settlement research have been published: Slofstra 1991; Roymans 1996; Roymans/Theuws 1999; Verwers 1998; Gerritsen 2003; Vos 2009; Heeren 2009.
97 For an overview see Gerritsen 2003, 181-189, 194-198.
98 Wesselingh 2000, 197.
100 Wesselingh 2000, 198.
102 Awaiting the final publication, the revised phasing of Jeneson (2004) is used here.
around 150 by 150 m, was created by means of a ditch. On this compound a multi-roomed house on stone foundations, a drinking hole and a hypothetical coral could be found. The house itself was directly surrounded by a rectangular palisade. The other, traditional houses of the settlement were situated directly outside of the separately created compound. Parallel to Westerveld, at Hoogeloon, we consequently come across a combination of spatial segregation within the settlement, combined with architectural developments in house building. What is particularly interesting is that the monumental house was situated on a prominent, slightly raised location within the settlement: the same spot where two consecutive Alphen-Ekeren-type houses were also built in the preceding period. Slofstra suggested that the prominent location, combined with the special character of the material culture associated with these traditional houses, points at the prominent social position of their inhabitants within the local community.

Riethoven-Heesmortel, Nistelrode-Zwarte Molen and Nistelrode-Loo are among other enclosed settlements within the sand region. The Riethoven settlement was enclosed in the 1st century AD, although the enclosure ditch was backfilled in later phases. Nistelrode-Loo has a development trajectory starting in the Late Iron Age and running into the Roman period. Over time, houses were becoming sturdier and the settlement became increasingly spatially stable. Settlement space was enclosed and internal space organised. The Zwarte Molen settlement started as a single farmstead with a portico-house during the Flavian period. It was not until the 2nd century AD that the settlement was enclosed and developed towards a well-structured entity. A possible clue for the earlier systematic reorganisation of settlement space is the construction of four wells, forming a perfect square with sides measuring exactly 180 Roman feet. The excavators suggest that this phenomenon, dating back to the late 1st century AD, is an indication of the systemic layout of settlement space, created by Roman geometricians.

Aside from these enclosed and spatially well-organised settlements, another category of sites rather demonstrates a continuation of the structure of Iron Age settlements, being unenclosed and relatively dynamic spatially. These Roman-period settlements, such as Moergestel and Lieshout-Beekseweg, consisted of loosely structured clusters of two to five farmsteads, situated at short distances from each other and shifting over short distances, comparable to Late Iron Age settlements like Haps, Someren and Beegden. At Nederweert-Rosveld, such a loosely structured settlement also existed, although for a short period of time, probably between 150 and 180 AD, settlement space was reorganised by the construction of a common ditch system.

To the north of this sandy region, several well-documented sites provide insight into settlement development trajectories. One of the older excavations is Wijk bij Duurstede-De Horden (see fig. 3.1 for the development trajectory). The development trajectory of this settlement may be considered typical for this northern region, as other excavated sites demonstrate. During the earliest settlement phase, dated to the first half of the 1st century AD, a number of farmsteads clustered within the settlement territory - or, alternatively, as the existence of a dividing ditch suggests, two territories - without being enclosed or organised by a common ditch system. Settlement was organised on the level of the individual farmstead. In a second phase, around the middle of the 1st century AD, one of the farmsteads was enclosed by a ditch, while the other farmsteads were still relatively loosely clustered. Subsequently, in the period between 70 and 100 AD, the rest of the settlement was enclosed by a common ditch, forming a squarish settlement compound connected to the earlier enclosure. This organisational structure continued to exist during the 2nd century, although it became integrated into a larger system of ditches organising the surrounding landscape.

103 This reconstruction is suggested by Jeneson (2004).
112 See fig. 6.10 in Hiddink 2005b, 96.
113 This settlement was excavated between 1977 and 1987, and was extensively analysed and published by Wouter Vos (Vos 2002, 2009).
114 For the reconstructed settlement development trajectory of Wijk bij Duurstede-De Horden, see Vos 2009, 89-99, 104-108.
As aforementioned, the same development could be recognised at several other sites in the region, such as Druten-Klepperheide\textsuperscript{115} and Rijswijk-De Bult\textsuperscript{116}, as well as at the more recently excavated site of Tiel-Passewaaij\textsuperscript{117} and Geldermalsen-Hondsgemet\textsuperscript{118}. The settlements of Tiel, Druten and Rijswijk were founded around the beginning of the Common Era, while, at Geldermalsen, habitation reached back to the 2\textsuperscript{nd} century BC. During their earliest phases, these settlements consisted of loose clusters of one up to four farmsteads without a common ditched enclosure. Similar to De Horden, space was significantly reorganised during the following phases. At Geldermalsen, Druten and Tiel, a settlement was first partly organised by ditches, enclosing single farmsteads. It was not until much later that all farmsteads were integrated into a common ditch system. At Geldermalsen, this development took place around 70 AD; at Druten this occurred somewhere between 80 and 150 AD. The Tiel and Rijswijk settlements were enclosed during the first half of the 2\textsuperscript{nd} century AD. The integration of the enclosed settlement within a wider ditch system, organising the surrounding landscape, as documented at De Horden, was also documented at Tiel-Passewaaij and Rijswijk-De Bult. Off-site excavations near Rijswijk have shown that the landscape was indeed organised by ditches in a structured manner.

Besides the above-described sites, several settlements within the well-researched microregion of Houten - Houten-Overdam, Houten-Doornkade and Houten-Wulven – also followed patterns of development similar to De Horden.\textsuperscript{119} At Houten-Doornkade\textsuperscript{120}, a large geometrical ditch system was created in the Flavian period at the earliest. Moreover, at Houten-Overdam\textsuperscript{121}, a loosely structured cluster of farmsteads was reorganised with the creation of a settlement enclosure, probably during the second half of the 1\textsuperscript{st} century AD. Once more, this enclosure was connected with a larger ditch system, organising the surrounding landscape.

In some of the settlements in the clay region, developments towards spatial segregation, such as we established at Oss-Westerveld and Hoogeloon, could also be documented. At Geldermalsen-Hondsgemet

\textsuperscript{115} Hulst 1978; Maas 2007.
\textsuperscript{116} Bloemers 1978, 1980.
\textsuperscript{117} Heeren 2006, 2009.
\textsuperscript{118} Van Rentwoud/Van Kerkhove 2009.
\textsuperscript{119} For an overview, see Vos 2009.
\textsuperscript{120} Vos 2009, 118-126.
\textsuperscript{121} Vos 2009, 148 ff.
and Wijk bij Duurstede-De Horden, separate compounds were defined within the settlement. In the case of Geldermalsen, both the marked entrance of the compound and the recovered material culture indicate the special status of its inhabitants. At Wijk bij Duurstede, the presence of a portico-house probably allows for a similar conclusion. The farmstead first enclosed within the settlement of Druten, dating back to the late 1st century AD, also contained a portico-house, including a stone-lined cellar and walls decorated with painted wall plaster.

Overlooking the settlement data for this northern region, some general observations can be made. During the Late Iron Age and earliest Roman period, settlements consisted of small clusters of farmsteads, in many cases shifting over short distances within a settlement territory. Over time, farmsteads became increasingly stable and settlements increased in size up to around five contemporary farmsteads, sometimes possibly somewhat bigger. Houses were rebuilt in the same location more often now. Continuity between the Late Iron Age and Roman period can be documented with regard to a substantial number of settlements. However, many other settlements were not founded until the early 1st century AD. This appears to have been a period of significant increase of rural habitation. In addition, we observe a significant reorganisation of rural settlements. Some relatively large settlements, like Hoogeloon, Oss-Westerveld and probably Riesthoven-Heesmorte, seem to have been enclosed by a common ditch as early as the first half of the 1st century AD. Most settlements, however, were still loosely structured in this period and were reorganised around the middle or the second half of the 1st century AD. In this period, many stable and well-organised settlement compounds developed. Other settlements, such as Tiel-Passewaaij, Rijswijk-De Bult and Nederweert-Rosveld, were reorganised only later, during the 2nd century AD. In addition to the appearance of settlement enclosures, internal settlement space was reorganised by locating new buildings parallel to the enclosure ditches and surrounding a central open space. Regarding a number of settlements, internal spatial differentiation and segmentation can be documented as well, in several cases related to shifting patterns of consumption, reflected in the mobile material culture found, and architectural changes, like the portico-houses that we will discuss in more detail below. This process can be dated around the late 1st and early 2nd century AD. Aside from the aforementioned changes, settlements that remained open and only loosely structured continued to exist as well. These can be found in the sandy region of Brabant and Limburg, but also in the clay region, such as at Houten-Tiellandt.

Overall, a more differentiated settlement landscape advanced, with some settlements developing towards large, enclosed and structured entities, while others remained the character of small, open clusters of loosely structured farmsteads.

### Flanders

The subregion of Flanders comprises the Belgian provinces of East and West Flanders, around the Belgian cities of Ghent and Bruges. This region has been subject to an extensive academic synthesis by Wim De Clercq, who applied the significant increase in settlement research from the 1990’s onwards to shed new light on Roman-period rural settlement.

As for other regions, the transition from Late Iron Age to Early Roman period is difficult to grasp, at least archaeologically. With regard to this period, only few data on settlement activity are available. According to De Clercq, this is not so much a matter of poor archaeological visibility or a lack of recognisability. Instead, he argues, this might indeed reflect a historical reality. Settlement density was low in this period, the landscape being largely covered with woods, and habitation being concentrated in certain suitable areas. From the Flavian period onwards, however, there was a significant increase in habitation activity and density. One of the few settlements for which actual continuity between Late Iron

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122 Van Renswoude/Van Kerckhove 2009, 467.
123 According to Vos (2009, 133 ff) almost all settlements in the Kromme Rijn area were being enclosed during the Flavian period.
124 Apart from spatial segregation and architecture, material culture is another indication for the special position of some farmsteads. Slofstra identified a number of traditional houses within rural settlements that were associated with early imports, probably indicating the special status of its inhabitants: Hoogeloon, Riesthoven and possibly Donk. Special finds were also associated with the separate compound at Oss-Westerveld. New research can add to that. At the early-enclosed settlement of Aalter, Augustan-Tiberian imports –the earliest in the region- were documented. And at both Geldermalsen-Hondsgemem and Den Haag-Wateringse Veld fragments of military equipment indicate the special position of the inhabitants. The finds indicate the involvement of its inhabitants in wider networks of exchange or their connection with the Roman military. It is remarkable that these were the settlements with a high degree of organisation and where sometimes in later phases, changes in house building can be documented.
125 Vos 2009, 133 ff.
Age and Roman period could be documented is Aalter-Langevoorde.\textsuperscript{127} In the 2\textsuperscript{nd} century BC, a first enclosure, possibly with ritual significance, was dug at this site. Probably around the middle of the 1\textsuperscript{st} century BC, a new enclosure was created, covering an area of 150 by 150 m. A traditional Alphen-Ekeren type house and a number of secondary buildings (among which a large 9- and later 12-post granary) were situated against the northern enclosure ditch. Remarkably early imports, found in the enclosure ditches, dated back to the Augustan period. Along with painted plaster and slate, the latter potentially used for roof covering, these could indicate the special status of the compound’s inhabitants. The house was rebuilt in the Flavian period and habitation continued into the 2\textsuperscript{nd} century AD.

Another well-excavated settlement, Bruges-Refuge, consisted of a cluster of two traditional farmhouses during the Early Roman period.\textsuperscript{128} In the Flavian period the settlement was reorganised to include four farmsteads, enclosed by a common ditch (fig. 3.2). The houses were situated against the ditches surrounding a central open space. Each house had its own secondary building and well, and in some cases a ditch separated neighbouring farmsteads from each other. Around the middle of the 2\textsuperscript{nd} century, a new house took a prominent position on the northern short side of the compound. A remarkable cluster of granaries was situated around this house. Seemingly, the inhabitants of this house took a special position within the settlement community and symbolised this by constructing the house at this prominent position, while at the same time demonstrating their control over production by means of the granaries. As we will see later on, a similar situation was documented at Neerharen-Rekem.

![Fig. 3.2 The settlement Brugge-Refuge and two of the enclosed farmsteads of Evergem-Kluizendok.](image)

Evergem-Kluizendok is a location of special character. At this large site, measuring a total of 170 hectares, three areas – Zandeken (4 hectares), Hultjen (12 hectares) and Puymeersen (1 hectare) – have been excavated.\textsuperscript{129} The sites were comprised of groups of more or less connected enclosed farmsteads, situated on the slightly higher parts of the relatively low sandy area. Both the excavations and paleo-ecological analysis indicate that the area was not inhabited before the 2\textsuperscript{nd} century AD, when woodland would have dominated the area. Within the three areas, a total of 15 farmsteads were documented. Although no strict planned layout seems to have been present, the farmsteads appear to have formed a coherent complex, within which each other’s boundaries were respected. A road appears to have functioned as a structuring element in the area. This layout, combined with the limited time depth of the complex, suggests that the area was colonised in the 2\textsuperscript{nd} century AD. The colonisation of this marginal area can probably be linked to increasing pressure on land in this particular period.

Regarding this region, only few indicators exist for the presence of Roman period open settlements. Only at Wijnegem\textsuperscript{130} and Oelegem\textsuperscript{131} such settlement organisation seems plausible.

\textsuperscript{127} De Clercq 2009, 220 ff.
\textsuperscript{128} De Clercq 2009, 225-228.
\textsuperscript{129} Laloo \textit{et al.} 2008; De Clercq 2009, 229 ff.
\textsuperscript{130} Cuyt 1991.
\textsuperscript{131} De Boe/Lauwers 1979, 1980.
The Dutch and German loess region

This subregion covers the loess belt between Meuse and Rhine, clamped between the sandy regions to the north and the mountainous regions of the Ardennes-Eifel massive to the south. The Roman main road from Cologne to Boulogne constituted a central element within this loess region, running almost precisely along the centre line of the belt. In the Dutch loess region, settlement archaeology is poorly developed, especially when compared to that in the more northerly sand and clay regions. A considerable amount of research, that of the later 19th and earlier 20th century in particular, has focused on the monumental phases of villa settlements, disregarding non-monumental traces as well as the broader settlement context. Furthermore, techniques for reconstructing settlement development were not yet developed in this period. As a result, the usable data for this region are limited. The situation in the German part of the loess region is however completely different. An enormous amount of data on rural settlements has been collected from the 1970s onwards, the indirect result of the large-scale opencast lignite mining carried out in this area. The complete destruction of the landscape has created unique opportunities to excavate complete settlements, and even complete landscapes within the three main extraction areas of Frimmersdorf, Weisweiler and Hambach, as well as the areas that were used for resettlement of the modern population. Unfortunately, this wealth of data and its inherent academic potential cannot be fully exploited, as publication has not kept up with the excavation activities. Only a few sites have been published in detail (Hambach 59, 132, 512, 516 and Frimmersdorf 49 and 131). The majority, however, is published as short notifications in annuals like the ‘Bonner Jahrbücher’ or ‘Archäologie im Rheinland’.

As stated, only a small amount of the research carried out in the Dutch loess region meets modern standards and the objectives of this research. Furthermore, two of the better excavations, Maasbracht and Voerendaal-Ten Hove\textsuperscript{132}, have only been preliminary published, limiting their use. In addition, little is known about the Late Iron Age. Fragmentary traces have been documented, but it remains impossible to create a clear image of Late Iron Age settlement for this region.

An interesting exception is the recently excavated settlement of Kerkrade-Holzkui\textsuperscript{133}, especially with regard to the quality of excavation and publication (see fig. 3.14a). The settlement was founded at the end of the 1\textsuperscript{st} century AD as a well-structured, although probably not yet enclosed settlement. The buildings were basically ordered along two opposing axes, including an open space in between. Within this central open space, a pond was created. During the settlement’s occupation, the general layout was maintained. The settlement’s main house was positioned centrally on the northwestern building axis and only gradually developed into a stone-built house with a monumental facade and bath section (see fig. 3.28a).

The other site that was almost completely excavated is Voerendaal-Ten Hove\textsuperscript{134}. This settlement has a longer occupation history than Kerkrade-Holzkui. The earliest activity on the site probably dates back to the Later Iron Age and consists of a seemingly defensive ditched enclosure, comparable to enclosures at Niederzier and Jülich-Bourheim. Somewhere between 50 BC and 50 AD, a first enclosed rural settlement was created. Small wooden buildings were situated on the enclosed compound. However, the precise organisation of the settlement remains unclear.\textsuperscript{135} Around the middle of the 1\textsuperscript{st} century AD, a house on stone foundations was built, taking a central position on the settlement compound. The secondary buildings were nevertheless still post-built during this phase. Subsequently, around 100 AD, the complex was completely reorganised as the existing house was torn down and a new complex of buildings, including a main residence, granary and bathhouse, was constructed (see fig. 3.3). These buildings were connected by means of a long fronting portico, creating a remarkably broad and considerably impressive facade.

