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# Village Formation in the Netherlands during the Middle Ages (AD 800 - 1600)

*An assessment of recent excavations  
and a path to progress*

J.P.W. Verspay, A.M.J.H. Huijbers,  
H. van Londen, J. Renes and J. Symonds



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**Colophon**

**Nederlandse Archeologische Rapporten 56**

**Village Formation in the Netherlands during the Middle Ages (AD 800 – 1600)**

**An assessment of recent excavations and a path to progress**

**Project management: H. van Londen (University of Amsterdam)**



**UNIVERSITY OF AMSTERDAM**

**Authors: J.P.W. Verspay (University of Amsterdam/University of West Bohemia), A.M.J.H. Huijbers (BAAC), J. Renes (Utrecht University), J. Symonds (University of Amsterdam), H. van Londen (University of Amsterdam)**

**Authorisation: M. Groothedde & H.A.C. Fermin (Bureau Archeologie, gemeente Zutphen)**

**Illustrations: J.P.W. Verspay (University of Amsterdam/University of West Bohemia), unless otherwise stated**

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It is an unfortunate truism that while all archaeological fieldwork generates new data, this does not always lead to new understandings of the past. The system of commercial archaeology that currently exists in many parts of Western Europe is very good at accumulating baseline data on the presence or absence of archaeological features, along with their state of preservation, and possible date, and rarity. Unfortunately, it seldom has the resources or the wherewithal to address higher level archaeological questions. Put simply, a lot of archaeological effort is expended answering 'what' and 'where' questions in relation to the foot print of specific development proposals, and rather less time is spent considering 'why' and 'how' such archaeologically observable patterns came into being and changed over time.

Few would disagree that commercial archaeology has sent a lot of soil flying from shovels, or that the serried ranks of comb-bound client reports that fill the shelves of municipal archaeology offices across the Netherlands have not enhanced local knowledge in some way. All localities, after all, are historical constructions. Hence, the chance discovery of a medieval building in a public utilities trench, or the shadow of a long lost field system seen on an air photograph, can mean a great deal to a local historian, or to inquisitive school children, whose school projects implore them to find historical significance, and a *sense of place*, in the place where they live. But all too often the results of contract work languish in the dungeons of grey literature and are only accessible to and read by a handful of individuals: the project architect, the developer's agent, the municipal archaeologist, and the development control officer in the planning department at the local council. Make no mistake, these positions are invariably held by highly motivated and skilled individuals, but anyone who has attended a local planning inquiry will tell you that such individuals represent only a narrow spectrum of humanity.

It was therefore a privilege to be invited by the Cultural Heritage Agency of the Netherlands (RCE) to assess the kinds of archaeological knowledge that have been generated by a decade of commercial archaeology as part of the Valletta Harvest project. Our topic,

*Village Formation in the Netherlands, c. 800 – 1600*, has temporal as well as spatial depth, and sets out to survey the large number of unpublished client reports that have been produced by contracting organizations across the Netherlands in the last decade. From the perspective of a British interloper, this is a familiar exercise.

Many similar *resource assessments* have been commissioned by government heritage agencies in the UK, and these assessments have often led to the formulation of new *research agendas*, and *research frameworks*, to use the jargon of Historic England.<sup>1</sup>

Some of the most useful period overviews in the UK have been undertaken by academics and university-based teams.<sup>2</sup> This reinforces my belief that a healthy national cultural heritage and archaeology system needs three pillars: a strong and competent body of contracting field archaeologists; a skilled and well-resourced body of curatorial archaeologists, to oversee work and set standards at local, regional, and national levels; and a vibrant community of university researchers to synthesize data, question the results, and to generate new directions for research in partnership with contractors and curators. As with all other attempts to assess a large body of grey literature, this review has uncovered significant differences in quantity, as the numbers of reports have varied between regions, as well as the quality of reports. The reports that we have scrutinised have ranged from the good, to the bad, to the down-right ugly. This brings me back to the point that simply *doing* archaeology is not enough; every contractor should follow a flexible but pre-determined project research design, and the standard of field work and reporting should be closely monitored by curatorial archaeologists.

It is of course a particular strength of archaeology in the Netherlands that well-run city and regional archaeology services are able to provide a one-stop service to commercial clients by offering both curatorial advice and contracting services. In the UK, and other countries, these two activities have been separated by local government authorities in an effort to avoid any potential conflict of interest. This has opened up a free-market for archaeological services, but has arguably led to

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<sup>1</sup> Olivier 1996; Miles 2015.  
<sup>2</sup> Bradley 2006; 2007; Fulford & Holbrook 2015; Haselgrove et al. 2012; Smith et al. 2016.

a loss of local knowledge and an inconsistent approach being taken towards medieval and other archaeological sites, as out-of-region contracting organisations win contracts and move in on the basis of the lowest priced tender.

Without wishing to pre-empt the findings of this review, it is possible to make a few general points about the importance of studying medieval rural landscapes. First, this new assessment of village formation is in my view potentially significant, as it addresses the gap in knowledge that exists between medieval towns, which are archaeologically far better understood than dispersed medieval rural settlements in the Netherlands. Second, this study serves to emphasize the imbalance that exists between information on rural settlements in the Middle Ages and the early modern period in the Netherlands. This period imbalance is by no means unique to the Netherlands, and may simply reflect the fact that previous generations of archaeologists were drawn to study the ‘humps and bumps’ of *deserted* medieval villages in the second half of the twentieth century, by what may be termed the ‘Wharram Percy effect’.

I say this, not to give undue prominence to any outside influence from English medievalists, but rather to highlight a major difference in approach. In post-World-War II England, the study of pre-modern landscapes, which was still in its infancy, was developed on a shoe-string budget that reflected the austerity of the times. On the one hand historians, such as W.G. Hoskins berated other local historians for their inability to make use of the freely available evidence of medieval or earlier earthworks in the English Midlands and to “look over hedges and to treat visual evidence as of equal importance to documentary evidence”.<sup>3</sup> (At the same time, another economic historian, Maurice Beresford, saw the value of combining the evidence from documentary sources with evidence from field archaeology, as shown in his seminal work, *The Lost Villages of England* (1954). Their achievement was twofold. First, they understood that evidence for medieval or earlier settlements did not merely exist *below* ground, but could also be traced by examining extant features in the contemporary countryside. Second, their work championed an interdisciplinary approach that combined both historical and archaeological

evidence and came to characterize more than half a century of research at Wharram Percy, in Yorkshire.<sup>4</sup> Interdisciplinarity, then, has been central to research into medieval settlements and landscapes in the Anglo-Saxon world, and is a key feature of this report.

A final word should be said about the framing of the research question, or rather how we might best approach the study of medieval village formation on the Netherlands? From the evidence contained within this report, along with medieval settlement studies that have been conducted in other parts of Europe, two things are clear. First, it is necessary to work in a multiscalar way. By this I mean that while it is crucially important that archaeological evidence is recovered from individual medieval villages, be they abandoned, or currently occupied, at a local level, it is also imperative that data is collated at a regional level to reveal broader spatial patterns and the idiosyncrasies of the varied and highly particular man-made landscapes of the Netherlands.

Second, the broad temporality of settlement patterns needs to be addressed. Hence, it is important not to view medieval villages in isolation, but rather to see them as part of an ongoing process of landscape modification and human settlement that in some regions of the Netherlands reaches back millennia, but in other areas is a relatively recent phenomenon. One simple lesson that can be learned from medieval archaeology in the UK is that *naming* is important, and can actively shape the types of archaeological data that are gathered by a research group. Here I need only refer to the evolution over the last 60 years or so of the Deserted Medieval Village Research Group (DMVRG) to the Medieval Village Research Group (MVRG), to the Medieval Settlement Research Group (MSRG). Each re-wording has given a subtle re-direction to research, moving away from a particular obsession with abandoned or deserted sites, to a broader consideration of the wider constellation of medieval settlement types.<sup>5</sup>

**James Symonds**  
**Professor of Historical Archaeology**  
**(North of the Alps)**  
**University of Amsterdam**

<sup>3</sup> Hoskins 1953, 44.

<sup>4</sup> Beresford & Hurst 1990.

<sup>5</sup> see papers in: Christie & Stamper, 2011.

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We would also like to extend our thanks to Andrea Travaglia (University of Amsterdam) for proofreading the various drafts of this report, keeping us from major linguistic slips, and generally boosting our morale with her illustrated feedback. Dr. Menno Dijkstra

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This study on village formation is linked to the PhD work of Johan Verspay on the transformation of the countryside (of North-Brabant) during the Late Middle Ages and Early Modern period. It helped to put the settlement dynamics in this period into a broader context. This means, for example, that the well-known general relocation of farms from among the arable fields in the area cannot be regarded in isolation, but needs to be interpreted as part of the developments in the village territory as a whole, which includes the formation of concentrated villages and hamlets.

Johan would like to express his gratitude to Dr. Pavel Vařeka (University of West Bohemia) for providing advice on medieval rural settlement research and for offering a funded PhD position at the UWB to follow up on this research.



Dit onderzoek richt zich op een van de geprioriteerde onderwerpen van het Oogst voor Malta programma: “Dorpsvorming in de Middeleeuwen ca. 800 - 1600”. Het doel is om te bepalen wat een decennium van archeologisch (contract) onderzoek wetenschappelijk heeft opgeleverd. De opdracht luidde om het potentieel van de opgravingen voor de synthese in kaart te brengen (fase 1); vervolgens te analyseren en te synthetiseren (fase 2); en ten slotte, te evalueren om de onderzoeksagenda (NOaA 2.0) bij te werken (fase 3). Deze studie is opgebouwd uit vier delen.

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## Deel I Onderzoekskader (H. 1-5)

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De databases van ARCHIS en DANS zijn bevestigd voor opgravingen (1), die tussen 2005 en juli 2015 werden gepubliceerd (2), met relevante complextypen (3) en vielen binnen de periode 800-1600 (725-1650) AD (4). Deze bevestiging heeft geleid tot een selectie van 1316 records, maar na correctie op fouten en geschiktheid, resulteerde dit in 410 onderzoeken. Deze groep is verder gewaardeerd op basis van kwalitatieve criteria, zoals gaafheid, volledigheid, dateerbaarheid, Informatiewaarde en ensemblewaarde.

Het conceptuele kader bevat een korte geschiedenis van het onderzoek naar dorpsvorming en de theoretische modellen uit de archeologie, historische geografie, geschiedenis en antropologie. Kernbegrippen en bestaande modellen zijn beschreven. Een dorp wordt gedefinieerd als grote, stabiele, vaste (tegenover, bijvoorbeeld seizoensgebonden nederzettingen), niet-stedelijke bewoning agglomeratie (of zijn archeologische equivalent) met secundaire en tertiaire economische en sociale voorzieningen.

Vier thematische kaders voor de interpretatie van processen achter dorpsvorming zijn benoemd. Deze omvatten macht, dwang, en adellijke domeinen (1); communalisme en territoriale formalisering (2); verkavelingen en beheer van grondstoffen (3); en verstedelijking en marktintegratie (4). Het blijkt dat vergelijkbare patronen in het landschap verschillende achtergronden kunnen hebben. Archeologische gegevens alleen zijn vaak niet in staat om het oorzakelijk verband te bewijzen en

dit leidt tot het inzicht dat alleen een interdisciplinaire (lokale) contextuele analyse – in tijd en plaats bepaald – een vruchtbare aanpak oplevert.

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## Deel II Inventarisatie & waardering (H. 6)

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De geselecteerde archeologische regio's en case studies zijn:

- AR 3: Overijssel-Gelders zandgebied; case Warnsveld (Gelderland);
- AR 4: Brabants zandgebied; case Someren (Noord-Brabant);
- AR 11: Hollands duingebied; case Limmen (Noord-Holland);
- AR 13: Utrecht-Gelders rivierengebied; case Kerk-Avezaath en Kapel-Avezaath (Gelderland).

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## Deel III Gevalstudies (H. 7-9)

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Zes vragen uit de opdracht geven richting aan dit onderzoek. De inzichten uit de gevalstudies en de extrapolatie naar de bijbehorende regio zijn gebruikt voor beantwoording. De praktijk toont een grote variatie in ontwikkeling en vorm terwijl er in algemene zin vergelijkbare processen kunnen worden herkend.

Modellen raken aan deze algemene niveaus van interpretatie en zijn niet perse verkeerd, maar ze zijn beperkt. De verscheidenheid betekent dat menselijk handelen (agency) – tijd en plaats specifiek – centraal moet staan. Het doel is om (lokale) historische processen te begrijpen in plaats van naar algemene dekkende verklaringen te zoeken voor (uniforme) regionale ontwikkelingen.

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## Deel IV Resultaten (H. 10)

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Na een pleidooi voor interdisciplinair onderzoek lijkt het verstandig om de verwachtingen ten opzichte van de verklarende kracht – van archeologisch onderzoek alleen – te temperen. De winst is te behalen in de productie van uitstekende archeologische case studies met

potentieel voor verdere integratie (lokale en bovenlokale) analyse.

We hebben de bestaande themabeschrijving in de NOAA 2.0 geëvalueerd en stellen een nieuwe tekst voor. Daarnaast hebben we de bestaande onderzoeksvragen voor hun toekomstige kracht beoordeeld en hebben nieuwe voorgesteld.

We sluiten dit boek af met enkele aanbevelingen. Het onderzoek naar de dorpsvorming zou veel baat hebben bij een onderzoekskader op gemeentelijk niveau op basis van een historische geografische gebiedsstudie. Aan de hand daarvan is een gespecificeerde verwachting op te stellen waarmee gerichte, vraaggestuurde waarnemingen kunnen worden gedaan.

Om deze waarnemingen op waarde te kunnen schatten en samen te brengen in een groter geheel is continuïteit van kennis in de regio noodzakelijk.

De huidige dataset met betrekking tot middeleeuwse nederzettingen wordt overwegend gevormd door vindplaatsen in het buitengebied. Waarnemingen in de historische kernen zelf zijn schaars. Deze onbalans is ingebakken in ons archeologisch bestel. De compensatie hiervan, noodzakelijk om een meer evenwichtig beeld te krijgen van de vorming en ontwikkeling van dorpen en gehuchten, vergt een doelgerichte archeologische studie van onze historische dorpskernen. Waarnemingen zoals in de casus Warnsveld, laten zien dat een dergelijke aanpak bijzonder vruchtbaar kan zijn.

As part of the 'Archaeological Knowledge Map' programme,<sup>1</sup> the Cultural Heritage Agency of the Netherlands<sup>2</sup> (RCE) initiated the 'Valletta Harvest' project.<sup>3</sup> This research addresses one of the selected topics: 'Village Formation in the Middle Ages ca. 800 – 1600'. The aim is to determine what a decade of archaeological (contract) research has yielded scientifically. What did we learn from all the excavations? Which of the main research questions have been answered? And what do we want to know next from our archaeological record? The assignment was to firstly assess the potential of excavated sites for the synthesis (phase 1); next to analyse and bring together new strands of knowledge (phase 2); and lastly to evaluate and update the archaeological research agenda (phase 3). In this volume, the research is presented in four parts.

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## Part I Research framework (Ch. 1-5)

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The selection of archaeological evidence for the analysis of Dutch village formation, has been organised through a combined inductive and deductive method. On the one hand we have taken a 'bottom-up' approach and looked at the combined archaeological data of rural settlements to see how, when, and where this process of nucleation took place. Parallel to this, we have also taken a 'top-down' approach and have looked at data from existing historic villages to see how, when, and where these places came into existence.

The (inductive) survey of the ARCHIS and DANS databases consisted of excavations (1) that were published between 2005 and July 2015 (2), containing relevant site types (3) and falling within the dating range 800 – 1600 (725-1650) AD (4). This query led to a selection of 1316 records, but after clearing the records for errors and funnelling for suitability 410 case studies remained. This group was rated for usefulness on the basis of qualitative criteria such as intactness, completeness, datability, Information value and assemblage value.

The deductive route started with a brief historiography of village research and theoretical frameworks from archaeology, historical geography, history and anthropology.

Core concepts were defined and existing models explored. Since the outcome of the synthesis greatly depends on the definition of a village, a pragmatic choice was made. In this study we understand 'village' to mean a large, stable, permanent (as against, for example, seasonal settlements), non-urban habitation agglomeration (or its archaeological equivalent) involving secondary and tertiary economic and social amenities.

The majority of historical geographical research in the Netherlands focussed on village patterns in relation to their fields and field-patterns. In many settlements, the location of farms is directly related to the fields: dispersed farms each connected with an individual enclosure; linear settlements in which each farm is connected to its own strip of land. Concentrated villages were often connected with open fields or, in the landscapes of mixed farming, with a location on the edge of arable lands and grasslands and with a road pattern that connected the village (or the green) with the different land use units. These patterns are classified in rural settlement typologies and models. The basis for this type of research lies in landscape morphology. In regards to processes behind village formation, four thematic frameworks were cited which have been regularly deployed by medieval historians to explain village formation. These are power, coercion, and lordship (1); Communalism and territorial formalisation (2); Field systems and resource management (3); and Urbanisation and market integration (4). These frameworks widely cover all relevant processes, but do not explain the overwhelming variety found, also it is apparent that similar patterns may appear in the landscape for different reasons. An overview of archaeological information on village formation by region offers the present state of knowledge and illustrates that archaeological evidence alone is often unable to prove causation. Anthropological theory introduces human agency with an emphasis on social relations that can be both horizontal and vertical in terms of power structure.

This combined disciplinary conceptual frame leads to the conclusion that only interdisciplinary contextual analysis – that is time and place

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<sup>1</sup> Programma 'Kenniskaart Archeologie'.

<sup>2</sup> Rijksdienst voor het Cultureel Erfgoed (RCE).

<sup>3</sup> Project 'Oogst voor Malta'.

restricted – is the way forward. For this reason we decided to select four good case studies within regions, using new archaeological evidence in combination with available historical geographical and historical data, making use also of anthropological insights into social relations.

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## Part II Inventories & assessment (Ch. 6)

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The selection of archaeological regions and their primary case studies are:

- AR 3: Overijssel-Guelders sand area; case Warnsveld (Gelderland);
- AR 4: Brabant sand area; case Someren (North-Brabant);
- AR 11: Holland dune area; case Limmen (North-Holland);
- AR 13: Utrecht-Guelders river area; case Kerk-Avezaath and Kapel-Avezaath (Gelderland).

These cases have sufficient archaeological data to allow for a reconstruction of the village formation with the aim to identify the main processes involved. Subsequently, the outcome of these case studies is assessed in relation to the wider region and to the research questions (Part III).

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## Part III Case-studies (Ch. 7-9)

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Six main questions were put forward to give direction to this research.

1. What form did the process of settlement fixation take in the period ca. 800-1600 and what were the differences in chronology and pace per archaeological region?
2. Which factors (landscape, socio-economic, political, administrative, ecclesiastical, etc.) played a role in this process, and to what extent and with what interrelationships?
3. How old are the historical village centres and how did they develop spatially and functionally?
4. What role did towns play in settlement fixation, village formation and village development?
5. To what extent did villages shift or disappear in the period ca. 800-1600 and what processes lay behind this?

6. To what extent does the picture generated by the archaeological data match that of related disciplines (medieval studies, historical geography)?

The case studies and the extrapolation towards the wider area are used to answer these questions.

The case studies were divided into two groups. In the first group, archaeological observations are combined with historical geographical data. These are Case 1 Warnsveld (AR 3) and Case II: Kerk- and Kapel-Avezaath (AR 13). In the second group archaeological observations were analysed from an anthropological perspective. These are Case III: Someren (AR 4) and Case IV: Limmen (AR 11). They are described in a uniform format to facilitate comparison.

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### Case I: Warnsveld

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Warnsveld is an example of a single (manorial) farm in the ninth century, that expanded over time related to the founding of a church. During the tenth and eleventh century the open field (Warnsveldse Enk) was established with several separate farms on its border. After a church was built a small settlement cluster formed around it. This combination of a small nucleus around the church and dispersed farms around (amidst) the fields continued up until the twentieth century. The settlement cluster around the church remained very small, even though some amenities (mainly inns and a horse mill) were established in the Late Medieval and Early Modern period. The processes in the formation of the village involve manoralisation, building of churches and demographic growth in a specific historical context.

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### Case II: Kerk and Kapel-Avezaath

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These two villages, which had a similar elongated layout in the nineteenth century, were found to have a different origin and development. Kerk-Avezaath certainly did not have this form originally, nor did it originate from the Carolingian period. The concentrated

settlement probably formed in the early eleventh century when a manorial estate was created here for Thorn abbey and a parish church to St. Lambert was established, or even at a later stage, when the settlement was contracted around the church. The geomorphology of the landscape has been used to explain the elongated form. But this explanation is too deterministic. In this case both villages show different development patterns. One changes from a concentrated to an elongated form. Landscape is found to be a structuring element.

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### Case III: Someren

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Someren exemplifies a gradual growth from the late fifth century (one or two farms) to several farms or small clusters that lay loosely grouped in the seventh century AD. Growing even further towards a more concentrated layout. Then, in the eleventh century a transformation in form occurred when the central cluster was abandoned and the new farms became small settlement clusters of their own. The twelfth century saw a major increase in settlement size. The new farms on the eastern cover sand ridge were not so much dispersed, but were primarily established along the main road(s) on the western flank of the ridge (and probably on the arable fields). This resulted in a linear settlement layout.

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### Case IV: Limmen

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During the Carolingian period, at least two concentrated settlements could be found in the Limmen area. One of these (Limmen 3) appears to have been continuously occupied up until today. The second cluster (Limmen 1) has remained stable until the reorganisation of the arable land around 1000. After that, the settlement was gradually moved to the east, towards the other cluster. It is unclear whether this should be regarded as a contraction of settlement towards a single cluster or an independent development related to the farmland. From the Late Middle Ages onwards new farms were established along both main

roads, flanking the arable land on the top of the ridge. From these, new concentrated settlements or hamlets developed.

Answering the questions on the basis of the case studies and the wider region:

Our project found evidence that several villages have remained in one location for a prolonged period of time. These settlements range from fairly large villages or near-towns to dispersed individual farms in the landscape. There is also evidence that some settlements were abandoned and relocated between 800-1600. A settlement pattern may remain stable for different reasons, but the determining factors are most likely to involve the physical geography of the location in relation to changing socio-economic and political frameworks. Settlement stability can either be enforced or circumstantial. Enforced stability comes from rules and regulations that tie people to a specific place, e.g. serfs to a manorial estate, or town rights that apply to a certain location. In the case of circumstantial stability, the specific context of a settlement determines or provides its stability.

From historical, geographical, archaeological and anthropological theory and models we derived a number of main factors that contributed or could have contributed to the formation and the development of villages. These are presented above and relate to the geographical situation, political development, administrative organisation, religious development (founding of a church), property relations, vertical relations, horizontal relations, social-defensive relations, social-religious relations, social-judicial relations, social-economic relations, economic factors and urbanisation. Except for the socio-defensive relations, we established that most of these factors applied to all of the cases on a general level. However, on a local level the precise form of these factors could vary considerably and it was often difficult to establish how these influenced the development of the settlement exactly. The founding of a church could trigger nucleation in some villages, for example, while in other settlements dispersed hamlets continued to be the norm. We can conclude that the formation of villages is not so much the logical result of a specific factor or decision, but rather the outcome of a context in which a set of

conditions were met that made the development of a village possible or expedient.

Answering this question relating to the date of origin of historical village centres is severely limited by the lack of suitable and comprehensive archaeological data from these centres. In order to get an idea of the history of the present-day villages, we looked at the starting period of settlements that continued to the present (NTC), or since the most recent phase is often excluded from the archaeological report, the Modern Period B (NTB) - the period from which (often) our earliest land registers date. Finding a continuous series of houses or farmyards often proved problematic. Nonetheless, most of the present settlements turned out to date back to the High or Late Middle Ages (LMEA and LMEB), although some have a Carolingian or even late Merovingian origin. In settlements with great stability, for example, due to severe limitations in suitable settlement locations like the dwelling mounds in Friesland and Groningen, on occasion, uninterrupted occupations have been attested from the late prehistory onwards.

Towns served as administrative, judicial, economic and religious centres in their region. Their influence on the hinterland would vary between different towns depending on their size, political and economic weight, and development over time.

On a general level, the influence of the towns was greatest in the economic sphere. The high medieval rural economy was, on the whole, broadly organised and mainly focused on self-support and risk mitigation by producing a wide variety of crops and cattle and the dispersion of the owned lands. This changes dramatically in the course of the Late Middle Ages when the inwardly oriented agricultural economy gradually transferred into a proto-capitalistic market economy. This was part of a wider transformation, referred to as the late medieval transition that covered a complex range of interrelated administrative, legal, social,

economic, and agricultural developments. This transformation, which included urbanisation, occurred very differently in various regions. Ultimately, the role of the towns in the development of the villages very much depended on their relationship to that particular settlement, which was both dynamic and diverse.

It is usually difficult to establish with certainty whether a settlement was truly abandoned or relocated. To do so requires evidence of occupation at a different geographical location in the subsequent building phase. This may even occur after a period of stable occupation. In order to establish that, we are in fact dealing with the shift of an existing settlement; we must be able to demonstrate that the different archaeological settlements follow immediately upon one another chronologically and that there must be some similarity of size and composition. When a settlement disappears, there is no further habitation at that location in the following period, nor is there a new settlement in the vicinity in that period. Given the focus of this research and the wide range of developments and causes, a comprehensive study on settlement relocation or abandonment is beyond the scope of this research. However, the widely observed relocation and abandonment of rural settlement in Northern Brabant around the end of the High Middle Ages is part of the doctoral research of one of the authors.

The key thing to realise is that archaeology, anthropology, history, historical geography and the like, each provides different types of information on village formation. Since the data of these disciplines is incommensurable to a large extent, trying to compare data makes little sense. Rather, each of these disciplines can contribute, on their own merits, by studying different aspects of the subject and contribute to the overarching synthesis. Given the multitude of facets, village formation requires an interdisciplinary approach and is essential for a meaningful study of the subject.

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## Part IV Outcome (Ch. 10)

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In the final part of this report, the outcome of our study is used to create a series of recommendations for the updated National Archaeological Research Agenda 2.0. This agenda is designed for the archaeological discipline serving a commercial setting for excavations. After a plea for interdisciplinary research, it seems sensible to temper expectations towards the explanatory strength of insights on the processes behind village formation on the basis of archaeological evidence alone. The benefit lies in producing excellent archaeological case studies with potential for further integrated (local and supra-local) analysis as presented in Ch. 7 and Ch. 8, offering an important evidential contribution.

In this final part we have reflected on the existing topic description in the NOaA 2.0 and suggested a new text. Furthermore, we have assessed the questions for this research for their future strength and have proposed new ones. New questions should keep a balance between national (or supra-regional) significance and academic ambition on the one hand, and practical application on the other. They address elements that cannot be answered in a single excavation, yet do have real potential to be adequately answered with the data from multiple observations. This means that despite the complexity of village formation, the questions we propose primarily address the archaeological (and historical geographical) aspects of this topic. They aim to provide the building blocks for a broader (interdisciplinary) synthesis. The questions, therefore, focus on the main characteristics of villages as described in Chapter 5. For each question, guiding sub-questions are included which address specific indicators of elements or processes that are embedded in the main questions.

The subsequent recommendations address how to obtain these indicators and in what way to combine them with other indicators or wider developments.

Our proposed questions are:

1. How does the settlement pattern develop in the region and when and how does concentration of settlement take place?
2. To what extent were settlements relocated after their initial clustering or concentration and what factors were responsible for this?
3. What are the origins of the historical village centres and how did these villages develop spatially and functionally?
4. What role does the establishment of a church or chapel play in the concentration of a settlement?
5. What role does the establishment of trade and crafts (professional specialisation) play in the concentration of a settlement?
6. To what extent do changes in property relations contribute to the (early) formation of concentrated settlements?
7. To what extent does the development of the settlement pattern correlate with developments in agricultural strategies and field systems?

We conclude this volume with a plea. To increase our understanding on the formation and development of villages, archaeological research needs to be conducted within municipal research agendas based on an historical-geographical framework which provide specific hypotheses and questions to test and explore. Moreover, syntheses would greatly benefit from a continuity of knowledge in the region and complementary (academic) observations within existing historical villages. This would provide a more representative range of sites, which enables a more comprehensive understanding of rural settlement in general and villages in particular.



# **Part I**

## **Research Framework**



As part of the 'Archaeological Knowledge Map' programme,<sup>1</sup> the Cultural Heritage Agency of the Netherlands<sup>2</sup> (RCE) initiated the 'Malta Harvest' project.<sup>3</sup> Following the implementation of the Valletta treaty in a new Monuments and Historic Buildings Act<sup>4</sup> in 2007, this project seeks to determine what a decade of archaeological (contract) research has yielded scientifically. What did we learn from all the excavations? Which of the main research questions have been answered? And what do we want to know next from our archaeological record?

After careful assessment, the RCE selected ten research topics (*kenniskansen*) that presently form major gaps in our knowledge, as defined in the National Archaeological Research Agenda, and which have a high potential to be bridged with the data of recent archaeological excavations.<sup>5</sup> This report addresses one of these topics: 'Village Formation in the Middle Ages ca. 800 – 1600'.

Following the goals of the Malta Harvest project this study aims to:

1. Make an inventory and assessment of recent excavations relevant to this topic;
2. Provide answers to our present questions on this topic;
3. Generate input for the upcoming update of the National Archaeological Research Agenda (NOaA 2.0).

This report consists of four parts. Firstly, this study is placed in a broader context by elaborating on the programme to which it intends to contribute (Ch. 2). Next we introduce the research topic and present the aims and questions that will be considered by this project (Ch. 3). Then we present a brief historiography of village research and explain which theoretical framework has been adopted for this study (Ch. 4). This determined our research methods

(Ch. 5). In the second part of the report the outcome is presented in a series of inventories based on the various datasets that have been assembled to examine the formation of villages (Ch. 6). The information in these inventories was used to select four archaeological regions for more in-depth analysis.

For each of these regions a detailed case study is presented in the third part (Ch. 7). Subsequently, the outcome of these studies is assessed in relation to the wider region (Ch. 8) and to our main research questions (Ch. 9).

In the final part of this report, the outcome of our study is used to create a series of recommendations for the updated National Archaeological Research Agenda 2.0 (Ch. 10). These comprise of an overview of the process of village formation and a strategy to effectively address the problem of village formation archaeologically. Throughout this research process the information recovered by individual excavations has been treated as a series of building blocks that allow us to move closer to a synthesis.

This research was supervised by a scientific panel which consisted of:

- Mr. drs. J. van Doesburg (Specialist on archaeology of the Middle Ages and Modern period, Cultural Heritage Agency of the Netherlands)
- Mrs. Prof. dr. C. Lewis (Professor for the Public Understanding of Research, University of Lincoln; Specialist on medieval rural settlement)
- Mr. Prof. dr. ir. M. Spek (Professor for Landscape History; Head of the Centre for Landscape Studies, University of Groningen)

*The report is authorised by  
Mr. dr. M. Groothedde and Mr. drs. H.A.C. Fermin  
(Municipal archaeologists of Zutphen).*

<sup>1</sup> Programma 'Kenniskaart Archeologie'.  
<sup>2</sup> Rijksdienst voor het Cultureel Erfgoed (RCE).

<sup>3</sup> Project 'Oogst voor Malta'.

<sup>4</sup> Wet op de Archeologische Monumentenzorg 2007.

<sup>5</sup> De Groot & Groenewoudt 2014, 7.



The implementation of the Valletta Treaty, in the Monuments and Historic Buildings Act 2007, set the stage for a system in which archaeological research is conducted mainly by commercial archaeological organisations within the land use planning process. Overall, this has led to a sharp rise in the amount of archaeological data that is being generated, as well as technological innovations in archaeological fieldwork methods and project management.<sup>1</sup> The downside is that the archaeological interventions have increasingly focussed on individual sites and often lack an overarching research framework. Hence, a large number of single-site reports have been produced by contracting organisations, but local and regional syntheses are rarely undertaken. Dutch universities, which were regarded as the main actors to collate these studies into new knowledge, have been unable to keep up with the massive flow of new data due to lack of funding, staff or interest. Thus, although a large amount of new data has been gathered since 2007, this has rarely resulted in a better understanding of the past. Moreover, the limited progression in our historical insights has meant that we have continued to focus on the same old research problems and have continued to collect the same kinds of data. This has led to a situation where we potentially already have the data to answer some of our existing research questions, while data for new, subsequent questions is being overlooked.

This issue of archaeological inertia was one of the main problems identified in the evaluation of the Monuments Act in 2012. To counter this, the programme ‘*Kenniskaart Archeologie*’ (Knowledge Map Archaeology) was started by the Cultural Heritage Agency (RCE).<sup>2</sup> It aims to provide a better infrastructure for the

assessment of interests within archaeological heritage management. Key to this process is the improvement of our understanding of the past. This provides the basis for increasingly accurate forms of predictive modelling and in time will have corresponding benefits for (the implementation of) local and national archaeological policy.

In an effort to advance this agenda, the RCE has established the joint project ‘Nieuwe NOaA – Oogst voor Malta’ (New National Research Agenda – Malta Harvest). The purpose of this project is to synthesise archaeological research and to update and improve the National Research Agenda.

During the first stage of the Malta Harvest programme, seven large and undisputed opportunities for synthesis were selected by a panel based on expert judgment.<sup>3</sup> In the second stage, additional opportunities were identified based on a systematic survey. The first major gaps in our knowledge were identified (*kennislacunes*), based on our current research agenda and assessments, such as the *Archeologiebalans 2002* and the *Erfgoedbalans 2009*.<sup>4</sup> Next, an inventory was made of archaeological studies that were conducted during 2000-2014 to determine which of these gaps have the potential to be filled (*kenniskansen*).<sup>5</sup> Topics that have been recently addressed in synthesising studies or articles were struck from the list. The remaining topics were then prioritised based on geographical region (*archeoregio*), period and theme. From these, ten topics were selected and developed into a research plan that was put out to public tender by the RCE. The study at hand covers one of these opportunities: **Village formation in the Middle Ages ca. 800-1600.**

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<sup>1</sup> Erfgoedmonitor at [www.erfgoedmonitor.nl](http://www.erfgoedmonitor.nl)

<sup>2</sup> Theunissen *et al.* 2014, 2.

<sup>3</sup> De Groot & Groenewoudt 2013.

<sup>4</sup> Van Eerden & Lobbes 2014.

<sup>5</sup> De Groot & Groenewoudt 2014.



## 3.1 Problem

Despite the long tradition of settlement archaeology in the Netherlands (Ch. 4), a lot of questions remain unanswered. For the Middle Ages, one of the main questions is when the settlement became fixed and took the form of the (present-day) villages. The current state of knowledge concerning settlement development (in general) and village formation (in particular) varies according to archaeological region.<sup>1</sup> Hence, while an overview of the different settlement types in time and space has yet to be compiled for the north-western half of the Netherlands, particularly for the peat regions, models on the development of settlement have already been devised for the south, southeast and east of the country.<sup>2</sup>

In most cases, knowledge was largely confined to the level of the individual settlement (structure, nature, size and function), with comparative research focusing predominantly on classifying these settlements into different types.<sup>3</sup> Rather less attention has been placed on examining the relationship between settlements, the possible meaning of different settlement types and how networks of settlement developed over time. In general, there is a structural lack of information about each region from the Late Middle Ages and Early Modern periods.

The main causes cited are a change in house construction which has rendered them archaeologically invisible,<sup>4</sup> the location of sites beneath current buildings, making them harder to access, and a lack of interest among archaeologists and policymakers.<sup>5</sup> The picture of late medieval and early modern settlements in the Netherlands therefore relies primarily on abandoned settlements that were later incorporated into the arable field systems. This has created a problem, inasmuch as we have some understanding of aspects of habitation in the early and high Middle Ages, but know very little about any links with modern villages and hamlets

A further problem is the discrepancy between different types of source material which determine our current understanding of

settlements in the different periods. For the Early Middle Ages we have to mainly rely on archaeological evidence, whereas our knowledge on settlements in the late Middle Ages and the Modern period is (still) predominantly based upon cartographical and textual sources. The latter are, nevertheless, determinant for our understanding of the term 'village'. In most historical documents 'village' is essentially an administrative term intended to express a legal status and functional entity that differs from regular agricultural settlement. It could also, however, refer to a certain type of settlement, a community or a territory.<sup>6</sup> This can create analytical problems, as one and the same territory could be part of different jurisdictions (administrative, fiscal, legal, ecclesiastical). Conversely, settlements with a different legal or functional status could bear very strong outward resemblances.

The terms 'village' and 'village formation' have not been rigorously defined within Dutch archaeology and are often used, implicitly, in very different ways. Does 'village' refer to settlements of a particular size and clustering? Or to settlements with a predominant support function? Or to the origins of existing villages? Before we begin our study, it is therefore vital that we properly define the terms village and village formation (see Ch. 4). Clearly, however, there are different meanings and uses for the term 'village': morphogenetic, functional and economic, administrative and religious.

Research into each of these themes calls for its own archaeological data and robust methodologies.

## 3.2 Aims

The aims of this research project are threefold. First, it intends to establish to what extent archaeological research in the Netherlands – conducted in a commercial setting over the past decade – produced relevant data that can be used to answer the key questions posed in the National Archaeological Research Agenda (NOaA) regarding village formation. Second, it seeks to provide answers to these questions based on the evidence from these recent excavations. Finally, it intends to generate new input for the upcoming update of the research

<sup>1</sup> Beukers 2009, 112-113.

<sup>2</sup> Theuvs 1989, 2008, 2011; Heidinga 1987; Spek 2004, 976-979; Van Beek 2009; Spek *et al.* 2010; Van der Velde 2011, 274-277.

<sup>3</sup> In particular, this is the case with the monodisciplinary, typological studies up until about 1990. After that the studies shift to an interdisciplinary approach focusing more on dynamics (see note 2).

<sup>4</sup> The timber frame was no longer set into the ground but placed on stone or brick footings. This meant that far fewer soil features were left behind, making the house plan difficult or impossible to identify (e.g. Zimmermann 1998; Verspay 2007; Van Doesburg & Groenewoudt 2014; Schabbink 2015).

<sup>5</sup> In recent years the development of the rural settlement in the Late Middle Ages and Early Modern period is gaining interest, partly because of the evaluation of our current knowledge (Beukers 2009) of and the research priorities set by the RCE.

<sup>6</sup> See e.g. Bader 1962.

agenda. These three aims have been used to guide the research project through the following phases:

**Phase 1:** Collation and assessment of site-based archaeological data;

**Phase 2:** Synthesis of village formation based on relevant sites in relation to the research questions;

**Phase 3:** The drafting of ready-for-use input for the new NOaA.

Work on Phase 1 of this project resulted in the creation of a database of archaeological sites that has the potential to address the current knowledge gaps. Based on the critical assessment of this dataset, four archaeological regions were chosen for synthetic analysis in Phase 2. The outcome of this process was used to generate our recommendations for the future research agenda in Phase 3.

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### 3.3 Research questions

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The aim of Phase 1 of the study was to assess the potential of the research data to better inform our understandings of the emergence and development of medieval and early modern villages. In order to do this effectively we needed to find criteria to assess individual sites and subsequently choose the best archaeological regions for further analysis and synthesis. We formulated three questions to guide this process. These may be broken down into sub-questions:

- 1.1 What are the best criteria for assessing the suitability of research data for the study of village formation?
  - What criteria can we derive from theories in settlement archaeology?
  - What criteria can we derive from theories in historical geography?
  - What criteria can we derive from historical and social theory?
- 1.2 In the light of these criteria, which Malta reports are suitable for additional study?
- 1.3 Which archaeological regions have sufficient relevant research data to allow a synthesis of village formation to be attempted?
  - For which of these regions are there already models available on settlement development and village formation?

The synthesis in Phase 2 was focussed on answering the following questions:

- 2.1 What form did the process of settlement fixation take in the period ca. 800-1600 and what were the differences in chronology and pace per archaeological region?
- 2.2 Which factors (landscape, socio-economic, political, administrative, ecclesiastical, etc.) played a role in this process, and to what extent and with what interrelationships?
- 2.3 How old are the historical village centres and how did they develop spatially and functionally?
- 2.4 What role did towns play in settlement fixation, village formation and village development?
- 2.5 To what extent did villages shift or disappear in the period ca. 800-1600 and what processes lay behind this?
- 2.6 To what extent does the picture generated by the archaeological data match that of related disciplines (medieval studies, historical geography)?

Following the evaluation of the selected excavation reports and the compilation of the theoretical framework, which revealed the complexity of village formation, the emphasis of our study shifted towards how we can address these questions.

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### 3.4 Limitations

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Because this study initially encompassed medieval and early modern villages in the entire Netherlands, some restrictions were put in as part of the assignment to ensure our dataset would remain manageable. As these limitations determined, to a large extent, the course of this research and the extent of its outcome, it is important to make them explicit. Note that these restrictions are mainly artificial and differ from the criteria that are derived from archaeological indicators (Ch. 5), although some overlap occurs.

Phase 1. Inventory

- **Malta research:** The research is aimed at the evaluation of archaeological research conducted within the Malta system, mainly by private contractors;

- **Excavations:** The case studies to be used as part of our survey were limited to archaeological excavations (AOP). This was selectively extended to archaeological watching briefs (ABE) and trial trenching (APP) in the later stages of our study.
- **Time frame:** The research is limited to sites dating between AD 800 and 1600;
- **Relevance:** The case studies contained site types deemed relevant according to the criteria laid out in the Plan of Action (PvA) (see Ch. 5);
- **Published:** All case studies needed to be fully published site reports that came out between 2005 and 2015. Additionally, in Phase 2, reports published between 1997 and 2005 will be included in the analysis;
- **Availability:** Only reports that were available at the start of the project, 1 July 2015, were included in our study;
- **Accessible:** For the gathering of potential relevant case studies we relied on the national archaeology database ARCHIS and DANS, the national digital repository for scientific research data. Additional case studies, for instance, from municipal departments or local history groups were not actively tracked as researchers from earlier Malta Harvest studies reported this to be very time consuming and of varying use.<sup>7</sup> In any case, most of these sites would not fit the previous criteria.

Sites that did not meet the above criteria were not selected for our study.

Additional criteria were assigned to the selection of sites and archaeological regions preceding Phase 2.

Phase 2. Analysis

- **Four archaeological regions:** For Phase 2, four archaeological regions were to be selected for further analysis and synthesis.
- **Distribution:** These regions needed to be geographically spread out throughout the Netherlands;
- **Sufficient data:** For each of these regions sufficient relevant archaeological data needed to be available;
- **Size:** The archaeological sites and historic village centres selected for analysis needed to vary in size;
- **Date:** The archaeological sites and historic village centres selected also needed to vary in age.

These criteria formed the starting point for our analysis. As our strategy was adjusted over the course of our research, so were our selection criteria. An effort was made, however, to keep them explicit and maintain consistent in their use.

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<sup>7</sup> We are very grateful to the companies and institutes that shared their experiences with us.



The interdisciplinary approach chosen for this research combines archaeology, historical geography, history and anthropology. All four disciplines share an interest in the study of village formation, and therefore a synthesis of recent research in these disciplines may reveal new information, or at least generate new perspectives and methodologies.

With different academic practices come different definitions of core concepts. This chapter will set out the definitions that will be used throughout this volume (§4.1). We will then move to location of settlements (§4.2), followed by social (§4.3) and historical (§4.4) perspectives on village formation. After that, a short historiography is presented, which has been compiled to help understand the history of research on village formation (§4.5). An overview of Dutch research perspectives is followed by a more detailed appraisal of the selected archaeological regions (§4.6). This chapter concludes with an overview of international research (§4.7) and the integration of perspectives (§4.8).

One last thing should be said on the choice of disciplines in relation to the study of historical processes. This research is not about finding the *origin* of villages, but rather about understanding the *processes behind village formation*. In this respect, our chosen disciplines offer different but complementary windows upon village formation, offering insights into both the spatial and temporal development of the village form. Hence, taking each of our disciplines in turn, through the study of social and economic structures anthropology has the capacity to identify the structure and function of village communities, as well as their spatial form. These observations are, however, limited in time and space to living communities. Archaeology, historical geography and history, on the other hand, deliver information about particular situations, and their development through time, mostly through qualitative analysis of case studies.

## 4.1 Definitions

As already stated, it is important to clearly define our terms prior to our analysis so that it is clear

what terms we have used. For complex terms such as ‘village’ and ‘village formation’, it is necessary to find definitions that do justice to their historical interpretation, but are also, crucially, archaeologically visible. The deciding factor will be how well the definition serves the purposes of this study.

### 4.1.1 Village

It is not easy to define a village and in many ways the term is often used in a relational way. Van Dale’s Dutch dictionary’ gives two descriptions of ‘village’: [1] (built area of a) rural municipality (smaller than a town and larger than a hamlet; in the historical sense: every settlement without walls and gates); [2] the inhabitants of a village. The huge official Dutch dictionary gives three meanings<sup>2</sup>: [1] landed estate (sometimes in historical sources); [2] a cohesive group of dwellings, separated from the surrounding land, large enough for at least one street or green and usually having one or more churches. Settlements that developed an urban character, on historical grounds usually continued to be designated as villages. The whole village territory could also be designated as a village; [3] the collective inhabitants of a village.<sup>3</sup>

Although the first meaning of a landed estate is doubtful, the list still makes clear that the term village implies a number of different elements.<sup>4</sup> Some of these relate to spatial (geographical) characteristics, but a village is also a community and therefore an object of the social sciences. In this chapter we look at both.

From the geographical perspective, the main ways of looking at villages involve a consideration of size, function, morphology and history. Additional information comes from place names.

#### Size

In terms of size, a village is situated between a hamlet and a town. Size is a dynamic criterion that changed through time and region.

Even nowadays, the border between rural settlements (villages) and towns is subject to national traditions and legal frameworks.<sup>5</sup>

A settlement of a few thousand people was generally recognised as a town during the Middle Ages but would now be called a village.

<sup>1</sup> Den Boon & Geeraerts 2015.  
<sup>2</sup> Woordenboek der Nederlandse Taal.  
<sup>3</sup> Dutch: Dorp: 1. Landgoed. Eene enkele maal in de oudere taal. 2. Eene groep van te midden van het omringende land eene eenheid vormende woningen, talrijk genoeg om althans één straat of plein te vormen en in den regel in het bezit van één of meer kerken. Veelal blijven plaatsen, die meer het karakter van eene stad hebben aangenomen, op historische gronden den naam van *dorp* dragen. Bij uitbreiding ook in toepassing op het geheele grondgebied dat onder een *dorp* hoort. 3. In den zin van: de gezamenlijke bewoners van een *dorp*.  
<sup>4</sup> Uhlig & Lienau 1972; Renes 1982.  
<sup>5</sup> Lienau 1997, 11; Henkel 2012, 203.

On the other hand, in southern Italy agrarian settlements of more than 10,000 inhabitants (without any central function) exist, and are usually described as villages.<sup>6</sup>

A Dutch working group on landscape typology in the 1980s designed parts of a terminological framework, mainly based on the work of the International Working Group for the Geographical Terminology of the Agricultural Landscape.<sup>7</sup>

The distinction between individual farms and grouped settlement in this framework was defined by a distance between the houses of 150 metres, based on the notion of ‘shouting distance’ between neighbours.<sup>8</sup> Groups of less than three houses were classified as dispersed settlement, three to ten or twenty houses as hamlets.<sup>9</sup>

**Function**

A village may be defined as a concentration of agrarian and non-agrarian buildings and dwellings that perform some central function. In this sense a village can be regarded as a device that orchestrates and amplifies the productive capacity of its constituent households. The village form provides a coherent and overarching framework that spreads risk and enables agrarian production, accumulation, and surplus, to be handled in a communal way, and the negotiation of social and economic obligations, to the state, landowners, or the church, to be centrally controlled and mediated. In Europe in the Second Millennium the centralised non-agrarian function of a village

may be most often seen in the form of a church or some other place of assembly.

**Hierarchies**

The English geographer Mills distinguished between ‘open’ and ‘closed’ settlements, which are more or less congruent with settlements dominated by freeholders or by an estate, respectively. For England, he could show that this distinction was still very relevant in the early twentieth century and even more recently.<sup>10</sup> In fact, the social stratification in villages was more complex than this. In another paper, Mills distinguishes between five social strata: the gentry, the upper-middle class, the rural middle class, the artisan class and labourers (figure 4.1).<sup>11</sup> The ‘closed’ estate villages from the other publication are here divided into two groups by giving separate attention to estates with an absentee landlord.

It is important to realise that many villages were characterised by strong social differences.

**Morphology**

In terms of morphology a village usually takes the form of a nucleated settlement, surrounded by agrarian land. In the Netherlands, a loose group of farms or a row of farms was also often called a village: in Dutch, terms such as *dijkdorpen* (dike villages) and *lintdorpen* (elongated villages) are used. Such rows of farms or other houses, and even loose groups of farms, could function as a village community. However, when in such settlements a small concentration of houses developed around the church, this part of the

	Class of village			
Social class	Estate	Absent lord	Peasant	Divided
The gentry				
Upper middle class				
Rural middle class				
Artisan class				
Labourers				

Figure 4.1 The pattern of class groups within different types of villages. (Daniels & Hopkinson 1987, 40).

<sup>6</sup> Tichy 1985, 377.  
<sup>7</sup> Uhlig & Lienau 1972; Haartsen & Renes 1982.  
<sup>8</sup> Uhlig & Lienau 1972, 61.  
<sup>9</sup> Uhlig & Lienau 1972, 78; Henkel 2012, 204.  
<sup>10</sup> Jackson 2012.  
<sup>11</sup> Daniels & Hopkinson 1987, 40.

settlement was sometimes called ‘Dorp’ (the village).

### Place names

As already stated above, the old Dutch word for village is ‘dorp’ and a similar term used in most Germanic languages is ‘dorf’. In toponymics, the use of dorp is complex, as it seems to have had a number of different meanings, including farm, estate and, of course, village.

The original meaning of ‘dorp’ seems to refer to a single house or farm or even cultivated land, which would indicate that the meaning of ‘groups of houses’ is a later development.<sup>12</sup> To complicate things further, the Friesian word ‘terp’ (higher land)<sup>13</sup> has become the main scientific term for dwelling mounds, that outside of Friesland were traditionally known by regional terms such as ‘wierde’ (in the province of Groningen; related to German ‘Wurt’) and ‘pol’ (in the fluvial region). However, in place names in Friesland, outside the dwelling mounds region, ‘terp’ is used for villages.<sup>14</sup> The use of ‘-dorp’ and ‘-thorp’ as a suffix in place names can be traced back to the ninth century.<sup>15</sup> It became more widely used from the twelfth century onwards and was also used in Scandinavia and in northern England.

From a historical point of view, a lot of definitions are possible for villages and village communities, not least because of their overlap with other local socio-spatial entities, territories, jurisdictions and communities like parishes, alderman court territories and manorial complexes.<sup>16</sup> For practical reasons we look primarily to the relationship between *physical* villages and societal processes influencing the physical dimension. The concept village in a wide sense can be defined as a local socio-spatial unit on the level of the local community with varying societal and physical dimensions, but with at least one concentrated settlement, small or large. In a narrow sense a village is a concentrated settlement. A few or a lot of the inhabitants might identify themselves with the village community, the name of the village and the village territory, pre-assuming the experience of a notion of territoriality.<sup>17</sup> This subject persuades us to make a difference between the *emic* official (formally defined

village in charters), the village to outsiders, and the *emic* experienced village by members of the village community themselves, the village to insiders. The definition of village and a village community by present day scholars might be designated as an *etic* view in this respect. The territory surrounding the concentrated settlement could be small or large too, and might be a product of negotiation between different village communities and as an outcome of a settlement of disputes between villages or other parties like lordships and institutions holding manorial property in the medieval present and past.

### Preferred definition

For archaeological research (including the present study), the definition of a village as a concentrated settlement is relevant. Although groups of dispersed farms could also be seen as a village, for the purposes of archaeological research they are better seen as separate farms. In this study we understand ‘village’ to mean a large, stable, permanent (as against, for example, seasonal settlements), non-urban habitation agglomeration (or its archaeological equivalent) involving secondary and tertiary economic and social amenities. This definition only covers the physical settlement in a narrow sense, i.e. the village itself. The village community and territory therefore fall outside of our definition, although relations with surrounding areas, certainly for predominantly agrarian villages, did of course have an impact on the village. With regard to size, we prefer not to specify a minimum number of houses to define a village, although we would expect to see some degree of clustering and the presence of several families.

## 4.1.2 Typologies of settlements in a strict and broad sense

Historical geography has a long-standing tradition of typological research. The basic idea behind this research is that forms in the landscape reflect their histories and former functions and, hence, give insights into former societies and man-land relations.

<sup>12</sup> Philippa *et al.* 2003-2009.

<sup>13</sup> Philippa *et al.* 2003-2009.

<sup>14</sup> For example, in Ureterp and Wijnjeterp (Moerman 1956; Gildemacher, 2007, 2008).

<sup>15</sup> De Geïntegreerde Taalbank, lemma ‘thorp’. (<http://gtb.inl.nl>). The oldest known place names with ‘dorp’ in the present-day Netherlands are *Sutdorf* (802-817), *Spaldrop* (891-892 *Spelthorff*) and *Baltremodorf* (probably ninth century). Of these, only *Spaldrop* is still known today (Künzel *et al.*, 1989).

<sup>16</sup> For example, see Reynolds 1997; Genicot 1990; Troßbach & Zimmermann 2006.

<sup>17</sup> On the idea of territoriality see Sack 1986.

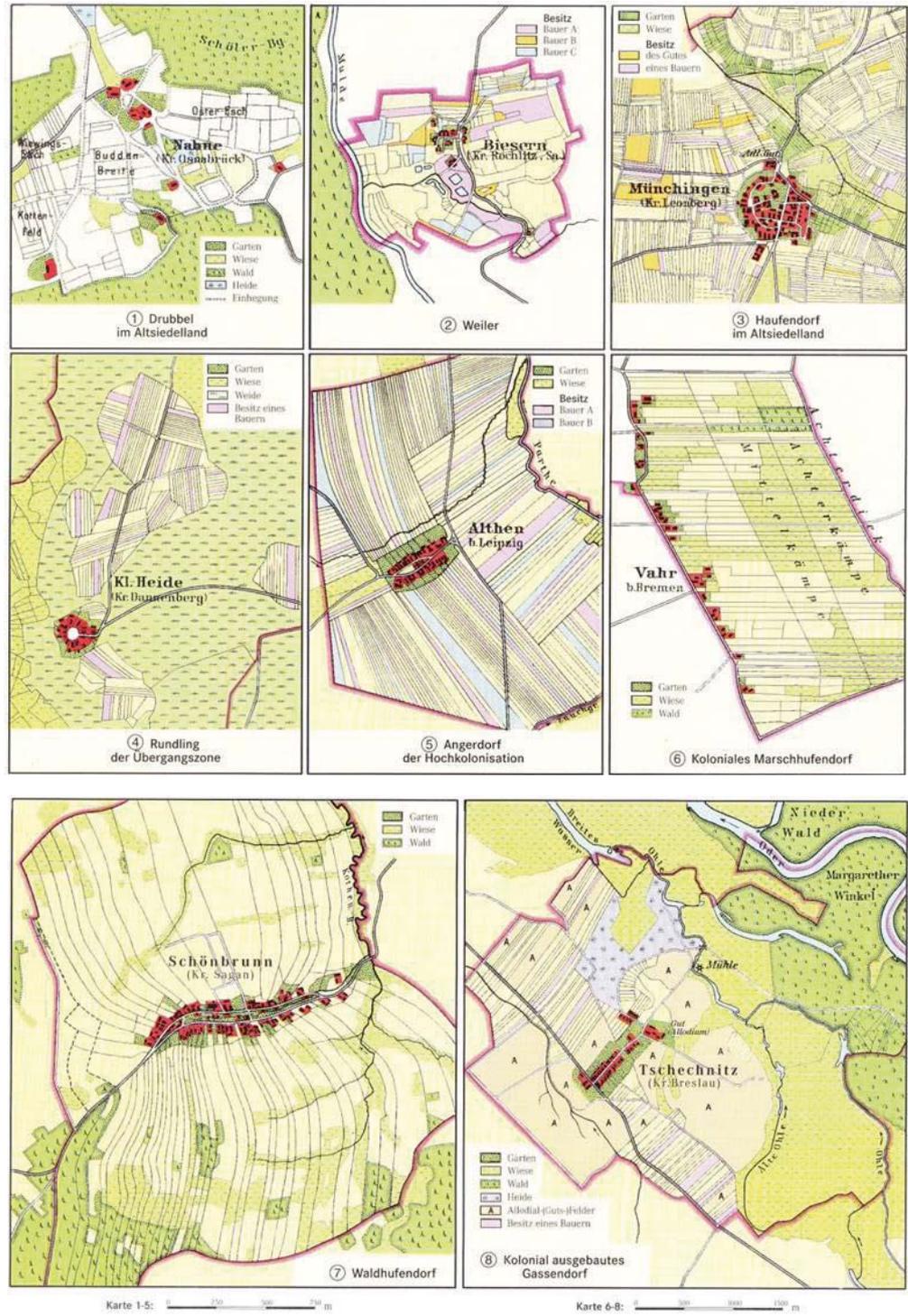


Figure 4.2 Rural settlement forms. A traditional morphogenetic classification of villages as was used in school atlases (Aner 1997, 76).

Two main directions can be distinguished in historical-geographical research into the history of villages:

1. Research into village patterns in relation to their fields and field-patterns;
  2. Research into village plans in a narrow sense.
- The first approach has always been prominent in the Netherlands. In many settlements, the location of farms is directly related to the fields: dispersed farms each connected with an individual enclosure; linear settlements in which each farm is connected to its own strip of land. Concentrated villages were often connected with open fields or, in the landscapes of mixed farming, with a location on the edge of arable lands and grasslands and with a road pattern that connected the village (or the green) with the different land use units. The traditional landscape typologies in the Netherlands were made by geographer Keuning, who developed his typology of rural settlements over thirty years.<sup>18</sup> Models by Steegh are also based on the combination of farms with their land and on villages with field-patterns.<sup>19</sup>

The second type of research, which has a focus on village plans is rare in the Netherlands, although there are examples. The most recent edition of the national atlas, for example, includes a map of concentrated, linear and dispersed settlements, combined with the main formative period of the landscape.<sup>20</sup>

Both types of study can be found in the international literature. In German historical geography, the pioneering book by Meitzen focused on field patterns and describes villages and dispersed settlement in relation to the field patterns.<sup>21</sup> The pictures of settlement types as they appeared in school atlases (figure 4.2), as well as in scientific literature, are well-known throughout the German-speaking world. The great overview for Central Europe (in this case, including the Netherlands) by Schröder and Schwarz does both: they present a map of rural settlement in the strict sense for the period around AD 1500 (figure 4.3), as well as a map of the distribution of settlements and field patterns (figure 4.4).<sup>22</sup> In France, the old morphogenetic typology by Demangeon combined villages and fields (table 4.1).<sup>23</sup> Belgian geography has been strongly under the influence of French geography for some time and the Belgian national atlas contains a map of rural

settlements, focusing on concentration and dispersal, but also showing basic forms.<sup>24</sup> In the UK, the 'Enclosures' between 1600-1850 appropriated common land for the landed classes and created a new field pattern with dispersed farms, disconnecting the field pattern from the medieval villages. This has meant that many studies by British historical geographers have focused on villages and hamlets in a strict sense, excluding fields and the wider landscape beyond. One old example of this genre is Thorpe's paper on green villages.<sup>25</sup> The most prominent historical geographer in this field is Brian K. Roberts, who has written a number of books and several articles on village plans.<sup>26</sup>

**Table 4.1 The typology of French rural settlement by Demangeon (Demangeon, 1942).**

**A. Les types d'agglomération**

1. le village à champs assolés
2. le village à champs contigus
3. le village à champs dissociés

**B. Les types de dispersion**

1. la dispersion primaire, d'âge ancien
2. la dispersion intercalaire
3. la dispersion secondaire
4. la dispersion primaire, d'âge recent

### 4.1.3 Village formation

Moving to the issue of historical processes, we define village formation to be the clustering of habitations into larger and stable settlement agglomerations in which secondary and tertiary economic and social amenities are developed.

### 4.1.4 Farmstead

A farmstead is a cohesive arrangement of a (shared) farm house, a well, a garden and other ancillary buildings set within a modest area (the yard) with or without the visible demarcation of fence lines. The area of the farmyard is usually no larger than about 50 x 50 m.

<sup>18</sup> Keuning 1936; 1938; 1951; 1964.

<sup>19</sup> Steegh 1985.

<sup>20</sup> Atzema *et al.* 1990.

<sup>21</sup> Meitzen 1895.

<sup>22</sup> Schröder & Schwarz 1978.

<sup>23</sup> Demangeon 1942.

<sup>24</sup> Lefèvre 1964.

<sup>25</sup> Thorpe 1961, 93-134.

<sup>26</sup> Roberts 1977; 1987; 1996.

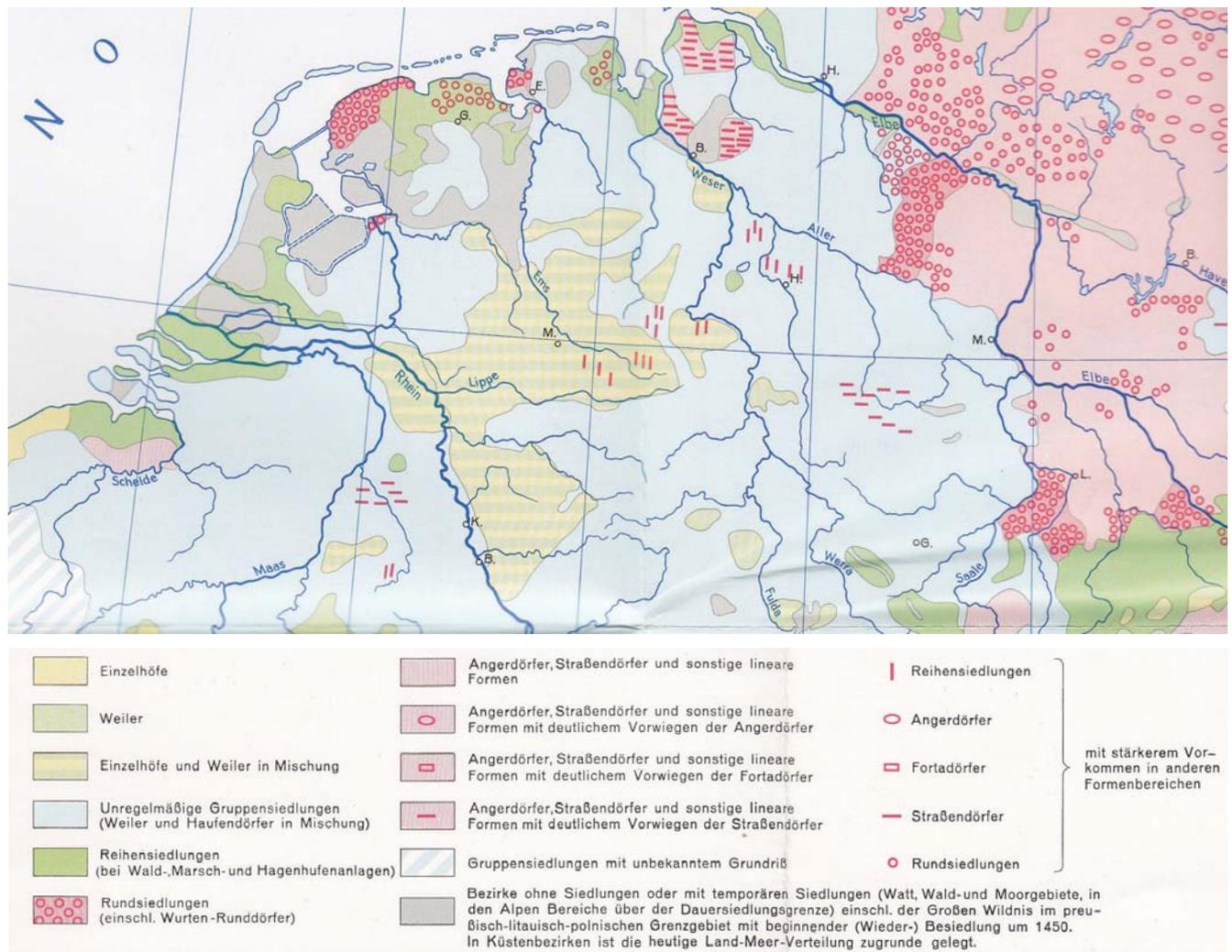


Figure 4.3 Fragment of the map of rural settlements in Central Europe around the end of the Middle Ages (Schröder & Schwarz, 1978).

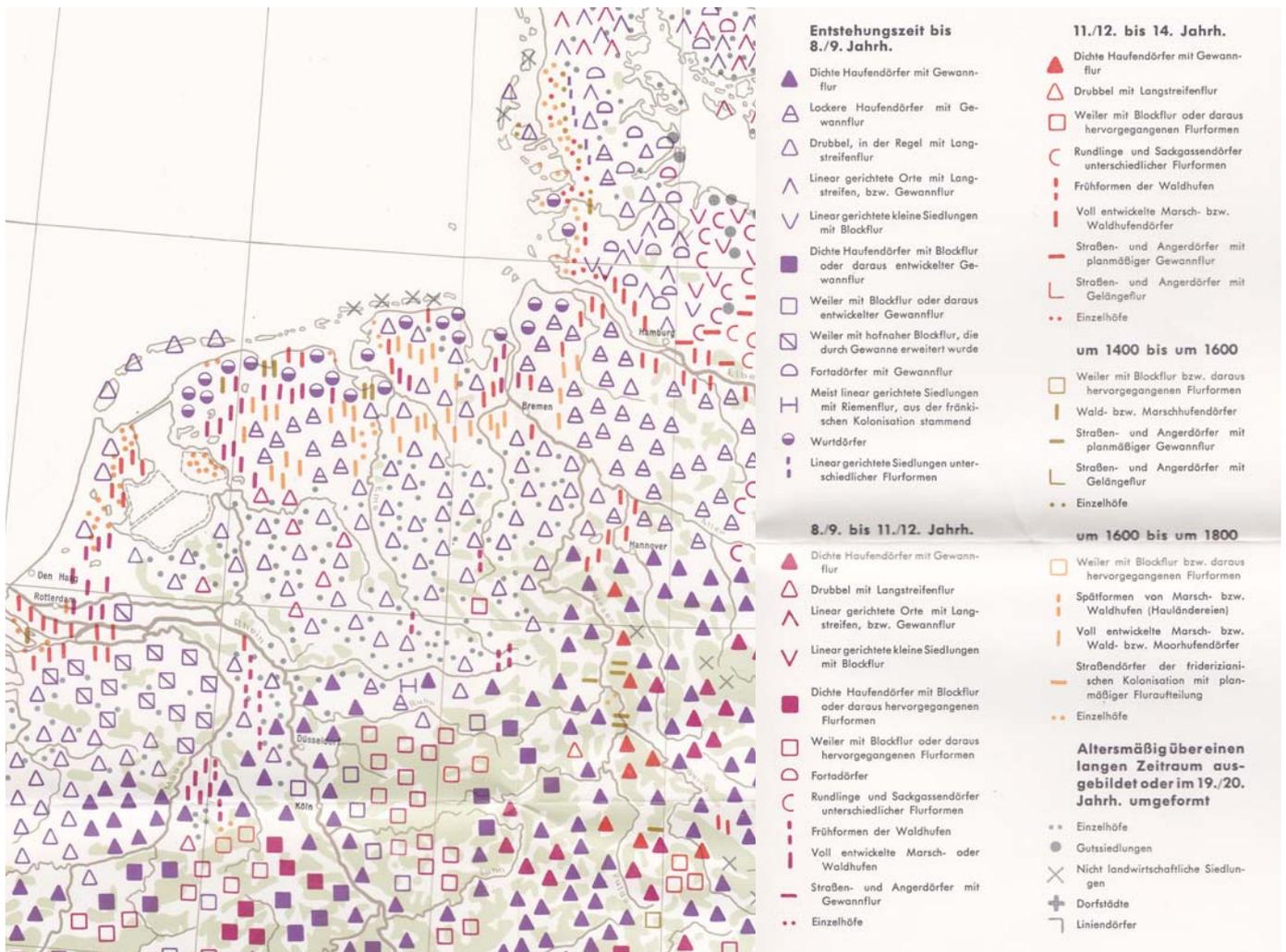


Figure 4.4 Fragment of the map of the distribution of settlement and field patterns in Central Europe (Schröder & Schwarz, 1978).

The farmyard, including the buildings, is termed the 'toft'.<sup>27</sup> Such tofts can have an agrarian and non-agrarian primary function. A toft can exist for a long period of time and can be repeatedly refurbished or rebuilt. When the new building is clearly a direct continuation of the previous occupation (following on chronologically and with the same number of houses), we refer to this as a *refurbishment* of the same farmstead. If it involves a new yard, this means that the farmstead has shifted. If there are doubts about continuity of habitation, we regard the farmsteads in question as separate entities.

#### 4.1.5 Hamlet

A hamlet is a smaller settlement than a village.<sup>28</sup> It will have a predominantly agrarian character and any amenities are likely to be small-scale and perhaps limited to a chapel.

#### 4.1.6 Historic village centre

We refer to historic village centres as the built-up core of settlements known as villages at the time that the land register (Cadastre, c. 1830) was drawn up and which survive to this day.

#### 4.1.7 Settlement

We use the term settlement to refer to a non-urban place of habitation, or its archaeological manifestation comprising one or more farmsteads and a degree of spatial cohesion or structure. It is important to note here that while all villages are settlements, not all settlements are villages.

#### 4.1.8 Stable settlements

We define a stable settlement as a settlement where the successive building phases of the farmsteads that constitute the settlement were built on the same toft or its spatial equivalent (often measuring c. 50 x 50 m).

### 4.2 Location of settlements

The location of settlements is dependent on many factors, including economic, socio-cultural, political and aesthetic arguments. Most models for pre-industrial settlements are based on the availability of resources. A well-known example is from English geographer Chisholm, and is based on a mixed

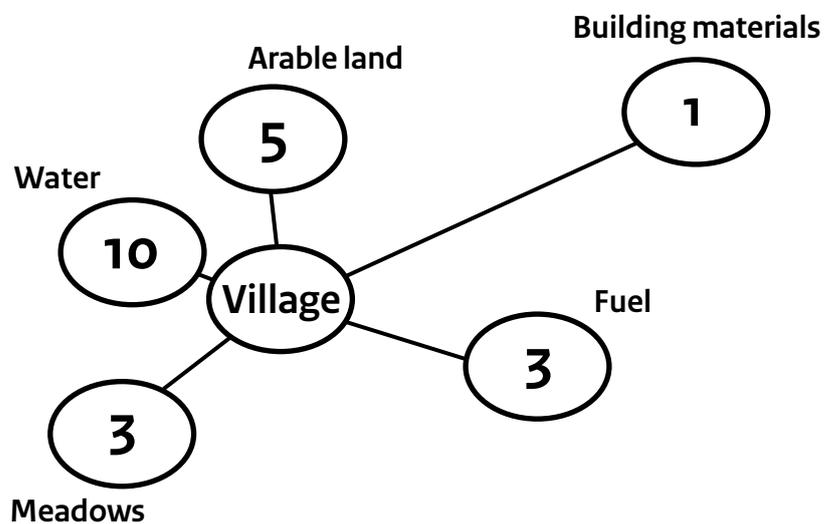


Fig 4.5 Village location (adapted from Chisholm 1968, 103).

<sup>27</sup> Astill 1988a, 36-61.

<sup>28</sup> Since the status of a settlement as either a village or a hamlet depend largely on the social-administrative context, we refrain from stating a normative size.

economy in southern Italy (figure 4.5).<sup>29</sup> For the sandy landscapes in the Netherlands, which have been characterised by mixed farming for most of their history, this has proved to be a very useful model, although with some adaptations. Particularly, the availability of water is less restricted in the Netherlands.

For specialised farms, the locational factors are different and in fact some of the relocations of agrarian settlements can be connected to changes in the agrarian basis. The high medieval movement of villages in the Campine region (see below) can perhaps partly be explained by a growing importance of the pastures in the stream valleys.

Also, non-agrarian settlements have their own locations, based on transport facilities or localised resources. Again, other factors explain the location of the temporary settlements of hunter and gatherer societies. An example are the plateaus in South Limburg, which were second rank for most agrarian societies and have therefore been mainly settled in periods of population pressure. However, the edges of the plateaus seem to have been popular by palaeolithic hunters, who used these high spots for reconnaissance of herds of large animals.<sup>30</sup>

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### 4.3 Modelling Commensality (1): Anthropological Perspectives on social processes and village formation

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Anthropological and Development Studies have explored the relationship between societal processes and rural settlement patterns in non-Western societies in detail. Studies from both disciplines are important because they offer us general insights into the general mechanisms and processes at work within agrarian societies.

In order to uncover the circumstances in which concentrated settlements arose and no other types of settlement, it is important to discuss the causes of settlement patterns in general.

The anthropologists Netting and Stone<sup>31</sup> have explored how population size, agrarian modes of production, social structures, property concepts and modes of inheritance influence the form of settlements using examples taken from

modern-day Africa, Asia, Europe and the Americas.<sup>32</sup> Netting illustrates two possible agrarian scenarios:

1. A low population size and shifting cultivation is combined with abundantly available land, where land and property are shared. In this situation land tenure will not be strongly developed. Crops are private property, but after a field is abandoned the land returns to communal ownership. The exchange value of such land is limited and the settlement pattern is highly concentrated.<sup>33</sup>
2. A high population density, with relatively intense *shifting cultivation* and relative scarcity of land, with short periods of fallow and intensive arable farming. In this situation, private land and property arises as it is necessary to live next to the fields to monitor them. The settlement pattern consists of dispersed but stable settlements, inhabited by unilinear territorial descent groups who claim and defend their landed estates.<sup>34</sup>

We may therefore observe a continuum which, on the one hand, contains a low population density, a low land pressure, an absence of a notion of private property, an absence of autonomous household farms, extensive farming and concentrated settlement, and on the other hand, contains a high population density, high land pressure, presence of private property, presence of autonomous household farms, intensive farming and dispersed settlement.

Stone discusses the relationship between population density, the intensity of farming, and settlement types based on studies of the Kofyar people in Nigeria.<sup>35</sup> He explains how, in the situation of a low population density, farming can be carried out from concentrated settlements. When population numbers grow, however, the distance to the fields for new households becomes too far. In this situation new households may choose to live closer to the fields, leading to dispersed settlements.

Stone shares the opinion of Netting, that dispersed settlement is generally associated with a high population density and intensive farming.<sup>36</sup> In medieval Europe the proximity-access factor is unlikely to have been a significant factor because pieces of land were

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<sup>29</sup> Chisholm 1968, 103.

<sup>30</sup> Van der Graaf 1989.

<sup>31</sup> Netting 1993, 157-188.

<sup>32</sup> Netting 1993, 157-188.

<sup>33</sup> Netting 1993, 161-162.

<sup>34</sup> Netting 1993, 164-166.

<sup>35</sup> Stone 1996, 28-56.

<sup>36</sup> Stone 1996, 48-50.

dispersed. Therefore, families might have chosen to live in a concentrated settlement amidst their fields. The main reasons to live in villages are, however, probably not to do with the location of fields, but rather for social and economic reasons, and reasons of defence.<sup>37</sup>

### 4.3.1 Societal processes and the cyclical change of the settlement patterns

Silberfein discusses several factors underlying concentrated and dispersed settlements, as well as factors involved in the transformation from one to the other using examples from modern-day Africa.<sup>38</sup> He presents the following scenarios which may lead to nucleated agrarian settlements.

1. The emergence of a central authority, such as a local chief, who organises a system of land allocation which encourages the clustering of people at a focal point.

2. As a result of population growth, land becomes increasingly divided and households settle together on one spot to minimise the walking distance to each field parcel.
3. The location of water sources leads to a concentration of settlement.<sup>39</sup>
4. Settlement becomes concentrated because of a strong mutual dependency between members of a society.
5. Fortified villages may be built for reasons of defence.<sup>40</sup>
6. Settlement nucleation may also occur in response to a need for traded goods and services.<sup>41</sup>

In addition to these factors, it is necessary to consider the power of religion and customary beliefs. Stone shows compounds of the village of Bong in Nigeria are grouped closely to a church. After questioning the inhabitants, he learned that the villagers lived close to the church because it enabled them to go to mass every morning (figure 4.6).<sup>42</sup>

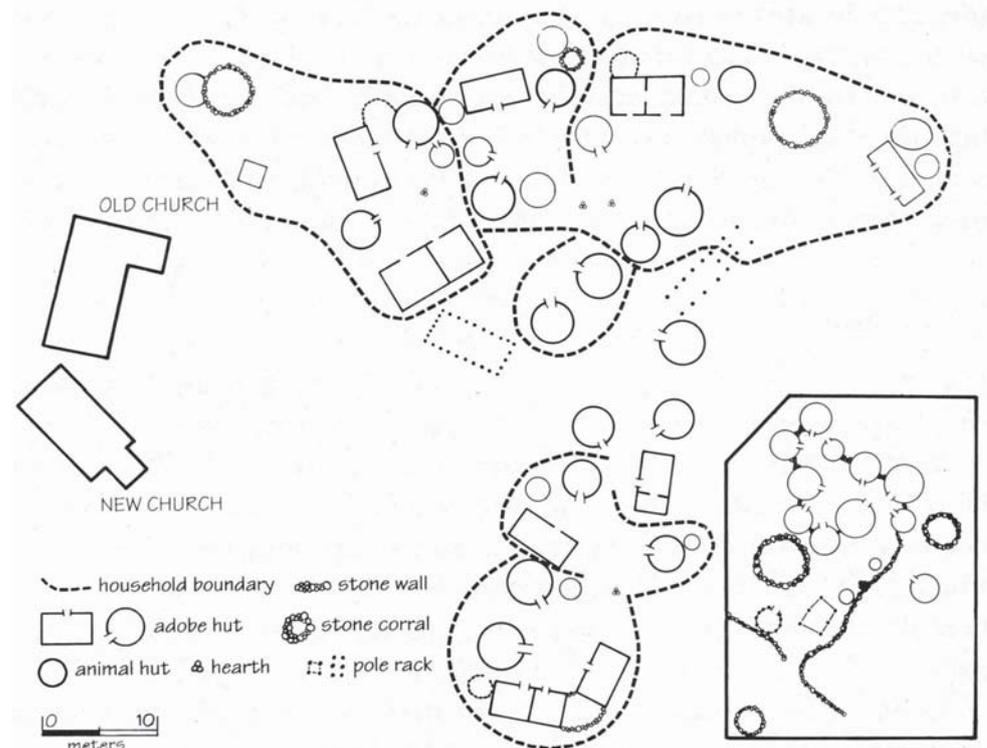


Figure 4.6 Inhabitants of Bong (Nigeria) explained that the clustered form of their village facilitates attending church (Stone 1996).

<sup>37</sup> Bunge 1962; Richards 1978b; Stone 1996, 51.  
<sup>38</sup> Silberfein 1998, 7-8.  
<sup>39</sup> Compare also Silberfein 1989, 261.  
<sup>40</sup> Compare also Silberfein 1989, 262.  
<sup>41</sup> Silberfein 1998, 10.  
<sup>42</sup> Stone 1996, 126.

Social factors causing concentrated settlement and related settlement features

**Table 4.2 An overview of anthropologically based social factors (AF) related to settlement nucleation and their physical, spatial and temporal manifestations in human habitations (AM).**

	Social factor (AF)	Example of AF	Physical, spatial and/or temporal manifestation in habitation (AM)
1	<b>Socio-political and political-economic factors</b>	Rise of central authority who creates relationships of dependency.	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> tight layout settlement on dwelling-place;</p> <p>3. <b>Duration:</b> stable as long as power/coercion is exerted.</p>
2	<b>Social-defensive factor</b>	Defence at times of conflict	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> demarcation/fortification dwelling-place;</p> <p>3. <b>Duration:</b> n/a.</p>
3	<b>Economic factor</b>	Proximity-access factor at arable fields, the accessibility of and distance to fields.	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> demarcation/fortification dwelling-place;</p> <p>3. <b>Duration:</b> n/a.</p>
4	<b>Economic factor</b>	Location of a concentration water sources	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> central open space with water sources?</p> <p>3. <b>Duration:</b> n/a.</p>
5	<b>Economic factor</b>	Degree of intensity arable farming	<p>1. <b>Composition:</b> concentrated settlement, relatively far away from fields;</p> <p>2. <b>Lay-out:</b> n/a;</p> <p>3. <b>Duration:</b> n/a.</p>
6	<b>Social-economic factor</b>	Mutual dependence and cooperation.	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> n/a;</p> <p>3. <b>Duration:</b> n/a.</p>
7	<b>Social-economic factor</b>	The need for wares and services <sup>1</sup> . Implicitly in this respect: the local production of wares and delivery of services	<p>1. <b>Composition:</b> concentrated settlements with locations of artisanal production and service delivery;</p> <p>2. <b>Lay-out:</b> presence of a central square/market which structures the settlement?</p> <p>3. <b>Duration:</b> depending on stability square/market).</p>
8	<b>Social-religious factor</b>	Confession of faith.	<p>1. <b>Composition:</b> presence of a church in the settlement;</p> <p>2. <b>Lay-out:</b> Settlement concentrated around a church;</p> <p>3. <b>Duration:</b> depending on stability of church.</p>
<b>Additional factors</b>			
9	<b>Social factor</b>	Identification with an ancestral location or with a community/territory. <sup>2</sup>	<p>1. <b>Composition:</b> n/a;</p> <p>2. <b>Lay-out:</b> concentrated [or dispersed] settlement;</p> <p>3. <b>Duration:</b> depending on stability of habitation.</p>
10	<b>Social factor</b>	Kinship, whether or not emphasizing descent. <sup>3</sup>	<p>1. <b>Composition:</b> n/a;</p> <p>2. <b>Lay-out:</b> concentrated settlement;</p> <p>3. <b>Duration:</b> depending on stability of the kin or descent group.</p>

<sup>1</sup> Silberfein 1998, 10.

<sup>2</sup> Tuan 1980; Cohen 1985; Lovell 1998.

<sup>3</sup> Stone 1992.

*Social factors causing dispersed settlement and related settlement features*

**Table 4.3 An overview of anthropologically based social factors (AF) related to settlement dispersal and their physical, spatial and temporal manifestations in human habitations (AM).**

	Social factor (AF)	Example of AF	Physical, spatial and/or temporal manifestation in habitation (AM)
11	<b>Economical factor</b>	Intensity farming and proximity-access factor. At high population density, intensive farming, private landed property	<ol style="list-style-type: none"> <li>1. <b>Composition:</b> isolated habitation;</li> <li>2. <b>Lay-out:</b> dispersed settlement with individual farms nest to their fields;</li> <li>3. <b>Duration:</b> stable.</li> </ol>
12	<b>Social-economic factor (Stone):</b>	Autonomy household or household farm	<ol style="list-style-type: none"> <li>1. <b>Composition:</b> isolated habitation;</li> <li>2. <b>Lay-out:</b> dispersed settlement with individual farms nest to their fields;</li> <li>3. <b>Duration:</b> stable.</li> </ol>

Silberfein suggests that we should envisage a cycle of settlement patterns which begins and ends with dispersed settlements, which contains concentrated settlements in-between.<sup>43</sup> Several factors may therefore interact and lead to the emergence of concentrated settlements (or villages), and dispersed settlements, which might be present in village territories. Each option has physical, spatial and temporal manifestations, which can be traced archaeologically.

The factors suggested by anthropological and development studies may be summarised as follows:

### 4.3.2 Implications for research

Because each option has physical, spatial and temporal manifestations, which can be used as archaeological indicators and parameters for description and analysis, causal relationships can be made visible (figure 4.7, cycle I):

- A. Option of societal factor; causing B.
- B. Specific dwelling place and habitation and settlement pattern with:
  1. Specific physical, spatial and temporal properties:
    - a. the composition (plural, singular and number of farmsteads);
    - b. the layout; and
    - c. the duration time (stability).

2. While comparable dwelling places and comparable settlement patterns taken together could be defined as a type of dwelling place and type of settlement pattern; causing C.
- C. Specific excavated dwelling place and habitation and settlement pattern, which:
  1. Could be described with specific (archaeologically visible) physical, spatial and temporal properties. Relevant are, according to B in relationship with A:
    - a. the composition (plural, singular and number of farmsteads);
    - b. the layout; and
    - c. the duration time (stability).
  2. While comparable, dwelling places and settlement patterns taken together could be defined as an archaeological type of dwelling place and type of settlement pattern.

So at the same time, going from C to A, a methodology is available to describe and explain excavated dwelling places and habitation and settlement patterns (figure 4.8, cycle II). However, one cannot immediately describe excavated dwelling places and settlement patterns. Beforehand, one has to have information on A and B. This is what we endeavour to do in the present study: to provide the information on A and B (Ch. 4) and to use this to describe the dwelling places and settlement patterns in our case studies (Ch. 7). The studies discussed above show that settlement patterns have a dynamic nature, caused by specific societal circumstances. Anthropology and related social sciences can

<sup>43</sup> Silberfein 1998, 7-10; Silberfein 1989.

make us aware of the wide spectrum of interpretative options, particularly in respect to periods in the past with scanty or selective written evidence, such as the early medieval and medieval periods.<sup>44</sup>



Figure 4.7 Causal relationships (A: specific societal factors causing B: specific physical, temporal and spatial settlement features and settlement patterns, causing C: specific archaeological visible physical, temporal and spatial settlement features and settlement patterns).

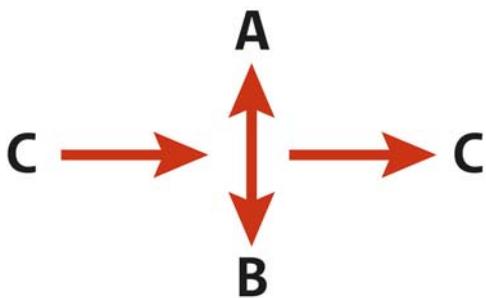


Figure 4.8 Methodology (interpreting C: specific archaeological visible physical, temporal and spatial settlement features and settlement patterns by knowledge derived from relationships between A and B).

#### 4.4 Modelling Commensality (2): Historical Perspectives on social processes and village formation

As stated in § 4.1.1, there are many possible ways to define the term village, and village community, and these terms may be complicated by other overlapping socio-spatial entities, jurisdictions and communities such as parishes, alderman court territories, and manorial complexes.<sup>45</sup>

For practical reasons we will primarily examine the relationship between *physical* villages and the societal processes that may have influenced their physical dimensions.

The concept of the village can then be defined as a local socio-spatial unit on the level of the local community with varying societal and physical dimensions, but with at least one concentrated settlement, small or large.

That would exclude the non-nucleated settlements, but is in alignment with the preferred definition (see § 4.1.1).

In a narrow sense then, a village is simply a concentrated rural settlement. If we assume that its inhabitants have a shared experience and territoriality, then the majority of its inhabitants are likely to identify themselves with the village community, the name of the village community and the village territory.<sup>46</sup>

This commensal experience allows us to make use of two other terms from anthropology, and to suggest that differences may be seen between the *etic*, i.e. official, formal defined village that appears in charters, or the village as seen by outsiders, and the internal *emic* village that is experienced and shared by members of the village community.

Historical studies offer an important perspective on the societal factors that influence settlement patterns, but the information contained within historical documents<sup>47</sup> is inherently selective, and written sources, such as charters, show only a highly selective reflection of social reality. Hence, we must recognise that there was a selective process which determined what ended up in charters and what did not, just as archaeological formation processes determined what ended up in the soil.

##### 4.4.1 The formation processes behind medieval texts and the selective value of written sources

Historian Reynolds has argued that local societies in Western Europe developed collective structures in the central Middle Ages, between AD 1050 and 1200. In her analysis of social power, Reynolds makes a distinction between so-called horizontal and vertical social relationships. She argues that many historical studies of Western European communities have emphasised vertical relationships, such as those that existed between abbey and peasant, and between lords and peasants. These studies have, for the most part, largely denied the existence of horizontal power relationships before c. AD 1100. From her point of view this creates a skewed

<sup>44</sup> Like in Huijbers 2007; 2012; idem in press.

<sup>45</sup> See for example Reynolds 1997; Genicot 1990; Troßbach & Zimmermann 2006.

<sup>46</sup> On the idea of territoriality see Sack 1986.

<sup>47</sup> Reynolds 1997.

view of medieval society. To illustrate this, Reynolds points to the fact that abbeys, where charters were written, were only interested in the benefits of local administrations when their benefits were at stake. Hence, there was a tendency for monks to record negative events, such as incidences of feudal anarchy that were written down, thereby emphasising and materialising the status quo and vertical power relationships that existed between abbeys and local lords, and between local lords and peasants. In this scenario, horizontal relationships fall out of view. So our image of 'top-down' or vertical medieval power structure can, in many ways, be seen to be a consequence of the formation processes of the written record. Reynolds suggests that horizontal relationships became visible in texts between AD 1050 and 1200, because there was a growing need to write down social duties, obligations, and responsibilities. She links this to developments in feudal society and the rise of literacy as a form of record and social surveillance. Reynolds is clear that horizontal relationships nevertheless had an important part to play in social interaction. She points to the word *geburscaf* (neighbourhood), which appears in charters from the beginning of the eleventh century in Anrath at Krefeld (Germany). Relationships between members of a *geburscaf* might have been purely social (mutual solidarity and kinship relations) or juridical (i.e. they had common rights), whether or not these relationships were written down. To give another example, the Old Dutch word *thorp* (village), as an element of a place name, appears in texts from AD 800 in the ninth century list of St. Martin.<sup>48</sup> The Old Frisian word *therp* is akin to *thorp*, and from c. AD 1240 onwards the word *dorp* is used in the Netherlands. Another word mentions the inhabitants of villages: the *vicini* or neighbours. Other words for a local community group, which only appear in the central and Late Middle Ages, include *communitas villa* and *universitas villa*. According to Genicot, the latter terms do not appear in texts before c. AD 1150-1200.<sup>49</sup> Spieß has reached a similar conclusion that the term *villa* (meaning village) first appears in texts around c. AD 1150 in the middle Rhine region.<sup>50</sup>

Again, one has to point to the formation processes of the written record. This raises two questions:

1. Do the phenomena to which these words refer really only appear for the first time around c. AD 1150?
2. Or is it the case that the written sources, in which these words are set down, appear for the first time c. AD 1150?

In relation to the second question, and without wishing to complicate matters further, it is of course possible that new words might have been devised c. AD 1150 to describe existing phenomenon.

Other scholars have also stressed the importance of horizontal relationships in the Middle Ages. For example, Wickham primarily uses the term *villa* to mean village, rather than manor in the early medieval period.<sup>51</sup> As suggested above, the creation of a new word may not necessarily imply a new structure. The word *parochia* (parish) appears in the early medieval period and is close to a synonym of the word *village*; just as people were tied to a village and the land, they were tied to the parish and the communal mass and lifecycle (birth, marriage, death).

The same can be said of the *bannum*, which comprised of the area in which a lord exerted his rights.<sup>52</sup> In the late medieval and early modern period a ban in the county of Holland in the Netherlands, north of the river IJ, meant a jurisdiction where subjects shared the same duties.

Common duties also exist at the phenomenon of the commons, when they were written down by central authorities, lords and princes during the later medieval period. Common land could be referred to in texts as *allmende*, *meent*, *marke*, *gemeynt* and *commons*. The word 'commons' could be used to indicate an area of non-cultivated land (marshes, brooks, heaths, woods), but also an institution, which might or might not overlap with a village.<sup>53</sup> Paying tithes could also be seen as a common duty during the central and late medieval period.

These types of horizontal relationships could therefore all result in concentrated settlements tied to territories. To summarise and conclude this discussion, four types of horizontal

<sup>48</sup> Dijkstra 2011, appendix 5. The bulk of the list was drawn up in the period AD 885-896. After that, notes were added in an appendix up until AD 948.