\textsuperscript{133} Tischelman 2005.
\textsuperscript{134} Willems 1986; Willems/Kooistra 1987, 1988; Kooistra 1996.
\textsuperscript{135} New, unpublished analyses of the non-monumental phases of the settlement of Voerendaal-Ten Hove have shed somewhat more light on these early settlement phases (these analyses were carried out by students of the VU University in Amsterdam).
A considerably more substantial amount of settlement data is available regarding the German loess region. Here, we can also shed some light on what pre-Roman rural settlement looked like. Late Iron Age habitation consisted of loosely ordered clusters of small, post-built buildings that can be identified as houses, byres and granaries. Together, these formed farmsteads. Unfortunately, it is difficult to establish how many of these farmsteads were in fact contemporary. The well-known Roman-period settlements, however, were all enclosed and well-structured compounds. How, then, did these develop and are there any indications for continuity of development between the Late Iron Age and Roman period? Two recent excavations shed some interesting light on this topic. At Jüchen-Neuholz, a loosely structured Late Iron Age settlement seems to have been reorganised from the Augustan period onwards (see fig. 3.4). First, an only fragmentarily known ditch system was created. A wood-built house, larger than its Iron Age predecessors and possibly built on horizontal foundation beams, was situated near these ditches. A first enclosed settlement compound, measuring 80 by 80 m, was created in the first half of the 1st century AD. Eight wood-built constructions were situated on the compound in a loosely ordered manner. During the later 1st century, two larger rectangular buildings were constructed directly along the existing enclosure ditches, now creating a more strictly ordered compound. Then, in the 2nd century, a new, larger compound was created, containing a number of new buildings ranged along the enclosure ditches. The main building was a monumental, multi-roomed house on stone foundations. Before the end of the 2nd century, the settlement was destroyed by fire.

A similar development trajectory could be documented at Pulheim-Brauweiler (see fig. 3.14a). Here, the first settlement phase dates to the latest phase of the Iron Age or earliest Roman period and comprises a loosely ordered cluster of small buildings, similar to Jüchen. Around the middle of the 1st century AD, an enclosed compound was created, containing small buildings oriented on the enclosure ditch. This compound was inhabited until the end of the 1st century AD. Around the same time, a new compound was created just west of the previous one. Three large post-built structures, one building on horizontal foundation beams and four sunken-floor huts were situated parallel to the enclosure ditches and around a central open space. The settlement was inhabited until the middle or second half of the 3rd century AD.

137 Settlement traces dated to this period were documented at Garzweiler-Köhmbachtal, Eschweiler-Laurenzberg, Weeze-Baal, Jüchen-Neuholz and possibly Pulheim-Brauweiler. Some other sites include Lahnstein-Oberlahnstein, Keulen-Porz, Westhoven (Hegewisch 2007, 48) and Eschweiler-Lohn.
139 Andrikopoulou-Strack et al. 2000.
140 In an earlier publication (AIR 1999, 82-84) a pre-Roman settlement phase was suggested, but later (Andrikopoulou-Strack et al. 2000) this first phase was redated to the earliest Roman period. Find material as well as house building was still heavily rooted in Late Iron Age tradition in this period, though.
Aside from these well-documented examples, Late Iron Age or Early Roman settlement activity was observed at a number of Roman period enclosed settlements. At Bedburg-Garsdorf\textsuperscript{141}, a mere hundred meters northwest of the Roman period settlement, Late Iron Age settlement activity was documented. Similarly, near the settlement of Frimmersdorf 131, Late Iron Age settlement traces were also documented.\textsuperscript{142} Could we here suspect continuity between Late Iron Age and Roman-period habitation, similar to Jüchen or Pulheim? Slight shifts in the location of habitation appear to be a common phenomenon and a possibility that should not be ignored when reconstructing settlement development trajectories.

Some other settlements started as unenclosed farmsteads in the earlier Roman period. Settlements at Niederzier-Steinstrass (Hambach 412)\textsuperscript{143} and Jüchen-auf dem Fuchsberg (Frimmersdorf 129)\textsuperscript{144}, for example, consisted of a loosely structured cluster of post-built constructions in the first half of the 1st century AD. Subsequently, during the second half of the 1st century AD, settlement space was subject to significant reorganisation: a rectangular enclosed compound was created and internal settlement space was structured, while the buildings were ordered along the settlement ditches and around a central open space. Settlements Hambach 512, 516 and probably Rheinbach-Baumarkt also remained unenclosed during their earliest phases, dating back to the middle of the 1st century AD.

Generally, the majority of the settlements are however assumed to have been founded as well-structured compounds. Settlements such as Frimmersdorf 49\textsuperscript{145}, Frimmersdorf 131\textsuperscript{146}, Kerpen-Sindorf\textsuperscript{147} (dating back to the second half of the 1st century AD), Hambach 403\textsuperscript{148}, Bedburg-Garsdorf\textsuperscript{149} (middle of the 1st century AD), Hambach 69\textsuperscript{150}, Hambach 127\textsuperscript{151} (1st century AD) and Jüchen-Neuotenrath\textsuperscript{152} (2nd century) are all classified as the typical compound settlement type (designated as ‘Streufanlagen’ in German literature). One of the most well-studied and published sites is Hambach 59.\textsuperscript{153} In the first phase, dated to the 1st century AD, a fairly small, enclosed compound (at least 0.76 hectares) contained a simple stone house and two secondary buildings, arranged along the sides (see fig. 3.5). During the second phase, dating back to the 2nd century AD, the compound was considerably extended, covering a surface of 1.5 hectares. The main house was now positioned centrally on the northern enclosure ditch and six secondary

\textsuperscript{141} Piepers 1959, 382-384.
\textsuperscript{142} According to Heimberg (2002/2003, 72-73) pre-Roman traces were also documented at Hambach 403, 512 and 516 and early Roman traces at Sinnersdorf and Reinbach-Flerzheim.
\textsuperscript{143} AIR 2007, 69-71.
\textsuperscript{144} AIR 1997, 53-55.
\textsuperscript{145} Köhler 2005.
\textsuperscript{146} Köhler 2005.
\textsuperscript{147} AIR 2002, 87-89.
\textsuperscript{148} BJ 185, 574-576; BJ 186, 617-627.
\textsuperscript{149} Piepers 1959, 382-384.
\textsuperscript{150} Gaitzsch 1986; BJ 183, 652-654.
\textsuperscript{151} AIR 2000, 73-76.
\textsuperscript{152} AIR 1999, 82-84. Andrikopoulou-Strack et al. 2000.
\textsuperscript{153} Hallmann-Preuss 2002/2003.
buildings were arranged on the compound south of the main house, in an almost axial layout (also see fig. 4.2). Later on, the compound was slightly extended once more, after which the ditches appear to have been backfilled. In this late phase, during the 3rd century, apart from the main house, only two or three secondary buildings were in use.

This latter settlement was thus doubled in compound surface during its second development phase. A number of other sites were also considerably enlarged during their development. In the second half of the 1st century AD, Hambach 512 grew from a small open farmstead to a 2.5 hectare enclosed compound settlement, after which its surface was once more reduced to a single hectare. Such a decrease of settlement space was also documented with regard to Hambach 516. In contrast, at Jüchen-Neuholz, the 2nd century compound was considerably larger than that of the 1st century AD.

Another interesting phenomenon regards the backfilling of settlement enclosure ditches in the 2nd century AD. From then on, settlement boundaries were marked by palisades or fences. Such a development could be documented at Hambach 512, 516, 403, 224 and Cologne-Widdersdorf. Exactly how this is to be interpreted nevertheless remains unclear.

Fig. 3.5 Development of the settlement Hambach 59 between the middle of the 1st and the 3rd century AD.

The seemingly large-scale foundation of new settlements in the second half of the 1st century, combined with the reconstructed regular settlement pattern, has led scholars to believe that we are dealing with a colonised landscape in this region. Could it however be the case that, similar to Jüchen and Pulheim, more settlements than anticipated had more extended development trajectories? Is it possible that earlier, less structured and less monumental settlement phases, predating the development of the well-structured enclosed compound settlements, were missed?

Quite different from the compound settlements described in the above is the axial complex of Blankenheim-Hülchrath. This highly monumental complex had a strict axial layout with a large main house fronted by two rows of relatively large secondary buildings. Unfortunately, it is not possible to establish wether the earliest settlement, dating back to the 1st century AD, was already organised according to the axial layout, such as is the case at Champion-Hamois. Eventually, the settlement complex comprised six secondary stone-built constructions and a large main house.

The Belgian loess region

The research background for the Belgian loess region is differentiated. Similar to the Dutch loess zone, a strong tradition of monumental villa research existed during the late 19th and early 20th century. Contrary to the Dutch region, however, a significant amount of settlement research has moreover been conducted from the 1970s onwards. This provides us with an effective set of data for reconstructing settlement development.

154 Kaszab-Oleschewski 2006, 146-147.
155 Gaitzsch 1986.
156 Oelmann 1916; Horn 1987, 360-361; Smith 1997, 264 ff.
157 Horn 1987, 360-361.
158 For an overview see De Meeuwer 1937, 1940.
Other than in the aforementioned region, where open settlements dominated, Late Iron Age settlements in the Belgian loess zone seem to have been enclosed by ditches.\textsuperscript{159} In the better-documented settlements of Chievres-Ladeuze and Brugellette-Mévergnies (fig. 3.6), buildings were arranged loosely on an enclosed compound, still lacking a more strictly ordered layout. Unfortunately, it is not clear whether these enclosed settlements are to be identified as single farmsteads that were repeatedly rebuilt at the same location, or that two or more contemporary farmsteads were in fact occupied on the compound.

Fig. 3.6 The Late Iron Age enclosed settlement of Brugellette.

For quite a number of Roman period settlements, Late Iron Age habitation activity was documented.\textsuperscript{160} Only for a few sites, however, real continuity could be demonstrated with any degree of certainty. For many other sites, chronological resolution was simply too low for establishing the precise relationship between Late Iron Age and Roman-period habitation.\textsuperscript{161}

Again, the transition and earlier Roman period are difficult to grasp archaeologically. At Meslin-l'Éveque\textsuperscript{162}, an enclosed settlement with small post-built structures could be dendrochronologically dated between 40 and 10 BC. At a nearby location, an enclosed farmstead with a relatively large wooden house (20 by 30 m) and a number of smaller secondary buildings existed into the 1st century AD.\textsuperscript{163} At the location of the former settlement a monumental villa complex was created, probably around the third quarter of the 1st century AD. This complex followed the orientation of the pre-Roman settlement, possibly suggesting a certain degree of continuity in development (see fig. 3.7). For Gesves-Sur le Corria, a number of earlier, possibly even Late Iron Age buildings were also documented, possessing an orientation that deviated from the later monumental house. And at Bruyelle-Haute Eloge, a comparable situation was documented, suggesting continuity between Iron Age and Roman period.\textsuperscript{164} At this site, the later monumental villa complex followed the orientation of earlier settlement ditches. Yet another enclosed settlement, dating back to the end of the pre-Roman Iron Age or the earliest Roman period, was documented at Haccourt.\textsuperscript{165} From around the middle of the 1st century AD, this settlement gradually developed into an extensive and highly monumental complex, the layout of which was likely to have been axially organised.\textsuperscript{166} Since the working compound has not been excavated, the exact period this axial complex was laid out unfortunately remains unclear, however. Possibly, a development trajectory similar to Meslin-l’Éveque could be suspected. At Neerharen-Rekem\textsuperscript{167} an enclosed settlement existed during the

\textsuperscript{159} Settlements like Neerharen-Rekem, Engis/Hermalle-sous-Huy, Leuze-en-Hainaut-Tourpes, Brugellette-Mévergnies, Haccourt, Chievres-Ladeuze, Vechmaal-Middelpadveld, Heers-Vechmaal, Veldwezelt and Ath-Ghislengien all seem to have been enclosed already during the Late Iron Age.

\textsuperscript{160} Meslin-l’Éveque, Haccourt, Gesves-Coria, Neerharen-Rekem, Veldwezelt, Bruyelle-Haute Eloge, Vechmaal-Middelpadveld, Broekom, Wange-Damekort and Erps-Kweppe.

\textsuperscript{161} This is the case for settlements at Meslin-l’Éveque, Gesves-Coria, Neerharen-Rekem, Haccourt, Chievres-Ladeuze, Vechmaal-Middelpadveld, Heers-Vechmaal, Veldwezelt and Ath-Ghislengien.

\textsuperscript{162} Deramaix/Sartieaux 1994; Houbrachts/Zambon 1994; Braekeleer 1994; Deramaix 2006; Bruel 2009, 305-309.

\textsuperscript{163} Deramaix 2006, 67.

\textsuperscript{164} Corbière 1997, 319-322; Bruel 2009, 305-309. Of Late Iron Age habitation activity only fragmentary traces have been documented. The layout and character of this settlement phase thus remain relatively unclear.

\textsuperscript{165} De Boe 1973, 1975, 1976, 40.

\textsuperscript{166} De Boe 1973, 112.

\textsuperscript{167} De Boe 1985a.
Late Iron Age or Early Roman period. In the Flavian period, a stone house was erected on the location of one of the farmhouses. In addition, several secondary buildings on stone foundations were constructed in front of the main residence, forming a more or less well-structured settlement complex. A similar enclosed settlement with traditional Alphen-Ekeren houses, probably dating back to the 1st century AD, was documented at Lanaken-Smeermaas-Kerkveld. Again, later, a house on stone foundations, of which only a cellar and hypocaust had been preserved, was constructed within the settlement. And yet another potentially pre-Roman enclosed settlement was found at Veldwezelt. The discovery of an isolated cellar could suggest that, again, a monumental house was constructed during a later phase. The rest of the settlement was dominated by traditional houses, comparable to the aforementioned settlement of Hoogeloon.

Fig. 3.7 Meslin-L’Eveque. The development of an enclosed settlement with post-built houses into a monumental axially organised settlement complex.

A number of well-structured sites seem to have been founded *ex nihilo* around the middle or in the second half of the 1st century AD. The complex of Champion-Le Emptinne, for example, was founded as a strictly axially laid-out complex, shortly after the middle of the 1st century AD. The same applies to the settlement of Rochefort-Jemelle, which seems to have been founded as a well-structured complex with a monumental main house around the middle of the 1st century AD. A third example is the settlement of Hamois-Le Hody, founded as a more or less structured compound settlement, comparable to Kerkrade-Holzkuil, around the middle of the 1st century AD. The Vezin-Namèche settlement suggests similar trademarks.

Northwestern France

The region of northwestern France, covering the departments Nord, Pas-de-Calais and the three departments of the Picardie (Somme, Oise and Aisne), has been subjected to well-developed settlement archaeology. This situation can be associated with a number of modern developments, among which the large-scale extraction of gravel, the development of commercial areas and the construction of roads and railways. This wealth of data provides us with excellent possibilities for reconstructing settlement

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168 The large house (building B in figure 8 in De Boe 1985a) was of a different house type and possibly predated the two-aisled houses that also had a different orientation.
169 Pauwels/Creemers 2006, 49-118.
172 Mignon 2006, 72-75.
175 See Haselgrove 2007 for a more extensive description of the backgrounds of archaeological research in northern France.
development. One particular and well-known dataset will however not be used in this study. The extensive aerial surveys, carried out by Roger Agache\(^{176}\) offers a considerable number of villa plans. The lack of data on chronology and development nevertheless restricts being able to employ his work in our research. Furthermore, parallel to the German dataset, a great deal of research has only been pre-published in annuals or booklets aimed at wider audiences. Full reports are unavailable or remain so-called grey literature, making them difficult to access.

In this region, the later Iron Age period and the transition to the earliest Roman period are relatively well known, especially when compared to the aforementioned subregions.\(^{177}\) With regard to a significant number of settlements, pre-Roman settlement activity, dated to the late La Tène D1 and D2 period, was documented.\(^{178}\) In most cases, these settlement phases consisted of curvilinear or more or less rectangular enclosed compounds. In a number of cases, settlements an inner and an outer compound could be recognised (see fig 3.8). While the inner was residential, the outer probably had agropastoral functions. Examples of this type of settlements include the sites Beauvais-Le Brin de Glaine\(^{179}\), Venette-Bois de Plaisance-zone 1\(^{180}\), Hordain-La Fosse a Loups\(^{181}\), Ploisy-Zone 1\(^{182}\) and Monchy-le-Preux.\(^{183}\)

![Fig. 3.8 Two examples of 'double compound settlements'. Left: Venette-Bois de Plaisance-Zone 1. Right: Beauvais-Le Brin de Glaine-ZAC du Haut Villé. The inner compound had residential functions, while the outer compound seems to have had different, probably agro-pastoral functions.](image)

For a number of large-scale excavations, a clearer image of the settlement situation within the landscape could be achieved with regard to the Late Iron Age. At Arras-Delta 3\(^{184}\), during the period between the 2nd century BC and the first centuries AD, several rectangular and trapezoidal enclosures existed, situated only at short distances from one another (fig. 3.9). The surface of these enclosed compounds varied from 1300 to 6000 m\(^2\). Similarly, at Onnaing-Toyota\(^{185}\) three or four contemporary settlements existed within the excavated area, each having 60 to 80 hectares as their territory and situated

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176 Agache 1978.
177 Haselgrove 1990, 1995, 1996, 2007; Bayard/Collart 1996. This region is especially well researched as a result of large scale archaeological aerial research and the archaeological research-opportunities created by large scale gravel extractions, (rail-) road construction and the development of so-called ZAC’s; industrial or commercial complexes (Haselgrove 2007, 494-495). In this region, the number of excavated sites grew from 51 to 130 in the ten years up to 1991 (Haselgrove 2007, 494). From 1992 onwards another 263 sites from the Late Iron Age were excavated. From these sites, a percentage of 70% can be defined as settlement. For a recent overview of settlement research in the Picardy see Ben-Redjih/Duvette/Querel 2005.
179 BSR 2004, 60-61.
181 Archeologie en Nord-Pas-de-Calais 2007.
182 BSR 2003, 40-44.
184 Blancquaert/Prilax 2003, 17 ff.
185 Roger/Catteddu 2002.
between 800 and 1500 m from each other. Some settlements existed for one or two generations, without changing (sites 4, 6, 17, 19 en 21), while others seem to have shifted over short distances (sites 8/9). Again others, however, had a longer life span, changing gradually over time (sites 14 en 16). Although it remains difficult to reconstruct internal habitation, the settlement compounds on these sites appear to represent single enclosed farmsteads.

Fig. 3.9 Enclosed farmsteads at Arras-Actiparc-Le Buisson, dated between the Late Iron Age and high Empire. After Jacques/Prilaux 2005, 70.

Subsequently, as early as the earliest Roman period, some significant changes in settlement structure occurred, which can be documented at a number of sites. The well-excavated settlements Juvincourt-et-Damary, Monchy-le-Preux, Beaurieux-Les Grèves, Verneuil-en-Halatte, Limé-Les Terres Noires and Famechon-Le Marais saw significant development during this ‘période Gallo-Romaine précoce’. For the latter three sites, Late Iron Age settlement activity has been documented. Moreover, at these sites, during the Augustan or Tiberian period, a long-rectangular, axially structured settlement compound was created with a main house on one of the short ends, overlooking rows of secondary buildings along one or both of the long sides. At both Famechon and Limé, this new long-rectangular complex was orientated parallel to the Late Iron Age settlement traces.

At Verneuil, over time, settlement space became increasingly organised and segmented by means of ditches and palisades (see fig. 3.14b for the development trajectory of this settlement). In the Claudian period, the western U-shaped compound was enclosed by a stone wall, measuring 63 by 71 meter. From this phase onwards, the residential compound was thus monumentally separated from the working compound. In the course of the 2nd century, several buildings on the working compound were built or rebuilt in stone. However, the main axial structure of the complex was maintained through time. The same applies to Famechon, where the main structure remained the same while the buildings developed considerably. In contrast, the Juvincourt and Limé complexes nevertheless failed to develop into monumental complexes.

At Monchy-le-Preux a LT D2 ‘double compound’ settlement was reorganised, probably already during the last decades BC (fig. 3.11). In this period, a new, more or less rectangular enclosure that
maintained the existing orientation replaced the La Tène one. This new enclosure covered a surface of 5607 m² and contained two new buildings. During the second half of the 1st century, the first developments in house building became apparent, as a multi-roomed house on stone foundations was constructed. Although this settlement was not a typical axial complex, like the ones described above, it unmistakably displayed an axial layout with a fixed spatial structure.

At Beaurieux-Les Grèves a rectilinear enclosure with several buildings arranged around an open court, can be dated to the earliest Roman period. The three larger buildings seem to have been houses, whereas two other buildings were probably barns or byres. At this stage, the settlement showed an almost axial layout, with a house situated at one of the short ends, overlooking rows of buildings on either side of an imaginary axis. Unlike some other complexes, however, the axial organisation of the settlement did not develop further. During the earlier 1st century AD, the compound was reduced and, in the middle or later 1st century, the ditch was finally backfilled. Around this period or somewhat later, a number of stone buildings were constructed. The main house took a central position, flanked by two rows of buildings ranged east-west along the line of the backfilled enclosure ditches.

Another settlement that, probably as early as the Augustan period, developed into an axial complex is Roye-Le Puits à Marne I. Unfortunately, internal habitation is only very fragmentarily known for the periods preceding the 2nd century AD. What is clear, however, is that in the LT D2 or Augustan period, a rectangular compound was created. Its general form and orientation was continued in the following centuries. At this complex, it is not until the 3rd century AD that the residential compound became monumentally separated from the working compound (see fig. 3.10).

Fig. 3.10 Development of the Roye-Le Puits A Marne I settlement. The grey lines represent the early phases (late 1st century BC-1st century AD), the black lines represent the phases from the 2nd century onwards.

Another category of sites seems to have developed into highly structured axial complexes not as early as the ones described above, but only until roundabout the second half of the 1st century AD. These include the following sites: Saint-Quentin, Venette-Le Bois-de-Plaisance-Zone 1, Épaux-Bézu-ZID de l'Omois, Neuville-St. Amand, Plailly-La Butte Grise, Beauvais-Les Champs Dolents, Roisel-Rue

193 Haselgrove 1996, 155-161; CAG 02, 118.
198 BSR 2005, 31 ff.
du Nouveau Monde\textsuperscript{201}, Monchy-les-Preux\textsuperscript{202}, Plailly\textsuperscript{203} and Beauvais-ZAC du Haut Villé.\textsuperscript{204} Once again it becomes evident that, at most sites, enclosed and traditionally structured settlements existed prior to the reorganisation of settlement space. Understanding the relationship between these settlement phases can occasionally be difficult, however. Indeed, in some cases, such as at Venette-Le Bois-de-Plaisance-Zone 1, the excavators have suggested discontinuity.

Fig. 3.11 Two axially organised settlement complexes constructed around the middle of the 1\textsuperscript{st} century AD: Venette-Le Bois-de-Plaisance-Zone 1 (bottom) and Monchy-le-Preux (top).

Not all settlements developed towards highly structured axial complexes. At Onnaing-Toyota\textsuperscript{205}, the Roman period compounds clearly had a larger surface (up to 1 hectare), although they essentially appear to have remained single enclosed farmsteads. One of the compounds, number 5, contained a simple house on stone foundations, as well as a granary and a pond. During the first half of the 1\textsuperscript{st} century AD, four relatively dispersed settlements existed. Three of these were already inhabited from the La Tène period onwards. Then, during the second half of the 1\textsuperscript{st} century AD, four new settlements were created, situated within the landscape in an ordered manner and separated by a mere few hundred m. In the course of the 1\textsuperscript{st} century AD, habitation within the landscape seems to have become increasingly clustered and

\textsuperscript{199} CAG 60, 375; Gallia Informations 1989, 233-235.
\textsuperscript{201} BSR 2004, 119-120.
\textsuperscript{202} Grisouart/Jacques 2007.
\textsuperscript{203} CAG 60, 375; Gallia Informations 1989, 233-235.
\textsuperscript{204} BSR 2000, 56-57.
\textsuperscript{205} Roger/Catteddu 2002.
organised. At Hordain, two Late Iron Age settlements developed into rectangular enclosed compound settlements in the Roman period. In sector 6, a rectangular enclosed compound, measuring 100 by 60 m, was created in the early 1st century AD. Habitation, consisting of one traditional wooden house and a number of secondary buildings, was concentrated on one half of the compound. The other half was clear of built structures and might have been used for agropastoral activities. In the second phase, this divide was marked by a ditch. Then, around the middle of the 1st century AD, the compound was extended to the north and east, doubling its surface. In this period, the main house was rebuilt as a simple rectangular house on stone foundations. Directly to the north of the settlement a road was constructed. Remarkably, after the abandonment of the settlement in the early 2nd century AD, it was re-established in the 3rd century, following the main lay-out of the 1st century compound. On the residential part of the compound, three stone buildings were constructed.

Fig. 3.12 Three settlement phases at Hordain-La Fosse à Loups. From left to right a Late Iron Age settlement, a 1st century AD settlement and the 3rd century settlement.

The situation at Arras-Delta 3 and Actiparc appears to be comparable to that at Onnaing. Similarly, small compound settlements existed between the Late Iron Age and the middle of the 2nd century AD. These small compounds seemingly represented single farmsteads. One of them, measuring 110 by 65 m, was labelled a ‘villa’ by the authors. This compound contained several buildings, of which at least one was built on stone foundations. Settlement compounds were situated close together, sometimes less than 50 meters apart. The construction of a small Roman military fort and a road, during the Early Roman period, marked the reorganisation of the area.

Continuity between the Late Iron Age and the Roman period could be documented at Gouvieux-La Flache. Although a Late Iron Age settlement enclosure was documented, probably as a result of severe erosion, internal structures could not be documented. A reorganisation in the 1st century AD resulted in a more orthogonal layout of the settlement enclosure, now measuring approximately 80 by 80 m. The earliest use of stone, dating back to the 1st or 2nd century AD, is documented with regard to a cellar. The superseding construction, possibly a framework house, was no longer traceable. The general layout of the later settlement consisted of a main house and two rows of secondary buildings, arranged around an open court.

At a number of other sites, a development of Late Iron Age enclosed settlements towards Roman period structured compound settlements could be documented as well. At Beauvais-Le Brin de Glaine and Ploisy-Le Bras de Fer-zone 1 traditional Late Iron Age ‘double-compound’ settlements existed. In the Roman period we see that small rectangular enclosed settlements were constructed (for Ploisy, these

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206 Archéologie en Nord-Pas-de-Calais 2007.
207 Jacques/Prilaux 2005; Blancquaert/Prilaux 2003.
208 See top left on the map in Blancquaert/Prilaux 2003, 16.
209 This army camp is only occupied for a short period of time, probably 64/40-30 BC until the first half of the 1st century AD.
210 BSR 1997, 57-8; Archéologie en Picardie 1998, nr. 2.
211 BSR 2004, 60-1.
212 BSR 2003, 40-44.
small rectangular, organised settlement compounds were created in the 1st century AD at zones 3 and 5. These settlements seem to have been monumentalised only to a limited degree. At Ploisy, during the 2nd century, a stone-lined cellar was constructed in the former settlement. At Seclin-Hauts Clauwiers, an only fragmentarily documented Late Iron Age enclosed settlement existed that was superseded by an enclosed compound of 137 by 144 m in the period between the 1st century BC or AD. This compound had the same orientation as the pre-Roman settlement. In this early phase, buildings were already situated along the enclosure ditches, surrounding a central open space. During the 1st and 2nd century AD, the enclosure was extended up to 149 by 163 m.

The relatively small compound settlement of Bohain-en-Vermandois was founded around the middle of the 1st century AD. The compound was organised by means of internal ditches and most buildings were situated on the central part of the compound. During the second half of the 1st century AD, a traditional house was built in the northeast corner of the compound. In the first half of the 2nd century, a semi-monumental single-aisled house was built against the western enclosure ditch.

In conclusion, regarding the region of northwestern France, the first element of significance is the high frequency of settlement continuity or semi-continuity. As opposed to the other regions, it is possible to sketch a relatively clear picture of rural habitation during the Late Iron Age and Early Roman period. From the earliest Roman period onwards, quite radical reorganisations of settlement space can be documented with regard to the majority of settlements. The creation of well-structured, long-rectangular axial complexes is particularly significant. It is furthermore possible for this kind of reorganisation to involve spatial relocation, as has been suggested at the Saint-Quentin and Venette-Zone 1 sites. Aside from the many axial complexes we also encounter non-axial compound settlements comparable to those in other regions, with buildings parallel to the enclosure ditches and surrounding a central open space. Many of these compounds are of limited size, possibly even single farmstead settlements. Spatial segregation could be documented for quite a number of settlements. This becomes particularly evident respecting the axial complexes, where the main house took a prominent position and was in many cases physically separated from the rest of the complex. At some other sites, such as Hordain, a residential area was separated from a part of the compound that seemed to have been used for agropastoral activities. Such divisions are also known from Late Iron Age settlements and the phenomenon might be a continuation of existing patterns. During the Roman period, settlement surface increased significantly. Regarding the La Tène period, a settlement surface of between 1500 and 6000 square meters, up to a maximum of 1 hectare was regarded as normal. In the Roman period, however, a medium-sized settlement measured around 1.5-2 hectares in surface, while axial complexes could measure around 4-6 hectares, the largest of these complexes being still much larger (Anthée was around 13 hectares and the complex of Limé-Pont-d’Ancy-Les Terres Noires even topped 20 hectares)!

Overlooking the current dataset, small settlements seem to form a minority. We could state, however, that this might be a research bias, as these smaller settlements have only in recent years become an object of study.

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214 Archéologie en Picardie 2004, nr. 28.
3.2.2 Classifying settlement development trajectories

Having explored the multitude of data on rural settlement development within the various regions of the research area, we will now take a more analytical approach and define a number of general settlement development trajectories. We will in fact create a classification of settlement development and schematise development trajectories. Needless to say, this is an abstraction of reality; within the categories defined, significant variation continues to exist.

Before examining the development trajectories, I will firstly define a number of rural settlement types, momentarily refraining from including the diachronic dimension (see fig. 3.13). Five different types have been distinguished:

- Open multiple farmstead settlement: a loosely ordered cluster of several farmsteads without a common enclosure. Each farmstead consists of a main house and secondary buildings. The farmsteads can shift over short distances within the settlement territory.

- Enclosed multiple farmstead settlement: several farmsteads organised within a common enclosure. Each farmstead consists of a main house and secondary buildings.

- Enclosed single farmstead settlement: a single farmstead organised on an enclosed compound, containing a main house and several secondary buildings, organised along the enclosure ditches.

- Large structured compound settlement: enclosed and organised compound with more than one house and several often relatively large secondary buildings. Generally, one of the houses had a dominant position within the settlement and was monumentalised. These settlements were organised as coherent compounds, not as a collection of farmsteads.

- Axially organised settlement: long-rectangular settlement complexes strictly organised along a central axis. The main house, situated at one end of and perpendicular to the axis, overlooked two rows of secondary buildings on both sides of and parallel to this axis. In many cases, axial complexes consisted of two separate compounds (residential and working compound) divided by means of a ditch or even a wall and gate. With regard to several of these settlements, it could be established that at least several buildings on the working compound had residential functions.
### Settlement typology

<table>
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<tr>
<th>Type</th>
<th>Description</th>
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<tr>
<td>Open multi-farmstead settlements</td>
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<td>Enclosed multi-farmstead settlements</td>
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<td>Single farmstead compound settlements</td>
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<td>Large organised compound settlements</td>
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<td>Axially organised settlement complexes</td>
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Fig 3.13 Five different settlement types as defined in this study.
Subsequently, I will focus on settlement development trajectories (see fig.3.14a and b for schematised development trajectories). We have already touched upon some of the problems arising with regard to settlement development. One of the main issues constitutes the scale of the research involved, as the reconstruction of development trajectories is dependent on detailed phasing. If non-monumental phases have not been documented, does this reflect a historical reality or are they simply not recognised because of limited excavation or erosion related to modern ploughing? Furthermore, settlement development can involve locational shifts in habitation, like documented for among others Jüchen-Neuholz and Pulheim-Brauweiler and suggested for Saint-Quentin. This makes reconstructing settlement development on the basis of limited excavations even more problematic.

Taking this into account, an attempt can be made to define a number of settlement development trajectories:

- Open farmstead settlement that maintained the same organisation through time. The settlement was not reorganised and virtually continued settlement organisation characteristic to the Late Iron Age. These settlements can be found in the northernmost region of the Dutch sand and clay area, for example at Lieshout and Moergestel.

- Open farmstead settlements developing towards enclosed multiple farmstead settlements. In some cases, individual farmsteads were enclosed in an intermediate phase. Examples are Wijk bij Duurstede-De Horden, Druten, Tiel-Passewaaij and Geldermalsen-Hondsgemiet, all situated within the northern sand and clay area.

- Open farmstead settlement developing towards an enclosed compound settlement. The early phases of these settlements date back to the first half of the 1st century AD or earlier. Around the middle of the 1st century AD, the settlements were reorganised on well-structured compounds. Examples include Jüchen-Neuholz, Pulheim-Brauweiler, Frimmersdorf 129, Hambach 512 and 516.

- Settlement that was founded as a well-structured compound settlement. These settlements were founded in the second half of the 1st or earlier 2nd century AD. Examples are Kerkrade-Holzkuil, Hamois-Le Hody, Jüchen-Neuotzenrath and Hambach 127. The settlement of Champion-Le Emptinne is an example of an axially organised complex that is founded *ex nihilo*. Difficulty with regard to this category is the possibility that preceding settlement phases were missed, as these were generally less well visible archaeologically and habitation might have shifted in location over short distances.

- Settlement developing from a compound settlement towards an axially organised settlement complex. This significant reorganisation of settlement space can sometimes be dated as early as the Augustan period. In other cases, axial complexes seem to develop from around the middle of the 1st century AD. Well-documented examples include Meslin-L’Eveque, Haccourt, Roye, Monchy and Venette-Zone 1.