<sup>49</sup> Genicot 1990, 30.

<sup>50</sup> Spieß 1995, 407.

<sup>51</sup> Wickham 2005.

<sup>52</sup> Genicot 1990, 62-89.

<sup>53</sup> Hoppenbrouwers 2002.

relationships are visible in the middle ages of Western Europe:

1. Social relationships: (solidarity, kinship, identification with community and community territory);
2. Social-economic relationships: (cooperation in the commons);
3. Social-juridical relationships: (common duties: paying taxes like tributes and tithes and common rights and duties with respect to the commons, common alderman court);
4. Social-religious relationships: (confession of faith, joining common mass, worship of common saint, identification with a common saint and church territory (parish or not)).

This debate on the selective value of texts to medieval archaeology has already taken place among British and Scandinavian archaeologists.<sup>54</sup> It has yet to take place in the Netherlands, however, not least because of the general lack of theoretical debates in Dutch medieval archaeology.

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#### 4.4.2 Societal factors causing concentrated settlements: historical models

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There is now an emerging academic consensus that the concentration of people into rural settlements (as opposed to dispersed farmsteads) in Western Europe occurred at various points between the eighth and twelfth centuries.<sup>55</sup> In some areas new evidence is suggesting that villages appeared in the earlier part of this timeframe. In the UK, for example, scholars have suggested that nucleated settlements may have started to appear in areas of fertile land as early as AD 700.<sup>56</sup>

In a recent review article the medieval historian Curtis surveyed the emergence of concentrated settlements across medieval Western Europe, and has identified some common explanatory frameworks in the historiography.<sup>57</sup>

Curtis avoids using the term ‘village’ in his article and opts instead for ‘concentrated settlement’, which he considers to be broad enough to encompass both small informal clusters of population around a focal point as well as larger systematically planned settlements. He is clear, nevertheless, that a “one-size fits all” model for the development across Western Europe is not

possible, and that concentrated settlements appeared in different places in Western Europe at different times, and for different reasons.<sup>58</sup> Although it is not possible to use one explanatory model to cover the whole of Europe, Curtis identifies four thematic frameworks which have been regularly deployed by medieval historians to explain village formation.<sup>59</sup> These are:

1. Power, coercion, and lordship;
2. Communalism and territorial formalisation;
3. Field systems and resource management;
4. Urbanisation and market integration.

Taking each of these explanatory frameworks in turn, the first obviously gives a clear precedence to the actions of the elite in medieval society and the emphasis is placed upon how manorial or seigneurial lords and ecclesiastical institutions persuaded or coerced peasants to live in concentrated settlements. Proponents of this theory tend to focus upon the system of feudal lordships that crystallised across many parts of Europe between the tenth and twelfth centuries and to search for rapid ‘top down’ changes to settlement patterns.<sup>60</sup>

A prime example of this can be seen in the so-called process of *incastellamento*, which saw the creation of castles and fortified settlements across Western Europe.<sup>61</sup> There can be no doubt that elites in medieval Europe used defensive structures to consolidate and project their social and economic power, as is the case in many other periods and places. The creation of manors in Central England, for example, can be closely correlated with the appearance of villages in the surrounding countryside.<sup>62</sup> Recent research has shown, however, that the spatial influence of elites was sometimes highly nuanced. Curtis cites examples of ‘landscapes of lordship’, where lords exercised power without castles.<sup>63</sup> In other cases, aristocratic residence or castles were important factors in the development of rural settlement.<sup>64</sup>

A more fundamental challenge to the concept of *incastellamento* and the overarching interpretative framework of action by high medieval elites has come from research that has been carried out in Central Italy and Northwestern Spain. Archaeological research in these areas, over the last 30 years, has revealed evidence of fortified hilltop villages from as early as the eighth century.<sup>65</sup>

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<sup>54</sup> Austin & Alcock 2013; Andr n 1998; Moreland 2001; 2006.

<sup>55</sup> See Hamerow 2002.

<sup>56</sup> See Arnold & Wardle 1981; Hamerow 1991, 1.

<sup>57</sup> Curtis 2013.

<sup>58</sup> Curtis, 2013, 225.

<sup>59</sup> Curtis, 2013, 226-227.

<sup>60</sup> See Reynolds 1997, 101-154.

<sup>61</sup> For the classic description of *incastellamento*, see Toubert 1973.

<sup>62</sup> For examples, see Roberts & Wrathmell 2002.

<sup>63</sup> Curtis 2013, 229-230.

<sup>64</sup> Creighton 2004.

<sup>65</sup> Francovich 1998; Francovich & Hodges 2003; Viso 2006 cited in Curtis 2013, 231-231.

In the case of the Netherlands, this would seem to correspond with the emergence of villages in the Central Dutch River Area, in the Merovingian period (fifth to eighth centuries) following the establishment of manors.<sup>66</sup> Village type settlements have also been identified in Drenthe, in the north eastern Netherlands, dating from the seventh and eighth centuries.<sup>67</sup> Curtis' second thematic framework, communalism and territorial formalisation, is based on historical scholarship which suggests that new forms of institutions and collective actions emerged from below in medieval Western Europe.<sup>68</sup>

This explanatory framework has three key points. First, the agents of settlement change are thought to lie lower down the social hierarchy. So in this case it is thought that farmers, peasants, tenants, labourers, and commoners cooperated with each other, and negotiated with elites over the size and location of their settlements. Second, in common with the power and coercion model, this model also still sees concentrated rural settlements as emerging in the high and late Middle Ages, in part because this is when many laws and rules were formalised and written down. Third, this model sees changes to the position and layout of settlements as occurring slowly and incrementally, and emerged because of the need to control resources at a local level.<sup>69</sup>

Cooperation between communities for collective water management was of course a common feature of medieval and later settlements in the Netherlands. According to Van Bavel, the growth in population in the Low Countries between AD 600 and 1600 led to dispersed farmsteads being gathered together to form villages and compelled communities to work together to maintain sea defences and to coordinate agricultural production.<sup>70</sup> Village communities often overlapped with water board organisations.<sup>71</sup>

In the northern regions of Groningen and Friesland, communities worked together to protect themselves from floods by building and grouping their houses together on large *terpen*.<sup>72</sup> In the eastern Netherlands, in Drenthe and the Gooi, small concentrated villages developed to work the *marken* or *meenten* (commons).<sup>73</sup> In these places villagers built their houses around a central village green like space known as a *brink*. This must be a secondary

development, as the word 'brink' originally means 'edge'.<sup>74</sup>

Many of such green villages appeared in the thirteenth century in the Campine region of Brabant.<sup>75</sup> Medieval peasants in this region were able to exploit the rivalry that existed between the local seigneurial lords and the Duke of Brabant, and the extraordinary situation where both the lords and the Duke granted rights and privileges in an effort to attract farmers to their land.<sup>76</sup> Through clever brinksmanship, many of these incoming agricultural colonists were able to avoid conflicts and maintain their control over the commons and secure property rights over long periods of time.<sup>77</sup>

In other areas agricultural colonists were attracted to drain, improve and cultivate large areas of wasteland. The Bishop of Utrecht and the Count of Holland, both offered incentives for peasants to reclaim huge swathes of unproductive land which they had appropriated in the tenth century.<sup>78</sup>

Peasants willing to move to such marginal land gained secure tenure and a freedom from serfdom.<sup>79</sup> Often, they created distinctive linear settlements, with houses stretched out along dikes.<sup>80</sup>

Although legally free, the colonist would still have the usual public obligations such as military service, incidental taxation and acknowledge the authority of the feudal lord.<sup>81</sup> Curtis concludes his review of the communalism framework by observing that the line between freedom and coercion, in connection to the development of settlement, is blurry.<sup>82</sup>

Curtis' third explanatory paradigm suggests that concentrated medieval rural settlements came into existence in order to manage field systems and other communal resources. The earthworks left by medieval arable cultivation are highly visible in some regions of the UK, and for this reason British historians and archaeologists have spent many years debating how the layout of open fields may have influenced the location of medieval villages, and vice versa.<sup>83</sup> On the Continent, the complex field-patterns on the open fields, that were visible on nineteenth-century cadastral maps, also led to a massive amount of research.<sup>84</sup> In the Netherlands we find open fields in the sandy areas in the south and east, often with impressive man-made soils, on the loamy plateaus in South-Limburg, on the natural levees along the main rivers and on the

<sup>66</sup> Bult & Hallewas 1990; Van Bavel 1999 cited in Curtis 2013, 230.

<sup>67</sup> Waterbolck 1995 cited in Curtis 2013, 233.

<sup>68</sup> Blickle 2000; De Moor 2008 cited in Curtis 2013, 234.

<sup>69</sup> Curtis 2013, 234.

<sup>70</sup> Van Bavel 2010, 10 cited in Curtis 2013, 234.

<sup>71</sup> Van der Linden 1972, 10-26 cited in Curtis 2013, 234.

<sup>72</sup> Bierma *et al.* 1988 cited in Curtis 2013, 234. These *terpen* themselves, however, were no medieval innovations and could have their origins in the Late Prehistory. Nevertheless, this water management solution continued into the Middle Ages.

<sup>73</sup> Van Zanden 1999; Kos 2010 cited in Curtis, 2013, 235.

<sup>74</sup> Spek 2004.

<sup>75</sup> Leenders 2011ab; Vangheluwe & Spek 2008.

<sup>76</sup> De Wachter 1999; Steurs 1973; Steurs 1982 cited in Curtis 2013, 235.

<sup>77</sup> De Keyzer 2013 cited in Curtis 2013, 235.

<sup>78</sup> Van Cruyningen 2013, 184 cited in Curtis 2013, 236. This is not to say that this was the only way in which reclamations were initiated. Expansion into the peatlands was also undertaken by aristocratic or institutional landowners or private investors (Hoppenbrouwers 2002, 105-110).

<sup>79</sup> Van der Linden 1956, 160-182; Van der Linden 1982, 48-82 cited in Curtis 2013, 236.

<sup>80</sup> Van der Linden 2009 cited in Curtis 2013, 236.

<sup>81</sup> Hoppenbrouwers 2002, 107.

<sup>82</sup> Curtis 2013, 241.

<sup>83</sup> Astill 2010, 12; Taylor 1981, 13 cited in Curtis 2013, 241.

<sup>84</sup> Renes, 2010.

coastal barrier ridges and the older, inland dunes along the western coast.<sup>85</sup>

In the absence of clear documentary evidence, this framework struggles to explain whether the impetus to lay out open fields came from a ‘top-down’ decision made by manorial lords, or a practical and communal decision made at a local level by peasants and farmers. Renes found that, at least in certain regions, both were responsible for the settlement-pattern.<sup>86</sup> Further problems are raised by issues of chronology and form, as fields vary in date and shape across the UK and Western Europe. Without clear evidence of causality, the debate over which came first (e.g. open fields, or villages to house agricultural workers), is locked into a chicken and egg style debate.<sup>87</sup>

Open fields were laid out in the Central Province of England between c. AD 850 and 1150, and in many cases obliterated any traces of earlier prehistoric and Romano-British fields.<sup>88</sup> More recently, evidence of earlier eighth and ninth century ‘proto-open field systems’ has been located by Oosthuizen in eastern England.<sup>89</sup> The proliferation of open fields linked to villages in England, and many other parts of Western Europe, nevertheless seems to have occurred between the tenth and the thirteenth centuries. Most scholars view this as a result of the need to carefully manage food products, and to spread the risk of crop failure as a response to high medieval population growth.

In the Netherlands a link has been made between the setting out of open fields and the appearance of concentrated rural settlements in Limburg. Here, peasants with fragmented small holdings lived in villages or hamlets, whereas tenant farmers with larger consolidated blocks of land lived in isolated farmsteads.<sup>90</sup> In Drenthe, Spek has suggested that open fields were laid out incrementally, and may have incorporated elements of older prehistoric field systems.<sup>91</sup> A similar situation of incremental development has been claimed, by Theuws, for field systems on the sandy soils of Brabant.<sup>92</sup>

Curtis’ fourth and final explanatory paradigm suggests that concentrated rural settlements emerged as a consequence of urbanisation and market integration. In this instance, the ‘agents of change’ are absent urban-based elites, who have influence over the countryside. In common with the first and second explanatory frameworks, this paradigm gives

precedence to the new economic relationships that emerged between the town and the countryside in many parts of Western Europe in the High Middle Ages. As these changes were stimulated by power hungry elites, their impacts tended to be both rapid and drastic. In some cases, this took the form of the improvement and colonisation of previously marginal agricultural land. In other cases, habitable landscapes were remodelled, and dispersed settlements were swept away and replaced by nucleated settlements. The demands of urban markets also led to specialised forms of commercial agriculture, such as meat and wool in upland areas and where wood for fuel was plentiful, the growth of rural industries, such as iron, glass, and pottery production.

Drawing on examples from late-medieval Sicily, Curtis demonstrates that a wide spectrum of trading activity took place in the countryside, ranging from permanently established marketplaces to transient trading places, such as seasonal fairs.<sup>93</sup> Each of these will have left a different archaeological signature, and in the case of the fair, it may be difficult to detect archaeologically.

Around the edge of the North Sea, where intensive arable agriculture was not cost-effective, specialised fishing villages emerged.<sup>94</sup>

In other less fortunate areas in the Low Countries, the consolidation and accumulation of large tracts of land by urban elites led to the contraction and collapse of rural settlements.<sup>95</sup>

We have discussed Curtis’ overview of historiographical frameworks in some detail, as we believe it offers a valuable and highly pertinent synthesis of current research on the problem of village formation in medieval Western Europe. The scale and ambition of Curtis’ research has produced some original insights which are worth repeating here.

The ‘power and coercion’ and ‘open field’ explanations for village formation have dominated academic debates for decades, but are slowly being eroded by new evidence from across Western Europe. First, there is now compelling evidence that concentrated settlements – or what we term villages – emerged before the rise of seigniorial lordships in the tenth century. In some areas, village formation was clearly underway in the early eighth century. Second, it may be unhelpful to think in absolute or binary terms. Village

<sup>85</sup> Doesburg *et al.* 2007; Baas *et al.* 2014.

<sup>86</sup> Renes, 2010.

<sup>87</sup> Oosthuizen 2010, 131; Brown & Foard 1998; Higham 2010.

<sup>88</sup> Taylor 2000.

<sup>89</sup> Oosthuizen 2005.

<sup>90</sup> Renes 2000.

<sup>91</sup> Spek 2006, 226; see for examples elsewhere: Chadwick 2013.

<sup>92</sup> Theuws 2008, 211 cited in Curtis 2013, 245.

<sup>93</sup> Epstein 1992 cited in Curtis 2013, 247.

<sup>94</sup> Tys & Pieters 2009 cited in Curtis 2013, 261.

<sup>95</sup> Curtis 2014.

formation was sometimes rapid, and at other times ponderously slow and interrupted and cumulative. Medieval open fields may also have appeared both before and after villages were laid out, and their significance to the settlement pattern may have changed through time, perhaps becoming more vital and directly tied to habitations in times of population growth and economic hardship.<sup>96</sup>

Finally, by looking across the four frameworks, which Curtis has identified, it is apparent that similar patterns may appear in the landscape for different reasons. Archaeological evidence alone is often unable to prove causation, and for this reason interdisciplinary investigations are stronger and have more chance of achieving their aims. It is also clear that some flexibility should be retained when it comes to selecting theoretical paradigms where, in all branches of archaeological inquiry, context is key. To quote Curtis: “Frameworks for settlement concentration across Western Europe thus only makes sense with proper regard for period, geography, and social context. It is possible that all four of the explanatory frameworks outlined here could apply to a given settlement at different points in its development. To be sure, the frameworks are interchangeable and overlapping.”<sup>97</sup>

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## 4.5 Village morphology: a brief historiography

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### 4.5.1 Research until the 1980s

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The systematic study of medieval rural settlements started in continental Europe in the nineteenth century with the pioneering work of the German geographer Meitzen. Meitzen made early use of a typological method, designing models of rural settlements in Germany, often with suggestions of their origins. For Meitzen, followed by Gray in the British Isles, differences in plan types and changes over time were explained by the arrival and settlement of different ethnic groups. This cultural-historical approach was followed by several generations of historical geographers. In the case of the Netherlands, the ‘esdorp’ model, in fact a teaching model designed by the geography

teacher Schuiling, had a similar influence on generations of geographers.<sup>98</sup> The work of Dutch geographers was gradually collected together into a number of overview maps – often on a national scale – of rural settlement types. Perhaps the heyday of such maps were in the 1960s, when many national atlases or comparable publications were published.<sup>99</sup> Most were based on nineteenth century cadastral and topographical maps, making them effectively maps of historical settlement maps.

One consequence of such large-scale maps was that the vision of fixed and largely stable settlement types that had dominated earlier thinking gradually gave way to more evolutionary visions of villages and field patterns. Again, historical geographers used a model-based approach and started developing succession-models to connect typologies with the historic evolution of villages. A number of the new typologies showed, or at least suggested, historic developments, but these developments were seen as linear: from small to large and from simple to complex.<sup>100</sup>

In the majority of cases, research started with nineteenth century data and tried to strip away the layers to work backwards in time to the medieval origins of village forms. This approach led to a first generation of (morpho)genetic models.<sup>101</sup> The more elaborate of these models took into account that sometimes a comparable form could be the outcome of very different processes and, at the same time, the same process could lead to different forms.<sup>102</sup>

This insight made morphogenetic schedules much more complex, as can be seen in the schematic succession-models for villages and field patterns that were developed by Born (figure 4.9).<sup>103</sup> Roberts also gradually developed his models in a more dynamic direction.<sup>104</sup> Figure 4.9 Evolutionary models of villages. The columns show (left to right): Initial form (earliest shape), Grundform (basic shape), Hochform (developed shape), Ergänzungsform (grown shape), Kümmerform (decline shape), Auflösungsstadium (dissolution), Zerfallstadium (collapse), Endstadium (final shape) (Born, 1977).

A very different, bottom-up, approach was followed by continental European archaeologists, also from the nineteenth century onwards.

<sup>96</sup> Curtis 2013, 250-251.

<sup>97</sup> Curtis 2013, 251.

<sup>98</sup> Schuiling 1934, 448.

<sup>99</sup> For example, in the Netherlands (Keuning 1964) and in Belgium (Lefèvre 1964).

<sup>100</sup> Demangeon 1942; Lefèvre 1964; Schröder & Schwarz 1978; Keuning 1938; 1964.

<sup>101</sup> Kakebeeke 1975; Steegh 1985.

<sup>102</sup> An article by the Groningen geographer Keuning, titled ‘Siedlungsform und Siedlungsvorgang’ is often cited to make this point. The citations are based on the title of Keuning’s paper, not on the content of the paper that did not problematise the relation.

<sup>103</sup> Born 1977.

<sup>104</sup> Roberts 1996, 118 figure 5.11 for example.

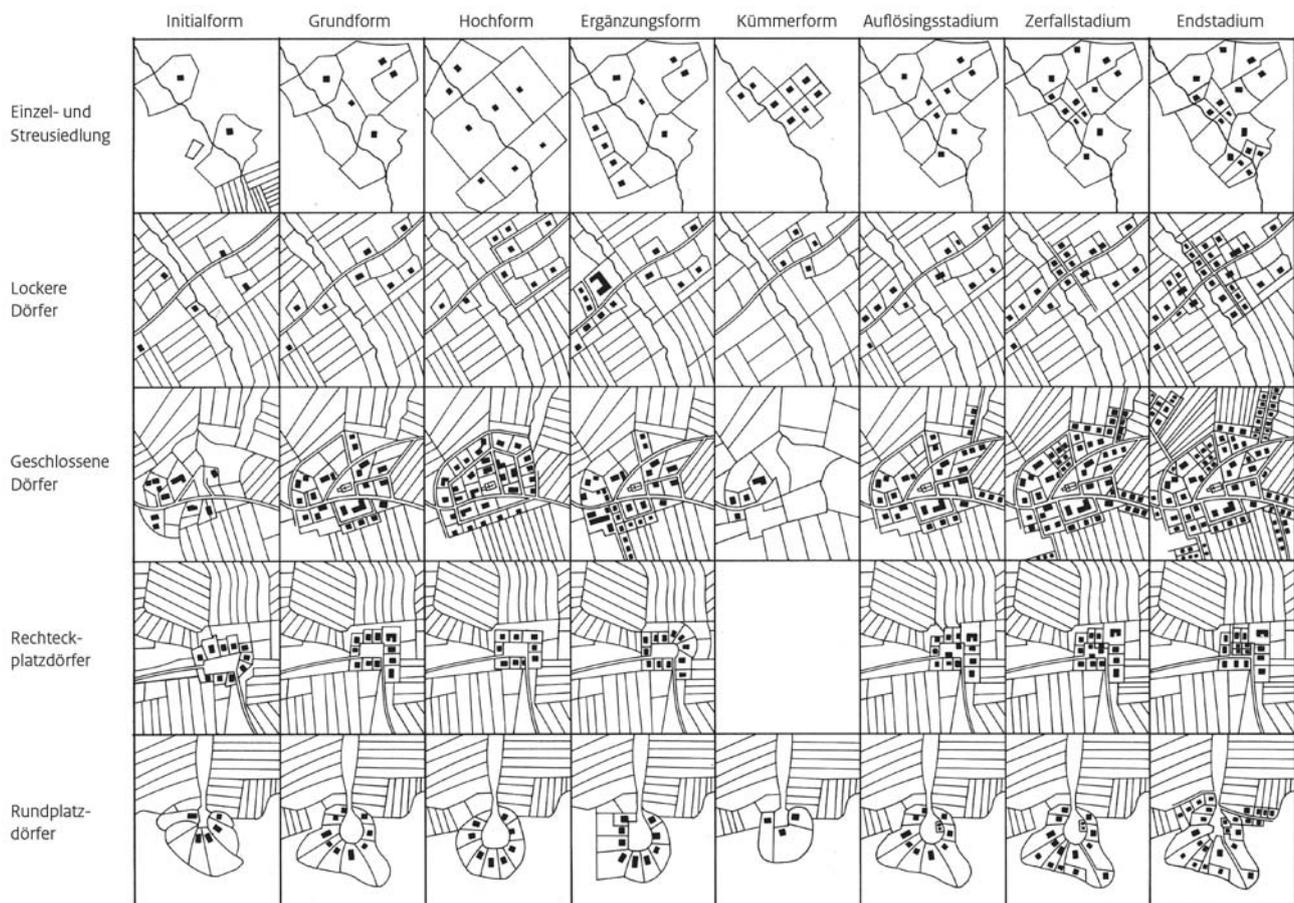


Figure 4.9 Evolutionary models of villages. The columns show (left to right): Initial form (earliest shape), Grundform (basic shape), Hochform (developed shape), Ergänzungsform (grown shape), Kümmerform (decline shape), Auflösungsstadium (dissolution), Zerfallstadium (collapse), Endstadium (final shape) (Born, 1977).

They excavated sites of lost settlements and their results often highlighted the individuality and complexities of sites. Another interesting early field of study (but not in the Netherlands) was the mapping of deserted settlements. This was often undertaken by geographers, but was rarely linked to the typological geographical studies mentioned above.

#### 4.5.2 Research since the 1980s

In the 1970s a model-based approach to settlement studies and society was introduced to many areas of archaeology by the so-called New Archaeology. These models, however, were often based on the statistical models that human geographers had used from the 1960s onwards. The models were most prominently

used by prehistorians, who attempted to understand the form and spatial dimensions of ancient culture groups by studying patterns of dispersal of prehistoric finds.<sup>105</sup> By the 1980s, however, the amount of archaeological data that was available became sufficient for a fundamental criticism to be mounted against the models of village formation that had been devised by earlier generations of historical geographers.<sup>106</sup>

In retrospect, the use of models was not particularly helpful for the detailed research of individual settlements. These were still for the most part the subject of intensive research by open area excavation, fieldwork ('Landesaufnahme') and detailed mapping. New insights into settlement dynamics were often gained for example, when deserted settlements showed that the present-day villages were a secondary development.

<sup>105</sup> For example see Clarke 1968.

<sup>106</sup> For example see Theuvs 1989.

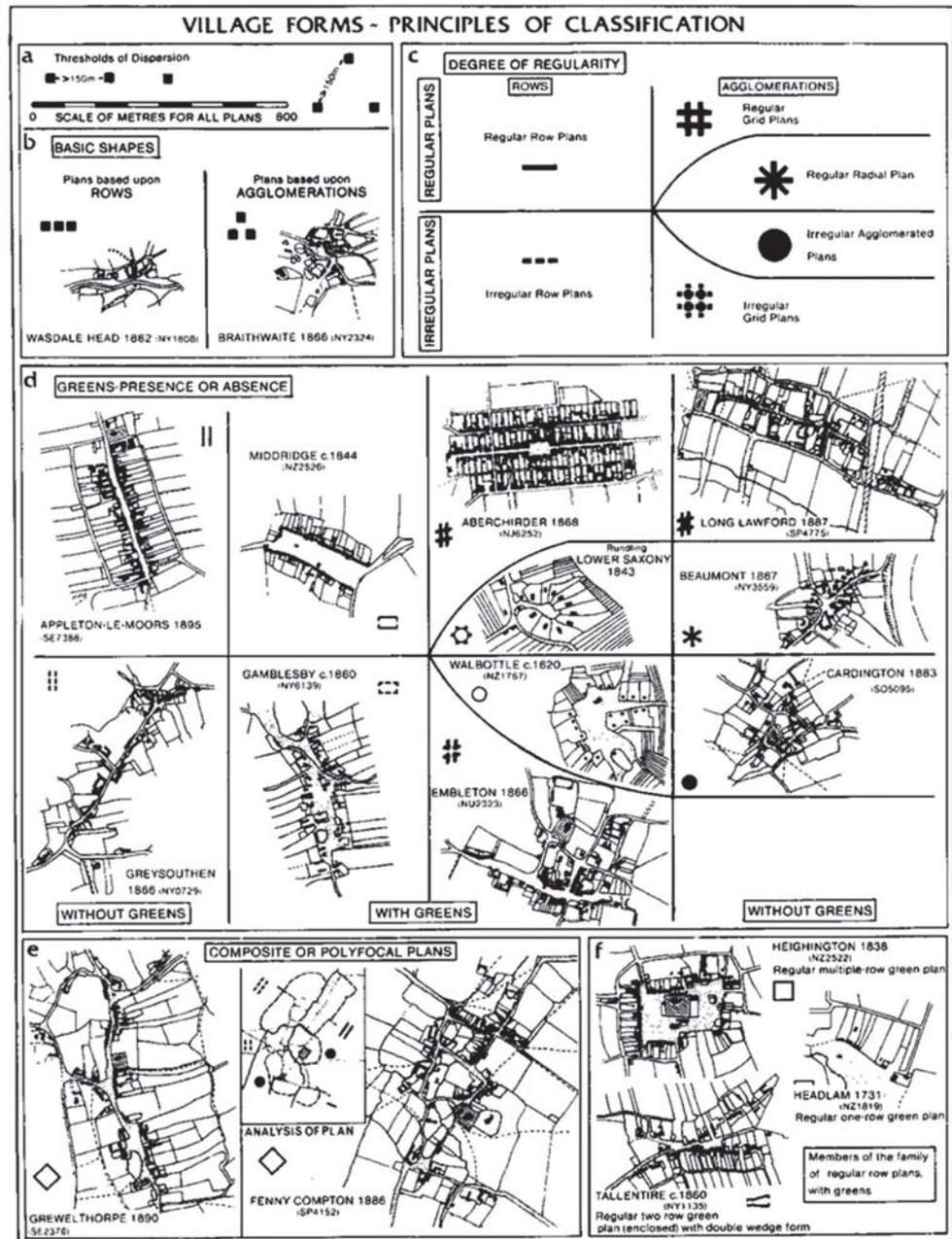


Figure 4.10 Village forms – principles of classification by Roberts (Roberts 1977, 127).

Despite this, archaeologists in the 1980s rarely developed new theoretical insights into settlement forms. Instead, historical geographers often tried to integrate the new archaeological data into their existing models. An example of this is the relocation of the old centres in The Campine region (De Kempen) in the southern Netherlands, where a succession of large scale excavations by archaeologists were combined into a new model by the geographer De Bont.<sup>107</sup> Another international, and still much

discussed example, is the fixation and concentration of settlements related to the development of the open fields. In recent years, new national maps have been made of rural settlement types in the Netherlands. In comparison to the older maps, the more recent maps are far more clear in their focus on a nineteenth century landscape and are presented as a tool for further research, rather than as a tool to create a vision of the long lost medieval village (figure 4.18).<sup>108</sup>

<sup>107</sup> De Bont 1992.  
<sup>108</sup> For the Netherlands, the map in the second edition of the Atlas van Nederland (Atzema et al. 1990) is an example. A richer English example is the Atlas by Roberts Wrathmell (2002), which has proven itself to be a basic tool for countryside settlement studies.

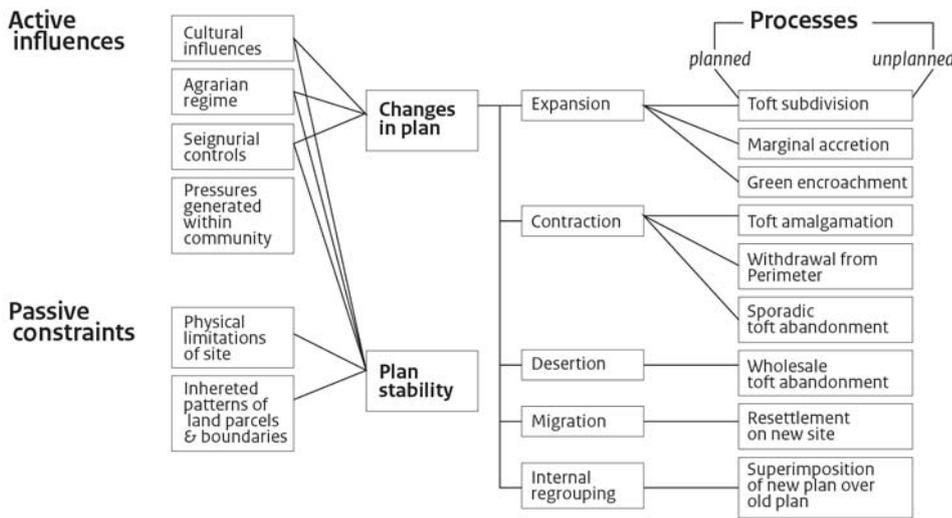


Figure 4.11 Factors and processes influencing village settlements and their evolution (Tiller 1992, 62).

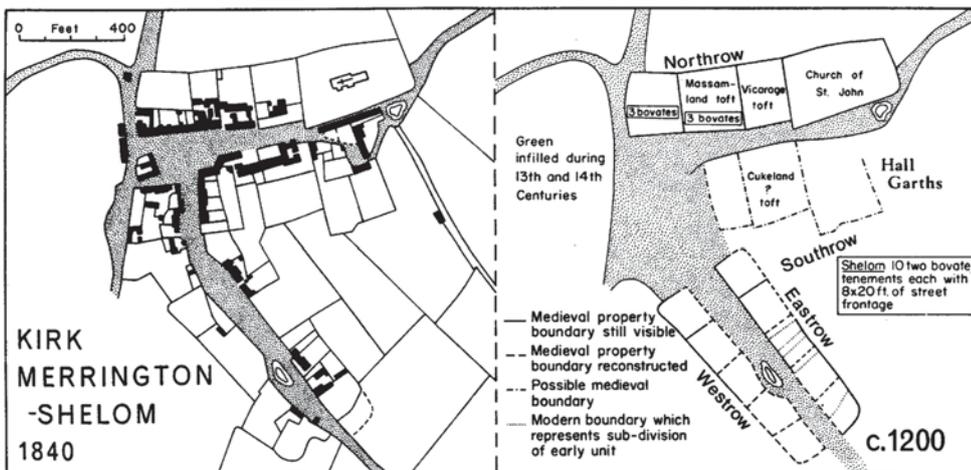


Figure 4.12 Over more than six centuries, a succession of small changes transformed the relatively simple and partly planned English green village of Kirk Merrington-Shelom (Co. Durham, GB) into a much more difficult to interpret irregular village (Roberts 1973, 55).

### 4.5.3 Research into individual settlement types

Some village types have attracted more attention than others.

#### Large nucleated settlements

In the international literature, a much-studied topic is the development of large nucleated villages (the German *Haufendörfer*) in relation to the medieval development of the open fields.

For Meitzen and Gray, these were original types connected to the old Germanic peoples and, hence, introduced in England by the Anglo-Saxons.<sup>109</sup> Again, the early opinion of a stable form with early medieval roots has been superseded by an evolutionary model, in which a loose group of farms has been filled in by new farms and by an early modern emergence of a large group of cottagers and labourers.<sup>110</sup>

It is possible to categorise the main forces behind the development of settlements. Figure 4.11 shows such a systematic approach.

<sup>109</sup> Meitzen 1895; Gray 1915.  
<sup>110</sup> Vits 1999, 95-115; Williamson et al. 2013, plate 27.

It is clear that a succession and combination of such forces can lead to very complex village structures (figure 4.12).<sup>111</sup>

### Green villages

Green villages are villages with a central open space. These are often attractive villages with an open space that may have been originally used for housing animals during the night, to keep them safe from marauders and predators. In later years, the green could have served a number of functions, and was often used for seasonal social activities and events. It is probably for this reason that the village green has become an icon of village life.<sup>112</sup>

Older studies saw green villages as having an early medieval origin. In England, Thorpe suggested an Anglo-Saxon origin.<sup>113</sup> In the Netherlands, older literature often speaks of 'Frankish' or, broader, early medieval greens.<sup>114</sup>

Nowadays, greens are seen as high or late medieval structures that were often secondary developments. They are usually described as the result of a certain degree of planning.<sup>115</sup> The most regular (rectangular) greens can be connected with high medieval planned colonisation movements, such as the *Ostkolonisation* in Central and Eastern Europe.<sup>116</sup> In the North of England, replanning after the eleventh century destruction by William the Conqueror and the Norman lords has been suggested (but is certainly not accepted by everyone) for a large group of such rectangular village greens.<sup>117</sup>

### Row-villages

The typical planned villages of the high medieval colonisation are row villages with the farms connected to their individual strip-field, a type for which the German term *Hufendorf* is used. It is a planned form that can be found in large numbers in mountains and wetlands. In the Netherlands they have been discovered in different landscapes, but they dominate the fenlands.

Many planned row-villages have a small centre around the church, often with a green. These centres have never been researched systematically, but they seem to date from the earliest phase of the settlement.

### Dispersed settlement

Dispersed farms are especially characteristic for early modern and modern landscapes, a group that consists of post-medieval reclamations, but also of landscapes that have been subjected to different types of land consolidation (inclusive of the English and Scandinavian enclosures). There are also regions, however, that have been characterised by dispersed farms since the Middle Ages, including a number of sandy regions in the Netherlands. Moreover, in a number of regions that were later characterised by group settlements, dispersed settlement seems to have been the basic type during the Early Middle Ages.<sup>118</sup>

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## 4.5.4 Settlement studies in archaeology

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There is a long tradition of settlement archaeology in North-Western Europe. Archaeological research in the Netherlands has been part of this tradition, with early excavations of dwelling mounds in the coastal marshes, and Van Giffen's excavations at Ezinge standing as a milestone.<sup>119</sup> During the 1970s and 1980, Dutch archaeologists gained an international reputation for large-scale open area excavations, which were conducted in a regional context.<sup>120</sup>

An interest in the relationship between settlements and fields only gradually emerged, however. The technique of surface collection (also known as fieldwalking or archaeological field survey) was initially developed in the 1970s. The primary motivation behind many field surveys was a desire to discover sites that were in the process of being damaged or destroyed by ploughing. In the Mediterranean region, in particular, this led to the development of extensive surveys which attempted to reconstruct changing regional settlement patterns over time.<sup>121</sup>

In central Italy, several major projects made an explicit attempt to study medieval settlement patterns and to address broad historical problems, such as the end of Roman villas in the countryside and the origins of early medieval hilltop villages.<sup>122</sup> Similar long-term survey projects were conducted in Boeotia, to explore changing historic settlement patterns in Greece.<sup>123</sup>

<sup>111</sup> Roberts 1977, 125.

<sup>112</sup> Houting, De Poel & Van der Vaart 1981.

<sup>113</sup> Thorpe 1961, 93-134.

<sup>114</sup> Beckers 1949, 23-28; Kakebeeke 1975, 155-352. Kakebeeke's vision of the early medieval origins of greens is based on a single example of the *plaatse* (green) of the hamlet of Loon (North Brabant), where a church path crosses the green, so the green must be older than the path. The problem is the age of the path, which runs to an early church, but starts from much younger farms.

<sup>115</sup> Roberts 1977, 148; Sperling 1982.

<sup>116</sup> Higounet 1990, 267.

<sup>117</sup> Roberts 1987, 184.

<sup>118</sup> Taylor 1983.

<sup>119</sup> Knol, Bardet & Prummel 2005.

<sup>120</sup> For example, projects in Assendelft (Brandt *et al.* 1987) and in the Campine region (Theuvs 1989).

<sup>121</sup> For examples see Keller & Rupp 1983; Francovich *et al.* 2000; Potter 1979.

<sup>122</sup> For an overview of work in Italy see Francovich & Hodges 2003. For high profile individual projects see Barker & Symonds 1984; Barker *et al.* 1986; Bowes *et al.* 2006; Hayes 1985; Moreland 2008.

<sup>123</sup> See Bintliff 1996; 2000, 37;

Bintliff *et al.* 2007.

In an effort to address the way in which sites were often arbitrarily created by survey archaeologists, on the basis of changing sherd densities, so-called off-site archaeology was developed in the 1980s to collect data from entire landscapes, thereby allowing land use, and practices such as manuring of fields around medieval and other settlements to be detected.<sup>124</sup>

The Roystone Grange project (1978–1987) in the UK offers a good example of a landscape archaeology project that investigated prehistoric, Romano-British, and medieval features and deployed off-site sampling by means of hand-excavated test pits to sample the pasture fields of a Derbyshire valley in the Peak District National Park.<sup>125</sup>

The term *landscape archaeology* was coined by British medieval archaeologists Aston and Rowley in the early 1970s.<sup>126</sup> Over the course of the last forty years, landscape archaeology has grown to become an important sub-discipline of archaeology. It is now concerned with landscapes and settlements of all periods and is international in its scope.<sup>127</sup> In landscape archaeology, the research questions broaden out to the landscape as a whole. Hence, starting from such an holistic approach, it can be informative to excavate patterns of water-filled ditches<sup>128</sup> and document boundary stones between the individual fields within an open arable landscape.<sup>129</sup>

Traditionally, most rural archaeological research has taken place on deserted settlements, following the trend established by Hoskins and Beresford in the late 1940s, in the English midland counties of Leicestershire and Warwickshire, which led to the creation of the Deserted Medieval Research Group.<sup>130</sup> For medieval and more recent settlements this approach has a major theoretical problem, namely that it is unclear how or why these settlements, which did not survive until the present-day, differ from the settlements that did. Looking at deserted settlements, for example, can place too much emphasis on the exploration of settlements on marginal agricultural land.

In England, a large number of deserted medieval villages belong to a single region: the villages that were connected to the large open fields of the so-called ‘Central Province’ which stretched roughly from the Isle of Wight in the south-west to Northumberland in the north-east. Although ‘open fields’, or fields without internal divisions were found throughout medieval England, the ‘common’ or ‘Midland’ style open fields of the central belt had developed by 1300 and may be distinguished by the regularity of their layout, along with their predominant arable use and the way in which tenure was distributed equally among tenants.<sup>131</sup>

In the Netherlands, most of the archaeologically investigated deserted settlements were found in present-day arable fields throughout the country. These settlements had been relocated for various reasons after which the area was converted into farmland. Settlements that were deserted as a result of flooding or drift sand are located predominantly in the coastal area and the large heathlands. Due to their location in the wilderness, now often nature reserves, systematic archaeological research has been scarce<sup>132</sup>(see §6.2.3).

Archaeological research in extant contemporary villages has been extremely limited. This is remarkable, given the extensive research that has been undertaken in town centres. A notable exception to this is the English research project on Currently Occupied Rural Settlements.<sup>133</sup>

The CORS project is designed to redress the biases toward deserted villages so that our understandings of rural settlement can be based on a more representative range of sites. It does so by studying the development of currently inhabited rural settlements using systematic small-scale excavations. This has enabled successive phases of activity within and around today’s villages and farms to be identified, dated, characterised and mapped so that their historic development can be reconstructed. In the Netherlands, research in existing villages is still relatively rare, although some examples exist in West-Friesland, the Zaanstreek and elsewhere. In addition, some former villages have been investigated archaeologically within the context of urban archaeology.

<sup>124</sup> For examples of off-site archaeology see Cherry 2003; Foley 1981; Gallant 1986; Given 2003.

<sup>125</sup> See Hodges 1989 and 1991.

<sup>126</sup> Aston & Rowley (1974) coined the term landscape archaeology and encouraged research into post-Roman landscapes. See also Aston 1997.

<sup>127</sup> Kolen 2005, 101–121. See also Ashmore & Knapp 1999; Williamson 1998; Yamin & Metheny 1996; David & Thomas 2016.

<sup>128</sup> Van Londen 2006.

<sup>129</sup> Verspay 2011, 96–179.

<sup>130</sup> See Beresford 1954; Beresford & Hurst 1971.

<sup>131</sup> See Oosthuizen 2010.

<sup>132</sup> A notable exception is the medieval village of Kootwijk (Heidinga 1987).

<sup>133</sup> Lewis 2013, 77–89.

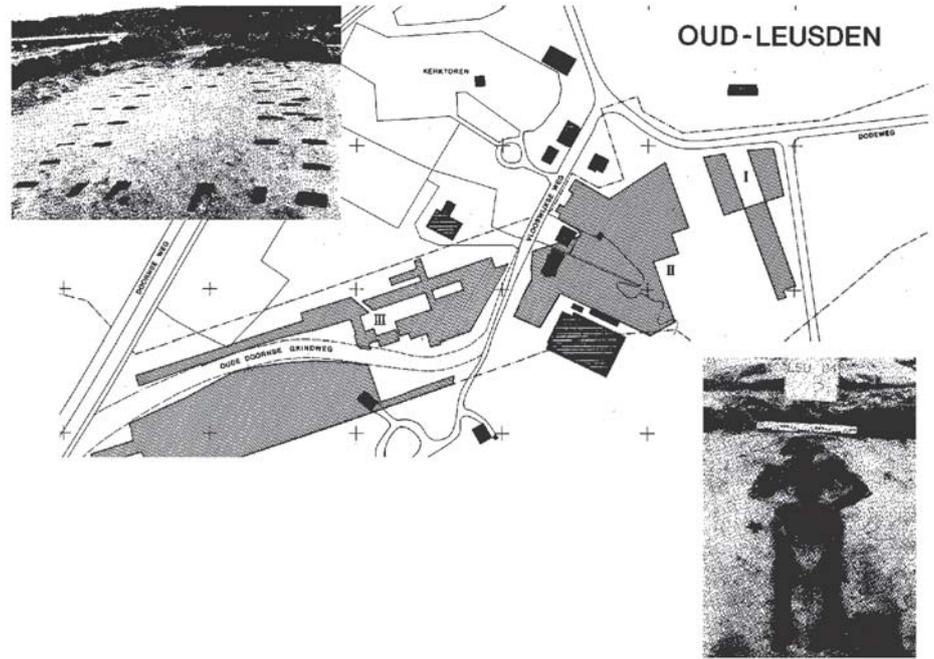


Figure 4.13 The partly deserted settlement of Oud-Leusden was excavated in the early 1980s, ahead of motorway construction (Van Tent 1985). A royal estate is recorded at Oud-Leusden in AD 777, when Charlemagne gave the land to the church of Utrecht (Muller & Bouman 1920). The structure of this landholding is unclear, although the existence of an early church suggests that there may also have been a manorial centre in this place. The excavations revealed a substantial village with a number of farms along a road, but no manorial buildings.

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#### 4.5.5 Combining archaeological, historical and geographical data on villages

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One of the main problems in interdisciplinary settlement research is the difficulty of combining things which are sometimes difficult to compare. In addition to this, each discipline uses its own terminology and has developed its own interpretive framework.

Figure 4.13 illustrates this problem. In 777, Charlemagne gave the large royal estate of Leusden with four 'forests', on the moraine hills in the east of the present province of Utrecht, to St. Martin's Church at Utrecht. The name of the estate still exists for a municipality, including the small settlement of Oud-Leusden. The written sources do not give any clue as to the structure of the settlement, which may have included a manorial centre, and consisted of a complex arrangement of dispersed tracts of land. A strip of land close to the medieval brick tower of the former church site was excavated in the early

1980s. The excavations exposed a settlement consisting of a substantial number of farms dating from the Early and High Middle Ages, as well as an early medieval graveyard.

Traces of metal working were also discovered in the form of slag-heaps.<sup>134</sup> Archaeology rarely recovers a name for a medieval or earlier settlement. For this reason it is often difficult to relate archaeological evidence to textual sources.

In this example, a narrative can be assembled by combining archaeological and historical evidence. It seems probable that a settlement existed at an early date and that this had been the centre of the royal estate, although the manorial centre itself has yet to be discovered (it was probably situated close to the church). The church itself must have been founded by the bishop, and initially served an extensive parish. The village thrived as an agrarian settlement, but also served as a religious centre.

In the course of the Middle Ages, the place suffered a downward trend in significance as a central place after the foundation of several new churches. As an agrarian settlement, the village suffered from drought problems, possibly

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<sup>134</sup> Van Tent 1985.

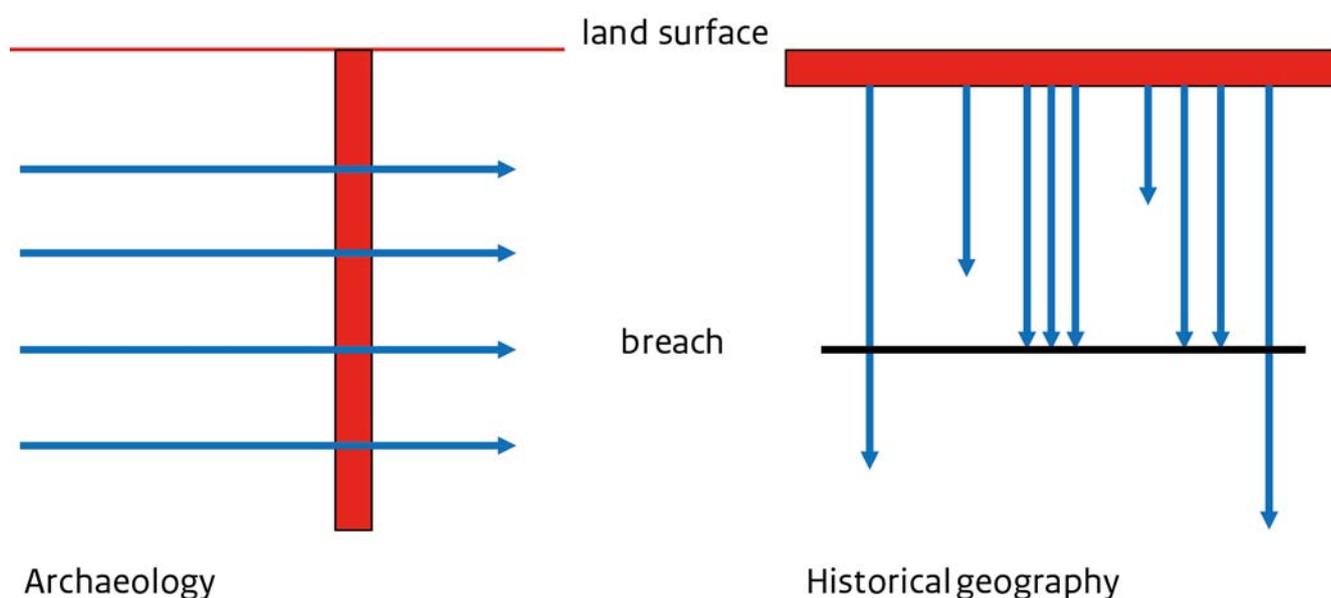


Figure 4.14 This graphic shows how archaeology makes horizontal cross-sections (blue), providing a time sequence, whereas historical geography usually starts from the modern landscape and works back in time.

related to the reclamation of the fenlands a few kilometres eastward and the major deforestation due to large-scale charcoal production. One by one the farms were moved to the lower parts of the hills. By the early nineteenth century only the church and a few houses remained and the church was demolished in 1826.

This example shows that the combination of archaeological and historical data can be complex and may be best regarded as a starting point for joint research questions. Unfortunately, this approach has hitherto seldom been adopted in relation to village formation in the Netherlands.

As we shall see later on in this chapter, studies by historical geographers usually start with topographical maps from the middle of the nineteenth century, cadastral maps from the 1830s and, when available, pre-cadastral maps from the sixteenth to the early nineteenth century. These cadastral sources are combined with written sources and sometimes incorporate the compared available archaeological data. An additional, extremely labour-intensive method was the so-called 'Rückschreibung'. This type of German geographical research tried to get further back in time, starting with the oldest cadastral data and following changes in land ownership. In some cases, this method was

able to give a view of settlement development during the Late Middle Ages. The weak point was that this type of research was usually unable to reach beyond major disruptions in the settlement pattern, such as an episode of village desertion (figure 4.14).

National differences can be seen in how historical geographers and others have approached the study of medieval settlements and landscapes. In the German-speaking world, for example, historical geographers sometimes studied deserted settlements, by combining fieldwork with archival study. In the French-speaking world historians were always at the forefront of investigations, and in Britain and Scandinavia historical geographers, historians and archaeologists combined their efforts.<sup>135</sup>

#### 4.6 Villages and village formation in the Netherlands: some general remarks

In this section we present a regional overview of village formation in the Netherlands. The archaeological regions are mainly based on physical geography. There is a lot to say against such a classification: it focuses too much on agrarian landscapes, excluding other functions, and on stability rather than development and

<sup>135</sup> For a summary of English approaches to medieval villages and settlements see Aston *et al.* 1989; Christie & Stamper 2011.

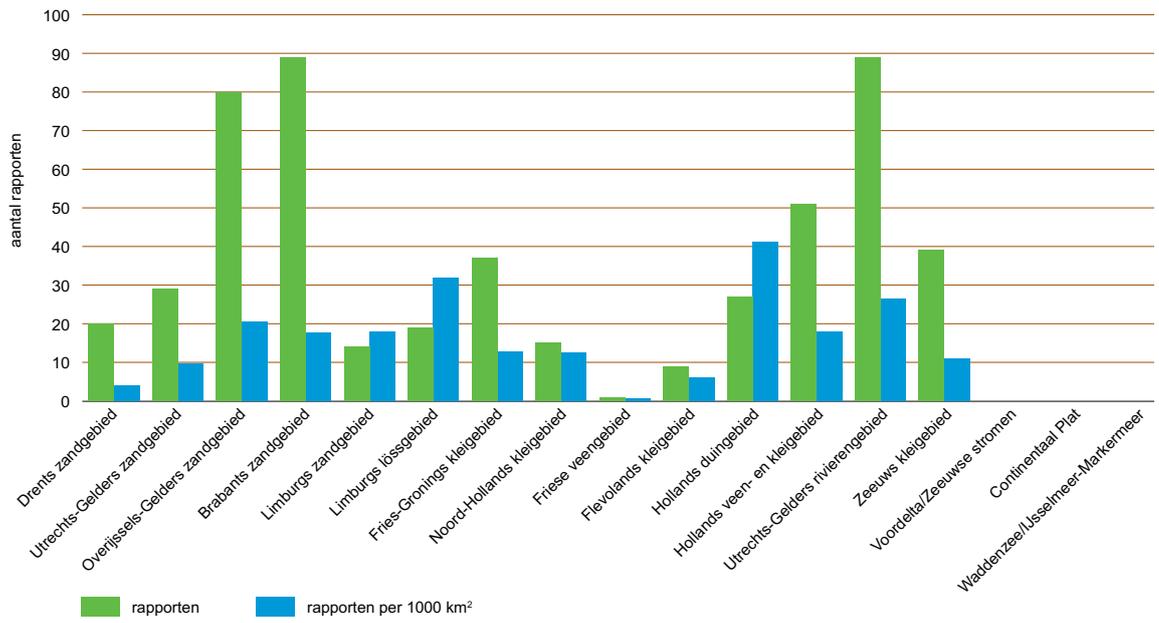


Figure 4.15 Number of reports of archaeological excavations published between 1997 and 2006, with 1000 km² for each archaeological region (Erfgoedbalans 2009, 110).

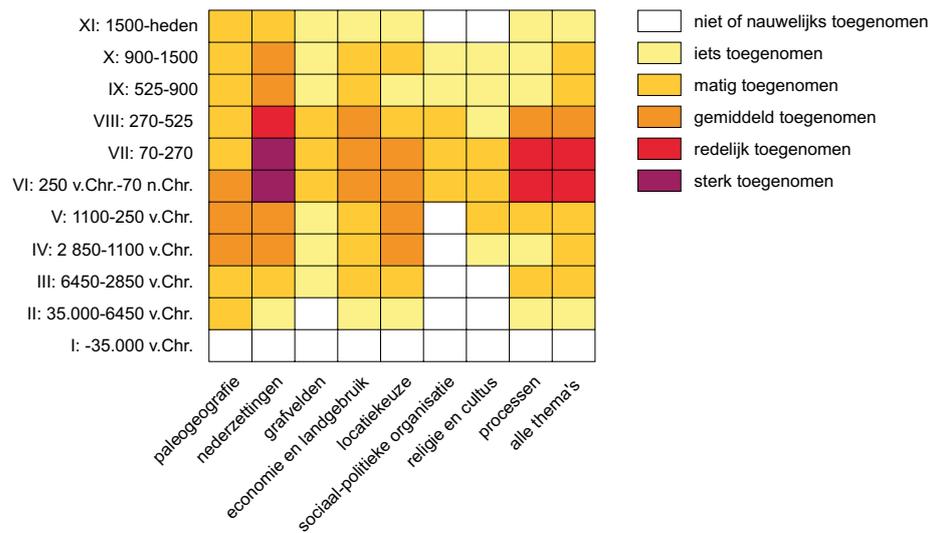


Figure 4.16 Increase in archaeological knowledge per period and theme (Erfgoedbalans 2009, 113).

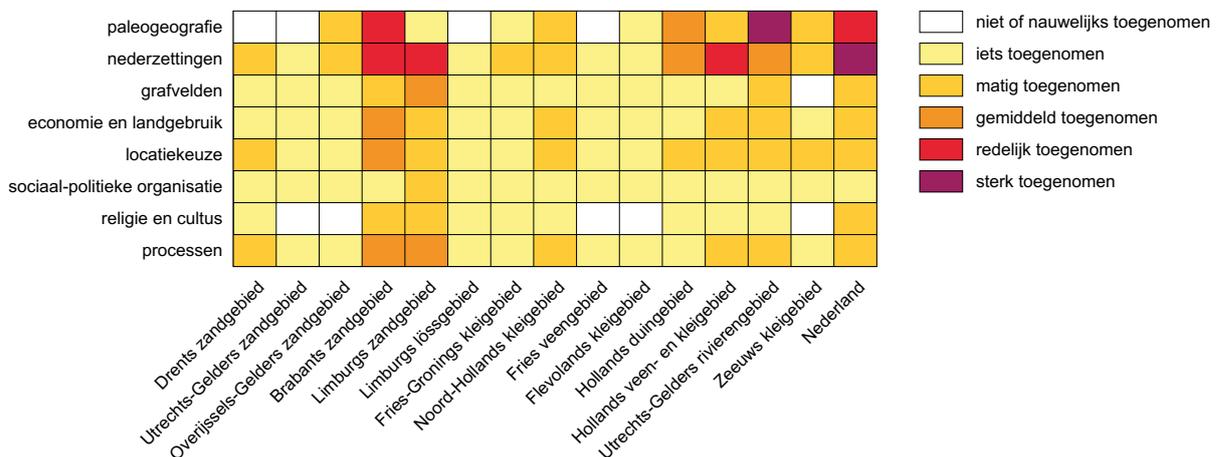


Figure 4.17 Increase in archaeological knowledge for each archaeological region by theme (Erfgoedbalans 2009, 113).

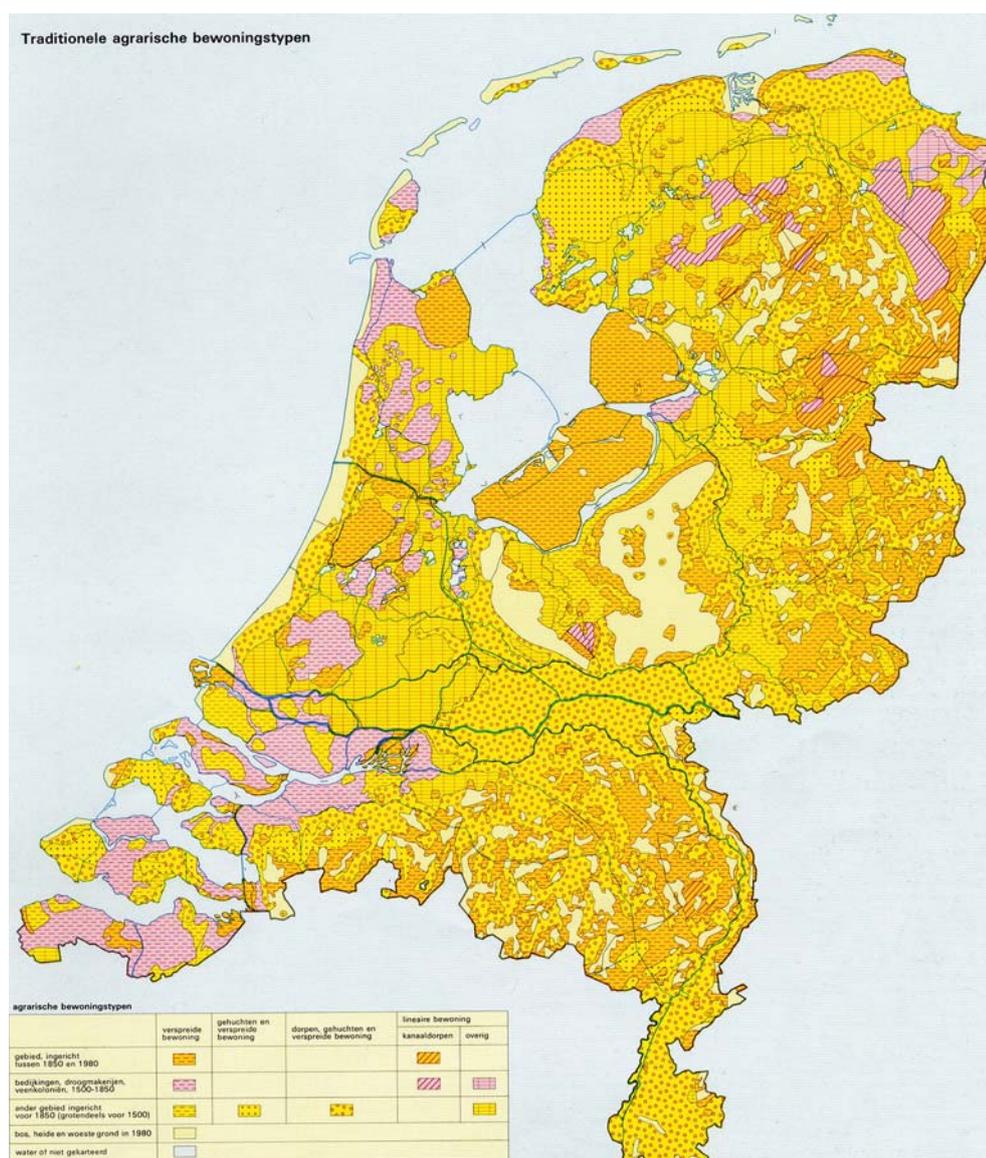


Figure 4.18 Rural settlement in the Netherlands in the middle of the nineteenth century, combining the degree of dispersal of agrarian settlements (nucleated, linear, dispersed) with the main formative period of the landscape (Atzema et al. 1990).

change. Regional overviews based on landform and physical geography are, nevertheless, a long-standing tradition in Dutch historical geography. This tradition is still very much alive, as nowadays the so-called archaeological regions play a major role in the organisation and presentation of archaeological data.<sup>136</sup>

Thereby two remarks have to be made. Firstly, the state of knowledge differs by region. This partly reflects the dispersion of active regional researchers in history, historical geography and archaeology. This dispersion is partly due to the location of university departments, that shows some gaps. Another factor is the dispersion of archaeological

fieldwork, which reflects the spatial dynamics of different regions: the building of houses and business areas is highly concentrated in the Randstad and Eastern Brabant. Other regions, such as the fenlands of Friesland, show so little dynamics that hardly any archaeological research takes place (figure 4.15). Secondly, the huge amount of new archaeological data is rarely translated into overviews.

The *Erfgoedbalans 2009* gives the most recent review of the state of knowledge per archaeological region, period and theme (figure 4.16, 4.17). For settlements, it concludes that between 1997 and 2006 knowledge has increased most for the Iron Age and the Roman period. A substantial increase in knowledge can

<sup>136</sup> The archaeological regions were the basis for the *Archeologiebalans 2002*.

### The Chronology of Rural Cultural Landscapes

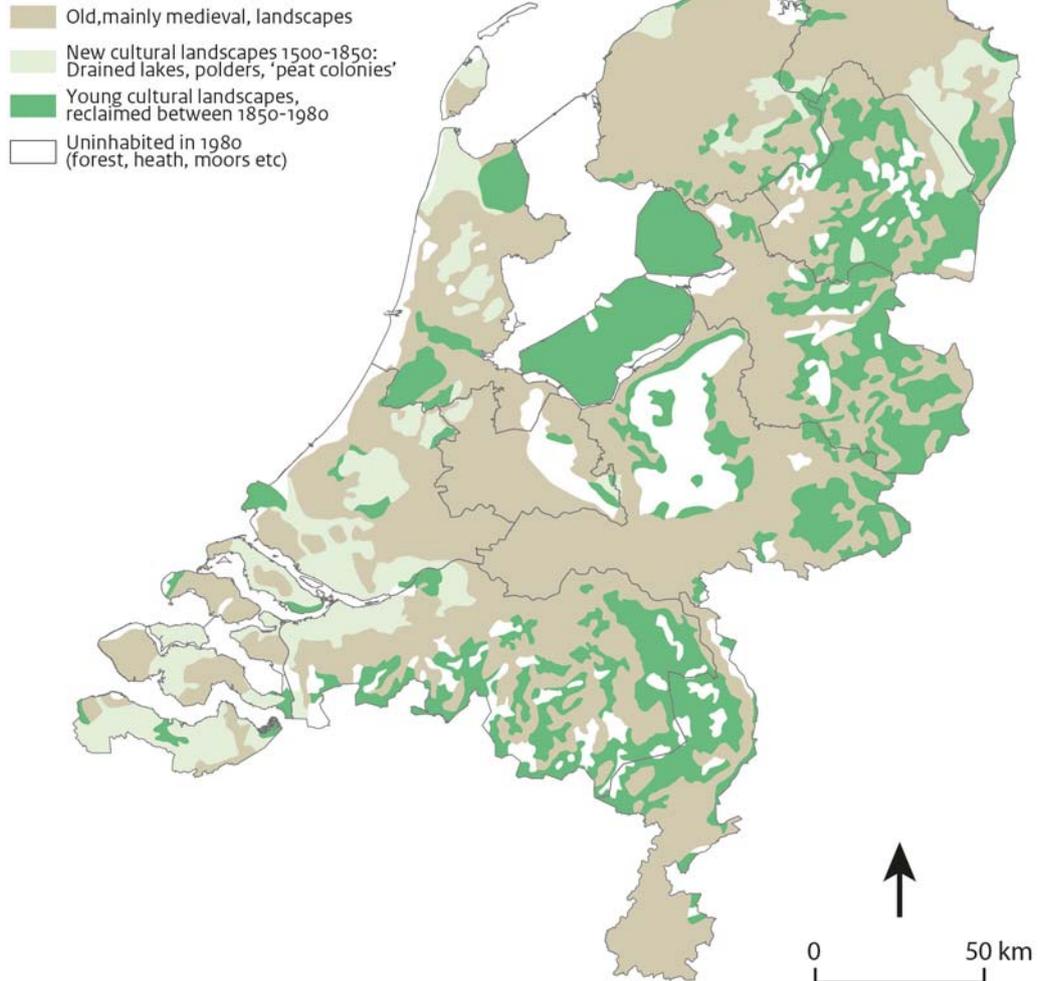


Figure 4.19 Rural settlement in the Netherlands in the middle of the nineteenth century. This shows the information from figure 4.18 as redrawn by Roberts, separating the two main types of information (Roberts 1996, 62).

be traced for the Early Middle Ages and, to a lesser degree, for the rest of the Middle Ages. When focusing on settlements, the largest increase in knowledge can be shown for the sandy landscapes of Brabant and Limburg, and for the fenlands and clay regions of Holland. The coastal dunes of Holland and the fluvial region of Utrecht and Guelders follow. Since that time, the amount of archaeological research has diminished, but there are no indications of a change in the regional dispersion of projects.<sup>137</sup>

#### 4.6.1 Agrarian and non-agrarian villages

It is important to make a distinction between agrarian villages and villages that served as central places for some other function. The first group consists mainly of farms, with later additions of houses of cottagers, labourers and services. The second group is dominated by central functions: a church with vicarage, or a pub, smithy, or bakery. The number of servicing professions grew over the course of time. Many villages, particularly those in the second category, remained small for a long time and only grew during the early modern and

<sup>137</sup> Erfgoedbalans 2009, 113.

## Rural Settlement Types

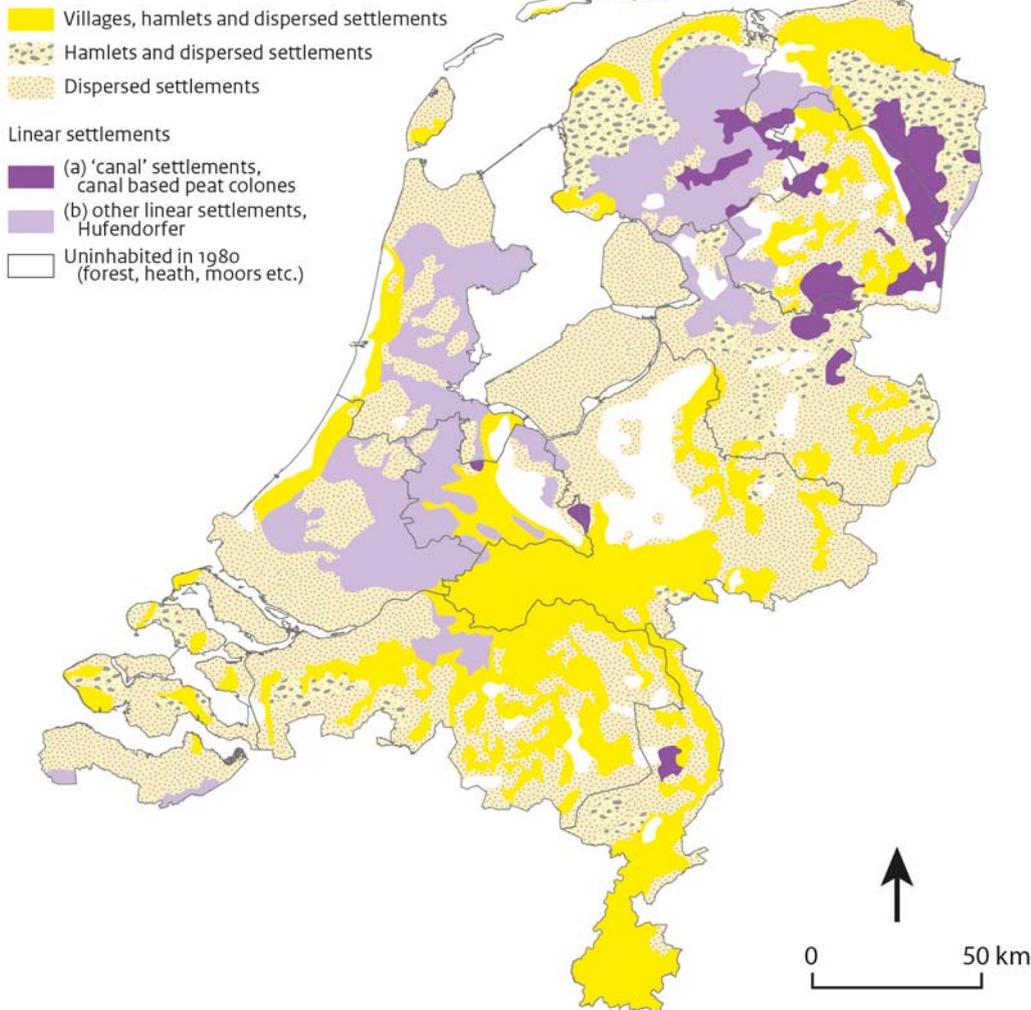


Figure 4.19 Continued.

modern periods. There are regional differences in the occurrence of the two types.

Figure 4.19 shows that the older settled regions exhibit regional differences, with nucleated settlements dominant in some regions, dispersed settlements in others. Linear settlements dominate the high medieval fenland reclamations. The landscapes of post-medieval reclamation (coastal marshes as well as former heathlands) are characterised by dispersed farms.

### Nucleated agrarian villages

Most Dutch authors are mainly interested in the medieval farms and less in the later additions of houses of cottagers, labourers and services.<sup>138</sup>

### Linear villages

Linear villages, consisting of a loose row of farms each connected to a single large strip of land, are the characteristic settlement type of high medieval colonisation. An interesting aspect of these settlements are the efforts that were made to create a village centre with a church and a green.

### Dispersed farms and central places

In most regions with dispersed farms, central places developed during the medieval and early modern periods. Once again, medieval farms have received far more attention from researchers than non-agrarian villages.<sup>139</sup> In the regions of medieval settlement, the most recent

<sup>138</sup> Some exceptions are Cuijpers 1976; Dussart 1946; Leenders 2011; Steegh 1985.

<sup>139</sup> Keunen 2011.

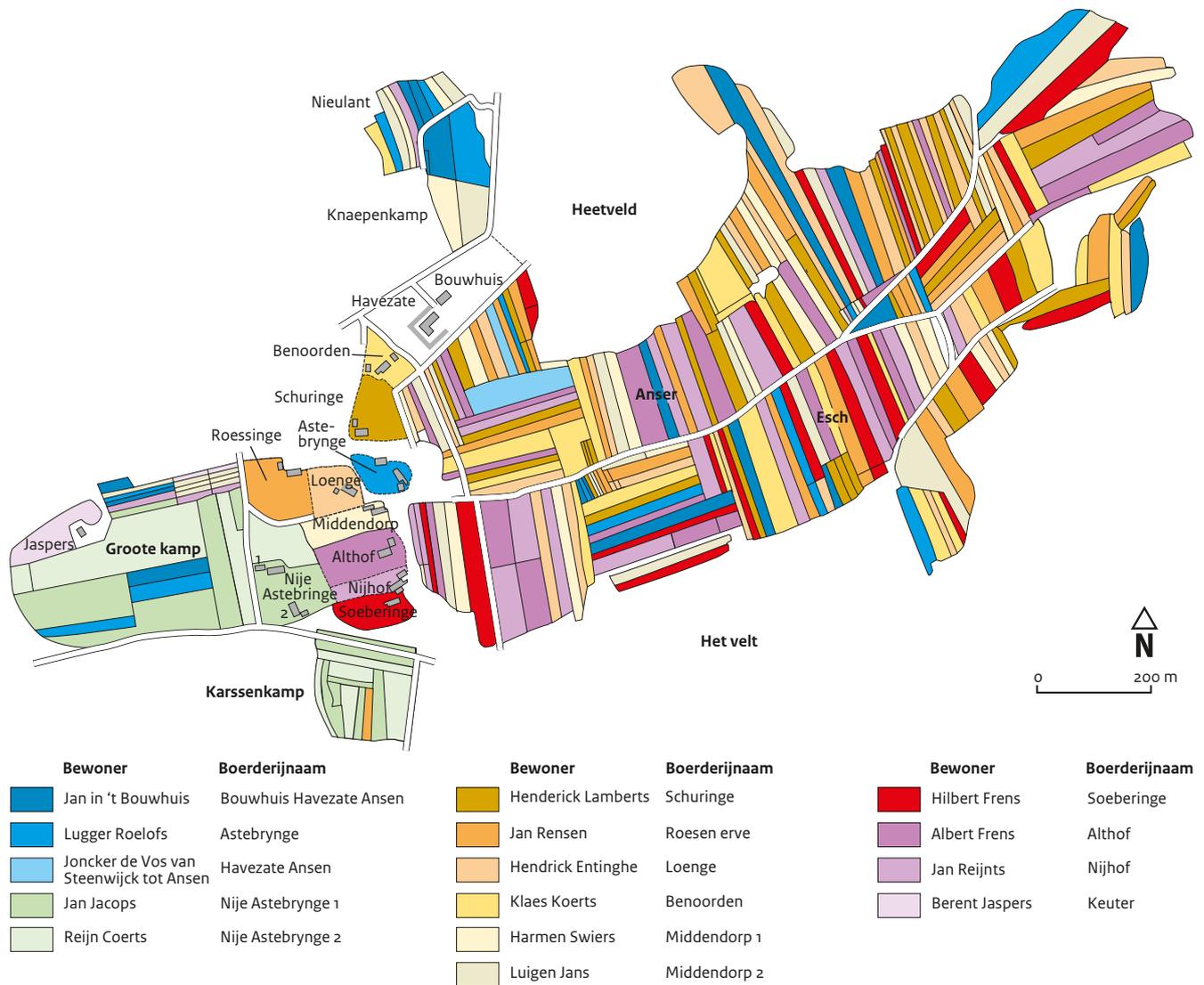


Figure 4.20 Ansen in 1642, with land ownership based on the tax registers (*verponding*) and an interpretation of primary and secondary farms (shown with close colours) by Spek (Spek, 2004, 466).

villages usually grew up around a church. In large-scale post-medieval reclamations, these central places were often planned, although some developed more spontaneously.

#### 4.6.2 The loess-region

##### AR 6 Limburg hill-country

The hilly countryside with loess-covered plateaus of South Limburg connects to the international literature on village formation better than any other Dutch landscape.

Such international studies concentrate on the landscape of 'open fields', on the Continent (based on *Rückschreibung* from cadastral sources) as well as in the UK (based on fieldwork and air photographs). The open fields, the medieval grainlands, were characterised by an open, large-scale landscape, but also by an often extreme fragmentation of ownership and, hence, complex field-patterns.<sup>140</sup> They often combine with large, densely built villages that are known in the German literature as *Haufendörfer*. According to research from around 1960, the fragmented field-pattern developed from an older pattern of large block and strip

<sup>140</sup> See Renes 2010.  
<sup>141</sup> Krenzlín 1961a, 190-202; Krenzlín 1961b, 19-36; Krenzlín & Reusch 1961.

fields.<sup>141</sup> The fragmentation is thought to have been caused by a combination of population growth and a system of partible inheritance, in which land was divided among all children. The village therefore developed in parallel to the field-pattern. The *Haufendörfer* developed by the gradually filling up of much smaller and looser groups of farms.<sup>142</sup>

In South Limburg we see the same type of development, though less extreme than in some parts of Germany. The older early medieval villages in the stream valleys often grew around a manor. The filling up of settlements here was also most likely caused by population growth and the system of inheritance, and was further stimulated by the development of courtyard farms, leading to closed building lines. That last development also took place on the plateaus, but there the villages remained smaller and simpler.<sup>143</sup>

The benchmark research project for the South Limburg region was conducted by a medieval historian, Hartmann, on the settlement history of the villages of Eijsden, Breust and the neighbouring part of the Margraten Plateau.<sup>144</sup> Another medieval historian, Hackeng, also investigated the history of land ownership but concentrated less on the history of settlement.<sup>145</sup> Hartmann's results were later extrapolated to the whole of South Limburg, but his findings have not been corroborated by more recent primary research.<sup>146</sup>

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### 4.6.3 The sandy regions

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In the medieval period the sandy regions were characterised by a system of mixed farming in which arable farming was situated on the best drained soils, with meadows and grassland pastures in the stream valleys and rough grazings, and mainly heathlands in most of the remaining parts of the village territory. Village greens, in different parts of the country known as *brink*, *plaatse*, *dries* or *heuvel*, may have had a role in such mixed farming systems, but are usually a secondary development. In general, we assume that villages in the sandy regions developed from loose groupings of farms.

#### AR 1 Sandy region of Drenthe

Within the sandy landscapes, the villages in Drenthe are possibly very special, inasmuch as the few exceptions, most of them still seem to occupy their early medieval locations.<sup>147</sup> The most extensive and in-depth settlement research has been undertaken by Spek, who reconstructed the development of settlement, landownership and land use in four villages: Ansen, Balloo, Gasselte and Valthe. Spek started by examining land tax registers from the middle of the seventeenth century and worked his way backwards in time through the divisions of farms towards the smaller late medieval settlements (figure 4.20).<sup>148</sup>

#### AR 2/3 Sandy landscapes of Overijssel-Guelders-Utrecht: the ice-pushed ridges

A different pattern of medieval settlement existed on the ice-pushed ridges of the Central Netherlands. Here, the farms were located on the lower slopes, between the arable on the slopes and the low and wet pastures. The farms in this narrow zone could be located in a row, in small green villages or in clusters. There are indications that the early medieval settlements were located higher on the slopes.

#### AR 2/3 Sandy landscapes of Overijssel-Guelders-Utrecht: the lower regions

The lower sandy landscapes of Salland, Twente, the Achterhoek (East Guelders) and the Guelders Valley were characterised by dispersed farms in the medieval period<sup>149</sup> and later, non-agrarian, nucleated villages.<sup>150</sup> Locally, villages with small open fields (*essen*) existed. The best-researched is the village of Raalte (Salland), which has been investigated more or less with the method that has been described for Drenthe, but combined with archaeological research.<sup>151</sup>

#### AR 4/5 Sandy landscapes of Brabant and Limburg

The sandy landscapes of North Brabant have a long tradition of research, in which most emphasis has been placed on exploring the dynamics of settlement in the Campine region.<sup>152</sup> The local historian, Kakebeeke, developed morphogenetic models for the settlements in this region in the 1970s. He described how hamlets could develop when a single farm became fragmented (het 'hoeve-akkerdorp') or from a single domain. Kakebeeke explained

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<sup>142</sup> Vits 1999, 95-115.

<sup>143</sup> One of the few systematic studies in Cuijpers 1976, 119-138.

<sup>144</sup> Hartmann 1986.

<sup>145</sup> Hackeng 2006.

<sup>146</sup> Renes 1988b.

<sup>147</sup> One of these exceptions is the village of Darp. Waterbolk found that the present-day village used to be medieval Hesselte, which at some point was relocated and developed into two settlements: Darp and Havelte (Waterbolk 1950).

<sup>148</sup> Spek 2004.

<sup>149</sup> Keuning 1936, 49-55, 73-88, 97-115; Scholte Lubberink et al. 2015.

<sup>150</sup> Keunen 2011, 60-72.

<sup>151</sup> Spek & Van Exter 2007, 400-528; Spek et al. 2010. See also Van der Velde 2011.

<sup>152</sup> Edelman & Edelman-Vlam 1960, 312-318.

the origin of the frequent occurrence of single churches, or church towers in the open fields in the region, by the building of a church by people from the surrounding hamlets. He thought that the greens in those hamlets originated in the early medieval period, mainly on the basis of his erroneous interpretation of the green in the hamlet of Loon.<sup>153</sup>

Archaeological research from the early 1970s onwards has made it clear that Kakebeeke's models were too strongly based on a vision of the linear development of settlements. The early medieval settlements were situated on the highest parts of the sandy ridges and usually consisted of a manor and, later, the church that was founded by the lord of the manor. During the twelfth and thirteenth centuries, farms were moved to the edges of the stream valleys, leaving the church, the only stone-built structure, isolated in the fields. This development has been detected archaeologically in a number of villages.<sup>154</sup> The reasons for this development are still unclear, although a connection with a more intensive use of the stream valleys, itself suggesting a growing importance of animal husbandry, seems probable.

It is as yet unclear whether this development was unique for the Campine region, as in other parts of the sandy landscapes of the southern Netherlands, such developments are only rarely found.<sup>155</sup>

The early medieval landscape seems to have been dominated by dispersed farms or farms in small hamlets (with or without greens). In the regions with dispersed farms, nucleated settlements were a late and mainly non-agrarian addition to the landscape.<sup>156</sup> These must have been quite small in regions where medieval villages existed. Only in the early modern period did the growing population and the division of labour cause substantial growth in the church-villages, which then grew faster than the population as a whole.<sup>157</sup>

The medieval settlement pattern of North Brabant is complex and multifaceted. Historian Leenders has provided a coherent overview of the settlements in one small region in the former municipality of Princenhage, although archaeology has yet to add temporal depth to his arguments.<sup>158</sup>

### AR 11 Hollands duingebied

The 'geest' settlements in the coastal region of Holland have been described by De Cock as a ring of farms on the edges of the oval sandy ridges of the so-called old dunes. The ridges themselves often had the toponym 'geest', hence the term geest-villages.<sup>159</sup> This model, however, is too simplistic, as archaeological research has made it clear that at least some of the early medieval farms had different locations (see also the case study of Limmen).<sup>160</sup>

A recent synthesis has shown that a credible new model has yet to be developed for this area.<sup>161</sup> A number of medieval settlements in this region were lost by the medieval growth of the 'Young Dunes'.<sup>162</sup>

### The post-medieval reclamations

The sandy landscapes are characterised by a slow development of the agrarian land use. Huge uncultivated areas were still in existence as recent as AD 1500, consist of common forests, sand dunes, wetlands and mainly heathlands. The ownership and using rights as well as the management of these commons showed a large variation, even on a local scale.<sup>163</sup> Between 1500 and 1850, up to 20% of the commons were privatised and reclaimed, mirroring the so-called Improvements that drained and enclosed land in the UK between these years.

Over the course of the nineteenth century, large areas were planted with forests, followed by a period from the 1890s to the 1950s in which most remaining heathlands and swamps were reclaimed.

These young agrarian landscapes are dominated by dispersed farms. Villages were only founded in the largest reclamations, and mainly consisted of a church, some services and some labourer's cottages.

## 4.6.4 Coastal marshes

### AR 7 Friesland-Groningen marine clay: the old landscapes

The coastal marshes of Groningen and Friesland are characterised by artificial dwelling mounds, which were used from the Middle Iron Age

<sup>153</sup> Kakebeeke 1975.

<sup>154</sup> Van Regteren Altena 1982, 114-124; Verhoeven & Theuvs 1989; De Bont 1992, 12-22.

<sup>155</sup> See Leenders 1996 for the western part of North Brabant and Renes 1999 for North Limburg. An interesting example of the movement from older settlements towards greens has been described for East Suffolk (Warner 1987). Leenders 2011, 73-80.

<sup>156</sup> An older study which shows this nicely: Dussart 1946, 104-179.

<sup>157</sup> Leenders 1979, 138-209.

<sup>158</sup> De Cock 1965.

<sup>159</sup> Dijkstra, De Koning & Lange 2006; Dijkstra 2011. Also, Bloemendaal-Groot Olmen; Katwijk Zanderij.

<sup>160</sup> Baas *et al.* 2014, 131-150.

<sup>161</sup> Van de Hazelkamp 2006.

<sup>162</sup> Renes 1998.

(seventh century BC) until the High Middle Ages. They are generally known in Dutch historiography by the term ‘terp’ or ‘wierde’, meaning artificial mound in Friesian and Dutch, respectively.<sup>164</sup> Many of the mounds carry names such as wierde. The general term in Dutch historiography is ‘terp’, a word that is related to ‘dorp’ (village) but originally derives from the much wider meaning of settlement (for explanations of terms see above). Nevertheless, we shall use the term *terp* in this section.

The dwelling mounds differ greatly in size. Some were only occupied by a single farm, while others may be regarded as hamlets or villages. The larger mounds originated from small single-farm mounds growing together.<sup>165</sup>

In older literature, four generations of *terps* are distinguished.<sup>166</sup> The dating of these generations, however, was connected to the old, and now abandoned, theory of marine transgressions occurring simultaneously along the whole coastal area.<sup>167</sup> This means that most of the datings of *terps* should be revised.

The building of settlement mounds stopped (with a few exceptions, particularly castle mounds) after the region was protected by dikes. Since then, a substantial number of mounds have been (partially) deserted. A large number of uninhabited (parts of) *terps* have been levelled since the late nineteenth century to use the phosphate-rich material for improving the poor sandy soils in the southern parts of the Netherlands. Regrettably, only a few of these commercial quarrying activities have been accompanied by systematic archaeological investigations.

There is, nevertheless, a long tradition of archaeological research in this region, as well as in the adjoining German marshes. Van Giffen’s research in the dwelling mound of Ezinge is regarded as a milestone in the development of Dutch archaeology, as is the excavation of the dwelling mound of Feddersen Wierde for German archaeology.<sup>168</sup>

In the Netherlands, a simple typology is often employed to distinguish between the three main types of mounds: [1] *Terps* with a radial structure, with farms and, often, a circular road

on the edge of the mound and an open space with a freshwater pond, later a church, in the centre. [2] Elongated *terps* with a densely built street-village, usually described as a trading settlement. And [3] other rectangular *terps*. An overview of the existing knowledge of *terps* in Germany appeared in 1984.<sup>169</sup> Since then, published archaeological research has mostly taken the form of individual case studies.<sup>170</sup>

#### **AR 14 The southwestern delta: the old landscapes**

The settlement history of the southwestern delta differs from that of the coastal marshes in Groningen and Friesland. It is a former fenland that has been eroded by successive intrusions from the sea. The older, mainly early medieval, sea inlets have for the most part silted up, whereas the adjoining fenlands, covered by layers of marine sediments, have started to sink after reclamation and drainage. As a result, the former sea inlets have become the highest parts of the landscape and the zones in which almost all roads and settlements are situated. The occupation history shows little or no continuity after the Roman period. The medieval settlement pattern is characterised by villages. Some of the oldest settlements, dating from the ninth or perhaps early tenth centuries, consist of a round structure that may have started as a fortification against the Vikings.<sup>171</sup> A later group of villages also show a more or less circular structure. Many other villages have a rather simple structure of a road junction, with a church and in many cases a castle mound, known in this region as a *vliedberg*.<sup>172</sup> This structure suggests a manorial origin for many villages, a hypothesis that is strengthened by the fact that many village names that consist of the name of a local lord, together with the suffix ‘church’.

Historical geographers have mainly written about the village types as they are known from nineteenth century maps and other data.<sup>173</sup>

One aspect that has received more attention is the impact of the Reformation, which brought an end to the religious functions of Roman Catholic churches. In such cases the parish system was simplified, and a substantial number of churches fell into disrepair or were demolished, forcing the adjoining village, which had lost its primary central function, to shrink into a hamlet.<sup>174</sup> The most recent publication that

<sup>164</sup> Philippa *et al.* 2003-2009; *Woordenboek der Nederlandse taal*.

<sup>165</sup> Carmiggelt 2000, 24.

<sup>166</sup> Boersma 1972.

<sup>167</sup> Weerts *et al.* 2006.

<sup>168</sup> Haarnagel 1979; Kossack, Behre & Schmid 1984.

<sup>169</sup> Kossack, Behre & Schmid 1984.

<sup>170</sup> See the successive volumes of *Paleo-aktueel* and the *Jaarverslagen van de Vereniging voor Terpenonderzoek*.

<sup>171</sup> Van Heeringen *et al.* 1995, particularly 36 and 232; Ten Harkel 2013.

<sup>172</sup> Dekker 1973; *Vervloet* 1980, 194-207.

<sup>173</sup> De Klerk 1991, 69-80.

<sup>174</sup> De Klerk 1984; 1991; 2006.

summarises archaeological research on villages in this region dates from 1991.<sup>175</sup>

Research of any kind into the medieval origins of these villages is almost completely lacking. The most systematic archaeological research has been undertaken on the early medieval fortifications.<sup>176</sup> Many settlements have been lost to the sea since the late Middle Ages. While some have been completely destroyed, others can be visible at low tides, and a third group is situated in land that was later reclaimed. Opportunities for archaeological research have generated numerous finds and have led to a number of well-executed excavations. Overall, however, there is little systematic description of the development of early medieval and medieval settlements in this region.

#### **AR 7 and 14: The coastal reclamations**

In many parts of the coastal regions, land has been lost to the sea and to inner lakes in the course of the Middle Ages. However, substantial parts of the lost lands gradually silted up and could be reclaimed. In the south-western delta, the early fifteenth century was the turning point, after which the new coastal reclamations outgrew the losses of land. Many lakes were also drained, from the early sixteenth century onwards, particularly between 1530 and 1650, and later, in the nineteenth and twentieth centuries.

The new coastal polders were characterised by three types of settlement:

- Dispersed farms;
- Villages that acted as central places;
- Labourers' hamlets, that were situated on the outer slopes of former sea dikes.

The villages in the oldest areas of the new reclamations were often situated at the major road crossings. Examples can be found in the northern marshes (Het Bildt), as well as in the south-western marshes (Kruisland in North-West Brabant).

Later, most villages were situated on points where a major tidal inlet had been dammed by a sea dike, giving the opportunity to build a harbour. This location shows the growing export-orientation of the new polders. After a new ring of polders had been reclaimed,

some of these harbour villages were moved to the new coast (for example from Kommerzijl to Munnikezijl in the Lauwers estuary), but elsewhere the shipping route was kept open and the original village retained its harbour function. In the south-western delta a remarkable group of planned villages existed, built to an almost standardised design, and often referred to as the Flakkee-type. This type consisted of a broad street (usually called Voorstraat) that ran inland from the dike. This street connected the dike and the church and was flanked by the large houses of merchants and other service providers. Around the church a ring-road (circular in the oldest villages, rectangular in the later ones) with cottages was built. The largest of these villages had a more extensive ground plan, with one or two back alleys parallel to the main street. In the course of time the villages became ever more regular.<sup>177</sup>

As they date from the Early Modern period, it has been possible to reconstruct the development of these villages from written sources. Archaeological research, on the other hand, has been extremely limited.

Settlement in the drained lakes was also characterised by dispersed farms. In some cases, villages were planned as central places. The best example was the Beemster, where no fewer than thirteen villages were originally planned on the crossroads of the rectangular road system. In the end, only five villages were actually laid out and only one, Midden-Beemster, was built. A few roadside villages developed spontaneously at a later date.

#### **AR 10 The Flevoland polders**

The province of Flevoland consists of polders that have been drained and reclaimed in the course of the twentieth century. Only the two small islands of Schokland (which were evacuated in 1859) and Urk (with an extant village), now integrated in the Noordoostpolder, represent an older landscape, most of which has been lost during the High and Late Middle Ages. The two islands offer possibilities for archaeological research, but to date few traces of the many lost medieval or earlier villages have been discovered in the new polders.<sup>178</sup>

<sup>175</sup> Van Heeringen 1991, 8-13; Henderikx 1991, 14-34.

<sup>176</sup> Van Heeringen *et al.* 1997.

<sup>177</sup> Renes 1985; Rutte 2007; 2008; 2010.

<sup>178</sup> Stulp 2009b.

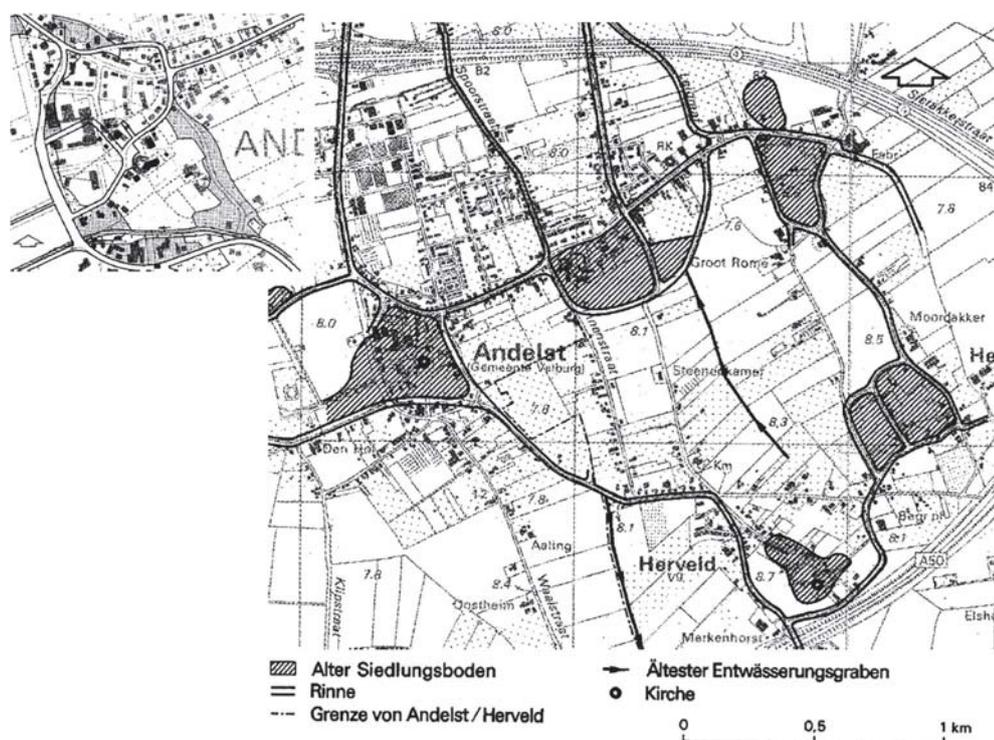


Figure 4.21 Andelst and Herveld, an example of a 'round' village.

#### 4.6.5 The riverine region

##### AR 13 Utrechts-Gelders riviereengebied

Many authors still refer to the old and very simplified and static models that were designed by landscape architect Den Uyl for the villages in the riverine region.<sup>179</sup> Den Uyl classified villages according to their topographical layout at the beginning of the nineteenth century. He also supplied a general explanation of their origin, based directly on the village layout, combined with physical geography. Den Uyl made a distinction between what he termed 'round' and 'elongated' villages.<sup>180</sup> In his opinion, the round villages, settlements with a loose structure in which some round shape is often visible, were the oldest. The elongated villages consisted of two or three parallel streets and a rather dense building pattern. From east to west, the round villages gradually gave way to elongated villages and may be related to the ever narrower natural levees. However, some round villages are known (for example Eethen and Meeuwen in the Land of Heusden and Altena) even in the most southwestern part of the fluvial region.

Relatively little archaeological and historical research has been undertaken in these villages. It is nevertheless clear, that the settlement structures in the fluvial region are more varied and complex than Den Uyl suggested. The typology should at least be extended to include the many greens that sometimes occupy a central position in villages.<sup>181</sup> In addition, the so-called 'round' villages are in fact quite complex, as is shown in Andelst (figure 4.21).<sup>182</sup> Even a careful analysis of nineteenth century data shows that these round villages in fact consist of a loose group of low dwelling mounds, some with a single farm, others with a small group of farms and two with 'church-hamlets' that only recently developed into villages. The elongated villages also show much variation. Most houses in the small village of Erichem (figure 4.22) are situated along an elongated green. Beesd is much larger and more complex, with three parallel roads, although the church and most of the houses are situated on the main road. A certain degree of planning has been suggested for these villages.<sup>183</sup> However, almost no systematic historical or archaeological research has been undertaken in these villages, so the extent of planning remains unclear.

<sup>179</sup> Den Uyl 1958, 94-114.

<sup>180</sup> In Dutch 'ronde' and 'gestrekte' esdorpen: Den Uyl 1958, 94-114.

<sup>181</sup> Visscher & Van Moorst 1990.

<sup>182</sup> Renes & Van de Ven 1989, 167-216.

<sup>183</sup> Harten 1988, 155-178.

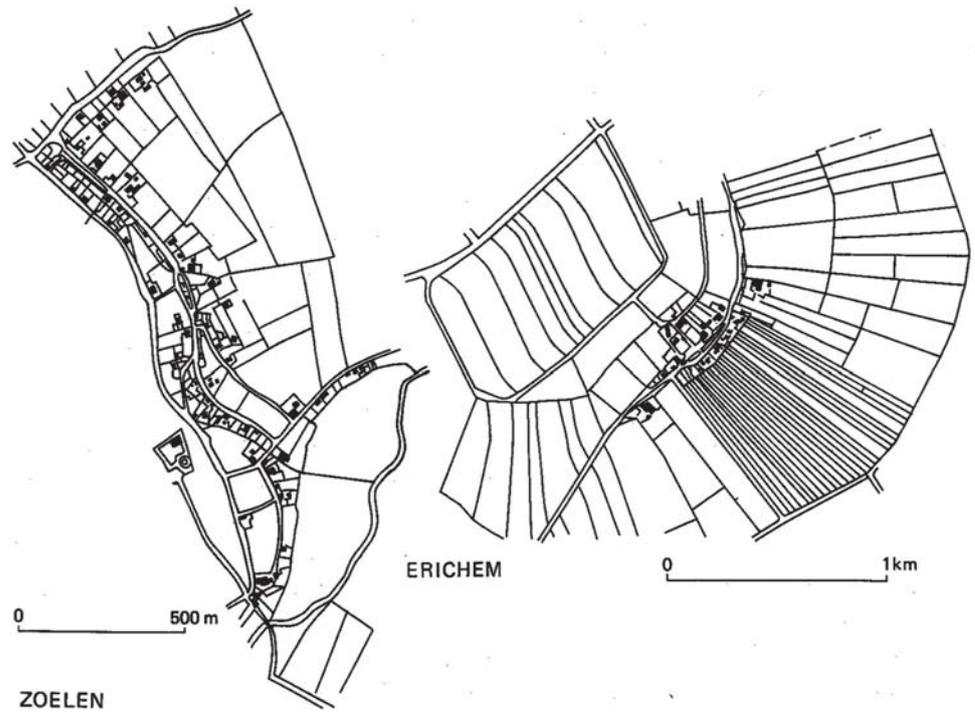


Figure 4.22 The elongated villages of Erichem and Beesd on the cadastral plan ca. 1830.



Figure 4.23 The village of Slijk-Ewijk developed from a single estate to a green village and finally to a street-village. Left: some historical features. Right: estate map (adjusted orientation) from the farm owned by Saint Catharine's Hospital at Arnhem (detail from Van Geelkercken 1635).

The village of Slijk-Ewijk (figure 4.23) has been the subject of an historical and archaeological study by Renes and Vervloet.<sup>184</sup> This village started with a dwelling mound that has probably been occupied continuously from the Iron Age and can be traced in medieval sources as the centre of a domain. Later, a second hamlet developed close to the river and became more important when a church was built there. The low swamp between them (a 'crevasse' course) later developed into a green and was flanked by some farms on small dwelling mounds. After the village road was built over the green, roadside building developed. So in this case, the village developed from an Iron Age farm into a green village and then into a street village: a complex and multilayered settlement.<sup>185</sup>

#### 4.6.6 The fenlands

The fenlands are, with few exceptions, characterised by linear settlements on roads,

canals or natural streams. The differences between fenland regions are not connected to the archaeological regions. The relevant archaeological regions are Friesland fenlands (AR 9) and the Holland fen and clay region (AR 12), as well as the marine clay area of North Holland (AR 8), which was covered by peat until the Early Modern period and was reclaimed as a fenland landscape. In settlement structures it is therefore part of the fenland regions.<sup>186</sup> More important are the differences between the (oligotrophic) raised peat bogs and the (eutrophic) flat fenland. In the first group, a certain degree of individual occupation was possible. The medieval reclamation started on the slope of the raised bog, often after an external development, such as an intrusion by the sea, caused enough drainage to make the bog accessible. Occupation started with farms on small dwelling mounds and with drainage ditches that were directed towards the highest point of the bog, leading to a strip-field pattern.<sup>187</sup> After some time, the land subsidence that results from draining fenlands made

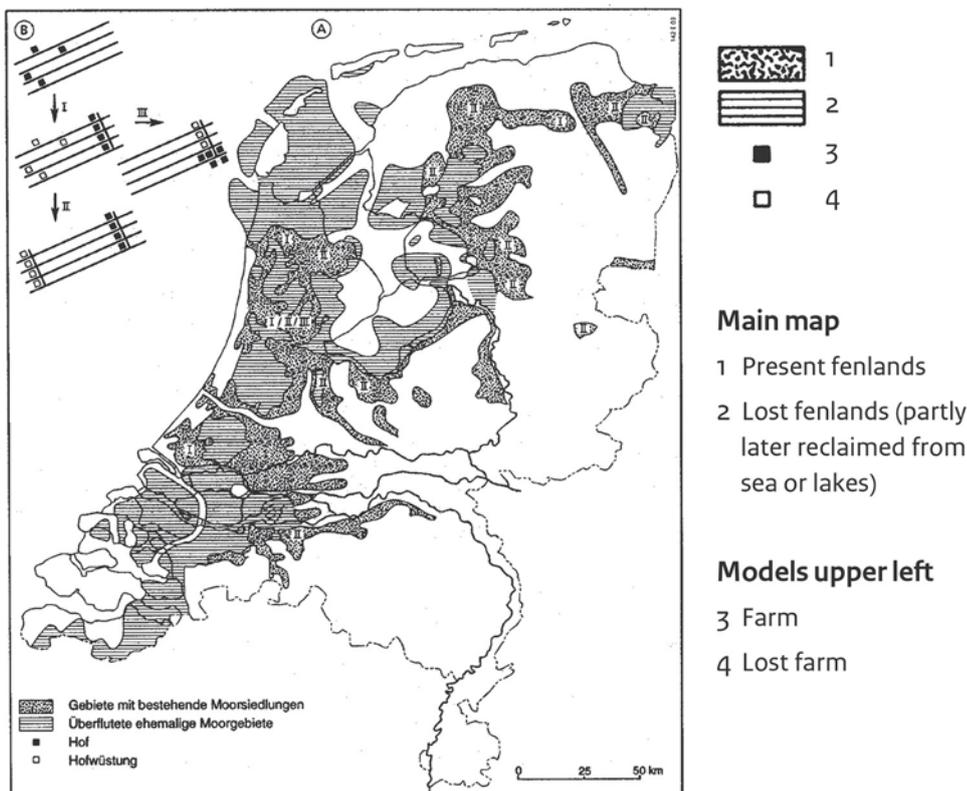


Figure 4.24 Settlement dynamics in oligotrophic fenlands (Renes, 1994).

<sup>184</sup> Renes & Vervloet 1988.

<sup>185</sup> Renes & Vervloet 1988, 58-67.

<sup>186</sup> Borger 1992, 131-171; De Bont 2008.

<sup>187</sup> Bos 1988; Bult 1983.

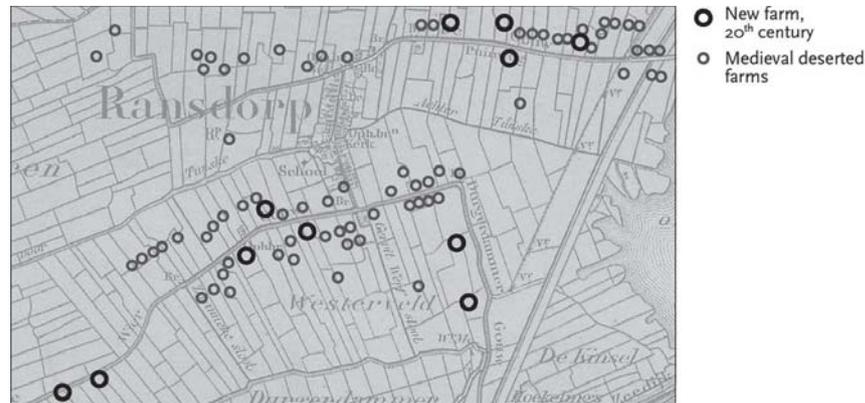


Figure 4.25 After the land subsidence impeded agriculture, people found a new livelihood in fishing and shipping. The medieval farm rows were abandoned and new houses were clustered in a nucleated village. In the nineteenth century improved drainage techniques allowed for arable farming again and a number of farmers moved back to their lands (after Bos 1986).

farming ever more difficult. Gradually, the arable was moved to a fresh piece of fenland and in due course the farms also moved, often to a dike that was originally built to keep water from the higher uncultivated fenlands away from the settlement. There, a regular roadside settlement developed. This process could repeat itself a number of times; the villages of Staphorst and Rouveen are now occupying their fifth location since the first reclamations. This pattern of moving settlements has been reconstructed by historical and archaeological research in a number of former raised peat bogs (figure 4.24).<sup>188</sup>

A unique development was reconstructed by archaeologist Bos in the region of Waterland, north of Amsterdam. Here, the possibilities for agriculture became ever more problematic and a growing part of the male population found a new livelihood in fishing and shipping. In the course of the Early Modern period, they moved from their old farms to the villages and a pattern of nucleated villages developed (figure 4.25).<sup>189</sup> Improved drainage from the nineteenth century onwards made agriculture possible once again, and a number of farmers gradually moved back to their lands.

The flat, eutrophic fenlands have a different settlement history. Here, occupation was only possible after a number of initial works: the future village and its lands had to be surrounded by dikes and a system of ditches had to be dug, to drain the land and bring the water to a lower drainage point along a river. These lands

were therefore sold to project developers (the medieval term was *'locatores'*), who prepared the land and settlements and then attracted farmers. These regions are characterised by row villages with one large strip of land belonging to each farm.<sup>190</sup> The row village, which must be one of the most rigorously planned landscapes of medieval Europe, was named *'cope'* (in fact, the word *'cope'* is a legal term that refers to the original purchase contract, but it has grown to describe such regular settlements).

In many of these road settlements, a small nucleus developed around the church and, often, there was also a castle (Jutphaas, Waarder) with a small green along which a school and other services were later added (figure 4.26). This situation can still be seen in many of these settlements and the location of the church suggests that this layout dates from the first stage of the settlement. In some cases, the centre is called the *Brink* (green), as in Nederlangbroek and in Schalkwijk. In Benschop it is simply called *Dorp* (village). The centres were small; in Nederlangbroek the buildings around the green in the early nineteenth century were a farm (the vicarage), the school with schoolmaster's house (the inn), and the house of the tax-collector. In 1832, the local water board had a meeting place next to the church in the somewhat larger village of Benschop.

Other houses around the green housed the following occupations: shopkeeper, physician, farmer, inn-keeper (twice), baker, tailor, judge, vicar, and painter.

<sup>188</sup> Gottschalk 1956a, 207-222; Vervloet 1983; Vervloet & Bording 1985; De Bont 1993.

<sup>189</sup> Bos 1986, 1-5.

<sup>190</sup> Van der Linden 1980.

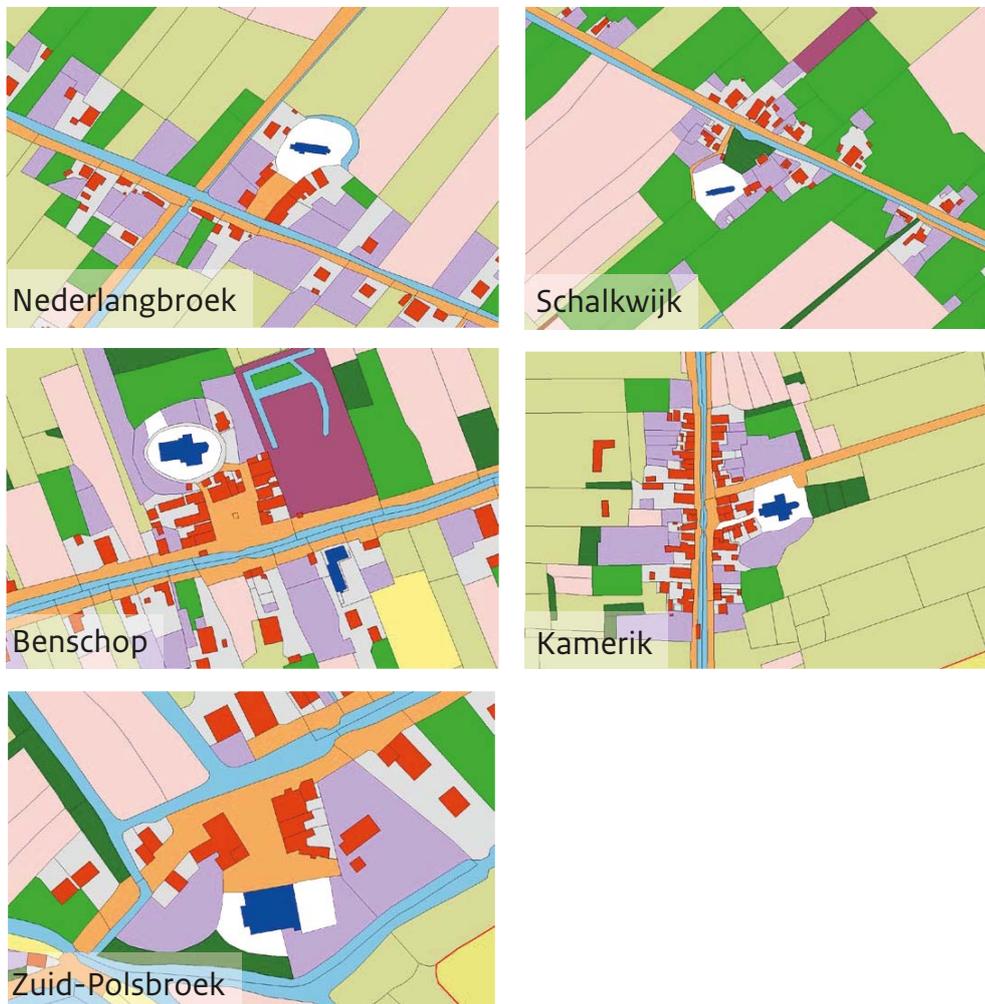


Figure 4.26 Planned village centres in medieval row villages in the fenlands of Holland and Utrecht (Renes 2017).

#### 4.7 Villages and village formation: a European perspective

Throughout the last century, the ideas on the role of villages in the medieval landscape has changed. In the beginning of the twentieth century, villages were seen as a stable characteristic for large parts of Europe. Authors like Meitzen and Gray connected villages to open fields and were convinced of an early medieval origin of both. Until the 1960s, many believed the village to be the initial settlement type in large parts of medieval Europe.<sup>191</sup>

Since that time, the growth of archaeological research (particularly) brought new insights into

medieval development. During the early Middle Ages, small rural settlements dominated the landscape and farms as well, as settlements were frequently relocated. This brought a new orthodoxy and in one of the major handbooks from the 1980s, the authors conclude that villages did not yet exist in the middle of the eighth century.<sup>192</sup> Although this may partly be a matter of definition, this picture was too simplistic, as it neglected the evidence for older substantial rural settlements. In the coastal marshes along the Wadden Sea, some of the dwelling mounds have been continuously occupied by villages since the Iron Age. In the German loess-region, the village of Hailfingen near Tübingen seems to have had a population of 250 people in the early eighth century, showing that substantial villages existed at that early date.<sup>193</sup>

<sup>191</sup> See for example Taylor 1983.

<sup>192</sup> Chapelot & Fossier 1985, 129.

<sup>193</sup> Mayhew 1973, 37.

### Peelo (Drenthe)

Settlement location:

- 1: 400 - 100 BC
- 2: 100 BC - AD 100
- 3: AD 100 - 200
- 4: AD 200 - 400
- 5: AD 400 - 500
- 6: AD 500 - 800
- 7: AD 800 - 1300
- 8: AD 1300 - 1600
- 9: AD 1600 - 1800

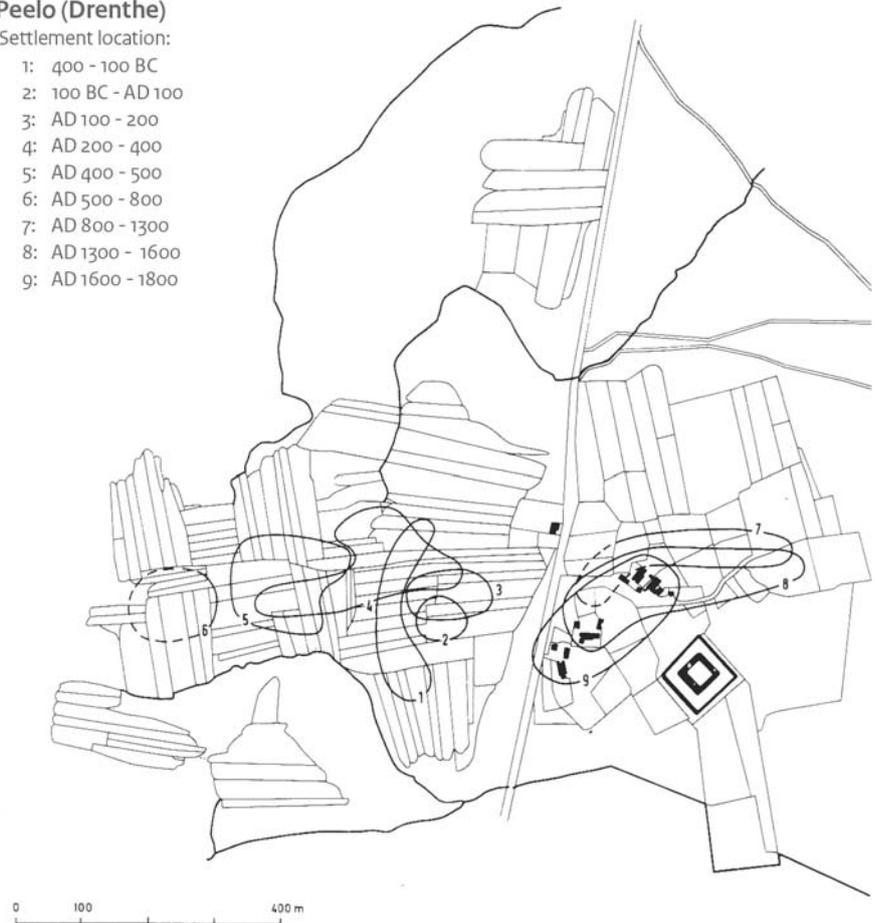


Figure 4.27 The village of Peelo (Drenthe) (Waterbolk 1984).

Nevertheless, the period between the end of the Roman Empire and the eighth or ninth century AD in North-Western Europe was characterised by a very dynamic settlement pattern (figure 4.27).<sup>194</sup> Wooden-framed houses, with their construction of wooden posts dug into the ground, had to be rebuilt every generation. A reason to rebuild on another location could be that the soil of the old farmyard was enriched by the waste that was deposited around the house and therefore made good arable land. In the course of the early Middle Ages, the pattern of moving settlements gave way to a landscape of settlements on fixed locations, often the locations they still have nowadays. In many regions this fixation of settlements seems to have coincided with a period of population growth and growing pressure on the land.

A second process was the emergence of nucleated villages. Most villages developed in the course of the Middle Ages from much more humble origins. In many regions, hamlets and dispersed farms seem to have been a characteristic of the early medieval landscape. In North-Western Europe in general, many of the more important settlements probably had a manorial origin.

The development from hamlets and individual farms to villages can be partly explained by population growth, which could lead to the splitting of farms and to the emergence of clusters of farms. But there are also likely to be other processes at work. Whereas in France, for example, the church hierarchy, including the pattern of rural parishes, was for a substantial part a continuation of the

<sup>194</sup> The best-known Dutch example is Peelo (Bardet *et al.* 1983).

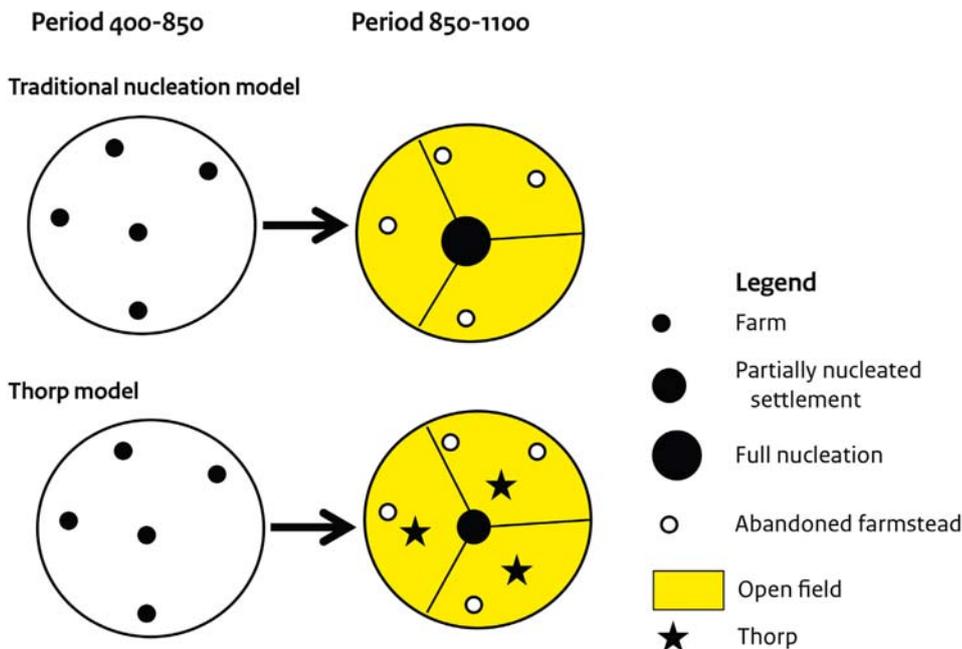


Figure 4.28 Thorpe model versus the traditional nucleation model (Cullen *et al.* 2011, 150).

Roman settlement hierarchy;<sup>195</sup> further north and east the (re)introduction of Christianity brought a network of churches that were, in many cases, built by the lord of the manor. In turn, the old manorial centres survived as parish centres. The manorial origin of villages can often be seen by the existence (sometimes even today) of a combination of a church with a castle, a manor or a large farm.

Another development that is often linked to the development of villages, was the appearance of the earliest open fields in the landscape. From the ninth century onwards, the open fields developed with their ever more fragmented land ownership that made it ever less useful to build a farmhouse in the fields and that favoured farm locations in the villages that were at the centre of the road-pattern.<sup>196</sup> This must be one of the explanations for the change from a pattern of dispersed settlement into one of concentrated villages and the desertion of older dispersed hamlets and farms. Such developments have been described in Britain as well as on the Continent (Germany in particular).<sup>197</sup> In the medieval core regions of the open field landscapes, the large common fields are almost everywhere combined with nucleated villages. However, the relationship between villages and

open fields is certainly not as simple as was once imagined.<sup>198</sup> In the first place, open fields occur in combination with a variety of different settlement types. In many regions, small – and sometimes also larger – open fields are combined with hamlets and dispersed farms.<sup>199</sup> In the oldest development of villages and open fields, there are still questions of chronology. The dating of the process of settlement concentration is still not completely clear; opinions vary between the eighth and twelfth centuries and, in an interesting contribution, Brown and Foard even concluded that the concentration of villages preceded the development of the common fields, making the connection between the two still more complex.<sup>200</sup>

There is now a fragile emerging consensus among English medieval archaeologists that agricultural intensification and nucleated settlements emerged across the countryside of southern England in the so-called 'long eighth century' (i.e., between the late seventh and early ninth centuries).<sup>201</sup>

What is significant, however, is that these agricultural landscapes and settlements developed in different ways in different

<sup>195</sup> Zadora-Rio 2009.

<sup>196</sup> Renes 2010, 37-70.

<sup>197</sup> Williamson 2003, 13-14; Lewis, Mitchell-Fox & Dyer 1997; Schreg 2006, 141-162.

<sup>198</sup> Rippon 2008, 13; Oosthuizen 2013, 96-98.

<sup>199</sup> See for example Flatrès 1957, 420; Roberts & Wrathmell 2002. Roberts & Wrathmell also show the nuances and complexities.

<sup>200</sup> Brown & Foard 1998, 67-94; Higham 2010, 1-21.

<sup>201</sup> Wickham & Hansen 2005; Smith 2007.

regions.<sup>202</sup> Hence, in the English South-West, a form of convertible husbandry emerged which relied upon crop rotation, with few nucleated settlements. In East Anglia, and the south and east Midlands, agriculture was also intensified, but in this case it was tied to the appearance of nucleated villages. Lambourne has demonstrated that this settlement pattern was fossilised in the 'Midlands' region, whereas in East Anglia it subsequently developed into a pattern of dispersed farmsteads around greens and commons. We should therefore be aware of the possibility of what Lambourne terms 'divergent developments'.<sup>203</sup>

Another model has been presented by Cullen *et al.*, who see a group of smaller clusters, which they call 'thorps', as an intermediate stage between dispersed settlements and nucleated villages. In their model, thorps are outlying settlements from where each of the new large arable fields were farmed (figure 4.28).<sup>204</sup> Since their early days, the nucleated villages in the open field landscapes have become larger and more densely built. The medieval nucleated villages must have had a relatively open structure, often with farms situated around a village green. The very large, densely built settlements such as the German *Haufendörfer* mainly date from the period of early modern population growth, when the houses of cottagers and labourers filled the gaps between the old-established farms, as well as (in many cases) the village green.<sup>205</sup>

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#### 4.8 Village Formation in the Netherlands (c. 800-1600): Integrating Theoretical Perspectives

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The focus of this research project is on the archaeological evidence for village formation in the Netherlands, c. 800-1600. We have adopted a dual approach to this problem. On the one hand we have taken a 'bottom-up' approach and looked at the combined archaeological data of rural settlements to see how, when, and where this process of nucleation took place. Parallel to this, we have also taken a 'top-down' approach and have looked at data from existing historic villages to see how, when, and where these places came into existence.

It will be clear from the preceding chapters that we set out on this project with an inductive approach to the problem of village formation and hoped to be able to identify patterns and processes from the assembled archaeological data. In the course of our research it became clear, however, that the archaeological dataset at our disposal was inadequate and could not be relied upon to address the subject of village formation through a process of inductive reasoning. After consulting with the RCE, we therefore changed our strategy to adopt a deductive approach which sets out to test theories using archaeological data. We have to admit that this approach has also proved to be problematic inasmuch as many of the key concepts and processes that have been identified by interdisciplinary theoretical approaches to settlement studies are too abstract to be useful in the analysis of archaeological evidence. Our main problem was the discrepancy between the various conceptual levels. First, there is the difference in scale between the research subject (the village) and archaeological observations. Because of the nature of development-led archaeological interventions, archaeological excavations are rarely able to recover the entire plan of medieval village. The majority of commercial excavations are simply too small to allow reliable statements to be made about the development of habitation at a settlement level, and leave too many uncertainties. Second, due to their nature and complexity, many of the major processes in village formation are poorly visible archaeologically, or may only be observed indirectly. While evolving settlement patterns can be reconstructed from archaeological evidence, their interpretation relies heavily on information and theories from other disciplines which operate on different levels of scale and abstraction. The challenge therefore lies in how to connect these various types of information. A solution to this dilemma has been found by using the framework of historical geography. In historical geography, studies are frequently conducted at the level of the village, or village territory, and may be easily connected to both sub-local observations and regional patterns. This allows overarching hypotheses about settlement processes to be constructed. Archaeology has the capacity to test these hypotheses against physical evidence, and can also generate new primary data from

<sup>202</sup> See discussion in Rippon 2009, 241-242.

<sup>203</sup> Lambourne 2008.

<sup>204</sup> Cullen *et al.* 2011.

<sup>205</sup> For example: Vits 1999, 95-115; Williamson, Liddiard & Partida 2013, Plate 27.

archaeological interventions, while historical studies provide the wider social, political and economic frameworks for archaeological data. In table 4.5 we present the path of inference related to the book chapters.

To conclude, it will be apparent in the following chapters that we have adopted an inter-

disciplinary approach, using both inductive and deductive methods to address the problem of village formation, and that our archaeological case studies have been carefully selected and have only been incorporated into our analysis when sufficient archaeological information is available.

**Table 4.4 Overview of historical established social factors (HF) related to settlement nucleation and their correlating physical, spatial and/or temporal manifestation in habitation (HM).**

	Social factor (AF)	Example of AF	Physical, spatial and/or temporal manifestation in habitation (AM)
1	<b>Vertical relationships</b>	Power/coercion, authority, dependency relationships	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> close to (albeit physically separated from) a manor or castle</p> <p>3. <b>Duration:</b> n/a</p>
2	<b>Horizontal relationships: Social relationships</b>	Solidarity, kinship, identification with community and/or community territory)	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> n/a;</p> <p>3. <b>Duration:</b> n/a</p>
3	<b>Social-economic relationships</b>	Cooperation in the commons	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> n/a;</p> <p>3. <b>Duration:</b> n/a</p>
4	<b>Social-juridical relationships</b>	Common duties: paying taxes like tributes and tithes and common rights and duties with respect to the commons, common alderman court	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> n/a;</p> <p>3. <b>Duration:</b> n/a</p>
5	<b>Social-religious relationships</b>	Confession of faith, joining common mass, worship of common saint, identification with a common saint and/or church territory (parish or not	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> concentrated around a church or chapel;</p> <p>3. <b>Duration:</b> n/a</p>
6	<b>Agrarian strategies</b>	Cooperation on the fields during the agrarian cycle	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> n/a;</p> <p>3. <b>Duration:</b> n/a</p>
7	<b>Urbanization</b>	Labour division and specialisation	<p>1. <b>Composition:</b> concentrated settlement;</p> <p>2. <b>Lay-out:</b> a (central) market square; clustered non-agricultural habitation.</p> <p>3. <b>Duration:</b> n/a</p>

**Table 4.5 Path of inference related to book chapters.**

Scale	Disciplines	Focus	place in the volume
Supra-regional level	conceptual frame based on anthropology, historical geography, history and archaeology	processes & dynamics of village formation	Ch.4
Regional level	regional settlement models form archaeology & historical geography	models relating to settlement patterns	Ch.6 & 8
Local level	case studies using archaeology, anthropology & historical geography	models of property relations	Ch.6 & 7



# 5. Methods and operationalisation

One of the main challenges of this research was to come up with an adequate method to study a complex subject like village formation within the assigned parameters. This exploration was an essential part of the research process, as it confronted us with the potential and limitation of the present data. Our plans needed to be adjusted and revised on several occasions along the way. This chapter describes this process and its outcome. It fits the general approach as is described in the previous chapter and covers all three phases of the assignment.

In order to establish an effective method for studying a complex process like village formation, and compile an inventory of relevant excavations, it is necessary to describe how the key elements or processes manifest themselves archaeologically (§5.1) and what indicators we need to be looking for (§5.2).

From here we describe how we collected (potential) relevant sites and how their usefulness was assessed (§5.3). Because the evaluation of this inventory demonstrated that results were of limited use for the initial inductive approach, we adjusted our strategy towards a deductive line. This meant that we needed to list the current hypotheses on village formation for the various (archaeological) regions (§5.4). This, however, did not provide us with the archaeological indicators we needed to corroborate with our sites. The missing link between archaeological models and individual site was found in the historical-geographical studies of villages and village territories. We then looked for case studies in which a combination of these three elements were present (§5.5). These studies were used for further analysis (§5.6).

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## 5.1 Archaeological manifestations

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The first step was to establish what archaeologically observable remains are likely to have been left behind by the objects and processes that are the subject of this study.

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### 5.1.1 Village

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Based on the definition in the previous chapter, a village is first and foremost a collection of houses with a certain spatial cohesion or structure. This involves a degree of proximity or clustering and a location on a road or waterway or around a green, square or field. A green or square can be identified by a central open space in the settlement, possibly featuring a drinking hole or fence.

Until about the fourteenth century<sup>1</sup> the load-bearing structure of these houses was set into the ground, which meant the houses left behind the imprint of a house plan in the soil. After that time, buildings on footings (*poeren*) made their appearance, making houses increasingly less identifiable through a house plan (partial or complete). Other farmstead elements such as wells, pits, ditches and, in sandy regions from the fifteenth century onwards, deep-litter byres continued to be identifiable soil features.

First and foremost, the amenities comprised of a church or chapel and graveyard. In the early phase the church was still a wooden building but at the latest, from the Late Middle Ages onwards, it was built of brick or stone. Graveyards should be sought in the vicinity of churches.

Other amenities are mainly manifested as traces of mills, artisanal activity or trade in ground features (ovens, pits, etc.) and in find material (loom weights, cloth seals, coin weights, the use of barrels in well structures, and so on).

A certain level of stability and continuity can be assumed for villages. This is expressed in successive overlapping floorplans with a long duration of use and may have increased with the advent of construction on brick footings and walls, as these increase a building's durability.<sup>2</sup>

These characteristics make up part of the criteria that will be used to inventory and assess relevant research data in Phase 1.

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<sup>1</sup> There are some regional differences on the exact moment and pace in which the use of padstones or brick footings became common practice in the construction of houses (Schabbink 2015, 209-221).

<sup>2</sup> Zimmermann 1998, 172.

The preliminary study will produce a substantiated estimate of the size of these settlements and the degree of clustering.

It should be noted that there is a difference between agrarian villages and those with service functions (*verzorgingskernen*), although in reality this distinction was often blurred.<sup>3</sup> The former were mainly made up of farmhouses, which were interspersed at a later date with growing numbers of smallholder dwellings and non-agrarian buildings. The latter group predominantly comprised central functions such as a church with rectory, pub, blacksmith and baker. The number of service occupations increased over time. Many villages in the second category remained very small for a long time and did not begin to grow until the Early Modern period.

Apart from the definition based on external characteristics, we know of a large number of settlements which, based on textual sources (especially from the thirteenth century onwards), were regarded as villages. Such settlements will therefore be fully integrated into the study. Although most of these villages still survive, their medieval structure and development is not usually known. Moreover, their present location does not necessarily correspond to the core of occupation in previous periods. For the rest, all parish churches and significant chapels are known. It is important to bear in mind, however, that some settlements continued to shift after these were built, leaving the church isolated in the landscape.

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### 5.1.2 Village formation

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Village formation can manifest itself archaeologically as a development whereby habitation clustered in successive phases from small, dispersed settlements to a larger settlement with the appearance of the above-mentioned amenities (artisanal industry, trade and church) that were not yet present in the smaller settlements from the previous period.<sup>4</sup>

This process could also involve the emergence and growth of a settlement core with the above-mentioned characteristics around a new focal point such as an aristocratic residence.

New foundations are harder to identify because they entail an absence of occupation in a previous period. Usually, however, new foundations were linked to land reclamations and mainly involved small-scale, dispersed habitation.

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### 5.1.3 Settlement stability (question 2.1)

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The process by which settlements became stable is reflected in the settlement pattern over consecutive periods. This stability of location is evident in the fact that successive building phases of the farmsteads making up the settlement were built on the same yard or its spatial equivalent (about 50 x 50 m for regular farms). If built for permanence and well maintained, these buildings could remain in use for a long time. In that case, there are no successive floorplans and we must deduce long-term use from traces of maintenance and renovation and by dating associated features (or find material from these features) with a shorter duration of use, such as rubbish pits and wells. Stability also occurs at settlement level. Here, the settlement's structure and layout may change, but we speak of stability if these changes occur on roughly the same site.

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### 5.1.4 Factors behind settlement stability (question 2.2)

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Of these factors, it is a settlement's location in the landscape that is best observed archaeologically. This can be defined in terms of the physical-geographic landscape (geomorphology and soil science) and the anthropogenic landscape (land use and layout). Both are, of course, dynamic entities which cannot be indiscriminately derived from (recent) maps.

In order to study the church as a factor in settlement stability, we are limited in archaeological respects to the church and graveyard. Whether or not they coincide with traces of habitation can shed light on whether the church was built in an existing, clustered settlement, whether the settlement and church were built in that location at the same time,

<sup>3</sup> Many of the late medieval and early modern service centres had a substantial agricultural component, even regional towns.

<sup>4</sup> Other modes of development are possible too, such as the formation of a settlement nucleus without a contraction or relocation of the surrounding dispersed settlement, or the foundation of a completely new settlement cluster.

or whether occupation became concentrated over time at a site where a church had been built at an earlier date, such as near an aristocratic residence or a manorial estate. Other aspects of the role of churches must be mainly sought in historical sources. The same applies to political, administrative and socio-economic factors. For example, a demesne was above all an administrative unit that is difficult to identify archaeologically as a physical entity.<sup>5</sup> However, in some areas it is possible to reconstruct land-ownership on the basis of retrospective analysis on early modern historical-geographical data.

The relationship between settlement stability and economic factors can also be gleaned from the presence of artisanal industry and trade. On a local level one would look at the correlation between the emergence of these amenities and the fixation of the settlement pattern. The influence of the development of the wider (regional) economic network and the early market economy could be studied from the correlation with trade and craft in nearby villages and towns.

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### 5.1.5 Age and spatial and functional development of historical village centres (question 2.3)

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The development of an existing village centre is revealed in successive traces of habitation, preferably in an unbroken series up to the present-day occupation. The composition of find material from a site can also provide clues here. Spatial development can be inferred from a time-space picture based on the nature and presence of features and structures from a particular period in a particular part of the village. Functional development is expressed archaeologically in a settlement's structure and location, and the presence of buildings and remains associated with specific activities. Thus, the presence of artisanal production and a (market) square, combined with a favourable infrastructural location, can indicate the important role of trade, while the presence of a monumental church can reveal the religious function. The ecclesiastical layout and position of villages is also well attested in textual sources.

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### 5.1.6 The role of towns in settlement stability, village formation and village development (question 2.4)

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We can assume that towns played a role in settlement stability where there is a logical connection between the development of the two. This connection may be evident in simultaneous developments, in which case a direct relationship is plausible. The nature of that relationship depends on the development in question. One settlement may also succeed another, in which case related developments occurred in one settlement and then in its successor.

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### 5.1.7 The shifting and disappearance of villages (question 2.5)

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We know that villages have shifted when there is evidence of occupation at a different geographical location in the subsequent building phase. This may even occur after a period of stable occupation. In order to establish that we are in fact dealing with the shift of an existing settlement, we must be able to demonstrate that the different archaeological settlements follow immediately upon one another chronologically and there must be some similarity of size and composition. When a settlement disappears, there is no further habitation at that location in the following period, nor is there a new settlement in the vicinity in that period.

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## 5.2 Archaeological indicators

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Following on from the above, we will also determine what the indicators are for the objects and processes we will study and what information we will require. This constitutes the data to be collected in our study, with a view to answering the research questions. In this section we describe this for the key terms and research questions in the different phases of the study.

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<sup>5</sup> Recently, however, Van Doesburg presented an overview of excavated manors in Holland, which served as residence for a lord and a location for the manorial court. These formed the heart of the feudal manor (Van Doesburg 2013).

### 5.2.1 Village

**Table 5.1 Manifestations and archaeological indicators of various characteristics of villages.**

Characteristic	Manifestation	(Archaeological) indicator
Habitation	(farm)yards or tofts	• archaeological (farm)yards or tofts (combination of house plans, wells and possible other buildings)
		• surviving houses
Settlement structure	spatial structure	• clustered and/or logically structured (archaeological) (farm)yards
Larger size	number of contemporaneous (farm)yards	• several contemporaneous house plans
Amenities	church and graveyard	• archaeological floorplan
		• surviving church
	inn	• historical references
		• archaeological finds (large amount of drinking vessels, coins, tokens)
	artisanal industry	• archaeological ground features (oven, pits, etc.)
		• archaeological finds (smithing slag, tools, waste, etc.)
• historical references		
trade	• market rights	
	• weighing rights	
	• market place (open area in the settlement)	
	• archaeological finds (weighing equipment, cloth seal, etc.)	
mill	• archaeological floorplan	
	• infrastructure (mill pond, mill race) (water mill)	
Non-urban	legal status	• no known privileges (town rights)
		• referred to as a village ( <i>villa</i> )
	physical characteristics	• no walls

### 5.2.2 Village formation

**Table 5.2 Manifestations and archaeological indicators of various characteristics of village formation.**

Characteristic	Manifestation	(Archaeological) indicator
Settlement structure	change in spatial structure	• clustering of archaeological farmsteads in successive building phases
		• growing stability of archaeological farmsteads in successive building phases
Increase in size	increased number of (farm)yards	• increase in number of farmsteads in a settlement during successive building phases
Amenities	building of amenities	• building of a church
		• appearance of indicators for artisanal activity
		• appearance of trade indicators
		• historical references to the above

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### 5.3 Inventory of archaeological sites

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The first part of the research comprised of making an inventory of relevant archaeological data. This was a three step process. The first step was to catalogue (potential) relevant data (excavation reports) based on the national database Archis and to collect the corresponding reports. Next, this data was evaluated on relevance and usefulness.<sup>6</sup> Based on this the research plan was updated and (four) suitable regions were selected for a detailed study in the next part of the research.

1. listing (potential) relevant archaeological sites;
2. assess the usefulness for our topic;
3. select suitable regions for further analysis.

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#### 5.3.1 Define relevant sites

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As demonstrated in chapter 4, the term ‘village’ is deceptively complex and diverse. Since it is an administrative and legal term first, finding a village in the archaeological record is not straightforward. In accordance with the description in the assignment we decided to limit the term to a non-urban nucleated settlement with secondary facilities of which a church is the most prominent. As such, it is very similar to a parish centre.

Due to their scale, villages will seldom be fully excavated as a whole or by one commercially funded archaeological intervention. The survey therefore aims to select sites that meet the individual characteristics of these villages. Since the focus lies on village formation, both clustered settlements and individual farmsteads are included from our inventory.

Based on this we have selected the following site types selected from the Archis database:

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#### 5.3.2 Making an inventory: collecting data

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For the gathering of potentially relevant case studies we relied on the national Archaeology database Archis and DANS, the national digital repository for scientific research data. Because access to Archis was limited during this phase, due to a major update, we had to obtain a substantial number of excavation reports from the contractors directly.<sup>7</sup>

From the Archis database we selected studies that met the following criteria:

- excavations (AOP);
- published between 2005 and July 2015;
- containing relevant site types;
- falling within our dating range 800 – 1600 (725-1650) AD.<sup>8</sup>

In this inventory we used records from both notifications (*onderzoekmeldingen*) and observations (*waarnemingen*). These records were transferred to a separate database which we specifically designed for this project (figure 5.1).

The above query resulted in a total of 1316 records. This raw data was not suitable for instant use as it contained:

- duplicate records;
- duplicate data e.g. duplicate projects with different notification numbers;
- recent additions of old, pre-Malta cases;
- errors.

After clearing the dataset 722 case studies remained. Since our study focuses on villages, we excluded those excavations that were conducted in urban areas, 312 cases in total.<sup>9</sup> The problem with this is that archaeological sites are documented in Archis by their present day topography. Medieval villages that were incorporated in cities at a later stage could not be excluded from this selection. Because no GIS maps with the contour of all historical settlements are presently available, this problem could not be easily overcome at this stage. Therefore, we had to make do with this selection. This results in a total number of 410 cases.

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<sup>6</sup> To establish the usefulness of a site for this study, five criteria are assessed: the integrity of individual structures, the integrity of the settlement (farm yard level), the accuracy of dating, and the information value and the value within a larger assemblage. These criteria are rated 1 (low) to 3 (high) and result in a ranking.

<sup>7</sup> We are very grateful for the cooperation of the various archaeological companies that provided us with the necessary data.

<sup>8</sup> Due to the standardised period designation used in the Archis database, we selected sites in which occupation effectively fell within the range between AD 725 (start: Early Middle Ages D (VMED)) and AD 1650 (end: Modern Period A (NTA)).

<sup>9</sup> To do this, we used a list of towns with borough rights during the given period.

Table 5.3 Site types selected from Archis database and corresponding ABR-codes.

ABR code	Complex type (Dutch)	Complex type (English)
<b>Settlements</b>		
NHP	huisplaats, onverhoogd	Farmyard, not raised
NHT	huisterp	Dwelling mound for individual house
NKD	kampdorp	Village near military camp
NX	nederzetting, onbepaald	Settlement, not raised, unspecified
NT	terp/wierde	Dwelling mound for larger settlement
NWD	wegdorp	Village along a road
<b>Church &amp; churchyard</b>		
RKAP	kapel	Chapel
RKER	kerk	Church
GVIK	kerkhof	Churchyard
<b>Craft &amp; industry</b>		
EIBB	beenbewerking	bone working
EIB	brouwerij	brewery
EX	economie, onbepaald	economy, unspecified
EIGB	glasblazerij	glassworks
EIHB	houtbewerking	woodworking
EIX	industrie/nijverheid	industry
EILL	leerloerij	tannery
EIMB	metaalbewerking/smederij	metalworking/forging
EIM	molen	mill
EIPB	pottenbakkerij	pottery
EISM	smelterij	smelter
EISB	steen-/pannenbakkerij	brick/ tile maker
EITN	textielnijverheid	textile industry
<b>Raw material extraction</b>		
EX	economie, onbepaald	economy, unspecified
EIHK	houtschool-/kolenbranderij	(char)coal burning
EIKB	kalkbranderij	chalk burning
ELEK	eendekooi	duck decoy
EGX	grondstofwinning	raw material extraction
EGKW	kleiwinning	clay extraction
EGMW	mergel-/kalkwinning	marl/Chalk extraction
EGVW	veenwinning	peat extraction
EGYW	ijzerwinning	iron extraction
EVX	visserij	fishing
EGZW	zoutwinning/moernerij	salt extraction

**Oogst voor Malta: Dorpsvorming in de Middeleeuwen ca. 800 - 1600**

OMG\_nr: 36805 MDG\_nr: 0 WNG\_nr: 441409 onderzoekstyp: AOP

onderzoeksnr: onderzoek: **Barneveld - Harselaar West-west 2009**

periode(n) ROM VMEA VMEB VMEC VMED LMEA LMEB NTA NTB NTC

nederzetting:  nederzettingvorm: 1 aantal erven: max. gelijktijdig:

kerk/kapel:  molen:  handel:  markt:  tol:  nijverheid:  opmerkingen:  fasering geheel/interpreteerd door Schabbi

Record: 1 of 1

archeoregio: Utrechts-gelders zandgebied

provincie: Gelderland

gemeente: Barneveld

plaats: Barneveld stad:

toponiem: Harselaar West-west

X: 167619 aanvang: 21-9-2009

Y: 464037 afronding: 28-4-2011

ultvoerder: BAAC BV

oppervlak: 1,2 ha.

relevant:  Ja

bruikbaarheid: 12 / 15

gaafheid: 3

completeid: 2

dateerbaarheid: 3

informatiewaarde: 2

ensemblewaarde: 2

Record: 1 of 1

Record: 1 of 1

Record: 1 of 1

Figure 5.1 Project database created to collect and evaluate possible relevant excavations.

**Table 5.4 Overview of archaeological periods according to the *Archeologisch Basisregister (ABR)* used in this report.**

Period	Abbreviation (NL)	Date
<b>Modern Period</b>	<b>NT</b>	<b>AD 1500 – present</b>
<i>Modern Period C</i>	NTC	AD 1850 – present
<i>Modern Period B</i>	NTB	AD 1650 – 1849
<i>Modern Period A</i>	NTA	AD 1500 – 1649
<b>Middle Ages</b>	<b>ME</b>	<b>AD 450 – 1499</b>
<i>Late Middle Ages</i>	LME	AD 1050 – 1499
<i>Late Middle Ages A</i>	LMEB	AD 1250 – 1499
<i>Late Middle Ages A</i>	LMEA	AD 1050 – 1249
<i>Early Middle Ages</i>	VME	AD 450 – 1049
<i>Early Middle Ages D</i>	VMED	AD 900 – 1049
<i>Early Middle Ages C</i>	VMEC	AD 725 – 899
<i>Early Middle Ages B</i>	VMEB	AD 525 – 724
<i>Early Middle Ages A</i>	VMEA	AD 450 – 524
<b>Roman period</b>	<b>ROM</b>	<b>12 BC – AD 449</b>
<i>Late Roman Period</i>	ROML	AD 270 – 449
<i>Middle Roman Period</i>	ROMM	AD 70 – 269
<i>Early Roman Period</i>	ROMV	12 BC – AD 69

### 5.3.3 Assessing the potential relevant data

Next, the remaining case studies were assessed for their relevance and usefulness. This was done using the site reports which were gathered for this purpose. The assessment was conducted in three steps. First, the cases were filtered based on:

1. the availability of a site report;
2. if the report met the previous selection criteria (is the information in Archis accurate?);
3. an assessment to determine if the data actually correlated with the research topic.

Next, a number of properties were listed from each study. These related to the archaeological site (site types, settlement type and size and date) as well as the research itself (research type and excavated surface area). These were entered into the database.

Finally, the usefulness of the sites for this research was rated based on five criteria:

1. **Intactness** (*gaafheid*): The quality of individual structures;
2. **Completeness** (*completetheid*): The quality of the complex as a whole;
3. **Datability** (*dateerbaarheid*): The accuracy with which the complex could be dated;
4. **Information value** (*informatiewaarde*): The extent to which the site contributes to knowledge on village formation;
5. **Assemblage value** (*ensemblewaarde*): The extent to which a site correlates with other sites either within the same excavation or in the vicinity.

Each of these criteria was rated low (1), medium (2), and high (3). The combined result was used as a measure for the **usefulness** (*bruikbaarheid*) of the sites.

### 5.4 Inventory of medieval settlements and churches

From our dual approach (§4.7) we next looked at the available data from existing villages in order to establish when, how and why these places

came to be. For this we used a list of present-day villages with a medieval origin that was recently compiled by Van Lanen.<sup>10</sup>

From the notion that most of the villages in the Netherlands date back to before the Late Middle Ages, Van Lanen used OpenStreetMap to collect basic settlement information. From this data set he excluded settlements that were located in parts of the country that were uncultivated during the Early Modern period (e.g. heathlands, younger reclamation areas) using *Atlas van Nederland*,<sup>11</sup> *Histland*<sup>12</sup> data and the Archaeological Landscapes Map of the Netherlands.<sup>13</sup> The map does not include towns and villages that have disappeared or were deserted since then (e.g. as a result of flooding, war or depopulation).

Although this map presents us with a useful overview, it has some limitations that need to be kept in mind when using it. First, it displays the central coordinate rather than the contour of the settlement. This means that archaeological sites need to be selected based on proximity to this point instead of overlapping with the settlement area. More importantly, this coordinate is derived from the current village centre. This might or might not coincide with the medieval village centre. Since the medieval origin of the village is derived from historical sources rather than archaeological observations it is uncertain if today's centre is located on the same site the medieval centre occupied. Examples in Brabant show that village centres were moved on several occasions.<sup>14</sup> And in the fenlands, villages were often relocated following the subsequent reclamations.<sup>15</sup>

In order to obtain a more complete overview we wanted to include the medieval churches. Not only are these a major indicator for a village and an important factor in village formation, due to their attachment to the consecrated ground, they tend to be (more) stable in geographical terms.

The most comprehensive list of churches and chapels can be found in the Historical Atlas of the Netherlands (*Geschiedkundige Atlas van Nederland*).<sup>16</sup> The atlas describes the ecclesiastical organisation as it was before the reformation around the middle of the sixteenth century and lists the known parish churches and chapels.

<sup>10</sup> Van Lanen *et al.* *in prep.*

<sup>11</sup> Maps by J. Renes in *Atlas van Nederland* (Thurkow *et al.* 1984; Atzema *et al.* 1990).

<sup>12</sup> *Histland* contains data on the reclamation and dynamics of the Dutch landscape. Website: <http://landschapinnederland.nl/bronnen-en-kaarten/histland>.

<sup>13</sup> This dataset was developed in 2015 by the Cultural Heritage Agency of the Netherlands. Website: <http://archeologieinnederland.nl/bronnen-en-kaarten/archeologische-landschappenkaart>.

<sup>14</sup> During the Late Middle Ages some settlements were moved, leaving the church behind on the former settlement location (Theuws 1989, 184-185). In the Modern period the conventicle that was built on the edges of the village could become a new focus point for settlement and expansion (Leenders 2011).

<sup>15</sup> Van Regteren Altena 1978, 22; 1979, 33 and 36; Besteman & Guiran 1986; De Langen 1992, 91-92, 96-97 and 107; De Bont 2014, 121-125 and 228.

<sup>16</sup> Muller 1914.

This data is not digitally available, however, and digitising it exceeds the scope of this study, not in the least because the small scale of the map would require georeferencing the churches on an individual basis.

An alternative approach using the monument register of the National Heritage Agency turned out to be fruitless. Although the listed churches came with a precise geographical location, the list was far from complete as it only contains buildings that are listed as national monuments. Also, churches that do not exist anymore are not included. Since their site are rarely listed as an archaeological monument, their location is not well documented. From the churches that are listed, only a small number are soundly dated.

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## 5.5 Inventory of conceptual models

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From our initial assessment of reports from rescue excavations, conducted over the past ten years, the project team concluded that there were too few relevant sites for a reliable synthesis of village formation based on qualitative analysis (§ 6.1.3). Moreover, these sites differ substantially, both in their nature and the quality of the available data, and are unevenly distributed within the regions. From this we decided to adjust our research strategy and use the data to test existing hypotheses from historical geography, archaeology and anthropology on the topic (§ 6.1.4).

Recent models were collected for most of the (supra)regions in the Netherlands. Rather than collating a complete list we wanted to limit ourselves to the main publications. Therefore, we chose to do this by consulting the experts of our advisory board. This will inevitably result in some regional bias, but we strove to cover all regions. Next, an excerpt was made from these publications according to a uniform format. This consisted of a general outline of the habitation history of the region in question, followed by a specific account of the developments regarding village formation. From this we deduced archaeological indicators and drafted a method to test these models.

Then the regions with models and suitable indicators would be combined with the archaeological sites collected in the previous inventory to see which matched best. In accordance to the assignment, four regions would be selected for further analysis: the cover sand areas of Overijssel-Guelders (AR 3) and Brabant (AR 4), the Holland dune area (AR 11) and the Utrecht-Guelders riverine area (AR 13).

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## 5.6 Inventory of historical-geographical case studies

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The study of the regional models revealed that the level of synthesis on settlement development varied substantially between the regions. More importantly, the current models generally proved to be too abstract to test the data from the excavations. The levels of observation were too far apart (§ 6.5).<sup>17</sup>

In order to connect these information levels in a meaningful manner we turned to historical geography. Rather than the morphogenetic deconstruction, based mainly on nineteenth century maps and secondary literature, an in-depth retrospective analysis of village territories using a wider range of primary sources has proven to be more successful, especially if conducted as part of an interdisciplinary study. In its most elaborate form this approach was described by Spek and applied in the case studies of his dissertation,<sup>18</sup> but others have also produced useful results in lighter studies along these lines.<sup>19</sup>

One of the main advantages of historical geography is that its scope is more in harmony with the scale of objects we study, as it is able to cover an entire village territory and does so from the start of the research. Archaeological observations hardly ever cover more than some fragment of a settlement. Further, through analysis of written records it can give an insight into processes like land ownership and common law that played a key part in village formation, but are virtually invisible archaeologically. This provides the framework in which archaeological observations can contribute by providing a date range to known elements, add information on elements that are not known from the written record and test the geographical reconstructions in the field.

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<sup>17</sup> Because this is an outcome of our evaluation of the regional models and part of a wider methodology, this will be discussed in Chapter 6.

<sup>18</sup> Spek 2004, 1004. Spek's reconstruction method combines information from historical geography, medieval history, agricultural history, archaeology, toponymy, soil science, micromorphology and palaeobotany.

<sup>19</sup> For example see Keunen 2006; Vangheluwe & Spek 2008; Fermin 2015.

Following these conclusions we made an inventory of historical-geographical case studies of villages or village territories that produced (or enabled) a reconstruction of its forming and development (appendix 5). Since a general overview or database of historical-geographical studies does not exist, we again relied on consulting the experts on our advisory board to collate a list of relevant studies.

We subsequently compared this with the archaeological inventory to establish for which of these territories (sufficient) archaeological observations are also available.

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## 5.7 Analysis

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Next we combined the results of the various inventories to get an overview of the available data on the different levels of observation (Ch. 7). This showed that only for a very limited number of village territories, a combination of regional models, historic geographical studies and relevant archaeological observations were available.

Unfortunately, this corpus of villages did not fully meet the criteria set for the assignment, as these were not spread evenly throughout the Netherlands. In order to comply, we chose to select two cases based on the availability of a combination of archaeological and historical-geographical data and two primarily for the excellent quality and relevance of archaeological data. This selection inherently takes two distinct approaches to the topic of villages formation and produces separate outcomes. As a result, the emphasis of Phase 2 was shifted towards the methodology.

This shift was viewed as an opportunity, with regard to the update of the National Archaeological Research Agenda, as it was expected that the depth of insight in the processes related to village formation would be profoundly different if studied within a historical-geographical framework than if described only using archaeological data. This is particularly relevant because in most cases during archaeological excavations no comprehensive historical-geographical analysis of the area will be available.

The individual cases were described and analysed according to the following format:

1. Presentation of the available dataset;
  2. Presentation of the current regional settlement model(s);
  - 3\* Presentation of a historical-geographical study;
  4. Presentation of archaeological observations;
  5. Description of the settlement history (500-800-1600);
  6. Explanation of the settlement history (500-800-1600);
  7. Extrapolation to the (archaeological) region;
  8. Conclusion.
- \* *if available.*

First, an overview is provided of all the data we collected for the case from the various disciplines. Next, the current regional settlement model is presented and specified to the development of villages. Then, if available, the historical-geographical data is discussed to provide an overview of the village and a model for its development on a local level, to identify key factors in this development and deduce archaeological indicators to test these. Next we present the archaeological observations and describe the characteristics of the settlement remains according to their composition, lay-out and date. This provides the information for the reconstruction of the development of the village between AD 500 and 1600.<sup>20</sup> Subsequently, we try to identify the major processes that led directly or indirectly to the formation of the village and check what the general social factors (see Ch. 4) contributed to this.

Next, we extrapolated our findings to the (archaeological) region to see if these factors also determined the development of other villages in this area, and to establish at what level these processes took place. The outcome was used to answer the research questions and synthesis.

The difference in approach, in both sets of case studies, is clearly reflected in the outcome. Although we have a reasonable understanding of what happened, how the settlement developed in space and time, the main differences occur in pinpointing the underlying processes. This issue will be addressed in the synthesis of the regional studies in chapter 8.

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<sup>20</sup> We expanded the period to the Early Middle Ages to provide a better context for the development of the settlement.

# **Part II**

## **Inventories & Assessment**



As part of the initial assignment we made an inventory and assessment of recent archaeological excavations that could contribute to our understanding of village formation.

As our research progressed we found that our archaeological dataset was inadequate to address this subject from an inductive approach and we had to adapt our strategy and design (Ch. 5). Since this required a different type of data, an additional inventory was needed. Over the course of this study this process reoccurred several times as we ran into dead ends or changed our view due to lack of relevant data, limited computability between datasets or new insights.

In this chapter we present the various inventories we conducted, and the datasets these produced, and discuss the outcome in relation to our research goals. These includes the adjustments we made to our strategy and approach along the way, as we value these insights as one of the major yields of this study.

## 6.1 Inventory of archaeological sites

The first part of our research aimed to collate archaeological excavations that could (potentially) provide relevant information for our study on village formation and subsequently assess their usefulness for doing so. For this, appropriate criteria were selected and a step-by-step plan was drawn up and carried out as described in chapter 5. In general, it relied on a dual approach. On the one hand we intended to look at the (combined) archaeological data of rural settlements to see how, when and where this process of nucleation took place. In parallel, we wanted look at the data from archaeological observations in the historical centres of existing villages to see when, how and why these places came to be.

### 6.1.1 The inventory results

The planned design proved to be only partially feasible. Historical topographical maps or land register plans were only digitally available for a limited part of the Netherlands. Therefore, we were unable to compile an integrated overview

of archaeological observations in historical village centres and present an overview of the age of existing villages at this stage. Subsequently, an overview of medieval church locations to act as a reference point for spatial queries, turned out to be too ambitious (§6.4).

The survey of archaeological data from Malta excavations was more successful. The query of ARCHIS resulted in 725 excavations.<sup>1</sup> Of these, 410 were located outside urban areas (figure 6.1).<sup>2</sup> For 377 of these sites (92%) a (digital) report could be collected. All of these reports were scanned and assessed. Of these, 190 (50%) qualified as being relevant, 46% of the total number of the rural sites (figure 6.2). A list of these relevant sites is included in appendix 1.

### Spatial distribution in relation to archaeological regions

The number of excavations varies significantly between the various archaeological regions (AR) (figure 6.3 and table 6.1).<sup>3</sup> If we look at the top four regions, as is outlined in the research assignment, we find that the sandy areas of Brabant (AR 4) and Overijssel-Guelders (AR 3), as well as the riverine area in Utrecht-Guelders (AR 13) clearly stand out. The peat and clay area and the dune region of Holland (AR 11 and AR 12) compete with the sandy area of Utrecht-Guelders (AR 2) for the fourth place.

The situation is less clear when we only look at the sites that are considered relevant for this specific subject. But investigated sites still seem to be the most abundant in the Brabandic sandy area (AR 4). The sandy area of Overijssel-Guelders (AR 3), as well as the river area in Utrecht-Guelders (AR 13), however, are very close in the race for second place. Also, for the fourth largest region, the numbers are very close between the Utrechts-Guelders sandy area (AR 2) and the clay areas of Friesland and Groningen (AR 7), and that of Noord-Holland (AR 8) with the subsequent areas (AR1, AR 11 and AR 12) only trailing by 3 or 4 sites.

### Site types

During our survey, excavations were classified and selected by site type according to the criteria that are presented in §5.3.1 (figure 6.4). The outcome differed markedly from the initial query from the Archis database. This could in part be attributed to the generic nature of the

<sup>1</sup> Sites selected were based on site type, site date, research type and publication date.

<sup>2</sup> Cities selected were based on towns with borough rights during the given period. Since sites were documented by present-day place names, medieval villages that were incorporated at a later stage could not be excluded from this selection.

<sup>3</sup> Archaeological regions are parts of the Netherlands, with a roughly coherent landscape and habitation history. Nevertheless, within these areas significant diversity exists on a smaller level in landscape types and social developments.



Figure 6.1 Overview of all the initial archaeological sites (white = urban; orange = non-urban).



Figure 6.2 Overview of all the archaeological sites that are considered relevant by the set criteria.

**Table 6.1 The number of sites per archaeological region. The (four) regions with the highest number are marked red with the hue depending on the ranking.**

Archeoregio		All	Non-urban	Relevant
1	Drents zandgebied	19	16	9
2	Utrechts-Gelders zandgebied	67	27	12
3	Overijssels-Gelders zandgebied	94	52	29
4	Brabants zandgebied	163	122	64
5	Limburgs zandgebied	30	15	4
6	Limburgs lössgebied	16	9	2
7	Fries- Gronings kleigebied	36	15	10
8	Noord-Hollands kleigebied	31	18	10
9	Fries veengebied	1	1	1
10	Flevolands kleigebied	1	1	1
11	Hollands duingebied	46	24	8
12	Hollands veen en kleigebied	77	29	9
13	Utrechts-Gelders rivierengebied	108	71	28
14	Zeeuws kleigebied	36	10	3
<b>Total</b>		<b>725</b>	<b>410</b>	<b>190</b>

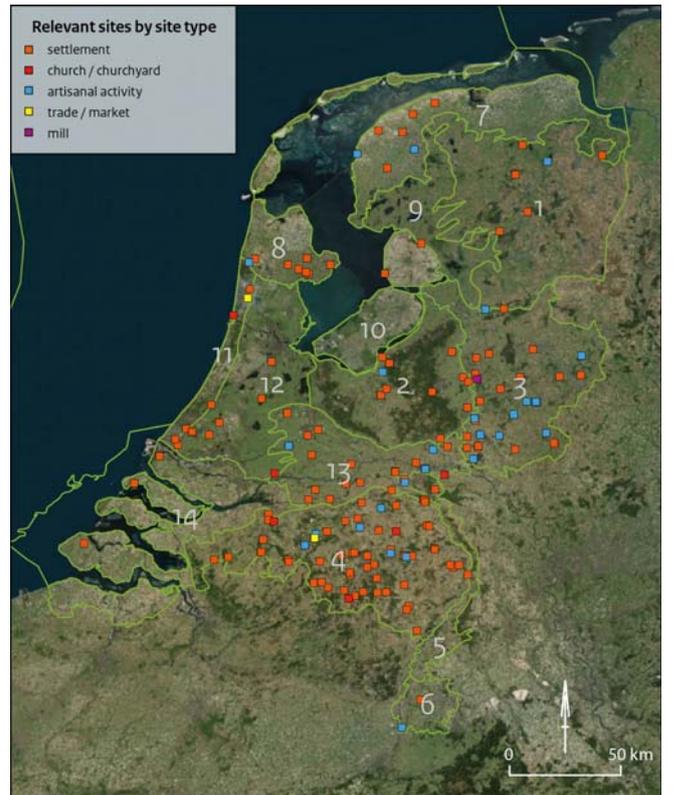
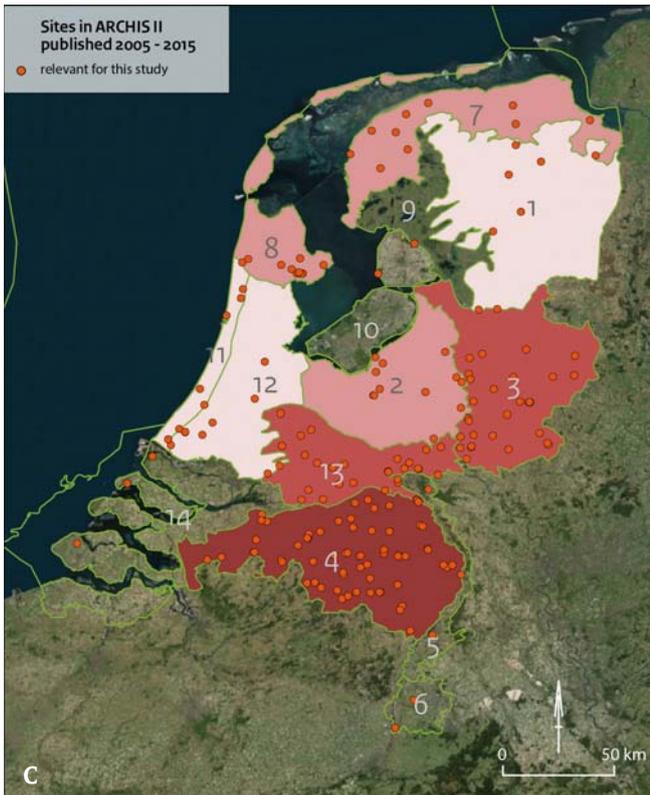
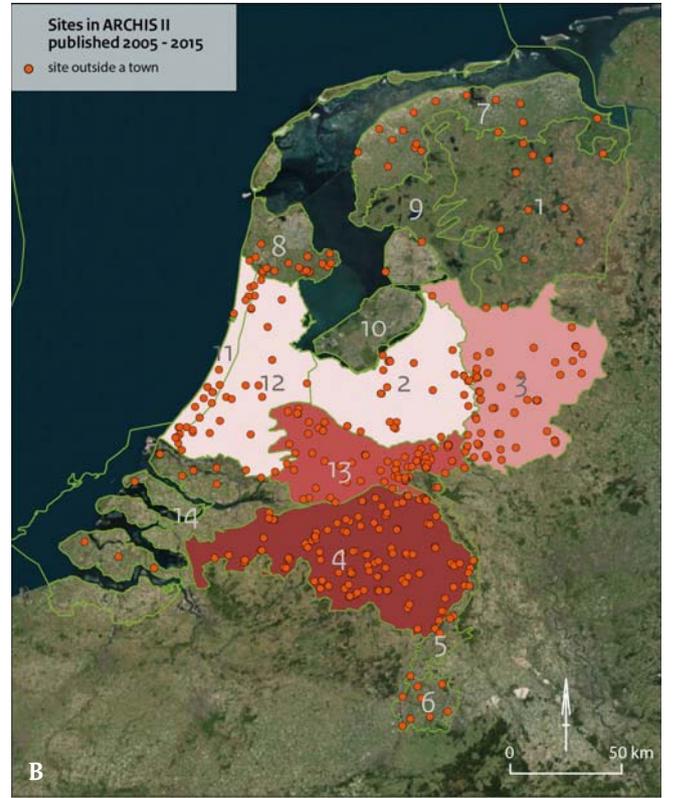
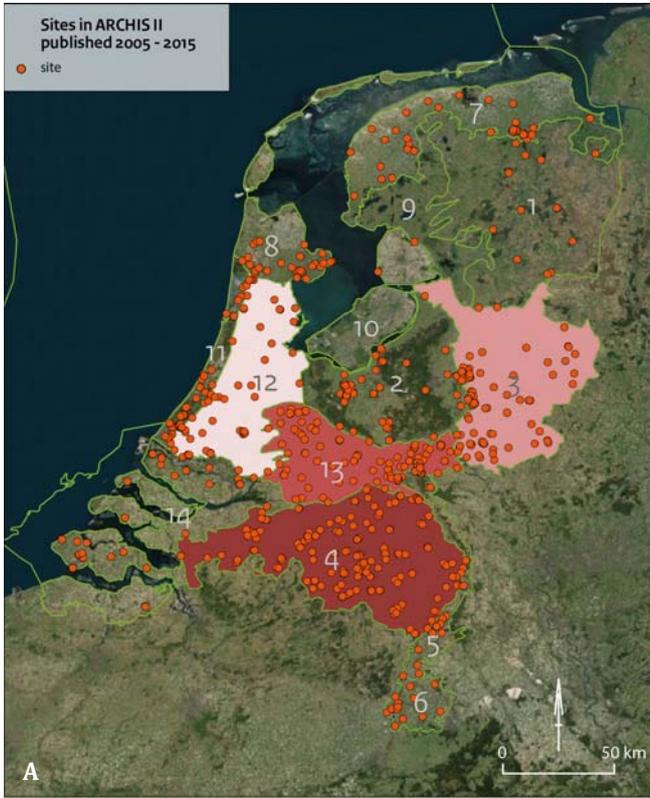


Figure 6.3 Overview of the archaeological regions with the highest number of sites (all, non-urban and relevant).

Figure 6.4 Overview of relevant sites by site type. Where multiple types are present the least generic is displayed.

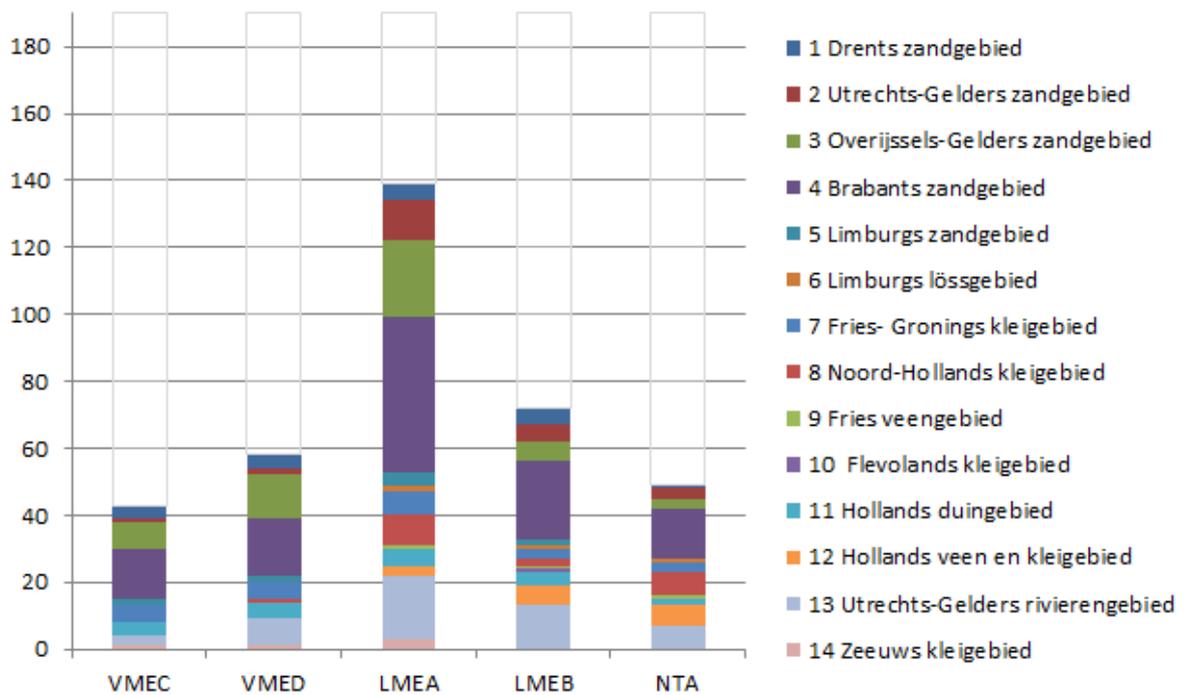


Figure 6.5 The number of sites in use per period during the time frame 750-1650 from a total number of 190 sites.

term 'settlement' which was often used as a default for classifying various features. In our study we regarded a site only as a settlement when direct evidence was present and a house or (farm)yard could be positively identified. This resulted in a thorough reevaluation of the dataset.

Unsurprisingly, the listed sites consist predominantly of settlements in the form of one or more (farm)yards. Artificial dwelling mounds (*terpen* or *wierden*) were also included. Churches and churchyards were only present in a limited number of excavations (6). Mills were even fewer in number (2) and no toll houses were excavated.

In a substantial number of (these) sites, remnants of artisanal production was found. Because these remains are not always explicitly discussed in the site reports, it is estimated that the real number will be higher. A more detailed study of the reports will probably yield more information on trade and industry on these sites. The information on artisanal production mostly consisted of remnants of iron production or processing, although in some cases evidence for precious metal working, bronze working, brewing, tanning and flax production was present. We can expect a significant bias in the data towards the more archaeologically visible

trades like iron production which produces a lot of imperishable waste. Also, it is often difficult or even impossible to make a distinction between housework and home industry based on archaeological evidence alone.

Evidence for trade or trading places is problematic as well. Although it is possible to recognise some goods that were not produced locally, the mode of exchange cannot be established. Also, more direct evidence of economic exchange, the presence of coins, presents us with the difficulty that this does not necessarily need to be related to trade. So far only two sites are marked as bearing evidence for trade, based on the presence of a pair of scales, and that is debatable. This concept of trade and trading place needs to be elaborated, to be able to use it meaningfully in our study.

#### Chronology and duration

In order to be able to establish chronological trends and relations, the date of the sites was included in our survey. Rather than using absolute dates, we chose to classify the individual site by archaeological period (ABR).<sup>4</sup> Not only does this correspond with the available Archis data, it also enables us to facilitate querying the dataset and get an indication of some general trends at this stage of the research.

<sup>4</sup> Archeologisch Basisregister plus at: [abr.erfgoedthesaurus.nl/](http://abr.erfgoedthesaurus.nl/).

To gain insight into the long-term developments and do justice to the developments of the separate sites, we did not limit this classification to the assigned time frame. Rather, for the sites that date to this period we looked at the habitation history in the previous periods up to the Roman era and in the succeeding period until the present-day.

If we look at the individual periods we see an increase in the number of sites from the Early Middle Ages C (VMEC) up to the High Middle Ages (LMEA) which shows a distinct peak (figure 6.5). For the subsequent periods, the number decreases strongly.

This image varies for the different archaeological regions. To some extent this can be related to the landscape types involved. For example, the aforesaid distribution can be found for all the cover sand areas (AR 1 to 5), whereas the sites in the peat and clay areas in Holland and Flevoland (AR 8 to 10 and AR 12) date from the High Middle Ages onwards and decrease to a lesser extent in the Early Modern period. This also holds true for the löss area of Southern Limburg (AR6). Sites from the coastal clay areas in Zeeland, Friesland and Groningen (AR 7, 8 and 14) are present throughout the entire time frame, as are the sites in the dune regions of Holland (AR 11) and the Utrecht-Guelders riverine area (AR 13). However, because of the small number of sites from some of these regions caution is in order.

Although it is too soon to provide a sound explanation for these trends at this stage of the research, we can already outline some general thoughts. This curve is most likely the result of a combination of historical developments and archaeological formation processes. The increase of sites during the Early Middle Ages is consistent with our notions of demographic growth during this period.<sup>5</sup> The peak in the High Middle Ages presumably illustrates the boom in reclamations. This could also explain why we only see sites from this period onwards in the peat and some of the clay areas. The decrease in the subsequent period, however, is not in line with the known demographics. The lack of sites from these periods can probably be attributed to developments resulting in a reduction of archaeological visibility, accessibility and professional interest.

The Late Middle Ages saw a development in building techniques in which houses started to

be built on shallow brick or flat stone foundations instead of using a dug in timber frame.<sup>6</sup> At least in the cover sand areas, this led to a reduction of the archaeological footprint of farmyards. Additionally, in some areas settlements were shifted during this period from a location among the fields to the lower situated areas. Not only are these sites no longer present on the locations that are usually best studied, the new sites often became the present-day villages and hamlets and were overbuilt in recent times. Apart from limiting access to these sites, this frequently resulted in significant damage to the archaeological features. Perhaps the most problematic, however, is a lack of interest in the archaeology of the more recent past, especially outside the urban environment. Luckily there certainly are exceptions and the theme is on the rise.<sup>7</sup>

Next, the settlement sites were categorised in single-phase and multi-phase settlements (figure 6.6). For this, the number of farmyards (based on houses and wells) were listed for every site, as well as the maximum number of contemporary farmyards at a given time.<sup>8</sup> For the latter we sometimes needed to make an estimate. When the number of farmyards equals the number of contemporary farmyards, a site is considered to be single-phased. If the former is higher, it was regarded to be multi-phased. Of course some caution is required, since the number of farmyards in a site also depends on the size of the excavation. This factor was not included in our equation, since it requires a quantification of this relation. Similarly, we did not distinguish between fixed and shifting farmyards within the multi-phased settlements at this stage. Unless a house is rebuilt on the exact same spot, additional information on the contours of the farmyard is needed. In most cases the available data were insufficient, though individual sites would be suitable.

Subsequently, we looked at the duration of habitation at a given location. From this we could distinguish sites that were inhabited for either a short or a longer period.<sup>9</sup> Since multi-phased settlements are per definition long(er)-term occupations, this distinction is particularly relevant for the single-phase sites.

This analysis revealed a significant group of settlements (50 sites) that were only occupied

<sup>5</sup> De Boer *et al.* 1992, 74-92; Dijkstra 2011, 105-107.

<sup>6</sup> Zimmermann 1998; Verspay 2007; Doesburg & Groenewoudt 2014.

<sup>7</sup> The increasing interest in the late- and post medieval period is illustrated by the outcome of the assessment of the Heritage Agency (Beukers 2009) and the topics from the Malta Harvest projects (De Groot & Groenewoudt 2014).

<sup>8</sup> For the interpretation of building type and dating we generally relied on the description of the excavators. In some cases, however, we decided against this when reconstructions were implausible.

<sup>9</sup> Due to the possibility that a period of habitation overlaps multiple ABR periods, we regard a habitation period covering two ABR periods, or less short-term, and covering three or more long-term occupation.

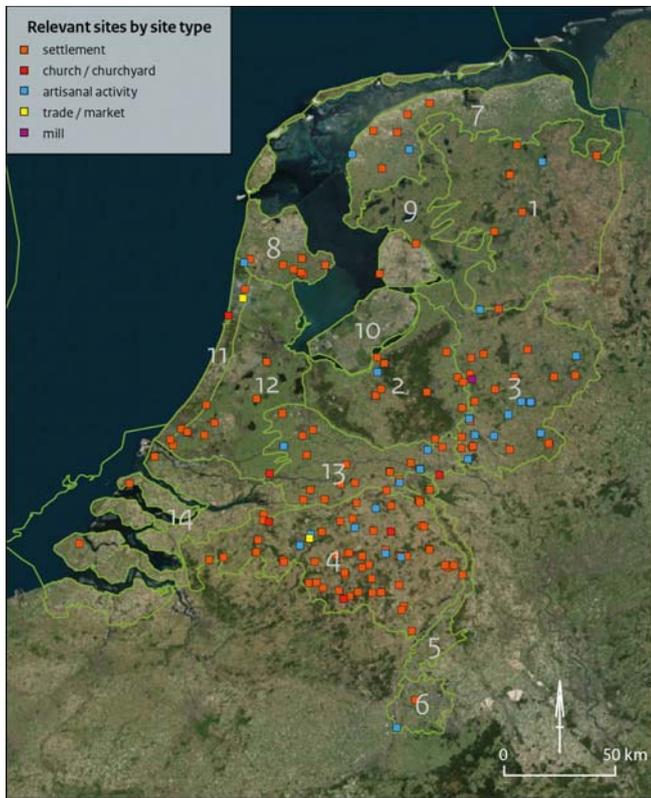


Figure 6.6 Overview of settlement sites classified by single-phase or multi-phase. Sites that are positively identified as compound settlements are marked with a square.

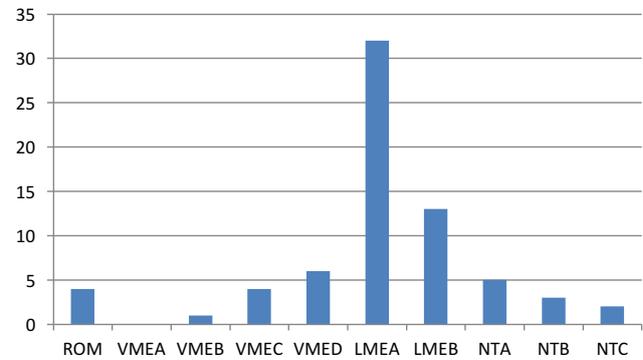


Figure 6.7 Datings from single-phased settlements that were inhabited for a short term.

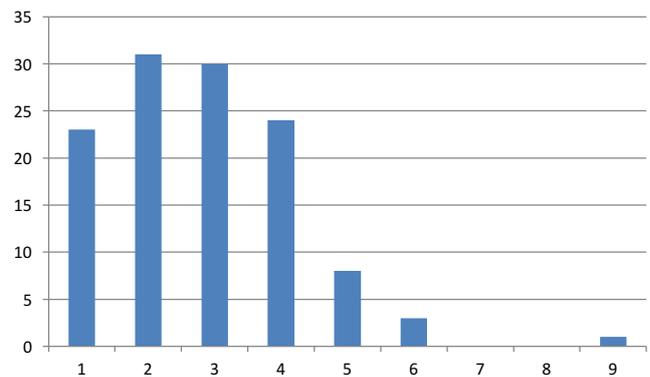


Figure 6.8 The habitation period of multi-phased sites measured in the number of ABR-periods they cover.

for a short period. Although, in some cases, the limited extent of the excavation is decisive for the observation, it is expected that this group does represent a historic trend. Interestingly, these types of sites predominantly date to the High Middle Ages (LMEA) and to a lesser extent extend to the Late Middle Ages (LMEB) (figure 6.7). These might reflect reclamation farms or strong settlement dynamics. A number of sites were documented as single-phased settlements with a long lifespan. To some extent, these refer to farmyards or settlements that stayed in use over a long period and were maintained during all that time. Interestingly, some of these sites were manors. At the present time, however, our data set is insufficient to present a full overview of this type of settlement. First, the number of yards was derived from the settlements only, while the dating information also refers to other complex types. This leads to some distortion. Next, if these farmyards were rebuilt during their lifetime, these would be classified as multi-

phased settlements. Further classification on settlement size could provide additional details.

Most of our sites (126) were multi-phased and were habituated over a longer period of time. Measured in ABR-periods, the actual duration per site varied from one to nine (figure 6.8). This shows that most of these sites were in use for up to four periods. Only one site, Hallum – Hellema 2007, was occupied uninterruptedly from the Roman period onwards.

If we look at when these multi-phased settlements started, regardless of their duration, it is very clear that most of these began, again, in the High Middle Ages (figure 6.9).<sup>10</sup> Between the different archaeological regions, some additional trends can be discerned. In the sandy areas a lot of diversity can be found in the starting dates of the excavating settlements. Most of these only lasted for a couple of centuries (two ABR periods). This indicates that these landscapes have been inhabited for a long time, but that the settlements were not fully

<sup>10</sup> For this overview, only uninterrupted series of habituation have been included.

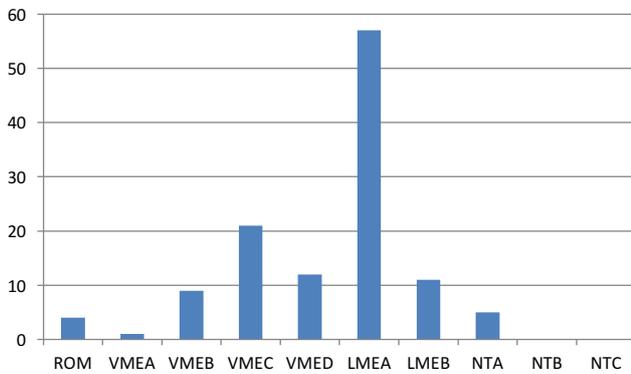


Figure 6.9 The period in which the multi-phased sites started.

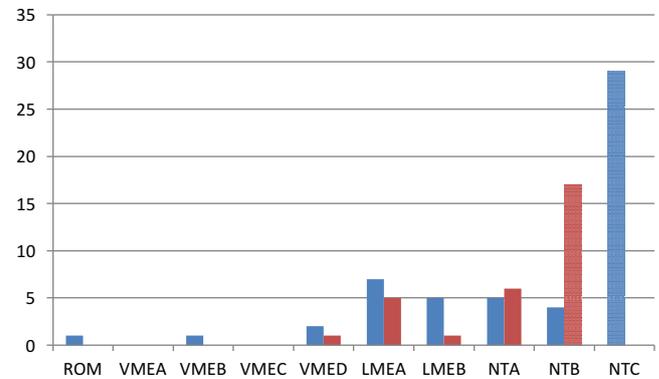


Figure 6.10 The period in which the settlements started that continued to the nineteenth century (red) or the present-day (blue).

fixed and were moved or disappeared after a few generations. In the Utrecht-Guelders sand area hardly any of these started before the High Middle Ages. In the Overijssels-Guelders sand area no sites that predated the Carolingian period were present. Sites continuing in or after the Late Middle Ages were rare. Although this could be attributed to a shift in settlements, this lack also reflects the limited number of excavations carried out in present-day villages and hamlets. In Brabant, where this shift is well known, more research has already been conducted at these locations. This is reflected in the overview.

The pattern in the Frisian-Groningen clay area is much more diverse, indicating various moments of occupation. In some places these sites can be very old. Interestingly, the habitation history is frequently chronologically fragmented.

This indicates that through time, these locations continued to be appealing dwelling places. Also, some long-term occupations were found here. These locations were dwelling mounds (*terpen* or *wierden*), which provided an artificial raise and therefore drier surface in a wet landscape.

The sites in the peat and clay areas of Holland were habituated from the High Middle Ages onwards. This undoubtedly has to do with the reclamations that start during this period. Interestingly, most of these locations stayed occupied up to the present-day.

In order to get an idea of the history of the present-day villages we can also look at the starting period of settlements that continued to the present (NTC) or, since the most recent phase is often excluded from the archaeological report,

the Modern period B (NTB); the period from which (often) our earliest land registers date. Finding a continuous series of houses or farmyards often proved problematic. Nonetheless, most of the present settlements turned out to date back (at least) to the High or Late Middle Ages (LMEA/LMEB), although some have a Carolingian origin (figure 6.10).

#### Extent and layout of settlements

Since the clustering of habitation is one of the criteria for village formation, we set out to classify the layout of the excavated settlements. Being aware of the difficulties to do so, we defined three categories: isolated farmyards, grouped settlements, and clustered (or structured) settlements.<sup>11</sup> In the course of the survey it proved to be impossible (in most cases) to attribute a settlement to a certain category with any certainty. This had to do with the extent of the excavations in general and the narrow focus on house plans in many studies in particular. Often, a sufficient overview was lacking in order to make a reconstruction of the farmyard layout, let alone the settlement as a whole. Therefore in most cases it was impossible to establish whether individual tofts lay isolated or were part of a larger settlement. Even compound sites often provided limited certainty on settlement topography. Although identifying isolated farmyards (either single or multi-phased) is difficult, we could positively identify several compound settlements with multiple, contemporary (farm)yards (figure 6. 11).