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Fig 3.14a Examples of settlement development trajectories in the northern sand and clay areas, the Dutch and German loess region and Flanders.
**Settlement development trajectories**

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<th>Chronology</th>
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<td>Venette-Zone 1</td>
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<td>Hordain-La Fosse à Loups</td>
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Fig 3.14b Examples of settlement development trajectories in the Belgian loess region and northwestern France.
3.2.3 A long development line

As has already been argued, a better understanding of villa development also requires the analysis of longer and broader lines of settlement development. In this section we will opt for such a broader perspective and view villa development within the tension field between continuity and change, spanning the time period between the later Iron Age and the Late Empire. Overlooking the data presented in the preceding sections, some general long-term development trends can be reconstructed:

- a trend towards nucleation of farmsteads
- a trend towards an increasing spatial stability of settlement
- a trend towards the increasing definition and organisation of settlement space

The first trend is especially well documented with regard to the northern regions. In the earlier phases of the Iron Age, a dispersed and dynamic settlement system existed, related to an agricultural system referred to as 'celtic fields'. Farmsteads shifted through the landscape and settlement was not organised beyond the level of the individual farmstead. Regarding the more southerly regions, the picture is less clear, unfortunately. Still, it could be established that, before the 3rd century BC, open settlements dominated this region and, in the majority of cases, farmsteads did not seem to have been rebuilt at the same location. From the LTC period onwards, some significant changes became apparent. In northern France, new grounds were colonised for intensive cultivation and also in the Dutch region, demographic expansion and intensified cultivation could be documented for the Late Iron Age. Paleo-botanical and paleo-environmental studies have suggested that the later Iron Age was a period of significant agricultural expansion, which was in all probability connected to demographic expansion. In northern France, the growing number of settlements reached its peak in LT D1, after which a phase of significant settlement decrease sets in during the period LT D2, possibly caused by increasing instability and the related occupation of oppida. In the northern regions, during the later Iron Age, an increasing number of farmsteads started clustering together, uniting up to five contemporary farmsteads in one cluster. This nucleation trend increased with time during this period and into the Roman period. In the southern region the picture seems different, although it becomes clear at Arras-Actiparc/Delta 3, Hordain-La Fosse A Loups and Onnaing-Toya, that by the 2nd century BC, enclosed farmsteads were being founded at short distances from each other, creating a densely inhabited settlement landscape. For this latter region, data do not allow for a reconstruction comparable to the one made for the northern sand region, however. The trend towards nucleation was linked to an inclination towards an increasing stability of habitation within the landscape. From being dynamic farmsteads in the earlier Iron Age, shifting through the landscape from generation to generation, farmsteads were more often rebuilt at the same locations later in the Iron Age. This trend continued and increased into the Roman period, when stable settlement compounds could often be inhabited for several centuries.

Over time, settlements thus became stable elements within the landscape that were eventually enclosed by ditches. The process of the development of such enclosed compounds is nevertheless not uniform throughout the research region. For northern France this development set in during the LT C1 period. From this period onwards, settlements became enclosed, developing into what in French literature is generally referred to as fermes indigene; indigenous farms. In the early period of this development, curvilinear enclosures predominated. From the LT D period onwards, however, an increasing number of enclosures were supplied with a rectangular ground plan. At the same time, the internal settlement became organised in increasingly rigid ways, with buildings being arranged along the enclosure ditches, surrounding an open court. The axis of this development can be situated in the

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219 For an analysis of the system of shifting farmsteads that existed in this period, see Gerritsen 2003.
220 Haselgrove 2007, 504; Severin et al. 2007.
222 In northern France, during the period La Tène C1-2, the slopes of the plateaus are colonised. Next, in La Tène D, also the plateaus themselves. Haselgrove 2007, 503. Gerritsen 2003, 251.
223 The appearance of oppida seems to relate to the increased instability of rural sites (Haselgrove 2007, 508).
226 Haselgrove 2007, 513.
227 Agache (1978) introduced this term for the enclosures he discovered in rural areas of Picardy through his extensive aerial research.
228 Haselgrove 2007, 506.
earlier Roman period, however, when settlement space was reorganised on a large scale. From this period onwards, larger, rectangular and well-structured settlement compounds were created. Contrary to this continuous trend, habitation hiatuses of one or two generations can sometimes be documented during the latest La Tène period in this region.229 Nevertheless, this does not seem to imply an actual break in settlement development for the longer term.

In the Belgian loess region, the trend towards the enclosure of rural settlements can also be dated back to the pre-Roman period, it seems.230 Further north, however, this picture changes. Fig. 3.15 visualises the distribution of open and enclosed sites. Settlements that were already enclosed during the pre-Roman period were clearly concentrated in the southern half of the research region. As described above, various settlements in the northern sand and clay areas start off as loosely structured and unenclosed settlements during the Late Iron Age or Early Roman period and did not become enclosed until around the middle of the 1st century. A similar picture emerges in the German loess region, where settlements like Jüchen-Neuholz, Pulheim-Brauweiler, Hambach 412 and Frimmersdorf 129 were also initially built as open settlements, before being enclosed and spatially organised during the earlier or middle 1st century AD. Viewed from a long-term perspective, however, this enclosure development also be regarded as part of a trend towards stable settlement units within the landscape.

The above discussion of the development of enclosures has elucidated the fact that settlement development was differentiated within the research region. These differences nevertheless reached beyond

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229 Haselgrove 2007, 508.
230 Leuze-en-Hainaut-Tourpes, Engis/Hermalle-sous-Huy, Brugelette-Mévergnies, Ath-Ghislengien, Chievres-Ladeuze and probably also Neerharen-Rekem, Haccourt, Vechmaal-Middelpadvel and Veldwezelt were already enclosed by ditches in the pre-Roman period.
the mere presence or absence of enclosures. As early as during the later Iron Age, a relatively complex and hierarchical settlement system seems to have existed. Malrain, Mattern and Méniel have created a model of such a hierarchy by defining a number of settlement types (see fig. 3.16). The most straightforward category (rang 4) entailed small, often single farmstead settlements, that were to no extent enclosed or organised. The material culture associated with these settlements should be labelled as poor. The two middle categories (rang 3 and 2) constituted enclosed settlements including more than one house. Space was relatively well organised, although internal divisions were lacking. Certain houses could be built at privileged positions within the settlement, enabling the control and supervision of movement. The ‘rang 2’ settlements have more profound settlement enclosures and richer material culture. With regard to the most complex type (rang 1) the settlement was enclosed as well as internally organised and subdivided. According to the authors, a separate enclosed compound within the settlement was created for a ‘habitation aristocrate’. Such compounds were frequently provided with monumental entrances. Furthermore, the authors also address the architecture of the house, as well as the mobile material culture as indications for the higher social standing of the inhabitants. Outside the separate compound, other houses, granaries and secondary buildings were situated. Here, it becomes evident that settlements in the more southerly regions were not only enclosed as early as during the later Iron Age, internal space was also already reorganised in some cases. This reorganisation involved internal subdivision, the creation of spatial hierarchies and, to some degree, monumentalisation. In addition, several clear differences existed regarding the material culture associated with certain houses within settlements. Looking at the development of axial complexes then, it is remarkable that this is a phenomenon characteristic for the southern regions, quite parallel to the distribution of settlements that were enclosed already during the Iron Age (see fig 3.15 and 3.17).

Fig. 3.16 Classification of Iron Age settlements in France according to spatial structure and related to consumption of mobile material culture and food. After Malrain/Matterne/Méniciel 2002, 143.

The trends outlined here are long, broad and continuous lines of settlement development between the later Iron Age and the Roman period. The processes of nucleation, stabilisation and reorganisation are rooted in the Iron Age and observably continued into the Roman period. Their broad radius is

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231 Malrain/Matterne/Méniciel 2002, 137-145.
232 Axially organised complexes can be quite clearly separated from settlements that were organised in different ways. Within our dataset, thirty sites (11%) could be identified as axial complexes. At 117 sites (42%), a different type of settlement organisation was documented (in most cases enclosed compound settlements ('Streuhof-Anlagen')) and for the remaining sites (47%), settlement layout could not be reconstructed.
furthermore illustrated by the fact that the same trends can be observed even in settlements north of the research region, such as in Danish Jutland.\textsuperscript{233} In that region, we can also recognise a trend towards the nucleation of farmsteads, particularly during the last three centuries BC. In this phase, an increasing number of settlements were enclosed by ditches, while settlement stability increased.\textsuperscript{234} Furthermore, during the Roman period, domestic space became increasingly structured and complex, involving the division of space by internal fences and the development of units consisting of multiple buildings. According to Webley, both these fences and the appearance of paved paths suggest a heightened concern with guiding and controlling movement within the domestic sphere.\textsuperscript{235} During the same period, the size of houses increased and outbuildings became both more common and sizeably larger. Although it is essential to be cautious to avoid simplistic comparisons, the general developments reconstructed regarding settlements in Jutland are strikingly comparable to those found in our research region.

How then should we understand villa development within these more long-term development trends in the organisation of settlement space? Settlements referred to as villas are, as we have established, stable, enclosed and well-organised compounds. In fact, the development of these compounds fits in with the broader trend of settlements becoming increasingly stable and enclosed. At Hordain, a direct line can be drawn between the development of the villa settlement and the settlement developments from the 2nd century BC onwards, regardless of any direct continuity. Examining broader settlement development, general trends can clearly be distinguished. The same applies to quite a large number of sites, among which Onnaing, Arras, Oss-Westerveld and Saint-Quentin – Parc des Autoroutes, to name a few. In the southern regions, settlements were already enclosed during the later Iron Age. In the northern regions, settlement became increasingly stable and defined, but they were generally not yet enclosed. In the Roman period, however, these settlements were being enclosed and settlement space was more or less structured. In the southern regions, this structuration of space, initiated already in the earliest Roman period, was considerably more profound, as reflected in the developing axial complexes. The trend towards the structuration of space, however, seems to have set in already during the late pre-Roman period, however. The monumentalisation of houses (and thus the creation of highly durable constructions) was a later development, starting only after settlement space had been reorganised. However, there are indications that already during the later Iron Age and earlier Roman period, houses were being built more sturdily, linked to the increasing spatial stability of settlement. Could, then, the choice in favour of new foundation techniques serving to increase the house’s durability, in fact be connected to the rising stability of settlements? Traditionally, scholars have tended to place more focus on the adoption of new architectural forms, communicating Roman-ness. Viewing villa development in the tension field between continuity and change, however, some different patterns might appear, that can at least contribute to our understanding of the developments in rural settlements. We are not merely dealing with specific Roman period developments. On the contrary, these developments are part of broader, more long-term developments that covers both the later Iron Age and Roman period.

Taking such a long-term approach also offers some entrances for understanding regional differentiation in settlement development. As described, it appears that settlements and settlement patterns in the southern parts of the research region were already more complex and differentiated during the later Iron Age; a period during which the northern regions were still characterised by dispersed and dynamic rural habitation, mainly organised on the level of individual farmsteads. This can of course be related to social and economic realities, the southern regions seemingly being more socio-politically complex. Possibly, the proximity of the mediterranean world is a factor of importance here. In the following chapter, we will return to this topic when discussing regional differentiation from a social perspective.

\textsuperscript{233} Webley 2007, 457-459; Rindel 1999.
\textsuperscript{234} Webley 2007, 455-456.
\textsuperscript{235} Webley 2007, 458-459.
3.3 Developments in house building: exploring architectural change

After having explored development trajectories in settlement organisation, I will now focus on individual houses. Traditionally, it is the element of house building that is most explicitly associated with the ‘villa’ concept. From the 1st century AD onwards, new techniques, materials, architectural forms and concepts were introduced. In many cases, this resulted in the development of the characteristic multi-roomed houses on stone foundations with whitewashed walls, red-tiled roofs and a porticoed facade. However, there existed a considerable variety of house development trajectories that needs to be explored. Thereby, we will attempt to reach beyond the often-held view of the simplistic and unproblematic replacement of wooden houses by stone houses.

Parallel to paragraph 3.2.1, house-building developments will first be described in relation to some of the most well-researched sites in each subregion of the research area (3.3.1), while some of their shared characteristics will also be highlighted. In the next section (3.3.2), we will create a typology with regard to rural houses and their development trajectories, on the basis of the evidence presented in this section. Thirdly, a number of specific elements of change respecting house building will be discussed in greater detail.

3.3.1 Developments in house building per subregion

The northern sand and clay areas

In this northern region, the archaeological study of houses is particularly well developed. The general picture is one of continuity of building traditions; the post-built so-called Alphen-Ekeren type house is
built without much change throughout the Roman period. Looking closer, however, changes in house building can be discerned in quite a number of cases.

Architectural changes have already been mentioned in relation to Oss-Westerveld and Hoogeloon in the Dutch sand region. At Oss-Westerveld, two-aisled traditional houses dominated the settlement, from at least the early 1st century AD onwards. Around 100 AD, when a separate compound was created within the settlement, a special house was built here.\textsuperscript{236} The core of this house was in fact a typical two-aisled Alphen-Ekeren type house. However, it included a construction around this traditional core that has been interpreted as a wooden portico (see fig. 3.18). The deep foundation of its posts suggests that it had a supporting function, possibly related to a partly tiled roof for which indications were found. Furthermore, one of the central roof-supporting posts of the house was set on a plank, in fact representing a new foundations technique.

The phenomenon of the portico-house is a known phenomenon in the archaeology of these northern regions. Other portico-houses, interpreted as 'certain portico-houses' by Vos, include Tiel-Passewaaij (House 14\textsuperscript{237} (1d-2A: portico on all sides), Oosterhout (house 1; 2B; portico on all sides), Breda (House 52: 2nd century; portico around all sides), Harnaschpolder: (2B/3a; portico on all sides) and Wijk bij Duurstede-De Horden (houses 9 and 25; 2B-3a).\textsuperscript{238} Examining such portico-houses and comparing them to 'traditional' houses nevertheless presents us with an interpretational complication. In many cases, it is difficult to decide wether the outposts actually represented an element adopted from the Mediterranean architectural lexicon or whether it constituted an internal development, much more rooted in tradition. With regard to the two houses at Wijk bij Duurstede-de Horden\textsuperscript{239} the relatively large distance between wall and outposts was taken as indicative of a portico-construction. Furthemore, it appears that these houses lacked an internal byre, potentially indicating changes in economic practice.\textsuperscript{240} Another portico-house from Houten-Wulven\textsuperscript{241} was somewhat older, dating back to the Flavian period at the earliest. This particularly long house surrounding outposts, positioned 2,5 meters from the wall. Although no features of further developments in house building were documented, large quantities of building material and a robber trench could indicate the presence of a house on stone foundations, superseding the portico-house at this site.

At other settlements, the developments in house building were, when compared to the addition of wooden porticoes, somewhat more profound. At Houten-Molenzoom\textsuperscript{242}, for example, a first habitation phase, dated between around 50 BC and 50 AD, comprised a simple two-aisled house. During later phases, however, new types of single-aisled constructions with supporting posts set in the long walls were constructed. In the first two phases, posts were still set into postholes. Later, however, posts were set on

\begin{figure}[h]
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\includegraphics[width=\textwidth]{fig318}
\caption{Left: a traditional Alphen-Ekeren-type byre house. Right: the portico-house of Oss-Westerveld. The core of the portico house is identical to that of the traditional house. The added feature is a wooden portico around the house.}
\end{figure}

\textsuperscript{236} For a description of this house (house 78), see Wesselingh 2000, 78-83.
\textsuperscript{237} Heeren 2006, 234-236.
\textsuperscript{238} For an overview of houses with outposts/portico-houses, see Vos 2009, 238-239.
\textsuperscript{239} Vos 2002, 2009.
\textsuperscript{240} Vos 2009, 70.
\textsuperscript{241} Vos 2009, 129-130.
\textsuperscript{242} Vos 2009, 174-182.
packings of building material and natural stone. The youngest house can be dated to the second half of the 2nd century AD, but its predecessors could potentially be dated back to the 1st century AD.

The settlement of Hoogeloon was also dominated by traditional houses during the 1st century AD. Then, in the first half of the 2nd century, a multi-roomed house on stone foundations (51.5 by 19 m) was built within the settlement, exactly on the location of two preceding traditional houses. During a second phase, a bath section and a hypocaust room were constructed within the existing house.

A quite similar development was documented at Houten-Burgemeester Wallerweg. Two consecutive traditional houses can be dated between 50/75 AD and 150/175 AD. The second house was associated with Roman-style imported objects. Then, in a next phase, after 175 AD, a house on stone foundations, measuring 27.75 by 11.35 meter, was constructed at the same location. The fragmentarily known house seems to consist of a number of rooms fronted by a portico.

Traditional houses also dominated the early phases of the settlement at Druten. It is from the second half of the 1st century AD onwards, that significant changes in house building became apparent (for the development trajectory of houses at Druten see fig. 3.28a). House 1 can be measured as 15.5 by 36 m, consisting of a two-aisled house with a surrounding portico. Possibly the northern section of the house can be interpreted a byre. A stone-lined cellar or room on stone foundations, measuring 2 by 2.5 m, was situated in the assumed residential area. As fragments of painted wall plaster indicate, some walls may have been decorated already during this phase. Next, in the period between 80 and 150 AD, three single-aisled houses were constructed, all of them surrounded by outposts that could possibly be interpreted as porticoes. These single-aisled houses were supplied with heavy wall posts, set in opposite pairs and connected by cross beams. House 12 was particularly remarkable. Here, a long 'gallery' was built at the front of the house, exceeding the width of the house's core. Furthermore, fragments of painted wall plaster, traces of a gutter and the lack of an internal byre all indicated the house's extraordinary character. A multi-roomed house on stone foundations was probably constructed in the second half of the 2nd century. This residence, measuring 32 by 17 meter, had a typical plan, consisting of a number of rooms, fronted by a portico-risalith facade.

One house quite similar to the aforementioned single-aisled houses with heavy wall constructions (those at Houten-Molenzoom and Druten) was documented at Lent (fig. 3.19). This rectangular house (26 m long) displayed walls consisting of square Grauwacke footings. The authors argue that the inner house space was likely to have been divided into several rooms and that the roof was covered with tiles. In addition, fragments of painted wall plaster were found here. The presence of a smaller secondary building, a 16-post granary and some other small buildings and granaries indicate that this house was part of a rural settlement.