Given the limited scope of individual excavations, in our plan we laid down the

<sup>11</sup> Isolated farmyards are individual, autonomous farms located at a substantial distance from the next farm or settlement. In grouped settlements, multiple farms are located closer together in an openly spaced settlement in an unarranged fashion. The layout of a clustered settlement is more organised with (farm)houses more closely spaced e.g. along a road or around a green or church.



Figure 6.11 Overview of (compound) sites. Five tofts in a single excavation are considered to be the minimum to qualify as part of a village.

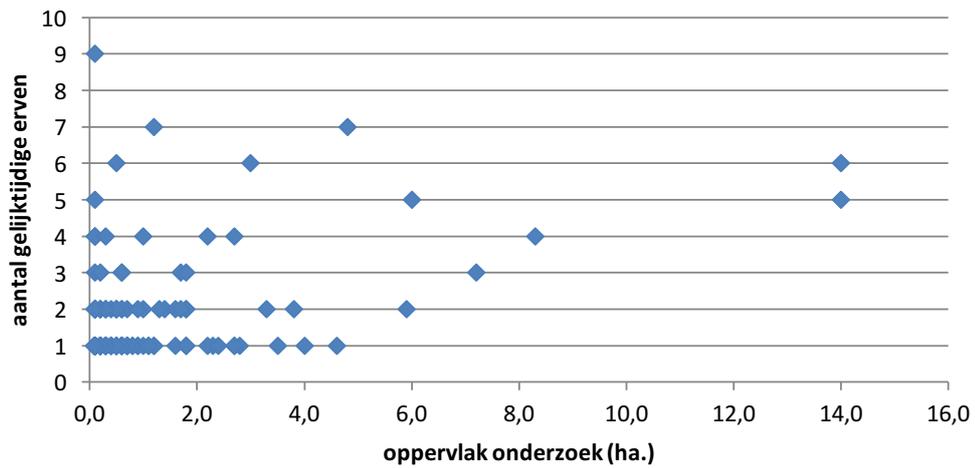


Figure 6.12 The number of contemporary farmyards per site in relation to the excavated area.

criterion of five contemporary tofts in a single excavation as a minimum to qualify as part of a village (Ch. 4.1).<sup>12</sup> The survey revealed nine sites that met this prerequisite, most of which are situated in Brabant.

Unsurprisingly, the availability of this type of information coincides with a considerable degree of large scale excavations; however,

we also find compound settlements in some small scale excavations (figure 6.12). These settlements are the clustered ones and are predominantly situated in the present day -villages. The compound sites found in the large scale excavations are usually grouped within a larger area.

<sup>12</sup> This criterion is a compromise between the general extent of excavations and that of medieval villages. It does not intend to reflect the true size of these villages.

### 6.1.2 Assessment and usefulness

In order to establish to what extent the results of an excavation could contribute to our research topic, each of the selected cases were evaluated and rated according to the five, predetermined criteria as described in §5.3. The value of combined ratings provide a general score for the usefulness of the particular site. The scores vary from 5 to 15 points. Sites rated 10 or higher are considered useful, with the highest ranking sites (scoring 14 to 15 points) providing information on village formation on their own. The lower scoring sites (less than 10 points) are generally of limited value and only provide a date and geographical location of habitation. These sites can only contribute to our topic in relation to other sites, as part of a larger ensemble.

Of the 190 sites that are considered relevant, 81 (43%) are rated useful (table 6.2 and figure 6.13). Of these, 11 (6%) qualified for the top category: In order to establish which (four) archaeological regions have the highest potential for studying the village formation process, we looked at the regions with the highest number of (very) useful sites as well as the total score in a region. The first provides us with an indication of which region has the highest amount of sites that could be used for

**Table 6.2 Individual sites rated most useful in our assessment.**

Site no	Excavation
4	Midlaren - De Bloemert - 2003
24	Epse - Olthof Zuid - 2007
54	Bakel - Neerakker 'De Hof' - 2008
59	Berkel-Enschot Enschootsebaan-Zuid 2 - 2009
61	Best - Oranjestraat - 2008
65	Eersel - Kerkebogten - 2009
87	Nederweert - Rosveld - 2001
103	Someren - Waterdael III - 2007
105	Sterksel - Averbodeweg 2 en 4 - 2008
144	Limmen - De Krocht - 2003
145	Maasdijk - Honderdland - 2006

stand-alone analysis. However, this does not take into account the potential that lower ranking sites can provide if used in conjunction. This aspect is better reflected in the total score.

Both assessments result in the same outcome (table 6.3 and figure 6.14). The cover sand area of Brabant (AR 4) has (by far) the highest number of useful sites, both in absolute (36) and relative numbers (56%). It also yielded 7 out of the total 11 top ranking sites. Combined with a high number of excavations, this adds up to 645 points overall. The Overijssel sand area (AR 3) comes in at second place with 14 useful sites (48%) and a total of 279 points for 29 sites. Next is the Utrecht-Guelders river area (AR 13) with 8 useful sites (29%) and a score of 240 points on 28 sites, followed by the Utrecht-Guelders sand area (AR 2) with 5 useful sites (42%) and a score of 107 points from 12 sites. It could be argued that the sandy area of Drenthe (AR 1), which follows closely with 90 points, is more suitable, based on the better average scores of its sites (10,0 versus 8,9 points). Due to the nature of this study,



Figure 6.13 Overview of relevant sites classified by usefulness.

**Table 6.3 The number of sites per usefulness category per archaeological region.**

Archaeological region	number of sites	hardly useful (5 - 7 pt)	somewhat useful (8 - 9 pt)	useful (10 - 11 pt)	very useful (12 - 13 pt)	particularly useful (14 - 15 pt)	average score	total score
1. Drents zandgebied	8	1	3	2	1	1	9,8	78
2. Utrechts-Gelders zandgebied	12	5	2	0	5	0	8,9	107
3. Overijssels-Gelders zandgebied	29	5	10	5	8	1	9,6	279
4. Brabants zandgebied	64	8	20	16	13	7	10,1	645
5. Limburgs zandgebied	4	2	2	0	0	0	7,0	28
6. Limburgs lössgebied	2	0	0	1	1	0	11,0	22
7. Fries- Gronings kleigebied	10	4	4	0	2	0	8,2	82
8. Noord-Hollands kleigebied	11	4	3	1	3	0	9,3	102
9. Fries veengebied	1	0	0	1	0	0	10,0	10
10. Flevolands kleigebied	1	1	0	0	0	0	7,0	7
11. Hollands duingebied	8	2	4	0	0	2	9,9	79
12. Hollands veen en kleigebied	9	3	4	2	0	0	8,2	74
13. Utrechts-Gelders rivierengebied	28	8	12	5	3	0	8,6	240
14. Zeeuws kleigebied	3	2	0	1	0	0	7,7	23

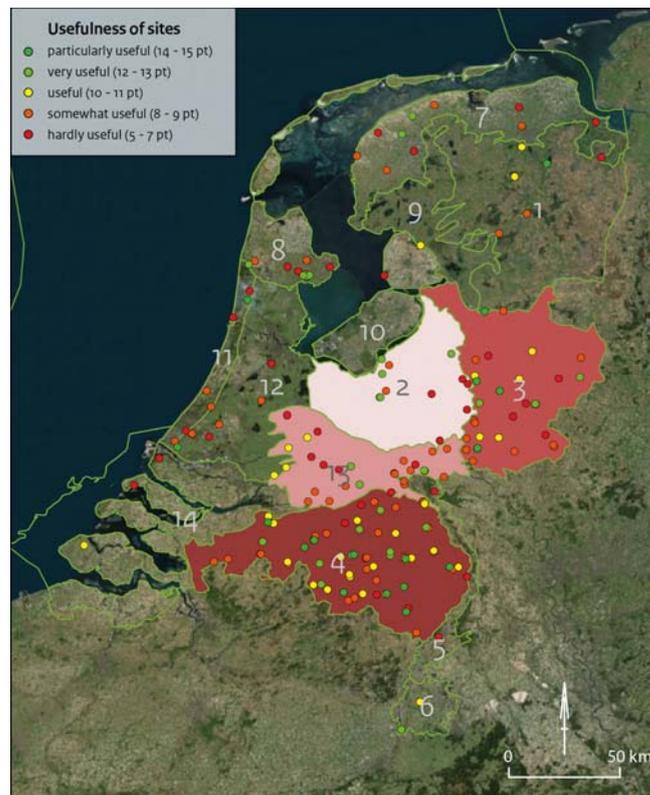


Figure 6.14 Overview of most relevant archaeological regions based on the usefulness of sites.

however, the average score is not considered particularly relevant.

Although this system of assessment is consistent, it results in the disqualification of important sites like Limmen – De Krocht – 2003 and regions with a distinct settlement pattern like the Frisian-Groningen clay area (AR 7). Also, it does not provide the regional diversity as desired in the tender.

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### 6.1.3 Limitations

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The results of the survey show that a substantial number of relevant excavations are present, but the data – given the current approach – are of limited use. A number of factors need to be taken into account in order to establish a successful plan for further analysis.

#### Archis data

The quality of the data in the Archis database varied considerably. This holds true for the general information in the records, as well as the content of the individual projects. We encountered incomplete records, inconsistencies in descriptions and (multiple) duplications. The descriptions of individual excavations displayed a large variation in extent, detail and care. For example, the dates given for the sites can be very broad (LME), suggesting little relevance. Upon reading the report some of them turned out to be quite relevant. Therefore, the initial number of potentially relevant reports needed to be adjusted from 302 to 410. However, the summaries of excavation reports provided in DANS were very useful. To a large extent, the quality of the digital data seems to be related to the particular contractors and the time of the data input. In general, the quality appears to have improved significantly in more recent projects. Having a consistent dataset is crucial for a meaningful synthesis. A lot of time was spent during the initial stage of the survey to achieve this. Due to the aforementioned aspects, we cannot guarantee that our selection is exhaustive. However, the collected data are at this point sufficiently complete and ready for additional analysis.

#### Excavation reports

Initially, we encountered a lot of difficulties in obtaining the excavation reports. This mainly had to do with the update of the Archis database that was being conducted at that time. Still, this system is not ideal for querying data and reports. Improvements are necessary if the system is going to be used for synthesising studies. Fortunately, a lot of reports were available through the DANS digital repository and websites of municipal services. This, however, does not resolve the need for a system that can be queried integrally. In the end, the direct hyperlinks to the Livelink addresses were essential.

Many of the excavation reports are digitally available nowadays. When reports were absent this could mostly be attributed to specific contractors, the time of publication (either older reports or very recent projects) or particular (elaborate) editions. Despite the availability, it was noted that these reports were often remarkably dispersed. To a large extent these were available in Archis or DANS. However, the supplied reports varied between both repositories. Other reports were only available through the website of particular contractors. This was mainly the case with municipal services. As with the other archaeological data, consistency is paramount for purposeful and efficient research and to keep an overview.

#### Locations of archaeological observations

The available data proved to be highly biased towards the countryside. Although 90 of the 190 relevant sites (47%) were located in residential areas, most of these excavations were conducted as part of new housing development projects and thereby situated on former rural terrain.<sup>13</sup> Due to the absence of an overall digital map of the residential cores in the early nineteenth century, as mapped in the earliest land register plans, we could not yet establish precisely how many of these sites were located in historical village centres.<sup>14</sup> This was noted for at least 25 sites. For 37 sites, habitation from the NTC was present. Another 22 sites were at least occupied up until the NTB.

#### Content of excavations

Studies of rural habitation on the level of the settlement proved to be rare and often consisted of older research. The excavations mostly focus on building plans and, to a far

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<sup>13</sup> Based on the GIS map of residential cores 2008 by the CBS (PDOK 2015).

<sup>14</sup> Unfortunately, a manual comparison of this data was beyond the scope of this assignment.

lesser extent, on farmsteads. This severely limits the potential of individual sites to contribute to the topic of village formation process. This is aggravated by the fact that, often, the uncovered surface surrounding these plans is too small to establish whether a settlement was single-phased or multi-phased, isolated or compound.

The scale of the excavation is a determining factor in its potential to produce relevant information on settlement topography. On the one hand in a relative sense: the extent needs to be sufficient to get a clear view on the level of the farmyard and its surroundings. On the other hand, the extent needs to be large enough to cover a significant part of the settlement. Small scale research hardly ever permits reliable information on settlement level or even assert if farmsteads lie isolated or not. In the case of truly clustered habitation, as is found in the (later) villages, this is less so. In general, even if sites are relevant in terms of site type and date, they rarely provide more info than (geographical) location and a date. In isolation, it is impossible to make any statements on village formation. Sites dated by dendrochronology generally provide the best insight in the chronological development of the settlement. For various reasons these dates are often not available. Dates based on findings can be (equally) useful, provided that there is plenty of material, the analysis is conducted contextually and the specific diagnostic attributes of the material. For some periods this is problematic. Dating by typochronological analogy is often tricky, especially regarding the period in question. Apart from risks of oversimplification and circular reasoning, it is usually very inaccurate. Settlement sites with well dated chronologies remain paramount for studying the village formation process.

#### **Contextual information**

The settlements we study in this period are to a large extent, situated in an already inhabited landscape. To provide an explanation for the settlement dynamics physical-geographical analysis by itself does not suffice. Historical or historical-geographical information is usually scarce. When this information is present, it often seems to be locally specific and follow a historical narrative. It is hard to distil general information out of this. Nonetheless, exceptions

are present. This calls for a more contextual approach.

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#### **6.1.4. How to proceed**

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Although there is a substantial number of relevant sites available for the study of village formation, we believe an inductive approach will be problematic. First, there are considerable uncertainties regarding the extent, layout and development of the settlements. The scope of observation is usually too narrow to make any statements on this level. Next, these sites are quite diverse (individual farms versus compound settlements, single-phased versus multi-phased, static versus shifting) and their distribution uneven. Further, political, economic and social factors play an important role in the creation and development of villages, but are often not visible archaeologically (at least not directly). Due to this complexity we feel that the number of (archaeological) variables is too large to make meaningful statements on the village formation on a general level based on this data.

However, all is not lost. The dataset as well as the topic in general is in our opinion better suited for a deductive approach in which current models on village formation provide hypothesis which can be tested against our data. These models stem from a wider array of historical disciplines (history, historical geography as well as archaeology) and can be (if need be) related to different levels of observation: general theory, international and regional specific developments. This calls for an extension of Phase 1 of the research to do an additional survey of the relevant literature.

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## **6.2 Inventory of medieval villages and churches**

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As part of our dual approach we wanted to establish the origins, layout and development of settlements falling within our timeframe 800-1600 of which we know that they were regarded to be villages by contemporary sources. These villages could either have been abandoned later on or still be in existence today.

### 6.2.1 Medieval villages and churches

Unfortunately a list of medieval villages in the Low Countries does not yet exist as far as we are aware. So next we looked at churches, since these can be used (to a certain extent) as indicators for villages and a markers for village centres. Although a comprehensive list of late medieval churches was found (Muller 1914), it was not yet digitally available nor easily digitised. Creating this overview exceeded the scope of our research.

### 6.2.2 Present-day villages with a medieval origin

What we did get was an overview of present-day villages which origins (presumably) predate 1600 AD compiled by Rowin van Lanen.<sup>15</sup> However, these settlements would not necessarily already have been villages in the Middle Ages. Although this map had some limitations, since it was compiled using geographical data from current villages (see §5.4), it did present us with a useful overview.

From a total of 4499 settlements, 3224 were listed as a (present-day) village. From the additional description, sites listed as dispersed settlements were excluded after corroborating their hamlet like nature, leaving a total of 2588 villages (figure 6.15) (appendix 2).

From our list of excavations we were able to add an additional 13 villages after their medieval provenance was corroborated.<sup>16</sup> Some omissions could be attributed to a change of the name of the settlement at a later stage, during the (later) modern period (e.g. the contractions of settlement names like Berkel-Enschot or Son en Breugel).

Other omissions seem to be the result of method used to select the settlements. This GIS-based selection used soil and landscape information to exclude settlement that were located in parts of the country that were uncultivated during the Late Middle Ages and Early Modern period (e.g. heathlands, younger reclamation areas). This method turns out to be

too crude as it excluded early peat reclamations like Amstelveen (Nieuwer Amstel), Nieuwkoop and Zoetermeer. Although these villages would only bloom in the Modern period, they did have their origins in the Middle Ages. Also, small island villages in the Zuiderzee (previously the Almere, nowadays the IJsselmeer) were left out when the reclamations of the Zuiderzee Works which would lead to the creation of the province of Flevoland were excluded. Although we only added settlements that cropped up in our inventory of archaeological excavations, it is to be expected that there will be more.

### 6.2.3 Deserted medieval villages

An important category of settlements that is also missing from our list are the deserted villages. A great number of medieval villages does not exist anymore, but were abandoned along the way. This could have several causes like advancing driftsands, destruction in wartime

<sup>15</sup> Courtesy of R. J. van Lanen (PhD candidate at the Faculty of Geosciences, Utrecht University).

<sup>16</sup> For verifying the medieval history of the village, we conducted a quick background check using Wikipedia ([www.nl.wikipedia.org](http://www.nl.wikipedia.org)) (20-3-2016).

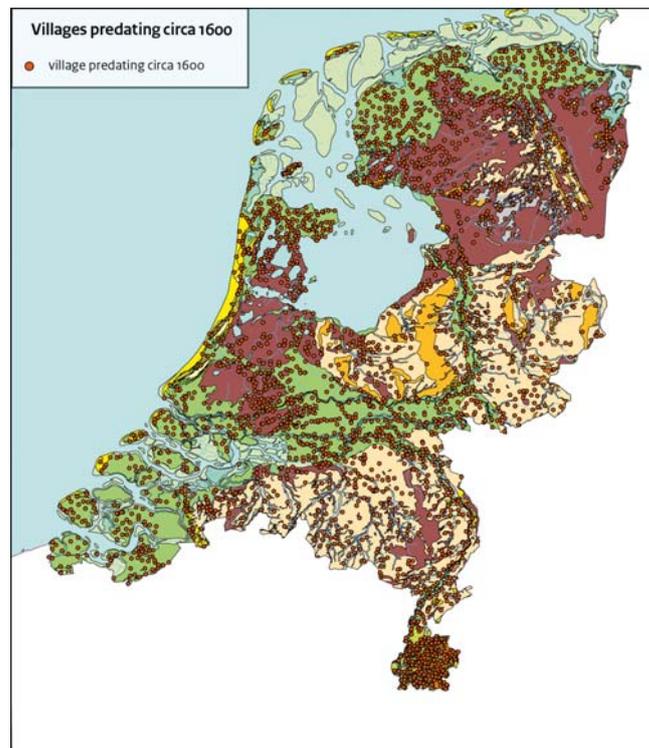


Figure 6.15 Overview of present-day villages with (presumed) medieval origins on the palaeogeographical map c 1500 AD (Vos and De Vries 2013). Medieval villages that were abandoned and disappeared since then are not included.

or depopulation. Perhaps one of the most dramatic causes were the floods, a constant risk for people in large parts of the country. Famous are the more than hundred drowned villages in the Zeeland delta that fell victim to the water, as well as the more than twenty drowned villages in the IJsselmeer area. An interesting survey in deserted villages is currently being conducted by Bert Stulp.<sup>17</sup>

Judging from the archaeological record, desertion of settlements was a common phenomenon in the Middle Ages as the dwellings were frequently moved in the landscape. This had to do with the still ongoing reclamations, land ownership and the materials used in building the houses amongst other factors (Ch. 4). The stabilisation of settlements is one of the main elements of village formation. Stulp's historical survey lists 360 deserted villages so far (appendix 3). This shows that the great majority of these villages were lost as a result of flooding (figure 6.16). It is no surprise then to find a clear correlation with the estuary and tidal marshes when we plot these sites on the palaeogeographical map c. 1500 AD (figure 6.17).<sup>18</sup> These areas are highly dynamic and from early on a lot of effort was put into water management and the building and maintaining of dykes. The same is true for the riverine region and although the people living here got their share of floods, their inland position meant that they were not directly exposed to the destructive force of the sea. As a result, we find far less abandonment villages in these areas.

Stulp's survey is not complete, as it lacks most of the settlements that are known through excavations. As such, it should be regarded as complementary. On the other hand, most of the excavated settlements were not villages (yet).

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### 6.2.4 Conclusion

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Although the surveys by Van Lanen and Stulp are incomplete, they do provide us with an interesting overview of medieval villages that are either abandoned or still in existence. This is important because our view of medieval rural settlements is heavily influenced by the archaeological research in the countryside and as a result has an (implicit) bias towards the abandoned and relocated settlements. For at least a large number of villages, we were able to establish settlement in the Middle Ages. Unfortunately we were not able to tie these to the historical village centres as the village coordinates in the surveys reflect the modern situation.

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## 6.3 Inventory of regional models

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From our initial assessment of reports from rescue excavations conducted over the past ten years, the project team concluded last meeting that there were too few relevant sites for a reliable synthesis of village formation (§6.1).



Figure 6.16 The Plompe Toren on the southern coast of Schouwen (ZL), the last remainder of the village of Koudekerke which was surrendered to the advancing water (photo: N. Slager).

<sup>17</sup> Stulp 2008-2016. His series of books on Vanished Villages in the Netherlands (*Verdwenen dorpen in Nederland*) has six parts already.

<sup>18</sup> Vos & De Vries 2013.

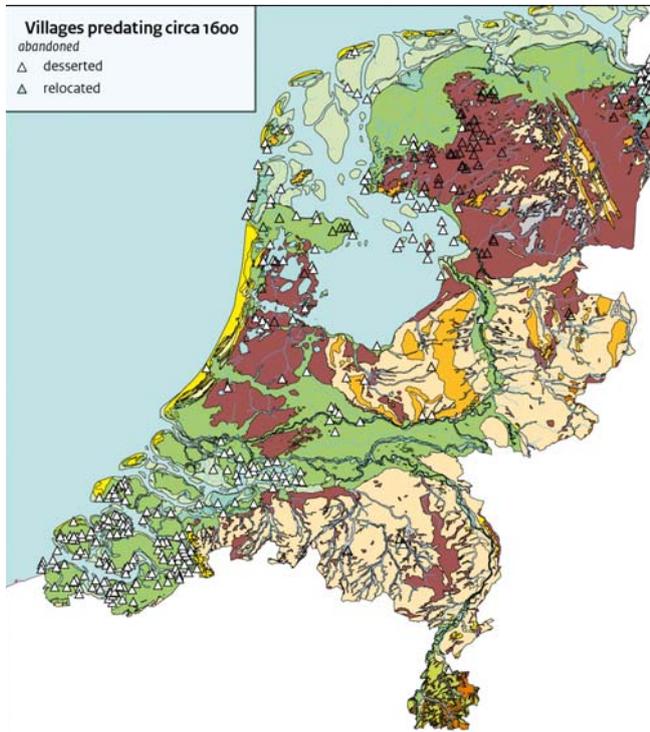


Figure 6.17 Overview of abandoned medieval villages on palaeogeographical map c 1500 AD (Vos and De Vries 2013). Note the correlation with the estuary and tidal marshes.

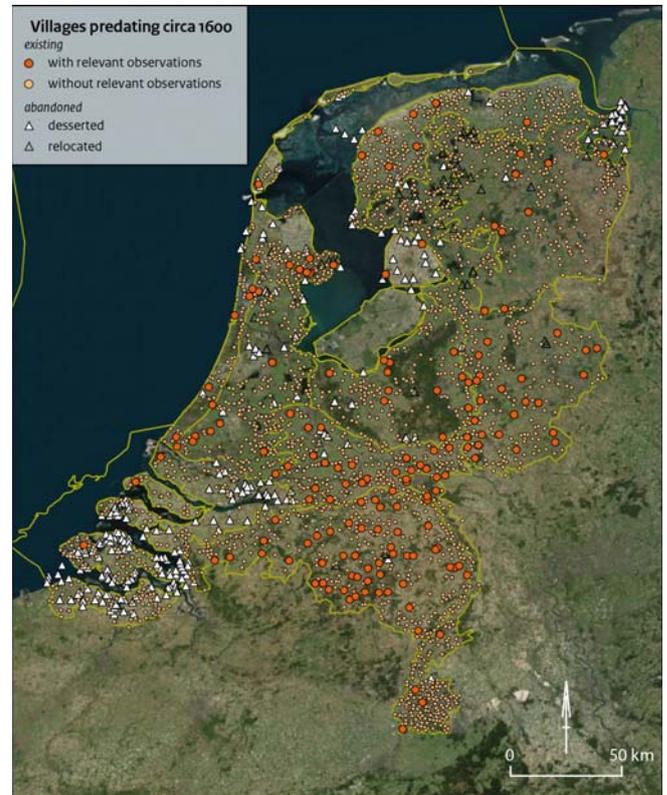


Figure 6.18 Overview of present-day villages with (presumed) medieval origins and medieval villages that were abandoned.

Moreover, these sites differ substantially, both in their nature and quality of the available data, and are unevenly distributed within the regions. From this we decided to adjust our research strategy and use the data to test existing hypotheses from historical geography, archaeology and anthropology on the topic.

### 6.3.1 The inventory results

We collected recent models from archaeology and historical geography for all the (supra) regions in the Netherlands. Rather than collating a complete list we wanted to limit ourselves to the main publications. Therefore, we chose to do this by consulting the experts of our advisory board (§5.4). This inevitably will have resulted in some regional bias, but we strove to cover all regions. Next, an excerpt was made from these publications according to a uniform format. This consisted of a general outline of the habitation

history of the region in question, followed by a specific account of the developments regarding village formation. From this we deduced archaeological indicators and drafted a method to test this model.

#### Spatial distribution in relation to archaeological regions

We were able to collect synthesising models for nine of the fourteen archaeological regions (figure 6.19). The full list is included in appendix 4. The number of studies vary considerably between the regions. A lot of work at this level has been done in the cover sand areas of Brabant (AR 4) and Drenthe (AR 1), whereas we were hard pressed to find anything for the clay area of Friesland and Groningen (AR 7), the Utrecht-Guelders river area (AR 13), and the Limburg loess area (AR 6). This is also reflected in the publication date of the articles for the latter two. For the clay areas of Zeeland (AR 14) and Noord-Holland (AR 8), as well as the Frisian peat area (AR 9) and the Limburg sand

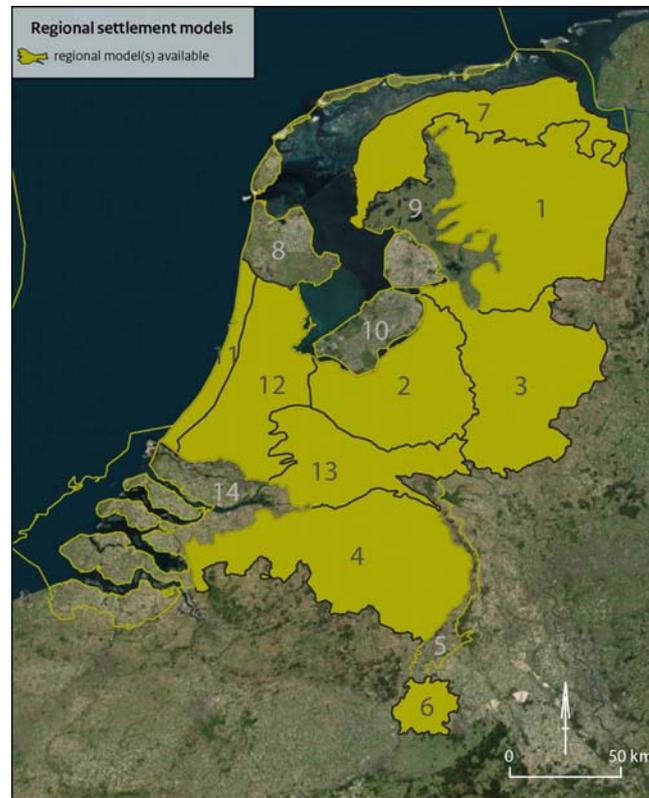


Figure 6.19 Overview of regions for which synthesising models on the formation of villages were available.

area (AR 5), on the other hand, no regional hypotheses were found.<sup>19</sup>

#### Analysis of the regional models:

##### Discarding data

Although we initially planned to make an abstract for all regions, so that we could present the major formation processes and archaeological indicators in a comprehensive overview, we soon found that to be problematic, as the level of synthesis on settlement development varied substantially between the regions. And this was not restricted to the number of studies for each of the regions. Some of these models are (out)dated, as their theoretical underpinnings are generally considered obsolete, yet quite a number of syntheses were developed recently as part of dissertations or other Malta Harvest projects. Here we face a problem that these are pretty much up-to-date with the major excavations. Testing these models would not so much entail confronting them with new data, but rather with different theories.

Another difficulty we found was that most of our settlement models were not very specific on village formation. This could be because the time frame of a study only partially overlapped and did not cover the main part of this development<sup>20</sup> or because the focus lay on the reclamations rather than the developments of the settlements.<sup>21</sup> The models that did address village formation explicitly describe the trends in the settlement pattern in general terms, like a clustering around churches or on manorial estates. Similarly, the causes or motives for these developments are explained by abstract processes like ‘manorialisation’ and ‘institutionalisation’.<sup>22</sup>

The problem is not the validity of these explanations. On the contrary, these processes were most likely an important factor in the forming of stable agglomerations. The difficulty, however, lies with the possibilities to observe these processes archaeologically. The extent to which the Carolingian estate was a physical entity, for example, discernible from settlements with a different organisation is still under

<sup>19</sup> Recently, the dissertation of Jeroen Zomer was published, which provides an overview of settlement development in part of the Northern peatlands (Zomer 2016). The reclamations of the peatlands in Southern Friesland and Northwest Overijssel between AD 1000 and 1400 are currently being studied by Dennis Worst as part of his doctoral thesis.

<sup>20</sup> Dijkstra 2011.

<sup>21</sup> De Bont 2008.

<sup>22</sup> Theuvs 1989; 2011; Van der Velde 2011.

debate. Moreover, these models do not provide much clarity on the spatial development of the villages, nor do they give an adequate explanation on the variety in their layout and structure. This is, in part, due to the lack of archaeological data from the historical villages. As the archaeologist Van der Velde put it: “...the settlements disappeared from our sight as they became fixed in the landscape and formed the basis for the present-day villages.”<sup>23</sup>

But it is also the question as to whether these spatial developments can be captured in general explanations at all. Comprehensive case studies by Spek show the importance of local factors in formation processes like the geographical location and natural opportunities for agriculture, the ownership of land, either privately held or organised in estates, access to trade networks and the proximity of main infrastructure.<sup>24</sup> Leenders adds the importance of territorial and economic politics to this list, in which villages were given privileges or were even established from scratch by competing lords in order to outmanoeuvre their opponents.<sup>25</sup> All of this illustrates the complexity of the topic and the difficulty to address this using regional models.

So how can we move forward on this subject with our archaeological data? A retrospective approach, using the morphological settlement classifications from the older historical geographical studies to cope with the variety in settlement structure, would seem an obvious starting point. However, the utility of this approach would vary substantially between regions.<sup>26</sup> Moreover, Theuws already pointed out that these typologies were not very effective in explaining the significance of a particular layout, in isolating the processes that lead to a specific settlement form, or in interpreting the relation between different settlement types in a region.<sup>27</sup> Moreover, Spek concluded from his case studies in Balloo, Gasselte, Valthe and Ansen (Drenthe) that between the seventeenth and nineteenth century, land ownership and demarcation changed to such an extent that the eldest land registry plans (the *Kadastrale Minuutplan*), on which a lot of these typologies are based, are unsuitable for the reconstruction of medieval and even early modern landscape patterns.<sup>28</sup> Comparison of the reconstructed layout of the seventeenth century settlements to the early

nineteenth century land register plans showed that village formation was not only dynamic, but also very diverse. Elements deemed to be characteristic for a specific type of medieval settlement, such as a central village green, turned out to be the product of recent developments.<sup>29</sup> Each of the villages studied by Spek had their own distinct formation. Moreover, villages with a similar layout were found to have different origins where certain processes could result in a different spatial footprint. As a result, he concludes that it is virtually impossible to capture the developments of the villages (of Drenthe) in a general model.

Where does this leave us? The present archaeological data is insufficient to reconstruct the formation of villages on its own and current models on the subject are too abstract to serve as a practical instrument for excavations. The levels of observation are too far apart. So how can we connect these information levels in a meaningful manner?

The answer again lies in historical geography (table 6.4). Rather than the morphogenetic deconstruction based mainly on nineteenth century maps and secondary literature, an in-depth retrospective analysis of village territories using a wider range of primary sources has proven to be more successful, especially if conducted as part of an interdisciplinary study. In its most elaborate form, this approach was described by Spek and applied in the case studies of his dissertation,<sup>30</sup> but others have also produced useful results in lighter studies along these lines.<sup>31</sup> One of the main advantages of historical geography is that its scope is more in harmony with the scale of objects we study, as it is able to cover an entire village territory and does so from the beginning of the research. Archaeological observations hardly ever cover more than some fragments of a settlement. Further, through analysis of written records we can gain insight into processes like land ownership, common law, and land use that played key parts in village formation, but are archaeologically virtually invisible. This provides the framework in which archaeological observations can contribute by providing a date range to known elements, add information on elements that are not known from the written record and test the geographical reconstructions in the field.

<sup>23</sup> Van der Velde 2011, 276. In some regions the archival records provide sufficient data to adequately reconstruct the development of villages from the Late Middle Ages or early Modern period onwards (e.g. Van der Velde & Spek 2010). Unfortunately, such a situation is rare. In most regions, records from this period are scarce, fragmented or not (yet) readily available.

<sup>24</sup> Spek 2004, 978.

<sup>25</sup> Leenders 2011.

<sup>26</sup> For the northern and eastern part of the Netherlands, such an approach has a high potential. Less so for the sandy areas of the central and southern Netherlands, the peat areas in the western Netherlands and the clay areas of Zeeland.

<sup>27</sup> Theuws 1989, 180-181.

<sup>28</sup> Spek 2004, 978.

<sup>29</sup> Spek 2004, 978.

<sup>30</sup> Spek 2004, 1004. Spek's reconstruction method combines information from historical geography, medieval history, agricultural history, archaeology, toponymy, soil science, micromorphology and palaeobotany. This method was also applied in the regional study on the Salland area (Spek *et al.* 2010).

<sup>31</sup> E.g. Noomen & Mol 1996; Keunen 2006; Vangheluwe & Spek 2008; Fermin 2015; Zomer 2016.

**6.3.2 Conclusion: a change of plans**

If we translate this to a plan, we need to find those areas where a detailed historical geographical analysis is present as well as a substantial number of archaeological observations, preferably in a region for which a general synthesis is available. This way we can combine information on (supra)regional development with the elements on a local scale. On the village level we rely on historical geography to provide an outline and rely on archaeology to challenge this, elaborate on this and provide additional details (figure 6.20). The archaeological indicators needed to test and elaborate on the present ideas need to be derived from models on all three levels (supraregional, regional and local). Initially the analysis will be focused on the individual case

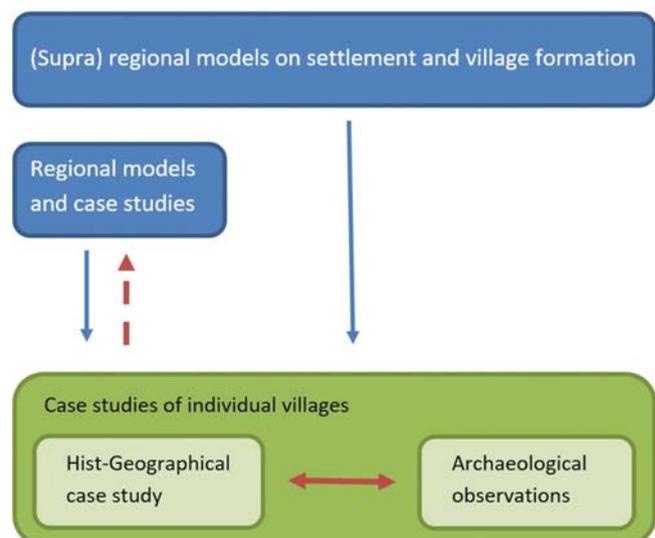
study. The aim, however, is to return to a regional level to provide more general, though updated, model for the National Research Agenda. A preliminary survey of areas with both archaeological and historical geographical information shows these cases will be rare. A synthesis based on multiple studies in the same region will therefore be problematic. What can be realised is an extended study to find out if the formation processes from an individual case study also apply to the surrounding areas; to test to what extent the local model could be valid for other villages.

A note of caution. Promising multi-data sites like Warnsveld show that the valuable archaeological information is mainly derived from small scale excavations, test pitting and monitoring of civil engineering, combined with a local research agenda. Since these kinds of observations were not part of our survey, due to the outline of the

**Table 6.4 The various studies from various disciplines provides us with different types of information on different levels. A more detailed archaeological model on a regional level (blue) can only be deduced from reconstructions on a local scale (light blue). Historical geography can bridge part of the gap between these levels of observation.**

Scale of formation process	Historical geography	Anthropology	Archaeology
Supra regional scale	Conceptual studies	Conceptual studies	Conceptual studies, e.g. Theuws, Van de Velde
Regional level	Case studies, e.g. Drentsche Aa	–	Existing Case studies & Our research assignment
Local level	Case studies	–	List of selected sites from the Malta reports

Figure 6.20 Using indicators derived from (supra) regional models a reconstruction of the formation and development of a village can be made when historical-geographical data and archaeological observations are integrated. These reconstruction can be used to test and update the current regional models.



project, we have no way of knowing how many useful small-scale excavations there are. Because of the lack of a GIS contour of the historical village centres efficiently, selecting these sites from the entire body of Archis data will not be possible. If we want to include these types of observations it would be sensible to only choose those in villages (territories) for which historical geographical studies (and larger archaeological datasets) are available.

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## 6.4 Inventory of historical geographical case studies

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From the previous assessments we found that the present archaeological data is insufficient to reconstruct the formation of villages on its own, but that at the same time the current models on the subject are too abstract to serve as a practical instrument for excavations. The levels of observation are just too far apart. A solution was found in historical geographical studies of village territories. Not only do these take place at a level of observation that is more harmonious with our subject, it also bridges the gap between the individual archaeological excavation and the overarching (supra) regional settlement model.

A retrospective analysis of village territories provides a spatial overview of a settlement and a framework of the archaeological data. This helps to provide coherence in the reconstruction of the spatio-temporal development of the settlement. Moreover, the use of archival sources can give an insight into the processes that played a key part in village formation, but are archaeologically virtually invisible like land ownership and common law. It significantly increases the potential of the case study to reconstruct formation of the village and as a result it enables us to assess how the general formation processes acted out at the local level. A more detailed archaeological model on a regional level, as is sought in this assignment, can only be deduced from reconstructions on this local scale.

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### 6.4.1 Results of the inventories

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Following these conclusions we made an inventory of historical geographical case studies of villages or village territories that produced (or enabled) a reconstruction of its forming and development. Since a general overview or database of historical geographical studies does not exist, we again relied on consulting the experts of our advisory board to collate a list of relevant studies. We subsequently compared this with the archaeological inventory to establish for which of these territories (sufficient) archaeological observations are also made available.

Comprehensive historical geographical analysis of villages or village territories proved to be quite rare, as we only found twelve examples (figure 6.21; appendix V). Most of them were situated in the eastern parts of the country and are related to research conducted by Wageningen University.<sup>32</sup> Nearly all case studies were located in a sandy area. Only Zwaag and the Avezathen lay in a clay or riverine area.

The range of these studies varies. In its most elaborate form, these consisted of an in-depth retrospective analysis of village territories using a wider range of primary sources as part of an interdisciplinary study.<sup>33</sup> Other studies also produced useful results along these lines.<sup>34</sup> Some of these cases consist of a number of specific studies concerning a particular topic or excavation. These were included when based on their synergy or their contribution to our research topic.

These historical geographical case studies were not all studied in detail, but they were treated as an important factor in the selection of the four case studies that were to be analysed in Phase 2 of the project (§ 6.5).

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## 6.5 Outcome of the joint inventories

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The main aim of the first phase of this study was to establish to what extent recent archaeological excavations can contribute to our understanding

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<sup>32</sup> Spek 2004; Keunen 2006; Van Beek 2009.

<sup>33</sup> E.g. Spek 2004, 1004.

<sup>34</sup> E.g. Keunen 2006; Vangheluwe & Spek 2008; Fermin 2015.

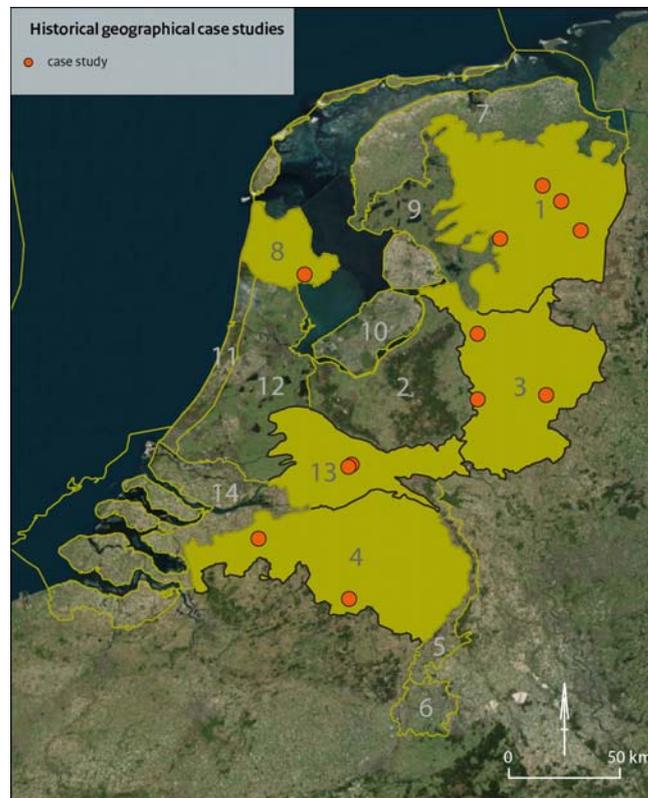


Figure 6.21 Overview of (archaeological regions with) comprehensive historical geographical studied villages.

of the formation of villages, one of the major knowledge gaps described in the National Archaeological Research Agenda. In addition, it also served as an assessment to select four archaeological regions for further analysis. These would provide the input for the agenda's update.

### 6.5.1 The outcome of the inventories

Initially we started out by collecting and assessing reports of archaeological excavations published in the past decade, drawing up a grading system in the process. Although a large amount of relevant reports were available, the data proved to be of limited use to provide insight into village formation.

Firstly, this had to do with the nature of the data itself. The excavations often leave considerable uncertainties regarding the extent, layout and development of the settlements as the scope of observation is usually too narrow to make any

statements on this level. Next, these sites are quite diverse (individual farms versus compound settlements, single-phased versus multi-phased, static versus shifting) and their distribution uneven.

More importantly, however, is that this had to do with the complexity of villages as a concept and construction, as was found in the compilation of the theoretical framework. Even if we opt for a very plain definition of the villages themselves, the processes involved in their formation and their interrelations remain as complex as they were before. Furthermore, political, economic and social factors play an important role in the creation and development of villages, but are often not visible archaeologically (at least not directly). In addition, as part of our dual approach, we wanted to establish the origins, layout and development of settlements falling within our timeframe AS 800-1600, which we know were regarded to be villages by contemporary sources. These villages could either have been abandoned later on or still be in existence today. Unfortunately the nineteenth century cadastral

<sup>35</sup> For the part of the Northern peatlands, the gap was recently filled in by Jeroen Zomer (Zomer 2016).

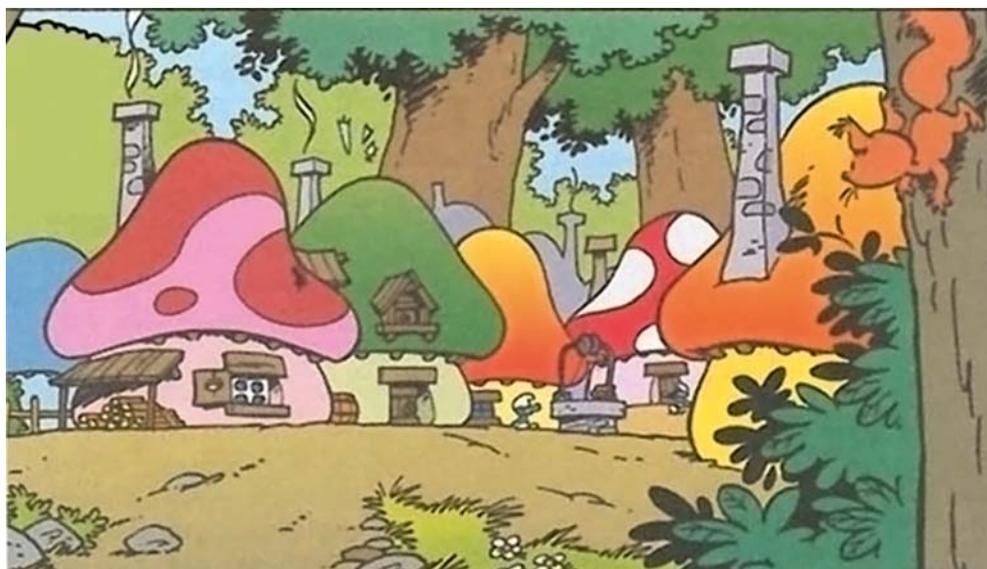


Figure 6.22 Not every village was equally suitable for our study.

maps which, to a certain extent, can be regarded to show the 'historical centre' of present-day villages, were not available for GIS. The same is true for the list of medieval churches we found and intended to use for spatial queries.

We did get a (rough) overview of present-day villages which origins (presumably) predate AD 1600, as well as a survey of deserted medieval villages, but since the coordinates for the first overview were taken from the present-day map, they were of little use for our current methodology. In spite of this, combined, these provide a decent, preliminary overview of medieval villages.

Because of the limitations of our dataset, we decided to adjust our strategy to a deductive approach in which we would use the archaeological data to test the current models on settlement development and village formation. To do so, we made an inventory of available models for the various regions.

As it turned out, the level of synthesis varied considerably between the archaeological regions. While a lot of work had been done in the cover sand areas, we were hard pressed to find anything for the clay areas, the riverine area and the loess area. And for some areas synthesis has not yet been made.

This difference in focus is also reflected in the publication date of the related articles. For most of the sand and dune areas, the current settlement models are pretty much up-to-date.

So much so that only few relevant excavations have been done since to challenge these. For the riverine, loess and terp areas on the other hand, the few models available were (out)dated.<sup>35</sup>

The main difficulty of the settlement models was that most of them were not very specific on village formation as such, either because they only partially covered the related period or because the focus lay on the reclamations rather than the developments of the settlements.

The models that did address village formation explicitly describe the trends in the settlement pattern in general terms, such as a clustering around churches or on manorial estates. Similarly, the causes or motives for these developments are explained by abstract processes like 'manorialisation' and 'institutionalisation'. The problem is that these processes are very difficult to observe archaeologically. As such, it is impossible to test these models using the available excavation data.

In order to bridge the gap between the (supra) regional models and the primary archaeological data, we turned to historical geography. Retrospective analysis of villages and village territories can provide the framework in which the archaeological data can be integrated to create a meaningful spatio-temporal reconstruction of the settlement. Subsequently, it can provide insight into some of the key processes behind village formation, which are

archaeologically virtually invisible. However, one has to be aware of the intrinsic bias of these historical sources towards vertical relations, as they were written from the perspective of the literate elite.

Historical-geographical analysis significantly increases the potential of the case study to reconstruct formation of the village and as a result it enables us to assess how the general formation processes acted out at the local level. These insights into the underlying processes and their interrelation, in turn, enables us to construct a more detailed archaeological model on a regional level and reach the level of observation sought in this assignment.

Our survey of historical-geographical studies of villages revealed only a small number of cases. Nevertheless, some of these proved to be highly relevant for our research, especially the studies that were conducted as part of an interdisciplinary study of village territories.

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### 6.5.2 Selection of case studies

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Following the outcome of our inventories and adjustments to our strategy, we intended to select four case studies for which relevant information was available at all three levels: a (supra) regional model, (multiple) relevant and highly rated archaeological excavations, and a historical geographical analysis of the village (territory) (figure 6.23).

Unfortunately, the corpus of villages did not fully meet the criteria set for the assignment, as these were not spread evenly throughout the Netherlands. In order to comply, we chose to select two cases based on the availability of a combination of archaeological and historical-geographical data and two primarily for their excellent quality and relevance of archaeological

data. This selection inherently takes two distinct approaches to the topic of villages formation and produces separate outcomes. As a result, the emphasis of Phase 2 was shifted towards the methodology.

This shift was viewed as an opportunity with regard to the update of the National Archaeological Research Agenda, as it was expected that the depth of insight in the processes related to village formation would be profoundly different if studied within a historical-geographical framework than if described only using archaeological data and anthropological theory. This is particularly relevant because in most cases during archaeological excavations, no comprehensive historical-geographical analysis of the area will be available.

As a result, the final selection of archaeological regions and their primary case studies are (figure 6.24):

- AR 3: Overijssel-Guelders sand area; case Warnsveld (Gelderland);
- AR 4: Brabants sand area; case Someren (North-Brabant);
- AR 11: Hollands dune area; case Limmen (North-Holland);
- AR 13: Utrecht-Guelders river area; case Kerk-Avezaath and Kapel-Avezaath (Gelderland).

In both Warnsveld (AR 4) and the Avezaath (AR 13), data from all three levels of observation was available. Limmen (AR 11) and Someren (AR 4) were selected because of the quality of the archaeological data.

Although Drenthe technically had the best credentials by far, we chose not to include it as the archaeological excavations predominantly date to the pre-Malta era, therefore defying the purpose of this study. Moreover, Spek's dissertation already provides us with an excellent interdisciplinary analysis and synthesis for this area.

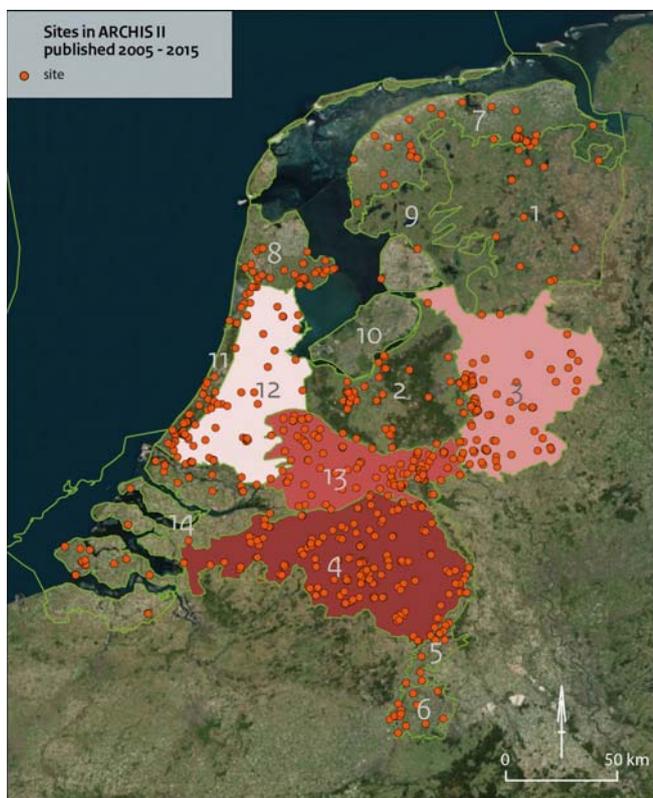


Figure 6.23 Overview of the combined outcome of the inventories of archaeological excavations, historical geographical case studies and (supra)regional models.

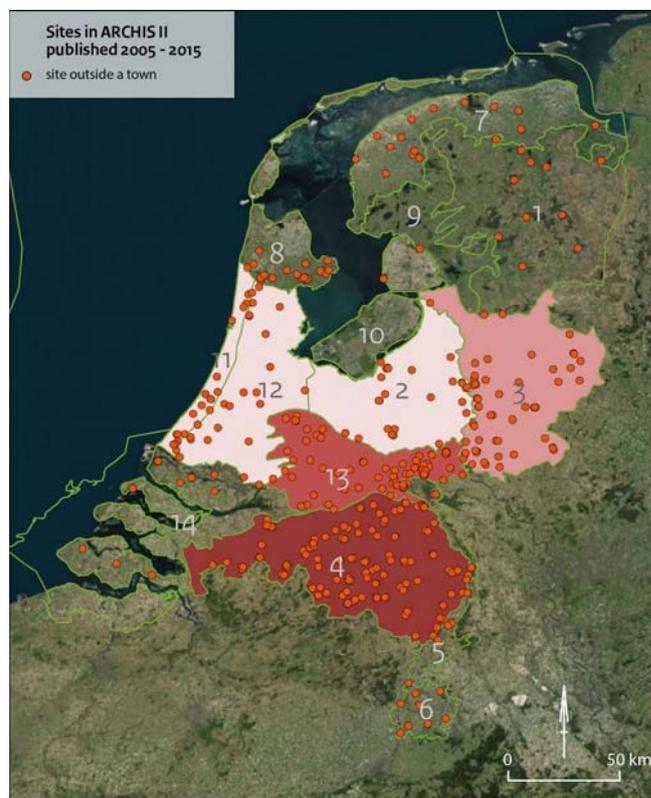


Figure 6.24 Overview of the archaeological regions selected for analysis in Phase 2 and their primary case studies.



# **Part III**

## **Case-studies**



Following the outcome of our inventories and assessments, we selected four villages – from four different archaeological regions – for which sufficient archaeological data was available to allow for a reconstruction of the village formation (§6.5). This reconstruction aims to identify the main processes involved (Ch. 7). The results of these case-studies will be used to test current regional models on village formation (Ch. 8).

Based on the available data, the case studies were divided into two groups which were then analysed from a distinct perspective derived from the conceptual framework (Ch. 4). For the cases in the first group, archaeological observations were combined with historical geographical data. Although this will provide a more detailed insight into the socio-political relations of the people involved, it was expected that the outcome would inherently be biased towards institutional actors and relations. To balance this in the case studies, in the second group archaeological observations were analysed from an anthropological perspective. Despite the differences in both dataset and approach, we tried to present the case studies as much as possible in a uniform format to facilitate comparison. After a brief introduction (§1), an overview of the available data is presented (§2).

Next, the various datasets are worked out in greater detail, starting with a regional settlement model (§3), followed by the historical (geographical) data (§4) (if available) and the archaeological observations (§5). This is used to first describe the lay-out, composition and date of the settlement in general.

In addition to combining the available data, a chronological development of the settlement is reconstructed (§6). Finally, using either the historical geographical or anthropological framework, key processes in this development are identified and further clarified (§7).

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## 7.1 A historical-geographical perspective

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- Case I: Warnsveld (AR 3)
- Case II: Kerk- and Kapel-Avezaath (AR 13)

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## 7.2 An anthropological perspective

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- Case III: Someren (AR 4)
- Case IV: Limmen (AR 11)



# Case I – Warnsveld (Gelderland)

## Archaeological region 3: Overijssel-Guelders sandy area

### I.1 Introduction

Warnsveld is a village in the province of Gelderland in the eastern part of the Netherlands (figure I.1). Since 2005, Warnsveld has been under the municipal jurisdiction of Zutphen and it forms one of the expansion areas of this historical city. As such, it has come under the care of the municipal archaeology department.

Village formation has been on the municipal research agenda for some time. Warnsveld is of particular interest in this respect, as it is one of the primal parishes of the western part of the Gelre county. Construction and development projects in the villages are therefore conducted under archaeological supervision. As a result, a substantial dataset is constructed from these small-scale observations.

Recent dissertations by Groothedde, Van der Velde and Van Beek provide a historical background for the district of Zutphen, as well as a general outline for the development of settlements in a wider region.<sup>1</sup> The continuing study of this territory by the established team of the municipal archaeological department enables researchers to gain more in-depth knowledge of the village, and the region, develop long-term research objectives and recognise important elements in small-scale observations.

Warnsveld only became a village in the sense of an administrative entity during the early nineteenth century (§I.3.4). Before that it was part of the *buurschap* Leesten. For this case study we will focus on this historical territory. On the other hand, the territories of the historical *marken*

Bronsbergen, Vierakker, Warken and Wichmond, which were incorporated in the current municipality, will be excluded from this survey.

### I.2 Dataset

#### I.2.1 Regional settlement model

The recent dissertations of Van Beek and Van der Velde provide us with an up-to-date overview of the development of landscape and settlement in the Eastern part of the Netherlands.<sup>2</sup>

Both studies, however, vary in scope and detail. Van Beek's detailed analysis of multiple 'micro-regions' illustrate the variety in composition and development of the area, which is often regarded as an homogenous entity. Van der Velde on the other hand focussed on the developments from a more general level and compiled these in a regional settlement model. This model focuses on the areas of Salland, Twente and the Achterhoek and covers the period between 500 BC to 1300 AD.

Geographically this area largely coincides with the Overijssel-Guelders sand area (AR 3). Although not specifically focussing on villages, in part due to the date range, it does provide valuable information on clustering and village formation processes. In addition, Groothedde's dissertation on Zutphen provides us with a political and ecclesiastical context for the development of the primal parish.<sup>3</sup>

#### I.2.2 Historical-geographical data

Although a specific historical-geographic study of the village is limited to a study of farms and fieldnames,<sup>4</sup> historical and historical geographic analysis forms a major part of many of the archaeological studies in the village.

This provides us with useful building blocks to piece together a more comprehensive overview on the (spatial) develop of this settlement. The elaborate historical framework is greatly aided by synthesising research of the district that was conducted by Groothedde for his dissertation. This continues to define the regional research agenda.



Figure I.01 Warnsveld in the Netherlands.

<sup>1</sup> Van Beek 2009; Van der Velde 2011; Groothedde 2013.

<sup>2</sup> Van Beek 2009; Van der Velde 2011. Unfortunately Keunen's dissertation, the counterpart of Van Beek's study for the Late Medieval and Modern period from an historical-geographical perspective, was not yet available at this time.

<sup>3</sup> Groothedde 2013, 393-395.

<sup>4</sup> Boschloo & Regelink 1991.

**Table I.1 Overview of archaeological observations in Warnsveld.**

Warnsveld						
Archis-nr <sup>1</sup>	Year	Site	Observation	Site-type	Date	Literature
20276	1990	Rijksstraatweg 19	Watching brief			
464	1996	Hofweg	Excavation	Farmyard	VMED	Genabeek 2001
7087	2004	Bonendaal e.o.	Watching brief	Farmyard (2x)	LMEA	Fermin/ Groothedde 2005
13257	2005	Abersonplein	Trail trenching	Farmyard	LMEA	Fermin/ Groothedde 2005
22617	2007	Kerkplein	Trail trenching	Church Churchyard Inn Building Settlement Debris	LMEA LMEA LMEB LMEB LMEA	Fermin 2007
27148	2008	Veldsebosweg 4	Excavation			Fermin 2008
29478	2008	Warnveldse riolen 2008	Watching brief	Mill; Inn Settlement Debris	NTA NTB VMEB/LMEA	Fermin 2009
37928	2009	Abersonplein 9	Trail trenching	Farmyard	LMEA	Fermin 2011c
40908	2010	Laan 1940-'45	Watching brief	Settlement debris	VMEB/NTB	Fermin 2011b
40909	2010	Landweg	Watching brief	Settlement debris	LMEA/LMEB	Fermin 2011b
45166	2011	Rhiederinklaan 26	Watching brief			Fermin 2011d
48258	2011	Warnsveld riolen 2011	Watching brief			Fermin 2012
50451	2012	Bevrijdingslaan 27-29	Excavation	n/a		Benerink & Van Wilgen 2012
54359	2012	Rijksstraatweg 57	Watching brief	Deanery	LMEB/NTB	Fermin 2013
54515	2012	Klaprooslaan 2	Watching brief			Kastelein 2014
57715	2013	Klaprooslaan 2	Excavation			Kastelein 2014
60682	2014	Warnsveld riolen 2014	Watching brief			Kastelein /Groothedde 2014
n/a	2015	Veldweidelaaan 4	Excavation			Fermin 2015

1 Due to complications with the new Archis registration system, we used the initial registration number (OMG-nr).

**Table I.2 Overview of archaeological observations in Leesten and Eme.**

Leesten & Eme						
Archis-nr	Year	Site	Observation	Site-type	Date	Literature
	1990-2000	Ooyerhoek	Excavation	Settlement	IJZ/LMEA	Groothedde 1996; 2001
6150	2004	Laan van Eme	Trail trenching			
7736	2004	Verlengde Ooyerhoekseweg	Trail trenching			
12129	2005	Revelhorst	Excavation			
23803	2000	Looër Enk	Excavation	Charcoal piles	VMEC/VMED	
25330	2007	Leestenseweg 18	Excavation	Settlement	VMEA	Groothedde 2007
29591	1990	Ooyerhoek	Excavation			
37940	2009	Revelhorst, Lansinkweg	Trail trenching			
38491	1997	Leestenseweg – Rozenhaag	Excavation			
39743	2010	Meierink	Excavation	Settlement	VMED/LMEB	Van Straten & Fermin 2012
42516	2010	N314	Trail trenching			
48763	2011	Lansinkweg	Excavation			
58572	2013	Laan naar Eme	Excavation			

**1.2.3 Archaeological observations**

Warnsveld is only represented in our survey by one excavation. The reason why this case was selected has to do with the extensive body of small-scale observations that were conducted in this village in close relation to a local research agenda, in which village formation is one of the major topics (figure 1.2). These observations vary from watching briefs of civil engineering and test pits to some (small-scale) excavations. Large-scale excavations were only conducted in the neighbouring hamlets of *Leesten* and *Eme* (*Ooyerhoek*). The archaeological dataset mainly consists of observations from within the present-day village centre, with the exception of the excavations in the aforementioned hamlets. In all, 18 archaeological observations were recorded from 2005. In this study we included all observations from 2005-2015, as well as a selection of relevant pre-Malta excavations.

**1.3 Regional settlement model: Eastern Netherlands (Salland, Twente and Achterhoek)**

Van Beek and Van der Velde provide us with a model for the development of rural settlement, burial and landscape from the post-Roman decline to the relocation of settlement from the arable land, around AD 1300. Unfortunately their model does not directly address the formation of villages, nor does it discuss the influence of the cities on the development of settlement and the social, economic and demographic impact these cities had from the Carolingian period (Deventer and Zutphen) onwards, after AD 1200 when many towns were established in the Eastern Netherlands.

**1.3.1 Habitational history**

At the start of the Early Middle Ages the habitation in the Eastern Netherlands, an area which used to be part of the frontier zone between the Roman Empire and the Germanic

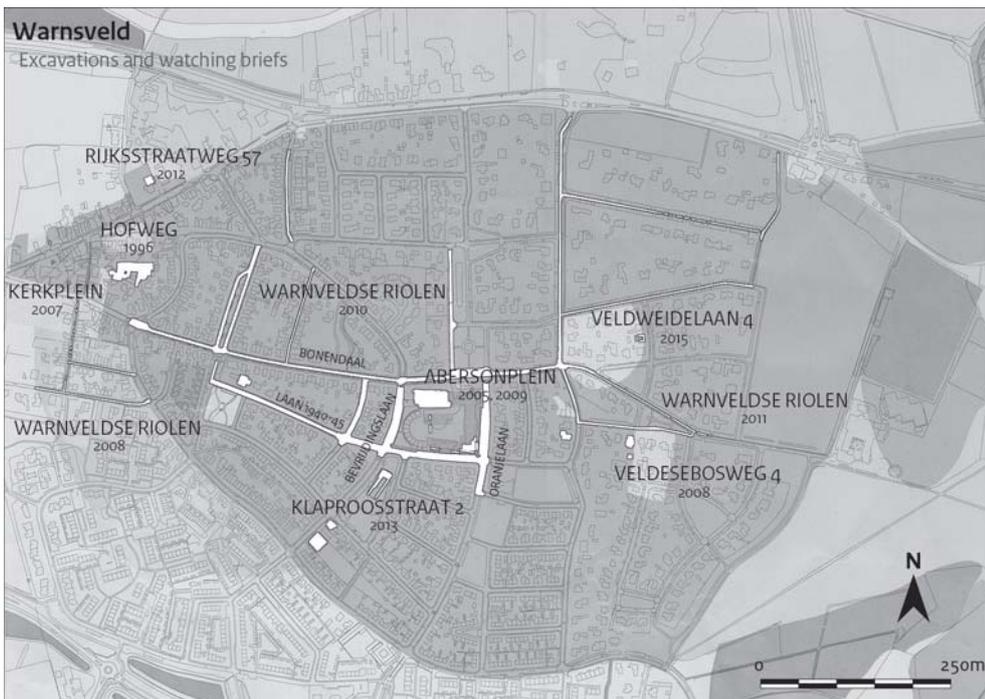


Figure 1.2 Overview of archaeological observations in Warnsveld.

lands, declined to only a limited number of small settlements of one or two farmsteads. After the Romans (with their trade network and constant demand for goods) withdrew from this area, little remained of the often substantial settlements (with their artisanal production) that previously scattered the countryside. The remaining settlements became predominantly self-subsistent again.

### The Carolingian period

The Eastern Netherlands was part of the Frankish borderland. In the course of the eighth century the Saxon territories were incorporated in the Franconian Empire and together, with the former borderlands, they integrated into the Franconian administration. Changes in the way the elite organised themselves appear to influence the way the landscape was increasingly being structured. During the seventh and eighth century this network grew into a feudal system. This meant that lords would bind their retainers by granting them fiefs, usually consisting of real property, to provide them with a revenue for their subsistence. These land holdings were organised in a manorial estate and consisted of a manor (*curtis*) with a demesne and dependent land which could hold a number of farms. This process had a stabilising effect on the landscape in which the rural settlements became fixed.

Apart from the worldly aristocracy, land was bestowed on ecclesiastical institutions. The church had close ties to the Carolingian authorities and the latter played an important role in the Christianisation of the region. The manorial courts and the churches were crucial elements in the landscape. Several of these centres would develop over the course of the Middle Ages into the present-day villages.

### The Ottonian period and High Middle Ages

The fixation of the settlements, as a result of the domain system, provided the basis for the subsequent development of the cultural landscape in the Middle Ages. In the ninth century many of the open fields in the villages were established. An increase in population led to the creation of new farms. On the one hand this was realised by intensifying the exploitation of the larger cover sand ridges and condensing the habitation, and on the other hand by reclamation of previously uncultivated cover sand ridges. The extent and pace with which this

happened appear to depend on the possibilities the local landscape offered and the proximity of cities and infrastructure.

The habitation from the ninth century onwards differed markedly from the preceding period, both in settlement location and material culture. Outside the clustered settlements, the central places, habitation was predominantly laid out in single farms (*Einzelhöfe*). The farms were established in two phases. The first was during the ninth and tenth century and the second was in the eleventh and twelfth century. A number of farms proved very stable in respect to their location and often remained in use for a very long period of time. Other farms were only used for one or two generations and were either abandoned or moved afterwards. These farms mainly belonged to the second phase.

### The Late Middle Ages

In the course of the thirteenth century the farmhouses were moved down the flanks of the cover sand ridges. This is ascribed to a subsequent intensification of agriculture in response to a further increase in population.

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## 1.3.2 Village formation 800-1300

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Geographically, the earliest medieval occupations focused on the most suitable areas: the large cover sand ridges or the sandy plateaus behind the push moraines (*gordeldekzanden*). The reclamation and habitation of an area develops (relatively) according to a concentric sequence, depending on geographical location and proximity to other major features and places. The earliest settlements (800-1100) were situated on the larger cover sand ridges. In a later phase these were filled in and condensed. In a second reclamation wave (1100-1520) the smaller cover sand ridges were cultivated. These are situated in an area outside of the central ridge. In the latest phase (1520-1832) the small sand tops in the surrounding marshland were reclaimed. The late medieval villages developed out of manorial courts with churches that were usually founded by the lord of the manor. This became a focal point around which the settlement grew. As a result of the early fixation of these settlements, these are

presumably situated underneath the present-day villages. Unfortunately, as a result, little is known of this development due to the peculiarities of archaeological research in towns and villages.

## 1.4 Historical geography

### 1.4.1 Geology and geomorphology

Warnsveld is situated in a wide stretch of river dunes flanking the river IJssel on the eastern side.<sup>5</sup> These dunes were formed during Younger Dryas (ca. 12.900 – 11.700 B.P.), the youngest stadial of the Weichselien. During this cold period, sand was blown from the dried up riverbed of the primeval Rhine and deposited as parabolic dunes as a result of prevailing western winds (figure 1.3). This gave the area a substantially varied relief which will prove to be significant for the later development of the area. The dunefield is cut by the river Berkel which flows from the higher cover sand plateau in the east (the Achterhoek region). As a result of a natural barrier on the north side, it initially curved southward at present-day Zutphen and flowed into the Lower Rhine.<sup>6</sup> Shortly after the

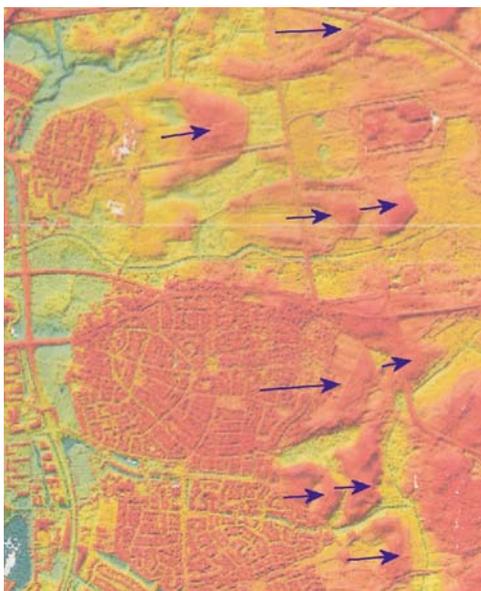


Figure 1.3 Lidar images of the area show a number of these remaining parabolic dunes in the landscape. (Fermin 2011b, 9).

Roman period, this barrier was breached as a result of repeated floods of a longer period. This opened up a path for the river Rhine to flow in a northerly direction, following the course of previous smaller rivers, towards the Zuiderzee. This branch would become the river IJssel, which would have been navigable before the start of the ninth century.<sup>7</sup> The Berkel now flows into the IJssel. Warnsveld lies on the eastern side of the new Berkel estuary, with Zutphen on a strip of land on the opposite side.

Besides the Berkel, smaller brooks like the Onderlaatste Laak, the Ooyerhoekse laak and the Vierakkerse Laak flow through the dune field, carrying the water towards the IJssel.

### 1.4.2 Historical context

The historical context of Warnsveld is connected to the wider political developments via the nearby centre of Zutphen.<sup>8</sup>

Zutphen lies on the tip of a high river dune. The earliest phase of occupation dates back to the third or fourth century AD. In this period the settlement was already fortified with banks and ditches, suggesting that it was a promontory fort.<sup>9</sup> After the avulsion of the Rhine that led to the formation of the IJssel river, the settlement found itself on a narrow strip of raised land in the convergence of the Berkel. This further enhanced its position as a regional centre and formed the base for later developments.<sup>10</sup> The Zutphen area was part of Hamaland, the northern county of Austrasia and heartland of the old Franconian confederation.<sup>11</sup>

After the Roman period the settlement continued uninterrupted, where trade and industry flourished. This is indicated by the archaeological remains. In the course of the eighth century the Hamaland was incorporated in the Carolingian Empire. Around this time a large hall was built in Zutphen, the seat of power of a regional authority. This is most likely a continuation of an existing structure. After the devastating Viking raids in 882, Everhard 'Saxo' Count of Hamaland was appointed duke and assigned to the defence of Lower Lorraine. He built heavy fortifications, large circular ramparts, in Deventer and Zutphen. At the centre of Zutphen, Everhard

<sup>5</sup> Fermin 2012, 15. For additional information on the geological formation of the region see Langeveld & Fermin 2008.

<sup>6</sup> Groothedde 2013, 49-51.

<sup>7</sup> Groothedde 2013, 51-54.

<sup>8</sup> This historical context is, for the major part, taken from Groothedde 2013, 402-414.

<sup>9</sup> Groothedde 2013, 70-71.

<sup>10</sup> Groothedde 2013, 402.

<sup>11</sup> The (C)Hamavi are already referred to as *Franks* in the first century AD. They would form a confederation of Franks with other tribes in the third century. Hamaland and the Chamavi had been ruled by independent kings since late antiquity, before being subdued by the Carolingian Franks (comment Groothedde).

would establish a court and church. The duke would take up residence in Zutphen as the Bishop of Utrecht settled in Deventer. The counts of Hamaland would rule over Zutphen and the surrounding county up until the tenth century. In 938-939 Meginhard IV took part in an uprising against the (then) king Otto I. The uprising was crushed and the rebels were hit with repercussions. Possessions were confiscated and titles and privileges revoked. The county was subsequently split up into a southern part, with Elten at its centre, and a northern part with Zutphen. They would not last. As a result of political conflicts, both counties were eventually repossessed by the king (in 1018 and 1046) and given to the Bishop of Utrecht. This would become a major part of the episcopal principality of Utrecht (*Sticht Utrecht*) in the Eastern Netherlands (*Oversticht*). Deventer would become the centre of power in the northern part of the principality and a large episcopal palace (aula) complex was established here on the site of the former royal palace (*Palas*).<sup>12</sup>

The bishop would build a new royal palace in Zutphen, an impressive monumental complex overlooking the river IJssel. In order to comply with the *servitium regis*, a new county was established and named after its centre: Zutphen. A magistrate acted as a count on behalf of the bishop. He would be governor of the castle (*oppidum*) and county, guardian of the episcopal chapter and administer of justice.<sup>13</sup>

In the course of the twelfth century the relationship between the bishop and his vassal, the holder of the office, deteriorated. The bishop lost his control over the guardians of Zutphen as they would increasingly operate autonomously, expand their authority and claim the hereditary title of count for themselves. Through marriage, the county becomes a holding of the Count of Guelders in 1127 in a political union. At this point the palace lost its function as a royal residence and after a large renovation, around 1200, the new lord Otto I (Count of Guelders) would take up residence here.

In 1339 Guelders was elevated to a duchy by the German emperor. Zutphen became the capital of the quarter that derived its name from this city and comprised of the county. In 1473 Guelders became part of the duchy of Burgundy after conquest by Charles the Bold. After a brief period of autonomy during repeated uprisings in the Geldrian Wars (1502-1543), the duchy was finally

subjected to Habsburg's control and became part of the personal union of imperial states: The Seventeenth Provinces. In 1581, Guelders was one of the provinces that seceded to form the Dutch Republic in the Eighty Years' War.

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### 1.4.3 Etymology

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The earliest recording of place name *Warnsveld* is found in a thirteenth century copy of the donation of the St. Martin's Church by the bishop to the chapter of St. Peter in Utrecht in 1121.<sup>14</sup> The suffix *-veld* indicates a clearing in the woods. The prefix *Warn-* or *Wern-* is thought to be a derivative of the medieval *weernisse* or *warnesse*, meaning a reinforced place, and related to *weer* which is a defensive or enclosed place, field or farm. The interpretation of Warnsveld as a reinforced or enclosed area of settlement is upheld by archaeological findings of a moat at Hofweg-1996.

In the centre of the village, next to the church, laid a rounded block of arable land called *woerd* (figure 1.21). In general this name refers to a higher situated, enclosed terrain.<sup>15</sup> In the eastern parts of the Netherlands and the adjacent German region, the term more specifically refers to the plot of arable land next to a farmyard which contain the main arable fields of the farm (*huisakker* or *hofnâhes Ackerland*). The rounded shape and average size of 1-2 ha. is typical for these fields.

The *woerden* are related to early farms and are often related to old manorial estates.<sup>16</sup>

Moreover, Spek noted that in Drenthe they are frequently found in the centre of the historical village. From this he suggests that they were formed when the settlements became fixed in the landscape and the later village grew. In Drenthe this development is dated to the late eighth and ninth century.

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### 1.4.4 Warnsveld as part of the *marken Leesten*

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Based on the medieval assessment registers, Warnsveld was part of the neighbourhood (*buurschap*) *Leesten* (figure 1.4).<sup>17</sup>

A neighbourhood was a collective of farmers and

<sup>12</sup> Groothedde 2013, 411.

<sup>13</sup> Groothedde 2013, 413.

<sup>14</sup> Fermin & Groothedde 2005, 9-10. Alternative medieval spellings include *Warnesfelde*, *Warensfelt*, *Warnfelt*, *Warnsfelt*, *Wernsfelt*, *Wernesfelt*, and *Werensfelt*.

<sup>15</sup> Spek 2004, 678-681.

<sup>16</sup> Spek 2004, 679.

<sup>17</sup> Fermin 2005, 7; Fermin 2012, 13.

neighbours (*naburen*) living in a certain area that communally organised the management and use of the common lands and other issues of communal interest.<sup>18</sup> As such, a neighbourhood was a social group as well as an administrative and legal unit and inseparably connected to a specific geographical area, the *marke*. The *marke* was an inseparable territory and the communal property of the owners of the farms in the neighbourhood who each had a share (*waardeel*). The size of the share determined the scope of their input. Often, only yeomen could be part of the board. Kötters and tenant farmers were only entitled to some rights of land use. Up until the nineteenth century the name Warnsveld referred to the parish.<sup>19</sup> Administrative Almen, Gorssel, Warnsveld, Wichmond and Vorden resorted under the bailiwick Zutphen. Only from the French period would Warnsveld become an administrative body, comprising of the neighbourhoods

Warnsveld, Warken, Leesten, Wichmond and Vierakker. In 1811 the '*mairie*' Warnsveld was established and from 1825 until 2005 Warnsveld was an autonomous municipality.

#### What about Eme?

Eme was a hamlet (*buurschap*) on the south side of Leesten. Because its farms were ecclesiastical property from the eleventh century onwards, and the occupants were all serfs to the chapter of St. Walburg or its deanery, the hamlet never became an independent *marke*.<sup>20</sup> At the end of the sixteenth century the reformation had led to the dissolution of churches and chapters and their property was subject to forfeiture. The previously bound farmers could now own their farms. With this change, the need of a communal organisation arose. Instead of creating their own *marke* they chose to join the *marke* Leesten.

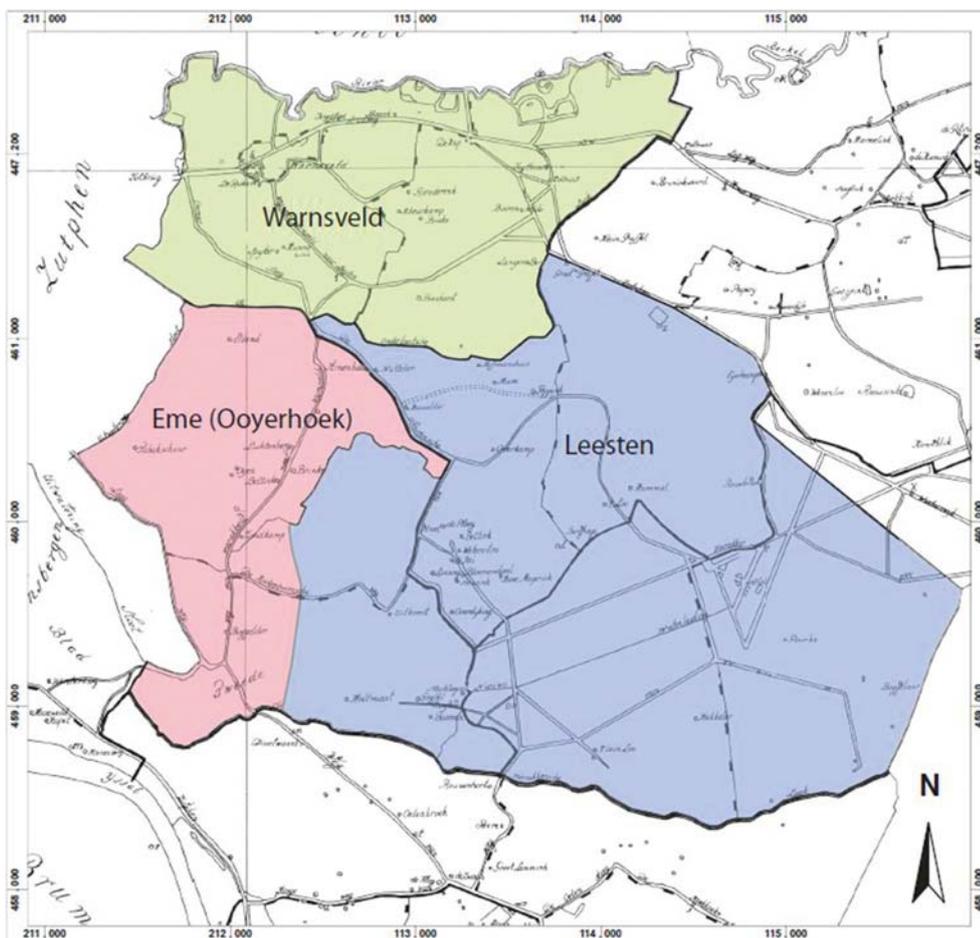


Figure I.4 Situation of the subjectors within the medieval *marke* Leesten (Bouwmeester et al. 2007, 371).

<sup>18</sup> Spek 2004, 102-104.

<sup>19</sup> Fermin 2012, 13.

<sup>20</sup> Groothedde 2001, 92-94.

The absence of a marke administration, or the fact that the farms were the property of the chapter, does not mean that the farmers living together in the hamlet would not cooperate in communal affairs or maintain social relations with their neighbours. Most likely it would only affect the formal administration of this settlement.

### 1.4.5 The parish Warnsveld

The medieval parish of Warnsveld is comprised of the neighbourhoods Leesten, Vierakker, Wichmond (from ca. 1600), Bronsbergen, Warken, Eefde, Wolfeler, Rijsselt, Angeren.<sup>21</sup> At its centre stood the church of Warnsveld. Secondary churches were built at a later stage in Vorden

(ca. 1100), Gorssel (ca. 1300) and Almen (ca. 1400) (figure I.5).

The primary parish church in Warnsveld was a proprietary church of the Bishop of Utrecht as is shown from its dedication to St. Martin, a patrocinium related to Utrecht, and its donation in 1121 by bishop Godebald to the chapter of St. Peter in Utrecht. The oldest phase of the building dates back to the eleventh century.

The late appearance of this church, known to be a primary church, indicates that the church of Wichmond served this purpose previously. The establishment of a parish church in Warnsveld is attributed to bishop Bernold.<sup>22</sup> After he was bestowed with the county in 1046 he turned the court of Zutphen into a royal palace complex. The former proprietary church, dedicated to Maria, was made into an episcopal chapter.

<sup>21</sup> Fermin 2013, 13.  
<sup>22</sup> Fermin 2013, 14.

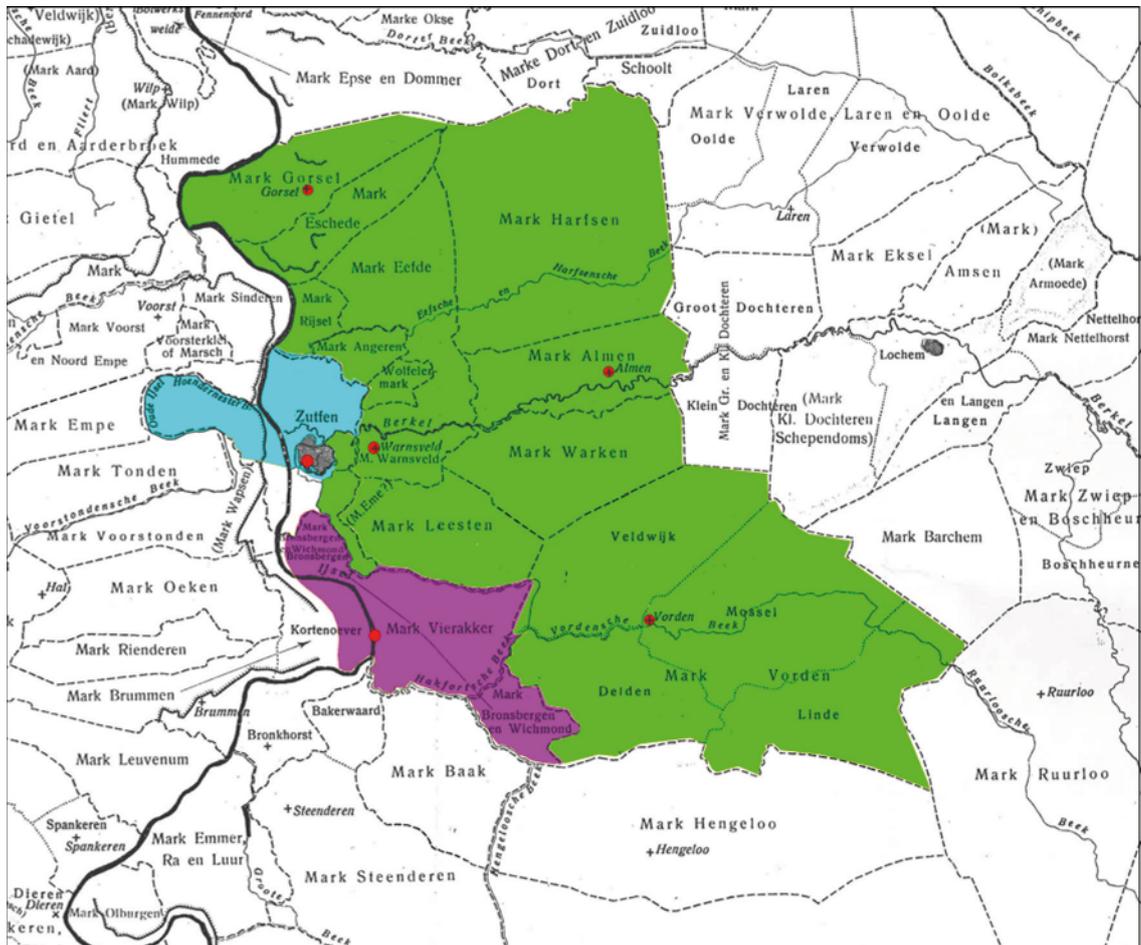


Figure I.5 The presumed extent of the parish Warnsveld in the eleventh century. The late medieval subsidiary churches are indicated with a red dot. In blue, the area that belonged to the estate Zutphen which had its own parish church within the circular rampart. The parish Wichmond is marked purple (Groothedde 2013, 394).

The establishment of the St. Martin's Church on this location is thought to be politically motivated.<sup>23</sup> Only four kilometres to the south the missionary Liudger had established the St. Salvator Church in Wichmond in the eighth century. This church, however, resided under the monastery Werden, which held the right of patronage up until the sixteenth century. Building the St. Martin's Church and establishing a parish next to, or aimed against, the old church of Wichmond could be regarded as an effort by bishop Bernold to marginalise 'foreign influence' in his newly obtained territory. Warnsveld was probably chosen for its strategic location close to Zutphen, along the main road towards Lochem and next to the river Berkel. Importantly, proprietary churches were built on private ground, so we can assume the bishop held land here.

Apparently this strategy was successful, as the parish of Wichmond failed to grow and later declined during the Late Middle Ages. In 1582 the church was washed away by the IJssel. This marked the end of this 'Werdenian' parish.

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### 1.4.6 Historical maps

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A substantial number of maps, plans and illustrations are available for this region from as early as ca. 1565. These include atlases, military maps, city plans, illustrations from tax books and so on. Although we do not intend to present a comprehensive overview, we wanted to make use of the material that was readily available. The maps are consistent in depicting Warnsveld as a modest cluster of buildings around the church along the main road between Zutphen and Lochem, with a separate, smaller group of buildings at the presbytery. From the second half of the nineteenth century this cluster expands,

starting along the main road. Only from the early twentieth century does the housing block around the church start to expand. Starting from the second half of the century, the village grows rapidly and expands over the arable field complex of the *Warnsveldse Enk*.

#### City plan of Zutphen by Jacob van Deventer (ca. 1565)

Because of its location close to Zutphen, a topographic illustration of the village exists, dating to about 1565, as it was included on the city plan by Van Deventer (figure 1.6). It depicts a cluster of houses around the church, on both sides of the main road to Zutphen. On the city side a slightly larger building stands out of this cluster. A smaller cluster of houses were located just northeast of the village amidst some woodland. This is identified as the *w(h)eme*, a piece of land designated to provide for the village priest and the location of the presbytery.<sup>24</sup>

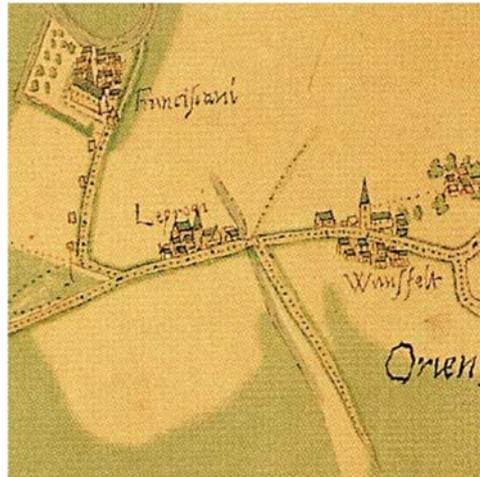


Figure 1.6 Van Deventer (ca. 1565) detail from the city plan of Zutphen depicting Warnsveld as a cluster of houses around the church, and at a separate (smaller) group of houses at the presbytery accompanied by trees. On the main road to Zutphen lies the hospital and on the road to Deventer lies the Franciscan monastery.

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<sup>23</sup> Groothedde 2013, 393-395.

<sup>24</sup> Fermin 2013, 13.

<sup>25</sup> Fermin 2015, 11.



Figure I.7 Map of Warnsveld (N. van Geelkercken, ca. 1642).

**Van Geelkercken (1642)**

The 'Book of reports' from the Judicial court of Gelre and Zutphen contains a map by Nicolaes van Geelkercken which shows Warnsveld as a small cluster of houses, and a church in the fork of the road, that encloses the Warnsveld Enk (figure I.7).<sup>25</sup> At this open field we find *Rhienderink* farm and *Ter Brake*.

**Hottinger Atlas (1783)**

The Hottinger Atlas provides some additional details (figure I.8). The settlement near the church is depicted as two smaller clusters of buildings, with houses on both sides of the road linked by a row of houses which only occupy one side. These sub-clusters were grouped around the church and the presbytery. The farms were situated separately around the Warnsveldse Enk. Based on the colour indication of the map, most of the houses were brick-built by this time, although it is unknown how accurate that is. Additionally, large country estates were being built in the surrounding landscape.

**Cadastral Plan (1832)**

The cadastral maps are the earliest representations of Warnsveld as a village (autonomous administrative body). Its layout

hardly differs from earlier maps. Interestingly, the presbytery is moated now and the *wheme* is divided (figure I.10).

**Military plan (ca. 1840)**

The earliest detailed topographic map shows that the houses were located either along the main road or around the arable field complex. Warnsveld and the *wheme* are located on the west side of the Warnsveldse Enk and two groups of farms on the south and east side, on the border with the meadows and the woodland (figure I.9). It also shows the proximity of the river Berkel.

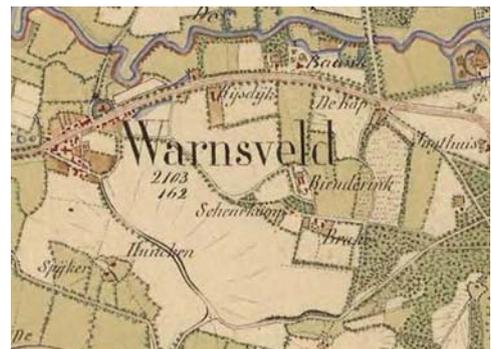


Figure I.9 Topografisch Militaire kaart (ca. 1840) (source: Kadaster).



Figure I.8 Bipartite composition of Warringsveld with small, clustered settlement around the church and presbytery and dispersed farms along the Warringsveld Enk (Hottinger Atlas 1783).



Figure I.10 Cadastral map 1832 (source: Kadaster).

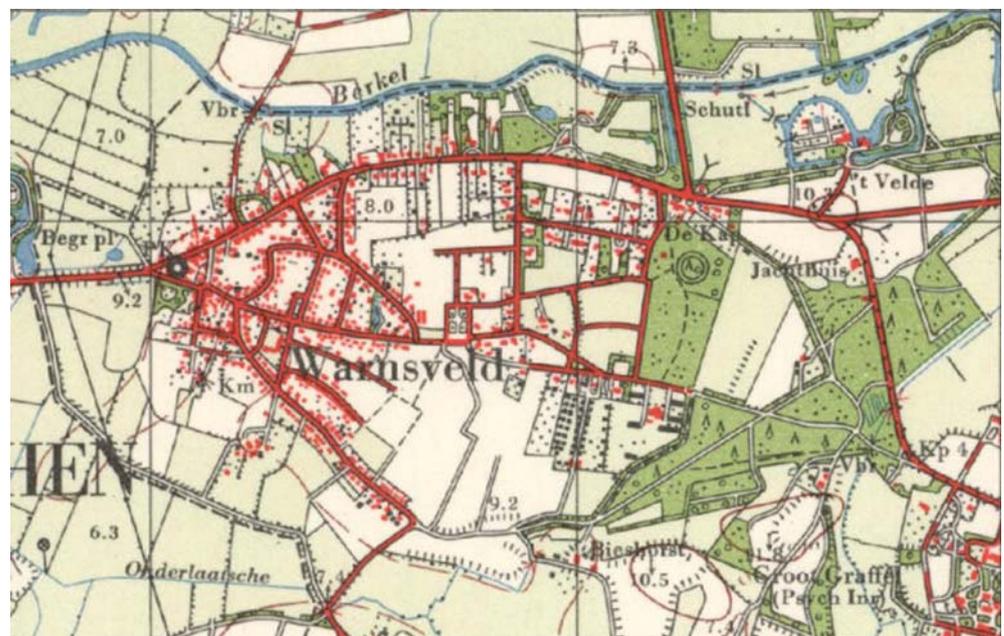


Figure I.11 Topographic map (ca. 1960) (source: Kadaster).

### Topographic plan (ca. 1960)

This map illustrates the rapid growth Warnsveld underwent after the Second World War.

The village expanded from both the cluster at St. Martin's Church and the housing along the main road, and was directed to the (former) open field (figure I.11).

## I.4.7 Historical references

### Village centre

In addition to the church and houses, the archival records mention several inns and an oil mill in the village centre. The inns are known by name: 'De Flapschotel' (Het Witte Paard) (1643), 'De Pauw' (1702), 'De Prins' (1718), and 'De Roskam' (1650). The latter used to be an oil mill.<sup>26</sup> The oldest records of the mill date to 1571, when Lady Geertruydt Rasehorn bought it. At that time it was already described as an old building.<sup>27</sup>

### Church, churchyard and presbytery

The earliest reference to St. Martin's Church dates to 1121, when bishop Godebold of Utrecht bestowed the chapter of St. Peter with the church and accompanying chapel in Vorden.<sup>28</sup> Both the *patrocinium* and the donation indicate that the church was probably a private establishment of the Bishop of Utrecht. Analysis of the historical architecture of the church indicates that the current building dates

back to the eleventh century.<sup>29</sup> It started out as an aisleless church with a tower and developed into a pseudo-basilical layout with a 3/8 apse in the fourteenth and fifteenth century.

Based on this date it is likely that the church was established by bishop Bernold after he was bestowed with the newly created county of Zutphen.

The church was built on an elevated terrain and surrounded with a churchyard wall (figure I.12). This wall succeeded the moat that initially enclosed the church.<sup>30</sup>

St. Martin's Church stood next to the *w(h)eme*, a piece of land designated to provide for the village priest and the location of the presbytery.<sup>31</sup> The latter stood in the northern part of this plot. The southern part consisted of arable land and was known as the *Woerd*.

### Countryside

The settlement in the countryside consists of a number of farms (and some country houses) that either lie separately or in small groups, on or against the surrounding open field complexes.

### Fields

Outside the Warnsveld village centre we find a number of open field complexes (*enken*). They are, as a rule, located on the parts of the landscape that are most favourable for agriculture; in most cases, the higher river dunes or cover sand ridges. These fields are traditionally focal points for rural settlement, which can be traced back (at some locations)



Figure I.12 View of St. Martin's Church by Jan de Beijer (1743).

<sup>26</sup> Fermin 2007, 16.

<sup>27</sup> Fermin 2009, 9.

<sup>28</sup> Fermin 2013, 14.

<sup>29</sup> Bloemink & Van der Waard 1999.

<sup>30</sup> Genabeek 2001, 142-143.

<sup>31</sup> Fermin 2013, 13.

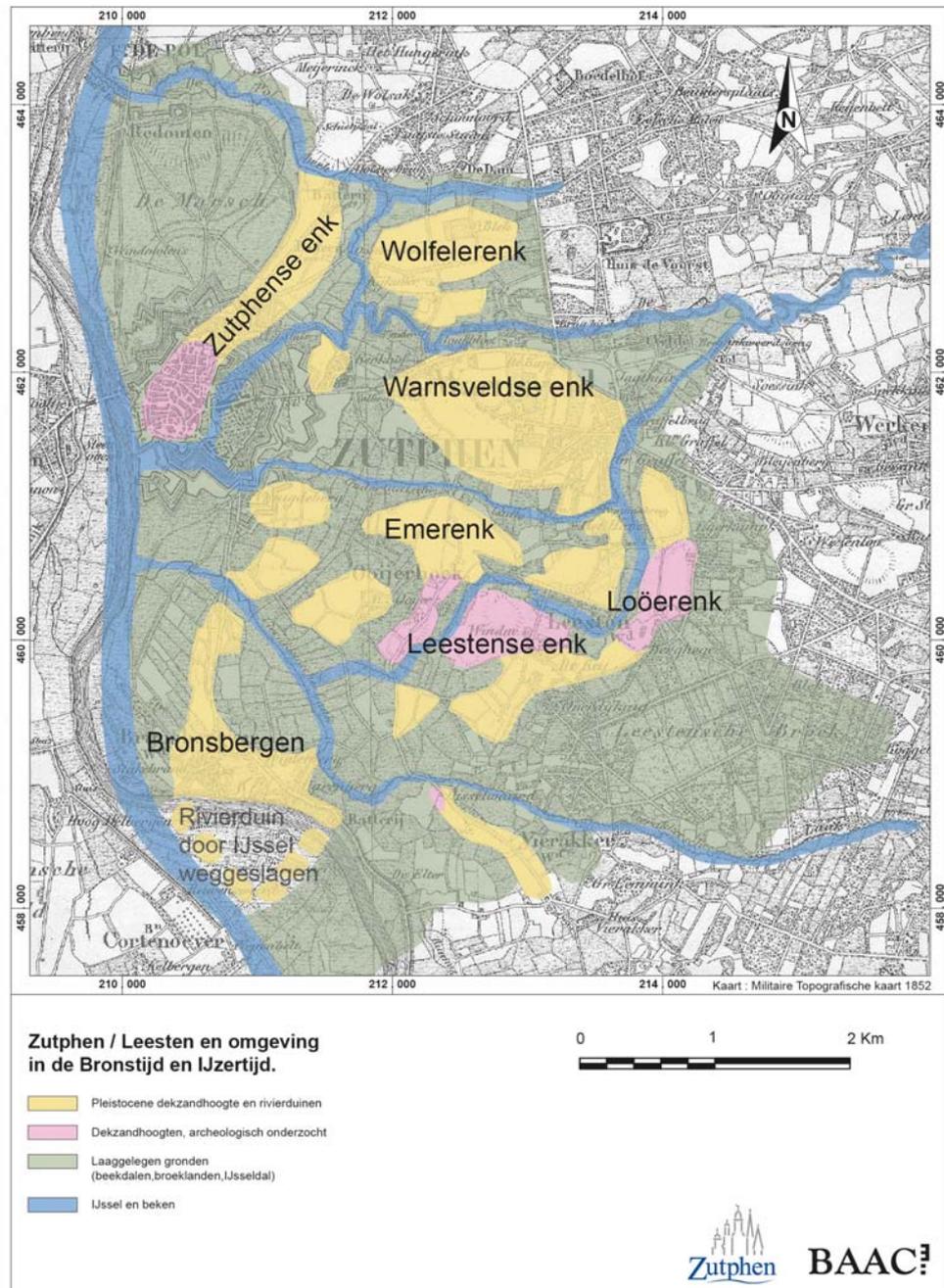


Figure I.13 The various field complexes (*enken*) around Warnsveld (Bouwmeester *et al.* 2008, 266).

uninterruptedly to late prehistory.<sup>32</sup> In the Leesten these include: *Warnsveldse Enk*, *Graffel*, *Looërenk*, *Leestense Enk*, *Emer Enk* and *Oyshamme (Ooyerhoek)* (figure I.13).

#### Farms

From archival records of the Late Medieval period we learn that a number of farms were situated on the Warnsveldse Enk, and other

open field complexes in the *buurschap* Leesten, during the fourteenth and fifteenth century (table I.3).<sup>33</sup> Besides their geographical location, their status and background is of great importance to understand the composition of the *buurschap*. Archaeological observations have been made on some of these. Several farms are mentioned on the surrounding fields:

<sup>32</sup> Fontijn 1996, 37-47.

<sup>33</sup> Ter Laak 2008, 403-420.

**Table I.3 Medieval farms in the *buurschap* Leesten mentioned in archival records organised per field complex. Additional dates are mentioned when available.**

Farm	Earliest reference	Date	Details
<b>Warnsveld</b>			
Ter Braecke	1378	<1378-1929	<ul style="list-style-type: none"> <li>• Split of Rhienderink</li> <li>• Property of the count/duke of Gelre</li> <li>• Knightly estate (<i>zadelgoed</i>)</li> <li>• Private property from 1653</li> </ul>
Bieshorst	1385	<1385-	
't Hoenekink	1378		<ul style="list-style-type: none"> <li>• Property of the count/duke of Gelre?</li> <li>• Property of the Chapter of St Walburg</li> </ul>
Rhienderink	1347	≥1059-1960	<ul style="list-style-type: none"> <li>• Property of count/duke of Gelre?</li> <li>• Knightly estate (<i>zadelgoed</i>)</li> <li>• Private property &gt;1358</li> <li>• Property of Bornhof from 1394<sup>1</sup></li> </ul>
Scheurkamp	1779	1653(?) – 1922	<ul style="list-style-type: none"> <li>• Split of Ter Brake</li> </ul>
't Spieker			<ul style="list-style-type: none"> <li>• Late medieval fortified stone house. Presumably a former granary</li> <li>• Split from 't Hoenekink (?)</li> </ul>
't Velde	1326		<ul style="list-style-type: none"> <li>• Possibly a castle from the start.</li> </ul>
<b>Eme – Oversthamme</b>			
Bettink	1284	<1284-1970	<ul style="list-style-type: none"> <li>• Property of Ulix van Leesten;</li> <li>• Property of the Chapter of St Walburg</li> <li>• Property of almshouse Bornhof</li> </ul>
Gerwerdinck; (Luchtenberg)	1284	(<1105?)/<1284-1991	<ul style="list-style-type: none"> <li>• Property of the deanery of St Walburg</li> <li>• Part of curtis Horselder (&lt;1105)</li> <li>• Property of Ulix van Leesten;</li> <li>• 12<sup>th</sup> c. granary?<sup>2</sup></li> </ul>
Hassinck	1284	<1284-present	<ul style="list-style-type: none"> <li>• Property of the deanery of St Walburg (?)</li> <li>• Property of Ulix van Leesten</li> <li>• Property of almshouse Spittaal</li> <li>• Property of the Chapter of St Walburg</li> </ul>
Nannink	1284	<1284-	<ul style="list-style-type: none"> <li>• Property of the deanery of St Walburg;</li> <li>• Property of the chapter of St Walburg</li> </ul>
Nywesinc	1284	<1284-	<ul style="list-style-type: none"> <li>• Property of Ulix van Leesten</li> </ul>
Tanckinck; (vanaf 1494: 't Brinke)	1200	<1105 -1992	<ul style="list-style-type: none"> <li>• Property of the deanery of St Walburg</li> <li>• Part of curtis Horselder (&lt;1105)</li> <li>• Property of Ulix van Leesten</li> <li>• Property of the deanery of St Walburg;</li> <li>• Private property;</li> <li>• Property of the chapter of St Walburg;</li> <li>• Property of almshouse Bornhof</li> </ul>
Ter Oye (Ouesthamme)	14 <sup>th</sup> c.		<ul style="list-style-type: none"> <li>• Property of the deanery of St Walburg</li> </ul>
Yaelekinck	1284	<1284-	
Wessa	1284	(<1105?)/<1284-	<ul style="list-style-type: none"> <li>• Property of the deanery of St Walburg;</li> <li>• Part of curtis Horselder (&lt;1105)</li> <li>• Property of almshouse Bornhof</li> </ul>
<b>Eme – Emer enk</b>			
Avercamp	14 <sup>th</sup> c.		<ul style="list-style-type: none"> <li>• Property of the deanery of St Walburg</li> <li>• Property of the chapter of St Walburg</li> </ul>
Ten Have	1494	<1494	
Horselder (Hasselder)	1105	<1105-	<ul style="list-style-type: none"> <li>• Curtis <i>principales</i> of St. Walburg church</li> <li>• Curtis of Gerwerdinck; Tankinck and Wessa</li> </ul>
Nutteler	n/a		
Poppink	1345	<1345	

Farm	Earliest reference	Date	Details
<b>Leesten – Leestense enk</b>			
<i>Averdijkinck (Overdijkink)</i>	1494	<1494-	
<i>Bettink (Smedink)</i>	1378	<1378-	
<i>Bensink</i>	1494	<1494-	
<i>Lanssinck</i>	1494	<1494-	
<i>'t Meijerinck</i>	1378	<1378-	<ul style="list-style-type: none"> <li>• Manor from the beginning?</li> <li>• Property of the Van Leesten family</li> </ul>
<i>Jebbekinck (De Ploeg)</i>	14 <sup>th</sup> c.	892-	<ul style="list-style-type: none"> <li>• Freeholding</li> <li>• Property of the Van Leesten family</li> </ul>
<i>Tjodink (De Kei)</i>	1378	<1378-	<ul style="list-style-type: none"> <li>• Property of the count/duke of Gelre</li> </ul>
<b>Leesten – Looërenk</b>			
<i>Berghege</i>	1494	1472/1494-1971	
<i>Graffel, klein</i>	1304	<1304-	<ul style="list-style-type: none"> <li>• Situated in marke Warken (border)</li> </ul>
<i>Graffel, groot</i>	1494	<1494-	<ul style="list-style-type: none"> <li>• Situated in marke Leesten (border)</li> </ul>
<i>'t Loo (old)</i>	1304	1242-1460(?)	<ul style="list-style-type: none"> <li>• Srelocated around 1460</li> </ul>
<i>'t Loo (new)</i> <sup>3</sup>		1460-2001	
<i>'t Hummel</i>	1494	1472/1494-present	<ul style="list-style-type: none"> <li>• Split form 't Loo</li> <li>• Property of a patrician from Zutphen</li> </ul>
<i>Rouwbroek</i>	1494		

1 The *Bronhof* is an almshouse in Zutphen.

2 Grootthedde 1996, 115.

3 Grootthedde 2007, 300. It is thought 't *Loo* was relocated around 1460.

For some of these farms some historical information is available to provide additional background.

### Warnsveld

#### *Ter Brake*

The earliest reference of *Ter Brake* dates back to 1378 when *Reynolt ter Brake* received this estate in fief of the Duke of Guelders.<sup>34</sup> *Ter Brake* is situated on the edge of *Rhienderink*. It was most likely a newly established farm separated from the *Rhienderink* estate on or next to newly reclaimed land, as is indicated by its name. The appearance of the farm in the records coincides with the sale of the *Rhienderink*. According to the 'register of armed' (1401), the vassal that held *Ter Brake* was part of the knighthood and belonged to the lower nobility. In case of war he was to supply a man-at-arms to the duke. In 1405 the estate was elevated to a '*zadelgoed*'. This meant that the vassal had to give a saddled horse as homage to his lord. In exchange he would receive some privileges. It is thought that by this time the vassal had a moated manor built or even a small brick keep.<sup>35</sup>

Remains of this can be seen on a map, dating to 1644 (figure I.14).

#### *Hurselere (Horsclare)*

*Hurselere* is listed in 1105 as one of four *curtes prinipales* that were part of the original real estate of the St. Walburg Church in Zutphen.<sup>36</sup> From a charter dated 1348 we learn that it was situated in *Warnsveld* and the *curtis* of the farms *Gerwerdinck*, *Tankinck* and *Wessa*.

#### *Rhienderink*

The estate *Rhienderink* lies in the middle of the *Warnsveldse Enk*, a large open field complex next to *Warnsveld*. It is first mentioned in 1347 as the shared property of *Hendrik Reijnardijnck* consisting of a house, homestead and land.<sup>37</sup> In 1402 and 1403 repairs of a chapel were recorded. Subsequently, we learn of a mill (presumably a horse mill) on the estate. *Rhienderink* was a knightly estate, as it had to supply a men-at-arms and a foot soldier (if required by the duke). Between 1358 and 1371 the estate was sold to *Hendrik Louwer*, a magistrate in Zutphen. Presumably around this time *Ter Brake* was created on the edge of this estate.

<sup>34</sup> Fermin 2012, 19-21; Rijs 2016, 16-20.

<sup>35</sup> Rijs 2016, 19.

<sup>36</sup> Hermans 1996, 139-140.

<sup>37</sup> Rijs 2016, 16-20.

Judged by the surnames of the occupants, the Rhienderink family kept the estate in lease after the sale. In 1394 it would be sold to Bronhof in Zutphen, a charitable institution for the benefit of the elderly.

#### *Scheurkamp*

The *Scheurkamp* farm was founded on land of Ter Brake. It is first mentioned in 1779. Both the farmhouse and the accompanying lands were relatively small and probably formed a *kötter*.

#### **Leesten and Eme**

In the Late Middle Ages, Eme mainly consisted of ecclesiastical real estate. The farms *Avercamp*, *Gerwerdinck*, *Hassinck*, *Tanckinck*, *Nanninck* (*Naminck*), *Ter Oye*, *Wessermaat* (*Wessa*) and *Groenloecs Mate* belonged to the St. Walburg Church. The church, however, had two distinct sets of capital: that belonging to the deanery (property of the provost to be used i.e. for the church), and that of the dean and chapter of the church (property of the church itself).

The provost was an important authority in the early stages of the church, but his influence decreased over time and the chapter became a more autonomous body.

The listed farms, *Avercamp*, *Gerwerdinck*, *Tanckinck*, *Nanninck*, *Ter Oye* and *Wessermaat*, originally belonged to the estates of the provost (deanery). *Gerwerdinck*, *Tanckinck* and *Wessermaat* were part of the manor *Hursele*, which was one of the original possessions of the St. Walburg Church. Of these deanery goods,

only *Ter Oye* would remain until the usurpation by the States of the Quarter of Zutphen.

The chapter of the St. Walburg Church actively strived to expand their real estate, buying both farms and land in Eme. By the end of the fifteenth century they owned the main part of the hamlet.

A third party who held goods here was the almshouse *Bornhof* in Zutphen. They owned the *Bettinck* and *Wessermaat* farm. In 1766 *Bornhof*'s estates were sold to the mayor of Zutphen, Jan Adriaan Joost, baron Sloet, lord of *Diepenbroek*, *Westerholt*, and *het Oye*, who became the most prominent landholder in the area. He already owned *Ter Oye*, which by now had grown into a fine country estate. As a result, from this time onward, the hamlet of Eme would be known as *Ooyershoek*.

#### *Tanckinck*

The earliest reference to this farm can probably be found in a charter dating to 1200 in which the property of the monastery Bethlehem in Doetinchem is listed, including a farm in *Eime* run by *Everardo Takun*.<sup>38</sup> The first direct reference to the farm dates to 1284, when the levies of seven farms in Eme were sold to a citizen from Zutphen. The farm was, at that point, the property of *Ulrix van Leesten* who owned seven farms in the hamlet of Eme. In 1348 *Tanckinck* was the property of the deanery of St. Walburg. Together with *Gerwerdinck* and *Wessa*, *Tanckinck* was part of the *curits Hurslere*. This was one of the four *curtes principales* of the deanery, which



Figure I.14 Detail from a map by Van Geelkercken (1644) depicting De Braecke farm next to the remains of a moated (tower) house. Rhienderink was located north of the adjacent woodland.

<sup>38</sup> Hermans 1996, 139.

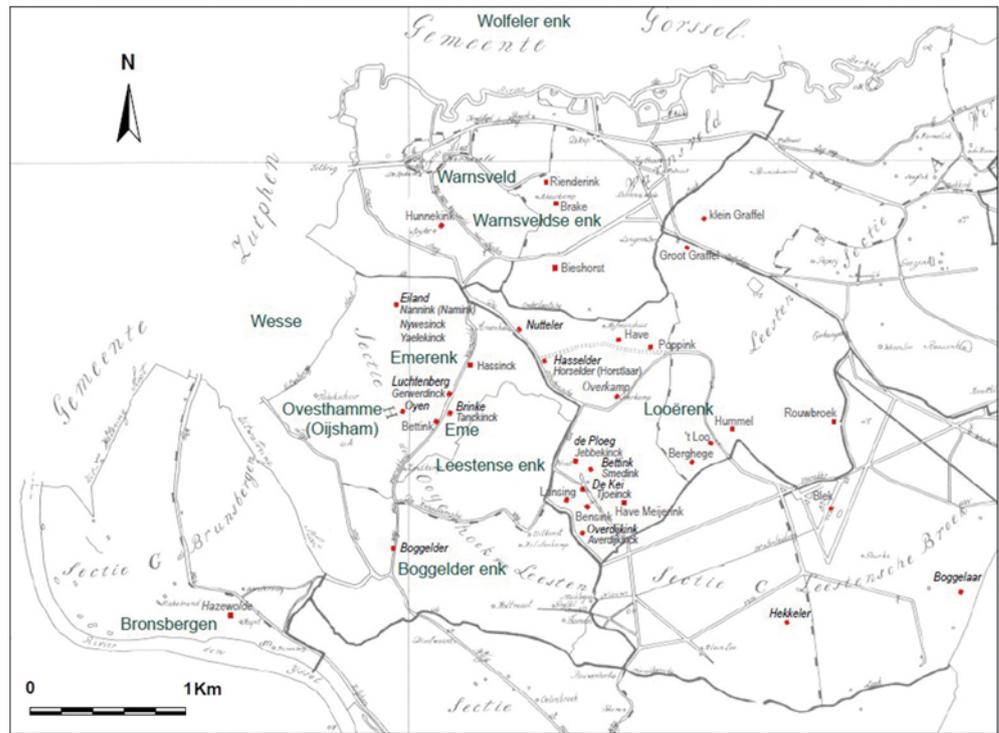
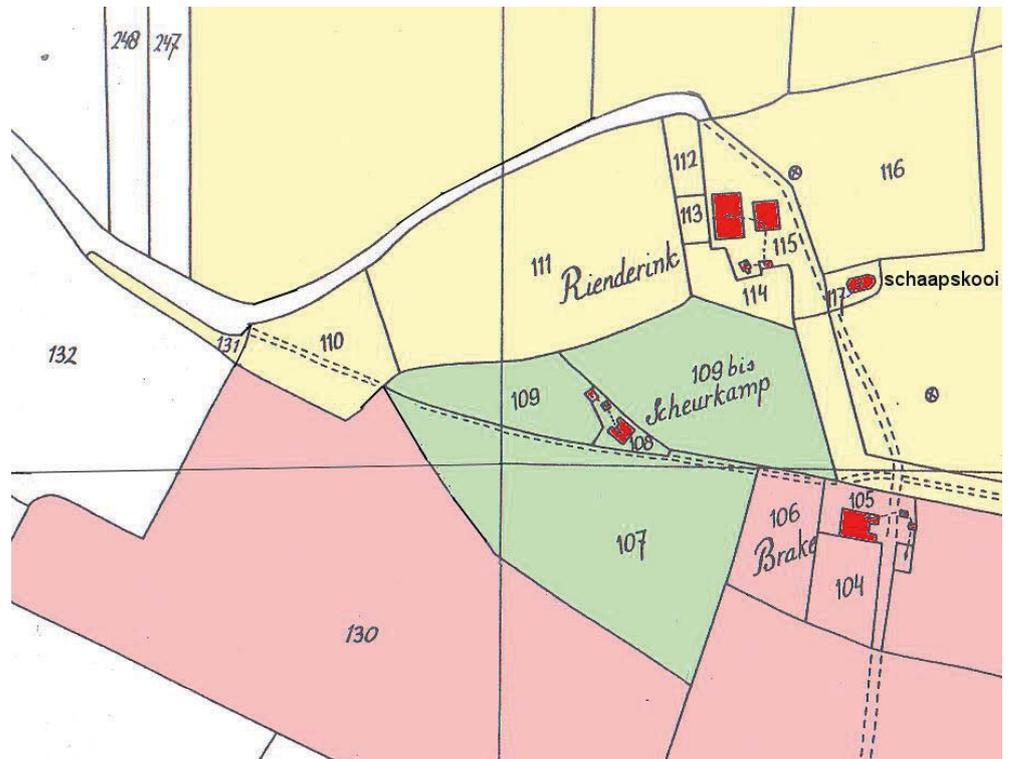


Figure I.15 Overview of farms with medieval origins in the mark Leesten (Bouwmeester et al. 403).



Rienderink, Brake and Scheurkamp farm (Fermin 2012, 21).

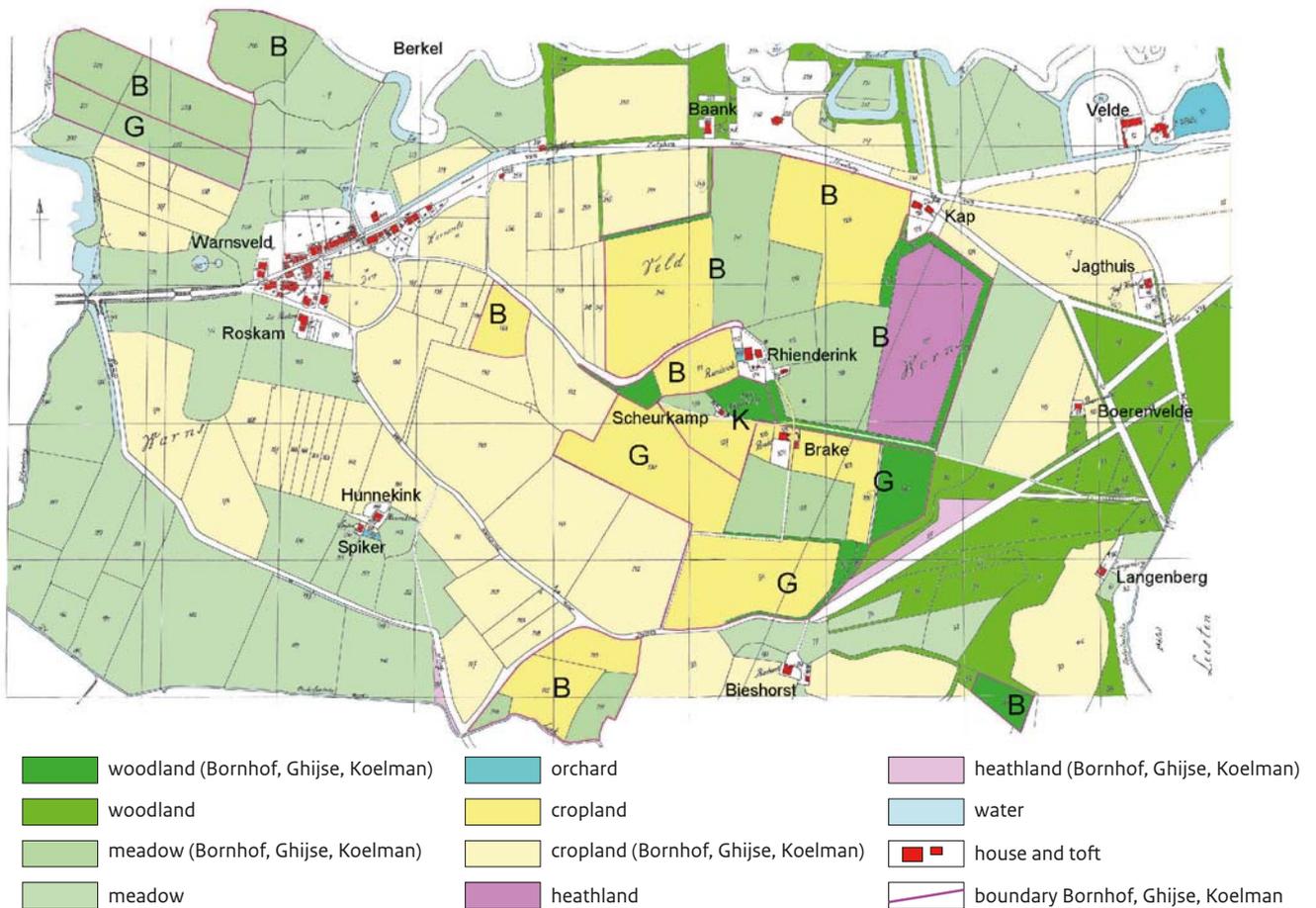


Figure I.17 Land belonging to Rhienderink, Brake and Scheurkamp farm (Fermin 2012, 14).

are listed in a charter (*falsum*) dating back to 1105 as original real estate belonging to the St. Walburg Church in Zutphen. In 1374 it transferred from a fief to a tenure.

The exact location of the Tankinck farm is unclear. It is not depicted on the map of Eme that was drawn between 1737-1757 for the lawsuit between Bornhof and the marke Leesten. It is thought to have been located near 't Brinke and Hassinck or perhaps at the location of 't Brinke itself.<sup>39</sup>

#### Hassinck

Hassinck was situated south of Warnsveld, north of the Ooyerhoekseweg.<sup>40</sup> It is thought to have been a dependant estate which was converted at an early stage to tenured land. In 1291 it was donated to the almshouse *Spitaal* in Zutphen by widow Aleydis van Deventer when she acceded

it as a beguine. The dean of the chapter of St. Walburg took part in the contract. In 1335 the chapter bought the farm and then ordered it to be reunited with the original estate.

#### Gerwerdinck

The Gerwerdinck farm was one of the original estates belonging to the deanery of the St. Walburg Church. It was part of the *curtis* Huslere, which earliest records date back to 1105. In 1364 the farm was converted from a fief to a leasehold and transferred from the hofrecht to the landrecht.<sup>41</sup> In 1400 it was bought by the chapter of St. Walburg. It would remain partly in their possession until it was confiscated by the State armies at the end of the sixteenth century. Gerwerdinck was situated along the Gemene Straatweg (Ooyerhoekseweg), north of the Bettinck farm.

<sup>39</sup> Hermans 1996, 140.

<sup>40</sup> Hermans 1996, 141-142.

<sup>41</sup> Hermans 1996, 142-143.

Table I.4 Composition of settlement remains found at observations in Warnsveld.

Site	Settlement	Excavated completely	Singular/plural settlement	Composition per phase	Begin	End
Warnsveld						
Laan 1940 –'45 – 1995	1Fs?	n			1000	1150
Hofweg 1996	1Fs; 2FY	n	undetermined	Fy1: 1H, 0OH, 1W Fy2: 1H, 0OH, 1W	825 850	850 875
Laan 1940 –'45 – 2004	n/a	n				
Abersonplein 9 – 2005	undetermined	n				
Abersonlaan – 2005	1FS; 1FY	n	undetermined	1W	1059	(1100)
Bergkampweg – 2005	n/a	n				
Bonendaal – 2005	1FS; 1FY	n	undetermined	1W	1101	(1140)
Gerstekamp – 2005	undetermined	n	undetermined	n/a		
Kerkplein – 2007	1CH 2FS; 2FY	n	Plural	1CH; Fy1: 1H Fy2: 1H	1050 1400 1400	Present 1700 1835
Veldesebosweg 4 – 2008		n				
Molenstraat – 2008		n				
Bongerdspad – 2008		n				
Tuinstraat – 2008		n				
Schoolstraat – 2008		n				
Rijksstraatweg 11 – 2008		n				
Abersonplein 9 – 2005; 2011	1FS; 1FY	n	undetermined	1H; 1W	(1100) 1140	1180 (1200)
Landweg – 2010		n				
Laan 1940 –'45 – 2010	1Fs?	n			(800)	(1200)
Rhienderinklaan 26 – 2011		n				
Rhienderinklaan – 2011		n				
Kozakkenlaan – 2011		n				
Veldesebosweg – 2011		n				
Abersonlaan – 2011		n				
Peppelenweg – 2011		n				
Rijksstraatweg 57 – 2012						
Leesten						
Leestenseweg 18	1FS; 1FY	n	undetermined	1OH	500	600
Leestenseweg 22						

#### Ter Oye

The Ter Oye farm was one of the dependant farms belonging to the deanery before it was converted into tenured land in 1376. After that it remained in the hands of the deanery as a lease hold until the estates of the church were annexed by the States of the Quarter of Zutphen in 1603. It was then obtained by the mayor of Zutphen who turned it into a country estate. This would later lend its name to the entire hamlet: *Ooyerhoek*.

#### Wessermaat

Wessa or Wessermaat was part of the original dependent holdings of the deanery.<sup>42</sup> In 1387 the farm, now called *Ouest Hamme*, was bought by the Bornhof. Since then it was sold by private owners as a freehold, so it must have been transferred from a fief prior to that. In 1766 the guardians of the almshouse decided to sell their real estate in Eme. Both Wessermaat (*Ouest Hamme*) and Bettink (see below) were bought by the mayor of Zutphen, lord Sloet.

<sup>42</sup> Wesse formed a seigneurial entity with Wapse (near Brummen). This is only known from the find of the fourteenth century seal matrix of Gerard van Wesse, found in Wapse. Here, archaeology contributed directly to the historical dataset (comment Groothedde).

### Bettink

The exact origins of Bettink farm are unclear. It is listed in 1381 among real estate of the almshouse *Bronhof* in Zutphen. It was located along the *Gemene Straatweg*, east of *Ter Oye* farm.

Bettink farm kept its name until 1970, when the last farmhouse was demolished to make room for urban development.

## 1.5 Archaeological observations

The archaeological dataset is highly fragmented (table I.4). The observations in Warnsveld showed no farmstead, nor house plot that was excavated in its entirety. And in some cases, no settlement remains were found at all. Nonetheless, the observations we included are deemed highly relevant, as they provide information on the main research questions regarding composition, layout and development of the settlement.

The selected sites are presented in chronological order of their excavation. The results are then used to answer these research questions.

From this, a narrative is compiled on the development of the settlement.

### 1.5.1 Sites

#### Laan 1940-194; 1995

At a construction site on the corner of *Schoolplein – Laan* (1940-1945), a number of globular pots (*kogelpotten*) dating to the eleventh or early twelfth century were found.<sup>43</sup>

#### Hofweg – 1996

Hofweg-1996 is located on the high sand ridge near the medieval church.<sup>44</sup> The excavation covers an area of 70 x 20 m in an open space in the midst of a housing block. It revealed settlement remains from the late Carolingian period (AD 825-875) and High Middle Ages (figure I.18).

The settlement consisted of two house plans, two wells, a possible oven and a number of ‘rubbish’ pits. These formed the remains of two farmyards that were most likely the remains of two subsequent phases of one farmstead.

On one of the farmyards, most likely the first one, evidence of an enclosed fence was found. The wood from one of the wells could be dated through dendrochronology. This farmstead



Figure I.18 Excavation plan Hofweg 1996 (Van Genabeek 2001, 143).

<sup>43</sup> Fermin 2001b, 11

<sup>44</sup> Genabeek 2001.

could not be excavated completely because of the current buildings. The absence of features on the southern sections is thought to indicate the border on this side. The character of the settlement provided no details (nor did the findings) on the specific nature of the settlement or the occupation of its inhabitants.

In the High Middle Ages a moat was dug on the western edge of the terrain. Its fill contained tuff blocks and slate that can be attributed to the St. Martin's Church (earliest recordings date to 1121), but some part of this building dates back to at least the eleventh century. The moat is thought to have enclosed the church as well as the village area during this period, as no settlement remains from the twelfth or thirteenth were found outside. A section of a subsequent moat was found just east of the first one. Its presence indicates that the enclosed (village) area was enlarged in the twelfth century. This might have happened again when the moat was filled in the fourteenth or fifteenth century.

#### **Laan 1940-1945; 2004**

For the construction of a new office, a building plot was excavated. The work was monitored in a watching brief. Results were included in the analysis of the 2005 watching brief.

#### **Abersonplein 9 – 2005**

Prior to the construction of the Den Bouw retirement home, an archaeological prospection was conducted using nine trial trenches. Findings from the sewer trenches and the proximity of the sites to historical farms gave cause for an investigation. Results were included in the analysis of the 2005 watching brief.

#### **Sewer renewal in Bonendaal, Gerstekamp, Bergkampweg, Abersonplein and Abersonlaan – 2005**

The renewal of the sewer in Warnsveld was taken as an opportunity to gain insight into the palaeo-relief and soil makeup in the village centre and to assess the quality of the archaeological record. To do this the construction work was periodically monitored in an archaeological watching brief.

The sewer trenches resulted in a cross section through the village. It revealed a distinct palaeo-relief with four noticeable bulges. These appear

to be relevant for occupation in the past, as they correlate with archaeological settlement remains. St. Martin's Church is located on the westernmost ridge. The Carolingian farmyard was found here in 1996 and occupies its eastern slope. Additionally, the trenches produced the remains of at least two medieval farmyards. The first was located at the Bonendaal – Bevrijdingslaan junction and consisted of a well in the centre of a plot marked out with ditches. The well could be dated to 1101. No archival references are known for this farm. A second farmyard was found near the Bonendaal – Rhienderinklaan junction. The remains consist of a well which could be dated to 1059. It is located close to the historical Rhienderink farmstead and is most likely related to an earlier phase of this farm.

To gain insight into the spatial chronology of land use and occupation in the present-day village centre, a distribution map was made of the pottery sherds (n= 1403) that were found in the sewer trenches.<sup>45</sup> The results indicate that the area of the present-day village was occupied uninterruptedly from the ninth century onwards. Besides the Woerd, Carolingian artefacts were found on the bulges at the Gerstekamp and at Den Bouw. These could indicate the location of contemporary farms. So far, no additional archaeological features have been found to confirm this.

#### **Kerkplein – 2007**

Prior to construction work around St. Martin's Church, an archaeological prospection was conducted using trial trenches. The aim was to gather data on the extent and quality of the archaeological remains of the churchyard and provide information for a minimally invasive construction solution.

The trenches revealed the contour of the churchyard and remains of the churchyard wall. The construction of the latter could be dated to the fifteenth century. Within the walls the remains of a previously unknown early brick building were discovered, dating to the fifteenth or sixteenth century. A historically known building next to the churchyard, most likely an inn (at least in the eighteenth century), also dates back to the fifteenth century. Finds confirm that the church and the surrounding

<sup>45</sup> Fermin & Groothedde 2005, 15, 19-22.

area were occupied from the eleventh century onwards.

#### **Veldesebosweg 4 – 2008**

The site of the new house that was planned to be built here was located on the western edge of the historically known medieval farm Ter Brake. Because of this, the construction site was to be excavated.

The excavation produced clusters of unidentified postholes dating to the seventeenth century. These could not be attributed to a particular building plan. Parallel rows of spading tracks indicated the use of this part of the farmyard as a vegetable garden.

Most significant was a row of planting pits related to a tree lane that marked two plots on the farm. These would later prove important for georeferencing a map of the farm drawn by Van Lindt (1644) which shows that Ter Brake used to be a moated site.<sup>46</sup>

The dates of the finds range from the fourteenth to the twentieth century, which is consistent with what we discern from the occupational history.

#### **Sewer renewal in the Molenstraat, Bongerdspad, Tuinstraat, Schoolstraat and the Rijksstraatweg 11**

The second stage of the sewer renewal covered the western part of the village centre. It presented a new opportunity for archaeological observations on key locations as the course ran from the Rijksstraatweg and Schoolstraat, between the church and *de Woerd*, and covered the area south of it from which an inn and oil mill are known.<sup>47</sup>

In the Rijksstraatweg, parts of the old inn 'De Pauw' were unearthed. A section of brickwork contained medieval bricks, but observations were inconclusive about its origin.

Unlike the churchyard, which is situated on a river dune, the terrain around Schoolstraat originally laid relatively low. Underneath a substantial amount of plaggen soil, postholes from an undetermined structure were uncovered and were dated to the eleventh and twelfth century. This time frame is consistent with the early phase of the church. After that the terrain was probably turned into arable land.

South of the church the trench clipped the site of the former inn 'De Roskam' and the preceding oil mill.<sup>48</sup> Besides some late prehistoric pottery, the oldest findings also date to the twelfth and thirteenth century. The oldest features that can be positively attributed to the occupation of the site date to the fourteenth and fifteenth century. They could be related to the oil mill, but it is not clearly evident. A large number of coins were recovered from the trench, dating to the period that it served as an inn (>1571 and <1650-1831). Further to the south the subsoil rose up to a substantial slope which ran underneath the mill, and passed that, in the direction of the dwelling mounds of the late medieval farms, *Hoennekink* and 't *Spiker*. These too produced some late medieval pottery.

On the east side this sloped down toward the Breegraven, a wide ditch that enclosed the arable fields and was later named Warnsveldse Enk. A section of this ditch was cut in the southeastern branch of the Molenstraat. It revealed four stages of use previous to the current boundary and road of which the eldest two date to the Late Middle Ages.<sup>49</sup> Plans by Van Deventer suggest that the ditch was filled up before the second half of the sixteenth century.

#### **Abersonplein 9 – 2009; 2011**

Following the results from the trial trenches in 2005 (54.1.3), a small-scale excavation on the construction sites was conducted in two campaigns.<sup>50</sup> The oldest pottery on this location dates back to the tenth century, which may indicate the beginning of occupation on this location.

In the northwestern trench, parts of the farmyard were discovered, dating to the second or third quarter of the twelfth century. Unfortunately this could not be excavated completely. The remains consisted of the plan, a farmhouse (or possibly a barn) and a small well. The farmyard was enclosed by a ditch. This corresponds largely to the plot that is shown on the cadastral plan of 1832. The building plan is located close to the well that was discovered in 2005 at the junction of Bonendaal – Bevrijdingslaan, dating to 1101. This seems to correspond with the date of the first phase of the ditch. From the small-scale observations it is difficult to establish whether

<sup>46</sup> Rijs 2016, 19.

<sup>47</sup> Fermin 2009, 3.

<sup>48</sup> Fermin 2009, 10.

<sup>49</sup> Fermin 2009, 12.

<sup>50</sup> Fermin 2011c.

these are the remains of neighbouring farms or of successive farmyards, thus different phases of the same farm. Judging from the date range of the finds, as well as the known settlement structure at a later period, the latter seems more likely. There are no indications that suggest that the farm was still in use in the thirteenth century.

#### **Sewer renewal in the Landweg and Laan 1940-1945; 2010**

The next stage of the sewer renewal took place east of the church quarter, on the former Warnsveldse Enk (Laan 1940-1945) and on a block of land adjacent to it, on the north side (Landweg). Due to the specifics of the previous sewer line, the section at the Laan (1940-1945) could be excavated as a trial trench.

This trench revealed some archaeological remains, but these were probably related to a fence. A substantial amount of pottery and metal artefacts were recovered in the overlaying soil. Combined with the globular pots found in 1995, these are thought to indicate a settlement or farmyard in the vicinity dating between the ninth and twelfth century, after which the terrain was turned into arable land. This supposed farm is not known from historical sources.

The terrain around the Landweg was in use as arable land from the High Middle Ages onwards.

#### **Lochemseweg – 2010**

A new major pipeline, for transportation of natural gas cuts, was planned through the *buurschap* Warken in the east part of the Warnsveld municipality. Prior to its construction excavations were carried out on three locations along the route, based on their geographical location on the sand ridges.

On the northernmost ridge a cluster of postholes and ditches were found, dating from the tenth to the twelfth century. It is thought that these remains were part of a high medieval farmyard. The plan of a small granary and some water pits could be reconstructed.

On the flank of the southern ridge, remains of a farmyard were found, dating to the second half of the fifteenth century. These consist of a house plan and a brick vat for rinsing. These remains were probably part of the *Ter Haer* farm.

#### **Rhienderinklaan 26 -2011**

This site is situated on the former open field complex of Warnsveldse Enk, near the farm cluster 't Rhienderink, Ter Brake and Scheurkamp, just south of the latter.<sup>51</sup> Prior to development an excavation was conducted at the construction site of the new house.

Although the excavation covered only a small area it revealed a ditch that turned out to be of relevance. The ditch connects (on the east side) to the southern border of the Ter Brake farm. On the west side it connects to the ditch that encloses the twelfth century farm found in 2011 at Abersonplein 9 (figure 1.19). From here it probably continued to the farmyard at the Gerstekamp, dated to 1101. The ditch appears to form the northern section of the field enclosure, dating to the early twelfth century. On the south side this area was bordered by the (predecessor of) Breegraven. This enclosed block of fields represent an early stage of the Warnsveldse Enk. The high medieval farms known from archaeological sources, together with the historical medieval farms, were located on the edge of this land. Judging from the medieval norm, they would be situated on the border of arable land and the meadows.

#### **Sewer renewal in the Rhienderinklaan, Kozakkenlaan, Veldesebosweg, Abersonlaan and Peppelenweg – 2011**

The renewal of the sewer in Warnsveld would cut several areas that had a high chance of containing relevant archaeological remains.<sup>52</sup> This included the sites of three late historical farms: Rhienderink, Ter Brake and Scheurkamp. The construction work was mainly monitored in a watching brief. Only an area east of the Rhienderinklaan and Abersonlaan junction was excavated, as it was situated at the location of Rhienderink farm.

In the Veldesebosweg, directly north of the former Ter Brake farm, a lot of debris was found in the sewer cunette.<sup>53</sup> The brick sizes indicate that it could be related to this farm. It consisted of a mix of different types and sizes, dating between the thirteenth and the nineteenth century. The bulk, however, dated to the fourteenth century. This is consistent with a late medieval building that was periodically renovated to adjust it to the needs of the particular period.

<sup>51</sup> Fermin 2011d, 7.

<sup>52</sup> Fermin 2012, 7.

<sup>53</sup> Fermin 2012, 22-24.

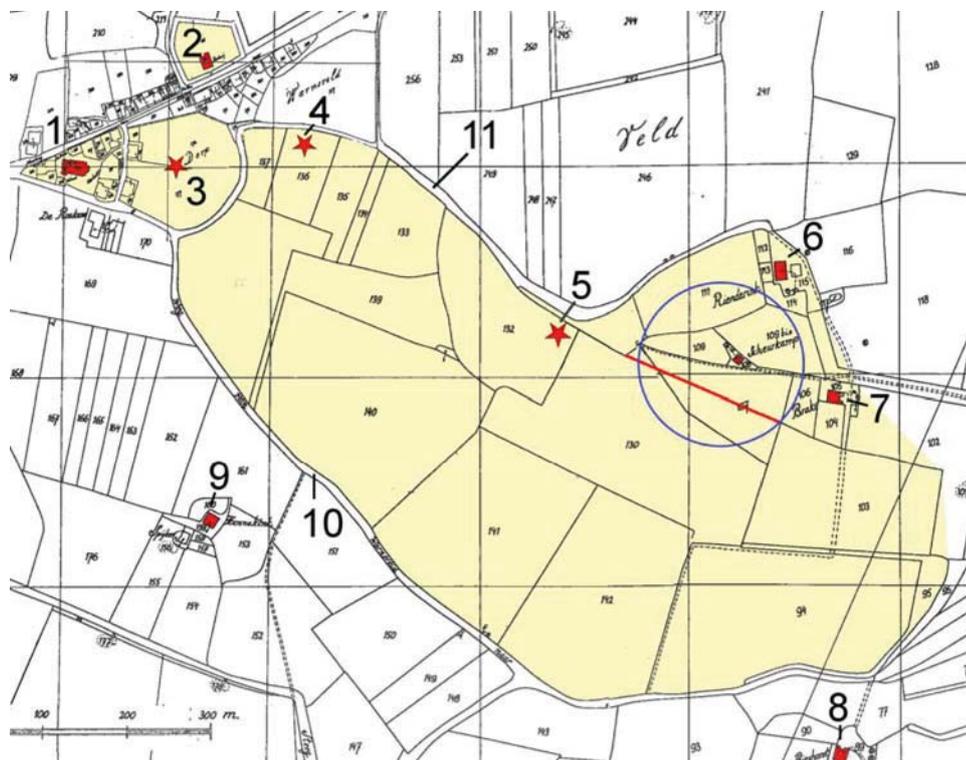


Figure I.19 A humble ditch segment uncovered at Abersonplein 9 provided key information on the date of the open field system and connection between various medieval farms (Fermin 2011d, 17).

Additionally, some pits were found and some out of context material. These dated to the seventeenth, eighteenth and nineteenth century.

The findings do not give reason to suggest that Ter Brake dates before the fourteenth century. In the Rhienderinklaan a pit was found at the exact location of Scheurkamp containing a diverse ensemble of pottery with dates ranging from the late sixteenth century to the early eighteenth century. The complex most likely represents part of the inventory of the farm which included some older pieces. Other pottery found across the farm site suggests that the farm dates back to at least the seventeenth century. Based on historical accounts, 1653 would be a likely starting date for this farm. That year the tenant of Ter Brake would be released of its vassalage and it is thought that he bought the farm off the States of Guelders and Zutphen.

The excavation near the junction of Abersonlaan and Rhienderinklaan revealed a series of large postholes next to the remains of the high medieval well that was excavated here in 2004

and dated to 1059.<sup>54</sup> These are thought to be the remains of a house or outhouse.<sup>55</sup> Two manure pits (dated to the twelfth century) and a water pit (dated around the early thirteenth century) are likely to have belonged to subsequent stages of the farmstead. The small amounts of pottery, however, indicates that the location of the farm building was not yet fixed in this period. This is perhaps illustrated by the postholes that were found in the northwestern part of the farmyard, at Kozakkenlaan 6-10. These belonged to a building that dated to the thirteenth century. Next to the (out)house plan a series of overlapping ditches were found, oriented in the same direction. These ditches mark the edge of Rhienderink farm and were periodically renewed between the eleventh and nineteenth century. Contrary to the farm buildings, the borders of the farmstead seem to have been fixed from an early stage.

#### Rijksstraatweg 57 – 2012

The site Rijksstraatweg 57 was located in the *weme*, on the site of the parsonage (the former presbytery).<sup>56</sup> The excavation corresponded to the building plot and covered an area of 10 x 12 m.

<sup>54</sup> Fermin & Groothedde 2005, 5, 18.

<sup>55</sup> Fermin 2013, 30-34.

<sup>56</sup> Fermin 2013, 7.

This revealed parts of the seventeenth century parsonage building (built in 1624; replaced by the present-day villa in 1923) and an accompanying cellar, as well as cesspit, and a water cellar from successive phases of occupation. Only a small part of the total parsonage yard could be excavated.

The brick remains stood in a section of a wide moat. It is estimated that it was originally 6 m wide and 1.4 m deep. It ran in a north-northeastern direction, towards an old meander of the river Berkel and on the other side it curved in a southwest direction, underneath the parsonage. Finds date the moat to around 1300-1550. The final fill dates to the sixteenth century. Finds of book clasps and a broken religious statue are interpreted as evidence of iconoclasm, attributed to the conquest by the protestant State Army in 1572 headed by count Willem van den Bergh.<sup>57</sup> During its use, the moat held water. The moat is attributed to a division of the *weme* territory in the early fourteenth century.

The stray finds indicate that the occupation of the terrain goes back to at least the twelfth century.<sup>58</sup>

The moat at Rijkssstraatweg connects to a contemporary section found at Hofweg-1996. It is presumed that it connects to both ends of the ditch that encloses the Warnsveldse Enk and provides drainage of this field complex into the Berkel. At the same time, the moat separates the enclosed territory that consisted of the presbytery and the *woerd*. This division dates around the same time the almshouse (Oude Gasthuis) was established (ca. 1313). The assessment register from 1649 records that the *woerd* was shared between the priest or vicar and the almshouse. In its nineteenth century form, the moat dates to the seventeenth century as the Warnsveldse dijk was built in or before 1647. Until the seventeenth century half of *De woerd* was owned by the presbytery; prior to the fourteenth century, most likely entirely.

#### **Adriaan van de Endeschool – 2013**

Prior to the construction of the new school a small excavation was conducted, based on the results of coring and trial trenches. The results regarding (post)medieval remains consisted of

a section in the boundary ditch of the Ter Brake farm.<sup>59</sup> The earliest remains consist of two parallel ditches, probably with a small earthen bank in-between. Pottery finds indicate that this part of the Warnsveldse Enk was being cultivated in the High Middle Ages (<1200), before this plot became part of Ter Brake. There are no indications that it was added secondarily using arable soil from an older field. In or prior to the seventeenth century, a new and wider ditch was dug. This border was accompanied by a fence (or hedge) on the outside. This could very well correspond with the moment Ter Brake was released from its dependent position (1653).

#### **Bevrijdingslaan 27-29**

This site was situated on the former field complex of Warnsveldse Enk. A small-scale excavation, prior to the construction of two private houses, revealed no relevant archaeological data.<sup>60</sup>

#### **Sewer renewal at the Bevrijdingslaan, Laan 1940-1945, Oranjelaan and Verzetslaan – 2014**

In 2014 another sewer renovation was needed near the location where, in 2004 and 2009, remains of a twelfth century farm were discovered.<sup>61</sup> The sections next to this site were excavated, the rest was monitored as the construction proceeded.

The excavation revealed postholes from an unidentified, east-west oriented (main)building from the medieval farmyard as well as a boundary ditch. From this, the outline of the farmyard could be established. Additional ditches illustrated that some of the layout we know from the nineteenth century cadastral plans date back to the twelfth century.

#### **Veldweidelaan 4 – 2015**

A small-scale excavation was conducted at the construction site of a private home. The reason for this was its location on the site of the former Rhienderink farm. The excavation revealed the section of a 2.5 m wide ditch which flanked the farmyard on the east side.<sup>62</sup> Based on the similarities in shape and fill, it is thought to be related to the ditch found in 2011 on the southern border of the farm.<sup>63</sup> From this it can be dated to the twelfth century.

<sup>57</sup> Fermin 2013, 22, 25.

<sup>58</sup> Fermin 2013, 52-53.

<sup>59</sup> Kastelein 2014, 18-20.

<sup>60</sup> Benerink & Van Wilgen 2012, 21.

<sup>61</sup> Fermin & Groothedde 2005; Fermin 2011c.

<sup>62</sup> Fermin 2015.

<sup>63</sup> Fermin 2011d; Fermin 2015, 15-17.

## 1.5.2 Leesten and Eme

As part of the Fourth Memorandum Spatial Planning Extra (VINEX), a large part of the countryside surrounding Warnsveld was developed between 1988 and 1997. In its wake, a great number of archaeological excavations – often large scale – were conducted. In general, these focused on three areas: Eme (Ooyerhoek), the Leestense Enk and the Looërenk.<sup>64</sup> The findings will be summarised for each of these areas. In all, over 15 ha. have been excavated so far.

### Eme (Ooyerhoek) (1990-2000)

Over the course of a decade, a major part of this cover sand ridge was excavated in a series of large-scale excavations. These covered the arable field complex next to the historical farms Tankinck, *Garwerdinck* and *Bettinck*. The actual farmyards, which were in use up until the development, were not excavated. The Ooyerhoek is situated on a river dune in the southwest side of the marke Leesten. It is

separated from the Leestense Enk by the stream *Ooyerhoekse Laak*. Excavations in this area uncovered remains of successive settlements from the Late Roman period up until the present (figure 1.20).<sup>65</sup>

In general, the settlement seems to have consisted of a small group of about three farms amidst the arable land. After the Roman period this group was gradually relocated north over a small distance until it reached the location of the present-day hamlet in the Carolingian period. Here the settlement became fixed and became the direct predecessors of the aforementioned historical farms.

Eme appears to have been an autonomous *buurschap* within the marke Leesten.<sup>66</sup> The real estate was mainly the property of religious institutions (i.e. the deanery and chapter of St. Walburg; St. Mary chapter in Utrecht; Bornhof almshouse and various monasteries). These go back to an initial donation of the Bishop of Utrecht in 1050 to the newly established chapter of St. Walburg in Zutphen. Previous to that, Eme would have been episcopal property or part of the regalia of the German kings.

<sup>64</sup> Groothedde 2007, 5.

<sup>65</sup> Groothedde 2006; Bouwmeester 2000; Groothedde 2001; Van der Velde 2010.

<sup>66</sup> Bouwmeester et al. 2007, 372.



Figure 1.20 Spatial development of the settlements at the Ooyershoek (Van der Velde 2010, 158).

### Leestense Enk (1994-1997)

In spite of major soil disturbance, the history of this elevated field complex could largely be reconstructed from a series of smaller, scattered excavations.<sup>67</sup> The Leestense Enk is situated on a river dune which forms a raised plateau in the bend of the *Ooyerhoekse laak*. This stream separates the enk from the *Ooyerhoek*. On the east side it slopes down and is parted from the southern tip of the Looërenk by a depression.

This area has been occupied from the Late Prehistoric period onwards. In the Roman period a settlement was located on the east side of the ridge. After the Roman authority declined, this area remained occupied during the fourth and fifth century as is demonstrated by the burial ground found here.<sup>68</sup> The habitation continued uninterrupted into the Early Middle Ages.<sup>69</sup> During the Carolingian period a small group of farms were established on the southeast side. These are presumably the direct predecessors of the historically known farms of the *buurschap* Leesten which are still there.<sup>70</sup>

### Looërenk (2000-2004)

Between 2000 and 2004 the Looërenk was subject of extensive archaeological research. In the end this would cover over 12 ha., a major part of the *enk*. In addition to the remains of deserted occupation underneath the arable land, three existing (up until recently) historical farms (*Berghege*, *'t Loo* and *'t Hummel*) were excavated.<sup>71</sup>

The enk is situated on an elongated river dune, flanked by the river *Ooyerhoekse Laak* on the west side and on the east side by the Leestense marshlands. The arable fields lie on the higher ridge, accompanied by a small number of farms which lie separately along the east side.

The main road runs across the central part of the enk in a north-south direction.

The dune was occupied during the Bronze and Iron Age, but contrary to settlements on the neighbouring Leestense Enk, it was deserted after that. Since then the natural vegetation could regenerate and around the beginning of the Carolingian period an oak forest once again covered the terrain.<sup>72</sup> The woodland was probably used, to some extent, by the people of the surrounding settlements.

During the ninth or early tenth century the trees were systematically cut down for the production

of charcoal.<sup>73</sup> This coincides with the emergence of an iron working industry in the newly established circular rampart and the royal and ducal court in the oppidum Zutphen after 882. Rather than a long-term exploitation and careful woodland management, the charcoal production was part of a rapid extraction after which the newly reclaimed land was turned into arable fields.

The absence of contemporary settlement remains on the entire enk suggests that the woodland was exploited from the neighbouring hamlet Leesten. Not only did its farm *Jebbekinck* date to 892, it also revealed evidence for iron production and working from the late ninth to the twelfth century. Moreover, this farm was property of the prominent and established *Van Leesten* family, whose members had most likely been ministerials for the counts of Zutphen or the Bishop of Utrecht.<sup>74</sup>

The forest of the (later) Looërenk is thought to have been the royal property (as part of the wilderness regalia) of the *Van Leesten* family, probably descended from a line of ministerials that – from the Carolingian period onwards – were responsible for the exploitation of the royal estates and resources in the county and in their own area of Leesten.

Following the clearing of the woodland, the enk area was reclaimed for agricultural use in the tenth century. This reclamation took place in two waves: the first during the eleventh and twelfth century, the second in the fourteenth and fifteenth century. Following economic politics in nearby Zutphen and the increasing influence from urban investors in the countryside, several new farms were established in the second half of the fifteenth century. In addition, some profound reforms took place in the agricultural production which increasingly accommodated urban demands.

### Meijerink (2010-2012)

Between 2010 and 2012 a new sports park was realised on the southeast edge of Zutphen. In the trenches, dug for the infrastructure, archaeological remains were found. These included two tofts, dating to the eleventh and twelfth century and to the thirteenth and fourteenth century.<sup>75</sup> Although rather fragmentary, these proved to be quite informative when combined with a historical-geographical study of the farms in the area.

<sup>67</sup> Groothedde 1996; 2001; 2007.

<sup>68</sup> Bouwmeester 2001, 65-66.

<sup>69</sup> Groothedde 2007.

<sup>70</sup> Archaeological research at one of these farms, *Jebbekinck* (later *De Ploeg*) revealed a successive series of farmyards (occupation phases) at this site. The earliest was established in or shortly after 892 (Bouwmeester *et al.* 2007).

<sup>71</sup> Bouwmeester *et al.* 2007, 11.

<sup>72</sup> This is reflected in the name Looërenk, with *loo-* indicating woodland and can be attested archaeologically (Groenewoudt 2006; Groothedde 2007).

<sup>73</sup> Groothedde 2007, 288.

<sup>74</sup> Groothedde 2007, 282-283. Sir Wenko van Leesten is mentioned as a witness in several twelfth century charters.

<sup>75</sup> Van Straten & Fermin 2012, 160-161.

The two tofts are most likely precursors of Wekenstro farm, indicating that this farm dates back to the High Middle Ages. The neighbouring 't Meijerink farm probably dates back even further, based on artefacts found in its proximity, dating from the ninth century onwards.

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## 1.6 Conclusion

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### 1.6.1 Description of the settlement (500-1600)

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Following our conceptual frame we describe the settlement from three parameters: the beginning, end and duration of the habitation, its composition, and its layout. The focus will lie on settlements in the Warnsveld territory.

#### Dating occupation (beginning, end and duration)

The earliest post-Roman occupation was the Carolingian farm found at Hofweg-1996. It consisted of two successive farmyards. The well of the second phase could be dated to around 850. The initial farm would therefore be established in the first quarter of the ninth century. Additionally, Carolingian pottery was found on the sand bulges at Gerstekamp and Abersonplein, but so far direct evidence of farmsteads at these locations remain absent. The next farms, in which direct archaeological evidence is available, dates from (or just after) the second half of the eleventh century. This coincides with the construction date of the current St. Martin's Church. From the Late Middle Ages onwards, habitation in the village area can be traced from either archaeological or historical sources, uninterrupted, up until the present.

Further in the marke Leesten, Carolingian settlements were found on the Leestense Enk and on the Ooyerhoek. The earliest date of the farm on the Leestense Enk coincides with the establishment of the farm found in Warnsveld. The settlement at the Ooyerhoek on the other hand had a far longer lineage dating back to the Roman period. On both sites the settlement remained in use up until recently.

#### Composition

##### *Carolingian Period*

In the Carolingian period the settlement at Warnsveld seems to have been limited to one farm. This was also the case for the river dune at the Leestense Enk. On the neighbouring dune at Eme (Ooyerhoek) a small group of three farms were established. The Looërenk was still covered in woodland at this time.

##### *High Middle Ages*

The present-day church was established in the second half of the eleventh century next to an enclosed field called *De Woerd* (figure 1.21). In the northern part of this plot artefacts were found, suggesting that the presbytery dates back to this period too. Additional finds around the church suggest habitation in the surrounding area as well. Direct evidence of farms from this period was found for at least two sites (Bonendaal and Gerstekamp) along the (western part) Lage weg (Bonendaal). These were situated on the northern edge of the Warnsveldse Enk, on the border of the arable land and the meadows. In Eme, the location of the three farms became fixed and formed a small hamlet among the open fields. On the yard of the Gerwerdinck a large and well-grounded square building was erected, possibly a granary.<sup>76</sup> 't Spieker in Warnsveld might have its origins in a similar structure, but the exact date is unknown. The settlement of both the Leesten Enk and the Looërenk consisted of a small number of separate farms, dispersed along the ridge.

##### *Late Middle Ages and Early Modern period*

During the Late Middle Ages a number of houses were built around the church and several amenities (including inns and a mill) were established. Warnsveld never got its own market space, most likely because of the proximity to Zutphen and their monopoly as a trading centre. The number of farms on both the Warnsveldse Enk and the Looërenk increased, following reclamations during this period.

#### Layout

The habitation in the marke Leesten is closely related to the natural landscape. The elevated river dunes form islands of arable land amongst the stream valleys and marshland.

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<sup>76</sup> Groothedde 1996, 115.

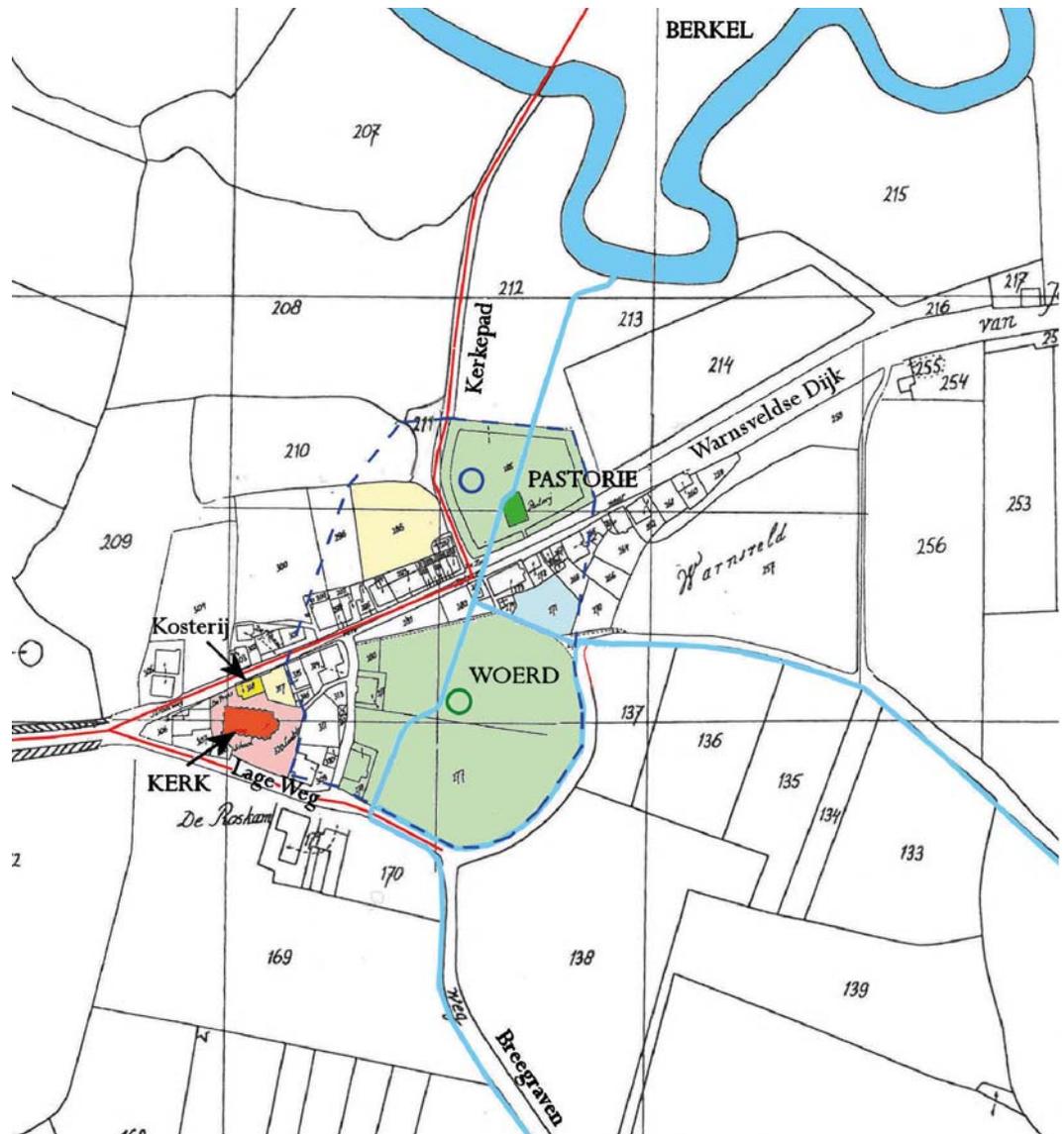


Figure I.21 Reconstruction of the oldest main field (*woerd*) in relation to the church (*kerk*) and presbytery (*pastorie*) (Fermin 2013, 24).

Overall, the settlement can be characterised as a number of farms that lie either separately or in small groups among these large open field areas. The layout of the Warnsveld village centre dates back to the second half of the eleventh century, when St. Martin's Church was built, together with some (farm)houses. Amenities such as an oil mill and some inns can be traced back to the Late Middle Ages. As a whole, Warnsveld was a clustered settlement of modest proportion. The layout remained relatively unchanged up until the nineteenth century, apart from some minor expansion and condensation of houses along the main roads.

### 1.6.2 Settlement history of Warnsveld

Next we will combine the available information from historical and historical-geographical sources with the archaeological data on the composition and layout of the settlements in the marke Leesten, to compile a narrative on its chronological development and the formation of the village of Warnsveld.

#### Merovingian period (450-750)

During the Roman period the research area was home to a small community of farmers.

Their settlements were located next to the arable fields on the river dunes of Eme, the Leestense Enk and the Looërenk.<sup>77</sup> Close to their farmsteads they established a small burial ground.<sup>78</sup> No remains of settlement from this period have been found in Warnsveld so far. Contrary to the general trend, the settlement in both Eme and the Leestense Enk remained in use during the Merovingian period. Moreover, the settlement in Eme, which had until this time consisted of a single farm, grew to a group of three (or four).<sup>79</sup> These farms were situated on the southwest point of the elongated dune. In the sixth and early seventh century their layout became more regular as they were spaced out evenly.<sup>80</sup>

Although the settlement on the Leestense Enk seems to have remained as a single farm, it may well have been part of a larger settlement as is the case in the Carolingian period.<sup>81</sup>

The settlement stood out because of the nature of the graves in the accompanying graveyard.

One of them was an inhumation of a man, buried with (his?) weapons. A second (cremation) burial (his wife?) was placed in the grave at a later stage. This composition indicates a person (or family) with reputable status. The Looërenk was left abandoned and was 'reclaimed' by nature.

#### Carolingian period (750-900)

During the Carolingian period the settlement at Eme was moved north, up the dune. The farms formed a small group, modestly spaced (ca. 100 m apart) amidst the fields. Their position is very close to that of the historic farms Bettinck, Tankinck and Gerwerdinck.

Although the archaeological evidence is fragmented, it appears that the habitation of the Leestense Enk continued uninterrupted into the Carolingian period.<sup>82</sup> During this time the settlement was relocated to the southeast flank of the dune, where a small group of farms were established. These are presumably the direct predecessors of the historical farms. One toft was established in 892 AD and would later be known as *Jebbekinck* farm. Finds from 't *Meijerink* suggest that this farm also dates back to this period. Around the start of the ninth century, for the first time since the Late Iron Age, a (separate) farm was constructed on the dune of the Warnsveldse

Enk. It consisted of at least one house and one accompanying well and was most likely enclosed. The farmyard was rebuilt once at the exact same spot.

#### High Middle Ages (900-1250)

During the second half of the eleventh century a church was built in Warnsveld on an elevated terrain next to the site of the ninth century farm. This site, by now, had become part of an enclosed arable field (*wheme*), used to support the priest. In the north part of this land, known as *De Woerd*, a presbytery was built around the same time. Around the church some houses appear to have already been built at this time. Next to *De Woerd* an open field system was established, the Warnsveldse Enk. During this period it was exploited by at least two farms. These were located at the Lage Weg at some distance from each other.

The church dedicated to St. Martin was built by Bernold, Bishop of Utrecht and from 1046, count of Zutphen. In the nearby city (*oppidum*) Zutphen, Bernold had built a royal and episcopal palace and the St. Walburgis Church was converted into a collegiate church.

The St. Martin's Church would serve as the parish church. Besides the convenient location along the river Berkel and on the main roads from Zutphen to Lochem and Eefde, the church was probably built on an estate (manorial) that Bernold held as property.<sup>83</sup> This idea is further strengthened by the fact that the eldest historically known farms in Warnsveld, Rhienderink and Ter Brake, were held to knightly obligations to the Duke of Gelre, the successor of the bishop as ruler of the district.

In Eme the settlement became fixed to the locations the farms occupied, up until their demolition prior to the recent VINEX development. These farmyards can be regarded as earlier stages of the farms Bettinck, Tankinck and Gerwerdinck. During this period the hamlet Eme, as a small agglomeration of farms, took form. It is unclear whether additional farms were already built at this stage.

The farms at Eme were part of the manorial estate *Horselder*, which was donated (by the bishop or his predecessors) to the deanery of the St. Walburgis Church in Zutphen, to provide for its upkeep. This manorial estate was one of four

<sup>77</sup> Large parts of the Leestense Enk dune had been quarried for sand. Findings of outhouses indicate settlement in the Roman and Early Medieval period.

<sup>78</sup> This was established for Eme and the Leestense Enk.

<sup>79</sup> Bouwmeester 2001, 47-48.

<sup>80</sup> Van der Velde 2011, 158.

<sup>81</sup> Large parts of the settlement area were disturbed as a result of large-scale sand extraction.

<sup>82</sup> Groothedde 2007, 26.

<sup>83</sup> This property was probably part of the holdings of the counts of Zutphen and the counts of Hamaland before them.

*curtes principales* that formed the initial real estate of this church.

Up until this time the Looërenk had been woodland and was only used extensively. This changed suddenly in the (late) ninth and (early) tenth century when the oak woods were cleared in a short period of time for the production of charcoal. This coincides with the emergence of an iron working industry in the newly established circular rampart and the royal and ducal court in the oppidum Zutphen after 882. The exploitation of the woodland was probably organised from the neighbouring hamlet Leesten. On *Jebbekinck* farm, dating back to 892, remains of iron production and working were found, dating from the late ninth to the twelfth century. The occurrence of a farm named *Smedink*, which means belonging to the smith, supports this idea.

Because the woodlands were royal property, their exploitation was probably initiated by the count of Hamaland on his behalf. The operation was supervised by a ministerial, most likely a member of the Van Leesten family who owned the farms *Jebbekinck* and *'t Meijerink*. The etymology of the latter may be a direct reference of their position as a bailiff (*meier*).

The presence of ministerial estate agents can also be attested in other hamlets within the marke. On *Gerwerdinck* farm, part of the ecclesiastical estate in Eme, the base of a heavy square building was found; most likely a granary dating to the twelfth century. A stone house in *Warnsveld* possibly originated from a granary based on its name *'t Spieker*. Likely, this was originally part of the adjacent *'t Hoenekink*. It is not clear to whom this storage belonged.<sup>84</sup>

#### *Late Middle Ages and Early Modern period (1250-1600)*

During the Late Middle Ages the agglomerations at *Warnsveld*, *Eme* and *Leesten* would develop. The settlement at *Warnsveld* saw a modest growth, both through expansion along the *Gemene weg* and through condensation of buildings around the church. The new buildings included stone houses. Some amenities were also established, including a number of inns, an oil mill, and a black smith. The adjacent open field was expanded and the farms were moved eastward. Some additional

farms were established, like *Ter Brake* farm. Because it was created out of *Rhienderink* farm, the farms would lie next to each other. Eventually this would lead to a small group of houses. Additionally, two stone houses (*'t Velde* and *'t Spieker*) would be built in the countryside. The latter was probably separated from *'t Hoenekink*.

From *Eme* new reclamations were carried out to the south (*Boggelder Enk*) and southwest (*Overhamme*). The settlement on the *Emer Enk* increased, with four more farms spread along the *enk*. Around the start of this period all of the familiar historical farms in *Eme* had been established. Each of these were the property of *St. Walburg Church* or a charitable institution. Over the course of the Late Middle Ages these were all converted from fiefs to tenures.

Further reclamations were undertaken in the area north of the *Leestense Enk*, east of the manorial court of *Horselare*. Because of the geography of this area, these reclamations mainly consisted of smaller, enclosed fields. Judging from the owners, these reclamations were initiated by the deanery of *St. Walburg*.

Southeast of *Leestense Enk*, an agglomeration of farms developed (the hamlet *Leesten*).

Due to the absence of sufficient archaeological data, the exact pace could not be established. However, during this period it had grown into a group of at least seven farms, moderately spaced at comparable distances between 100-200 m. Archaeological evidence from *Jebbinck* suggests that the iron working had ceased, although the *Smedinck* farm could indicate that the hamlet still had its own blacksmith. Contrary to *Eme*, the farms in *Leesten* were all free holdings.

In the fourteenth and fifteenth century the *Looërenk* saw a second wave of reclamations. Following the economical politics in nearby *Zutphen* and the increasing influence from urban investors in the countryside, several new farms were established in the second half of the fifteenth century. In addition, some profound reforms took place in the agricultural production which increasingly accommodated urban demands.

<sup>84</sup> In the late fourteenth century *'t Hoenekink* was owned by the *St. Walburg* chapter. Around this time *'t Spieker* was already a stone house.

By the end of the Late Middle Ages the larger river dunes were all cultivated and settled. After this the reclamations turned to the less favourable or more distant areas, mainly in the south and southeast parts of the marke. Already, in the fifteenth century, a few solitary farms were established in the heathland, east of the Looërenk. The area south of the Leesten hamlet was only opened up in the seventeenth century, creating separate enclosed fields (*kampen*). Interestingly, another small agglomeration of farms arose here, its layout similar to that of Eme and Leesten. The youngest reclamations took place in the nineteenth century. These targeted the marshland of the Leestense broek. The settlement consisted of a few solitary farms.

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### 1.6.3 Explanation of the course of the settlement history and village formation

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From our analysis we were able to reconstruct the development of the settlements in the marke Leesten and piece together some of the context in which this took place. Next we focus on the formation of the village Warnsveld and identify some of the key determining factors in the process.

#### **Village formation**

There are multiple answers to the question of when and how the Warnsveld became a village, depending on the characteristics used to define them.

#### *Historical reference as village*

In a strict sense, Warnsveld only became a village at the beginning of the nineteenth century as part of the administrative reform by the French government. It used to be a parish centre for the surrounding *buurschappen*, but administratively it was part of the marke Leesten.

#### *Clustering of settlement*

Warnsveld started in the Carolingian period as an individual farm on a river dune. The settlement only started to grow when a church was built in the second half of the eleventh century. This would become the focal point of the settlement and houses were built around it.

As a whole, Warnsveld was a clustered settlement of modest proportion. The layout remained relatively unchanged up until the nineteenth century, apart from some minor expansion and condensation of houses along the main roads. It was not until after the Second World War that the village saw a major expansion.

#### *Founding of a church*

The founding of St. Martin's Church by bishop Bernold in the eleventh century, and the accompanying elevation of the settlement to parish centre, proved to be a turning point in its development. It formed the starting point of the initial expansion of the settlement and the focus for development.

Although the church formed an important meeting point for the people of the parish, most inhabitants lived in the quite densely populated hamlet Leesten and in the surrounding countryside well into the nineteenth century. Only then Warnsveld became more populated, but mostly by people from Zutphen.

#### *Establishing amenities*

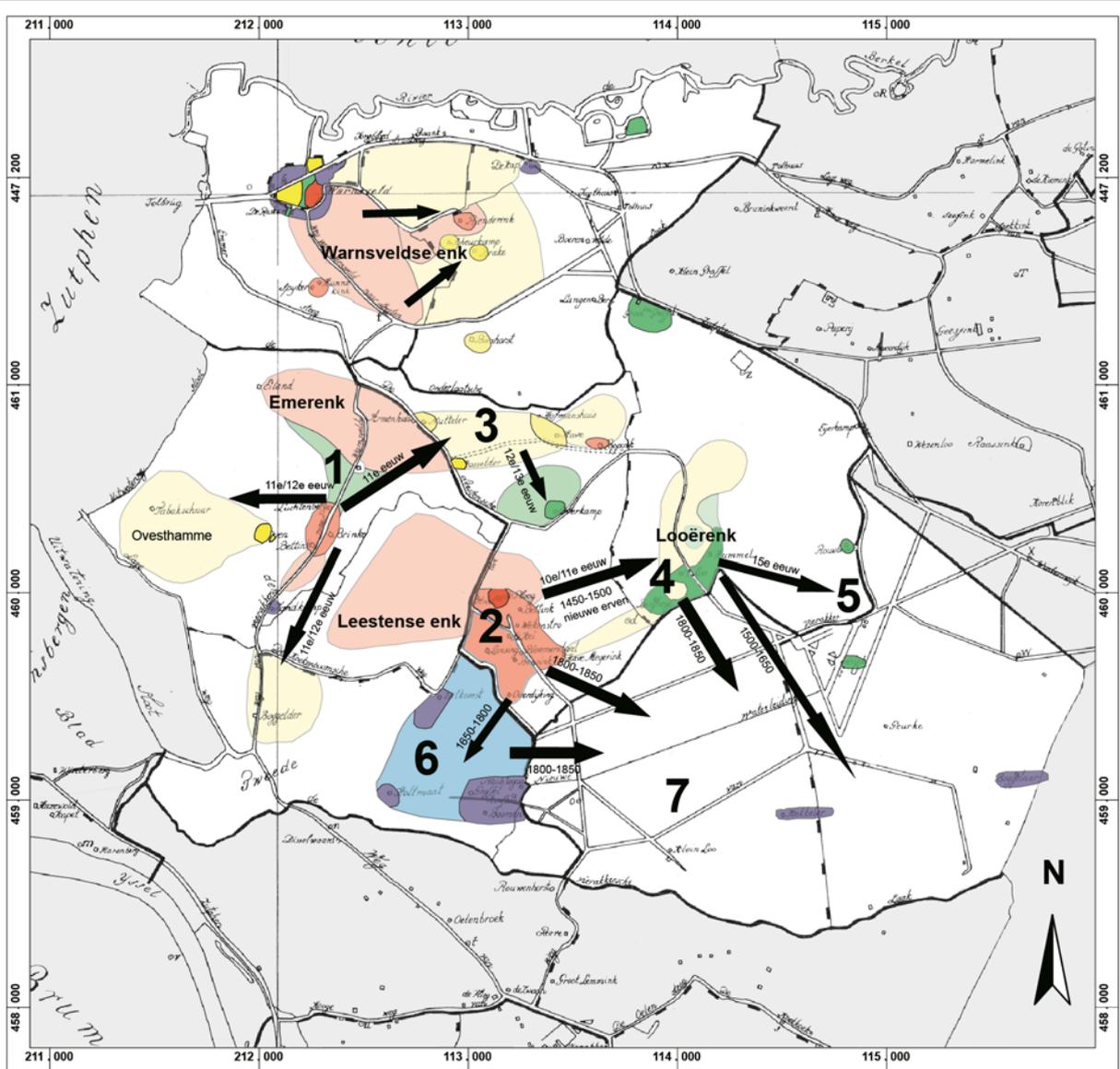
It is not clear whether the amenities date back to the High Middle Ages, but in the Late Middle Ages this clustered settlement harboured an oil mill, a blacksmith and several inns. Over time it saw some demographic growth, but not much. The agglomeration expanded a little along the main road, but the settlement mainly condensed. Overall it remained a small settlement up until the twentieth century.

#### **Differences with other settlements within the marke Leesten**

The question is why did Warnsveld become a village and not Eme? Or Leesten? Having information of multiple settlements within the same marke at our disposal provides an opportunity for comparison.

#### *Geographical location and infrastructure*

Warnsveld, Eme and Leesten were each located on a river dune, next to the arable land. A notable difference was that Eme expanded onto the enk whereas Leesten would grow into the lower area in-between the Leestense Enk and Looërenk.



**Leesten en Warnsveld - settlement dynamics**



- Archaeologically attested settlement (tofts) dating to the ninth and tenth century
- Presumed settlement area and tofts dating to the ninth and tenth century
- Arable land in the ninth and tenth century
- Archaeologically and/or historically attested settlement (tofts) established in the eleventh and twelfth century
- Presumed settlement and tofts dating to the eleventh and twelfth century
- Newly cleared arable land in the eleventh and twelfth century
- Archaeologically and/or historically attested settlement (tofts) established in the thirteenth, fourteenth or fifteenth century
- Newly cleared arable land in the thirteenth, fourteenth or fifteenth century
- New settlements and/or tofts in the sixteenth, seventeenth and eighteenth century
- Newly cleared arable land in the sixteenth, seventeenth and eighteenth century
- Research area

Figure I.22 Settlement development in the marke Leesten (Bouwmeester et al. 2007, 377).

Rather than the geographical location, their position with regard to the infrastructure seems to have been more distinctive. Warnsveld is located just outside Zutphen along the river Berkel and the main road to Lochem. The other two agglomerations were not on any main road.

#### Lineage

Warnsveld was not the oldest settlement in the area. Eme was the oldest settlement, which can be traced back uninterruptedly (as a dwelling with multiple houses) to the Late Roman period. Leesten too was already inhabited in the Merovingian period. The settlement existed somewhat as a singular farm on the dune, but could have been larger at this stage.

#### Layout and composition

In the Carolingian period Warnsveld existed as a single farm. The layout and composition of the settlement stood out in the area, since both Leesten and Eme already consisted of multiple farms.

The layout diverged further in the High Middle Ages, after the church was built. Eme consisted of a small group of three farms along the road and another three that lay more dispersed on the fields and at a greater distance. The farms in Leesten on the other hand were more closely grouped together. They appeared to be located more randomly, but all at a similar distance of only 100-200 m to its neighbour. This differed greatly from the clustered layout in Warnsveld.

#### Amenities

Up until the second half of the eleventh century Warnsveld and Eme did not have any amenities. Only in Leesten were artisanal activities (charcoal and iron production) undertaken. These, however, were aimed to provide for the nearby oppidum Zutphen.

In Eme and Warnsveld evidence for granaries were found, but these are more indicative for the manorial organisation of the estates than any form of urbanisation.

Urban elements were only found at Warnsveld, after the church was established here. Its position as a parish centre apparently provided the stimulus for habitation, trade and industry. However, it never got its own market place, due to the vicinity of Zutphen.

#### Property

Only from the twelfth century onwards are historical records available to provide information on the property relations in the Leesten area. This leaves us with a lot of uncertainties for the situation during the Carolingian period and the High (and even the Late) Middle Ages. Retrospective analysis, however, does provide some clues.

During the Carolingian period the settlements in Eme, Leesten and Warnsveld are thought to have been royal property. Their inhabitants were probably serfs or *militis agrarii* (free farmers that lived on royal estates in exchange for military service).<sup>85</sup> The predecessors or the occupants of the Leesten farm (later *Jebbekinck*) certainly had a warrior standing, although this goes back to the Merovingian period. Later, one of them would become a *ministerialis* organising and overseeing the exploitation of the woodland on the Looërenk.

Interestingly, the inhabitants of Leesten were all independent freeholders.<sup>86</sup> This differs markedly from the people of Eme who were dependents. Their farms were part of an ecclesiastical estate owned by St. Walburg Church. Since it was one of the *curtes principales*, this situation probably goes back to the middle of the eleventh century. Although the farms were transferred from a fief to a tenure in the fourteenth century, they would remain ecclesiastical property up until the reformation.

In Warnsveld we also find ecclesiastical property, although the sources are relatively late. In 1378, 't *Hoenekink* was owned by the chapter of St. Walburg. Rhienderink was a freehold, though had to pay tax to the chapter of St. Peter in Utrecht.<sup>87</sup> This supports the idea that Warnsveld was initially royal property which was bestowed on the Bishop of Utrecht in 1046 when he became count of Zutphen. Therefore he probably built the church on his own estate.

Interestingly, Rhienderink (and its later spin-off Ter Brake) was a knightly estate. Its occupant was obliged to provide a man-at-arms and foot soldier to the Duke of Gelre. Its origins can be traced back to 1059. It is tempting to see him as the successor of a *militis agrarii* and ministerial of the count of Zutphen *in casu* the bishop.

<sup>85</sup> Groothedde 2013, 77.

<sup>86</sup> Groothedde 2013, 77.

<sup>87</sup> Rijs 2016, 17-18.

### *Administration*

Together, Warnsveld, Eme and Leesten made up the neighbourhood (*buurschap*) Leesten. Its occupants collectively organised the management and use of the common lands, and other issues of communal interest. The size of their input varied and depended on the share they held in the marke. Since yeomen could (often) only be part of the board, the main body of the administrative authority was held by the freeholding farmers in Leesten. The serfs or tenants of the manorial farms in Eme would only be entitled to some rights of land use. It is unclear what position the farmers in Warnsveld held in this local administration. Although they were dependent, their position and the size of their farms might have entitled them to a substantial share.

Within the legal organisation, the marke Leesten resorted under the bailiwick Zutphen together with the marken Almen, Gorssel, Wichmond and Vorden.

After the establishment of the St. Martin's Church, Warnsveld became the ecclesiastical centre of a large primal parish which presided over the subsidiary churches and chapels in Gorssel, Almen and Vorden.

### **Formation processes**

From the previously discussed development of the settlements in the marke Leesten, we now need to identify the main processes that lead to the formation of the village Warnsveld. These will provide the archaeological indicators with which we will test whether the same processes were responsible for the formation of other villages in the region.

### *Geography*

While the natural landscape determined (to a large extent) the location of the settlements in the region, it only contributed indirectly to the development of Warnsveld into a village. Warnsveld started out as an agricultural settlement, a single farm. The soils most suitable for arable farming were found on the cover sand ridges. Of these, the larger ones were more favourable to sustain larger populations. These were generally the first to be settled. In Warnsveld, however, it was not the size of the

cover sand ridge that determined the formation of the village, nor the quality of its soil. The main geographical qualities that contributed to this process was the location of the settlement at the crossroad of major infrastructure: main roads connecting towns (Zutphen and Lochem), as well as a small river. More importantly, this was one of the long-distance trade routes (*hessenwegen*) from Utrecht to the Saxon lands and later from Holland to Westphalia.

Indicators:

- Located on the crossroad of major roads and rivers

### *Political and administrative processes*

Warnsveld grew from a single farm into a clustered (village-like) settlement when it was elevated to the position of parish centre. The need to build a new parish church arose when bishop Bernold was inaugurated. Besides the need to expand and develop the religious administration and infrastructure in the newly obtained territories, the establishment of the St. Martin's Church on this location is thought to be politically motivated. It is regarded as a (successful) effort by the bishop to marginalise the influence of the foreign monastery Werden in his newly obtained territory.

Indicators:

- Non-archaeological: competing churches

### *Founding of a church*

The founding of St. Martin's Church by bishop Bernold in the eleventh century, and the accompanying elevation of the settlement to a parish centre, was the key factor in the development of Warnsveld into a concentrated settlement, as it sparked the growth of the settlement. The church became the focal point of the development and houses were built around it.

Indicators:

- Church
- Increased habitation following the construction of the church

### *Property*

The foundation of the church was an initiative of bishop Bernold. It was most likely built on the premises of a manorial farm he owned. As such,

<sup>88</sup> Comment by Groothedde.  
<sup>89</sup> This, however, does not take into account the role of the manorial lords and institutions in the establishment of churches.

Warnsveld was probably royal property initially, which was bestowed on the bishop in 1046 when he became count of Zutphen.

Indicators:

- Non-archaeological: historical references and archival sources
- Presence of a 'woerd', a rounded block of land with a *woerd*-name (indicator of old manorial estates)

*Proximity to a town*

The proximity to Zutphen, an influential administrative and economical centre, definitely affected the development of the surrounding settlements. Judging from the (apparent) absence of craftsmen and markets, it was likely a determining factor in the development of the amenities of this village or lack thereof.

This could also explain why Warnsveld remained reasonably small, as its local economy would have been subservient to Zutphen.