At Rijswijk-De Bult, all through the 1st and the earlier parts of the 2nd century, houses were built in a traditional fashion (fig. 3.20). The only house found to be extended with an annex on stone foundations dated from the period 130-150 AD (house 18/19) and was located on the northeastern compound within the settlement. Subsequently, around 200 AD, the remainder of this house was rebuilt on stone

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244 Hulst 1978; Maas 2007; Heeren 2009.
245 Similar houses were found at Hoogeloon and Den Haag-Wateringse Veld.
foundations. The four small rooms, one of which was heated by means of a hypocaust, connected to this rectangular part on the west side. It should be mentioned that this house on stone foundations closely resembled the spatial structure of a three-aisled traditional house, the internal buttresses echoing the internal roof supporting posts. Within the hall, a hearth is situated. An internal byre seems to be lacking, however.

The only accurately excavated rural settlement in the German part of the northern sand and clay regions, is that of Weeze-Voorselaar. House 1 of this settlement had a plan comparable to the byre-houses known from the Dutch region. House 2 had a somewhat different plan and is associated with the portico-house of Druten by the author. None of the houses was monumentalised to any extent, however.

Fig. 3.20 Part of the house development trajectory at Rijswijk-De Bult. First, during the 1st and early 2nd century AD, traditional post-built houses were built here. Then, probably between 130 and 150 AD, a small section on stone foundations was added to a traditional house. Around 200, a long-rectangular house on stone foundations was constructed at the same location.

In the northern regions, traditional ways of house building remained a dominant practice throughout the Roman period and, in most cases, changes to house building were introduced relatively tardily. Some so-called portico-houses were relatively early, however, dating back to the Flavian period. Portico-houses at Oss-Westerveld and Nistelrode-Zwarte Molen can be dated in the late 1st or earlier 2nd century AD. However, the majority of portico-houses defined by Vos as being ‘real’ dated to the second half of the 2nd century. A new foundation technique in traditional post-built houses was documented on three occasions. At Tiel-Passewaaij (house 3), Houten-Burgermeester-Wallerweg (wooden house, phase 2) and Oss-Westerveld (house 78), all of which date back to around the first half of the 2nd century AD, one or more roof supporting posts were set on a plank placed inside the posthole. According to Vos, this technique might be of Roman military origin. The introduction of stone foundations was also a relatively late phenomenon in this northernmost region. The house on stone foundations at Druten dated to the second half of the 2nd century, that at Rijswijk to around 200 AD and that at Houten-Burgermeester-Wallerweg was not constructed before 150/175 AD. Only the house on stone foundations at Hoogeloon, already somewhat further to the south compared to the examples mentioned above, was built probably already during the first half of the 2nd century.

248 AIR 2008, 81-83
249 Vos 2009, 250.
251 Vos 2009, 167.
Finally, I would like to highlight the relationship between the transformation in house building and the changing functionality of the house itself. Vos suggested that portico-houses 9 and 25 at Wijk bij Duurstede-De Horden did not contain internal byres. The same applies to the typical house Druten 12, although the earlier house 1 still did contain a byre, it seems. Similar conclusions can be drawn regarding the stone houses at Rijswijk and Houten-Burgermeester Wallerweg. The fact that houses primarily became residences also implied a change in economic practice within the settlement. This economic dimensions will not be further explored here, however.

Flanders

Over the last decades, a considerable amount of knowledge has been acquired in the field of both Roman-period house building and its development in the Flanders region. Examining the data, it appears that post-built houses remained the norm throughout the Roman period. Although these wooden structures underwent a number of significant changes with regard to construction, no direct Mediterranean architectural elements or influences can be detected. In his synthesis, Wim De Clercq describes the way in which wooden two-aisled Alphen-Ekeren type houses developed by replacing central roof supporting posts by pairs of posts, set in the walls.252 This phenomenon is particularly well-documented in this region, but can also be found in a number of settlements in the Dutch sand region, such as Hoogeloon, and in the Belgian Condroz region, among which Champion and Hamois.253

In settlements like Bruges-Refuge, its spatial layout paralleling the more southerly well-structured compound settlements, houses continued to be built in a traditional fashion throughout its existence (see fig. 3.21). Nothing indicated the adoption of new techniques, materials, forms and concepts. Only at Antwerpen-Mortsel254, changes in house building were documented. One of the two excavated houses was a portico-house, resembling that at Druten (house 1). Similarly, inner house space was divided into two parts, likely to have constituted a byre and a residential section. A cellar constructed using limonite and tiles was connected to the house.

Fig. 3.21 Roman-period houses from the Bruges-Refuge settlement in Flanders.

The Dutch and German loess region

In the Dutch loess region, at four sites, house development trajectories can be reconstructed in detail. At Kerkrade-Holzkuil255, the first habitation phase, dated to the late 1st century AD, was characterised by a traditional Alphen-Ekeren-style house with a central row of roof-supporting posts (see fig. 3.22). Next, in the early 2nd century, this house was replaced by a simple hall-type house on stone foundations. Subsequently, around the middle of the 2nd century, a new multi-roomed house on stone foundations was built, consisting of two large and two small rooms, fronted by a portico. At the end of the 2nd century, a new room, a bath section, risalith and two monumental entrances were added, creating an even more impressive and luxurious house.

254 De Boe 1966; Slofstra 1991, 164.
255 Tichelman 2005.
During the earliest habitation phases of the Voerendaal-Ten Hove settlement small, traditional houses seem to have been predominant. Then, around the middle of the 1st century AD, a simple stone house was constructed, consisting of two identical central rooms, surrounded by several smaller rooms. Around the transition from the 1st to the 2nd century, this house was torn down. Subsequently, a more monumental and organised complex was created, consisting of a new main house, a secondary building, a granary and a bathhouse. The house itself consisted of a central hall with surrounding rooms, fronted by a portico. A later phase saw the buildings linked by a long portico, creating a coherent whole with a monumental, impressive facade. In addition, the granary and bathhouse were both extended.

According to the excavator Brunsting, first habitation at the Kerkrade-Spekholzerheide dated back to between 20 and 70 AD (see fig. 3.23 for the development trajectory). A post-built, probably single-aisled framework construction can be dated to the 1st century AD (12,5 by 7,5 m). Of hypothetical older post-built constructions, however, no plans could be recognised. Then, around the end of the 1st century AD, a multi-roomed house on stone foundations was constructed. In a first phase, the house consisted of a number of rooms fronted by a simple portico. In second phase, a bath section, a large room at the back of the house, and two risaliths were added (the final house measured 52 by 22 m).

At the fourth site, Maasbracht, a house on stone foundations was built around the late 1st century AD. A large hall and some smaller rooms were fronted by a portico-risalith facade. At the end of the 2nd century the existing risaliths were replaced by larger ones with deeper foundations, indicating their tower-like appearance. At the same time a monumental entrance was created at the centre of the portico. This will have considerably increased the monumentality of the house. Many fragments of painted wall plaster can also be dated to this period.

The German region provides more data on house development. Two of the better reconstructable trajectories can be found at Jüchen-Neuholz and Pulheim-Brauweiler (for their development trajectories see fig. 3.28a).

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256 This site is also referred to as Kaalheide-Krichelberg. Brunsting 1950; see also Koster/Peterse/Swinkels 2002, 48 ff.
258 Andrikopoulou-Strack et al. 2000, 409-488.
part of the partly enclosed settlement, dated to the Augustan period, was already somewhat larger house and was constructed on horizontal foundation beams. Subsequently, around the middle of the 1st century, two houses, around 20 m in length, were built on the first enclosed compound. Although these houses were considerably larger than their predecessors, their construction seems to have been traditional. This changed with the erection of two new buildings on the same compound, around the late 1st century. These large, single-aisled structures had square and relatively heavy wall posts, serving to support the roof. One of the buildings also had an internal cellar.\(^{259}\) Then, in the earlier 2nd century AD, a multi-roomed house on stone foundations was constructed, consisting of a number of rooms, fronted by a portico-risalith facade. In a second phase, several new rooms were attached to the short sides of the existing house. Before the end of the 2nd century, this house was destroyed by fire, however. At Pulheim, the documented traditional houses, quite similar to the ones at Jüchen, were likely to have been constructed during the middle of the 1st century AD, using horizontal foundation beams. Around the late 1st century, a new, substantially larger house (28.5 x 13 m) was constructed on the newly created compound. This rectangular house was a single-aisled structure, within which the wall posts, partly set on stone footings, supported the roof. Contrary to some other cases, these wall posts were not single square posts, but regular timbers, set in pairs.

In a number of other cases, we also see single-aisled houses with squarish wall posts preceding multiroomed stone houses. At Broichweiden-Würselen\(^{260}\), such a house could be dated back to the 1st century AD, before it was rebuilt as a simple house on stone foundations during the following phase. For the single-aisled house at Neuss-Weckenhoven\(^{261}\) the square wall posts could be well documented and reconstructed to have measured between 22 and 30 centimeters wide, set around 1.5 meters from one another. This house, 18 by 7.5 m in size, was dated back to the second half of the 1st century AD. During a next phase, a simple house on stone foundations, measuring 32 by 17 m, was constructed. At Weisweiler 122, similar single-aisled houses with heavy walls, dating back to the 1st century AD, were documented.\(^{262}\) Again, a house on stone foundations replaced these during a subsequent phase.

Similar single-aisled houses, which can be reconstructed as framework hall houses, built using new wall and roof construction techniques, were also known to have existed at the settlements Frimmersdorf 49, 131, Hambach 516 and Jüchen-Neuotzenrath. These houses were, however, not replaced by houses on stone foundations, like in the examples described above. The wall posts of the rectangular house at Jüchen-Neuotzenrath\(^{263}\) were set in square postholes with stone packings. In the deeper, down-slope postholes, quartzite blocks were used to anchor and support vertical posts as well as horizontal beams. Fragments of chalk plaster indicate that the outer walls were probably plastered, creating an appearance of smooth white walls. During a later phase, a risalith on stone foundations was connected to one of the corners of the house. The single-aisled house of Frimmersdorf 49\(^{264}\) was also set on packings of sandstone, tile and ceramic fragments. In addition, it seems to have had a tiled roof. The Frimmersdorf 131\(^{265}\) house was built in two phases, of which the first phase has been reconstructed with a single risalith.\(^{266}\) Only a single post was set on stone material packing, as the roof was likely to have been covered with organic material. Both these houses can be dated to the second half of the 1st century AD. At Hambach 516, a first house, dated around the middle for the 1st century AD, still had round postholes.\(^{267}\) Unfortunately, however, its plan has only been identified fragmentarily. In the early 2nd century, a single-aisled house with square postholes set on gravel and chalkstone packings was built. In a next phase, probably also in the earlier or middle 2nd century, two rooms on stone foundations were connected to the existing building, of which one functioned as a risalith, as was the case at Jüchen-Neuotzenrath. A last example regards the house of Frimmersdorf 129\(^{268}\), where a simple, traditional long-rectangular post-built house (16 by 6 m) was replaced by a more square house with posts set on packings of gravel, sand, quartzite and tile fragments (18 by 13 m).

259 It is this settlement phase that was interpreted as a ‘proto-villa’ by Frank and Keller (2007).
260 BJ 177, 579.
261 Haupt 1968, 90-91.
263 AIR 1999, 82-84.
264 Köhler 2005.
265 Köhler 2005.
266 Heimberg 2002/2003; Kaszab-Olschewski 2006; Köhler (2005) does not follow this reconstruction, however.
At Hambach 512269, the two oldest houses, dating back to the second half of the 1st century AD, were post-built, but their plans are only fragmentarily known. The foundation for one of these houses seems to have consisted of sandstone bases. This house was in all probability comparable to single-aisled houses with stone footings, such as Jüchen-Neuotzenrath. In the early 2nd century AD, a first house on stone foundations was built, consisting of a large hall and a number of smaller rooms, fronted by a portico-risalith facade. In a next phase, a completely new building with a slightly different orientation was connected to the existing house by means of a tapering section. The new house cut the settlement ditch and palisade that enclosed the settlement the second half of the 1st and the first half of the 2nd century AD. Throughout various phases, the house developed into a building containing fifteen to twenty rooms, fronted by a portico-risalith facade. A hypothetical bath section was situated in the connecting section between the two houses.

Other phased developments could be found at the settlements of Hambach 59, Cologne-Müngersdorf270, Hambach 127271 and Bad-Neuenahr-Ahrweiler.272 At Hambach 59273, a post-built house probably existed in the 1st century AD. Subsequently, during the later 1st century, a basic house on stone foundations was constructed, consisting of a central hall, porticos on three sides, and potentially three non-projecting risaliths. Around the transition from the 2nd to the 3rd century, a bath suite was added on the west side of the existing house. At Hambach 127274, the first phase of the basic house on stone foundations (consisting of a larger central hall and a number of smaller rooms, fronted by a portico-risalith facade) can be dated to the second half of the 1st century AD. During the late 1st or early 2nd century, a bath was constructed in the western part of the house. At Cologne-Müngersdorf275 and Bad-Neuenahr-Ahrweiler276, the first basic houses on stone foundations date back to around the middle of the 1st century AD. At the latter site, a bath house was already present during this early habitation phase. In both cases, the first house was replaced by a larger house in the second half of the 1st century. During a number of phases, a portico, hypocausts and a bathing section (only in the 3rd century) were added to the house at Müngersdorf. At Bad-Neuenahr, the new house measured 72 by 18-20 m. In addition, the existing portico was extended towards the separate bathhouse during a later phase. The house at Blankenheim-Hülchrath277 was already relatively large in its first phase, during the 1st century AD (measuring 48 by 17 m). Furthermore, it contained 20 rooms; a large hall, surrounded by a number of smaller rooms, fronted by two large projecting risaliths. After this house was destroyed by fire around the middle of the 2nd century, it was rebuilt on an even larger scale.

The Belgian loess zone

In the Belgian loess zone, five settlements situated in the region around Tongres were characterised by Alphen-Ekeren type of houses during their early development phases: Vechmaal-Middelpadveld278, Lanaken-Smeermaas-Kerkveld279, Riemst-Lafelt280, Veldwezelt281 and Neerharen-Rekem282. These houses dated back to the later Iron Age or the 1st century AD. And at all these settlements, changes in house building can be documented for the later 1st or 2nd century. At Vechmaal, a two-aisled house was built, probably around the middle of the 1st century, containing a small internal cellar and probably a (partially) tiled roof. At Vechmaal, Neerharen, Lanaken and Riemst, a house on stone foundations was build around the later 1st or 2nd century. At the latter two sites, mere fragments of the house were documented, as only the deeper parts were preserved: cellar and hypocaust. At Veldwezelt, only a cellar was documented. It can be argued, however, that this cellar was part of a house on horizontal foundations beams or stone foundations that had eroded completely, similar to Lanaken and Riemst. The Vechmaal house was much better preserved. In a first phase, two rectangular rooms were fronted by a portico-risalith facade.

270 Fremersdorf 1933; Horn 1987, 505.
271 AIR 2000, 73-76.
272 Febr 2003.
274 AIR 2000, 73-76.
275 Fremersdorf 1933; Horn 1987, 505.
276 Febr 2003.
277 BJ 123, 210-226.
278 Vanvinckenroye 1997.
Subsequently, during the late 2nd or early 3rd century, a bath section was built, connected to the existing house by five new rooms. The same applied to the house at Neerharen. In its first phase, during the late 1st century, a portico-risalith facade fronted three smaller rooms. Next, a second portico-risalith facade was added at the back of the house. Behind it, an apsidal room was added, which has been interpreted as a triclinium. During the last development phase, a bath section was connected to the northeast corner of the house.

Somewhat further to the west, at Wange-Damekot283 and Erps-Kwerps284, Late Iron Age and Early Roman period habitation also consisted of traditional post-built houses. At Wange, there seems to have been a continuous development from the pre-Roman to the Roman period. At some point during the 2nd century, a house on stone foundations was built, consisting of several rooms fronted by a portico-risalith facade and measuring 38 by 15 m. During a second phase, a bath section was added at the west side of the house. At Erps, a stone-built house, measuring 51 by 23 m and placed parallel to the post-built houses, was constructed during the late 1st century AD. Once again, the house consisted of several rooms fronted by a portico. In the 2nd century, the house was likely to have been extended with a portico at the back. Moreover, at Rosmeer-Diepestraat285, fragmentary traces of a post-built house were documented. In the second half of the 1st century, a house on stone-foundations was built at the same location. A lack of documentation complicates any attempts to establish the chronological relationship between these building phases, however.

More to the south, in the Belgian Condroz region, similar development trajectories can also be found. At Gesves-Sur le Corria286 in both the Late Iron Age and the Roman period, post-built houses characterised the settlement. During the Roman period at least, these houses were of a two-aisled Alphen-Ekeren type. A next phase saw the construction of a house on stone foundations, consisting of a large central room and several adjacent rooms, fronted by a portico. To this existing core, a completely new section was added in a subsequent phase. Furthermore, a separate bath building was raised south of the house, connected to it by a gallery, constructed later on. The constructions of this gallery also involved the creation of a monumental entrance, opening onto the court in front of the main house. The bath house itself was extended to include five bathrooms and three praefurnia.

The main house of the Hamois-Le Hody287 settlement, positioned centrally on the compound, was a post-built, two-aisled construction during its first phase, dated around the middle of the 1st century AD. The following phases saw a house on stone foundations being erected (see fig. 3.24). Hypothetically, the basic, rectangular, bipartite house on stone foundations directly superseding the wooden house represented a first stone phase, but this remains impossible to establish for certain. A short distance to the east, a house with a large central room and several smaller rooms, fronted by a portico-risalith facade, was constructed in the late 1st or early 2nd century. After a first extension of the main house towards the west, a bath section was also constructed. Subsequently, the house was extended two more times, eventually creating a facade of approximately 50 m wide.