Indicators:

- Close proximity to a town
- Lack of professional artisans
- Lack of trading facilities

#### **Reasons for late village formation<sup>88</sup>**

The reason for the relatively late formation of a concentrated settlement or village at Warnsveld is tied to the existing social-geographical organisation of settlement in the region. The old settlement units were the *marken*, which were determined by the landscape and the possibilities for exploitation. These territorial units date back to prehistory and generally consisted of a sand ridge bordered by streams and marshes. The higher parts of the

ridge were suitable for arable farming, while the lower parts served as meadows. Coppice was often found in the stream valleys.

In large parts of the sandy areas in the eastern part of the Netherlands was the *marke*, the dominant form of social organisation. True villages in this region are usually much younger than the dispersed settlement clusters and separate farms. This can be seen in the place names of hamlets and villages in the wider Zutphen area. Village names usually date to the High or Late Middle Ages, e.g. *-veld* or *-loo* names (Gorsseel, Vorden (voorde, ford), Hengelo, Ruurlo, Steenderen, Voorst (foreest), Wichmond). Hamlets, on the other hand, often bear an older, single or bipartite substrate name of pre-medieval origin (e.g. (Eme, Leesten, Empe, Tonden, Baak, Waps, Wesse, Eefde, Angeren, Warken, Linde, Oxe).

As such, the villages with medieval churches around Zutphen are rarely situated in the centre of the *marke*. They are usually found in younger parts of the landscape with reclamation names.

Groothedde suggests that the site of the church could well be determined by the central (unbiased) location amidst the older hamlets.<sup>89</sup>

The church gave impetus to the concentration of settlement and the establishment of amenities and a market. It is the social organisation of the *marken*, with its lack of major settlement clusters, that made the villages form relatively late in the eastern part of the Netherlands.

The exceptions include places of supra-regional significance, with a church and specialised production, usually as part of a manorial economy such as Zelhem, Zutphen and Lochem.



# Case II – Kerk-Avezaath and Kapel-Avezaath (Gelderland)

## Archaeological region 13: Utrecht-Guelders riverine area

### II.1 Introduction

Kerk-Avezaath and Kapel-Avezaath are situated in the river area known as *The Betuwe* (figure II.1), in the centre of the Netherlands. Today, these form two separate villages. After the municipal redivision in 1978, these villages were evenly split between the municipalities of Buren and Tiel respectively, and have a shared origin in the medieval primal parish of *Avezaath* which is included in Zoelen. The villages are close to the medieval trading place and city of Tiel, which was possibly an important factor in their development.

In the late nineties a number of large-scale excavations were carried out as part of the *Betuweroote* project, a major railway construction. These excavations included extensive historical-geographical studies of the area. This makes *Avezaath* a promising case, even though regional synthesis on the development of settlements has been unsatisfactory.

Interestingly, the *Betuweroote* programme was the first development in which archaeology was fully included and financed following the implementation of the Valletta Treaty in which the actor is held responsible for the necessary archaeological activities. The excavation at *Huis Malburg* in Kerk-Avezaath was the first in which archaeology was organised in a project-based approach, advancing ‘Malta archaeology’ in the Netherlands.



Figure II.1 Avezaath in the Netherlands.

### II.2 Dataset

#### II.2.1 Regional settlement model

Despite the fact that a substantial number of excavations have been conducted in the river area over the past few decades, no comprehensive archaeological synthesis on the development of settlements in this archaeological region has been compiled. The available regional models stem from older and outdated historical-geographical studies that rely heavily on morphogenetic classification, which are mainly explained in relation to the natural landscape.<sup>1</sup>

#### II.2.2 Historical geographical data

On a local scale, historical-geographical studies were conducted as part of large-scale archaeological research. Especially in the early ‘Malta excavations’ at sites *Huis Malburg* and *De Stenen Kamer* and *Linge*, extensive historical-geographical analysis was conducted. This provided detailed information on the origins, composition and property relations in Kerk-Avezaath. The careful integration of results from other disciplines added immense value overall. In Kapel-Avezaath a historical-geographical study was carried out as part of the excavation of the ‘Muggenborgh’ site.<sup>2</sup> Although it was clearly a more modest scale than the aforementioned studies, it revealed a number of farm estates and provided useful insight in relation to particular lords.

As a result of their site-related nature, the historical-geographical studies do not cover the entire village area(s) of the Avezaathen. Nonetheless, they provide valuable observations into their origin and formation.

<sup>1</sup> Den Uyl 1958.

<sup>2</sup> Vermeulen 2011, 5-8.

### II.2.3 Archaeological observations

Despite the substantial number of archaeological studies in the Avezathen, only a few resulted in excavations (table II.1; figure II.2).<sup>3</sup> Most of the studies consisted of literature studies (*bureauonderzoek*) and coring. The eight trial trench campaigns resulted in just four excavations, two of which date back to the late nineties. One was conducted in 1980, but remained unpublished. As a result, the Avezathen was only represented by one excavation in our survey. Nonetheless, these excavations proved to be highly relevant and exceptionally comprehensive, as they included soil surveys of a wider area as well as an historical-geographical study.

<sup>3</sup> In Archis II, 47 studies were reported (*onderzoeksmelding*). This account is incomplete as some (older) studies were only reported as observations (*waarneming*) or not reported at all.

<sup>4</sup> These are recorded as 'waarnemingen' (observations) in Archis II.

<sup>5</sup> Den Uyl 1958, 94-114.

Because of the limited number of excavations we also included the finds from additional observations in this case study.<sup>4</sup> Although these do not necessarily reflect the location of the houses, they do provide an overview of the spatial development of the settlement (in general) over time.

### II.3 Regional settlement model : Utrecht and Guelders River area

At this point we lack a comprehensive archaeological model of the development of settlements in the river area. Den Uyl presents us with an overview of the variety of villages from a historical-geographical perspective.<sup>5</sup> This mainly consists of a classification of villages

**Table II.1 Overview of archaeological observations in Kerk-Avezaath, Kapel-Avezaath and Zoelen.**

Kerk-Avezaath						
Archis-nr <sup>1</sup>	Year	Site	Observation	Site-type	Date	Literature
Wng 31578	1980	St. Lambert church	excavation	church	<1000 - present	Halbertsma 1982
325	1996	Stenen Kamer	trial trenching	settlement		
326	1996	Huis Malburg	trial trenching	settlement	800 – 1300	Jongste 1996
1791	1997	Huis Malburg	excavation	settlement; manor	800 – 1300	Oudhof, Dijkstra & Verhoeven 2000
1839	1998	Stenen Kamer	excavation	settlement; castle; farm	725 - 1998	Verhoeven & Brinkemper 2001
9856	2005	Lutterveld II	trial trenching			Williams 2005
Kapel-Avezaath						
Wng 6917	1979	Hoge Hof		farmstead	725-900	
7708	2004	De Brede School	trial trenching			Van Renswoude 2006
24783	2007	Muggenborgh	trial trenching			
21359	2007	Bergakker	trial trenching	n/a		Krist 2008
21361	2007	Moleneind	watching brief	n/a		Van Nuenen 2008
30789	2008	Muggenborgh	trial trenching			
28029	2008	Zoelensestraat	trial trenching			Benerink 2010
35614	2009	Muggenborgh	excavation			Van Renswoude 2011
Zoelen						
324	1992	De Beldert	excavation			
9854	2005	Scharenburg – phase 1	trial trenching			Williams 2005
24892	2007	Scharenburg – phase 2	trial trenching			

<sup>1</sup> Due to complications with the new Archis registration system, we used the initial registration number (OMG-nr).

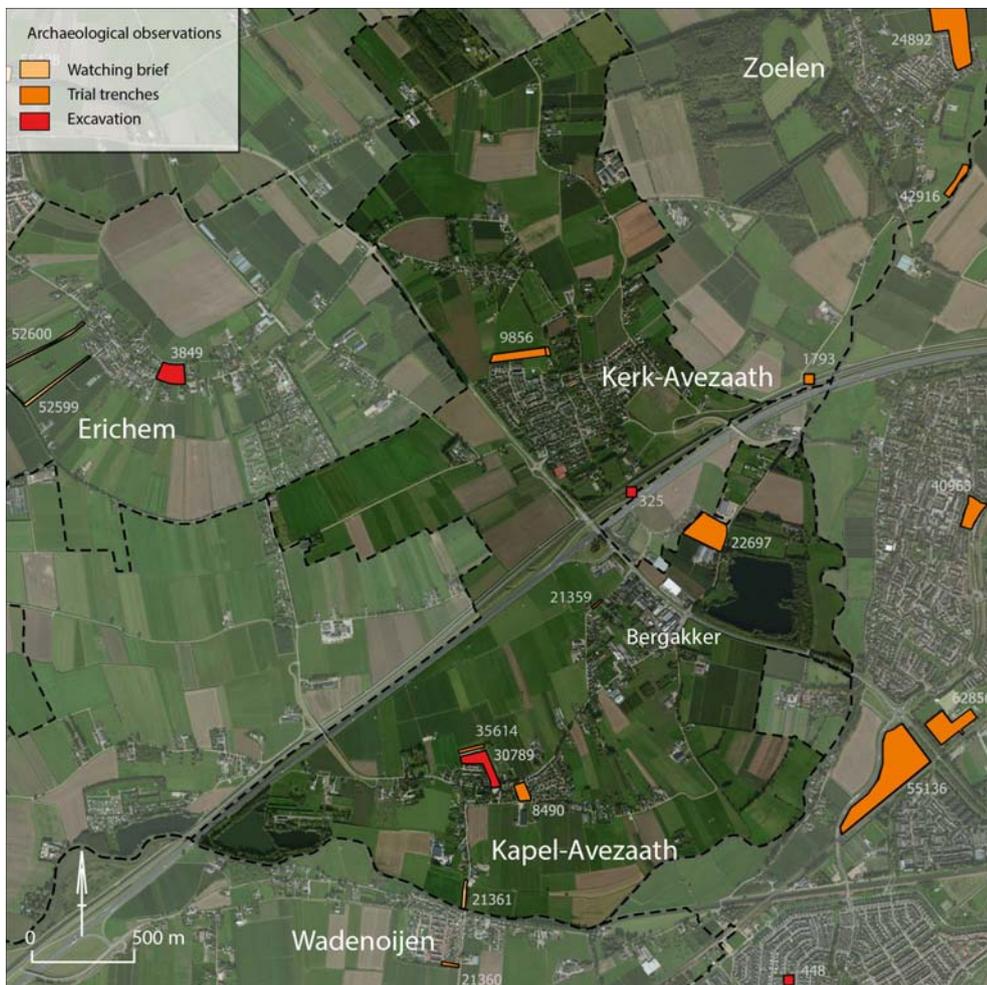


Figure II.2 Overview of archaeological observations in Kerk-Avezaath, Kapel-Avezaath and Zoelen.

based on their topographical layout at the beginning of the nineteenth century, as well as a general explanation of their origin. This explanation is directly based on the particular configuration, rather than a retrospective analysis, and assumes that similarities in settlement layout indicate similarities in origin and development. This is closely related to the underlying notion that physical geography is the main determinant in the layout of a village. Additionally, it presents us with a fairly static image of settlement development.

### II.3.1 Habitational history

Den Uyl provides us with a brief overview of the habitational history of the river area.

Considering the incredible amount of archaeological data that has become available since then, this overview is inevitably due for an update.<sup>6</sup> Unfortunately, this is beyond the scope of the study.

The river area was densely populated in the Roman period. The population declined rapidly after the third century, up to the point that the region was almost deserted. Only a small number of people remained in the area up until the ninth century when renewed occupation took place and new settlements were built. Around the start of the fourteenth century the encroaching water forced the people to organise water management, build dykes and raise their settlements.

<sup>6</sup> The authors are aware Den Uyl's model is outdated. Yet, up until now no revision is available. It is to be regarded as a product of its time and as an invitation for an update.

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### II.3.2 Village formation

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Following the proposition that there is a close correlation between settlement and physical geography, Den Uyl's classification of nineteenth and twentieth century settlements is closely related to the landscape. This landscape, which will be further discussed in greater detail, is shaped by the ever-winding braided rivers. It consists of clay floodplains with a jumble of fossilised sandy banks and streambeds. The medieval villages are located on the elevated river levees.

The main distinction between the villages in this region is either a dispersed or concentrated topography.<sup>7</sup> Both types can be found, although the latter is regarded to be characteristic for the river area.

Among the villages with concentrated occupation, various layouts are distinguished. The main types include the round village (*het ronde esdorp*) the elongated village (*het gestrekte esdorp*) and the linear village (*het streekdorp*).

#### The round village

The round village has a relatively spacious layout in which the buildings are scattered in an irregular, but approximately round contour. This type dominates in the eastern parts of the river area (*Over-Betuwe*) and can also be found in the southern parts (*Land van Maas en Waal*; eastern *Maaskant*; *Bommelerwaard* and the *Land van Altena*). According to Den Uyl it bears great resemblance to the round villages of the cover sand areas.<sup>8</sup>

The *esdorpen*, villages surrounded by cultivated land, are thought to be the earliest settlements, dating to the ninth century when the river area gradually became occupied again.<sup>9</sup> Some of the round villages will contain elements of older settlement.

#### The elongated village

This village is characterised by its elongated layout and dense buildings and is often situated on a human-made terrace or plateau and sometimes on separate dwelling mounds. Farms are often built side by side along two or three parallel roads, which taper and connect in a fork on the outsides of the cluster. This type is found along the rivers and is

characteristic for this area. Its elongated layout is closely related to the shape of the (fossilised) river levee. The arable, open fields are located on the adjacent river banks. Communal meadows can be found on the floodplains. Based on the open field system, Den Uyl dates this village type to the late Carolingian period.<sup>10</sup>

#### The linear village

Although settlements were mainly located on the higher parts of the landscape, in the area southwest of Utrecht and in the *Vijfheerenlanden*, from the twelfth century onwards, they can also be found in the lower areas. This is related to the reclamation of the floodplains, which was undertaken similarly in the adjacent peatlands. First, the main axis was determined from which the reclamation could take place. This could be a watercourse, a road or some other linear feature. From this, line ditches were dug at a straight angle and at regular intervals. These provided drainage and water storage and cut the reclamation up into lots. The reclamation block was bordered by side and back levees. Settlements were initially built along the main axis. The reclamation collective usually formed the origin of the later villages.

The establishment of these linear villages can be regarded as part of the great reclamations that were conducted in the twelfth and thirteenth century.

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## II.4 Historical-geographical study: A local model

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### II.4.1 Geology and geomorphology

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We are well informed on the physical geography of this area, especially *Kerk-Avezaath*. This can be attributed to the research conducted as part of the *Betuweroute* program in which an ambitious research design, combined with the means to realise it, resulted in detailed and comprehensive information that extended beyond the actual excavation site. As *Malta* archaeology crystallised in subsequent years, the focus shifted from scientific content and research questions towards the remains within the constraints of a particular development site.

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<sup>7</sup> Den Uyl 1958, 94.

<sup>8</sup> Den Uyl most likely projected the model of Keunen here for the sandy areas in the Eastern Netherlands.

<sup>9</sup> This suggestion is not supported by evidence.

<sup>10</sup> Den Uyl 1958, 107.

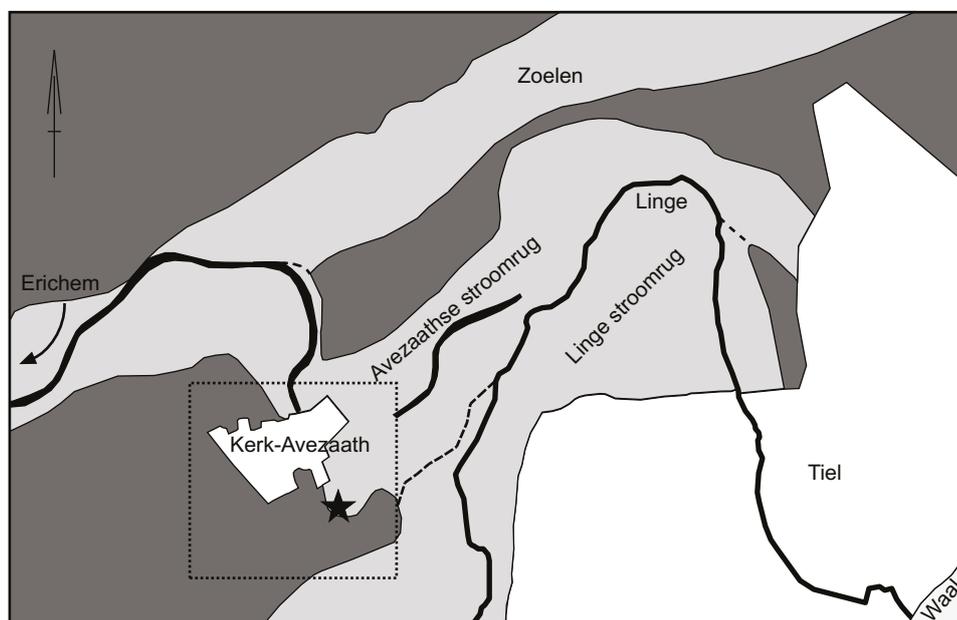
As part of the early Malta excavations, additional pedological analysis was conducted in an area within a radius of 0.5 km outside the sites Huis Malburg, De Stenen Kamer and Linge.<sup>11</sup>

The Avezaath is located in the central part of the Dutch river area.<sup>12</sup> Its subsoil consists of fluvial deposits by the rivers Rhine and Meuse from the Late Weichselian and Holocene period. Previous to the permanent embankment of the rivers the landscape was highly dynamic, as the water continuously sought their way downstream in ever-winding rivers with countless branches, influenced by periodic fluctuations in water flow and endless sedimentation (figure II.3). During the early Neolithic (ca. 5000 BC) our research area was part of the floodplains of a river that flowed from Zoelen in a southwest direction and curved sharply to the north (figure II.4).<sup>13</sup> This river

formed a (ca. 100 m wide) meander belt, the Vredesteinse Stroomgordel. In this period the levee ridge was breached, north of the Kerk-Avezaath area, during a period of high water. This led to the formation of a crevasse which came to an end in the plains to the south, just east of the later village. The crevasse deposits formed an elevated ridge which were used for settlement and agriculture.

Over the course of the Neolithic (between 4000-2000 BC) the river was cut-off upstream and became inactive. A new branch was formed, the Erichemse Stroomgordel, that flowed from Zoelen to Erichem. This stream was succeeded in the Late Bronze Age by the Avezaathse Stroomgordel, a new ca. 300 m wide meander belt just to the south. Its deposits would form a marked, elevated river levee.

In the second century BC a new river branch formed further to the south, the river Linge.



Meander belt

Flood plain

Built-up area

Physical geographical research area

inactive stream (possibly carrying water)

0 2,5 km

Excavation Huis Malburg

Boundary between meander belts

Figure II.3 Situation of the meander belts in the Kerk-Avezaath area (Van Dinther 2000, 26).

<sup>11</sup> Van Dinther 2000, 19-21.

<sup>12</sup> Van Dinther 2001, 25.

<sup>13</sup> Van Dinther 2000, 40-42; Van Dinther 2001, 49-55.

During the next three centuries it would gradually succeed the Avezaathse stream as the main watercourse. The latter would run dry around the start of the second century AD. On both sides of the Linge stream, banks were formed. These elevated ridges provided a suitable location for settlement and agriculture during the Roman period. Over the course of the next centuries the river bed of the Linge would gradually shift, creating a wide stream belt. In the second half of the eighth century, 8 km south of Tiel, the northern bank of the Linge was breached, resulting in a big crevasse running to the north. This would become the Daver, a small branch flowing on the plains in a northern direction with a big meander just south of Kerk-Avezaath. Although the Daver was only active for a couple decennia, heavy sedimentation would lead to well pronounced stream banks. From the ninth century, this branch would become less active and would no longer overflow. The now stable levee was (south of Kerk-Avezaath) the highest elevation in the area and became a suitable settlement location. In the first half of the tenth century the Daver was cut-off by the Linge and the streambed fossilised and filled up. As a result of gradual decline in water transportation, the course of the Linge became stable from the twelfth century onwards. Additionally, overflows became less frequent and had less impact. Between 1259 and 1304 the Linge was permanently dammed up, effectively ending flooding in the area.<sup>14</sup> The remaining river was reduced to a 20 m wide stream in a ca. 175 m wide stream bed flanked by 1.5 m steep levees. This situation would remain relatively unchanged up until the present.

Kerk-Avezaath is located on one of the levee ridges of the Daver. The farmhouses were situated on the highest parts with the arable land on the flanks and meadows in the lower areas on the floodplains. Kapel-Avezaath is situated on the fossil stream bank of the Linge. These were deposited over river bed sediment which indicate that the stream was shifting southwards.<sup>15</sup> In the High Middle Ages the course of Linge flowed 500 m to the south of the village.

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## II.4.2 Historical context

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During the Carolingian period, Avezaath was part of county Teisterbant. This county covered the central river area, stretching from Vlaardingen to Tiel and was bordered by the rivers Lek, Meuse, Waal and Hollandse IJssel. As part of the Carolingian Empire, the county befell the kingdom Lotharingen after the partition of the empire in the treaty of Verdun in 843.<sup>16</sup> Following the death of Lotharius II in 869, the area would fall to East Francia. In 889, Gerulf (ca. 850-896), Count of Frisia and forefather of the Counts of Holland, was rewarded by king Arnulf (ca. 845-899) with a number of goods, including the county Teisterbant for his part in the assassination of the Viking chief Godfrey the Norman.<sup>17</sup> By clever political maneuvering and a solid dose of ambition the counts would manage to elevate their prestige and expand their territory.<sup>18</sup> His son Waldger (898-928) would represent the king in large parts of the river area as Count of Lek and IJssel and undertake the development of the major trading centre Tiel, close to the Avezathen (see §3.2.4). He would be succeeded by his eldest son Radbod (?-944). In 939 Waldger's grandson (?)<sup>19</sup> Hatto (?-950) took part in an unsuccessful uprising against King Otto I (936-973).<sup>20</sup> In consequence, the king stripped Hatto of his goods and subsequently gave them to Bishop Balderik of Utrecht (897-975), a loyal and trusted vassal. Under his rule, Tiel would grow to become a prosperous international trading place and a prominent administrative centre.

On a local level, the Counts of Teisterbant played an important role in the history of the Avezathen. They held extensive land property here as part of their *beneficium*, royal property given in fealty by the king as a reward for their service and loyalty and to provide them with an income. Count Ansfried (ca. 940-1010), who also(?) became Bishop<sup>21</sup> of Utrecht in 995, used this property to create an endowment for his newly established abbey in Thorn (990). Soon he would donate the abbey and their possessions to the diocese of Liège through his friend Bishop Notger (972-1008). As a result, Thorn would become an important land owner in the Avezathen.

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<sup>14</sup> Van Dinther 2001, 54.

<sup>15</sup> Boreel 2011, 19, 22.

<sup>16</sup> Wikipedia: Teisterbant.

<sup>17</sup> Gerulf is thought to be a descendant of the Frisian King Radboud and highly ranked among the imperial nobility (Janse 2002, 70-71; Henstra 2012, 67).

<sup>18</sup> Oudhof, Verhoeven & Schuuring 2013, 125.

<sup>19</sup> The precise lineage is subject of debate (Cawley 2006).

<sup>20</sup> Oudhof, Verhoeven & Schuuring 2013, 126, 128.

<sup>21</sup> Cawley 2006. However, Count Ansfried is possibly the uncle of Bishop Ansfried. In that case, the bishop is the nephew of Count Unruoch of Teisterbant (De Winter 1981, 39-60).

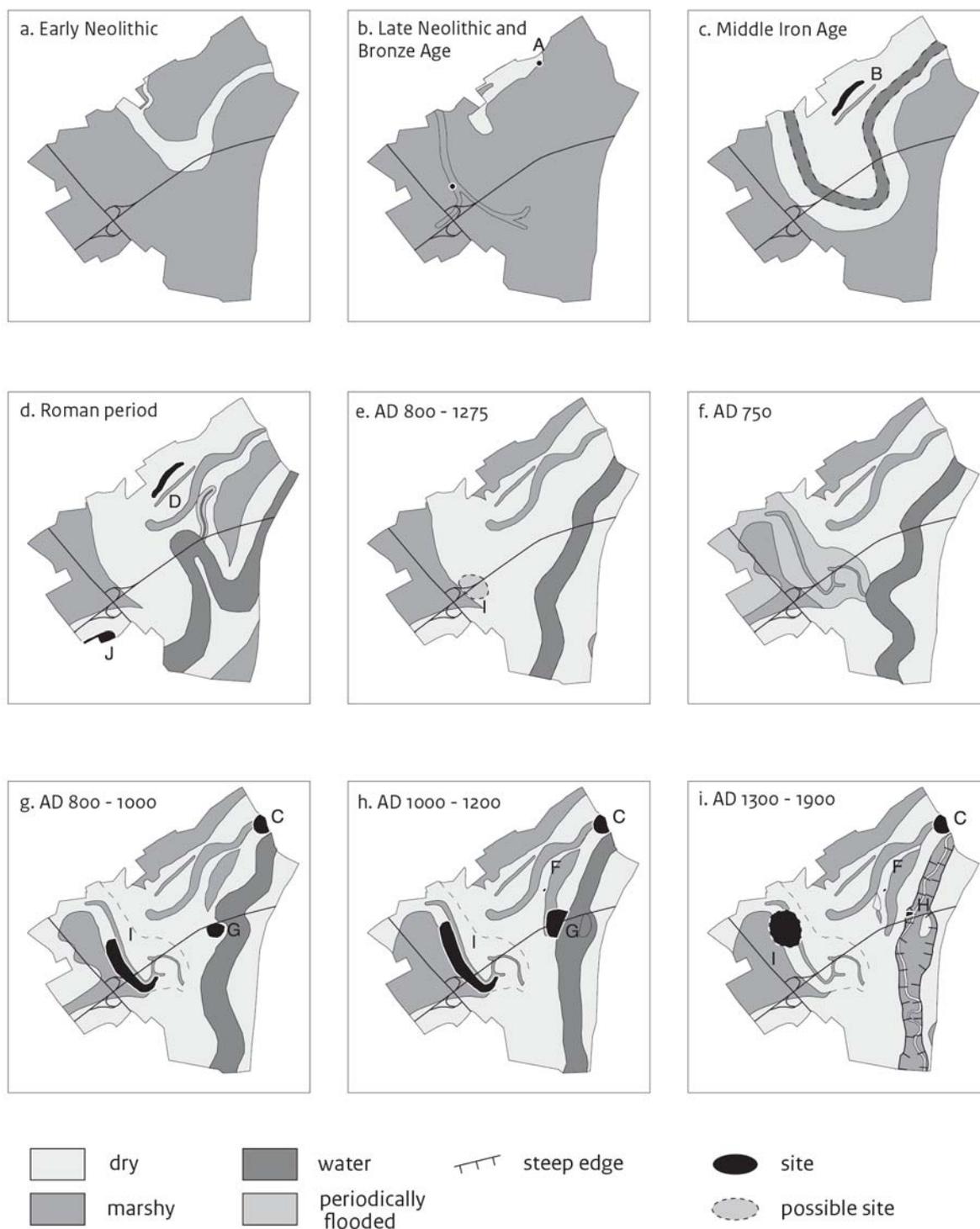


Figure II.4 Development of the palaeo-geography in the Kerk-Avezaath area (Van Dinther 2001, 50).

From the second half of the eleventh century the economic and political focus of the Holy German Empire shifted away from the Low Countries.<sup>22</sup> Without the support of the emperor, the bishops increasingly became politically isolated. Gradually the imperial authority was taken over by the Duke of Lower Lorraine and local and regional elites became increasingly important. Over time the various fiefs in Teisterbant were usurped by these vassals and the county was broken up and slowly disappeared. By the fourteenth century the name would only refer to the area of Avezaath and Zoelen, a small remnant of the original county.<sup>23</sup>

At the same time, the role of Tiel started to decline as the harbour became increasingly inaccessible to seagoing vessels due to the silting up of the river Linge. The role of the staple market was taken over by Zaltbommel and later Dordrecht.

In the following period the area became the borderland between Brabant, Holland, Utrecht and Guelders and claims to these lands were frequently contested. This is reflected in the substantial number of castles that can be found in the region. This strife lasted until 1339 when it finally came under Guelders' authority.

#### **Kerk-Avezaath**

Around the start of the eleventh century Thorn abbey, the private church of the Bishop of Liege, held a large domain in Avezaath and Zoelen.<sup>24</sup>

This consisted of extensive farmlands with multiple dependent farms, levies, tithes and rights and was centred around St. Lambert's Church. The church was most likely founded in the centre of the count's estate in this area, a royal property he held in fealty. The estate was run by the village priest who acted as steward and stood under the protection of the local Lord Van Soelen who acted as guardian.

#### **Kapel-Avezaath**

In the Late Middle Ages, Kapel-Avezaath is the location of several manors. In this period the settlement is referred to as *Alde Avezaath* or *Old Avezaath*.<sup>25</sup> One of the moated manors bore the same name. Together with the toponym *Hoge Hof* it suggests that the royal estate and residence of Count Waldger, which is mentioned around the start of the tenth century, was located here.

#### **Zoelen**

Archival records from Echternach (dated 788-789) show that during the Carolingian period the abbey held a manorial estate along the river Zoelen.

In the eleventh century a motte-and-bailey castle was built here.<sup>26</sup> It was owned by the noble Van Soelen family who took their name from the house.<sup>27</sup> In 1263, Otto van Soelen is listed as ministerialis of the Duke of Guelders.<sup>28</sup> After Otto's death in 1298, the castle, later referred to as Aldenhaag manor, was given in fealty to Arnt van Arkel. In 1361 the castle was demolished by order of Edward of Guelders in reprisal after Van Arkel had sided with the opposing party in the battle of Tiel (1361). On the southern part of the Soelen estate lay the Soelen manor. At the beginning of the fourteenth century this was owned by Walraven van Bentheim, member of a family of ministeriales. He too called himself Lord of Soelen, which initially led to conflict with the Van Arkel family. The manorial estate is passed on to Walters' son Johan who was a knight and judge in the Neder-Betuwe. He and his wife Mechtelt van Lynden, member of an old noble family which originates from Guelders, built the new Soelen castle around 1380. After their son Otto died, without an heir, the Duke of Guelders obtained the castle.

#### **Tiel**

At a distance of 5 km from both Kerk-Avezaath and Kapel-Avezaath is the city of Tiel. In the Ottonian period this would become an important international trading hub between East Francia (in particular the Rhineland), England and Scandinavia, succeeding the *emporium* Dorestad.<sup>29</sup>

Tiel was situated on an elevated river bank at the fork of the Waal and Linge river.<sup>30</sup>

Both archaeological and archival evidence suggests that it originated around the middle of the ninth century. It started as a rural settlement around the mother church of the primal parish Tiel, similar to Kerk-Avezaath and other settlements in the region.<sup>31</sup> It was established on royal property and had close ties to Utrecht. In the late ninth century Tiel was given in fealty to Gerulf, Count of Frisia.<sup>32</sup> His son Waldger would develop the settlement into a trading place and a seat of power. Their relations to the king was expressed in the foundation of the St.

<sup>22</sup> Oudhof, Verhoeven & Schuurring 2013, 132.

<sup>23</sup> Wientjes 2000, 83.

<sup>24</sup> Wientjes 2000, 86.

<sup>25</sup> Vermeulen 2011, 5-8.

<sup>26</sup> Vogelzang & Wevers 2011; Van Doesburg 2013, 186-187.

<sup>27</sup> The family name is recorded as early as 1207. Vogelzang & Wevers 2011;

Vogelzang 2013, 193-196.

<sup>28</sup> Vogelzang & Wevers 2011; Vogelzang 2013, 193-196.

<sup>29</sup> Sarfatij 1999, 267-278.

<sup>30</sup> Oudhof, Verhoeven & Schuurring 2013, 125.

<sup>31</sup> Oudhof, Verhoeven & Schuurring 2013, 125.

<sup>32</sup> Oudhof, Verhoeven & Schuurring 2013, 125-126.

Walburg nunnery, which became a prominent element in the administrative complex which also featured a castle and a royal palace (*Pfalz*).<sup>33</sup> Next to this complex a trading quarter with harbour facilities (*portus*) was developed.

Tiel had a toll right, which entailed that incoming merchants were obliged to sell their goods here, as it was not allowed for foreigners to continue upstream to sell their wares elsewhere. Merchants from Utrecht were exempt from this obligation.

In 939 Count Hatto was stripped of his assets in retribution of his part in an uprising against the German king, later emperor, Otto I.<sup>34</sup> Teisterbant, including Tiel, were now given to Baldrík, Bishop of Utrecht. He would continue to develop the settlement. The castle complex was enclosed with a circular rampart and the settlement grew and the harbours were expanded to accommodate larger vessels. Tiel flourished during this period and became an important economic centre in the Empire, as is illustrated by the establishment of a royal mint by the end of the tenth century.

In the second half of the eleventh century the position of Tiel started to decline. The economic and political focus of the Empire shifted towards Northern Italy.<sup>35</sup> In addition, the river Linge gradually silted up and became inaccessible for seafaring ships. As a result, the staple port needed to be moved downstream, first to Zaltbommel and then later to Dordrecht. Tiel lost its position as a major international trading place and became a regional centre and a strategic stronghold in the territorial struggle between Brabant, Holland, Utrecht and Guelders. In 1202 Tiel was destroyed by troops of the Count of Holland. Although the city was rebuilt it would not regain its former position as a major international trading centre. Between 1268 and 1304 the Linge was dammed and the settlement became focused on the river Waal, as it became part of the duchy of Guelders in 1339.

### II.4.3 Etymology

Wientjes did some work on the origin of some of the place names in the area which can aid in the understanding of the development of the area.<sup>36</sup>

#### Avezaath

The name Avezaath is a compound of the personal name 'Avo' and the old Dutch word 'sate' meaning house.<sup>37</sup> The place is thus named after Avo's home. Its origin is unknown, but it appears as early as 696 in the vitus of the Anglo Saxon missionary Swietbert, which recalls how this bishop established churches in the county of Teisterbant, including 'Avesaet'. Critical analysis of this text suggests that it is an adaptation of an even older source, which would place the toponym as early as the fifth or sixth century. In any case, it was in use by the middle of the ninth century when Balderik (a family member of Bishop Liudger of Utrecht) donated an estate in the nearby village Wadenoijen which included a farm in Avezaath.<sup>38</sup>

From the Late Middle Ages we see in the archival record that a distinction was made in the Avezaath name to refer to the different settlements. While Kerk-Avezaath was still referred to as Avezaath, Kapel-Avezaath was now named *Alde Avesaeth* (Old Avezaath).<sup>39</sup> Whether this settlement actually was the eldest remains a matter of debate.

#### Daver

The name of this crevasse stream survived as a toponym of the adjacent block of land and the name of the central part of Kerk-Avezaath.<sup>40</sup> It stems from the east medieval Dutch word 'daveren' meaning bubbling up. Its earliest recording is dated to 1425, where it is referred to as a piece of land. By that time the stream had been filled up for two centuries.

#### Zoelen

Zoelen is a hydronym that lends its name to the settlement area next to it.<sup>41</sup> This river stream branched off of the river Linge and flowed in a northern direction where it connected to the river Lek.<sup>42</sup> It is first mentioned in 788-789 as the location of an estate that was donated to Echternach abbey. It formed the border between the counties Teisterbant and Betuwe.

<sup>33</sup> Wientjes 2006, 6; Oudhof, Verhoeven & Schuurring 2013, 129.

<sup>34</sup> Oudhof, Verhoeven & Schuurring 2013, 126.

<sup>35</sup> Oudhof, Verhoeven & Schuurring 2013, 132.

<sup>36</sup> Wientjes 2000, 79-83.

<sup>37</sup> Wientjes 2000, 81.

<sup>38</sup> Wientjes 2000, 82; Wientjes 2001, 133.

<sup>39</sup> Vermeulen 2011, 6.

<sup>40</sup> Wientjes 2000, 79.

<sup>41</sup> Wientjes 2000, 83-84.

<sup>42</sup> Kosian *et al.* 2013.

#### II.4.4 The parish of Avezaath

Avezaath was a primal parish in the county of Teisterbant and included (the current) Kerk-Avezaath, Kapel-Avezaath and Zoelen.<sup>43</sup> Its church, St. Lambert, dates back to (at least) the beginning of the eleventh century.<sup>44</sup> Zoelen became an independent parish in the thirteenth century after the completion of their St. Steven's Church. Only after the reformation would the chapel at Kapel-Avezaath be elevated to a parish church.

#### II.4.5 Historical maps

Early provincial atlases, like those of the sixteenth century cartographer Cristian Sgroten, showed the Avezaathen as two separate settlement clusters. Because of their small-scale, these maps provide little additional information. The earliest topographic maps displaying the area in any detail date to the nineteenth century. A selection is chosen to represent significant information and developments.

##### Cadastral Plan (1832)

The cadastral plan of 1832 is the earliest detailed representation of the area. It shows both Kerk-Avezaath and Kapel-Avezaath as elongated villages along two parallel roads (figure II.5).



Figure II.5 The Avezaathen on the Cadastral overview plan 1832 (source: Kadaster).

<sup>43</sup> Wientjes 2000, 83.

<sup>44</sup> Wientjes 2000, 91.

In-between, a cluster of houses can be found along the connecting road, the later hamlet Bergakker. Additionally, a number of moated sites and manors can be found both in the villages and in the surrounding countryside.

#### Kerk-Avezaath

In Kerk-Avezaath the houses are located around a rectangular block of land defined by two parallel roads or rather one continuous road with two opposing forks at straight angles (figure II.6). On the south end of the block we find the Landzigt Church (St. Lamberts, previous to the Reformation) with a presbytery to the east. On the opposite side a large moated estate *Teisterbant* lays next to a rounded block of arable land called *woerd*. The houses are mainly located in and along the long sides of the rectangular block, along the *Luttelveldsche straat* and along the edges of the *woerd*.

#### Kapel-Avezaath

At first sight Kapel-Avezaath had a similar layout (figure II.7). Its centre was situated in a somewhat rectangular block in-between two parallel roads, next to a large rounded block of arable land called *D'Eng*. In the early nineteenth century it was one main road (the *Lingedijk*) flanking the block with a Z-bend, with the *Zandweg* coming in at the back and connecting to the *Lingedijk* on the far side of the centre. It harbored a church and what used to be a moated house (the *Poelzigt*). Contrary to Kerk-Avezaath, this block was not a true settlement cluster as most (farm)houses were located on the main roads to the west, south and east. The occupation on the latter two was somewhat grouped on its own. The southern road lead to the village of Wadenoijen, crossing the Linge by means of a bridge. The houses were located side by side along this road and slightly grouped near

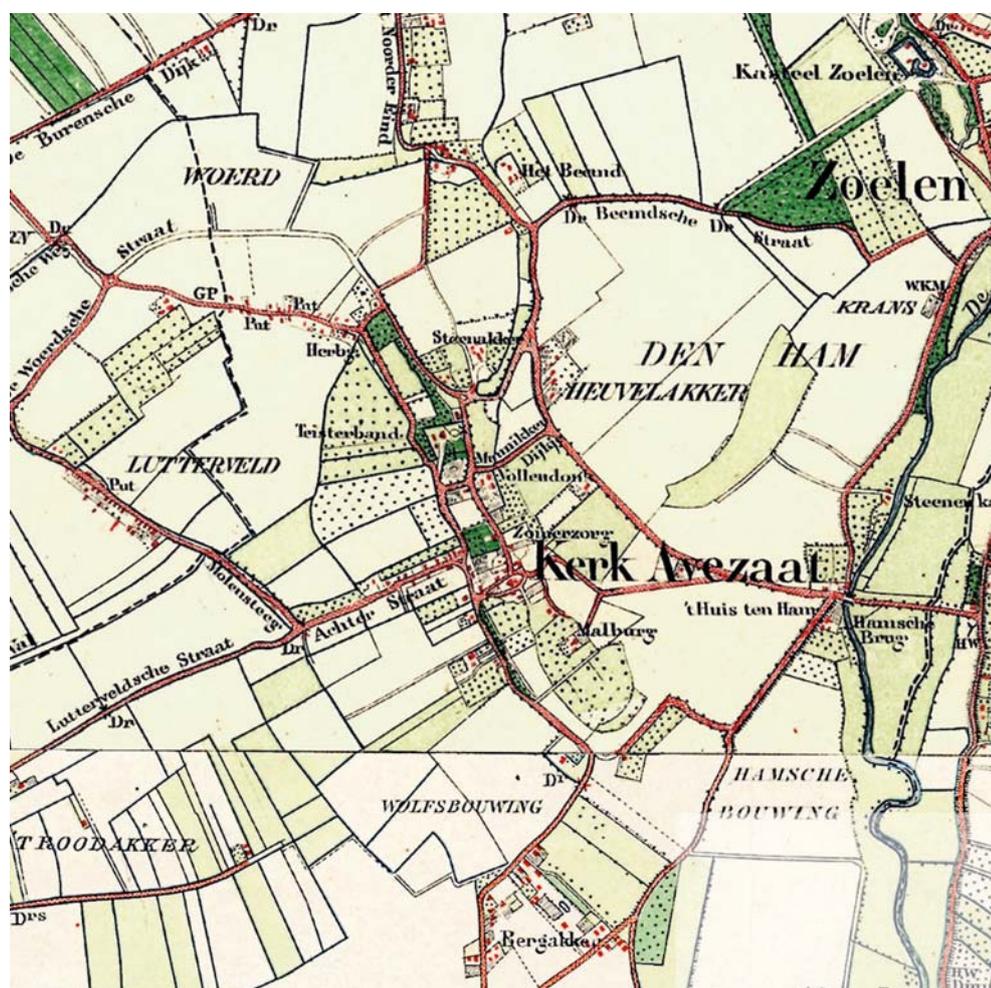


Figure II.6 Kerk-Avezaath on the Chromotopografische kaart des Rijks (ca. 1890) (source: Kadaster).

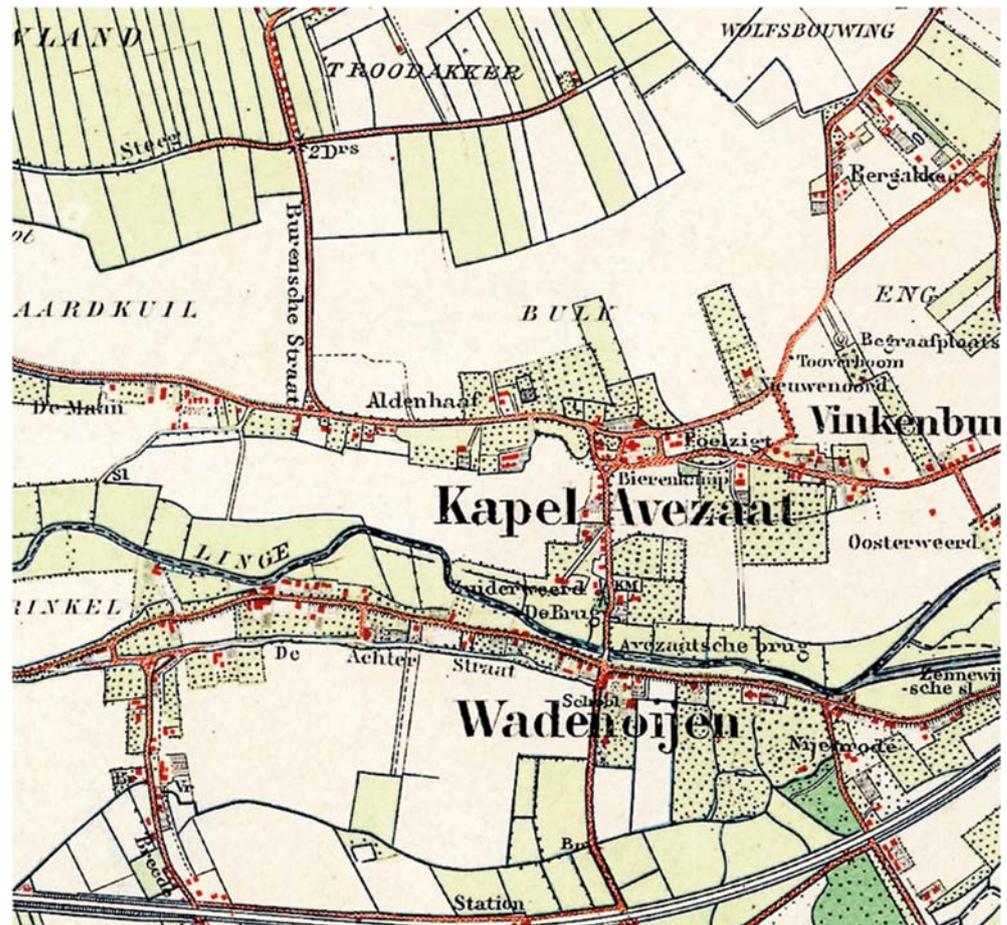


Figure II.7 Kapel-Avezaath on the Chromotopografische kaart des Rijks (ca. 1890) (source: Kadaster).

the windmill that stood next to the road on the far end. On the eastern section of the Lingediijk, some distance from the village centre, we find a group of houses next to the arable fields. These are located on a plot and cut-out of the original rounded block (the *Kromme Steeg*).

#### Topographic Military Map (ca. 1840)

The earliest detailed topographic map is of a slightly later date than the cadastral plans, but provides information on land use (figure II.8). It shows gardens or orchards next to the houses. The arable lands can be found as large blocks of homogenous land use north (*Woerd*) and east (*Den Ham and Heuvelakker*) of Kerk-Avezaath and on both sides of the main roads, starting from *Den Eng* in the east and continuing past the village to the west until it is cut-off by a bend of the Linge. These areas are located on the fossil river banks. Large meadow areas are found in the stream valley of the Linge and in an area north of Kapel-

Avezaath. Its name (*Nieuwland*) indicates a young reclamation. This is supported by its location on the former floodplains. In the bordering areas lay blocks of land with mixed use.

#### Topographic plans (>1950)

From the 1870s the cluster of houses between the Avezaathen is indicated as a separate hamlet named *Bergakker*. Apart from that, the topography of both villages remained relatively unchanged up until the middle of the twentieth century.

The map of 1960 shows that the area had made a dramatic transformation after the war. The majority of land was now in use as grassland and orchards. This reflects a rapid shift in the regional economy towards dairy production and fruit farming.

In the second half of the 1960s the A15 motorway was constructed, separating Kerk-Avezaath and Kapel-Avezaath. The villages did not see large developments until the 1970s and

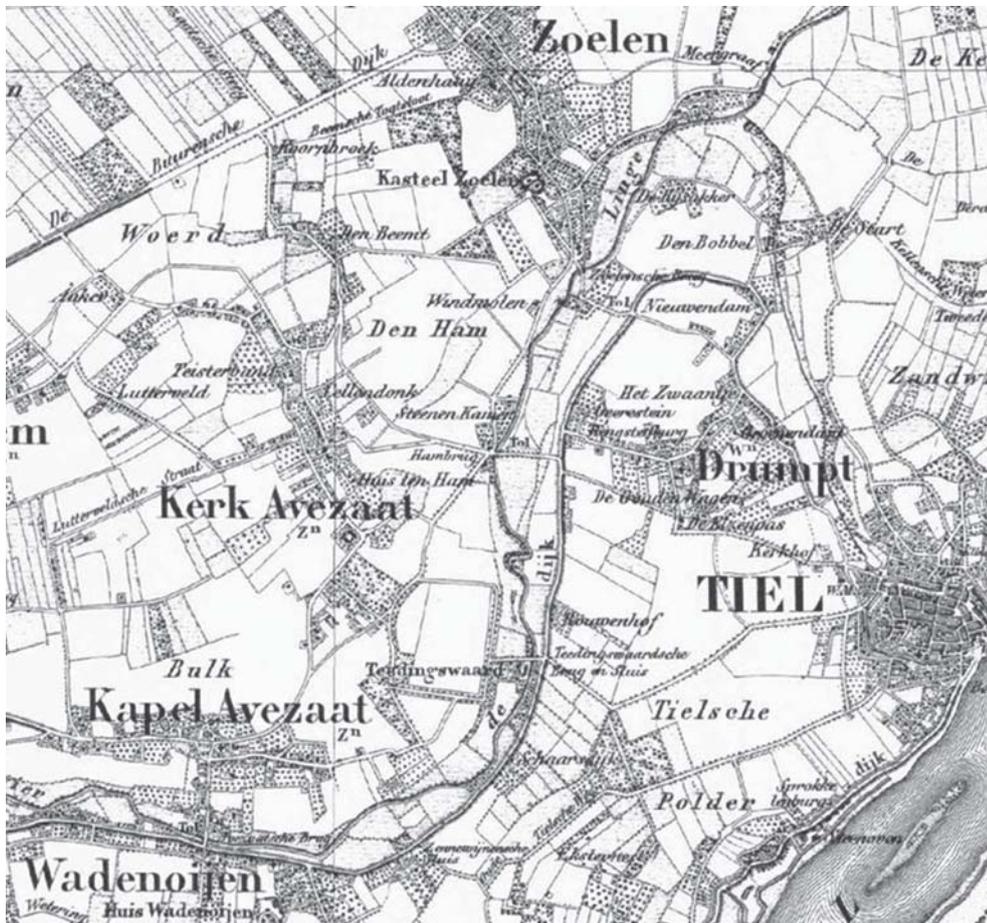


Figure II.8 Chromotopografische kaart des Rijks (ca. 1840) (source: Kadaster).

1980s when new housing blocks were constructed on both sides of the rectangular centre of Kerk-Avezaath and between the tapering roads in Kapel-Avezaath, between the centre and the open field. In Bergakker an industrial quarter was built. In all, however, the old layout of the Avezaathen was largely preserved.

#### II.4.6 Historical references

##### Village centre

Besides the church, chapel and the manors, little information is available on the amenities of the villages during the Middle Ages. In Kapel-Avezaath stood a windmill for grain at the beginning of the nineteenth century. Vermeulen suggests that a plot named *Richtershof* is not likely to refer to a court of law, but rather to a (manor)house owned by a judge.<sup>45</sup> However,

the toponym *Hoge Hof* might predate this and is perhaps related to (a successor of) the residence of Count Waldger to which ninth century records state was situated in *Avesaet*.

##### Church, churchyard and presbytery

The vitus of St. Swietbert recalls that this missionary established a church in Avezaath in the seventh century. The location of Swietbert's church is unclear, as no ecclesiastical remains from this period have been found so far. The main church of the primal parish of Avezaath stood in Kerk-Avezaath. It was built prior to 1007 and dedicated to St. Lambert.<sup>46</sup> This patronage links it to the diocese of Liege of which he was the patron saint. It was most likely established on an episcopal domain through Thorn abbey. The accompanying presbytery is located to the east of the church. In the centre of Kapel-Avezaath a chapel was built, dedicated to St. Agatha. It was inaugurated in 1332. It resided under the church of Kerk-

<sup>45</sup> Vermeulen 2011, 7.

<sup>46</sup> Halbertsma 1982.

Avezaath. Only after the reformation would it become an independent parish church. It is not known who took the initiative to build this chapel; It was most likely a private foundation.<sup>47</sup> In the thirteenth century Zoelen got its own church dedicated to St. Steven and became independent from the parish of Avezaath.

### Countryside

The settlement in the countryside consists of a number of farms (and some country houses) that lay either separately or in small groups on and against the surrounding open field complexes.

### Fields

Surrounding the villages we find several arable field complexes. They are generally situated on the flanks of the fossil river banks. This is due to the favourable conditions, including hydrology and soil texture.

### De Woerd

At the northern end of Kerk-Avezaath, behind the Teisterbant manor, we find a rounded block of arable land called the *woerd*. It is situated at the end of the Daver stream belt. The name *woerd* generally refers to a higher situated, enclosed terrain.<sup>48</sup> In the eastern parts of the Netherlands and the adjacent German region the term more specifically refers to the plot of arable land next to a farmyard, which contained the main arable fields of the farm (*huisakker* or *hofnâhes Ackerland*). The rounded shape and the average size of 1-2 ha. is typical for these fields. The *woerden* are related to early farms and are often related to old manorial estates.<sup>49</sup> Moreover, Spek noted that in Drenthe they are frequently found in the centre of the historical village. From this he suggests that they were formed when the settlements became fixed in the landscape and the later village grew. In Drenthe this development is dated to the late eighth and ninth century.

### Den Ham and Heuvelakker

The arable land east of Kerk-Avezaath is called Den Ham and Heuvelakker. The first ties it to the manor with the same name just south of it. The present house dates to the early nineteenth century, but no information is available regarding its origin. The name refers to a piece of land situated in the fork of two reeds and in

the bend of a water course.<sup>50</sup> The second toponym could indicate an elevated position. Castle Avezaath and the Stenen Kamer farm were situated next to it.

### Den Eng

The Den Eng complex was a rounded block of arable land east of Kapel-Avezaath, similar to that of De Woerd. Its name identifies this cultivated land as an open field complex with multiple owners and users, and a small-scale allotment. It was the main and presumably the earliest arable land of the village of Kapel-Avezaath.

### Bulk

Though marked as arable land in the nineteenth century, the name refers to enclosed land.<sup>51</sup>

### Farms

From the archival records various medieval farms and (moated) houses are known. These could be located both in the village area and in the surrounding countryside. In our overview we included the named farms and manors shown on the cadastral plan 1832, minus those with a recent origin, as well as those known only through archival records. For some of these farms some historical information is available to provide some additional background.

### Kerk-Avezaath

#### Huis Malburg

The *Malburgse hofstede* is first recorded in 1599 in the register of the Duke of Guelders.<sup>52</sup> The same farm is mentioned in earlier records dated to 1465, but not under that name. Some indirect indications could date this farm further back in time. A road named *Malburrichschen wech* was recorded in 1460 and a person called Willem van Malburg was mentioned in 1343 in connection to tithes he held in the parish of Avezaath.

### Kapel-Avezaath

#### Aldenhaaf

North of the Lingedijk, just west of the village centre lays the *Aldenhaaf* farm. Its original premises (enclosed by a moat) is still visible today. The name *Aldenhaaf* is a corruption of *Aldenavesaet*, meaning old manor. It already

<sup>47</sup> St. Agatha belongs to a group of saints that were popular in the Late Middle Ages. By that time the parish organisation was completed. St. Agatha is not related to a specific institution and was mostly founded as a patron of (smaller) chapels and altars (Verhoeven 1989).

<sup>48</sup> Spek 2004, 678-681.

<sup>49</sup> Spek 2004, 679. This is at least the case in the eastern parts of the Netherlands. Whether the manorial background also applies to Betuwe is up for debate. In any case, *Woerd*-lands are associated with old (early-medieval) settlements (Spek, oral report).

<sup>50</sup> Spek, oral report.

<sup>51</sup> Vermeulen 2011, 6, note 7.

<sup>52</sup> Wientjes 2000, 81.

**Table II.2 Medieval farms in the Avezathen mentioned in archival records. Additional dates are mentioned when available.**

Farm	Earliest reference	Date	Details
<i>Kerk-Avezaath</i>			
<i>Huis Avezaath</i>			
<i>Den Daver</i>			
<i>Huis Ten Ham</i>			
<i>De Hamse Kamer/Stenen Kamer</i>		1570 – 1998	
<i>Huis Malburg</i>	(1343?) 1599	<1599-	• Property of the duke of Guelders (1599)
<i>Teisterband</i>			
<b>Kapel-Avezaath</b>			
<i>Aldenaaf</i>	1413	<1413	• Homonymous to the village • Property of the duke of Guelders (1413)
<i>Muggenborgh</i>	1432	<1432-1965	• Property of the duke of Guelders (1432) • Private property (<1547)
<i>Oosterwaard</i>			
<i>Aldenaaf (Aldenavesaet)</i>	1413		
<i>Vliegenborgh</i>	1432	<1432-ca. 1650	• Property of the count of Culemborg (1432)
<i>Poelzigt</i>		Predecessor? 1777-present	• Padelpoel listed property of the count of Culemborg (1432)

had this name when it was first mentioned in 1413. This suggests a substantial age. It was listed as a fief of Guelders.<sup>53</sup> Vermeulen suggests that it might have originally been the property of the counts of Teisterbant.<sup>54</sup>

#### *Muggenborch*

Originally a moated house, *Muggenborch* stood at the junction of the Lingedijk and the Zandweg. It is reported that its moat had been visible up until the end of the nineteenth century.<sup>55</sup>

The farm's earliest reference dates back to 1432 when it was listed as a fief of Guelders given to Johan van Rijswick Albertssoon. Between 1547-1724 it was held by the Van Brakel family which included judges and dike reeves.

#### *Vliegenborch*

Similar to *Muggenborch*, *Vliegenborch* used to be a moated house. It is first mentioned in 1432 as a fief of the seigneurie Culemborg. Its precise location is unknown, but records from 1501 situate it between the main road and the leat north of it. It is last mentioned in the sixteenth

century. Because of their names and proximity, Beaufort and Van den Berg suggest that *Vliegenborch*, *Muggenborch* and possibly *Aldenaaf* originate from one owner.

*Vliegenborch* is thought to be related to the archaeological site 'Muggenborgh' (§ II.4.1).

#### *Poelzigt*

*Poelzigt* farm is located on the east side of the village centre, between the chapel and Den Eng. The related toponym *Padelpoel* was also in the 1432 list of Culemborg property. The current farm was built in 1777 by Arnuldus Versteegh. Whether it had a predecessor is not known.

## II.5 Archaeological observations

Four excavations have been conducted in the Avezathen that revealed remains of settlement from the period 800-1600. Because of the small number, we included an overview of individual find reports in our observations.

<sup>53</sup> Beaufort & Van den Berg 1968, 387.

<sup>54</sup> Vermeulen 2011, 6-7.

<sup>55</sup> Vermeulen 2011, 7.

**Table II.3 Composition of settlement remains found at observations in Kerk-Avezaath and Kapel-Avezaath.**

Site	Settlement	Excavated completely	Singular/plural settlement	Composition per phase	Begin (yr AD)	End (yr AD)
<b>Kerk-Avezaath</b>						
St. Lambert church – 1980	1Ch	undetermined	n/a	Ch1: 1Ch; 1Gy	1000	present
Huis Malburg – 1997	undetermined	n	undetermined	n/a	300	450
	undetermined	n	undetermined	n/a	525	725
	undetermined	n	undetermined	n/a	725	900
	undetermined	n	undetermined	n/a	900	1050
	2FS	n	plural	Fy1a: 1H, 1OH?, 1W, 2Gy Fy2a: 1H, 1OH, 1W Fy1b: 1H, 2OH, 1W, 2Gy Fy2b: 1H, 1OH, 1W, 2Gy	1050	1100
Linge/Stenen Kamer – 1998	1/2FY*	n	undetermined	n/a	675	750
	o	n/a	n/a	n/a	750	850
	2FY	n	plural	n/a	850	900
	2FY	n	plural	n/a	900	950
	2FY	n	plural	n/a	950	1000
	2FY	n	plural	n/a	1000	1050
	2/3FY	n	plural	n/a	1050	1100
	2/3FY	n	plural	n/a	1100	1150
	2/3FY	n	plural	n/a	1150	1200
	2/3FY	n	plural	n/a	1200	1250
	1TH	y	singular	1TH	1270	1296
	1TH	y	singular	1TH	1310	1361
	1FY	y	singular	1FH	1380	1410
	1TH	y	singular	1TH	1410	1500
1FS	y	singular	1H; 2OH; 1W; 1GY; 1FH	1570	1820	
1FS	y	singular		1820	1998	
<b>Kapel-Avezaath</b>						
Muggenborgh	1MH	y	singular	1MH; 1W	1200	1300

\*=farmyards reconstructed from highly fragmented remains (Verhoeven 2001, 610-614)

FS=farmstead; TH=tower house; MH=manor house FY= farmyard; H=house; OH=outhouse; W=well; EN=enclosure

## II.5.1 Sites

### St. Lambert church – 1980

In 1980 the *Rijksdienst voor het Oudheidkundig Bodemonderzoek* (presently the Cultural Heritage Agency of the Netherlands) conducted archaeological excavations at the St. Lambert church during the restoration work (figure II.9).<sup>56</sup> It was found that the earliest stage of the present building was a small aisleless church with a narrowed choir. This tuff church was built in the early eleventh century at the site of an existing graveyard. This suggests that the church probably had a (wooden?) predecessor close by.

### Huis Malburg: 1997

As part of the development of a major freight railway from Rotterdam to Germany, the *Betuweroute* excavations were conducted at important archaeological sites along the route.

One of these sites was located just south of the village centre of Kerk-Avezaath (figure II.10). It was named Huis Malburg after a nearby manor house. In 1997 excavations were undertaken, covering an area of 0.7 ha. These were supplemented by an extensive pedological and historical-geographical study.

The excavation revealed the remains of a settlement dating to the period 1050-1225.<sup>57</sup> Prior to this, people had been living at this site or close by since the Migration period, which is indicated by several finds. However, these remains were washed away in the second half of the eighth century when the northern bank of the Linge was breached during a flooding event and a big crevasse formed south and east of Kerk-Avezaath. This would become the *Daver* stream.<sup>58</sup> Around the beginning of the ninth century the *Daver* stabilised and no longer overflowed.

<sup>56</sup> Oudhof 2000, 334. The excavation reports (Halbertsma 1982; Prins-Schimmel, Mazzola & Temminck Groll 1982) remained unpublished.

<sup>57</sup> Oudhof, Dijkstra & Verhoeven 2000, 46-77, 355-356.

<sup>58</sup> Van Dinther 2000, 40-43.

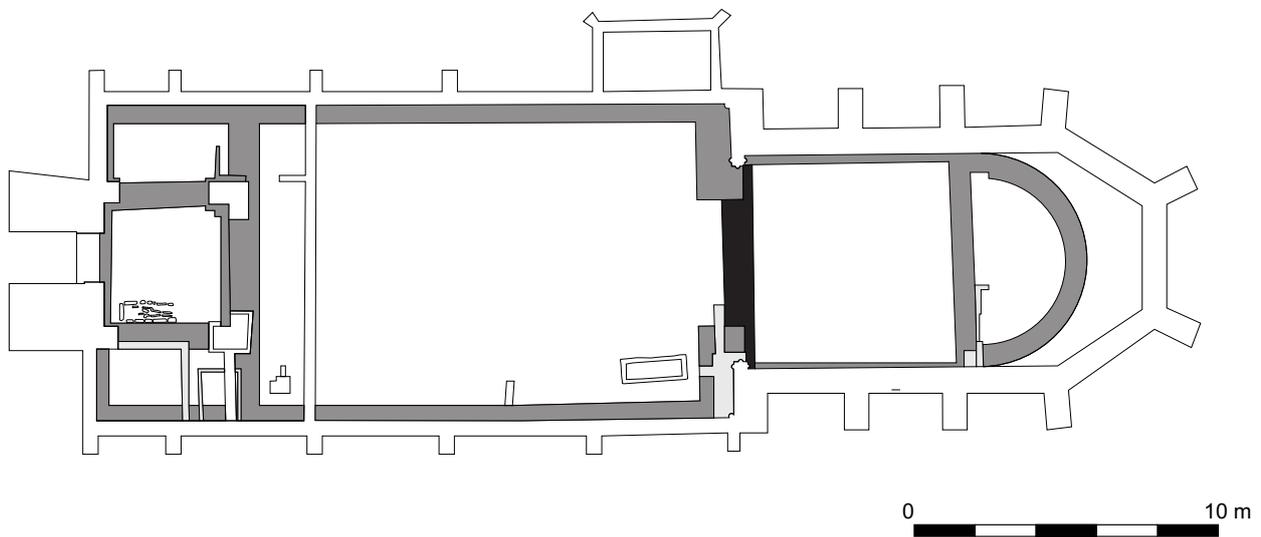
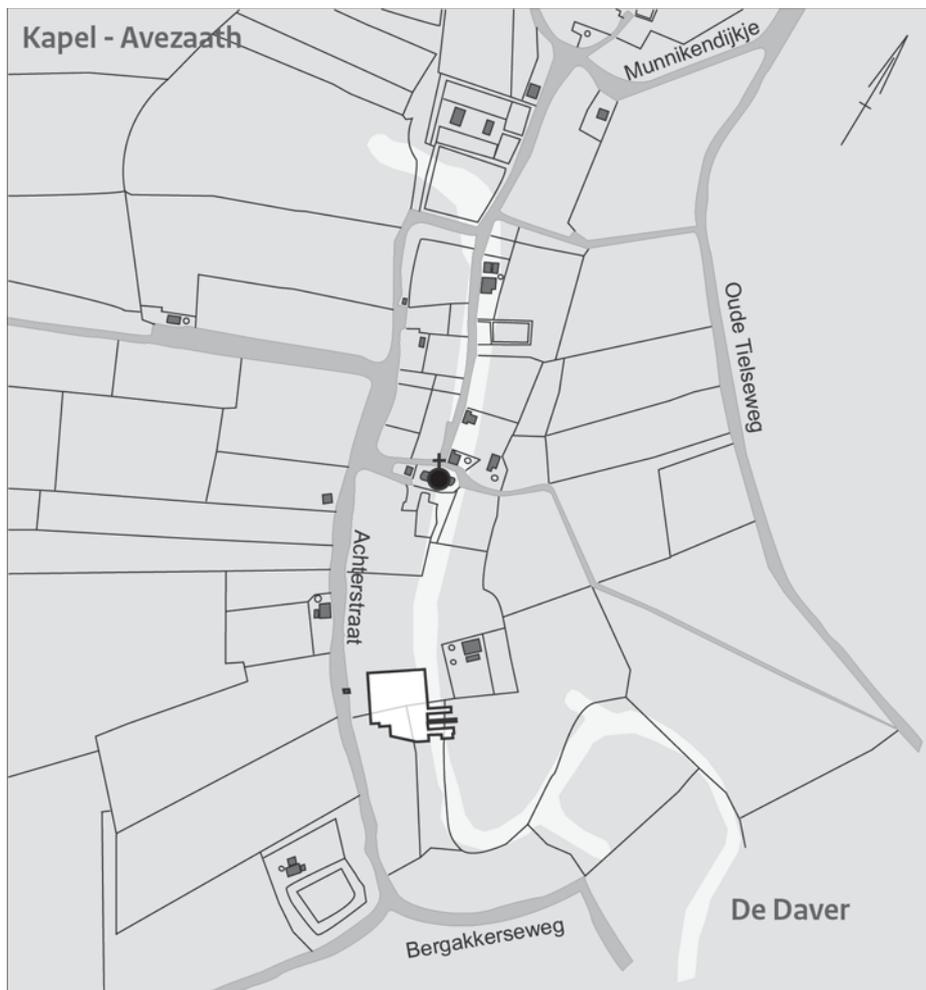


Figure II.9 The plan of the St. Lambert church in Kerk-Avezaath. The parts dating to the beginning of the eleventh century are displayed in black (Oudhof 2000, 334).



Excavated area Buren - 'Huis Malburg'

Sint-Lambert Church

0 250 m

Figure II.10 The location Huis Malburg in Kerk-Avezaath (Wientjes 2000, 80).

The area was resettled and the newly formed stream banks provided a safe location for settlement and a suitable area for agriculture. Grazing land and meadows were found at the adjacent floodplains.

The remains of the (late) Carolingian and Ottonian settlement were largely disturbed by later building activities. Although numerous features were found, no individual plans could be reconstructed. Remaining wattle and planks indicate that artificial stabilisation of the Daver banks were constructed as early as the first half of the tenth century, to create a mooring place for boats.<sup>59</sup> The Daver probably stayed navigable until the beginning of the twelfth century.

The high medieval settlement, or at least the part that was excavated, consisted of two neighbouring farmyards of similar composition and layout, neatly organised on one building line parallel to the Daver. Each farmyard consisted of

a main building, an outbuilding, a well, a vegetable garden and several simple granaries (figure II.11). Both farms were separated by an unpaved road.

The archaeological evidence indicates that both farms had an agricultural subsistence in a mixed farm and were largely self-supporting.

In addition, some evidence was found for crafts (linen making, spinning, iron and bone working). Judging from the scale of operation, this was probably a secondary source of income.

The settlement remained occupied until the second quarter of the thirteenth century. Oudhof suggests that after that the occupation was moved towards the church. This is attributed to a process of specialisation and commercialisation in agriculture which allowed for an increase in production.<sup>60</sup> This led to centralisation of habitation, as the necessary increase of arable land developed at the expense of dwelling places. In turn, this would provide opportunities

<sup>59</sup> Oudhof, Dijkstra & Verhoeven 2000, 48.  
<sup>60</sup> Oudhof, Dijkstra & Verhoeven 2000, 351-352.

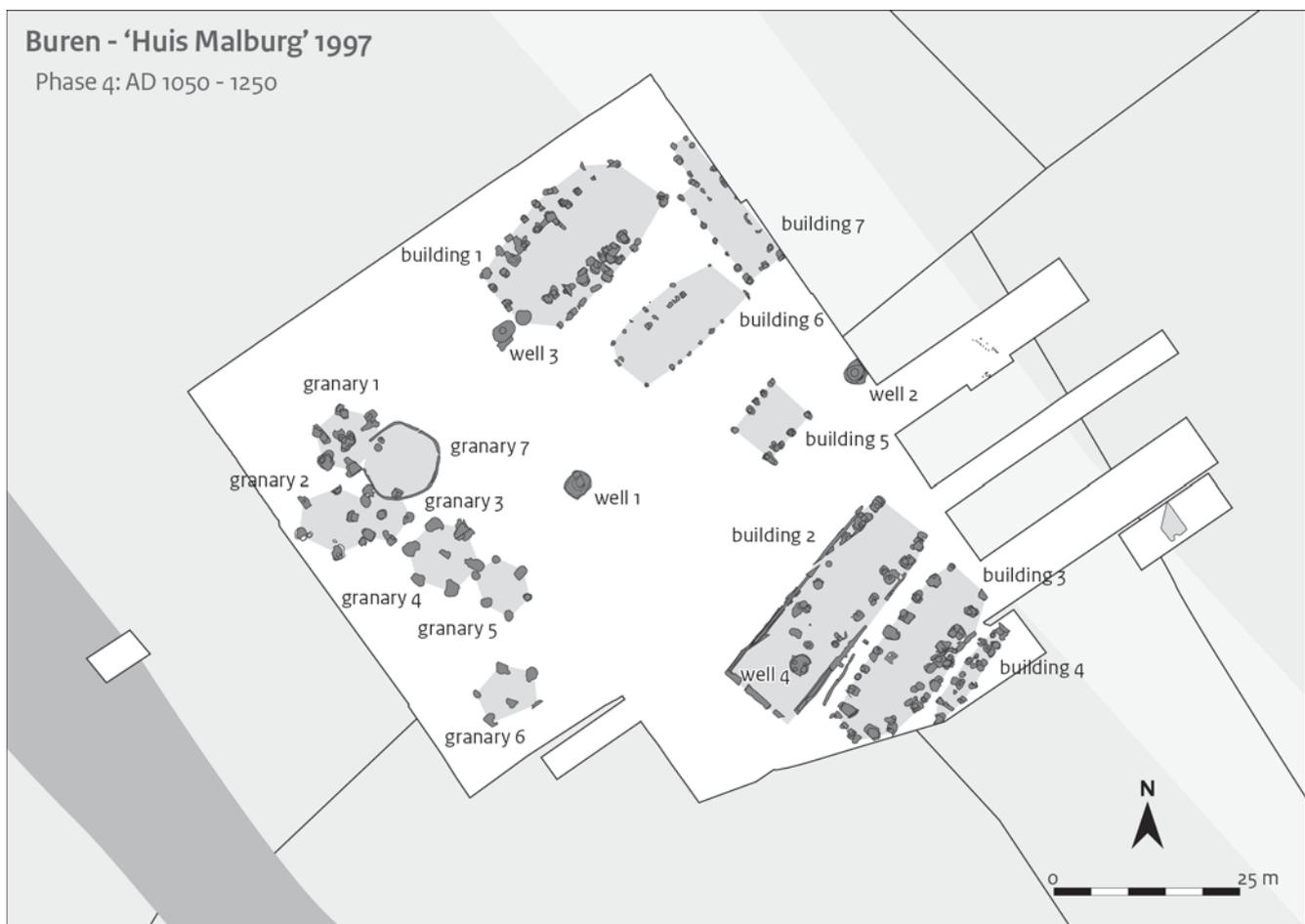


Fig II.11 Layout of the high medieval settlement remains at Huis Malburg (Oudhof *et al.* 2000, 49).

for the emergence of specialised craftsmen. Careful analysis by Wientjes showed that both farms at Huis Malburg were part of a manorial estate owned by Thorn abbey.<sup>61</sup> The northern farm was a direct part of this estate and was exploited as such. In order to cope with declining revenues, by 1234 the abbey started to explore different modes of exploitation, moving away from revenues in kind. In 1266 and 1267 the estate was let to lord Dirk van Heeswijk on long lease. Through inheritance it would come into the hands of the Van Bentheim family, the owners of (the new) Zoelen castle and ministeriales for the Duke of Guelders. The southern farm used to be property of the bailiff of the estate who exercised the worldly authority on behalf of the abbey.<sup>62</sup> This farm provided the income to support him. This office was held, at least in the second half of the thirteenth century, by the Van Soelen family. Independently, they held the old Zoelen castle (Aldenhaag) in fealty from the Duke of Guelders. At the end of the thirteenth century both fealties were combined. In the seventeenth century both parts of the excavation area were added to the property of a different estate, the Malburg manor.

#### **Stenen Kamer and Linge: 1998-1999**

The Betuweroute project would cover two more medieval sites near Kerk-Avezaath, Stenen Kamer and Linge. Although initially recorded as separate sites, over the course of the excavation it became clear both were part of one widespread settlement. This settlement could only be excavated partially, as motorway A15 had been constructed over it. The Stenen Kamer and Linge site was located east of the village centre at a distance of 1 km from the Huis Malburg site. The settlement is estimated to have covered 4.9 ha. In 1998 and 1999 excavations were carried out, covering an area of 0.9 ha. These were also supplemented by an extensive pedological and historical-geographical study.

The settlement was located at the northern bank of the river Linge, close to the town of Tiel. Three phases of habitation were found. During the Carolingian period and High Middle Ages it was the site of a rural settlement. Around the middle of the thirteenth century a brick tower house was constructed. This was succeeded in 1570 by a single farm.

#### *Phase 1 (ca. 850-1250) A rural settlement*

Findings indicate that people lived close to the excavated area as early as the Merovingian period.<sup>63</sup> During the second half of the eighth century the area was affected by extensive flooding. These would result in the formation of the crevasse Daver stream, southwest of the site. The earliest evidence for occupation at this site dates to the late Carolingian period (850-925). The settlement would have consisted of only one or two farms. Because later building activities disturbed much of their remains, little is known about their layout and composition. This also applies to the Ottonian period (900-1050), but evidence suggests a loosely organised settlement of a similar size to that of the previous period.

During the High Middle Ages (1050-1250) the terrain was more densely occupied and it is estimated that the number of farms increased to three. The gradual shift of the Linge to the east widened the riverbank and increased the available land suitable for settlement. This settlement seemed to have followed suit. The settlement was abandoned around the middle of the thirteenth century. The occupants were believed to have moved to the location of the village centre.<sup>64</sup>

Unfortunately, little historical information was found on this settlement. Wientjes suggested it might have belonged to an estate of the abbey of Prüm or that of St. Paul's Abbey in Utrecht, the successor of the Hohorst Abbey founded by Bishop Ansfried.<sup>65</sup> In that case it would have been the property of the Count of Teisterbant (as a fief from the king) prior to the donation. Verhoeven, on the other hand, suggested that the lack of records could also indicate that the settlement was part of an *allodium*.<sup>66</sup> A privately owned estate, without feudal ties, would best fit the situation in which the profound changes of an area left no records in the archives or in any of the major institutions. Moreover, the tower house that was subsequently built on this location was initially held as an *allodium*.

#### *Phase 2 (ca. 1275-1570) Tower house 'Huis Avezaath'*

Around 1259 the first attempts were made to dam up the river Linge and reclaim the stream valley. After some initial strife with authorities from Brabant, who held the *portus* Tiel, an agreement was reached in 1304.

<sup>61</sup> Wientjes 2000, 85-92. However, some caution is called for. The fact that Thorn abbey had landed property in Kerk-Avezaath does not mean that all the farms there were part of the estate. The identification of the two farms, as property of Thorn, is based on the seventeenth century tax register. These taxes were connected to the arable land, not the separate farms. By that time medieval farms were long abandoned. Wientjes suggests that the southern farm was part of the estate based on the tax date (the feast of St. Lambert).

<sup>62</sup> Wientjes 2000, 87.

<sup>63</sup> Verhoeven 2001, 609-639.

<sup>64</sup> Verhoeven 2001, 619.

<sup>65</sup> Wientjes 2001, 133-134.

<sup>66</sup> Verhoeven 2001, 615.

The terrain now protruded in the former river valley. During this period the area was reorganised and somewhere around 1275 a moated brick tower house was constructed.<sup>67</sup> Similarities in composition, layout and the dates of the various archaeological phases justify identification of the historically known Huis Avezaath (figure II.12). This castle was one of many strongholds in the borderland between Guelders, Brabant, Holland and Utrecht. Huis Avezaath is first mentioned in 1291 as the property of Hubert van Zoelen. He gave it to the Duke of Guelders and received it back in fealty. The moated house probably stood without outbuildings in the river valley. In 1296 it was destroyed by allies of the Count of Flanders.<sup>68</sup> Around 1325 a new brick tower house was built. It was given in fealty to Otto van Avezaath (Van Zoelen) together with tithes of newly reclaimed land (*Luttelveld* and *Nuwelant*) just west of Kerk-Avezaath and in the river foreland. In addition, ferry and passage rights were attached to this stronghold.<sup>69</sup> This illustrates its importance for securing the border with Brabant at Tiel or at least lay claim to the border area. After his victory in the battle of Tiel in 1361, Eduard of Gelre had House Avezaath demolished in retribution of Van Zoelens' support of his opponent and brother Reinald III. This is supported by archaeological evidence which shows that the castle burnt down around this period. The estate as a whole, on the other

hand, remained relatively intact. In the following decades the site remained barren. Prior to 1402, however, a simple farm was built here. Soon it was fortified when the Arkel War flared up again and Gelre became involved. By 1410 it once again saw a formidable stone house with thicker walls as before. In 1469 it was relieved from fealty. The building fell out of use around 1500 and was demolished.

#### Phase 3 (ca. 1570-1998) 'De Hamsche Kamer and Stenen Kamer' farm

Around 1570 a large farm named *De Hamse Kamer* was built on an artificial plateau east of the moat.<sup>70</sup> Following the regional tradition, it had a T-shape plan with a stone housing area and a timber stable. The main building was accompanied by two barns and a well. In addition, a new stone granary was constructed inside the moated terrain, possibly with a square annex. Next to it stood a small, separate tower for (conceivably) keeping pigeons. In the second quarter of the nineteenth century a large part of the farm was demolished. This reduction was necessary as a result of the longstanding agricultural crisis from 1817 onwards. From then on only the stone part of the house remained and the farm was renamed accordingly to *De Stenen Kamer*. Finally, it had to make room for the new railway track.

It remains unclear who built *De Hamse Kamer*. Around the start of the seventeenth century the

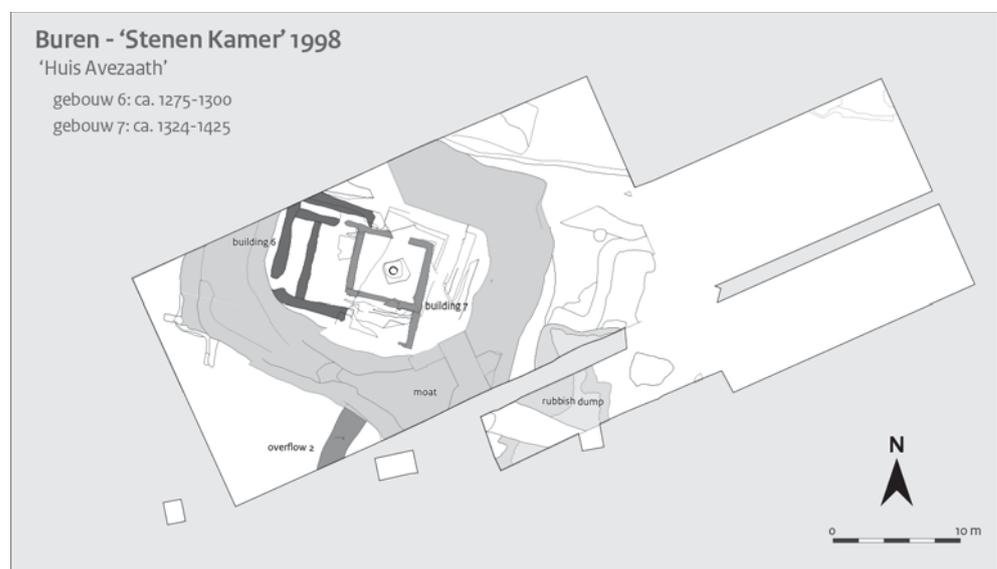


Figure II.12 Excavation plan of Huis Avezaath with remains dating up until 1425 (Verhoeven 2001, 103).

<sup>67</sup> Verhoeven 2001, 618-621.

<sup>68</sup> Wientjes 2001, 136 note 46.

<sup>69</sup> Ferry rights provided a monopoly on the exploitation of the ferries across the Linge, while passage rights granted the holder permission to charge travellers a fee in exchange for safe roads. The holder of these combined rights secured the crossing of the river at given points and received payment for it (Wientjes 2001, 138, note 57).

<sup>70</sup> Verhoeven 2001, 622-623.

farm was property of Johan van Buren who was married to a descendant of the *Van Avezaath* family.<sup>71</sup> It would subsequently be passed on to various families. In the seventeenth and eighteenth century De Hamse Kamer was one of the largest tenant farms in Zoelen and Avezaath.

#### **De Brede School: 2004**

In 2004 two trial trenches were excavated on a parcel of land in the centre of Kapel-Avezaath.<sup>72</sup> The occasion was the planned development and expansion of the village school. In the late seventies the local history club found a timber well at this site dating to the Carolingian period.<sup>73</sup>

The site was located on an older part of the stream ridge of the Linge. Historically, the plot was named *Hoge Hof*. This is thought to refer to a seat of the higher jurisdiction, a court of law where justice was administered by a representative of the Duke of Guelders (or Count of Teisterbant). Later, the plot was named *Poelzigt* after a nearby farm.

The trenches revealed settlement remains dating between the Carolingian period and Late Middle Ages. The earliest remains of habitation on the site dated to the end of the eighth and the beginning of the ninth century.<sup>74</sup> During this period the terrain was divided and marked with ditches. This layout was maintained until the end of the Late Middle Ages. Although some parts of the building plans were recognised, the extent of the trenches was, in general, too limited to allow for a detailed overview on the composition and layout of the settlement. Interestingly, in one of the ditches evidence was found that supported the notion that the settlement burned down somewhere during the fourteenth century (perhaps 1361).

#### **Muggenborch: 2008**

Prior to housing developments in the village centre of Kapel-Avezaath, an archaeological excavation was conducted. Although the site is named *Muggenborch* after the development project, the terrain was situated on a plot at the Zandweg (Zoelense straat), historically named *Richtershof*. This name is probably related to the Van Brakel family, who held positions as judges. The historical manor *Muggenborch* actually stood 150 m further west.

Stray finds indicate that the area was inhabited during the Roman and Carolingian period and the dwelling places lay close to the site.<sup>75</sup>

In the early thirteenth century a remarkably large house was built next to the main road.<sup>76</sup> The backyard was divided and marked out with ditches. Besides a well, no outhouses were found on the premises. Finds, including coins, fine tableware, equipment for reading and writing all indicate that the occupants held prominent positions. They probably belonged to the lower nobility or ministeriales.<sup>77</sup> The substantial amount of horse equipment and military items, including a lance head, supports the notion that it was the house of a man-at-arms, possibly a knight.

The occupation ended at the end of the thirteenth century and the house was demolished. Next, a large moat was dug on the west side of the premise. Most likely a new moated (tower?) house was built on the adjacent plot. Based on its age and similarities to the moated site of house *Muggenborch* (of which the location is known) this new house is thought to be house *Vliegenborch*. In that case the excavated house, which might have borne the same name, was probably its predecessor.

It is notable that there were (at least) three moated houses and manors in Kapel-Avezaath. These were probably (originally) held by the same family.<sup>78</sup> The chapel, which is first mentioned in the fourteenth century, was probably a private church founded by a local authority on his own estate. The excavated house reflects the carrier this family made and their prominent position in the village. In 1432 *Vlieghenborch* was listed as property of the Count of Culemborg. The Van Culemborgs descended from ministeriales from the Stift Utrecht. They had close ties with the Duke of Gelre and in 1452 the count was to be appointed governor (*ambtman*) of the Nederbetuwe.<sup>79</sup>

Interestingly, the end of this house coincides with the moment Huis Avezaath is destroyed for the first time.<sup>80</sup> The owner of *Vliegenborch* probably took part in this conflict as well, in one form or another, as it occurred at his doorstep. It is not unlikely that the end of this house, or the upgrade to a moated manor, was linked to this conflict. The rapid discarding of a wealth of material culture does fit such a scenario.

<sup>71</sup> Wientjes 2001, 143-146.

<sup>72</sup> Van Renswoude 2005.

<sup>73</sup> Hendriks 1986, 565.

<sup>74</sup> Van Renswoude 2005, 7.

<sup>75</sup> Van Renswoude 2011, 156.

<sup>76</sup> Van Renswoude 2011, 157-159.

<sup>77</sup> Van Renswoude 2011, 160.

<sup>78</sup> De Beaufort & Van den Berg 1968, 387. Van Renswoude mentions that both *Muggenborch* and *Vliegenborch* were held by the Van Culemborg family (Van Renswoude 2011, 160). De Beaufort and Van den Berg, however, state that only *Vliegenborch* was listed as such. *Muggenborch*, as well as *Aldenaaf*, belonged to the Dukes of Guelders in the early fifteenth century. The Van Culemborgs' held a piece of land named *Padepoel*, which is probably related to the later *Poelzigt* farm, although it is not known if this had a medieval predecessor.

<sup>79</sup> [www.geldersarchief.nl](http://www.geldersarchief.nl) regarding 'De Heeren en Graven van Culemborg'

<sup>80</sup> Wientjes 2001, 136, note 46.

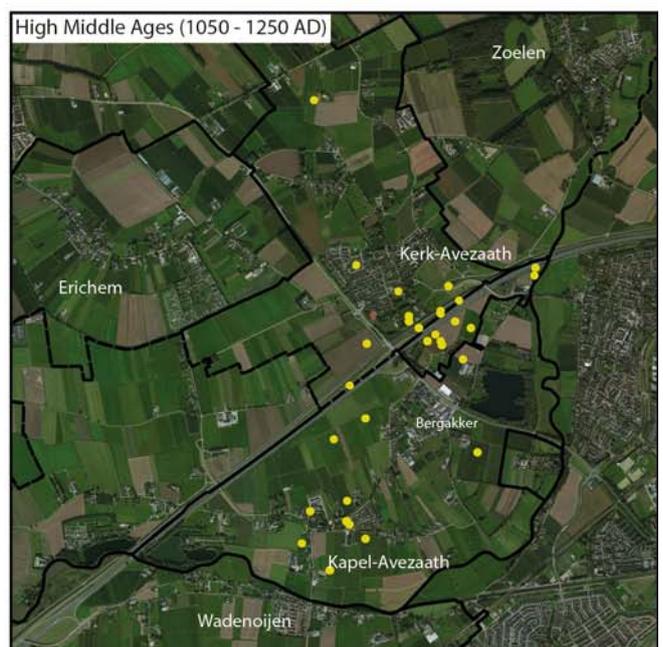
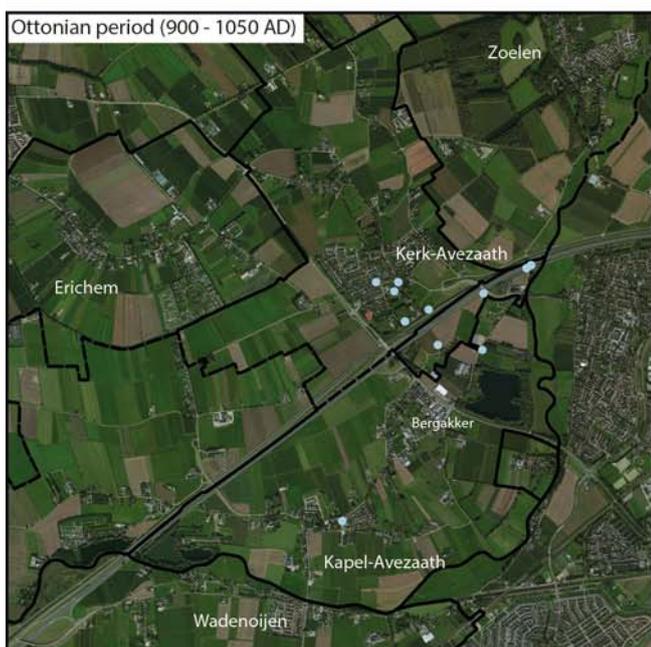
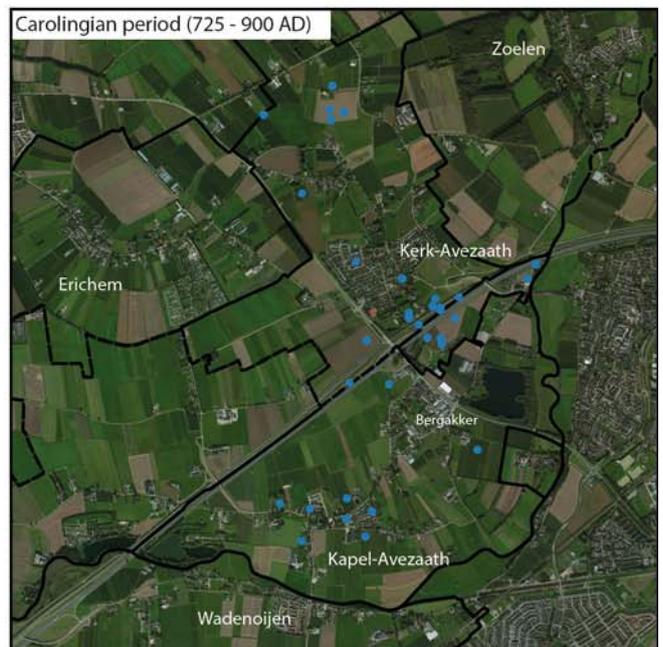
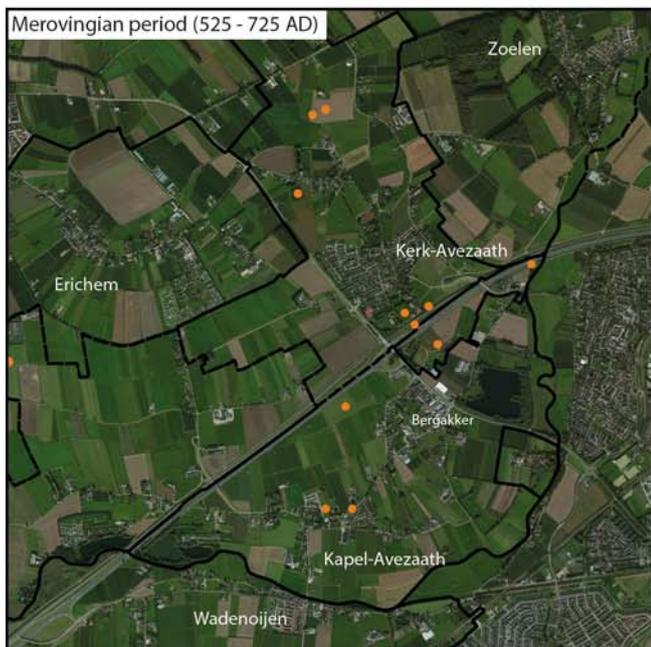
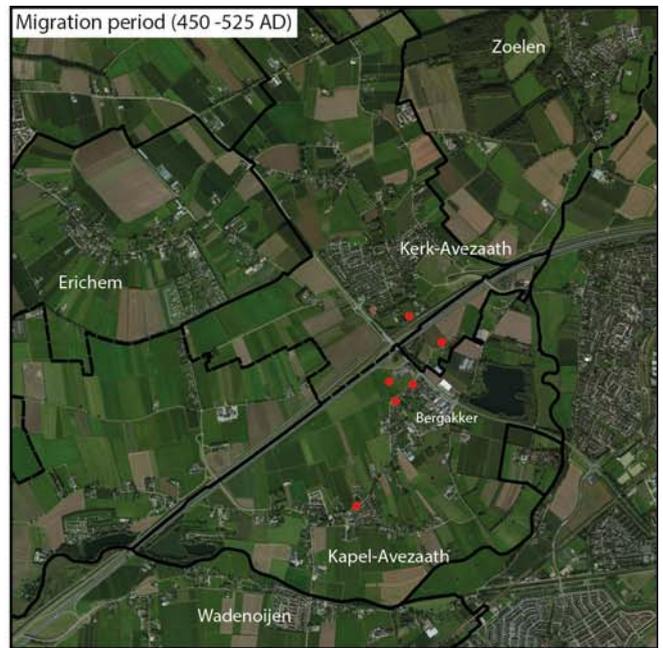


Figure II.13 Distribution of archaeological finds in the Avezaath area according to period.