Fig. 3.24 Reconstructed development of the house at Hamois-Le Hody.

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283 Lodewijdx 1995.
284 Verbeeck 1995.
286 Lefert/Bausier 2006; Lefert 2008.
The axially organised complexes of Haccourt\textsuperscript{288} and Meslin-L'Eveque\textsuperscript{289} are characterised by post-built houses in their earliest phases, i.e. the Late Iron Age (as presumed for Haccourt) or Early Roman period (as presumed for Meslin). Although the post-built houses at Meslin were only fragmentarily preserved, one could be recognised as an Alpen-Ekeren type construction. Then, in the later 1\textsuperscript{st} century AD, an axially organised complex was laid out parallel to the existing enclosure ditches and a relatively large house was raised on stone foundations. A next phase saw the main house being expanded to reach an impressive 117 by 23.5 m. At Haccourt, a Roman-period, post-built structure potentially dated back to the middle of the 1\textsuperscript{st} century AD. Continuity between the pre-Roman and Roman period habitation certainly seems a possibility.\textsuperscript{290} Unfortunately, however, little is known about the building plans of the most ancient houses. The same applies to the new house built around 70 AD, of which only its cellar has been preserved. Several decades later, possibly before the end of the 1\textsuperscript{st} century, a new house was built. This construction consisted of a long rectangular part, comprised of several rooms and a bath section at the south end of the building, collectively creating a structure that is 78.5 m long. In the early 2\textsuperscript{nd} century, a portico connected the house to the bath section. Soon after, the house was torn down to make way for an even bigger house. This building was 103 by 46 m in size and consisted of a large number of rooms and two open courts fronted by a monumental façade with two projecting wings, between which a portico was raised. Again, a separate bathhouse was later connected to the house by means of a porticoed gallery. What is most remarkable with regard to the orientation of this house is the fact that what appears to be main façade was oriented away from the settlement complex, reconstructed to have stretched towards the southwest. Examining the relief map, it appears that the house was situated on a hill, overlooking the surroundings. This would have been the side of the house most visible to the world outside, which probably was the reason it required such a particularly elaborate façade.

For some monumental, multi-roomed houses, however, it seems that they did not develop from traditional houses. Instead, they were built ex nihilo. One example is the house at Rochefort-Jemelle. This house seems to have been constructed as a multi-roomed building on stone foundations during the late 1\textsuperscript{st} century without being preceded by a post-built phase. During later phases (see fig. 3.25) several new rooms, a portico and a bath section were added to the existing long, rectangular core. Another potential example is that of Champion-Le Emptinne.\textsuperscript{291} Here, a first house, dating back to around the middle of the 1\textsuperscript{st} century AD, was a simple L-shaped house on stone foundations, containing between five and eight rooms, fronted by a portico. On the northwest side of the house, a small, separate bath house was constructed. Subsequently, a new section was built, connected to and partly replacing the previous structure. Around the middle of the 2\textsuperscript{nd} century, the bath section was extended to comprise 15 rooms and was connected to the house by means of a gallery. For a number of other houses, also no pre-monumental building phases were documented: Merbes-Le-Chateau-Champs de Saint-Eloi\textsuperscript{292}, Matagne-la-Petite\textsuperscript{293}, Roly\textsuperscript{294}, Vodelée\textsuperscript{295} and Habay-la-Vieille-Mageroy.\textsuperscript{296} Their early monumental phases can be dated back to the second half of the 1\textsuperscript{st} century or first half of the 2\textsuperscript{nd} century AD. The difficulty with this category, however, is the fact that it is not possible to proof that these houses lacked pre-monumental phases. Possibly, they were missed because they were eroded, overbuilt or simply not recognised.

\textsuperscript{289}Deramaix 2006; Corbiau 1997, 311-314.
\textsuperscript{290}De Boe 1974, 43-44.
\textsuperscript{291}Van Ossel/Defgnee 2001.
\textsuperscript{292}Authom/Paridaens 2007, CAW 15; Authom/Paridaens 2008, 11-16.
\textsuperscript{293}Two separate houses; Brulet 2009, 523-524.
\textsuperscript{294}Robert 1980.
\textsuperscript{295}Robert 1987.
\textsuperscript{296}Zeilpen/Halbardier 2006.
Fig. 3.25 Development of the Rochefort-Jemelle settlement’s main building. First phase = black. Second phase = grey. Third phase = shaded. Fourth phase = white. After Brulet 2009, 571.

**Northwestern France**

Compared to the extent of settlement research, relatively few data are available for reconstructing house development trajectories in any detail. This seems related to the poor state of the research published on this particular subject. Still, for a number of sites, we can shed light on house development.

Parallel to the other regions, at quite a number of settlements, traditional house building was predominant during the earliest phases. At Hordain-La Fosse à Loups\(^{297}\), the main house was an oval-shaped post-built house, measuring 7.5 by 13 m, that could be dated to the first half of the 1st century AD. A small cellar, lined with planks, was positioned close to the southwestern wall. According to the author, this house was covered with tiles, although the presumed capability of these traditional constructions supporting such roof-loads is doubtful. Around the middle of the 1st century AD, a basic, rectangular house on stone foundations (18 by 7 m) then superseded this traditional house. Subsequently, during the 3rd century settlement phase, a new, more complex stone building was raised at the same location. A second house on stone foundations, belonging to this latter phase, had a typical plan with a portico-risalith facade.

Similar development trajectories were also found at a number of other sites. A traditional, post-built house at Bohain-en-Vermandois\(^{298}\), built in the second half of the 1st century AD, was replaced by a single-aisled house during the first half of the 2nd century. This latter house consisted of heavy wall posts on silex packings and an internal stone-lined cellar. The roof seems to have been (partially) covered with tiles. At Seclin-Hauts Clauwiers\(^{299}\), a first post-built house with an a-typical plan can be dated between the 1st century BC and the 1st century AD. A simple house on stone foundations in the 1st or 2nd century subsequently replaced it. And at Hamblain-Les Près\(^{300}\), post-built houses, dated to the Late Iron Age and first decades of the 1st century AD, were superseded by a house on stone foundations, measuring 29 by 13 m. At the end of the 1st century AD, the existing house was extended considerably towards 65 by 20 m. This house is likely to have contained a bath section as well.

Traditional houses can also be found at the axial complexes, such as Famechon-Le Marais\(^{301}\), Verneuil-en-Halatte\(^{302}\), Monchy-le-Preux\(^{303}\), Beaureux-Les Grèves\(^{304}\), and, probably, Roye-Le puits à Marne\(^{305}\). Consequently, while settlement space was reorganised radically, houses were initially still being built in a traditional manner, giving no indication of the highly monumental residences that succeeded them.

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\(^{297}\) Séverin *et al.* 2007.

\(^{298}\) AEP 2004 (nr. 26), BSR 2000, 19-20.

\(^{299}\) Revillion/Bouche/Wozny 1994.

\(^{300}\) Jacques/Tuffreau-libre 1984; CAG 62, 487-489.

\(^{301}\) Collart 1996, 146-149.

\(^{302}\) Collart 1996, 124-132; CAg 60, 491-494.


\(^{304}\) Haselgrove 1996, 155-161.

Fig. 3.26 Early post-built houses from the axial settlement complexes of Monchy-le-Preux and Verneuil-en-Halatte and simple compound settlements of Bohain and Hordain (from left to right).

In these axial complexes, the earliest changes in house building can be dated to the Tiberian period. At Famechon, a 12 m-long house was constructed on silex foundations during this period. At the same time, the houses on the working compound were also rebuilt, using chalk and limestone foundations. With regard to the other settlements, changes in house building did not occur until later. Verneuil saw a new house being built during the Tiberian-Claudian period, of which only the cellar, lined with limestone blocks, has been preserved. This house was probably constructed on horizontal foundation beams or shallow stone foundations, and was covered with tiles. At Monchy, a house on stone foundations, measuring 24 by 12 m, was built in the second half of the 1st century AD. Furthermore, it was not until the 2nd century AD that a first stone house was constructed at Roye.

At Saint-Quentin, the earliest documented main house is not of a traditional type. Instead, it constituted a single-aisled post-built construction, measuring 10 by 15 m. This building, dated to around the middle of the 1st century AD, is quite comparable to the single-aisled constructions found within the German loess region. During the late 1st century, the house was rebuilt with limestone foundations, including a stone-lined cellar. This new house was 21,5 by 12,8 m in size.
3.3.2 Classifying house development trajectories

As previously attempted with regard to settlement organisation, I will now endeavour to classify houses and their development trajectories. We will shed light on and schematize the transformation of existing house building traditions by the introduction of new materials, techniques, forms and concepts, as well as the development of existing monumental houses through time. Before reconstructing a variety of development trajectories, however, I will firstly define a number of different house types, initially excluding the diachronic dimension. Starting out, four basic types were defined. However, within each category considerable variety remains present, especially within the fourth category.

- Traditional houses: these houses were included in the domain of vernacular architecture. They were built according to local traditions, using local materials and local workforce. For the northern regions, rectangular two- and three-aisled post-built longhouses were predominant. In most cases, these constituted byre houses, combining residential functions with a byre section under the same roof. In the south, considerably smaller post-built houses can be found, seemingly lacking internal byres. Houses were constructed using exclusively organic materials and posts were set directly into post holes dug into the ground.

- Romanised traditional houses: these houses were essentially traditional in terms of shape and construction but contained additional elements, representing influences from the Mediterranean architectural lexicon. The best example within this category is the portico-house. A house like Oss-Westerveld was a purely traditional Alphen-Ekeren type house at its core. The surrounding portico was nevertheless an addition and translation of a Mediterranean architectural element and concept. Aside from porticoes, the use of tiles, plaster and natural stone for supporting posts also falls into this category.

- Timber framework houses: these houses represented a new way of building, including new foundation techniques, new wall and roof construction techniques and the use of new materials and concepts. Still, they were not similar to the multi-roomed houses generally referred to as villas. These houses were single-aisled timber-framework houses, in many cases built on stone footings or packings, as described in the above. Instead of internal posts supporting the roof, newly constructed sturdy framework walls took over that function. These developments also enabled the roofs of these buildings to be covered with tiles. Furthermore, at some of these houses, like at Jüchen-Neuotzenrath, Hambach 516 and Druten, a facade was created by means of the construction of a risalith or fronting gallery.

- Multi-roomed houses on stone foundations: these houses are generally referred to as villas in archaeology. They were built on linear stone foundations and their internal space was divided into separate rooms. In most cases, the foundations will have had the character of low walls on which the framework walls were set. This is not to say that walls completely constructed in masonry did not exist, however. The facade has become a standard and specific part of this category of houses, specifically in the form of a portico or portico-risalith facade. Heterogeneity is particularly profound in this category, clearly illustrated in fig. 3.28. Houses on stone foundations range from very simple and small, rectangular, hall-like constructions containing one or a small number of rooms to exceedingly large residences with over 30 rooms, extended bath sections and monumental facades.
Fig. 3.27 Four basic types of houses, as defined in this study.
Subsequently, I will involve the diachronic factor, focusing on house development trajectories. Several development trajectories from all parts of the research area are represented in the scheme of fig. 3.28 a and b. It should be noted that the scheme includes both concrete and more generalised development trajectories. In the former, the houses shown are actually part of a coherent development trajectory. In the latter, the relationships between the different houses within the specific settlement is not as clear, although general developments can clearly be documented. Furthermore, in a number of cases, the precise chronological relationship between building phases is unknown as a result of a lack of chronological detail.

Six development trajectories are defined:

• Traditional post-built houses that did not undergo significant changes with regard to building techniques, architectural forms and concepts, as well as the application of building materials. Many of such development trajectories are found in the northern sand and clay regions. The settlement of Brugge-Refuge is an example of this category. Over time, central posts were replaced by opposing pairs of roof-supporting posts. However, this constituted internal development rather than an adoption of Mediterranean architectural techniques.

• Traditional houses developing towards Romanised traditional houses. Within this category, new architectural elements were added to otherwise traditional houses. Fig. 3.28a shows Oss-Westerveld, Wijk bij Duurstede-De Horden, Antwerpen-Mortsel and Druten. In these cases, traditional houses developed into portico-houses when a wooden portico was constructed around the house. The houses from Druten and Antwerp, dating back to the second half of the 1st century AD, also contained a cellar.

• Traditional houses developing into romanised timber houses constructed by means of a framework technique. Examples include Druten, Jüchen-Neuholz, Pulheim-Brauweiler and Bohain. At Druten, a single-aisled house with fronting portico was erected in the later first or earlier 2nd century AD. At both Jüchen and Pulheim, the single-aisled framework houses were significantly larger than was the case regarding earlier, more traditional houses. During the 2nd century, the timber-framework house at Hambach 516 was extended to include a single risalith.

• Traditional houses developing towards multi-roomed houses on stone foundations. This constitutes an often-documented development trajectory. Traditional house building was abandoned swiftly, only to be replaced by a completely new way of constructing residences. The scheme shows Hoogeloon, Houten-Burgermeester Wallerweg, Hamois-Le Hody, Monchy, Hordain and Neerharen-Rekem.

• Houses built ex nihilo, as multi-roomed houses on stone foundations. No predecessors in vernacular architecture were documented at these sites. One example, indicated in the scheme, was the large house at Rochfort-Jemelle. Over time, this house became increasingly extended and monumentalised.
Fig. 3.28a Examples of house development trajectories in the northern sand and clay areas and the Dutch and German loess region.
Fig. 3.28b Examples of house development trajectories in Flanders, the Belgian loess region and northwestern France.
In the above classification, particular emphasis has been placed on the introduction of new materials, techniques, forms and concepts, describing a variety of individual development trajectories in house building. In many cases, quite radical transformations from traditional post built houses towards multi-roomed houses on stone foundations were reconstructed. It is important to realise that the 'biographies' of these monumental and thus durable houses were considerably longer than those of their post-built predecessors. As a result, for monumental houses, often, internal developments can be documented. Here, we will shed somewhat more light on these 'monumental developments'.

In general, three main 'monumental' development trajectories can be defined: development around a simple existing monumental core, development around a large existing monumental core and development involving the complete replacement the existing monumental core. Again, significant variation within the defined categories may occur.

Most monumental houses were initially constructed as relatively small and simple constructions, generally failing to exceed 30 m in length. Many of these houses consisted of a relatively large central space, a number of smaller rooms and a fronting portico or portico-risalith facade. Examples can be found at Gesves-Sur le Corria, Neerharen-Rekem, Hambach 59, Hamois-Le Hody, Hambach 512, Vodelée, Vechmaal-Middelpadveld, Broekom and probably Merbes-Le-Chateau-Champs de Saint-Eloi during their early phases of monumentalisation (thus when, within a settlement, a multi-roomed house on stone foundations was built for the first time). With the house developing over time, the primary core was essentially preserved during the process. Development around this core can be divided into a number of categories. It should nevertheless be stressed that, in most cases, actual house aggrandisement involves a combination of the following:

- the addition of rooms
- the addition or reconstruction of a facade
- the construction of hypocausts and bathing sections
- the addition of a completely new house section

At Maasbracht, Broekom and Kerkrade-Spekholerheide, the facade was significantly monumentalised. In all three cases, large, projecting risaliths or even wings were added to the existing building, creating a larger and more pronounced façade. Monumentalisation, the wish to create visually impressive architecture, was clearly among the objectives. Another, somewhat less striking example can be found at Kerkrade-Holzkul, where two entrance points on the existing portico were accentuated by columns, creating a more pronounced facade and entrance to the house. At Vodelée, a new, increasingly monumental façade was also added during a later phase in the 2nd century.

At Gesves, Hambach 512 and Merbes-Le-Chateau-Champs de Saint-Eloi, completely new sections were added. Hambach 512 even saw the erection of an altogether new house (exceeding the size of the existing construction) that was connected to the existing one. The oldest house at Merbes-Le-Chateau is extended with complete new sections on both sides, eventually creating a long rectangular building with a fronting facade of about 90 m in length. Such developments were potentially linked to the creation of an actual new house that was possibly inhabited by a new household.306

Taking house surface into account, it is worth emphasising that the size of a number of houses only increased to a limited extent, while other houses saw their surface being more than doubled in the process. Examples of this latter category include Broekom, Vechmaal-Middelpadveld, as well as the houses extended to include complete new house sections: Gesves, Hambach 512 and Merbes-Le-Chateau-Champs de Saint-Eloi.

Aside from houses that started as small and simple constructions, other houses were relatively large from the start. The house at Rochefort-Jemelle, for example, had a length of around 60 m during its first phase (fig. 3.28b). In subsequent phases, the house was extended towards one of the sides, reaching a length of over 100 m. The house of Blankenheim-Hülchrath also was a large structure already from the first phase, it seems, although its development has not been reconstructed in much detail. Some other houses also measured around 50 m in length when they were first constructed: Hoogeloon-Kerkakkers, Maasbracht and Champion-Emptinne.

The third of the three main categories involves the total replacement of houses. In this case, the residence did not develop around an existing core that is preserved in the process. Instead, the existing

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306 The idea of multiple occupation in monumental villa houses was discussed by, among others, J.T. Smith (Smith 1978).
house is actually torn down to allow for the construction of a wholly new and more sizeable one. Two excellent examples of this process can be seen at Eschweiler-Laurenzberg (Siedlung 63) and Voerendaal-Ten Hove (see fig. 3.29). In both cases, a relatively simple house was torn down to enable the creation of a new house, positioned directly behind the former structure. In the case of Eschweiler, a significantly larger house was built, including projecting wings. At Voerendaal, as described, a coherent, monumental complex was created, including the house, a horreum and a bath suite, interconnected by a long portico. Complete reconstruction was nevertheless also part of the house development trajectories at Haccourt, Kerkrade-Holzkuil and Bad-Neuenahr-Ahrweiler. At Haccourt, the main house is even entirely rebuilt on two separate occasions.

Fig. 3.29 The development trajectories of the monumental houses at Eschweiler-Laurenzberg (top) and Voerendaal-Ten Hove (bottom). In both cases, a first basic house was torn down to allow for the erection of a larger construction directly behind the former residence.

3.3.3 Elements of change: materials, techniques, porticoes and facades, baths, cellars and interior decoration

After having explored individual trajectories, I will continue by focusing on a number of specific elements of change in house building, providing additional detail on their characteristics and position within house development trajectories:

- the use of building materials
- new building techniques
- porticoes and facades
- baths
- cellars
- interior decoration: painted wall plaster and mosaïques

The use of building materials

One of the basic and most tangible changes in house building concerned the use of new building materials. While traditional houses were built exclusively by means of organic materials from local sources, new developments involved the introduction of natural stone as well as special ceramic building materials.
such as roof tiles, floor tiles, hypocaust tiles and box flue tiles (tubuli). It is essential to be aware of the investments made quarrying and transporting natural stone, as well as producing and transporting specialised ceramic building materials.

The most imperative new building material constituted natural stone. Within the area researched in this study, a wide variety of stone was used for constructing foundations. Examining the available data on the use of stone, it appears that the stone used for the construction of houses was predominantly local. In several cases, sources could be traced to a mere few hundred meters from the building site. In other cases, however, the applied stones originated from considerably more remote sources. This is certainly the case regarding the most northern regions, where natural stone was in fact unavailable. All stone used at these locations had to be transported over significant distances. This, of course, is a factor that should not be overlooked when assessing the investments involved in building a house on stone foundations.

At the Dutch villa settlements around Heerlen, limestone quarried at Kunrade, only a few kilometers away, was used to build the houses. Other kinds of local stone include ‘mergel’ (marl) and various types of sandstone. Slate, tuff and marble, also documented at these sites, were imported from sources further afield: the Ardennes and Eifel. Similarly, readily available silex was used in the construction of foundations at many French and Belgian sites. A comparable pattern emerges when examining the Picardy region. While silex was used as a building material on the plateaux, chalkstone dominated in the Oise valley. In the German region, Grauwacke was a popular type of stone that could be quarried either in the northern Eifel or in the Ville, just west of Cologne.

During the 1st century AD, many houses’ organic roof covering will have been replaced by ceramic tiles; tegulae and imbrices. Unfortunately, as roofs as such are never excavated, assessing the application of tiles is a difficult task. It nevertheless seems evident that the use of tiles as roof covering furthermore implied new ways of constructing walls and roofs, as traditional constructions were probably incapable of supporting the enormous load of a tiled roof. For some traditional houses, including those at Lanaken and Hordain, the existence of tiled roofs was suggested by the excavators. A fully tiled roof should nevertheless not be considered a credible option. Perhaps these roofs were only partially tiled. Such a situation could also be suspected at the portico-house at Oss-Westerveld. The particularly deeply set outposts may have supported a tile-covered portico. Regarding a number of the single-aisled framework houses, tiled roofs have been suggested as well. As well will see in the below, the new techniques used for building these houses improved the capability to support heavier roof loads considerably and thus allowed for a tiled roof to be constructed successfully. Aside from ceramic roof tiles, slate also seems to have been a popular ways to execute roof covering. At Hambach 512, Frimmersdorf 30, Hambach 59, Cologne-Widdersdorf and Kerkrade-Holzkuil the use of slates could be documented. At the latter two sites, slates were found to contain nail holes, which would have been used to fix them on the roof. Somewhat further south, at Mont-lez-Houffalize-Fin de Ville in the Belgian Ardennes, a complete part of such a slate covered roof was even found, wooden slats included. And at Blankenheim-Hülchrath, a slate covered roof was reconstructed in relation to the earliest house, dating back to the 1st century AD. Slate was quarried in the Hünsruck or at Eifel and was probably shipped to the north via the Rhine and Mosel.

Ceramic tiles were mass-produced and stamped at production sites. In some cases, such as the Nijmegen-Plasmoilen villa, military production is assumed on the basis of the discovery of military tile stamps. In other cases, at a number of Dutch south Limburg settlements for instance, tile stamps like MHF, CEC AFF and AAC seem to be linked to civilian production sites or companies. Some other examples include a CISSI stamp from the Belgian Smeermaas site, as well as HAMSIT, ATII, ATIL and ATIS stamps on hypocaust tiles and ATAB and TRPS on roof tiles found at Champion-Le Emptinne.

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307 At Gesves-Sur le Coria, ‘blocos de dolomie’ were quarried only a few hundred meters southwest of the settlement.
308 For example at Rosmeer-Staberg, Val-Meer-Meerberg, Haccourt, Villers (France) and Famechon (France).
310 Ben Redjeb/Duquette/Querel 2005, 143: roof tiles were used from the Augustan period onwards.
311 At Kerkrade-Holzkuil, for example, tiles had also been used on walls and floors and sometimes even for constructing stone walls (Tichelman 2005, 258).
312 Kaszab-Olschewski 2006, 102.
Fig 3.30 Distribution of houses according to three defined degrees of monumentalisation: non-monumental (post-built), semi-monumental (stone material packings and footings) and monumental (linear stone foundations).

**New building techniques**

The introduction of new building techniques has a strong link with the introduction of new building materials discussed above. While, traditional houses were constructed by using wooden posts, set in post-holes, from the 1st century AD onwards, new techniques were adopted, including:

- new foundation techniques
- new wall construction techniques
- new roof construction techniques
- new technological systems: hypocaust and bathing systems

New foundation techniques included a range of ways to create more solid constructions, improve the house structure’s support and avoid the degradation of the organic parts of the house, significantly increasing its durability. The least complicated solution for improving foundation was filling up post-holes in order to support the wooden post. This filling could constitute gravel, clay, tiles or, as documented at Oss-Westerveld and Tiel-Passewaaaj, a wooden plank. In other cases, actual footings with gravel or fragments of natural stone and tile were created. These footings probably reached somewhat beyond ground level and thus prevented contact between the posts it supported and the soil. With regard to some houses, these footings were hewn or sawn stone blocks with holes in them for holding horizontal as well as vertical framework construction timbers. The most advanced and often documented new foundation technique regards linear stone foundations, mostly consisting of a lower foundation consisting of either gravel or rough natural stone fragments, as well as an upper foundation in the shape of a generally low
masonry wall. On this masonry wall, then, a framework construction was constructed that supported the roof. Although we should not rule out the existence of completely stone walls, most probably only had stone bases. This limited the need for stone material, but still increased the durability of the construction considerably.

Aside from foundations, changes were also made to the elevation of the houses, as new wall and roof-construction techniques were introduced. Unfortunately, for the majority of houses only the lowest foundations have been preserved, complicating any kind of detailed reconstruction of the overground wall and roof construction. Some general ideas can nevertheless be raised. The walls of the comparatively large single-aisled timber framework houses described earlier seem to have consisted of robust posts, constituting the basis of a sturdy framework construction. As central roof supporting posts were lacking, these walls were to support the entire roof load. Cross beams connected the opposite walls, creating the structural coherence of a house and forming an important part of the roof construction at the same time. Fig. 3.31 schematises this type of construction. The construction of such new framework walls involved new carpentry techniques for which, it seems, nails were also used. The walls and roofs of houses with linear stone foundations were probably constructed in a similar fashion. Instead of resting on packings or footings, the wooden construction timbers were probably set in holes created in the top of the masonry walls.

Fig. 3.31 Top: a traditional Alphen-Ekeren house with internal roof supporting posts and its reconstruction. Bottom: a single-aisled timber framework house and its reconstructed cross section. After Hiddink/De Boer 2003; Tichelman 2005, 104.

314 At Bad-Neuenahr-Ahrweiler, the exceptionally preservation allowed for the reconstruction of a 1.5 m high masonry base wall. Fehr 2003.
315 However, there are some interesting exceptions, such as the exceptionally well-preserved villa house at Bad-Neuenahr-Ahrweiler (Fehr 2003) and the urban site at Amiens-Le Site de la ZAC Cathédrale – Université (Gemehl 2004).
Portico and facade

Aside from the introduction of new materials and new techniques, the introduction of new architectural concepts was also of considerable importance. One of these new concepts was that of the facade, a phenomenon absent in the vernacular architecture of the traditional house. The facade literally constituted the ‘face’ of the house, creating an entrance but furthermore communicating a message and impression to the outside world. How was the facade adopted with rural house building within the research area?

The two main elements of the facade were the portico and the risalith. A portico was a colonnaded gallery, covered by a roof and linked to or integrated into buildings, often used in urban, military or rural architecture. A portico has both connecting and buffering purposes. In addition, its characteristic appearance of repetitive columns created a strong visual effect, exceedingly recognisable as a Mediterranean architectural style. The risalith was a square, tower-like corner room, predominantly situated at both front corners of a house, connected by a portico. Because of their position and appearance, these constituted prominent elements within the residence. Along with the connecting portico, they made up the portico-risalith facade, characteristic for a great number of monumental rural houses of the Roman provinces. Smith, who dedicates no less than two chapters to this phenomenon, defines a threefold intention for portico-risalith facades: aesthetic (creating a strong visual, impressive facade), cultural (symbolising a Roman lifestyle) and social (providing additional high-status rooms). He parallels the risalith with early modern parlours, being the most private and usually best-appointed rooms used by the master and mistress of the house.

Before discussing these well-known portico-risalith facades further, I will firsty endeavour to examine other attempts to create residential facades. At a number of single-aisled framework houses, Hambach, Jüchen-Neuotzenrath and, in all probability, Frimmersdorf, a single risalith was attached to one of the corners. In the first two cases, the risalith was constructed on linear stone foundations, representing later additions. These risaliths will have created and accentuated the facade of the house, as was the case with more elaborate portico-risalith facades. A different example regards a number of houses found in the Dutch sand and clay areas (Druten (house 12), Den Haag-Wateringse Veld (house 107) and Hoogeloon (house 28)). These included impressive facades, created by the constructing a wooden portico or porch onto one of the long sides of the relatively basic house. This portico exceeded the length of the house. At Hoogeloon, the house itself could be labelled a traditional two-aisled Alphen-Ekeren type, although posts were in fact set on stone footings. The house at Druten was a single-aisled framework house, though. Fragments of painted wall plaster and a gutter construction inside the house underlined the special character of this particular residence. A similar view can be held for the Den Haag house, on the basis of the material culture associated with the house. The facade as a new architectural instrument (even used on traditional houses) consequently appears to have been associated with a special social position within the respective settlements. Porticoes like constructed around houses such as Oss-Westerveld were not facades in the strictest sense of the word, as they did not seem to have accentuated the actual front of the house. Nonetheless, these architectural elements were likely to have had an important social-symbolic value as well.

316 Smith 1997, 117-118.
317 Smith 1997, 118.
Fig. 3.32 Different types of porticoes on different types of houses. From top left to bottom right: a more or less traditional three-aisled post-built house with a long wooden portico at Den Haag-Wateringseveld; a single-aisled framework house with a long wooden portico at Druten; a single-aisled framework house with a single risaliths at one of the corners at Jüchen-Neuotzenrath; a multi-roomed house on stone foundations with a fronting portico at Kerkrade-Spekholzerheide; a multi-roomed house on stone foundations with a typical portico-risalith facade at Jüchen-Neuholz.

The development of the portico-risalith facade can be linked to the development of multi-roomed houses on stone foundations. Generally, a portico- or portico-risalith facade was included already in the earliest phases of most of these houses. As these houses frequently had very basic house plans, we could assume that the facade was a vital element. There are, however, also monumental houses that lacked a facade during their earliest phases, like at Broichweiden-Würselen, Vezin-Namèche, Vodelée, Maubeuge and Kerkrade-Holzkuil. In these cases, a facade was nevertheless constructed during a later development phase. Other houses first displayed a simple portico facade, which was later extended with risaliths, or even projecting wings: Maasbracht, Kerkrade-Spekholzerheide and Kerkrade-Holzkuil fall into this category.

The facade was thus an important aspect of the house. The monumentalisation of facades has already been labelled a pivotal objective. In quite a number of cases, like at Merbes-Le-Chateau, Hamois-Le Hody and Rochefort-Jemelle, the house front was broadened considerably during its development, thereby creating a wider and substantially more impressive facade. In addition, at Voerendaal, an extremely broad porticoed facade was created, with the intention of integrating the individual buildings of the complex into one coherent and visually impressive whole (see fig 3.33).

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318 Good examples include the early monumental houses of Voerendaal-Ten Hove, Neerharen-Rekem, Vechmaal-Middelpadveld, Hamois-Le Hody, Gesves-Sur le Corria and Kerkrade-Spekholzerheide.
Fig. 3.33 Reconstruction of the highly monumental, 2nd-century complex at Voerendaal-Ten Hove. A remarkably wide porticoed facade fronted not only the main house, but also the granary, bath house and a secondary building. After Stuart/De Grooth 1987, 4.

**Baths**

An element in house development that can be directly related to Mediterranean lifestyle and advanced technological engineering is the bath. The construction of baths demanded a high level of technological knowledge that probably needed to be provided by specialists. In addition, specialised building material and, consequently, substantial financial investment were required. Furthermore, the construction of baths marked an important step in the adoption of an urban-inspired Mediterranean lifestyle.

Table 3.1 demonstrates an overview of bath sections in rural houses throughout the research region. Examining these data, it appears that most baths sections were later additions to existing monumental houses, dating back to the 2nd or even 3rd century. Only in a minority of cases, baths were constructed as early as during the second half of the 1st century, as part of the first monumental building phase. Houses with such early baths include Haccourt, Hamois-Champion, Ath-Meslin-L’Eveque, Blankenheim and Verneuil-en-Halatte. It is remarkable that all these houses were part of large, axially organised complexes. The early construction of bath buildings in these settlements could underline their direct link to urban centres; the ultimate location of the developing bathing culture within the provinces.

319 The Cologne-Vogelsang villa was situated in close proximity to the town of Cologne, which may explain the early appearance of the bath within the house. Regarding Eschweiler-Hovermühle, only part of the complex was excavated, making it impossible to assess the character and dimension of the settlement.

320 The intimate link between the urban world and axial villa complexes was also emphasised by, among others, Roymans and Habermehl (in prep.) on the basis of house architecture.
<table>
<thead>
<tr>
<th>Site</th>
<th>Bath construction date</th>
<th>Development phase</th>
<th>Position</th>
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<td>attached</td>
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<td>2</td>
<td>later addition</td>
<td>attached</td>
</tr>
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<td>Hamois-Le Hody</td>
<td>post 2a-3a</td>
<td>later addition</td>
<td>attached</td>
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<td>1c</td>
<td>first phase?</td>
<td>separate</td>
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<tr>
<td>Dormagen-Nievenheim</td>
<td>mid 2</td>
<td>later addition</td>
<td>integrated</td>
</tr>
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<td>2</td>
<td>later addition</td>
<td>separate/attached</td>
</tr>
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<td>later addition</td>
<td>separate with connecting portico</td>
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<tr>
<td>Rheinbach-Flertheim</td>
<td>2d</td>
<td>later addition</td>
<td>attached to building</td>
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<td>attached / separate</td>
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<td>first phase</td>
<td>separate, later connected</td>
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<td>first phase?</td>
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<td>separate</td>
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<tr>
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<td>Schuld</td>
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<td>attached</td>
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<td>2a</td>
<td>first Phase?</td>
<td>integrated</td>
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Table 3.1. Overview of the development of bath sections in rural villa houses.

Baths could be or become part of a monumental house in a number of different ways. In fig. 3.34 several varieties are presented. In quite a number of cases, like at Neerharen-Rekem (shown), Kerkrade-Holzkuil and Hamois-Le Hody, bathing sections were attached to an existing house core. Another popular variety was the integration of a bathing suite into the existing house structure, as found at Hoogeloon-Kerkakkers (shown), Eschweiler-Laurenb erg and Hambach 127. In the other cases, bath houses were constructed close to but separate from the house. At Vaals-Lemiers (shown), the bath house remained a separate entity close to the house throughout its occupation. In other cases, such as at Emptinne-Champion (shown), Gesves-Sur le Corria (shown) and Voerendaal-Ten Hove, separate baths were later connected to the house by means of a portico. In these cases, the bath section itself was also significantly extended.
Fig. 3.34 Visualisation of the various spatial relationships between bath sections and houses. From top to bottom: Neerharen-Rekem, Hoogeloon-Kerkakers, Vaals-Lemiers, Champion-Le Emptinne and Gesves-Sur le Corria. In the latter two cases, the bathing section seems to have been part of the house from its first phase onwards. With regard to the other houses, the bath was constructed during a second development phase.

With regard to the development of baths, it is interesting to note that the first bathing sections in town houses are older than those in rural villa houses. In the urban centre of Cologne, bathing sections dated back to around 50 AD, while, in Bonn, they were built around 70 AD. This was somewhat earlier than or contemporary with the earliest baths appearing in rural villa houses. Again, these rural houses with

early baths must have had close and direct connections to the urban centres and their culture. The later spreading of the popularity of the bath within rural house building links back to the development of a new and now more widely adopted villa lifestyle.