However, Vliegenborch is not listed as property that was lost or demolished, though this could be related to its minor status.

### Additional finds and observations

In addition to these excavations, other findings and observations from the Avezaath area were used to gain a better understanding of the spatial development of the settlement over time (figure II.13). Although a find in a field does not automatically indicate the location of a farmyard, these finds can illustrate the general trends in the topography of occupation. From the reports, all the finds that were selected date between the Roman period and High Middle Ages, which could be dated within one or two archaeological periods. These finds were plotted on a map according to these periods. Since a large number of these reports are from metal detector finds, the distribution map will be biased towards the arable land due to public accessibility.

#### *Roman period*

Numerous objects dating to the Roman period were found throughout the Avezathen area (figure II.13).<sup>81</sup> Their distribution largely correlates with the (fossil) river banks. Although spread along the centre course of the main ridges, a distinct cluster is found on the north side of Bergakker.

#### *Merovingian period*

In stark contrast to the previous period, only a handful of objects can be attributed to the early Merovingian period. A single object was recorded on the east side of Kapel-Avezaath (east of the central plot) and Poelzigt farm (at the tapering side of the Den Eng). In Kerk-Avezaath objects were found south of the church. These were part of a cluster of finds located on the north side of Bergakker. Finds include a rune inscribed sword scabbard mount, which is considered to bear the oldest known Dutch sentence.<sup>82</sup>

The objects from the later Merovingian period show a slightly different distribution. Two finds were recorded near the centre of Kapel-Avezaath. In Bergakker no finds were recorded at the location of the previous cluster.

However, multiple objects were found in the adjacent area just south of Kerk-Avezaath. In addition, several objects were found at De Woerd.

#### *Carolingian period*

A significantly larger number of finds have been reported from the Carolingian period. Their distribution chiefly corresponds to, and expands from, the pattern from the previous period. In Kapel-Avezaath, Carolingian objects have been found scattered all over the village centre. In Kerk-Avezaath the reports once again cluster around the area, south of the village centre, and at the field of De Woerd.

Interestingly, only a limited number of objects from the Ottonian period have been found in the Avezaath area. Most of them came from the south side of Kerk-Avezaath. Besides the area south of the village, finds from this period were reported in the south side of the village centre itself, the area around the St. Lambert church. In Kapel-Avezaath distribution of finds from the Carolingian period is limited to a single object near Poelzigt farm.

#### *High Middle Ages*

Finds dating to the High Middle Ages were more frequently reported. They were found in the village centres of Kapel-Avezaath and Kerk-Avezaath and the area south of the latter. Additionally, objects from this period were more frequently found on the arable land between both villages.

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## II.6 Conclusions

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### II.6.1 Description of the settlement (500-1600)

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Following our conceptual framework we describe the settlement(s) from three parameters: its habitation (beginning, end and duration), its composition, and its layout. Although it used to be part of the Avezaath parish, Zoelen will only be discussed indirectly due to the limited information available.

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<sup>81</sup> Because of inconsistencies in the available dataset, no effort was made to quantify the finds.

<sup>82</sup> The scabbard mount, dating between 425-275, is engraved with runic writing in the Elder Futhark script (Bergakker inscription). Opinions on the reading of the text differ (Looijenga 1997; 2003; Mees 2002).

### Dating occupation (beginning, end and duration)

Judging from the finds, the area was well populated during the Roman period. Despite the substantial following decline, it was never completely abandoned and remained occupied throughout the Migration period. However, the main part of settlement was not located at the later village premises. Plural settlements, that is aggregations of two or more houses, were found outside the village centres up until the second quarter of the thirteenth century.<sup>83</sup>

In the historical centre<sup>84</sup> of Kerk-Avezaath itself, the earliest finds date back to the early Carolingian period. These only comprise of a small number of objects, as the main focus of the settlement still lay to the south. From the Ottonian period onwards the number of observations in the centre increases. This corresponds to the time the church was built. The settlement has been occupied ever since.

The earliest post-Roman finds in the historical centre of Kapel-Avezaath go back to the Merovingian period. Actual habitation can be confirmed by additional archaeological evidence from the late Carolingian period onwards.

### Composition

Because of the limited amount of excavations we only get a glimpse of the settlements in the Middle Ages, making it difficult to make any statements on their overall composition. In addition, most observations were done outside or on the edge of the historical village centres. As a result, we only have limited insight into the origins of the elements we know from the historical maps. Fortunately, the historical data provide some leads.

The settlement at Stenen Kamer and Linge was located outside the historical village centre. It consisted of approximately two or three farms grouped together in a small agglomeration. It was later replaced by a small tower house. During the Middle Ages and Early Modern period Avezaath had several known manors, tower houses and castles. The settlement at Huis Malburg laid on the edge of the Kerk-Avezaath, close to the church and was shared with its proprietor. The excavated part consisted of two farms. The church and

presbytery are the only known amenities of this village. The remains of artisanal activities found at Huis Malburg all share the same characteristics of part-time crafts and self-support.

The same applies to Kapel-Avezaath. The excavations here revealed a manorial house and occupation of an unknown nature. The village supported at least three manor houses at the same time. One of them (*Aldenaaf*) is thought to predate the others. A chapel was built in the Late Middle Ages.

In addition, the toponym *Hoge Hof* indicates the presence of a court of law or at least the residence of someone with judicial authority, as was the case for the later *Richtershof*. The historical reference that Count Waldger had a residence in Avezaath is intriguing in this context.<sup>85</sup>

Furthermore, there used to be a ferry across the Linge to Wanoijen, the rights to which were given to Otto van Zoelen in the second quarter of the fourteenth century. It was later replaced with a bridge. The nearby mill was probably first built in the Modern period, as it is not mentioned in the Medieval records.<sup>86</sup>

In the early nineteenth century the countryside was dotted with separate farms and manor houses. Between both the Avezaath and the hamlet, Bergakker had formed. An even smaller group of houses were found next to the arable fields of Den Eng.

From Kerk-Avezaath we know of no amenities, other than the church and presbytery. The remains of artisanal activities found here all bear the characteristics of part-time crafts or self-support. Because of the vicinity of Tiel, professional craftsmen most likely would have set up shop in this town. For the same reason it is unlikely that the village had its own market.

### Layout

As with the composition of the settlements, the information on their layout is also limited because of the few excavations. In general, the layout seems to have had a strong correlation with the geomorphology. Settlements, including the sites excavated, were located on fossilised stream banks and both villages took their elongated form from these (§11.4.5).

<sup>83</sup> Little information is available on the hamlet Bergakker. Despite the early medieval findings close by, the settlement is thought to be the product of later developments.

<sup>84</sup> Here, we regard the nineteenth century outline of the village its 'historical centre' because this is the form we know from the earliest maps. It also heavily determines our image of the village, as well as historical research and policy.

<sup>85</sup> De Beaufort & Van den Berg 1968, 387.

<sup>86</sup> A (medieval) mill could be an indicator of a manorial centre, especially when it was a thirlage.

Kapel-Avezaath was built on the levee of the Linge and Kerk-Avezaath on the west bank of the Daver. These levees were a naturally elevated platform which provided a dryer surface and served as protection from flooding. In addition, this platform was sometimes raised artificially.

The rural settlement at De Stenen Kamer and Linge consisted of two or three contemporary farms that were loosely grouped together. They roughly followed the contour of the stream bank, but no additional evidence for demarcation was found. In contrast, the settlement at Huis Malburg was well organised. The two farms had a similar size, composition and layout and were built right next to each other, separated by an unpaved road.

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## II.6.2 Settlement history of the Avezathen

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Next we will combine the available information from historical and historical-geographical sources with the archaeological data on the composition and layout of the settlements in the parish Avezaath, to compile a narrative on its chronological development and the formation of the villages of Kerk-Avezathen and Kapel-Avezathen.

### Merovingian period (450-750)

The area which would later become the parish of Avezaath was well populated during the Roman period and occupied most of the levee ridges. The population number dropped significantly during the late Roman period, but the area remained occupied. Finds indicate a (grouped?) settlement on the north side of Bergakker. A smaller settlement of a single farm was possibly located on the east side of Kapel-Avezaath. The name Avezaath, meaning Avo's house, may even have had its origin in this period. As far as there was a single settlement bearing this name, the cluster north of Bergakker is the most likely candidate.

During the later Merovingian period the settlement appears to have been moved northeast, to the area just south of Kerk-Avezaath. Additionally, a small settlement (possibly a single farm) was established next to

De Woerd on the north-west side. This could indicate that the rounded block of arable land already dates back to this period.<sup>87</sup> This early date is supported by the fact that it appears to have affected the course of the Daver stream as it bends off, just in front of the block.<sup>88</sup>

In addition, the aforementioned settlement and farm appears to be the origin of the settlement that develops here in the following period. In Kapel-Avezaath light occupation continues in the centre of the later village.

### Carolingian period (750-900)

This period started off with a dramatic breach of the northern river bank of the Linge, southeast from Kerk-Avezaath and the flooding of the hinterland. The incoming water washed away a number of farms as it created a crevasse stream. This stream (Daver) would become a major factor in the forming of Kerk-Avezaath, as it shaped the landscape and created the stream bank on which the village would subsequently develop.

The people in the area proved to be resilient; as soon as the water was under control the village was resettled. Moreover, the impact of the incident seems to have been limited to the directly affected area. The habitation outside the Daver area was not visibly influenced. In fact, judging from the finds, settlements expanded during this period.

At Kerk-Avezaath, the settlement at the south side was rebuilt and possibly even grew.

In addition, the first evidence for post-Roman activity within the historical centre appear.

To the north the settlement at *De Woerd* seems to persist and perhaps even grow.

The expansion of the settlement can be established for certain, as artefacts from the Carolingian period were found scattered all over the historical centre. Furthermore, a well was excavated at the *Hoge Hof* premises, confirming that these finds correlated to the actual settlement.<sup>89</sup>

Around this time we learn that Gerulf and his family became Count of Teisterbant and his son Waldger had a residence in Avezaath. If so, then based on further developments, Kapel-Avezaath is the most likely candidate for its location so far.

### High Middle ages (900-1250)

As far as the location and extent of the settlement goes, nothing much changed during

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<sup>87</sup> In Drenthe, similar *woerden* generally date to the late eighth or ninth century (Spek 2004, 679).

<sup>88</sup> The block itself is located on the levee ridge of the Avezaath meander belt.

<sup>89</sup> Hendriks 1986, 565.

this period – right until the end. That is not to say that nothing happened. The Gerulf clan was stripped of their title and possessions in Teisterbant after an unsuccessful uprising against the king (939) and were succeeded by the Bishop of Utrecht. Under their rule, Tiel would grow to become a prosperous international trading place and a prominent administrative centre.

Around the beginning of the tenth century, Kerk-Avezaath became the centre of the primal parish of Avezaath when a church was built. This was most likely an initiative by Bishop Ansfried, as the church was built on his estate. It is not clear why he had it built here rather than in the settlement of Kapel-Avezaath, where the counts had a residence.<sup>90</sup> It could have been motivated by the proximity to the population, as Kerk-Avezaath may have been the larger settlement. More likely it had to do with the preconceived donation to his abbey in Thorn, as is indicated by its dedication of the church to the patron saint of Liege. Kerk-Avezaath probably had favourable conditions to create a large manorial property. Judging from the later situation, Kapel-Avezaath may have already had some manorial houses to provide residence for the bishop's vassals. Additionally, Ansfried might have wanted to hold onto his residence (or had to) if his local representative lived here and needed the place to look after his affairs. This effectively resulted in a division in ownership and government between the two settlements. Kerk-Avezaath was now the property of Thorn abbey and governed by the priest who also acted as steward, under the protection of a local lord.<sup>91</sup> Kapel-Avezaath, on the other hand, was property of secular landholders. This would primarily be the count or bishop, but as we can see from his successor (the Duke of Guelders), some of this property was given in fealty or even as an allod to lesser lords. The Muggenborg site was probably the type of property with a knightly manor, likely the predecessor of house Vliegenborch.

One of the local lords was a member of the Van Soelen family. They started appearing in the records from the beginning of the thirteenth century holding various offices. Their status as local authorities probably dates back earlier, as their motte-and-bailey castle dates back to the eleventh century.

This difference in land ownership seems to have affected the spatial organisation of the settlements. The settlement at Stenen Kamer and Linge, likely an allod from the Van Soelen family, was an agglomerate of loosely grouped farms. In contrast, the settlement at Huis Malburg was tightly organised with farmyards with a similar layout laying neatly next to each other. This was owned and run by an ecclesiastical institute.

Interestingly, both settlements dissipate in the second quarter of the thirteenth century. It can be surmised that the people moved to the historical village centre. This forms a major break in the settlement development and is part of a general trend (see § 9.1.5).<sup>92</sup>

#### **Late Middle Ages and Early Modern period (1250-1600)**

With the (presumed) contraction of the historical village centres, the settlement disappears from our archaeological view, since the excavations were mainly carried out in the countryside. The lack of information from the villages themselves severely obscures their development and the subsequent dynamics.

The contraction of settlement seems to coincide with other major developments in the area. On a local level, for instance, profound changes occur in the ownership of real estate.<sup>93</sup> In the second half of the thirteenth century Thorn abbey starts letting out their farms on long lease. Through this process, property comes into the hands of local nobility. Although these families acted as local guardians for ecclesiastical properties before, this was from their position as ministeriales to their lord. Here, they became the private owners of these lands.

The nobles in question had their own houses in Zoelen. One of these families, Van Soelen, managed to obtain and bundle a certain amount of land and rights in the area and formalise their authority. From this time Zoelen starts to be referred to as *heerlijkheid* or seigneurie. In addition, Zoelen gets its own church and is separated from the parish of Avezaath. The economic and administrative focus shifted from Avezaath to Zoelen.

On a regional level, Tiel becomes increasingly difficult to access with large ships and falls into decline due to the severe sedimentation of the Linge. Its position as a stable trading hub is

<sup>90</sup> It is assumed that the manor held by Count Waldger in Kapel-Avezaath was passed on to the bishop, along with the rest of the holdings in Teisterbant.

<sup>91</sup> Wientjes 2000, 87.

<sup>92</sup> Oudhof 2000, 342. This trend is observed in the sandy areas in the Netherlands (Drenthe, Gelderland and Northern-Brabant), but there appears to be regional variation within these areas.

<sup>93</sup> Oudhof 2000, 341-342.

taken over by Zaltbommel and later Dordrecht which were situated further downstream of the Waal, closer to the river mouth.

Politically things get tense as neighbouring territories contest the area and internal power struggles create deep political rifts.<sup>94</sup> This is reflected in the construction of castles and their destruction in various conflicts (as was recorded in the excavation of Huis Avezaath), possibly including the knightly manor in Kapel-Avezaath.

### II.6.3 Explanation of the course of the settlement history and village formation

From our analysis we were able to reconstruct some of the developments of the settlements in the parish of Avezaath and piece together some of the context in which this took place. Next, we will focus on the formation of the villages of Kerk-Avezaath and Kapel-Avezaath and identify some of the key determining factors in the process.

#### Village formation

There are multiple answers to the questions of when and how the Avezaathen became villages, depending on the characteristics used to define them.

#### Historical reference as village

In the contract between Bishop Liudger from Utrecht and Balderik (dated to 850), *Avesaath* is referred to as a *villa*.<sup>95</sup> This could be translated as a village and it is assumed that it refers to a specific settlement. However, the various authors pointed to the difficulties of connecting the goods mentioned in the charters to a certain location, as well as identifying the multiple archaeological sites to the historical place name.<sup>96</sup> This is further complicated by the fact that we have two settlements (at least from the Late Middle Ages) with this name. The settlements themselves date back to (at least) the Carolingian period. It is possible that in the early period Avezaath referred to a *buurschap* rather than one specific settlement and that the name later was transferred to the parish.<sup>97</sup> From here the name would have come to identify the settlement around the church of which,

at a certain point, there were two. No additional data was available to indicate when the settlements were referred to as a village. Further investigation was outside the scope of this study.

#### Clustering of settlement

Nevertheless, judging from the archaeological finds the clustering of settlements probably occurred as early as the Migration period. This cluster was located on the north side of the later hamlet Bergakker and was probably of modest size.

In the Merovingian period it is moved to the northeast, to the area south of Kerk-Avezaath. In addition, we find the first indicators of habitation in Kapel-Avezaath, located in its centre. During the Carolingian period this develops into a small settlement cluster as well, correlating with the nineteenth century layout. The breach of the riverbank and the forming of the Daver would have undoubtedly made a severe impact on the settlement, south of Kerk-Avezaath, as is indicated by the evidence of flooding. Nevertheless, these people proved to be resilient and soon afterwards village occupation was restored. This break, however, could explain why Kapel-Avezaath is referred to as *Alde Avezaath* (Old Avezaath) at the beginning of the fifteenth century, rather than Kerk-Avezaath which, from an archaeological perspective, has a longer lineage.

Regarding the layout of the settlement(s) at Kerk-Avezaath in the High Middle Ages, it is unclear whether the houses at Huis Malburg were part of a block of continuous buildings up to the church or if they formed as a separate group at some distance. Since the farms were established shortly after the church was built and both were part of the same manorial estate, the first option is not unlikely. However, since there is over 0.3 km between them and no further evidence to support it, we cannot be sure. The settlement at Stenen Kamer and Linge was certainly a separate group of farms located at a distance of 1 km from the church.

Both settlements were abandoned around the second quarter of the thirteenth century. It is assumed the settlements were moved and concentrated around the church, or just north of it, judging from the cadastral map.<sup>98</sup>

<sup>94</sup> Oudhof *et al.* 2013, 132. In the thirteenth century Tiel and the surrounding area are a pawn in political ambitions of Brabant, Holland and Gelre. In the fourteenth century Gelre was the stage of an internal power struggle between Reginald III van Gelre and his brother Edward II, each abetted by one of the rivaling houses, Heeckeren and Bronkhorst, which flared up between 1350-1361 and would lead up to the War of the Gueldrian Succession (1371-1379) (Jappe Alberts 1978).

<sup>95</sup> Wientjes 2000, 81.

<sup>96</sup> Wientjes 2000, 83-84; Vermeulen 2011, 6.

<sup>97</sup> In general, however, landholdings in a neighbouring organisation was or would become less important in Tielervwaard and Nederbetuwe than large land ownership by rulers, gentry and institutions (Van Bavel 1999, 641).

<sup>98</sup> It is interesting to note that the distance from the church to the 'Huis Malburg' site is the same as the distance to the northern edge of the rectangular plot that defines the village centre. Perhaps this settlement was not so much clustered but rather had its layout mirrored.

This corresponds to a general trend that occurred in the Central Netherlands, as well as in the North and South parts of the Low Countries.

This spatial shift is explained as a manner, to expand the available area of arable land.<sup>99</sup> Since both settlements and fields were located on the fossil streambanks, moving the settlements would free up space for agricultural use. Verhoeven regards the expansion of arable land and village formation as part of a complex combination of political and socio-economic factors. From the lack of references in the archival record he concluded that it was not directly related to the developments of land ownership.

The expansion of arable land as the main motive for the shift of settlements, however, is problematic because after that the settlements remain located in the same part of the landscape.<sup>100</sup> This is unavoidable because in this fluvial landscape both need the stream ridges, either for their soil texture or elevated position. Although clustering the habitation would provide some extra space, the gains would be minimal. Moreover, later settlement expansions show that the availability of arable land was not critical.

Van Renswoude suggests that the shift of settlement was related to the development of a market economy. That was related to the expansion of individual farms, which enabled the farmers to produce a surplus for the nearby market in Tiel.<sup>101</sup> The problem was that Tiel had fallen into decline and if the market economy was the prime motive and the expansion of arable land a prerequisite to benefit from it, one would expect the contraction to have happened during the eleventh century, when Tiel was thriving. Moreover, in a manorial organisation peasants would also be able to take part in trade. From the fact that the change in settlement structure was part of a general trend, which occurred in a relatively short time span, it can be assumed that in this period conditions were met which made this development possible and beneficial. These were most likely a complex combination of political and socio-economic factors. For example, innovations in agriculture could lead to an increase in population. A change in property relations or exploitation would then allow or even stimulate people to pursue a craft.

The emergence of an early market economy and monetisation allowed for further specialisation and trade. Since these craftsmen were no longer bound to the land, they would benefit from cohabitation. So would the authorities who would profit from the levies. The rise of local authority then stimulated a local administration. A combination like this could lead to centralisation. The amenities of such a settlement would also be attractive for the inhabitants who still made their living through farming, which could also be a pull factor. Interestingly, the settlement at Kapel-Avezaath was not the product of thirteenth century relocation, but appears to have existed in roughly the same area from the Carolingian period onwards.

A more in-depth study is required to find out how these individual factors developed and were interrelated. It is to be expected that the details differ significantly on a local level, but general trends would be recognised.

#### *Founding a church*

Kerk-Avezaath was the centre of the primal parish Avezaath, which comprised of both the Avezaath and Zoelen. The parish church was founded around the beginning of the eleventh century. Its dedication to St. Lambert, patron saint of Liege, and its donation to Thorn abbey soon after completion indicated that it was purposely built as part of a manorial estate. This was to serve as a *beneficium* to the abbey that was founded by the same person, Count Ansfried of Teisterbant, Bishop of Utrecht. This explains why the main church was not established near the count's residence in Kapel-Avezaath, since he intended to keep it.<sup>102</sup> His representative most likely lived here. It also served as a local administration. Unfortunately, too little of the settlement was excavated to see how the building of the church affected the development of the settlement. What could be determined was that the farms at Huis Malburg were established shortly after the construction of the church and that the settlement appeared highly organised and standardised. This could be seen as evidence for institutional organisation. No major developments were seen in the settlement at Stenen Kamer and Linge.

<sup>99</sup> Verhoeven 2001, 619.

<sup>100</sup> This is in contrast to the southern parts of the Netherlands, where the settlements were moved to parts that were less favourable for agriculture.

<sup>101</sup> Van Renswoude 2011, 160.

<sup>102</sup> This assumes the count's court that Waldger had here was still in use by Ansfried.

There is insufficient data available to assess the impact of the building of the chapel in Kapel-Avezaath on the spatial development of this settlement.

#### *Establishing amenities*

Little is known about possible amenities in the Avezaath, besides the church and chapel. The toponyms Hoge Hof and Richtershof could refer to a judge living in Kapel-Avezaath. But in combination with an early ninth century reference to a residence of the count of Teisterbant in *Avesæt*, and contemporary finds from the specific plot, it could also suggest that the court was located here. This would also explain the relatively high number of medieval manors located in this settlement. In addition, we know the place had a ferry across the Linge to Wanoijen to which the rights were given to the local noble Van Soelen.

Findings from both excavations in Kerk-Avezaath suggests that in the High Middle Ages, the crafts that were conducted at the farms mainly served the needs of its occupants and were not professed as a major trade. Craftsmen would most likely set up shop in neighbouring Tiel. Not only because this trading place prospered in this period, but it is likely that it would have the exclusive rights to such trade. This is illustrated by the fact that only inhabitants from Tiel (and some tradesmen from allied towns) were allowed to sell goods upstream. In addition, Tiel might have already had some guilds that regulated the profession. The division of the town in different quarters according to the major trades and industries supports this notion, although it is uncertain whether these guilds would already have the power to monopolise the market or whether they just promoted their common interest.<sup>103</sup>

#### **Formation processes**

From the previously discussed developments of both Kerk-Avezaath and Kapel-Avezaath we now need to identify the key processes that led to the formation of these particular villages. These will provide the archaeological indicators with which we will test whether the same processes were responsible for the formation of other villages in the region.

#### *Geography*

The geography of the river area is not so much a process that led to the forming of villages, but rather its characteristics determined the way in which their layout developed. In a fluvial landscape only the elevated, sandy stream ridge provided the conditions suitable for habitation and agriculture. Because of the shape of these fossil ridges, settlements (especially the larger ones) developed in a linear fashion. Usually the houses were built along or perpendicular to one main road which runs along the ridge and one or two parallel roads. This results in settlements with a typical layout, historically classified as elongated villages.

#### *Political and administrative processes*

Although lacking definitive evidence, it can be assumed that Kapel-Avezaath developed around a residence of the counts of Teisterbant which served as an administrative centre and judicial court for the surrounding territories. This is based on the combination of archival references, toponyms and archaeological findings, and is indirectly supported by the surprisingly large number of manors clustering in this small village. One of these was likely a knightly estate, indicating that these moated houses could be the residences of the count's vassals or representatives.

It is likely that this centre of secular authority continued to function as an administrative centre up until the Late Middle Ages. By this time the Dukes of Guelders have holdings here, as do their vassals, the Lords of Culemborg. However, from the second half of the thirteenth century the local gentry is strengthening their position and becoming a local authority, gathering rights and territory. Since they are based in Zoelen, the economic and administrative focus shifts from Avezaath to Zoelen.

It is difficult to isolate archaeological indicators for an administrative centre, especially because most of the sources on this are written and so far only one manor has been excavated. Therefore, we can only describe some general indicators which are related to the architecture and the status of the people involved. As we are looking at a feudal system, these will be

<sup>103</sup> Oudhof, Verhoeven & Schuurung 2013, 122.

intertwined. It has to be taken into account that the role and status and their material expression will have evolved significantly between 800-1600.

An administrative centre or judicial court would be the residence of an authority or his representative. At this level we are looking at ministeriales and lower nobility.<sup>104</sup> Such a residence was probably larger than the average farm to accommodate more people. It would stand out from the agricultural architecture and mostly likely be a castle, tower or manor house, although it is unclear how they would have looked in the Carolingian and Ottonian period. Agricultural and non-agricultural architecture developed and diverged over time. Following the general development of the noble house, in the later Middle Ages the residence would have (at least) a moat, bridge and gate.<sup>105</sup> In addition, its status could be reflected in the building materials used and it is likely we see early applications of brick in these houses.

Indicators:

- Size, composition and layout
- Non-agricultural architecture
- Building materials used
- Moat, bridge and gate

An administrative centre and judicial court are related to accounting and bookkeeping. These implements, however, are not exclusive for these institutions. Moreover, due to their fragile nature, written records and archives leave little archaeological remains, though writing equipment and book bindings could survive in the soil. Since it would involve frequent financial transactions, a larger number of coins might be found.

Indicators:

- Writing equipment (styli, ink wells)
- Seal matrices or wax seals
- Book bindings and clasps
- Coins

The prominent position of the people involved would be reflected in the material culture. Firstly, they would have used more valuable foods and materials, some of which might even be strictly reserved for them such as certain types of game. Secondly, their social role would

have required these people to fulfil certain positions, to take part in certain activities and to maintain a certain lifestyle. These could be things like riding, hunting, and military service. It is expected that this is reflected in the material culture. In addition, in an administrative centre you could expect a larger number of higher-status figures to be present.

Indicators:

- Valuable goods
- Valuable and exclusive foods
- Material culture that is typical for social class of the people involved
- A clustering of prominent people

*Founding of a church*

The founding of the St. Lambert Church around the start of the eleventh century was an important moment in the formation of Kerk-Avezaath, although its impact is difficult to pinpoint as it was tied in with the creation of a manorial estate that would serve as a *beneficium* to the abbey of Thorn. Nevertheless, the archaeological evidence suggests that the accompanying rural settlement was established (shortly) after the construction of the church. Indicating that the church prompted additional habitation. Moreover, judging from separate finds and the later location of the settlement, the church would dictate the direction of the spatial development and become the focal point of habitation.

The situation is different for the chapel in Kapel-Avezaath, as it was founded fairly late in an already established settlement. Although it would cater for the religious needs of its population, it did not determine the course of the development of the settlement.

Indicators:

- Church

*Property*

The development of Kerk-Avezaath was closely related to its role as a manorial estate of Thorn abbey. On the one hand, this is illustrated by the fact that the different elements of the estate that were studied (the church and the rural settlement at Huis Malburg) were established around the same time. On the other hand, it is reflected in the structured and uniform nature of

<sup>104</sup> The residence of Count Waldger was one of many and he probably only used it occasionally, leaving the daily affairs to his representative.

<sup>105</sup> Janse 2009, 124-126.

the settlement at Huis Malburg. This differed markedly from the settlement at Stenen Kamer and Linge, which was probably owned as an allod by the local Lord Van Zoelen. The layout of this settlement was less organised and there was a greater variety between individual farms. It also differed from the land ownership in Kapel-Avezaath. The presence of multiple manor houses suggests that in the later Middle Ages these lands were organised in manorial estates as well. However, these were owned or held in fief by higher ranking, secular lords, like the Duke of Guelders and the Lords of Culemborg. This might go back to regal property tied to the office of the counts of Teisterbant. Although there were probably significant differences in property relations between both villages, which might even have affected the structure of the settlement in the end, these had little effect on the layout of the nineteenth century villages. This is presumably due to the later developments and the limits the geography poses to the spatial development of settlements in this region.

Indicators:

- Uniform versus diverse farm(yard)
- Well-structured versus disorganised settlement
- Manor house
- Granary

*Relocation and clustering*

An important development in the formation of Kerk-Avezaath appears to be the relocation of farms and small settlements around the second

quarter of the thirteenth century. The settlements Huis Malburg and Stenen Kamer and Linge were situated in the countryside, among the arable fields. It is thought that their inhabitants moved to the emerging village centre. This led to a clustering of habitation in the area. Unfortunately, this could not be corroborated due to a lack of data from the village centre.

Although the precise nature of and motives for this relocation are not fully understood, it is a defining development in the formation of villages and settlement in the village territory.

Indicators:

- Disappearing settlements outside the later village area combined with an increase of houses inside the area within the same period of time

*Proximity to a town*

The proximity to a prosperous trading hub like Tiel would definitely have affected the development of the surrounding settlements. Although, it did not appear to have affected the clustering of habitation and the formation of villages. However, judging from the apparent absence of craftsmen and markets, it was likely a determining factor in the development of the amenities of these villages or lack thereof.

Indicators:

- Close proximity to a town
- Lack of professional artisans
- Lack of trading facilities



## Archaeological region 4: Brabant sandy area

### III.1 Introduction

Someren is located in the southeastern part of the province of Noord-Brabant (figure III.1), on the cover sand plains of the Roer Valley Graben.<sup>1</sup> The linear village is situated in a dry valley in-between two cover sand ridges on which the arable field complexes can be found. The village comprises of several (parallel) main roads along the valley with closely spaced houses, as well as some settlement clusters at the crossroads and triangular squares.

Following the twofold approach of our research, this case study is aimed at assessing the development of a village primarily using archaeological data.

### III.2 Dataset

#### III.2.1 Regional settlement model

In 2011 a settlement model for the Southern Netherlands was presented by Theuws in a book on the Brabandic fields.<sup>2</sup> This model originates from studies conducted as part of the Campine region project, a collaboration both Amsterdam Universities (UvA and VU) and the Cultural Heritage Agency formed in 1980 for archaeological research of this region. Over time Theuws published several synthesising studies as part of this project and subsequent excavations.<sup>3</sup> The 2011 publication collates these separate detailed studies in a general model.



Figure III.01 Someren in the Netherlands.

#### III.2.2 Overview of available local archaeological and historical data

With respect to the archaeological data, results of large scale excavations are available (figure III.2). Some of these main results include the following:

1. Data from the Someren-Waterdael I excavation (1990-1992), with isolated farmsteads from the High Middle Ages.<sup>4</sup>
2. Data from the Someren-Waterdael II excavation (1992-1993, 1995-1998), comprising isolated farmsteads from the Early and High Middle Ages and a settlement cluster which existed during the Early and High Middle Ages.<sup>5</sup>
3. The Someren-Hoge excavation that Akkers conducted in 1993-1995, 1997, 1999 and 2003 which revealed a settlement cluster (a hamlet) from the High Middle Ages.<sup>6</sup>
4. The Someren-Waterdael III excavation performed in 2006-2008 with another part of the settlement cluster of Waterdael II, two other large settlement clusters from the Early and High Middle Ages and several smaller settlement clusters from the High Middle Ages.<sup>7</sup>
5. The Someren-Witvrouwenbergweg site, conducted in 1990 and 1991 by the (then) Cultural Heritage Agency.<sup>8</sup>
6. The SMR-III excavation performed in 1992, which revealed a farmstead from the High Middle Ages.<sup>9</sup>
7. The Someren-Ter Hofstadlaan excavation conducted in 2007, which revealed parts of farmsteads from the High Middle Ages.<sup>10</sup>
8. A farmstead surrounded by a moat excavated in 2011-2013 at the Someren-Acaciaweg site.<sup>11</sup>

The historical data are dispersed in books and articles. What is also important to note are the two studies solely devoted to Someren, one from Welvaarts and one from Coenen.<sup>12</sup>

Published charters are available from the book written by Camps.<sup>13</sup> Relevant articles are written by Frenken, Leurs, Smulders and Welvaarts.<sup>14</sup> Unpublished written sources are available too.

<sup>1</sup> The Roer Valley Graben, a geological graben, is a depressed block of land bordered by parallel faults that was filled up during the Weichselian glaciation by eolic depositions of cover sands (Mulder *et al.* 2003; Schokker 2003).

<sup>2</sup> Theuws 2011, 60-77.

<sup>3</sup> Theuws 1989; 2008; 2011.

<sup>4</sup> Schabbink 1996; Hiddink & De Boer 2011.

<sup>5</sup> Schabbink 1996; Hakvoort 1999; Van Renswoude 2002; Hiddink & De Boer 2011.

<sup>6</sup> Schabbink 1996; Hiddink & De Boer 2011.

<sup>7</sup> De Boer & Hiddink 2012.

<sup>8</sup> Verwers 1999; Van Renswoude 2002; Hiddink & De Boer 2011.

<sup>9</sup> Hiddink & De Boer 2011.

<sup>10</sup> De Boer & Hiddink 2009.

<sup>11</sup> Hoogendijk & Hiddink 2015.

<sup>12</sup> Welvaarts 1892a; Coenen 2001.

<sup>13</sup> Camps 1979.

<sup>14</sup> Frenken 1931-32; Leurs 1923; Smulders 1962; Welvaarts 1892b.



Figure III.2 Overview of main excavations in the former arable land east of the historical village centre of Someren (Hoogendijk & Hiddink 2015, 2).

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### III.3 Regional settlement model

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Theuws provides us with a model for the development of rural settlement, burial and landscape between 500 and 1830 AD, from the first colonist after the Romans to the earliest comprehensive cadastral survey.

He emphasises that this model relates to the settlement pattern only and that the social, economic and ideological aspects are still to be studied.<sup>15</sup>

Theuws' model focuses on the Campine region, the area southwest of the city of Eindhoven, but draws on data from a wider area and is being used in the entire Brabant sand area (AR4).<sup>16</sup>

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#### III.3.1 Habitational history

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Towards the end of the Roman period the population in the Brabant region had declined to a virtual absence. Some small settlements were built around the start of the fifth century, but they did not last. In the Campine region it took until the end of the sixth century before new settlers presented themselves.

In the meantime the landscape recovered from the human presence in the previous period(s) resulting in the re-emergence of extensive woodlands. On the relatively higher cover sand ridges oak-and-beech forests or oak-and-birch forests developed. These lands were relatively fertile, as far as sandy landscapes go, and were chosen by the first settlers to establish their dwellings and fields.

##### Ca. 575-650

The new settlements had a diffuse nature consisting of individual farms that lay with their fields dispersed over the wooded ridges or plateaus. Occasionally clusters of two or three farms might have existed, but these clusters did not last. The extent of the settlements as a whole was probably related to these geographical entities. The farms were periodically moved into the woods on these ridges, presumably as part of clearing activities and the creation of new fields. It's unclear if this was done as part of a shifting cultivation or an expansion of arable land.

Over time the existing fields had a stabilising effect on the settlements. The community of these dispersed settlement shared a burial ground, probably in a central location, but outside the dwelling and field area.

##### Ca. 650-725

In the second half of the Merovingian period, larger clustered settlements emerge in the centre of the higher ridges or plateaus. These settlements consist of between four and eight houses arranged around a central space or square. On some of these farmyards burials occurred. These are perceived as founder graves, a symbolic claim of the dwelling place.<sup>17</sup> It is thought that these clustered settlements emerged in association with an influx of new settlers. These newcomers seemed to have had a certain prestige, possibly through ties with aristocratic groups in the Moselle valley and the Middle Rhine area. Their presence and the emergence of these larger settlements might be related to the rise of manorial landholding. At the same time the communal burial grounds stayed in use until the beginning of the eighth century. It's not clear if the dispersed settlements stayed in use during this period or if they were integrated in the larger settlements, but it is assumed. The arable land is now in permanent use.

##### Ca. 725-850

Although the larger settlements stay in use during this period the size decreases and the structured topography is abandoned. An increasing(?) number of dispersed settlements consisting of individual farms or small groups occupy the landscape, periodically shifting in the vicinity of the arable land. These fields were extended during this period. The location of the burial grounds is uncertain, but certainly outside the dwelling area and possibly near one of the early churches.

##### Ca. 850/875-950

During the late ninth century and first half of the tenth century the population in the Campine region seems to have faced another (dramatic) decline.<sup>18</sup> The dispersed settlements disappear and the clustered settlements contract. The habitation remained present at these locations but consisted of no more than one or two farmsteads. It is thought that this continuity

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<sup>15</sup> Theuws 2011, 60.

<sup>16</sup> Theuws does note, however, that the developments in the western part of Brabant take a somewhat different course from the eastern part due to the relation to the Scheldt valley region (Theuws 2011, 60).

<sup>17</sup> Theuws 1991, 206-209.

<sup>18</sup> Theuws 2011, 66-67.

is related to the development of large estates and manorial organisations. The location of the burial grounds is unknown.

#### **Ca. 950-1100**

From the second half of the tenth century some demographic recovery can be seen. Settlements grew, but generally remained small. New farm-houses were constructed in a different style. Apart from the existing settlements, new dispersed farms were built, indicating new reclamations. During the eleventh century this demographic growth continued and sometimes new small clusters of farms emerged. The reclamations would have included the arable land that was abandoned in the previous period. It is uncertain to what extent these were undertaken within the old power relations and whether the former estate holders, like the Carolingian abbeyes, were able to maintain their control over these areas in particular, since this process of recovery correlates with a shift in social relations on a regional and local level. In this period a new local elite emerges and the first recognisable aristocratic (moated) settlements were constructed. Perhaps some of these new reclamations were *allodia*, freehold estates to which the landowner had full ownership. These could be former stewards who managed to withdraw from the distant authorities and rise to power. At the same time, new authorities emerged in the region like the bishops of Liege and Cologne and the earls of Rode, Loon and Leuven. Next, the church as an institution becomes an increasingly important element in society. The churches of important centres were built during this period and new burial grounds were established next to them. Although some of the churches were founded by the bishop(s), many here were established on manorial estates. These were soon incorporated in the newly established parish organisation.

#### **Ca. 1100-1200**

The twelfth century saw a huge expansion of the arable land through an upsurge in reclamations. Many of them may be initiated by new monastic institutions. The larger cover sand plateaus were most likely fully cultivated by this time and now the smaller ridges were being cleared, as well as parts of the lower lying areas and brook valleys.

In the periphery of the dwelling areas isolated farms were established. The location of existing settlements generally remained unchanged, situated on the higher parts of the cover sand ridges, although in some places the first signs of shifting settlements could be asserted. The dwellings of (some of) the local aristocracy were extended with moats, enforcing their social status. Often churches were established at these sites.

#### **Ca. 1175-1250**

During this period the Campine region was incorporated in The Duchy of Brabant. The political influence of the local authorities declined rapidly as the duke rose to central power. He founded the first cities in the region and bestowed borough rights to certain places as part of his territorial strategy. This meant more autonomy for the local people. Much of the land of the former landholders was transferred to newly established monasteries, which were coerced into ducal control.

Most farms were still situated within the arable fields around the last quarter of the twelfth century. During the first half of the thirteenth century a remarkable change occurred: within a short time span the settlements were shifted to the outside of the arable lands, close to the meadows. The exact reasons are unclear, but it might have to do with the changes in farming practice in which production was tuned to the emerging urban trades and industries within an early market economy.

#### **Ca. 1250-1350**

This transformation marked the beginning of a period of economic growth and prosperity. This is expressed in the building of large gothic churches. The origin of this wealth might be found in the intensification of agriculture by using plaggen fertilisation, as is indicated by the thick man-made plough soils that were formed from this moment onward. Other sources might be the production of wool and iron(ore). Trade is actively stimulated by the duke, by bestowing borough rights and the rights to hold markets. In some places these settlements clustered around these newly established market places and became fixed in the landscape.

### Ca. 1350-1500

The settlement pattern became largely fixed by the second half of the fourteenth century. Although small developments still occurred as part of the regular habitational dynamics, the general settlement pattern saw no more structural changes. Big developments however did take place on the arable land, where large open fields were formed with increasingly thick man-made soils.

### III.3.2 Village formation 800-1600

In regard to village formation, Theuws elaborated on larger settlements in one of his earlier publications.<sup>19</sup> In his model he did not classify settlements by their shape or structure, but rather based on their position within the settlement system. This was predominantly determined by administrative, religious and economic aspects, the latter becoming an increasingly important factor at a later stage with the emergence of the early market economy. Theuws describes the development of the larger settlements in terms of manorial and ecclesiastical organisation. He presumes that the primary parish centres originated from the Carolingian manorial centres. The local elite resided here and governed their (lords) estates from here. On a regional scale, the estates became administrative and economical centres and after the founding of a church, they also became the focal point for devotion for the surrounding population. As such, these places could grow into large settlements.

With the development of the ecclesiastical administration these centres were incorporated in the parish structure. After the manorial organisation fell apart, during the thirteenth and fourteenth century, this parish structure would succeed it and further develop into a hierarchical system consisting of primary and secondary centres that functioned as centres to smaller hamlets and single farmsteads (*Einzelhöfe*). The continuing presence of this administration provided the stability needed for a fixed dwelling. After the decline of the local aristocracy this stability could be provided by the church, although this facility alone was not often sufficient enough to withhold the settlement from being shifted from the arable fields.

The presence of secondary facilities probably only led to the fixation of a settlement in combination with its location in the landscape.

### III.4 Historical sources

In the early nineteenth century Someren is a mostly linear village in between two elongated arable field complexes. The village comprises of several (parallel) main roads along the valley with closely spaced houses, as well as some settlement clusters at the crossroads and triangular squares. To the north of the village, the medieval church stands separately in the arable fields (figure III.3).

At Someren at least two settlements existed, named *curtes*, according to written sources during the High Middle Ages. They are mentioned in 1244.<sup>20</sup> A church was present in this period too. It is mentioned for the first time in 1228 as *ecclesia de Sumeren*.<sup>21</sup> Coenen shows a lot of buildings present, 47 specimens, dating between 1300 and 1500 at Someren and Lierop (figure III.4).<sup>22</sup>

It concerns farmsteads, castles, a church, chapels and mills. Some of the farmsteads were owned by the priory (later abbey) of Postel.

The farmsteads owned by Postel are also mentioned by Welvaarts.<sup>23</sup> Coenen assumes that the four farmsteads of Postel originally came from the abbey of Binderen.<sup>24</sup> Binderen had previously received the farmsteads from empress Maria of Brabant during the thirteenth century.<sup>25</sup> Two of these were the two aforementioned *curtes*. In the seventeenth century two of the four farmsteads had a large area of arable fields, the farmsteads called (according to Welvaarts) *De Hofstad* and *Ten Rode*.<sup>26</sup> *De Hofstad* had 63 *lopense*, *Ten Rode* 84 *lopense*.<sup>27</sup> One *lopense* is equal to 0.15-0.17 hectare.<sup>28</sup> So *De Hofstad* had 10.08 hectare fields, *Ten Rode* had 13.44 hectares, counting one *lopense* as 0.16 hectare. Maybe these two farmsteads are the two *curtes* from the thirteenth century, because *curtes* are large farmsteads. All of the farmsteads, which Coenen mentioned concerning Someren, are located outside the habitation areas of the Early and High Middle Ages excavated.

<sup>19</sup> Theuws 1989, 100-108 and 180-187.

<sup>20</sup> Camps 1979, 200.

<sup>21</sup> Camps 1979, 146.

<sup>22</sup> Coenen 2001, 64.

<sup>23</sup> Welvaarts 1892a.

<sup>24</sup> Coenen 2001, 78-79.

<sup>25</sup> Camps 1979.

<sup>26</sup> Welvaarts 1892a, 99-102.

<sup>27</sup> Welvaarts 1892a, 100-101.

<sup>28</sup> <http://www.meertens.knaw.nl/mgw/maat/254>.

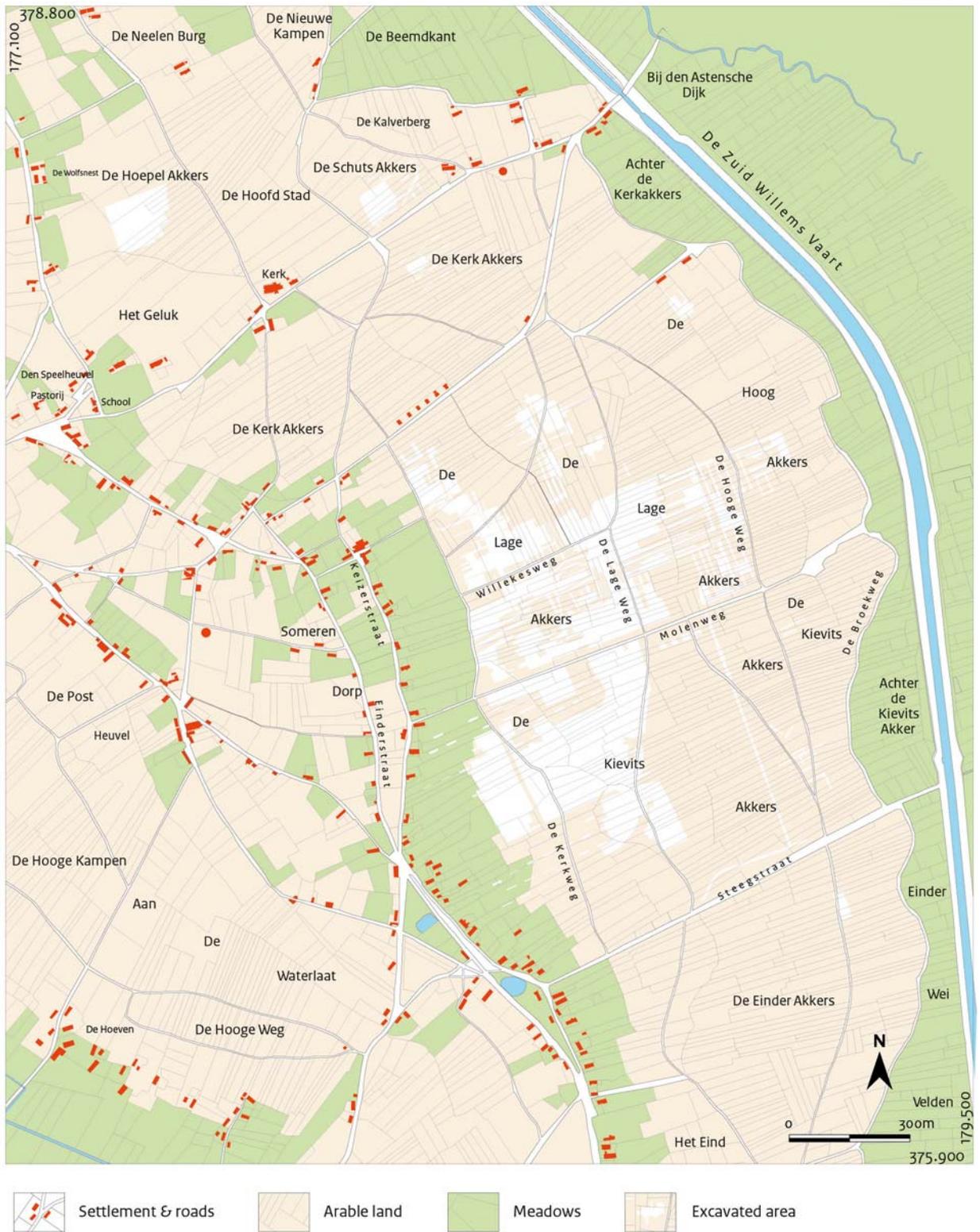


Figure III.3 Someren on Cadastral plan 1832 (Hoogendijk and Hiddink 2015, 14).

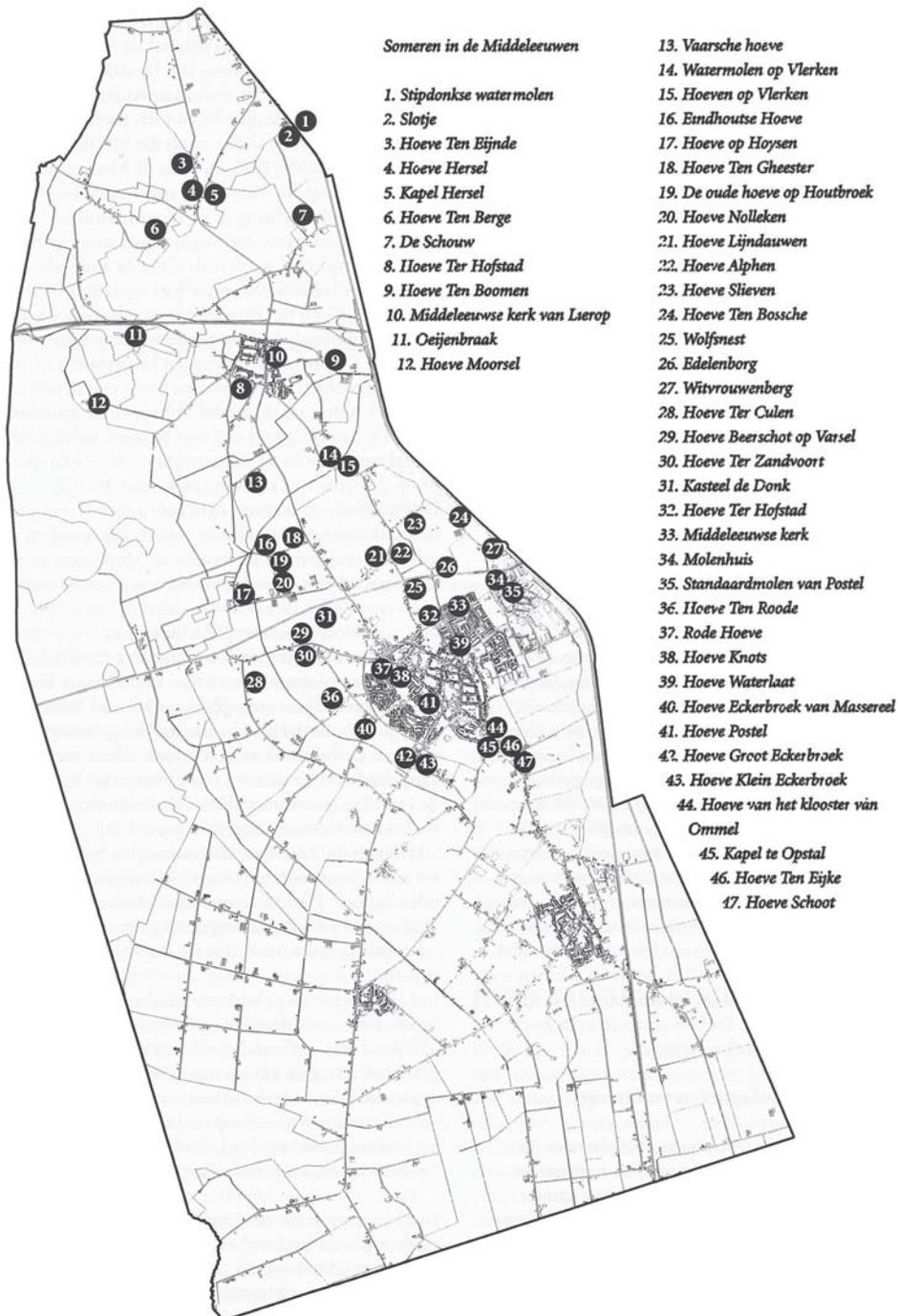


Figure III.4 Map with the present-day village of Someren and Lierop with buildings known from written sources, 1300-1500 AD (Coenen 2001).

## III.5 Archaeological observations

### III.5.1 Composition, beginning-end and duration of habitation

In accordance with the theoretical framework we have put together all excavated settlements from Someren on three parameters: the dating, the duration and the composition (table III.1), based on the available data.<sup>29</sup> Especially, the composition of settlements will be discussed to show the difference between single farms and (small) multiple farm groups. Some excavations referred to in this section are not published in detail. All data on building plans, composition and layout of farmyards and the dating evidence of farmsteads and farmyards have been critically evaluated. Sometimes farmyards have been reconstructed and sometimes farmsteads have been redated. The layout of settlement clusters is discussed in below, together with the diachronic settlement patterns. The selected settlements date between 600 and 1250 AD. The time between 600 and 800 AD we need as temporal context to the period between 800 and 1600 AD.

Thirty-one settlement clusters are excavated at Someren from the Middle Ages (table III.1 and figures III.5, III.6, III.7 and III.8). Three chronological groups could be discerned.

The first one dates to the Early Middle Ages, the second one to the Early and High Middle Ages and the third to only the High Middle Ages. The group which dates to the Early Middle Ages consists of one settlement cluster with a single farm (Someren 7), excavated at Someren-Waterdael III and one with multiple farms (Someren 30), excavated at Someren-Waterdael II. The first mentioned cluster dates between 750 and 900 AD, the second between 600 and 800 AD (table III.1 and figure III.5).

The group dating from the Early and High Middle Ages consist of four settlement clusters, each consisting of multiple farms. A possible, single farm was in use at the same time.

The first cluster (Someren 1) extends over two excavations and consists of multiple contemporary farms (table III.1 and figure III.5). At Someren-Waterdael III four farmsteads were

excavated and belonged to this settlement cluster. At least nine other farmsteads were excavated at the neighbouring site Someren-Waterdael II.<sup>30</sup> The settlement cluster has not completely been excavated, but one could assume it existed at least between 650 and 1050 or 1250.<sup>31</sup> The second cluster, Someren 2, is completely excavated. It consists of eleven farmsteads (table III.1 and figure III.5). There were problems with the precise dating of the farmsteads.<sup>32</sup> Despite this, one could assume that several of the farmsteads existed at the same time, so one could speak of settlement cluster with multiple farms. The date of these farms ranged between 700 and 1225, although some farms were abandoned earlier.

The settlement cluster as a whole existed for about 400 to 525 years.

The third settlement cluster, Someren 3, was established around 850 or 900 and was in use until c. 1100 AD (figure III.5). It comprised of four contemporary farms.

The fourth settlement cluster, Someren 29, was found at Someren-Witvrouwenbergweg (table III.1 and figure III.5). The cluster was inhabited from the late Merovingian period onwards and lasted at least till 1100. The site has not been analysed or published in detail.

The precise amount of simultaneous inhabited farmyards, at all of these four settlement clusters, could be established when one looks at the development of each cluster every other 25 years.

A fifth possible settlement cluster from the Early and High Middle Ages could have existed at the Someren-Acaciaweg site. It existed between 850 and 1100. It had at least one farmstead (table III.1 and figure III.8).

The settlement clusters from the central Middle Ages consist of thirteen sites with multiple contemporary farms. They are excavated at Someren-Waterdael I, II, III and Hoge Akkers. In addition, 11 separately situated single farms were found. A settlement cluster containing a 'herdsman cottage' could also be indicated. It has an unknown date but on typological grounds it probably dates to the High Middle Ages. The cluster with multiple farms are Someren 4, 5, 6, 9, 10, 11, 12, 13, 14, 20, 21, 23 and 24 (table III.1 and figure III.5).

Someren 20 is by far the largest settlement cluster with multiple farms. It consisted of five

<sup>29</sup> Huijbers *in prep.*

<sup>30</sup> This is a minimum estimate, as the excavations are still awaiting detailed analysis.

<sup>31</sup> 1250 when one assumes that a farmstead dating 1125-1250 belonged to the cluster too. In that case there might have been a hiatus between 1050 and 1125.

<sup>32</sup> De Boer & Hiddink 2012.

**Table III.1 Settlement clusters excavated in Someren, 1990-2013, sorted by composition, beginning-end and duration of existence.**

Site	Settlement (subsite)	Excavated completely	Composition of settlement	Number of farmsteads	Begin (yr AD)	End (yr AD)	Duration (yrs)
Someren-Waterdael II	Someren 1	No	Multiple contemporary tofts (other part excavated in Someren-Waterdael III)	At least 9 farmsteads at Someren-Waterdael II (at least 13 in total)	650	1050/(1125-)1250	400-600
Someren-Waterdael III	Someren 1	No	Multiple contemporary tofts (other part excavated in Someren-Waterdael II)	4 farmsteads at Someren-Waterdael III (at least 13 in total): • farmstead 30: 700-900? • farmstead 31: 675-1000 • farmstead 32: 850-950 • farmstead 33: 700-?)	650	1050/(1125-)1250	400-600
Someren-Waterdael III	Someren 2	Yes	Multiple contemporary tofts	11 farmsteads: • farmstead 21: (abc): 700?-1000? • farmstead 22 (ab): 900/1000-1100 of 900/1000-1200/1225 • farmstead 23 (ab): 750-1050 • farmstead 42 (ab): 850-1075 • farmstead 24: (a): ? (no finds) • farmstead 43 (ab): ? (no finds) • farmstead 25: (a): ? (no finds; 1000-1100?) • farmstead 26 (a) : 900-1000 • farmstead 27: (ab): 750-1100/1150? • farmstead 28: (ab): 1000-1100? • farmstead 29: (a): 1000-1100/1125	700	1100/1150/1200/1225	400-525
Someren Waterdael III	Someren 3	Yes	Multiple contemporary tofts	4 farmsteads: • farmstead 17: 900-1100 • farmstead 18: ? (na 850?) • farmstead 19: 900-1100 • farmstead 20: High Middle Ages	850/900	1100	200-250
Someren-Waterdael III	Someren 4	Yes	Settlement with multiple farmsteads	2 farmsteads: • farmstead 15: 1075-1175 • farmstead 16: 1075-1175	1075	1175	100
Someren-Waterdael III	Someren 5	Yes	Multiple contemporary tofts	3 farmsteads: • farmstead 13: 1000-1100? (no finds) • farmstead 14: beginning or end c. 1100 • farmstead 43b: 1075-1125/1150/1175	1000	1125/1150/1175	125-175
Someren-Waterdael III	Someren 6 (part of Someren-Waterdael II)	No	Multiple contemporary tofts (incl. Someren 6)	1 farmstead: • farmstead 3 <1100-1150>	<1100	1150>	50?
Someren-Waterdael III	Someren 7	Yes	Single farm	1 farmstead: • farmstead 4: 750-900	750	900	150
Someren-Waterdael III	Someren 8	No	Single farm	1 farmstead: cottage (?), High Middle Ages	High Middle Ages	High Middle Ages	?
Someren-Waterdael III	Someren 9	No (other part in Someren-Waterdael II)	Multiple contemporary tofts; part of larger settlement cluster (other part excavated at Someren-Waterdael II)	2 farmsteads: • farmstead 1: 1150-1225 • farmstead 2: 1100-1200	1100 in Someren-Waterdael III	1225 in Someren-Waterdael III	125 in Someren-Waterdael III
Someren-Waterdael II	Someren 9	No (other part in Someren-Waterdael III)	Multiple contemporary tofts; part of larger settlement cluster (other part excavated at Someren-Waterdael III)	1-2 farmsteads (two buildings excavated), building 106 (1200-1250) and building 121 (1150-1175/1200)	1150 in Someren-Waterdael II	1250 in Someren-Waterdael II	100 in Someren-Waterdael II

Site	Settlement (subsite)	Excavated completely	Composition of settlement	Number of farmsteads	Begin (yr AD)	End (yr AD)	Duration (yrs)
Someren-Waterdael III	Someren 10	No	Settlement with multiple farmsteads; could be part of a larger time-space entity	3 farmsteads: • farmstead 6: 1100-1200? • farmstead 7: ?-1125/1175 • farmstead 8: 1150/1175-1225/1250	1100?	1225/1250	125-150?
Someren-Waterdael III	Someren 11	Yes?	Multiple contemporary tofts; part of larger settlement cluster	2 farmsteads: • farmstead 9: 1100-1200 • farmstead 10: 1100-1150/1200	1100	1200	100
Someren-Waterdael III	Someren 12	Yes?	Multiple contemporary tofts	2 farmsteads : • farmstead 11: 1100-1150/1200 • farmstead 12: 1075-1175	1075	1175/1200	100-125
Someren-Waterdael III	Someren 13	Yes	Multiple contemporary tofts	3 farmsteads: • farmstead 34: 1100-1250 • farmstead 36: 1100-1250 • farmstead 37: 1050-1150?	1050	1250	200
Someren-Waterdael III	Someren 14	No	Multiple contemporary tofts	4 farmsteads: • farmstead 35: 1150-1250 • farmstead 38: 1150-1225 • farmstead 39: 1100-1200 • farmstead 40: 1100-1200 • farmstead 41: ?-1175/1200	1100?	1250	150?
Someren-Acaciaweg	Someren 15	No	Successive single farms	1 farmstead: • farmstead 1: 1085/1105-1225/1250	1085/1105	1225/1250	140/145
Someren-Acaciaweg	Someren 16	No	Successive single farms?	1-2 farmsteads: • farmstead 2: 850-950 • farmstead 3: 1050-1100	850	1100	250
Someren-Ter Hofstadlaan	Someren 17	No	Single farm?	1 farmstead: • farmstead 1: 1150-1225	1150	1225	75
Someren-Ter Hofstadlaan	Someren 18	No	Single farm?	1 farmstead: farmstead 2: 1125-1175	1125	1175	50
Someren-Ter Hofstadlaan	Someren 19	No	Single farmd?	1 farmstead: farmstead 3: 1150-1225	1150	1225	75
Someren-Hoge Akkers	Someren 20	Yes?	Multiple contemporary tofts	5 farmsteads: • farmstead A: 1000/1050-1175/1200 • farmstead C: 1050/1125-1175/1200 • farmstead E: 1125/1150-1175 • farmstead F: 1125/1150-1190 • farmstead G: 1125/1150-1225	1000/1050	1225	175-225
Someren-Waterdael II	Someren 21	Yes	Multiple contemporary tofts	2 farmsteads: • farmstead J: 1125/1150-1175 • farmstead K: 1125/1150-1175/1190	1125	1175/1190	50-65
Someren-Waterdael II	Someren 22	Yes	Single farm	1 farmstead • farmstead H: 1175-1225	1175	1225	50
Someren-Waterdael II	Someren 23	Yes?	Multiple contemporary tofts	at least 2 farmsteads • farmstead I: 1175-1225 • farmstead N: 1200-1225/1240	1175	1225/1240	50-65
Someren-Waterdael II	Someren 24	Yes?	Multiple contemporary tofts?	at least 2 farmsteads • farmstead Z: 1125-1200 • farmstead CC: 1100-1200	1100	1200	100
Someren-Waterdael I	Someren 25	No	Single farm?	at least 1 farmstead: • farmstead D: 1125/1150-1175/1200	1125/1150	1175/1200	25-75
Someren-Waterdael I	Someren 27	No	Single farm?	at least 1 farmstead: • farmstead P: 1200-1240	1200	1240	40
SMR-III	Someren 28	No	Single farm?	at least 1 farmstead: • farmstead X: 1125/1150-1250	1125/1150	1250	100-125

Site	Settlement (subsite)	Excavated completely	Composition of settlement	Number of farmsteads	Begin (yr AD)	End (yr AD)	Duration (yrs)
Someren-Witvrouwenbergweg	Someren 29	No	Multiple contemporary tofts	At least 5 farmsteads: • (no detailed chronological information available)	650?	1100	450?
Someren-Waterdael II	Someren 30	Yes?	Multiple contemporary tofts	3 farmsteads: • 2 farmsteads 600-750 • 1 farmstead 750-800	600	800	200
Someren-waterdael I	Someren 31	No	Single farm?	At least 1 farmstead: • farmstead M: 1125/1150-1190	1125/1150	1190	40-65
Someren-Waterdael I	Someren 32	No	Single farm?	At least 1 farmstead: • farmstead L: High Middle Ages	High Middle Ages	High Middle Ages	?

contemporary farmsteads. The other settlement clusters had fewer farmsteads. Several of them certainly comprised of a couple of farmsteads. Of the sites with single farms, the extent of only one is certain (Someren 22), excavated at Someren-Waterdael I. The others are not fully excavated. Some of them are excavated at Someren-Waterdael I (Someren 26, 27, 28, 31, 32), some at Someren-Ter Hofstadlaan (table III.1 and figure III.6, Someren 17, 18 and 19) and at Someren-Acaciaweg (figure III.7, Someren 16). The uncertain farmsteads could have belonged to settlement clusters with multiple farms. Someren 15 might have been an elite settlement, but one with agrarian characteristics, because of its similarities with buildings on farmyards (figure III.8, Someren 15). The elite character is indicated by a moat surrounding the farmstead and the size of the buildings, which is much larger than the average size of buildings on farmyards.<sup>33</sup>

### III.5.2 Chronological groups of settlement clusters according to duration of existence and composition

Based on a recently developed method of description by Huijbers, the settlement clusters of Someren could be fit into types of settlement according to duration of existence and composition.<sup>34</sup> Huijbers considers 25-200 years of existence as 'short', 200-400 as 'medium' and 400 (or more) as 'long'. When comparing the clusters on the parameters of duration of existence and composition, the settlement clusters from Someren could be grouped into four types:

- **Type A** multiple farms having a long duration of existence, 400 years or more;
- **Type B** multiple farms with a medium duration of existence;
- **Type C** multiple farms with a short duration of existence. Most of the time it concerns settlements with small clusters and they appear in the High Middle Ages;
- **Type D** separate, single farms, with a short existence. This type appears in both the Early and High Middle Ages.

## III.6 Conclusions

### III.6.1 Settlement history of Someren

#### Early Middle Ages (500-900 AD)

The settlement pattern of the Early Middle Ages consists of settlement clusters with single farms and with multiple farms. Some of these existed during the Early Middle Ages only whilst others lasted into the High Middle Ages (figure III.5). At the early medieval settlements we observe a tight layout and the constituting buildings are aligned with two axes. One of these axes is aligned with the length direction of the cover sand ridge on which the settlement clusters are located, the other axis is aligned with the width direction of the ridge. Within the wider settlement a central open space can be observed amidst the clusters 1, 2 and 30; perhaps a village green? This square pattern possibly has something to do with the alignment of roads, of which no traces are left. Apart from the excavated settlements at Someren, it is probable that more settlement clusters existed in the

<sup>33</sup> On the average size of buildings on farmsteads, see Huijbers 2007, 87-207.

<sup>34</sup> Huijbers *in prep.*



Figure III.5 Plan with settlement clusters on the sites Someren-Waterdael I, II, III, Someren-Hoge Akkers, Someren-SMR-III and Someren-Witvrouwenbergweg of the Early and High Middle Ages. Blue: habitation 600-1000, Green: habitation 1000-1250 (De Boer and Hiddink 2012, plate 6).

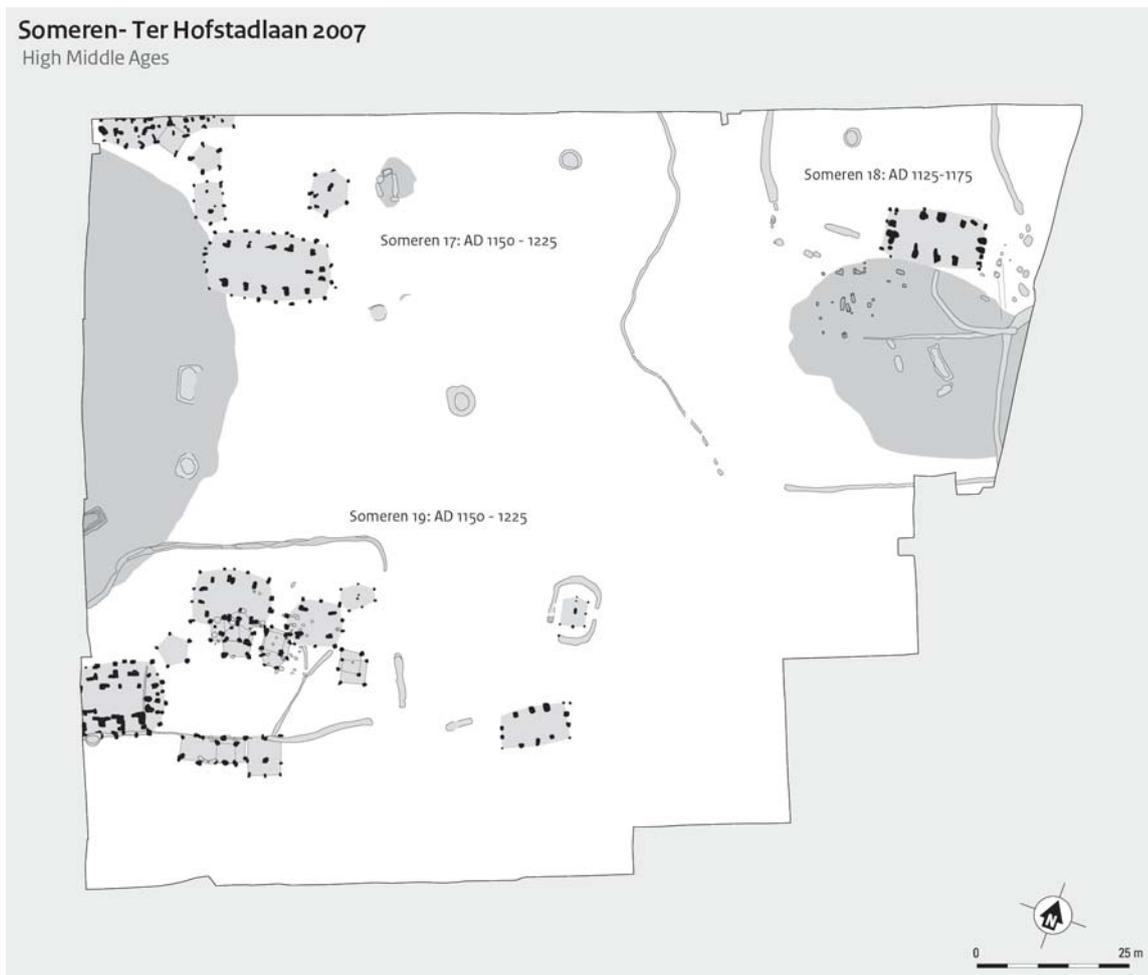


Figure III.6 Settlement clusters (Someren 17, 18 and 19) at Someren-Ter Hofstadlaan (De Boer and Hiddink 2009, figure 6.1).

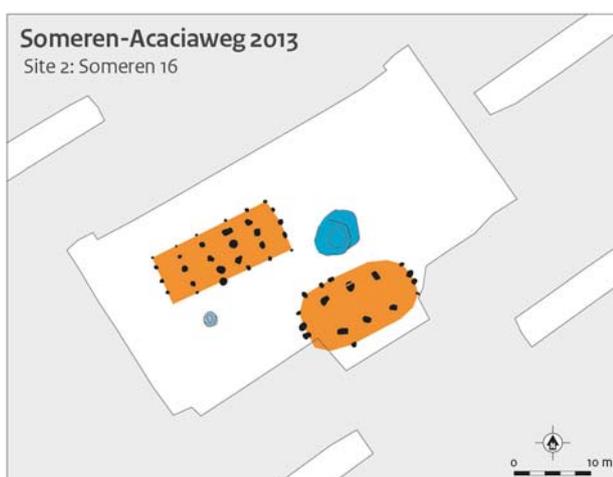


Figure III.8 Settlement cluster (Someren 16) at Someren-Acaciaweg site (Hoogendijk and Hiddink 2015, 22).

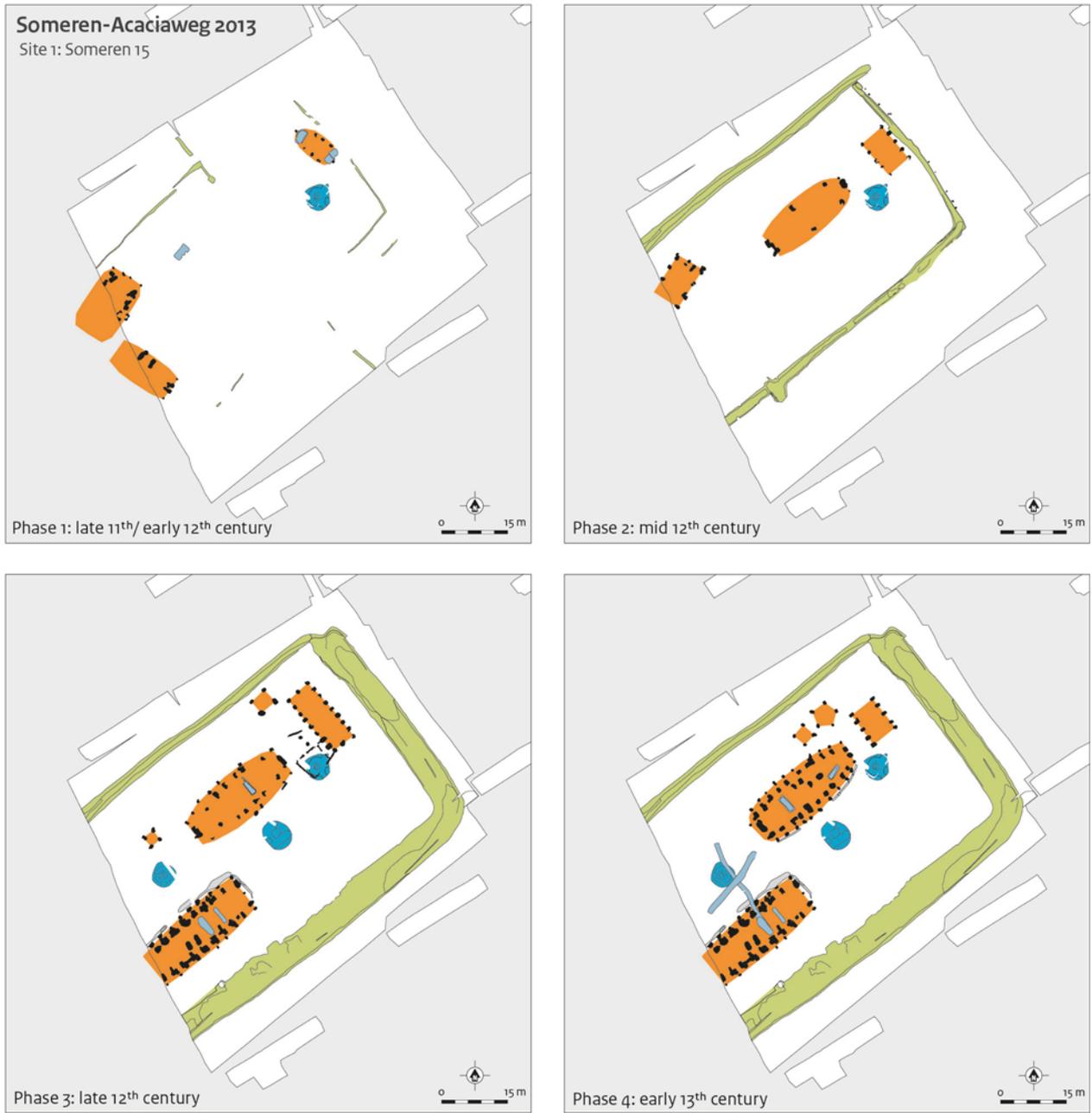


Figure III.7 Moated site (Someren 15) at Someren-Acaciaweg (Hoogendijk and Hiddink 2015, 42-45).

Early Middle Ages. In particular, there might have been one near the location of the medieval church. The cover sand ridge east of the present-day village on the nineteenth century cadastral map might have included several settlement clusters with multiple farms in time, like Schabbink predicted earlier.<sup>35</sup> On the cover sand ridges west of the present-day village, clusters with multiple farms dating to the Early Middle Ages could have been present too. In one of these clusters a church was established in the High Middle Ages and it is important to answer the question as to why here. The settlement clusters of the Early Middle Ages must have been aligned with the roads, but hardly any clues could be pointed at in this respect.

#### High Middle Ages (900-1250 AD)

For certain, at least a part of the excavated roads and ditches at Someren-Waterdael I, II, III and Someren-Hoge Akkers must have had an origin in the High Middle Ages, because some of them are located precisely next to a number of buildings and farmsteads. Dating the remnants of these roads and ditches solely based on finds is difficult. The settlement pattern of the High Middle Ages consists of settlement clusters with multiple farms which already existed during the Early Middle Ages; settlement clusters with multiple farms, which were only built in the central Middle Ages, and single farms were also confined to this period (figure III.5). With respect to layout, Someren 20 comprised of farmsteads clustered around a crossroads. A north-south directed pattern of farmsteads is visible too. It concerns several clusters with multiple farms, in part next to a north-south aligned road and at the edge of the stream valley-like depression in which the present-day village of Someren (on nineteenth century maps) is located (figure III.9). A church was established in the High Middle Ages, possibly in the ninth or tenth century, but at least before the thirteenth century.<sup>36</sup> I was most likely located at the site of the late medieval parish church.

In terms of change, one observes a possible relocation of settlement clusters from east to west: Someren 1 and 2 might have been abandoned around 1050 and 1100 and at the same time new farmsteads were established further to the west, on the edge of the cover sand ridge. This is, however, not clear because of the dating limitations at the end of Someren 1

and 2. Both clusters could also have lasted longer than 1050 and 1100. Someren 20 could be the follow-up of Someren 1, depending however on the end date of Someren 1. When the end of Someren 1 is 1050, Someren 20 could be the follow up, if the end of Someren 1 is not 1250.

#### Late Middle Ages and Early Modern period (1250-1850 AD)

No archaeological data is available on the rural settlement in Someren from the Late Medieval and Early Modern period. Some information on the location of individual farms is available from archival records. On the cadastral map of 1830 we see along the Keizerstraat a pattern of a north-south oriented cluster of farmsteads (figure III.9). This pattern seems to be a replication of the pattern of north-south oriented cluster of dwelling places with small plural settlements from the High Middle Ages. In fact, one could assume that the high medieval pattern is the precursor of the present-day village pattern along the Keizerstraat.

In-between the two patterns, clusters dating between 1250 and 1800 might have been present, but only excavation could confirm this assumption. A recently published large-scale excavation at Boxmeer-Sterckwijck, along the river Meuse, shows a comparable situation at Someren.<sup>37</sup> At Boxmeer-Sterckwijck, a high medieval settlement cluster with a north-south aligned row of farmsteads existed on the one hand, and a part of the village on the cadastral map from 1830 on the other, lying in western direction too, like at Someren. In-between the settlement cluster and the village, parts of farmyards have been found from the Late Medieval period.<sup>38</sup> So at Someren, in-between the north-south oriented row of high medieval settlement clusters and the 1830 location of the north-south oriented row village along the Keizerstraat, there could have sites present from the Late Medieval period too. If this relocation of a north-south row of farmsteads in the eastern part of the present-day village of Someren was the case, the clusters lying in the western part of the village on the cadastral map from 1830 along the Postelstraat (among other roads in the immediate environment) could have had an origin in a settlement lying on cover sand ridges further to the west, now covered by arable fields. A new church was built in the Late Middle Ages at the site of the preceding building.

<sup>35</sup> Schabbink 1996.

<sup>36</sup> Camps 1979; Hiddink 2015, 49.

<sup>37</sup> Blom & Van der Velde 2015.

<sup>38</sup> Dijkstra 2015.

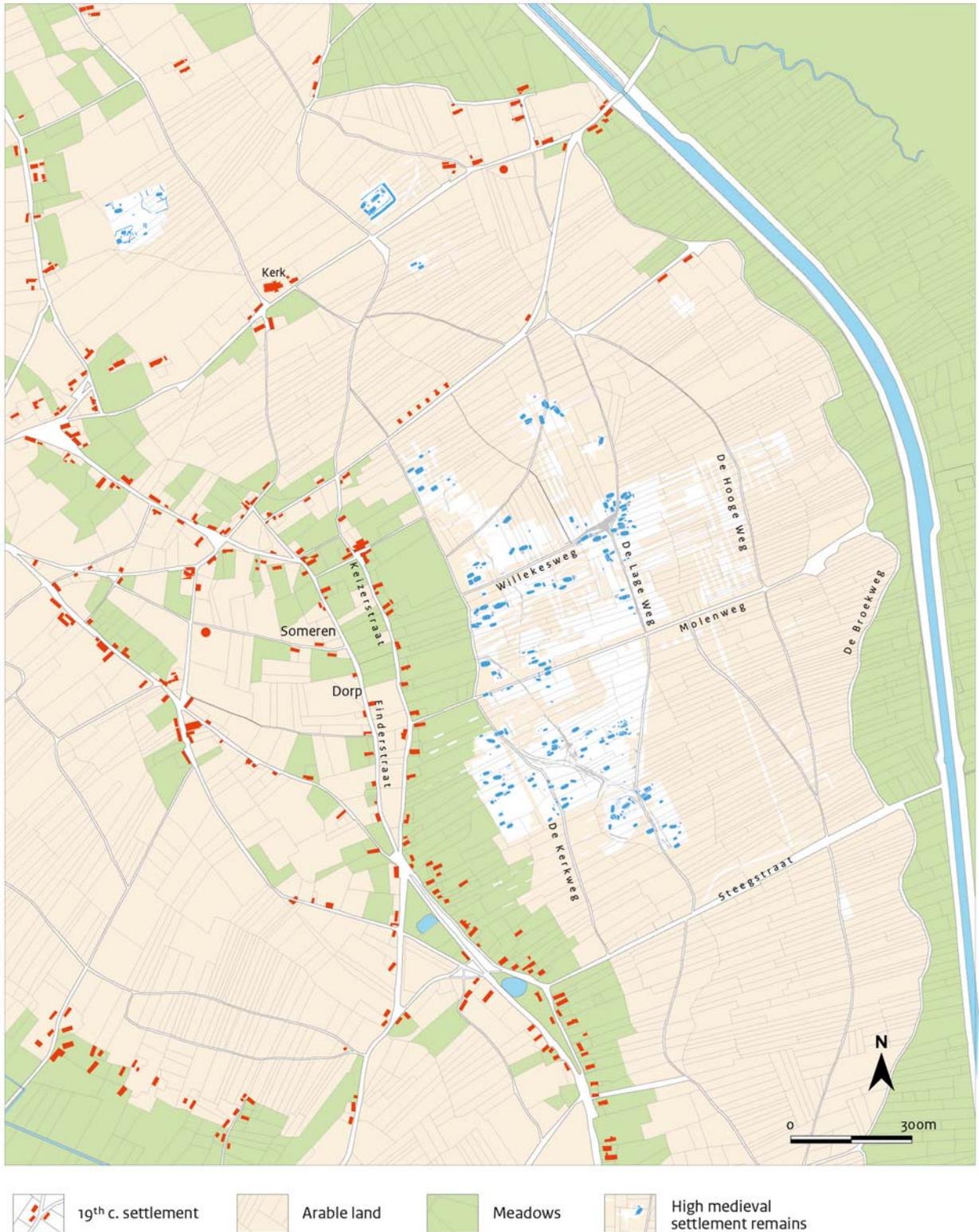


Figure III.9 Excavated settlement clusters dating from 900-1250 AD on the cadastral map (ca. 1830) (Hiddink *in prep.*).

The Postelstraat and the Keizerstraat meet at a crossroads in 1830. Crossroads could have been surrounded by farmsteads in the Late Medieval period too, like it was in the case of the High Medieval period on the eastern cover sand ridge of Someren, revealed by the excavations. If this was the case, another replication could be pointed at. So possibly two types of settlements could have been present in the Late Medieval period at Someren, rows of farmsteads on the one hand and nucleated settlements around crossroads on the other. In this sense, the late medieval and early modern settlement landscape could be seen as a direct copy of the settlement landscape of the High Medieval period. However, the late medieval and early modern settlement landscape was a displaced and relocated copy too. At the same time, the agricultural territory expanded parallel to the relocation of the settlements in the Late Medieval and Early Modern period. So at the time of 1830 a new cultural landscape was visible on the cadastral map, containing settlement clusters, fields, brooks and so on, but this picture embodied a palimpsest of settlement landscapes too, in a chronological sense.

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### III.6.2 Explanation of the course of the settlement history and village formation

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#### Demographic and economic factors and processes

The number of settlement clusters and farmsteads on the one hand and some written sources on the other (so-called *haardstedetellingen*) can be used as an indication for demographic developments in Someren. By comparing the picture of the Early and High Middle Ages we can observe a clear increase of habitation density (figure III.5). This picture could be confirmed by the excavation report of Someren-Waterdael III, in which the early and high medieval habitation is presented.<sup>39</sup> This increase could be interpreted as an increase in population density and therefore probably an

increase in population numbers.

Further confirmation of the increase in population comes from data on house building developments between 900 and 1200 in the Meuse-Demer-Scheldt region, based on more than 500 house plans from the High Medieval period.<sup>40</sup> Someren is part of this research area.

The population development of the Late Medieval period could be derived from the *haardstedetellingen* (figures of dwellings containing a hearth), available from the fourteenth century onward. However, the archaeological and historical data could not easily be compared. Therefore, they are not compatible. The *haardstedetellingen* show 329 households at Someren in 1374.<sup>41</sup>

Parallel to the increasing population size we could assume an intensification of arable farming, especially from 1100 or 1125 onward.<sup>42</sup> This process can be ascertained at Someren by interpreting the available eco-archaeological, cultural and archaeological data.

The composition of farmyards on farmsteads from 1125 onward (larger houses and outbuildings) points to an increase in the floor area for storage, stalling and processing in general, which indicates more agricultural production.<sup>43</sup> This increase was accompanied by an increase in animal husbandry. This is indicated by the construction corrals for housing cattle<sup>44</sup> and the appearance of (presumed) manure preparation pits on new farmsteads.<sup>45</sup> The combination of an increase in the floor area for storage, stabling and processing in general and an increase in animal husbandry, points to the probability of the use of more cattle for an increased production of animal dung.

This probability, together with the increased floor area of buildings on farmyards, might point to an intensification of arable farming from the beginning of the twelfth century onwards, before the period of the so-called *plaggenwirtschaft*.<sup>46</sup> If this conclusion is true, it contradicts the view of Vangheluwe and Spek, who assume that the intensification of arable farming begins much later on in the Campine region, from 1350 onward.<sup>47</sup>

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<sup>39</sup> De Boer & Hiddink 2012.

<sup>40</sup> Huijbers *in press*. On the used house plans see also Huijbers 2014.

<sup>41</sup> Cuvelier 1912; Roymans & Gerritsen 2002, table 7.

<sup>42</sup> Huijbers *in press*; Huijbers *in prep*.

<sup>43</sup> Huijbers *in press*.

<sup>44</sup> Huijbers *in prep*.

<sup>45</sup> Huijbers 2007.

<sup>46</sup> Huijbers 2016.

<sup>47</sup> Vangheluwe & Spek 2008.

## Social factors and processes

### *The Early Middle Ages*

The primary meaning of *villa* as village in the Early Middle Ages in western Europe, according to Wickham, implies the importance of horizontal relationships in the Early Middle Ages, next to vertical ones.<sup>48</sup> Apart from this we have to realise the possibility of different *emic* views in this period, but in later periods too: the *emic* view of abbeyes and lords and written sources on the one hand and the *emic* view of the peasants on the other. Where landed property existed, which was possibly the case in Someren, abbeyes and other elites experienced their (fragmented or not) landed property as an estate, so they used the word *villa* denoting landed estate.

In texts, peasants experienced the *villa* primarily as a village: a habitation area with concentrated and dispersed settlements in which daily interactions probably consisted of mostly horizontal relationships with all its accompanying struggles, negotiations and quarrels. Vertical relationships were only at stake when the abbey or his representative was present.<sup>49</sup> At Someren the rights of the chapter of Saint Lambert in the church<sup>50</sup> could have had an origin in rights exerted by the king (and before him by the Pippinids), who transferred possessions (including rights) to the archbishop of Cologne, who in turn donated possessions to the bishop of Liege, who in turn donated possessions to the chapter of Saint Lambert.<sup>51</sup> So, at Someren, there could have been manorial property, including rights to a church later on (when churches were present in time, in general, i.e. at least from the tenth century onward).<sup>52</sup> Moreover, this hypothetical landed estate might have been comprised, fragmented and dispersed property, similar to that of Bergeijk. At Bergeijk, a landed estate of the Bishop of Liege (around 1000 AD) was assumed and divided up into two other smaller estates later on, but at close inspection of the parcels with manorial property it is concluded that the property was highly fragmented.<sup>53</sup> One could not assume that the whole cover sand ridge with its arable fields was manorial property and so one could not draw a circle on a map around the cover sand ridge as a whole, and assume the circle represented a manorial property complex, as was done in past times.<sup>54</sup>

### *The High Middle Ages*

In the High Middle Ages there was possibly a local elite at Someren, a person called *vir nobilis* (nobleman) of Someren and *militis* (knight). He is mentioned in three charters, one from 1224 (*Henricvs vir nobilis de Svmren*), one from 1228 (*Henricum Kirse militem*) and one from 1241 (*Henrici militis de Someren*).<sup>55</sup> It remains unclear if he was the only local elite at Someren at the time.

His origin is unclear too. From other studies we know that in the Meuse-Demer-Scheldt region aristocratic families often came into existence by appropriating property and rights originally belonging to abbeyes, bishops and chapters.<sup>56</sup> The nobleman of Someren could have appropriated property and rights possessed by the chapter of St. Lambert, which owned tithes at Someren, mentioned in 1224.<sup>57</sup> No older documents exist in which rights to the church, owned by the chapter of St. Lambert, are mentioned. Coenen mentions tributes (*cijnzen*) which the chapter of St. Lambert collected at Someren, however, without referring to a written source.<sup>58</sup> We do know from an article written by Smulders that Arnt Vrient collected tributes (*Sente Lambrechtstijnse*) on his *hof* (a large farmstead) in Someren.<sup>59</sup> The lord of Someren had feudal ties with the chapter of St. Lambert, he possessed the tithes owned by the chapter as a fief. The person called Lord of Someren could have been a local aristocrat who exerted power and coercion and forced peasants to live in one or more settlement clusters with multiple farms, like in the first perspective presented by Curtis<sup>60</sup> (see Ch. 4) but to what extent and to the reasons why remains unclear. Another religious institution, which might have had rights and possessions at Someren, is the chapter of St. Servatius of Maastricht. This chapter collected tributes (*cijnzen*) at Someren.<sup>61</sup> Horizontal relationships and peasant agency at Someren might have been important too during the High Middle Ages. Increasing population growth and population density implies, from an anthropological (cultural-ecological) point of view, the growth of importance of the autonomous peasant household.<sup>62</sup> And this is exactly what we observe at Someren. In the Early Middle Ages relatively large clusters of multiple farms dominate. However, we also see in the High Medieval period, next to these large clusters, smaller clusters with multiple farms

<sup>48</sup> Wickham 2005.