**Cellars**

The construction of small cellars is a phenomenon known from pre-Roman house building in the south of the research region. These pre-Roman cellars were small and simply dug into the ground (fig. 3.35). In the northern regions, however, a pre-Roman tradition of cellar construction is lacking.

Fig. 3.35 Small cellar (grey) in a traditional house, dating back to the Late Iron Age or Early Roman period.

With the developments in house building, cellar construction developed as well. Cellars became more sizeable and were now often lined with planks, stone blocks, or even masonry walls. In the Alphen-Ekeren-type house at Vechmaal-Middelpadveld and in the timber framework house at Jüchen-Neuhofz simple cellars were constructed during the second half of the 1st century AD. One of the earliest large cellars, dating back to the Tiberian-Claudian period, was documented at Verneuil-en-Halatte. At Kerkrade-Holzkui, a cellar was created in the first multi-roomed house on stone foundations that was built around the middle of the 2nd century AD (see fig. 3.36). Furthermore, from the 1st century AD onwards, cellars can also be documented in the northern regions, such as at Druten and Antwerp-Mortsel. Possibly, we could regard cellar construction as an element of traditional house building that became more widespread from the 1st century AD onwards and involved a translation into new forms by using new materials and techniques. Cellars had multiple roles, the most apparent of which was the cool storage of perishable foods such as smoked and salted meat, fish and dairy products. This was illustrated, for example, by the *dolia*, dug into the cellar floor of the house at Wange-Damekot.
Fig. 3.36 Cellars in the houses at Kerkrade-Holzkuil, Druten (house 1) and Antwerpen-Mortsel.

**Interior decoration: wall painting and mosaics**

Another important element of Mediterranean house building was interior decoration. Here I will shortly focus on the most prominent elements; painted wall plaster and floor mosaics. The former is a well-documented phenomenon within the research region. The latter, however, is encountered only rarely within our research region.

Again, it is difficult to create a complete overview, as many sites have not been subject to sufficiently detailed publication. With regard to a great number of houses we are simply unable to establish whether their walls were decorated or not. Reasoning from what we do know, however, painted wall plaster seems to have been a fairly standard element of monumental houses, even for the most basic ones. Even at the simple houses at Rijswijk-De Bult, Houten-Burgermeester Wallerweg and Druten (house 1 and 12), walls were decorated with painted plaster. Furthermore, at the very early traditional house at Aalter-Langevoorde, dating back to the first half of the 1st century AD, fragments of painted wall plaster were also found. The painted wall plaster found in the villa of Maasbracht, however, was of a different category as it included the depiction of figurative scenes (fig. 4.14).³²²

The Mediterranean tradition of decorating walls first was part of an urban lifestyle, before being introduced to rural house building. At Cologne-Margarethenkloster, a simple house on horizontal beam foundations was equipped with plastered walls, decorated with white, red and green spots, and dated back as early as the Augustan period.³²³ The first Mediterranean-style house at Tongeren-Kielenstraat also included decorated walls. In rural context, decorating walls probably only became popular from the middle of the 1st century AD onwards.

³²² Swinkels 1987.
³²³ Seiler 2001, 126.
The use of mosaics is a relatively rare phenomenon within the research region. Most mosaiques are found in the larger monumental houses, like at Haccourt, Aldenhoven-Schleiden, Euskirchen-Kreuzweingarten, Basse-Wavre and Anthée. There are, however, some indications that simpler houses also contained (simple) mosaïque floors, such as was the case at Hambach 59 and 425, where only small fragments were found.

3.3.4 Differentiation in house building within settlements: shedding light on the difficult category of ‘secondary houses’

With regard to house building, until now we have focussed mainly on the houses that underwent most significant changes through time and thus generally developed towards the most monumental houses within their settlements. These houses are often referred to as the main house. Within the villa study, generally a basic dichotomy is created between this main house and a category of secondary buildings. We should be aware, however, that within this category of secondary buildings, we could also expect houses, inhabited by other members of the settlement community. If we wish to develop a more complex view on settlement development and the differentiated social relationships within these settlements, we should not underexpose these ‘secondary’ houses. Therefore, I will here attempt to shed some light on this rather difficult category of buildings and explore the differentiation in house building and house development trajectories within settlements.

As with secondary buildings in general, it is often difficult to reconstruct functionalities and recognize secondary houses with any degree of certainty. Only in a minority of cases a direct domestic indicator such as a hearth place could be documented. In many other instances, the interpretation has a more indirect character, mainly based on house plans. In this section the focus lies on houses as physical structures. In chapter 4 I will also explore these from a social perspective in an attempt to shed light on (asymmetrical) relationships within settlements.

**Traditional houses**

As described, traditional houses were post-built and constructed according to local traditions. An especially well-studied category of traditional houses is the long-rectangular two-aisled house of the Alphen-Ekeren type. Generally, these houses were associated specifically with the sandy MDS-region, but recent research has shown that these houses were also constructed on the loess soils of the German, Belgian and seemingly even French parts of our research region. At many sites, the settlement seems to have been dominated by such post-built houses during the early phases of their development, generally the 1st century AD. As we have reconstructed above, often, one of the houses was replaced by a new type of house on stone foundations during the second half of the 1st or early 2nd century AD. The other houses within the settlement, however, maintained a traditional character in many cases. In fig. 3.37 a number of such post-built houses have been visualised. For a number of these buildings, Hambach 512, Champion and Hoogeloon, the existence of a byre could be suggested. In settlements like Kerkrade, Vezin, Champion, Hanois, Bedburg and Hoogeloon, post-built houses remained to exist after one of the house was replaced by a monumental building.

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Monumentalising secondary houses

Apart from secondary houses that remained to be built in more or less traditional fashion we also find secondary houses changing over time. In quite a number of cases a process of monumentalisation can be documented. Three general categories were distinguished: literal monumentalisation, ‘extended’ monumentalisation and the development of secondary monumental houses with multi-roomed plans and facades quite similar to the main houses.
Literal monumentalisation involved the rebuilding of post-built houses on stone foundations while adhering to existing plan, measurements and even exact location. An example is given in fig. 3.38 with the house at Kerkrade-Holzkuil. Further examples can be found at Champion (see fig. 5.4), Vezin and Nuth-Terstraten.

In some other cases, houses were being monumentalised in somewhat more extensive ways. At Kerkrade-Holzkuil, for example, a long-rectangular house on stone foundations was constructed that was fronted by a portico and consisted of two equally large sections (see fig. 3.38). And at Hambach 512 a quite similar building, also divided into two spaces, had a portico constructed around one them. Hypothetically, we could state, this bipartite structure derived from the byre house. Could, then, in the case of Hambach 512, the room surrounded by the portico be interpreted as the residential space? Another hypothetical secondary house with a fronting portico can possibly be found at Hamois. In this category of secondary houses, besides the use of new materials and techniques, also the new concept of the portico and facade was adopted in house building. Still, however, the structure of the traditional house seems to be reflected in these houses. At least for the house at Kerkrade, it can be established that it was monumentalised only after the main house was constructed on stone foundations.
A third category of secondary houses regards the multi-roomed houses on stone foundations that were relatively similar to the plans used for most main houses, even including a portico-risalith facade (fig. 3.39). Traditionally, these houses have been interpreted as the residence of a so-called *vilicus* or a servant family. Good examples of this type of secondary houses were documented at Neerharen-Rekem, Rochefort-Jemelle, Cologne-Müngersdorf, Hambach 403, Rheinbach-Flerzheim and Hambach 127. At many axially organised complexes, such secondary houses can also be found, in many cases positioned on the part of the working compound that was closest to the residential compound (see fig. 3.40).

![Fig. 3.40 Multi-roomed secondary houses on stone foundations in the axially organised settlement complex of Roye, Ribemont-sur-Ancre and Abancourt-Warfusee-nord.](image)

Within a single settlements, houses of different architectural character can thus have coexisted. While one house was still built in traditional fashion, others were built using stone foundations, were fronted by a portico or were even divided into several rooms. Such intra-settlement differentiation in house building and in house development trajectories reaches beyond simplistic dicotomies of main house and secondary buildings.

### 3.3.5 Changes in rural house building traditions in context

As has previously been explored, developments in rural house building did not take place in a vacuum. On the contrary, they must be understood within the broader context of the developing Roman provinces. One of the essential elements within these provinces was the development of urban and rural centres. These centres had purposes of a predominantly administrative, political, social and cultural nature. They were the arenas of power, the locations where the provincial population stood in direct contact with the broader empire and its Mediterranean homelands. They were the location where new lifestyles developed. As a place where provincials were confronted with new phenomena, concepts, ideas and products rooted in Mediterranean culture, towns had a mediating function. This being said, I will here

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325 This seem to be current especially in the German research tradition.
326 Vanderhoeven 1996, 224.
327 Vanderhoeven 1996, 224.
shed some light on architectural developments in these centres, also in relation to rural architectural
developments.

Fig. 3.41 Reconstructed house development in Tongres (left) and Amiens (right). Top: houses constructed according

Data on house development are available respecting a number of urban centres within the research
region. At Xanten\textsuperscript{328}, Cologne\textsuperscript{329}, Bavay\textsuperscript{330} and Tongres\textsuperscript{331}, traditional house building could be
documented for the period around the start of the Common Era. As early as during the first decades AD,
however, changes in house building became apparent, as new building techniques were being adopted. At
both Cologne (the Burgmauer site) and Xanten (the Margarethenkloster site among others), houses with
timber framework walls on horizontal foundation beams could be dated to the earliest decades AD.\textsuperscript{332} In
the latter house, dating back to the Augustan period, walls were even decorated with painted plaster.

During the Tiberian period, multi‐roomed houses on stone foundations superseded the wooden
houses on horizontal beams at the Cologne-Burgmauer site.\textsuperscript{333} A similar development was documented at
Cologne-Dome.\textsuperscript{334} At Amiens-Palais des Sports, traditional post‐built houses, dated between 20 and 50
AD, were replaced around 60 AD by multi‐roomed atrium‐type houses with fronting porticoes, white
plastered walls and tiled roofs (fig. 3.41).\textsuperscript{335} And at Tongeren-Kielenstraat\textsuperscript{336}, a multi‐roomed
Mediterranean style house on horizontal foundation beams replaced traditional Alphen-Ekeren‐type
houses during the Claudian-Neronian period. This house had a U‐shaped plan with two wings
surrounding an open court. Moreover, it had a Mediterranean appearance, including white plastered walls,
decorated internal walls and a tiled roof (fig. 3.41). After 69 AD, when the house was destructed, it was

\begin{thebibliography}{99}
\bibitem{328} Brulet 1996, 92.
\bibitem{329} Hellenkemper 1975; 1980; Brulet 1996.
\bibitem{330} Brulet 1996, 88.
\bibitem{332} Seiler 2001, 126, 132; Zieling 2001; for an impression of the construction of such framework houses see Gemehl 2004.
\bibitem{333} Seiler 2001, 133.
\bibitem{334} Excavated by G. Precht during the years 1969-1970 (Seiler 2001).
\bibitem{335} Brulet 1996.
\bibitem{336} Vanderhoeven/Vynckier/Vynckier 1991.
\end{thebibliography}
rebuilt on stone foundations. At Tongeren-Hondstraat\textsuperscript{337}, parallel developments were documented. Here, a still wood-built Mediterranean style, multi-roomed house replaced a number of traditional houses that dated back to the first half of the 1\textsuperscript{st} century AD. Again, the house was rebuilt on stone foundations after 69 AD. Around the middle of the 2\textsuperscript{nd} century, the house was reconstructed once more, now including solid stone walls. This U-shaped house boasted floor mosaics as well as a hypocaust system.

It must be emphasised that the examples presented here do not necessarily represent the earliest architectural developments in urban centres. During the earlier periods of urban developments, Roman-style or -inspired houses could already have existed along the main city roads.\textsuperscript{338} It is in fact reasonable to assume that such early Mediterranean-style houses inspired the further developments in house building examined earlier.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig3.42.png}
\caption{Wooden atrium-type house and the superseding monumental forum complex at Waldgirmes. After Becker 2003, 342.}
\end{figure}

One unique case shedding light on the earliest phases of urban house building is the Augustan town of Waldgirmes, located east of the Rhine in the German frontier zone. Extensive excavations here have uncovered the early phases of a developing small town, probably founded in anticipation of the complete incorporation of this region into the Roman Empire. After Varus’ defeat in 9 AD, however, both this plan and the early town were abandoned. One of the most interesting buildings can be found at the centre of the town. Here, a wooden version of an atrium-type house was in all probability constructed around the turn of the millennium, or even somewhat earlier (see fig 3.42). A large monumental complex, built on stone foundations, superseded this house.\textsuperscript{339} This complex can be interpreted as a forum with a long-rectangular basilica, fronted by an open court that was surrounded by a porticoed ambulatory. In relation to the historical situation, this complex should thus be dated before 9 AD. These findings indicate that, already during the earliest provincial and urban developments, Mediterranean-style buildings were being constructed, while new building techniques and materials, architectural forms and concepts were being

\textsuperscript{337} Vanderhoeven/Vynckier/Vynckier 1992.
\textsuperscript{338} Regarding some of the earliest cases within the research region, houses on stone foundations were built during the second quarter of the 1st century AD. Just south of the research area, in Trier-Irminen such a Mediterranean style house could even be dated to the later Augustan period, the earliest example known in this region. Cüppers 1984; Vanderhoeven 1996, 242.
\textsuperscript{339} Von Schurbein 2003, Becker 2003.
introduced. As Waldgirmes is unlikely to be a unique case, we could expect similar early developments in other towns, such as those previously discussed. Destruction by later building activity and the presence of modern towns nevertheless tends to complicate the study of these earliest phases severely.

Aside from these large urban centres with monumental cores and regular street-grid, a large number of smaller and less rigidly rural centres developed in the countryside. These centres were located at strategic locations, along major road or river crossings. The development of rural centers also started relatively early, which can be linked back to the development of the road system from the Augustan period onwards. Centers such as Namur and Brives develop from the last decade BC onwards, while the earliest documented phases at Liberchies and Maastricht can be dated to the early 1st century AD. The development of the Grobbendonk centre is exceptionally late, its first phase dating back to the Claudian period. Like in urban centers, traditional house building was predominant during the early development phases. At Liberchies, the settlement was first reorganised around the middle of the 1st century AD, by rebuilding the houses close together, their short sides facing the road. Then, in the later 1st and early 2nd century, single-aisled, so-called strip-houses on stone foundations developed. During the same phase, a multi-roomed house with a fronting portico was built at Grobbendonk. Its plan was actually comparable to simple villa houses like those found at Hoogeloorn and Houten-Burgemeester Wallerweg (fig. 3.44). At this site, houses were rebuilt in stone in the early 2nd century. During this period, even a bath house was built.

![Fig. 3.43 Multi-roomed house on foundation beams from the rural centre at Grobbendonk. Dated to the late 1st century AD.](image)

### 3.4 Villa development between continuity and change

In this chapter we have explored developments in rural settlements from a broad and more long-term perspective. The ultimate goal was to gain more insight into the phenomenon of villa development. The perspective chosen in this study highlights the analysis of developments and processes rather than that of static phenomena, like monumental houses as such. In general, villa development is understood as a series of significant transformations in settlement organisation and house building. Here, the approach has mainly been archaeological, focusing on spatial organisation and architecture, largely disregarding social or economic interpretations that will be discussed in the following chapters. Examining the data and analyses previously presented, we are able to define villa development more specifically:

- Villa development was rooted in long-term developments towards discrete, enclosed, stable and well-organised settlement units. The development of more durable houses can possibly also be regarded as a more long-term trend.

340 De Boe 1985b.
341 Plumier 2006.
342 Demanet 2006.
343 Panhuysen 1996, 33
344 De Boe 1985b.
• Villa development involved new ways of organising settlement space, including spatial structuration, segregation and hierarchisation.
• Villa development involved significant changes to house building. New building techniques, materials, forms and concepts were adopted. This was a heterogeneous and phased process with considerable regional variation.

As a part of longer lines of settlement development, villa development can be situated within the tension field between continuity and change. This field exists in the combination of long, continuous lines of settlement development (including the above-mentioned development trends towards discrete, enclosed, stable and well-organised settlement units), and significant transformations including the reorganisation of settlement space (the introduction of new spatial concepts), monumentalisation and the adoption of Mediterranean building styles, breaking with existing traditions. The concept of villa development that has been outlined in this chapter consequently reaches beyond the traditional ‘static’ villa definition, which predominantly focuses on Roman style architecture and the use of stone. As a result, villa development can also be associated with settlements that are generally termed ‘native’ and thus ‘non-villa’. Excluding such sites from the study on the basis of a traditional villa definition would restrict our field of vision. Different regions saw different trajectories of villa development, whereby new spatial and architectural concepts were adopted in different ways (see the schemes presented previously). An example of a new architectural concept that was adopted in a variety of ways throughout the region regards the portico. In the northernmost regions, wooden porticoes were added to traditional houses, in the German loess region, single risaliths were added to simple framework houses and throughout the research region more or less standardised portico-risalith façades were used in multi-roomed houses on stone foundations.

Now we have shed light on the various development trajectories in settlement organisation and house building throughout the region, it is time to turn to the why-question: how can we understand these developments when involving the people that lived in these settlements and houses?