<sup>49</sup> Theuws 2008. Theuws however denies the existence of villages in the Early Middle Ages (Theuws 2008; 2010; 2011), by interpreting the term *villa* solely as landed estate, contrary to the view of Wickham (2005). This view of *villa*, as denoting landed estate only in the Early Middle Ages, needs a radical revision.

<sup>50</sup> Welvaarts 1892a; Camps 1979; Coenen 2001.

<sup>51</sup> According to the hypothesis of Theuws & Bijsterveld 1991.

<sup>52</sup> Theuws 2011.

<sup>53</sup> Theuws 1989.

<sup>54</sup> By Theuws 1989; 2010.

<sup>55</sup> Camps 1979, 127, 146 and 192.

<sup>56</sup> Bijsterveld 1989; 2013.

<sup>57</sup> Camps 1979, 127.

<sup>58</sup> Coenen 2001, 32.

<sup>59</sup> Smulders 1962, 25-32, 263 and 266.

<sup>60</sup> Curtis 2013.

<sup>61</sup> Smulders 1962.

<sup>62</sup> McNetting 1993; Stone 1996.

emerge, as well as separate, individual farms. This could be an indication of an increasing relevance of the autonomous peasant households. On another spatial level we could establish the rise of more autonomous peasant households, especially from 1125 onwards: the layout and composition of farmyards. The layout of the farmyard becomes standardised and farmyards become, for the first time, demarcated by ditches. In other words, the idea of private property on the spatial level of the (farm)yard arises.<sup>63</sup>

The settlements of these more autonomous peasant households are laid out in the landscape in the aforementioned north-south row at the edge of the stream valley depression. So they might have been autonomous on the level of the household and landed property, but based on the common alignment of the farmsteads, both on the level of the settlement cluster (paired farmsteads) and on the level of the settlement (north-south aligned row), they could have had social-economic relationships among each other at the same time. They could have had relationships of cooperation with respect to farming. Other peasant households organised themselves spatially around crossroads. In one case a depression was located on the crossroads surrounded by ditches in a triangle (figure III.9). This could point to a corral and at the same time a square, a social meeting place and a market. A precursor of the *plaetse*, *brink*, *driehoekig plein* and so on of the Late Medieval and Early Modern period. This triangle of ditches on a depression could point to communal cattle stalling. Communal cattle stalling might have been related to communal grazing on fields and in the commons. So, a lot of implications are possible.

The evidence and possible interpretations of Someren could point to an intensification of horizontal relationships in the High Medieval period. Someren might be seen as exemplary to this view. Vertical relationships could have existed, but their nature is unclear. Peasant autonomy might have existed, but it might have been a relative autonomy, depending on the nature of relationships of dependency with lords of some kind (like the *vir nobilis* of Someren). However, when these relationships consisted of tribute relationships (like the so-called *recognitiecijnzen*) one could hardly speak of strong dependency relationships. The experienced

pressure on peasants could have been negligible in these cases. So both social factors, vertical and horizontal relationships, could have been relevant in Someren and led to the rise of specific patterns of settlements.

#### *The Late Middle Ages and Early Modern period*

Around the start of the Late Middle Ages the settlement was relocated westward. The high medieval layout was largely retained on its new location. The former settlement area was incorporated in the arable land. Among other reasons, this relocation might have something to do with a further increase of intensive arable farming. Abandonment of the cover sand ridge enabled obstacle-free farming out of new settlement clusters, close to the field territory, so a larger surface area could be used. Related to the first lines of reasoning, a relocation might also have had something to do with a new farming emphasis, i.e. more animal husbandry than in the High Medieval period. In this respect we have to point to the location of settlement clusters from the Late Medieval period onwards in Someren, in a stream valley like depression, close to abundantly available meadows. Animal husbandry probably served to produce animal dung for the intensification of arable farming, just as in the High Medieval period. Another reason why people resettled themselves on the location of the present-day village might have been the fragmentation of arable fields. Because of this fragmentation, the located fields became scattered across the arable land complex. Living together in one place might have been the consequence.

It is in this period that the village and the parish become visible in written sources, whether they previously existed or not. The villa (village) Someren is mentioned in a charter from 1242.<sup>64</sup> As stated before, the thirteenth century was the period in which literacy was increasing within society, so the village and the parish as social phenomena could have already existed. According to a charter from 1301, the Duke of Brabant installed an alderman court at Someren and gave the inhabitants rights in the commons.<sup>65</sup> The alderman court consisted of seven aldermen. If each alderman represented a hamlet, at least seven hamlets were present at the time.<sup>66</sup> In 1302 the Someren parish is mentioned in another charter. It is called *parrochia de Zomeren*.<sup>67</sup> Rights in the commons of

<sup>63</sup> Huijbers 2012.

<sup>64</sup> Camps 1979, 196.

<sup>65</sup> Camps 1979, 617; Vera 2011, 176.

<sup>66</sup> Compare De Cock 1965 on Limmen.

<sup>67</sup> Camps 1979, 635.

Somerens were given again in a charter dating from 1327. The rights in the commons were owned, on paper, by the chapter of St. Lambert and held by *Arnt Vrient* as a *fief*.<sup>68</sup> The Duke of Brabant ratified the charter from 1327 on the same day and gave the inhabitants of Someren the right to confiscate cattle from other villages which grazed on their commons.<sup>69</sup> It is probable that the inhabitants of Someren already used the commons for a long time and that the 'giving' of rights in the commons on paper (on a charter) served only to show the power and authority of the chapter and the duke over the members of the village of Someren. Furthermore, a charter could also serve to fix rights in the commons by mentioning their geographical borders, as was done in the first charter in 1327. This fixing of rights on paper might have been necessary because of the overlapping claims between members of different villages in an area which was used as the commons, as suggested earlier with respect to the *gemeynt* of Aarle, Beek and Rixtel.<sup>70</sup> Fixing rights in the commons, geographically, might have strengthened horizontal social ties between members of the village of Someren. The installment of an alderman court might have worked out in the same way. A difference could possibly be made between large farms managed by, for example, the priory of Postel and other (small?) farms. Some farms (*hoeven*) laid isolated, which is an indication that the fields were located nearby the farmstead, applying the anthropological viewpoints on dispersed settlements. Other farmsteads and houses were lying in close proximity to each other, which might indicate to a smaller size of the fields belonging to the farm.

### Urbanisation

Urbanisation occurred during the late twelfth and thirteenth century in The Duchy of Brabant, as part of a process that was going on in Europe as a whole.<sup>71</sup> In the vicinity of Someren new towns were built in the duchy in 's-Hertogenbosch, Helmond and Eindhoven.<sup>72</sup> Unquestionably, the founding of towns must have had a great impact on villages like Someren in a social sense, but in an economic sense too. The displacement of settlement clusters in the late twelfth and thirteenth century might – in

part – have taken place by the rise of the new towns. One of the possibilities arising from this factor of power and coercion, which Curtis put forward, might have been the freeing of inhabitants living in relations of dependency (Ch. 4). This would imply that the people living on the cover sand ridge in the High Medieval period were bound to the soil on which they lived, or a specific part of them. The relocation of settlement clusters at Someren during the late twelfth and thirteenth century thus could have been an expression of disengagement, among other reasons. However, we don't know which inhabitants or how many lived in dependency relationships during the High Medieval period. Another important process might have been the creation of local markets, existing along the new towns and the rise of local artisans. Especially people with hardly any land were often engaged in artisanal production. From the sixteenth century we know that Someren had linen weavers.<sup>73</sup> It is feasible that these weavers could have produced goods for the local and regional market. So, from the thirteenth century, at least part of the village population in Someren could have been composed of artisans and traders. From the anthropological and historical studies referred to in chapter four we do know that one reason to live in concentrated settlements is the nature of occupation, like being an artisan. Future research in present-day villages needs to look from this angle at settlement clusters too.

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### III.6.3 Conclusions and answers to our research questions

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#### The origin of the material village of Someren in the Late Medieval and Early Modern period

The late medieval and early modern village of Someren consisted of linear settlement clusters and nucleated settlement clusters. Their structure might have been a copy of a settlement landscape of the High Medieval period, which comprised of row settlements and nucleated settlements too. The high medieval settlement landscape was lying to the east of the village in 1830 (and possibly also to the west, however, without excavating this is uncertain).

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<sup>68</sup> Coenen 2001, 82-83.

<sup>69</sup> Coenen 2001, 83.

<sup>70</sup> Huijbers 1993; 1998.

<sup>71</sup> Rutte 2002; 2006; Boerefijn 2010.

<sup>72</sup> For 's-Hertogenbosch see Huijbers 2010; Helmond: Peters 2015; Eindhoven: Arts 1994.

<sup>73</sup> Van de Laar 1989; 1990.

### The social village of Someren, 800-1600

When we look at the general factors leading to the rise of the late medieval and early modern village of Someren, derived from chapter four, we see the following:

GF 1. Vertical social relationships (power, coercion, force, authority, dependency with a variety of gradations) might have been relevant, from at least the High Medieval period onwards by religious chapters and a local lord.

The relocation of the settlement clusters after 1250 might have something to do with disengagement of vertical (dependency) ties, as an expression of this disengagement.

GF 2. Horizontal social relationships (kinship, identification with community and (ancestral) territory). Might have been important.

GF 3. Social-defensive relationships might have played a part in the formation of the village. The impressive moated site found at Someren-Acaciaweg was situated close to the former isolated medieval church, which can be assumed to have stood amidst a settlement cluster. The enclosure of the moated sites was probably more a legal demarcation than a defensive feature, but the presence of an aristocrat (knight?) with feudal military obligations (directly or indirectly) could have contributed to the formation of a nucleated settlement.<sup>74</sup>

GF 4. Social-religious relationships (confession of faith, worship of a common saint). These were important, at least from the thirteenth century onwards according to written evidence.

GF 5. Social-judicial relationships (common rights and duties, whether or not written down, common alderman court, *geburscaf* as juridical entity, the commons as juridical entity). These were important, at least from the fourteenth century onwards according to written evidence.

GF 6. Social-economic factors (collective action, cooperation in the commons, and on the fields in activities in the agrarian cycle). These might have been important, at least from the eleventh or twelfth century onwards according to

archaeological evidence. Collective herding of animals might have been important, based on the remnants of a possible communal corral in the middle of the high medieval settlement landscape. Collective herding could have been possible too on newly created corrals on the spot of the present-day village from 1250 onwards, located in places on triangular squares (*driehoekige pleinen*).

GF 7. Economic factors (common accessibility to water sources, commonly situated between fragmented arable fields and accessibility to wares and services; implying the local production of wares and delivery of services). One of the reasons why people resettled themselves on the location of the present-day village might have been the fragmentation of arable fields. Because of this fragmentation the located fields became scattered across the arable land complex. Living together in one place might have been the consequence. A relocation, because of a new farming emphasis, i.e. more animal husbandry than in the High Medieval period, might have been another reason. Animal husbandry probably served to produce animal dung for the intensification of arable farming, just as in the High Medieval period. As is stated before, already during the High Medieval period an intensification of arable farming was going on, by intensifying animal husbandry too by using a three-course system. The relocation of the settlement from the Late Medieval period might also have to do with the wish to farm obstacle-free on the former inhabited territory. This could especially be important in intensive arable farming.

GF 8. Urbanisation. This might have been important in the light of the upcoming towns from the late twelfth and thirteenth century onward. People with hardly any land, a possible consequence of land fragmentation through inheritance, could have taken up artisanal activities.

In conclusion, possibly three factors led to the rise of the village of Someren from 1250 onward: the social relationships of its inhabitants, economic factors and urbanisation.

<sup>74</sup> This clustering, however, does not necessarily have to do with serjeanty or other military service of the dependent farmers, but could also be inspired by proximity to the lord's court.



## Archaeological region 11: Holland dune area

### IV.1 Introduction

Limmen is located in a coastal area in the province of Noord-Holland (figure IV.1). It is situated on a coastal barrier ridge in the delta of the Oer-IJ, which was active between 4500 and 2000 BP in the area of Castricum-Uitgeest.<sup>1</sup>

Following the twofold approach of our research, this case study aims to assess the development of a village, primarily using archaeological data.



Figure IV.1 Limmen in the Netherlands.

### IV.2 Dataset

#### IV.2.1 Regional settlement model

In 2011, Dijkstra published his dissertation on the habitation history of the Rhine and Meuse delta.<sup>2</sup> Unfortunately, his settlement model was not very specific on village formation. This had to do with the time frame of his study which covered the period 270 – 900 AD and only partially overlapped with our topic. Nevertheless, his synthesis is up-to-date with the archaeological data that is available.

#### IV.2.2 Historical and cartographical data

Firstly, it is important to note the property list of the St. Martin Church of Utrecht.<sup>3</sup> According to Blok, the list dates between 918 and 948.<sup>4</sup> Henderikx dates the list to around 885.<sup>5</sup> Secondly, charters that are available date from 1083, 1108, 1202, 1251, 1288, 1290 and 1292.<sup>6</sup>

Thirdly, the *liber sancti Adalberti* (composed in 1214) contained passages in which property at Limmen is mentioned.<sup>7</sup> Fourthly, cartographical data is available, from the sixteenth century onwards (see below). Lastly, important historical and historical-geographical studies, written by De Cock and Druifjen.<sup>8</sup>

#### IV.2.3 Archaeological data

With respect to the archaeological data, results of several excavations are available (figure IV.2). These include:

1. Data from the large-scale excavations at Limmen-De Krocht (1995, 1996, 2003, 2004), with (almost) two subsequent agrarian settlements with multiple farms from the Early and High Middle Ages and small-scale trial trenches prior to the excavation (figure IV.3).<sup>9</sup>
2. Data from four small-scale excavations at the Dutch Reformed Church (the former medieval church) (1968),<sup>10</sup> Zuidkerkelaan I (1992),<sup>11</sup> Zuidkerkelaan II (1992)<sup>12</sup> and Zuidkerkelaan III (1996)<sup>13</sup> (figure IV.2 and IV.4). Remains of an agrarian settlement, dating from the Early and High Middle Ages, were uncovered.

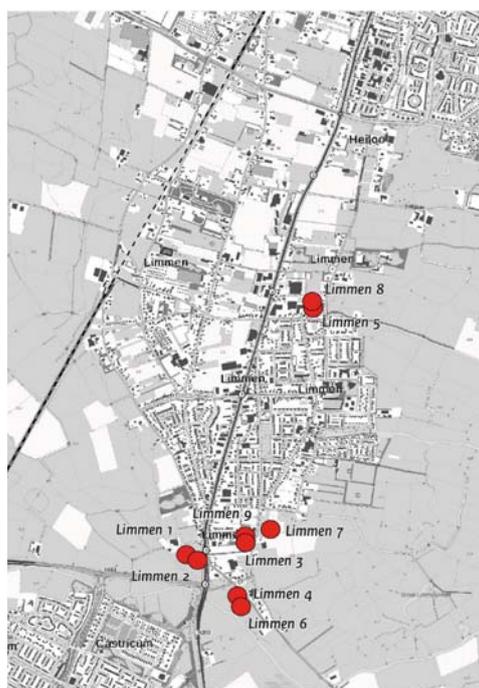


Figure IV.2 Limmen, location of relevant archaeological excavations.

<sup>1</sup> Vos 2006, 30.  
<sup>2</sup> Dijkstra 2011.  
<sup>3</sup> Dijkstra 2011, 5.  
<sup>4</sup> Blok 1957; Mostert 1993, 142 note 110.  
<sup>5</sup> Henderikx 1987, 115-121; Mostert 1993, 142, note 110.  
<sup>6</sup> <http://resources.huygens.knaw.nl>  
<sup>7</sup> Oppermann 1933.  
<sup>8</sup> De Cock 1965; Druifjen 2003.  
<sup>9</sup> Dijkstra, De Koning & Lange 2006.  
<sup>10</sup> Cordfunke 1968.  
<sup>11</sup> Van Raaij 1993a; Van Raaij *in prep.*;  
Schabbink 2016, 32, fig. 2.8.  
<sup>12</sup> Van Raaij 1993b.  
<sup>13</sup> Dijkstra, De Koning & Lange 2006, 22, fig. 2.1.



Figure IV.3 Excavation Limmen-De Krocht; phases 3-9 (settlement Limmen 1); phases 11-18 (settlement Limmen 2) (Source: Dijkstra, De Koning & Lange 2006).

<sup>14</sup> Van Raaij *in prep.*  
<sup>15</sup> Cordfuncke 1969; De Koning 2004; Hundertmark 2005.  
<sup>16</sup> Van Raaij 2014.  
<sup>17</sup> Dijkstra 2012.  
<sup>18</sup> Van Raaij 1995a.  
<sup>19</sup> Van Raaij 1995b.  
<sup>20</sup> Van Raaij 1995c.

3. Data from a medieval church and surrounding moat (figure IV.6 and IV.7).<sup>15</sup>
4. A small-scale excavation to the south of Limmen at Uitgeesterweg 4 with settlement features from the High and Late Middle Ages.<sup>16</sup>

5. Research conducted from a trial-trench at a moated site in Limmen-Hooghuizen.<sup>17</sup>
6. Settlement features from the High and Late Middle Ages at Limmen-Oosterzijweg.<sup>18</sup>
7. An early modern well found at Limmen-Schoollaan.<sup>19</sup>
8. An excavation at Limmen-Uitgeesterweg with settlement features from the thirteenth century.<sup>20</sup>



Figure IV.3 Excavation Limmen-De Krocht; phases 3-9 (settlement Limmen 1); phases 11-18 (settlement Limmen 2) (Source: Dijkstra, De Koning & Lange 2006).

### IV.3 Regional settlement model

Dijkstra provides us with a comprehensive synthesis of the province of Zuid-Holland during the Migration period and Early Middle Ages (270-900 AD).<sup>21</sup> This synthesis can be used for the province of Noord-Holland too because both

provinces have a lot of geographical and historical developments in common. As part of the interdisciplinary research programme *Van Schelde tot Wezer. Frisia in Noordwest-Europees perspectief (3<sup>e</sup>-10<sup>e</sup> eeuw)*, Dijkstra studied the districts of Meuseland and Rijnland in the medieval county of West-Friesland. This area roughly coincides with the present-day province of Zuid-Holland, provided that the settlements

<sup>21</sup> Dijkstra 2011.

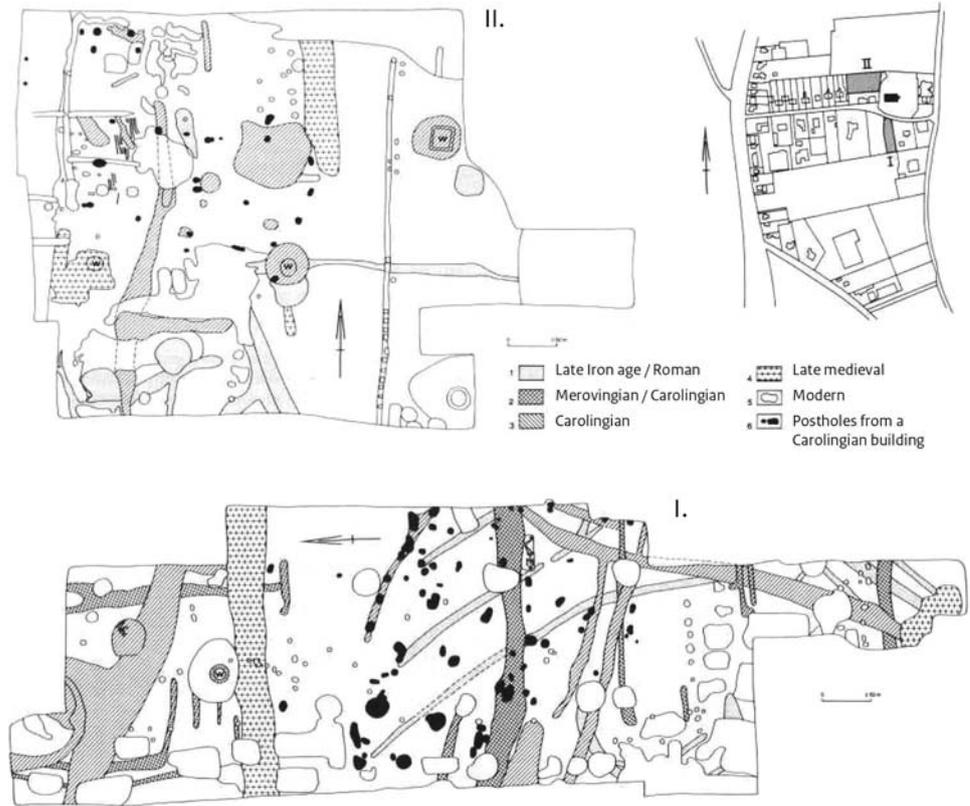


Figure IV.4 Excavations Limmen-Zuidkerkelaan I and II (Van Raaij 1993; Van Raaij 1993b).

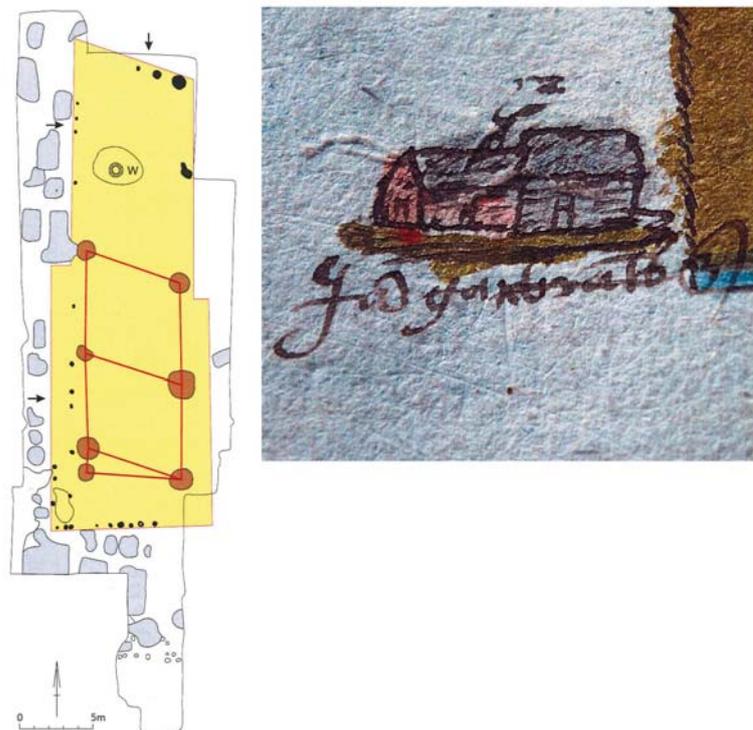


Figure IV.5 Left: plan of a farmhouse (yellow) from the early modern period excavated at the site Limmen-Zuidkerkelaan I. Right: detail of a surveyor map from 1560 by Laurens Pietersz. (Van Raaij in prep.; Schabbink 2015, afb. 2.8).

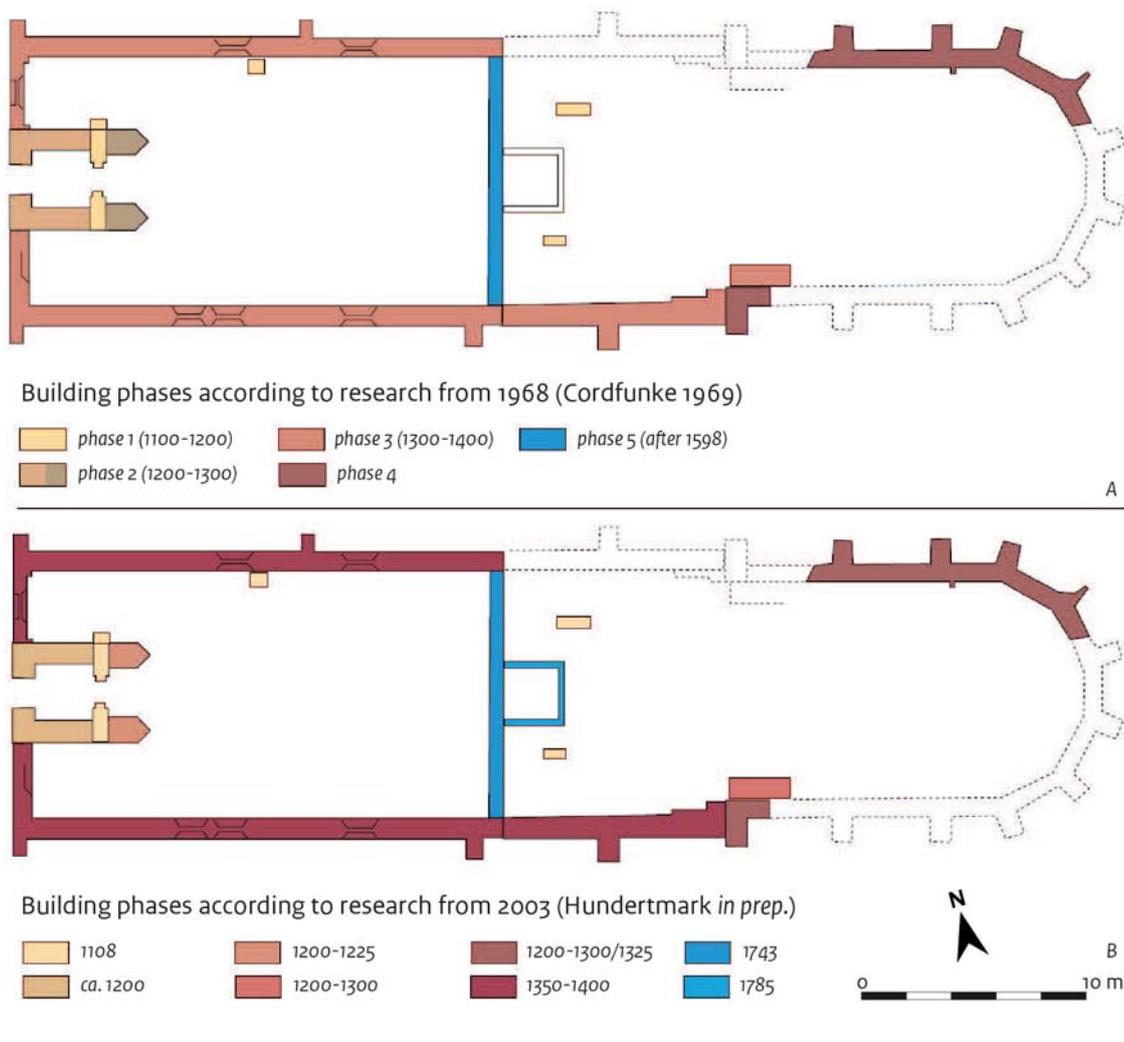


Figure IV.6 Phases of the medieval church of Limmen, according to Cordfunke and Hundertmark (Source: De Koning 2004, figure 2a and b).

were mainly located along the coastal area and river Meuse and Rhine estuary. Dijkstra's synthesis includes a model for the development of the settlement pattern in the area (figure IV.8).

### IV.3.1 Habitational history

The locations of settlements depended on, to a large extent, the conditions of the landscape that were offered. Generally, they were located along the coast, mainly on the higher and drier grounds of the coastal barrier ridges with the Old Dunes (*Oude Duinen*) and river banks.

These functioned as relatively stable habitation zones, although parts of the dune area suffered from sand drifts from time to time, making them temporarily unsuitable for occupation. From here, people periodically settled in the peat

areas surrounding the estuaries and the tidal marshes (*kwelders*) when the natural drainage conditions were suitable.

#### Early Medieval period (ca. 450-900 AD)

Historically, the Meuseland and Rijnland region appear in the records in the course of the seventh century.<sup>22</sup> The Frisians were being challenged by the Franks over the authority of the coastal area and estuaries. At the same time, the Christianisation of the Frisians were being established. After the death of the Frisian ruler (Radbod) in 719, the new Frankish king Charles Martel took control of the region.

During the Merovingian period, settlement territories lay scattered across the coastal barrier ridges and the banks of the major rivers.<sup>23</sup> Inside, a residential nucleus was situated, consisting of a hamlet or linear settlement along a main road

<sup>22</sup> Dijkstra 2011, 84.

<sup>23</sup> Dijkstra 2011, 88 and 186-187.

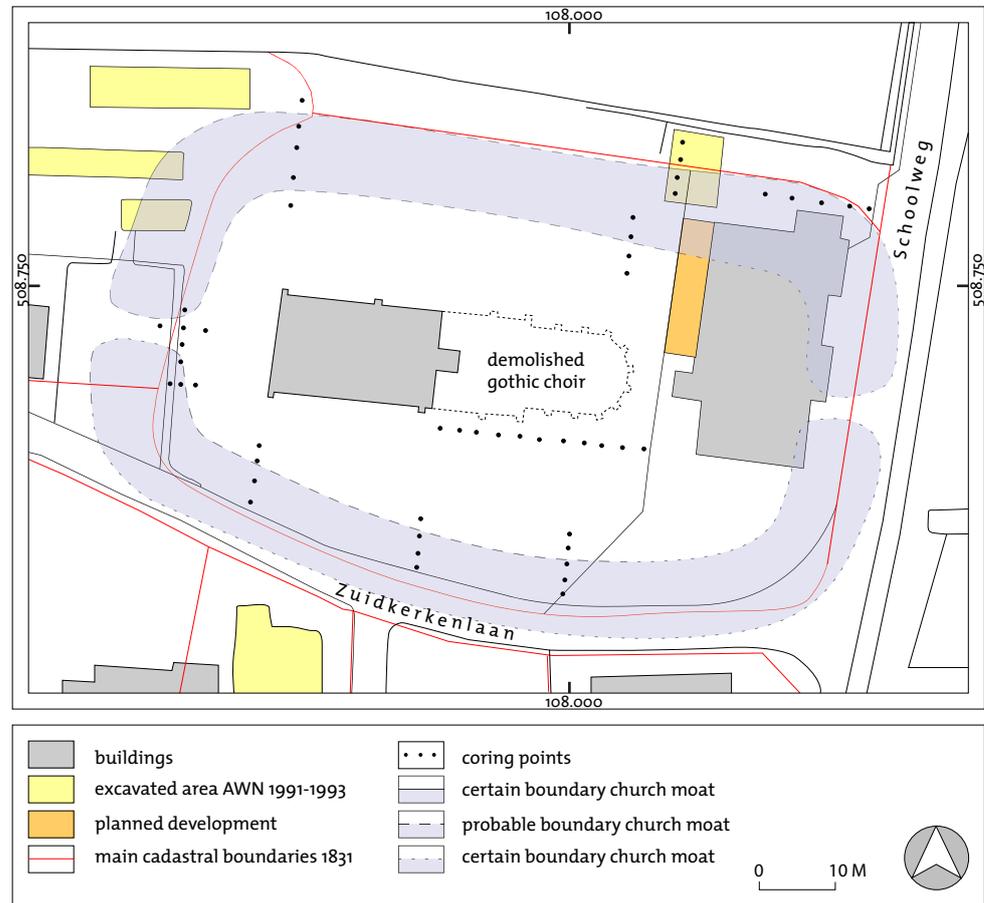


Figure IV.7 Limmen, medieval church with reconstructed moat (Dijkstra 2007, figure 3).

or waterway, close to the arable land. Meadows, pastures and woodlands surrounded these. The community was organised in a *buurschap* and the land was worked communally. As a result, these areas are referred to as village territories. Within these a subsidiary settlement could be established, such as a solitary farm or a satellite village with their own land.

In the Carolingian period reclamations appear to have been made in the Old Dune area barriers. They did not last initially, however, presumably as a result of drift sands. Upstream the Meuse settlements expanded rapidly after some initial small-scale initiatives in the late Merovingian period.<sup>24</sup> The occupation is located on the riverbanks and on the higher barriers of former tidal areas. The relatively late start of habitation in the Meuse-Merwede region is, in part, related to the less favourable conditions on the narrow river banks that were not yet well developed along the active river system.

During the first half of the eighth century a large number of settlements were relocated as a result of a reorganisation of land ownership, administration and the establishing of manorial estates.<sup>25</sup> These developments were reinforced by ecological circumstances, such as problems associated with drift sand and the filling up of watercourses. The new manors, which could encompass an entire village or lay scattered across multiple settlements, played a major role in the governance of the region. On the demesne, the first churches were built.<sup>26</sup> In the ninth century, larger, communally exploited arable field complexes were established on the coastal ridges with disperse linear settlements. In the following centuries these gradually shifted outwards.

In the tenth century, periods of drought and extensive drift sands along the coasts (the Younger Dunes) forced some of the inhabitants to abandon their settlements.<sup>27</sup> At the same time, it provided opportunities to exploit the

<sup>24</sup> Dijkstra 2011, 88-89.  
<sup>25</sup> Dijkstra 2011, 188-189.  
<sup>26</sup> Dijkstra 2011, 188.  
<sup>27</sup> Dijkstra 2011, 188.

previously inhospitable peat areas that lay east of the Old Dunes and extended inland. From the second half of the tenth century, systematic reclamations of these vast peat areas were undertaken, possibly coordinated by the manorial estates. This was done by digging long, parallel ditches into the peat to drain it and control the water levels. Gradually, colonists worked inward along these stretched plots. In the course of the eleventh century the reclamations were intensified and were actively stimulated by the authorities by granting personal liberty. A large number of the inhabitants from the affected dune area moved to these new settlements. Ultimately, the settlements on the peatland suffered from the inevitable erosion and the lowering of the soil surface because of drainage and subsequent oxidation of the peat.<sup>28</sup> As the

surface subsided, closer to the groundwater level, arable farming became increasingly difficult to sustain. In the twelfth century, this forced the inhabitants to withdraw to higher grounds (*geest*). This led to the development of nucleated settlements along the main road on the coastal barrier ridges.

In an increasing number of settlements, churches and chapels were built and a parish structure was established.<sup>29</sup> These churches were usually built in the demesne of a manorial estate whose lord would act as a local governor. These settlements would serve as a local centre and artisans would set up shop. As the manorial organisation of the estates disintegrated from the twelfth and thirteenth century,<sup>30</sup> the parish would become the main structure and determinant of local identity. The diminishing opportunities for arable farming, as a result of

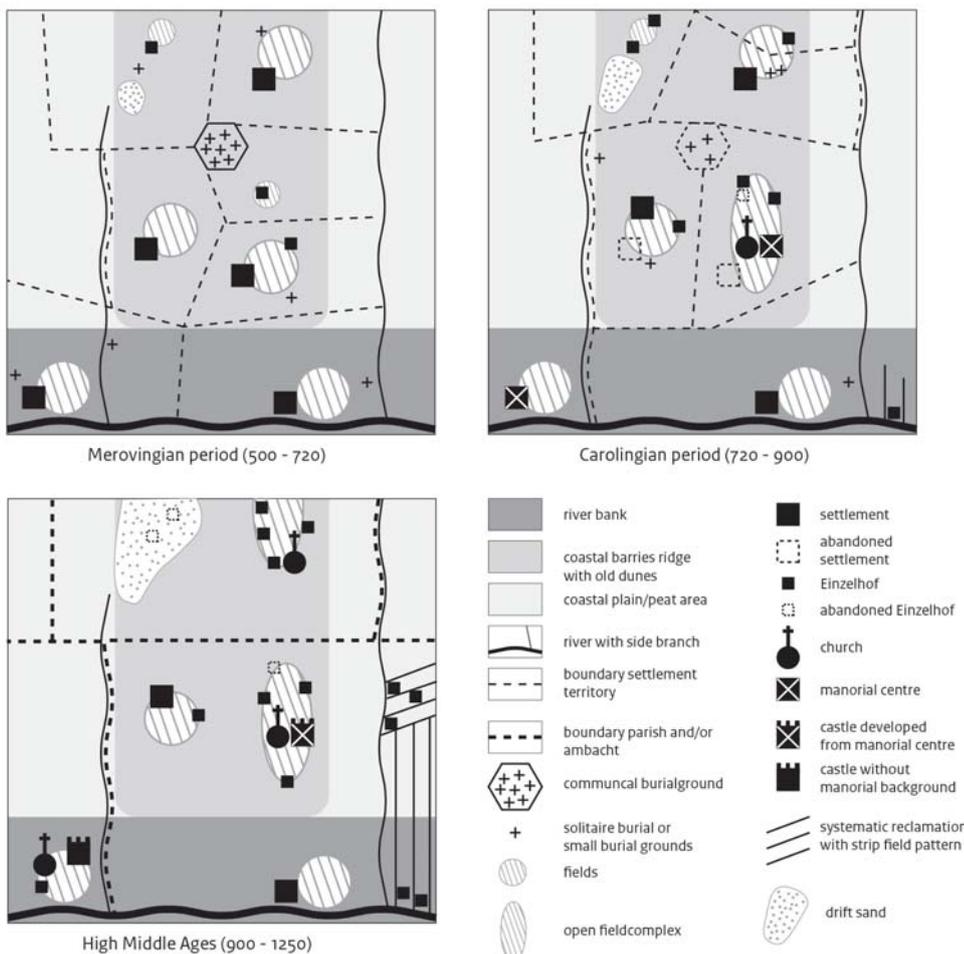


Figure IV.8 Model of the development of settlement structure in the coastal area of the Western Netherlands (Dijkstra 2011, 187).

<sup>28</sup> Dijkstra 2011, 188.

<sup>29</sup> Dijkstra 2011, 188-189.

<sup>30</sup> Dijkstra 2011, 291.

the oxidation of the peatland, led to a specialisation in animal husbandry. This could be sustained because of the emergence of an early market economy with the development of the cities from the twelfth and thirteenth century onwards. By the fourteenth and fifteenth century arable farming all but disappeared from the peatland and river banks.

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### IV.3.2 Village formation 800-1600

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The formation of villages in Zuid-Holland is the result of a complex and dynamic process. Based on archaeological observations, only one third of the current villages on the 'old land' has an early medieval origin.<sup>31</sup> By far, most of these are located on the river banks, as the settlements on the coastal barrier ridges suffered heavily from the effects of desiccation. The age of a village is mainly related to the age of the village church or chapel. Older foundations are more likely to be part of an early settlement. In villages, on the river banks, it is likely one would find remains of early habitation, even near younger churches. This has to do with the limited amount of space suitable for settlement in these parts of the landscape. Obviously, villages in the peatland only date after the reclamation of these lands. As a form of social organisation, villages started out in the Merovingian period as a cooperation between farmers who communally exploited the land and whose houses laid either clustered in a nuclear or in a linear settlement. In the Carolingian period, the manorial estates begin to have an effect. These manors could develop into administrative, economic and religious centres on a local or regional scale, especially if the lord of the manor had a church or chapel built in his demesne; these centres attracted settlers and could develop into a village. After the arable farming became unsustainable in the reclaimed peatland over the course of the High Middle Ages, the farmers withdrew to the coastal barrier ridges and clustered settlements were established at the main road. Churches were founded in these settlements by local nobility and the infrastructure provided access to the newly founded cities. The early market economy gave rise to further specialisation of agriculture and trade.

Although settlement nucleation occurred in various moments during the Early Middle Ages, central facilities initially lay scattered over a wider area rather than clustered in one location, as is the case in later medieval towns. These are referred to as 'central place aggregations' (*centrale-plaats-complexen*). These loosely structured centres were gradually replaced by the rise of the manorial estates in the course of the Carolingian period.<sup>32</sup> Here, various functions and facilities were clustered on the estate and the building of churches provided long-term stability of the settlement location.

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## IV.4 Historical sources

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### IV.4.1 The Early and High Medieval period

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The available written sources only mention topographical elements possessed by elites; peasants could not write, so their property remained out of sight. Several magnates had landed property in Limmen in the Early and High Middle Ages. This property mainly consisted of *mansi* (*hoeven*). A mansus could be a surface area, a farmstead or a fiscal unit.<sup>33</sup> One of the magnates with property at Limmen was the Bishop of Utrecht. The property list of the St. Martin Church of Utrecht (ca. 885 or 918-948) mentions ten *mansi*, apart from a church in *Limbon ecclesiam cum mansis X*.<sup>34</sup> The Bishop of Utrecht donated his property at Limmen to the chapter of St. Mary in 1108, according to a charter.<sup>35</sup> Another magnate with property at Limmen was the Count of Holland. A charter from 1083 mentions donations to the abbey of Egmond by the Count of Holland and his ancestors. The donation of *Theodericus secundus*, Count Dirk II (ca. 932-988) concerning Limmen consists of *in Limban 5 manssus septem et dimidium, in Smithan mansus duos, in Bacchem mansus très, in Ordebolla mansus duos, in Thosa manssum*.<sup>36</sup> *Limban* is Limmen and *Smithan* was probably a place in Limmen.<sup>37</sup> Those might be places lying in Limmen too, at Nes, but this is uncertain.<sup>38</sup> The donation of *Arnulfus comes* (951-993) concerning Limmen consists of *in Thosa manssus duos*.<sup>39</sup> The donation of *Sifridus cognomento Sicco*, possibly concerning Limmen, consists of *Smithen*,

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<sup>31</sup> Dijkstra 2011, 183-186.

<sup>32</sup> Dijkstra 2011, 331-339.

<sup>33</sup> See the discussion in Theuws 1991.

<sup>34</sup> Muller & Bouman 1925, 49; Dijkstra

2011, app. 5.

<sup>35</sup> Koch, Kruisheer & Dijkhof 1970-2006, 96.

<sup>36</sup> Koch, Kruisheer & Dijkhof 1970-2006, 88.

<sup>37</sup> De Cock 1965, 174; Dijkstra, De Koning & Lange 2006, 204.

<sup>38</sup> Dijkstra, De Koning & Lange 2006, 204.

<sup>39</sup> Koch, Kruisheer & Dijkhof 1970-2006, 88.

Adgeringelant, Hildebrandislant, Siuuirclinglant. V fiertelen, Lantlosamade.<sup>40</sup> Of all the place names mentioned in this passage, we can only be sure that Smithen was located in Limmen. In conclusion, two magnates had landed property (*mansi*) and one of them had a church; the Count of Holland on the one hand, succeeded by the abbey of Egmond, and the Bishop of Utrecht on the other hand, supervised by the chapter of St. Mary. The number of farms that were related to (each of) the *mansi* cannot be ascertained. One can assume that this is dependent on several factors, such as the social organisation of production (centralised household based), the distance between dwelling and plots, and the type of fallow system that was used to connect to the intensive farming.

#### IV.4.2 The Late Medieval and Early Modern period

After 1397 the *ban* of Limmen consisted of five hamlets: Zuyteinde, Westertzijde, Laen, Dusseldorp and Kerkbuurt.<sup>41</sup> According to De Cock, seven hamlets originally existed.<sup>42</sup> On a topographical map from 1680 (drawn by Dou), these hamlets are clearly visible (figure IV.9).<sup>43</sup> Next to these hamlets, other settlement clusters are visible. Apart from the map of 1680, several other maps exist from the sixteenth and seventeenth centuries that depict parts of Limmen.<sup>44</sup> The medieval church is illustrated on a map from around 1594, and surrounded by a moat (figure IV.10).<sup>45</sup> Apart from these hamlets,

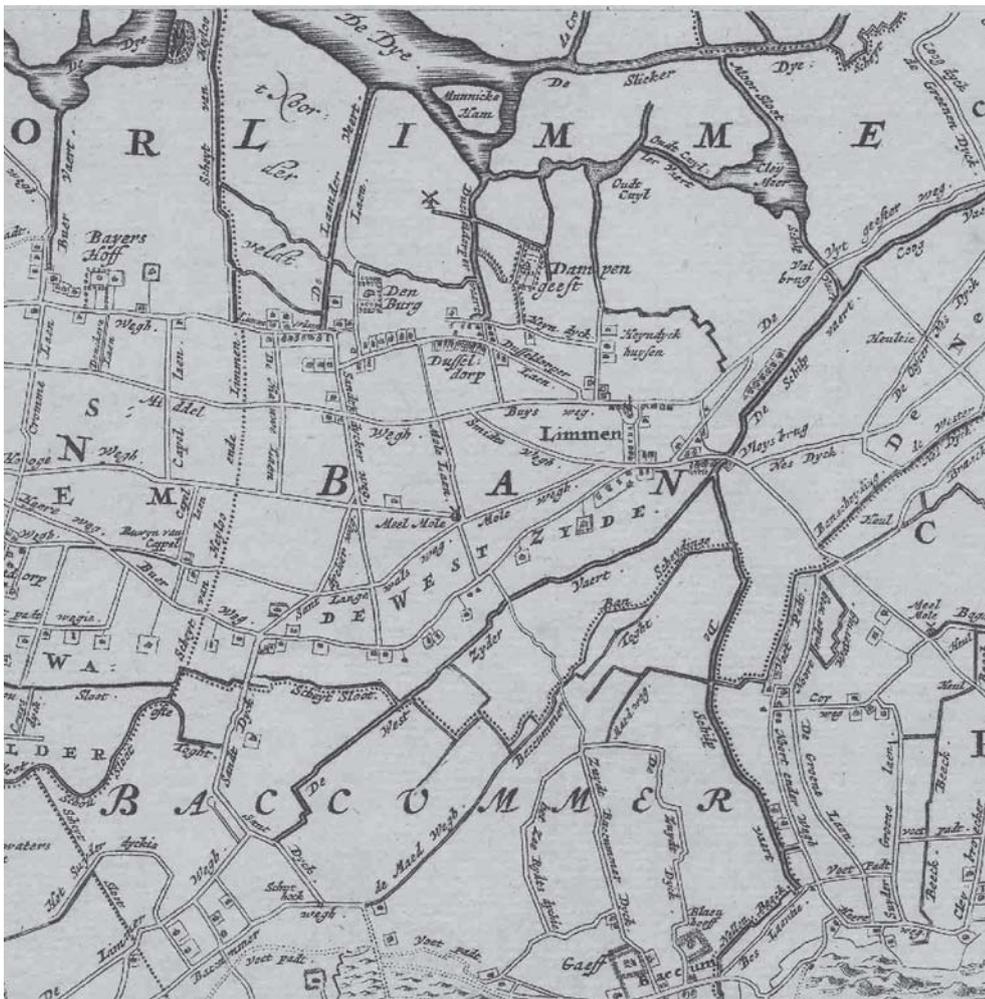


Figure IV.9 Part of the map dating from 1680 with Limmen (map drawn by J.J. Dou) labelled *Hoogh-Heemraetschap vande uywaterende sluysen in Kennemerlandt ende West-Vrieslandt* (Dou 1680). The map faces east.

<sup>40</sup> Koch, Kruisheer & Dijkhof 1970-2006, 88.

<sup>41</sup> Lams 1664, 119, 532; De Cock 1965, 174.

<sup>42</sup> De Cock 1965, 174.

<sup>43</sup> Dou 1680; <http://objects.library.uu.nl/>.

<sup>44</sup> Druiven 2003.

<sup>45</sup> <http://beeldbank.amsterdam.nl>.

Map drawn by Pieter Bruinsz, ca. 1594. Map 25 of Map book B *het Burgerweeshuis*, <http://stadsarchief.amsterdam.nl/archief/367.A/116>.

the so-called *hofsteden* existed – the large, separate farms that were often institutional or aristocratic property. Two of them (*Den Burg* and *Dampegest*) are pictured on the map of 1680.

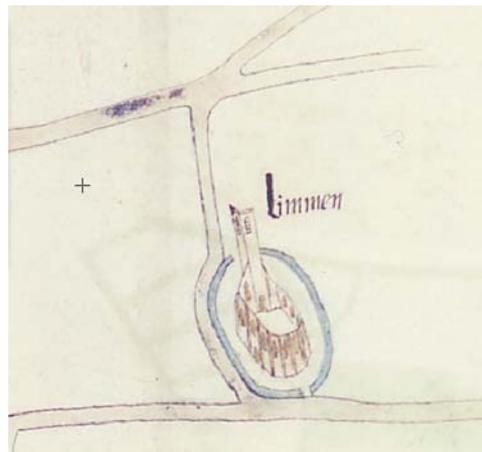


Figure IV.10 Part of the map (drawn by Pieter Bruinsz), dating from ca. 1594 with the medieval church of Limmen and its moat (Beeldbank Stadsarchief Amsterdam).

## IV.5 Archaeological observations

### IV.5.1 Composition, beginning-end and duration of habitation

In accordance with the theoretical framework we have put together, all excavated settlement clusters from Limmen were based on the available data and on three parameters: the dating, the duration, and the composition (table IV.1).<sup>46</sup> Some excavations referred to in § IV.2.3 are not published in detail. We discuss the layout of settlement clusters in § IV.6.1, together with the diachronic reconstruction of visible settlement patterns. The settlement clusters date from the Merovingian period to the Early Modern period (figure IV.2). We do need the Merovingian period as a temporal context for the period between 800-1600 AD.

Ten settlements are excavated at Limmen from the Middle Ages and Early Modern period, altogether, nine agrarian settlements and one aristocratic settlement (tables IV.1, IV.2 and figure IV.2). The settlement clusters can be grouped into three periods. The first group dates to the Early Medieval period only, the second dates to the High Medieval period and the third dates to the Late Medieval and Early Modern period. The group which dates to the early medieval period consists of at least one agrarian settlement cluster with multiple farms, excavated at Limmen-De Krocht, dating 825-1000. During its existence it contained 7 habitation phases (phases 3-9 of the structures of the excavation area). Phase 2 of the excavation possibly contains a habitation phase, but that is uncertain. Only one inhumation grave has been found, which dates to the Merovingian or Early Carolingian period. Settlement 1 consists of five farmsteads. Not all of them were inhabited at the same time. They were all oriented to a road lying to the east of the farmsteads. Another possible agrarian settlement cluster with multiple farms from the early Middle Ages has been partly excavated (settlement Limmen 3) in the surroundings of the medieval church of St. Martin, now the Dutch Reformed Church. Remarkably, the habitation on this spot only existed during the Merovingian and Carolingian period. From the thirteenth century onwards, habitation begins again and lasts until the eighteenth century. Fragments of the early medieval settlement are uncovered on two sites. At Limmen-Zuidkerkelaan I, a human grave was uncovered from the Merovingian period.<sup>47</sup> From the Carolingian period, one building has been found. At Zuidkerkelaan II, a possible plan of an early medieval building has been uncovered.<sup>48</sup> However, material culture from the High Middle Ages has been found (by Cordfuncke) at the excavation of the church.<sup>49</sup> Three views on the sequence of subsequent phases of the church have been written down by Cordfuncke, Hundertmark and De Koning.<sup>50</sup> Based on archaeological research in 1968, Cordfuncke concluded that the church had four building

<sup>46</sup> In accordance with Huijbers *in prep.*

<sup>47</sup> Van Raaij 1993a, 315 & fig. 23.

<sup>48</sup> Van Raaij 1993b, 319 & fig. 27.

<sup>49</sup> Cordfuncke 1969.

<sup>50</sup> Cordfuncke 1969; Hundertmark 2005; De Koning 2004.

**Table IV.1 Agrarian settlements excavated in Limmen of the Middle Ages and Early Modern period sorted by composition, beginning-end and duration of existence.**

Site	Settlement (subsite)	Excavated completely	Composition of settlement	Number of farmsteads	Begin (yr AD)	End (yr AD)	Duration (yrs)
Limmen-De Krocht	Limmen 1	No	Agricultural settlement consisting of multiple contemporary tofts	5 farmsteads: • farmstead 1: 825-950 • farmstead 2: 825-875 (other phases are situated outside the excavation area?) • farmstead 3: 875-1000 • farmstead 4: 875-950 • farmstead 5: 900-1000	825	1000	175
Limmen-De Krocht	Limmen 2	No	Agricultural settlement consisting of multiple contemporary tofts	12-17 farmsteads: • farmstead 1: 1025-1100 and 1175-1200 (other phases situated outside the excavation area?) • farmstead 2: 1025-1175 and 1200-1250 • farmstead 3: 1150-1200 • farmstead 4: 1100-1150 • farmstead 5: 1075-1100 • farmstead 6: 1100-1200 • farmstead 7: 1025-1150 • farmstead 8: 1100-1250 • farmstead 9: 1150-1250 (other phases situated outside the excavation area?) • farmstead 10: 1100-1150 • farmstead 11: 1150-1250 (other phases situated outside the excavation area?) • farmstead 12?: (deel van erfplaats 10?): 1100-1200 • farmstead 13: 1100-1175 (other phases situated outside the excavation area?) • farmstead 14?: 1150-1175 • farmstead 15?: 1175-1200 • farmstead 16: 1100-1200 • farmstead 17?: 1100-1150 (other phases situated outside the excavation area?)	1025	1250	225
Limmen-Zuidkerkelaan I, II and III	Limmen 3	No	Agricultural settlement consisting of multiple (?) contemporary tofts	At least two farmsteads	Merovingian period	Carolingian period	
Limmen-Uitgeesterweg 4	Limmen 4	No	Single farm	At least one farmstead	950	1300	350
Limmen: Oosterzijweg	Limmen 5	No	Single farm	At least one farmstead	900	1150	150/250
Limmen-Uitgeesterweg	Limmen 6	No	Single farm	At least one farmstead	1200	1300	100
Limmen-Schoollaan	Limmen 7	No	Single farm	At least one farmstead	Early modern period	Early modern period	
Limmen: Oosterzijweg	Limmen 8	No	Single farm	At least one farmstead	1250/1300	1350/1400	100
Limmen-Zuidkerkelaan I	Limmen 9	No	Single farm	At least one farmstead	1500	1680/1735	180/235

**Table IV.2 Aristocratic settlements excavated in Limmen of the Middle Ages and Early Modern period, sorted by composition, beginning-end and duration of existence.**

Site	Settlement (subsite)	Excavated completely	Composition of settlement	Number of farmsteads	Begin (yr AD)	End (yr AD)	Duration (yrs)
Limmen-Hooghuizen	Limmen 10	no	Aristocratic settlement: moated site	Undetermined	Fourteenth century	Beginning of the sixteenth century	150?

periods.<sup>51</sup> The first building period dates to the twelfth century, comprising of a building constructed in tufa. The second building period dates to the thirteenth century, the third in the fourteenth century and the fourth building period begins at the end of the fourteenth or the beginning of the fifteenth century. Hundertmark revised the view of Cordfuncke, based on historical building research.<sup>52</sup> He concluded that the church was constructed in 1108, using a charter as evidence. This phase was followed by a phase which dates to around 1200. A third phase belongs to the thirteenth century and a fourth phase belongs to the thirteenth or the beginning of the fourteenth century. Changes made during the second half of the fourteenth century mark the fifth building phase.

De Koning's research revealed no new insights on the tufa building phase. He concluded that after the tufa church, during the period of 1300-1500, three building periods could be discerned.<sup>53</sup> The churchyard had also been moated.<sup>54</sup>

The settlement (cluster)s dating from the High Medieval period comprises of four agrarian sites. The first (Limmen 2) is the successor of the early medieval and Ottonian settlement Limmen 1. It contains 12-17 farmsteads. The road, during its early existence, was still in use. But around 1150, its use as a traffic road was abandoned. A possible new road, lying to the east, was built. The former road became a walking path, especially from phase 14-15, when both sides of

the road were inhabited. The second settlement cluster is found at Laan, at the excavation of Limmen-Oosterzijweg (Limmen 5; table IV.1 and figure IV.2), which shows the presence of settlement features from the tenth to twelfth centuries (900-1150) alongside features from later dates.<sup>55</sup> The third settlement cluster (Limmen 4), possibly a single multi-phased farm, was found in 2014 during a small-scale excavation in a building pit at Uitgeesterweg 4 (table IV.1 and figure IV.2). It showed the presence of seven wells dating between 950-1300.<sup>56</sup> The fourth settlement cluster (Limmen 6) was found at the Uitgeesterweg in the twentieth century.<sup>57</sup> It showed features from the thirteenth century.

The group dating of the Late Medieval and Early Modern period consisted of several (certain and possible) excavated agrarian settlements and one aristocratic settlement, a moated site. The first (certain) agrarian settlement was situated on the site of Limmen-De Krocht (table IV.1 and figure IV.2). It concerns a part of a farmyard, probably a predecessor of the present farmstead, built in 1897 called *De Westert*. It dates to the second half of the sixteenth and the seventeenth century.<sup>58</sup> The second agrarian settlement was situated on the site of Zuiderkerkelaan I, dating between 1500-1680 and 1735, based on a reinterpretation of the original evidence (Limmen 9: table IV.1, figure IV.2 and figure IV.5).<sup>59</sup>

<sup>51</sup> Cordfuncke 1969.

<sup>52</sup> Hundertmark 2005.

<sup>53</sup> De Koning 2004.

<sup>54</sup> Dijkstra 2007.

<sup>55</sup> Van Raaij 1995a.

<sup>56</sup> Van Raaij 2014.

<sup>57</sup> Van Raaij 1995c.

<sup>58</sup> Dijkstra, De Koning & Lange 2006, 59-61.

<sup>59</sup> Van Raaij *in prep.*; Schabbink 2015, 32-33 & fig. 2.8.

The third agrarian settlement (Limmen 5) is found at Laan, at the excavation of Limmen-Oosterzijweg (table IV.1 and figure IV.2).<sup>60</sup> A structure was uncovered, which was interpreted as a sunken hut (*Grubenhuis*) in the publication of 1995, dating between 1250-1350.<sup>61</sup> It was lying next to the high medieval features mentioned above. In a publication (2012), Van Raaij interprets the structure as a cellar of a farmhouse and he

dates the structure to the fourteenth century.<sup>62</sup> The fourth agrarian settlement (Limmen 7) was found at Limmen-Schoollaan (table IV.1 and figure IV.2). A well was uncovered near the moat surrounding the medieval church, dating to the Early Modern period.<sup>63</sup> Furthermore, a moated site called Hooghuizen was also found (Limmen 10) (table IV.2 and figure IV.2).<sup>64</sup>



Figure IV.11 Limmen, reconstruction of early medieval pattern of roads, field parcelling and habitation on settlement clusters Limmen 1 and 3 (Dijkstra, De Koning and Lange 2006, figure 15.1).

<sup>60</sup> Van Raaij 1995a.

<sup>61</sup> Van Raaij 1995a.

<sup>62</sup> Van Raaij 2012, 89.

<sup>63</sup> Van Raaij 1995b.

<sup>64</sup> Dijkstra 2012.

<sup>65</sup> Dijkstra, De Koning & Lange 2006.

## IV.6 Conclusions

### IV.6.1 Settlement history of Limmen

#### Early Middle Ages (500-900 AD (1000))

In this period at least two settlement clusters were inhabited, Limmen 1 and Limmen 3. Limmen 1 could have been the historic *Smithan*, and Limmen 3 *Limbon* in the list of St. Martin, as mentioned before.<sup>65</sup> Both settlements were part of the most southern landscape of the coastal barrier ridge. Dijkstra, De Koning and Lange reconstructed an early medieval road system which surrounded the two settlements (figure IV.11).<sup>66</sup> Other unexcavated settlement clusters might have been oriented to this road system too. Van Raaij located several of them by surveying the surfaces of fields (figure IV.12). By combining the data of Limmen 1 with the survey data of Van Raaij, one could assume that it was part of a north-south oriented pattern of settlement clusters west (and possibly east) of and parallel to the former extension of the *Uitgeesterweg* road (figure IV.13). When this is the case on the eastern side of the coastal barrier ridge, the same pattern could have existed. In that case, the *Zuideinderweg* might have determined the direction of the north-south linear settlement (figure IV.13). The settlement cluster at the medieval church might have been part of this eastern north-south aligned row of settlements. However, the cluster at the medieval church could have been the oldest medieval settlement on the coastal barrier ridge of Limmen. Under these circumstances, a nuclear settlement could have been present in the Merovingian period, the very first medieval settlement of Limmen, which was the precursor of the Carolingian settlement that was part of the assumed north-south linear settlement parallel to the *Zuideinderweg*. Presuming the existence of two north-south oriented patterns of linear settlements, parallel to the roads in the Carolingian period (along the former extension of the *Uitgeesterweg* and the *Zuideinderweg*), Dijkstra supposes that in-between them, a complex of arable fields was situated (figure IV.12). Situated at the pointed southern end of the coastal barrier ridge, an angular parcelling was laid out that resembled a

‘feathered parcelling’.<sup>67</sup> Because the medieval church dated from the period after 900, based on the Pingsdorf pottery in the foundation trench of the first phase, the tufa church (an older church) could have been located elsewhere on the dune. Since the interior of the church was not extensively excavated, the presence of a wooden predecessor might also be possible. The presence of an older church is conceivable when the property of Limmen, mentioned in the list of St. Martin, dates before 900. A similar settlement cluster to Limmen 1 and Limmen 3 was excavated at the island of Texel.<sup>68</sup>

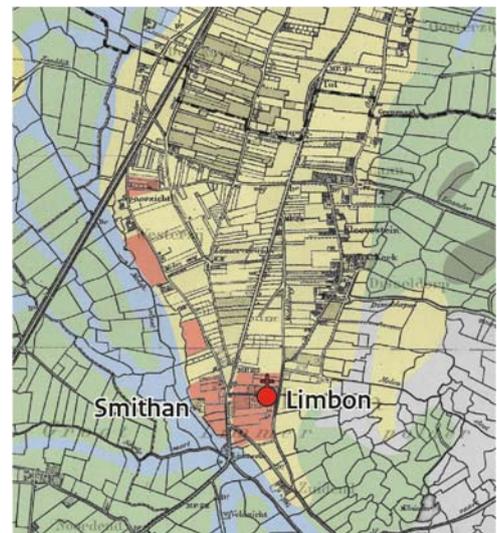


Figure IV.12 Limmen map with habitation 600-1000, based on archaeological finds (Van Raaij 2014, figure 5).

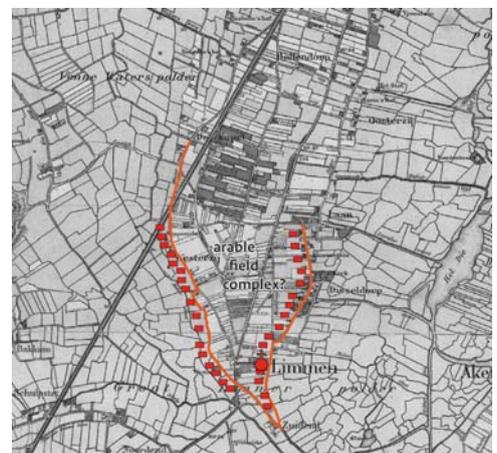


Figure IV.13 Limmen, hypothetical settlement pattern, road system and field parcelling and location of arable fields, 500-1000.

<sup>66</sup> Dijkstra, De Koning & Lange 2006, 201, fig. 15.1.

<sup>67</sup> Dijkstra 2011.

<sup>68</sup> Woltering 1975.

### High Middle Ages (900 (1000)-1250 AD)

Van Raaij published a distribution map of settlements in Limmen dating between 1000-1400. With one exception, all settlements were located on both flanks of the coastal barrier ridge (figure IV.14), where an elliptic-shaped pattern of habitation appears (figure IV.15). Because the flanks of the coastal barrier ridge meet at the most southern part of the ridge, the settlements on this part covered a larger area of habitation. This could explain why Limmen 2 was lying on both sides of the road that was excavated at Limmen-De Krocht. Comparing the two maps of Van Raaij (figure IV.12 and IV.14), the settlements built on the eastern flank of the coastal barrier ridge were new ones. However, in the Early Medieval period when a north-south aligned linear settlement already existed, parallel to the *Zuideinderweg*, the settlements on the eastern flank from the period 1000-1400 could have been (in part) successors of early medieval settlements. The habitation from the period 1000-1400 might not have been continuous as Van Raaij suggests on his map (figure IV.14). Limmen 2 was abandoned around 1250, and Limmen 5 around 1150 (table IV.1). Later, from 1250-1300 onwards (table IV.1), Settlement 8 came into existence on the spot of Limmen 5. Additional excavations are needed to test this supposition. Van Raaij speculates the restructuring of the settlement pattern around 1000 in Limmen and other places (Castricum-Oosterbuurt, Uitgeest-De Dog, Heiloo-Stationscentrum, Heiloo-Zuiderloo, Texel-Den Burg).<sup>69</sup> He suspects that the villages on the high lying arable fields, the so-called *geestdorpen*, had an origin in this restructuring. This notion might have been derived from the ascertained changes in orientation of the field parcelling on the location of Limmen 1 and 2 settlements, around 1000.<sup>70</sup> This change possibly occurred parallel to a change in the road system (figure IV.15). Still, an angular parcelling could have been present, with a complex of arable fields in-between (figure IV.15). It is possible that most

of the habitation between 1000-1250 was located somewhat closer to *Westerweg* and *Smidesweg* than the early medieval habitation. During the Late Medieval period, from 1250-1300 onwards, the habitation locations shifted to the current locations.

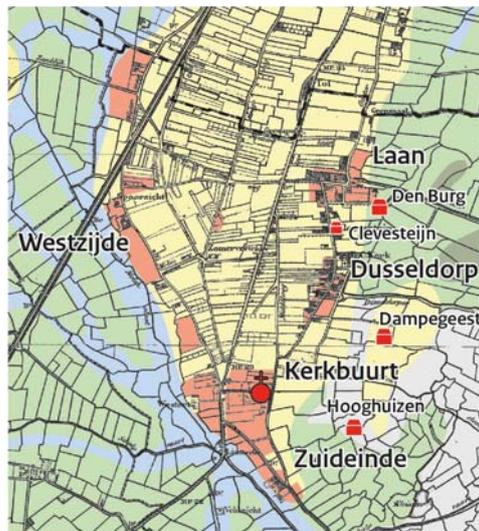


Figure IV.14 Limmen, map with habitation 1000-1400, based on archaeological finds (Van Raaij 2014, figure 7).

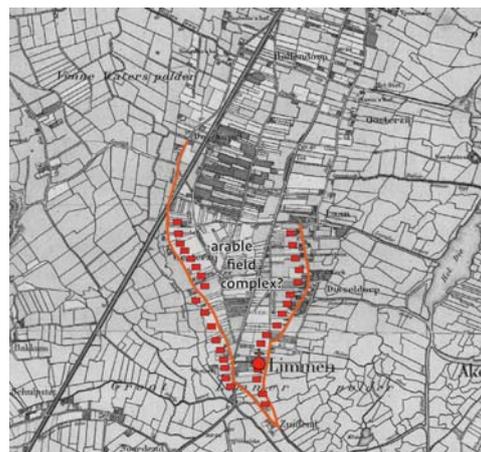


Figure IV.15 Limmen, hypothetical patterns of settlement, road system and field parcelling and location of arable fields, 1000-1400.

<sup>69</sup> Van Raaij 2014, 13.

<sup>70</sup> Dijkstra, De Koning & Lange 2006.

### Late Middle Ages and Early Modern period (1250-1850 AD)

Using the distribution map of Van Raaij, concerning the time between 1000-1400 as a source,<sup>71</sup> the late medieval habitation could have been located on the same spots as during the period between 1000-1250; the elliptic-shaped pattern of habitation. However, at Limmen-De Krocht it was established that the habitation ended after 1250 at Limmen 2 and Limmen 5 (at Laan) around 1150. So on several locations there might have been a hiatus somewhere between 1150-1250 and later on. At Laan, on the eastern flank of the coastal barrier ridge, a cellar (part of a farmhouse) was discovered (Limmen 8) dating 1250-1350 or 1300-1400 (table IV.1), so a hiatus was present on this spot. As stated before, it is possible that most of the habitation between 1000-1250 was located somewhat closer to the Westerweg and Smidesweg than the early medieval habitation. During the Late Medieval period, from 1250-1300 onwards, the habitation locations shifted to locations closer to the borders of the coastal barrier ridge. This late medieval settlement pattern might possibly be the same as shown on the map of 1680 (drawn by Dou). By plotting the settlement clusters of the 1680 map on a modern topographical map, an elliptic-shaped habitation pattern becomes visible as suggested for the High and Early Medieval period (figure IV.16). On the map of 1680 at least four groups of habitation could be ascertained on the coastal barrier ridge: *Laan* at the *Limmerlaan*, *Dusseldorp*, *Limmen* (at the medieval church) and a group of dispersed farms together named *Westzyde*. Furthermore, several moated sites could be added. At least four moated sites could be ascertained: *Clevesteijn*, *Hooghuizen*, *Dampegeest* and *Den Burg*. Only the latter two are pictured on Dou's map. (figure IV.16 and IV.17).<sup>72</sup> Remarkably, two sites are located to the east of the eastern flank of the coastal barrier ridge on the 1680 map. Because the two habitation clusters (*Dusseldorp* and *Limmen*) were also located on the eastern flank of the coastal barrier ridge, the habitation on the eastern flank could have comprised of the main village area of *Limmen* in 1680 (and possibly earlier) during the Late Medieval period.

The *ban* or village of *Limmen*, as it was called in written sources, bore the name of one of the early medieval settlement clusters. This points

to a process of expansion of the territory of a toponymic name, from the spatial level of the individual settlement to the spatial level of the village territory. A process which could also be assumed elsewhere.<sup>73</sup> The name of one of the settlement clusters of *Limmen* of the Early Medieval period surpassed the names of the other existing settlement clusters, maybe because a church was present there too.

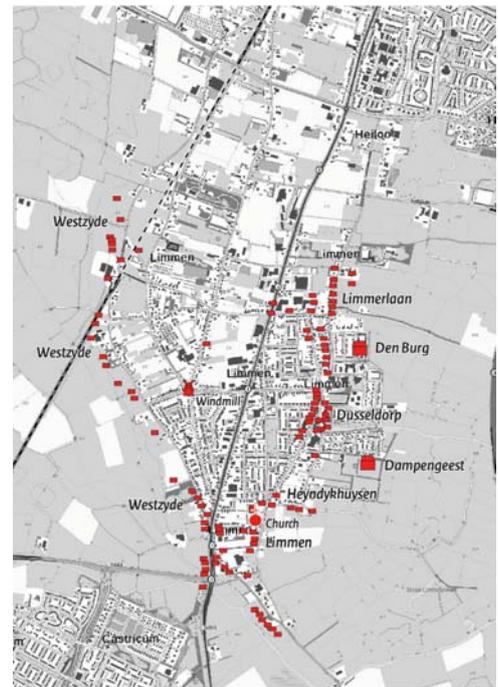


Figure IV.16 Limmen, settlements of the map of 1680 (drawn by Dou) plotted on a modern topographical map.

## IV.6.2 Explanation of the course of the settlement history and village formation

### Demographic and economic processes

Presently, no data is available to present an overview of the size and demographic development of the population of *Limmen* in the Middle Ages, nor of the North-Holland region. Dijkstra compiled an overview of the neighbouring South-Holland area in which he distinguished some general trends. These were compared with the demographics of other regions in the Netherlands.<sup>74</sup> In the area of South-Holland, a rise in population size could be

<sup>71</sup> Van Raaij 2014, 13, fig. 28.

<sup>72</sup> Druijven 2003; Dijkstra 2012; Van Raaij 2014.

<sup>73</sup> Huijbers in press.

<sup>74</sup> Dijkstra 2011, 105-107, table 3.6 & 3.7.



assumed in the Carolingian period compared to the Merovingian period.<sup>75</sup> This increase, based on archaeological data, is also visible in other regions of The Netherlands.<sup>76</sup> Historical and historical-geographical studies show a rise in population numbers during the High Medieval period (in regions) in the Low Countries.<sup>77</sup> Despite the lack of demographic data for the High Middle Ages, some ideas on the development of population size were put forward by Dijkstra, De Koning and Lange, based on archaeological evidence. The composition of farmyards at Limmen-De Krocht changes around 1150. Newly composed farmyards had distinctly smaller house plans than before. This could indicate that the storage capacity of each farmyard decreased after 1150. The excavators ascertain that this could be due to a split up of land, indirectly pointing to a population rise after 1150.<sup>78</sup> For the Late Middle Ages, some demographic data is available that allows an estimate of population size. Fruin documented 100 hearth places in Limmen in 1477 and 95 hearth places in 1494.<sup>79</sup> Concerning the Early and High Medieval period, information on the economy is available (to some extent) with the results of eco-archaeological research performed on the site of Limmen-De Krocht. Arable farming was important in the environment of the excavated area during the existence of Settlements 1 and 2. This could be confirmed by the presence of rye, wheat (*emmetarwe*), oats and barley remnants.<sup>80</sup> Flax was also found. The use of rye (a winter crop) could point to a three-course system, as suggested in Drenthe, from the Carolingian period onwards.<sup>81</sup> Animal husbandry was represented by the bones of cattle, horse, pigs and sheep.<sup>82</sup> In the ninth century a goldsmith was present on settlement Limmen 1, represented by crucibles and a cupel (a small dish to purify gold and silver alloys) that was found in a pit.<sup>83</sup> With respect to the Late Medieval period, some information could be deduced from the aforementioned text published by Fruin. Fruin mentions three occupations performed in Limmen in 1477 and 1495: arable farming (*landwinnigen*), animal husbandry and fish trade.<sup>84</sup> Fish was transported from Egmond to Utrecht. The fish trade diminished in 1495 compared to 1477.

## Social factors and processes

### *The Early Medieval and High Medieval period*

#### *The clear dominance of vertical relationships in Limmen*

To explain the described settlement history, i.e. the sequence of period-specific settlement patterns, and outline the societal history of village formation of Limmen, we could ask the question: to what extent were social factors important? The vertical social factor is clearly visible at Limmen during the Early and High Medieval period (according to written sources) and the horizontal social factor is only visible from the Late Medieval and Early Modern period onwards. This fits in with the formation process of written sources; horizontal relations were absent in texts of the Early and High Medieval period because it was less important for magnates to write them down.<sup>85</sup> All of the landed property of Limmen written down in the Early and High Middle Ages namely appear in texts from ecclesiastical magnates: the abbey of Egmond, the Bishop of Utrecht and the chapter of St. Mary. Dijkstra, De Koning and Lange suggest that the large farmyard of phases 8 and 9 (950-1000) with buildings 2 and 40 on settlement 1 of Limmen could have been a manorial centre (*vroonhof*).<sup>86</sup> This is based on the prospect that a large part of Limmen was covered with manorial property.<sup>87</sup> Dijkstra, De Koning and Lange refer to Druiven, who states that the chapter of St. Mary of Utrecht owned 12 *mansî* of landed property during the twelfth century. They also refer to De Cock, who states that the abbey of Egmond owned 30 *mansî* of landed property (making it 42 *mansî* altogether).<sup>88</sup> The figure of twelve *mansî* is two *mansî* more than was specified in the list of St. Martin, dating to the ninth century, according to Henderikx (see above). The figure of 30 *mansî* of Egmond has been calculated by De Cock, based on a figure of 42 libri (pound) in the *Fontes Egmondenses*, presuming 1.5 libri is the equivalent of 1 *mansus*.<sup>89</sup> The 42 libri are mentioned in a document called the *liber sancti Adalberti*, inside the *cartularium* of the abbey of Egmond, composed in 1214 and published by Oppermann.<sup>90</sup> De Cock assumes that *Adgeringelant*, *Hildebrandislant*, *Siuuirdingclant*, *V fiertelen* and *Lantlosamade* from the charter of 1083 were all located in Limmen.<sup>91</sup>

<sup>75</sup> Dijkstra 2011, 105, table 3.6.

<sup>76</sup> Dijkstra 2011, 107, table 3.7.

<sup>77</sup> Spek 2004; Van Bavel 2010.

<sup>78</sup> Dijkstra, De Koning & Lange 2006, 212.

<sup>79</sup> Fruin 1876, 53.

<sup>80</sup> Dijkstra, De Koning & Lange 2006, 211.

<sup>81</sup> Spek 2004.

<sup>82</sup> Dijkstra, De Koning & Lange 2006, 211.

<sup>83</sup> Dijkstra, De Koning & Lange 2006, 51.

<sup>84</sup> Fruin 1876, 53-54.

<sup>85</sup> Reynolds 1997 (1984).

<sup>86</sup> Dijkstra, De Koning & Lange 2006, 203-205.

<sup>87</sup> Dijkstra, De Koning & Lange 2006, 205.

<sup>88</sup> Dijkstra, De Koning & Lange 2006, 204-205.

<sup>89</sup> Oppermann 1933; De Cock 1965, 174.

<sup>90</sup> Oppermann 1933, 66 (date of composition), 74 (property at Limmen).

<sup>91</sup> Koch, Kruisheer & Dijkhof 1970-2006, 88; De Cock 1965, 174.

This could be true because in the *liber sancti Adalberti*, in the sequence of names, these entities and some others are mentioned in-between two names which could be located in Limmen: *Smithen* and *Linbon* (Limmen). The passage in the *liber sancti Adalberti* of 1214 reads:

“...In *Smithen decemseptem libras, Gestichin decem uncias, Athelhilt decem uncias, Brocchingelant septem uncias. In Adgeringhelant quator libras. In Hildebrandislant sex libras. In Sviridinghelant duas libras, Magchanchelant octo uncias, Tietgerdermade tres uncias. In Quinque fiertelen duas libras et sex uncias. In Lantlosmede tres libras et sex uncias. In Linbon tres libras...*”<sup>92</sup>

De Cock probably made his calculation with the figures of the entities of those he thought were lying in Limmen (*Smithen, Adgeringelant, Hildebrandislant, Siuuiridingclant. V fiertelen* and *Lantlosamade and Linbon*). Because more entities are mentioned in the passage of the *liber sancti Adalberti* of 1214, the amount of libri could be higher than 42.

We do not know the size of one *mansus*, its size could be up to 120 *morgen*.<sup>93</sup> Koene, Morren and Schweitzer state that the standard size of a *mansus* in Holland was 16 *morgen*,<sup>94</sup> but some *mansi* in Holland could have a size of  $20 \pm 4$  *morgen*.<sup>95</sup> A *morgen* could be 600 rods (*roeden*), according to a text from 1262.<sup>96</sup> When we use the figure of one *mansus* as 16 *morgen*, 30 *mansi* x 16 *morgen* would be 480 *morgen*. The figure of 42 libri fits with a figure of income in the year 1449-1450. According to Hof, the income of the land rents (*landhuren*) of the abbey of Egmond in 1344-1345 was 5 libri, in 1395 it was 25 libri and in 1449-1450 it was 49 libri.<sup>97</sup> The size of the twelve *mansi* of the chapter of St. Mary of Utrecht would be  $12 \times 16 = 192$  *morgen*. So the total size of landed property at Limmen would be  $480 + 192 = 672$  *morgen*.

The total size of arable fields could have been 650 *morgen* (520 ha.) in 1514, according to a text published by Fruin in 1866.<sup>98</sup> The total size of the territory of Limmen was 1142 *morgen* in 1568.<sup>99</sup> Druijven shows figures of the size of land owned by inhabitants of Limmen and outsiders in the sixteenth century. In 1514 the inhabitants owned 120 *morgen* and outsiders 530 *morgen* of land, together 650 *morgen*.<sup>100</sup> Outsiders with landed property were charity and (urban) monastic

institutions of Haarlem, Alkmaar, Leiden and Amsterdam; the abbey of Egmond and individual persons from towns of Alkmaar, Haarlem and Amsterdam; and from the neighbourhood of Limmen.<sup>101</sup> Druijven also shows the amount of rented land (*vroonhuur*).<sup>102</sup> When 650 *morgen* was also the amount of arable land during the moment the income of 42 libri of the abbey of Egmond was mentioned (1214) and  $42 \text{ libri} = 30 \text{ mansi} = 480 \text{ morgen}$ , 480 *morgen* comprises about two third of the arable fields of Limmen. Adding the land surface owned by Utrecht and presuming it existed at the same time as the mentioning of the 42 libri income of Egmond in 1214, the amount of manor land could have been 672 *morgen* in 1214. When all this is true, one could conclude that almost all the surfaces of Limmen were covered with landed property of large magnates in the High Medieval period. This means virtually no free peasants could have had landed property at Limmen. The same situation could be possible during the Early Medieval period, because the landed property of the Bishop of Utrecht is mentioned in the ninth century and the abbey of Egmond as owner of landed property was preceded by the Count of Holland and his ancestors.

The implication of this conclusion is that most of the land was manorial land during the Early and High Medieval period. The role of power and coercion could be strong depending on the social organisation of the production, direct or indirect exploitation (by means of renting land), collecting tributes in return (*cijnzen*). The latter option might be more plausible because no central farm (*hof* or *curtis*) is mentioned in the texts, only *mansi*. This means the household economy<sup>103</sup> (hoeven) could have been important. To what extent this household economy was autonomous remains unclear. The possibility that most of the land was manorial land must have influenced the nature of the village of Limmen in a social sense in the High, but also in the Late Medieval period.

#### Horizontal relationships

The fact that only landed property from ecclesiastical magnates have been written down, it is probably the reason why the perspective of power and coercion has been applied extensively at Limmen. However, this does not mean that horizontal relationships were not

<sup>92</sup> Oppermann 1933, 74.

<sup>93</sup> Engel 1954, 279.

<sup>94</sup> Hof also assumes 16 *morgen* as the size of one *mansus*, Hof 1973, 417.

<sup>95</sup> Koene, Morren & Schweitzer 2002, 112-113.

<sup>96</sup> De Monté ver Loren 2000 (1946), 94.

<sup>97</sup> Hof 1973, 422.

<sup>98</sup> Fruin 1866; Druijven 2003, 201.

<sup>99</sup> Druijven 2003, 201.

<sup>100</sup> Druijven 2004, 204.

<sup>101</sup> Druijven 2003, 204.

<sup>102</sup> Druijven 2003, 205-209.

<sup>103</sup> McNetting 1993.

existing during the Early and High Medieval period. Horizontal relationships could have existed alongside vertical relationships, which are individual relationships of dependency that could exist as persons living in isolation or as persons living together. There does not necessarily have to be a reason for farmers to live together in dependency relationships, especially people living in *mansi*. As shown in chapter four, however, when the inhabitants of *mansi* were not free they could have lived in concentrated settlements, so that the owner was able to monitor them. We do not know the social status of the people working on the *mansi*. The choice of location of the farmyard and the erection of buildings related to the *mansi* could have been completed by the manorial lord. In a charter from 1479 a knight in Assendelft proclaimed that his subjects might sell or break down their own house.<sup>104</sup> However, this does not mean that it was the case in the High and Early Middle Ages too, but still, it might have been possible. Moreover, horizontal relationships must have been important. Despite a possible forced location of the farmyard, horizontal relationships must have been developed. They could have been of a social-economic nature, as outlined in chapter four. A clue to social horizontal relationships during the Early and High Medieval period is the origin of the word *aasdom*, the word *asega*.<sup>105</sup> *Asega* could refer to a person and a territory. An *asega*, as a person, was a juridical functionary who advised at the lay court of neighbours.<sup>106</sup> He was, at the same time, a functionary and a priest in the pre-Christian period.<sup>107</sup> *Asega*, as a territory, could be (according to Koene) the precursor of the so-called *vierendeel*.<sup>108</sup> Later on, the *asega* developed to be a person who was only a functionary and no longer a priest. During the thirteenth century the court of lay neighbours and the person of *asega* was replaced by the court of mayor and aldermen.<sup>109</sup> When all of this is true, during the Early medieval period, horizontal relationships existed alongside vertical relationships on a local level. Social-economic relationships might have been present when a three-course system was applied at Limmen on arable fields.<sup>110</sup> Using this system, it is necessary to cooperate. Another clue for relationships of cooperation might be the layout of the village during the Early and High Medieval period as hypothesised above – settlement

clusters on the flanks of the coastal barrier ridge, and a central complex of arable fields, enables and stimulates working together on the fields. In conclusion, vertical and horizontal social and social-economic relationships could have been important in defining the social character of the village of Limmen during the Early and High Middle Ages. The settlement patterns of the Early and High Medieval period could reflect this character, because both types of relationships were present during the lives of the farmers living in the settlement clusters. However, the layout of the settlement patterns were probably more an outcome of vertical relationships, while horizontal relationships were developed once this layout was created, over and over again during several phases in the Early and High Middle Ages. The shifting of the location of the settlement clusters on settlement 2 was possibly a result of sand blowing from the west and a process in which the lower area to the west, next to the Molensloot, became wetter.<sup>111</sup> However, when the landed property of the Count of Holland was donated to the Bishop of Utrecht the location of settlement could have changed, especially the reorientation of the field parcelling between 1000-1025, which could have been due to this process.<sup>112</sup>

#### *The Late Medieval and Early Modern period*

The influence of the magnates with landed property must have been large because all of the territory of Limmen could have been manorial property in the High Medieval period. This defined the topography of the High Medieval period, as has been put forward in the last section. In the Late Medieval period the same situation must have been present, as it appears in the so-called *cohierien van de 10de en 100ste penning*. In these *cohierien* a picture arises that depicts almost all of the land as being owned by external living possessors. Of the 650 morgen land, only 120 was used by autonomous farmers in Limmen and of these 120 morgen, only one third was free land.<sup>113</sup> However, at the same time, the Late Medieval period might have been the period in which the parish of Limmen arose. As previously stated, the name of the settlement cluster at the church, *Limbon*, spread over the whole territory of Limmen. At a certain moment in time it was used to name the village and *ban* of Limmen. The settlement *Limbon* is mentioned in the list of

<sup>104</sup> Koene 2010, 34.

<sup>105</sup> De Goede 1944; De Cock 1965; Blok 1968; Koene 2010.

<sup>106</sup> The word *geburscaf*, mentioned in the eleventh century (Reynolds 1997 (1984)), could possibly be a lay court of neighbours too.

<sup>107</sup> Koene 2010, 37; De Goede 1944, 56-57.

<sup>108</sup> Koene 2010, 37.

<sup>109</sup> Koene 2010, 37.

<sup>110</sup> Dijkstra, De Koning & Lange 2006.

<sup>111</sup> Dijkstra, De Koning & Lange 2006.

<sup>112</sup> Compare Dijkstra, De Koning & Lange 2006.

<sup>113</sup> Druifven 2003, 201-209.

St. Martin. It was one of several settlement clusters in the area, with *Smithan* less than 300 m away. The large number of place names on the property list of St. Martin indicate that either many subsidiary settlements in the village territory existed or that several satellite settlements had branched off.<sup>114</sup>

Parallel to this process, the parish possibly came into being. It is a coincidence that at the settlement of *Limbona* a church was also erected – the parish church. The name of the parish was the same name as the settlement *Limbon*. So a possible parallel process could be made visible. Together with the expansion of the name Limmen over the territory of the village, the influence of the church of Limmen over its surroundings expanded. The parish is first mentioned in a charter from 1202.<sup>115</sup> The identification with one settlement, *Limbon*, was important to the inhabitants living around *Limbon*, probably because of the presence of the church which had determined the village-identity of the Late Middle Ages. The parish points to religious relationships, the *ban* to juridical relationships. The *ban* had its own *keuren* and they used the commons. According to De Cock, a parish was mostly divided into four neighbourhoods, the aforementioned *vierendelen* (quarters). The borders of the parish overlapped with the borders of the *ban*.<sup>116</sup>

To conclude, the village (in a social and topographical sense) in the Late Medieval period was a product of a process of the High Medieval period which was mainly a vertical socially-driven process. Typically, the location of the Late Medieval habitation in the landscape shows comparisons with the cover sand landscape of the Southern Netherlands, in both cases on the edge of dry and wet land. So the origin of the present-day village was a vertically social one, it was defined mainly by institutions and persons with landed property, living out of Limmen. The village was socially defined by manorial property, the parish and the *ban* or village. So three social factors defined and dominated the social village. The rise of the extent of the material village was determined by demographic developments, its spatial structure by a vertical social factor, and manorial property.

#### Urbanisation

The rise of towns like Alkmaar, Haarlem and Amsterdam must have had an influence on the

village of Limmen. In any case, fish trade was important during the fifteenth century according to Fruin.<sup>117</sup>

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### IV.6.3 Conclusions

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The late medieval and early modern village of Limmen consisted of a dispersed settlement on the western flank and nucleated settlements on the eastern flank of the coastal barrier ridge. This elliptic structure followed the settlement landscape of the Early and High Medieval period, which also had an elliptic structure.

#### Societal factors which influenced the social village of Limmen during the period 800-1600

GF 1. Vertical social relationships (power, coercion and force, authority, dependency with a variety of gradations). These were of major importance in the High Medieval period by religious institutions and elite groups. Vertical relationships, property relations, were of major importance during the Late Medieval and Early Modern period too.

GF 2. Horizontal social relationships (kinship, identification with community and (ancestral) territory). The identification with one settlement, *Limbon*, was important and determined the village identity of the Late Middle Ages.

GF 3. Social-defensive relationships. These were of no importance because there were no indications of fortified settlements. The enclosure of the moated sites was more a legal demarcation than a defensive feature.

GF 4. Social-religious relationships (confession of faith, worship of common saint). These were important, at least from the thirteenth century onwards, according to written evidence (rise of the parish).

GF 5. Social-judicial relationships (common rights and duties – whether or not written down – common alderman court, *geburscaf* as juridical entity, the commons as juridical entity). These were important, at least from the fourteenth century onwards, according to written evidence. It is possible that they were

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<sup>114</sup> Dijkstra 2011, 189.

<sup>115</sup> Koch, Kruisheer & Dijkhof 1970-2006, 254.

<sup>116</sup> De Cock 1965.

<sup>117</sup> Fruin 1876.

important earlier too, when the concept of *asega* might have been valid earlier in time.

GF 6: Social-economic factors (collective action, namely, cooperation in the commons and on the fields in the agrarian activities cycle).

These might have been important, possibly from the ninth century onwards, according to archaeological evidence.

GF 7. Economic factors (common accessibility to water sources, commonly situated between fragmented arable fields and accessibility to wares and services – implying the local production of wares and delivery of services).

The only indication for accessibility to wares might be a trade route from Egmond to Utrecht, mentioned in the fifteenth century.

GF 8. Urbanisation. This might have been important in the light of the upcoming towns from the late twelfth and thirteenth century onwards, nearby Alkmaar, Haarlem and Amsterdam.

## 8 Comparison with the wider archaeological region

In this chapter we conclude Phase 2 of our three-stepped research. First, the current regional settlement models will be tested against the case studies to assess whether these models persevere when confronted with a detailed dataset. Next, the processes involved in the formation of the selected villages are compared, to establish to what extent these correspond with the studied regions and perhaps apply on a general level. Finally, the results from our case studies are tested against additional observations in the related archaeological region in order to find out to what extent their development is representative for the region.

### 8.1 Testing the regional models

In order to test the validity of the current regional settlement models we compared them against our case studies on:

1. The development of settlement (AD 500–800–1600) in general and the formation of villages in particular;
2. The main processes behind village formation.

From this we can establish whether the current models accurately describes the observed development of the settlement pattern and provides adequate motives. In addition, it provides the building blocks for interregional comparison on the general social factors involved (§8.2).

#### 8.1.1 Overijssel-Guelders sandy area (AR<sub>3</sub>)

The current settlement model(s) for this region is provided by Van Beek and Van der Velde.<sup>7</sup> It is tested against the case study of Warnsveld (Ch. 7, Case I). This site was studied from an historical-geographical perspective.

##### Development of the village (500) 800 – 1600

Warnsveld is consistent with the model in that it probably started out as a single (manorial) farm in the ninth century (table 8.1). It is situated on the higher parts of a modestly sized cover sand ridge. During the tenth and eleventh century the open field (Warnsveldse Enk) was established

with several separate farms on its border. After a church was established a small settlement cluster formed around it. This combination of a small nucleus around the church and dispersed farms around (amidst) the fields continued up until the twentieth century. The layout and composition remained reasonably unchanged, apart from the abandonment of some farms around the thirteenth century and the establishment of some new farms (either newly created or split off from existing ones). However, Warnsveld also shows distinct differentiations from the model. The parish church was only established in the second half of the eleventh century, relatively late in comparison to other primal churches. The settlement cluster around the church remained very small, even though some amenities (mainly inns and a horse mill) were established in the Late Medieval and Early Modern period.

In a strict sense, Warnsveld only became a village at the beginning of the nineteenth century as part of the administrative reform by the French government.

##### Main processes of village formation

The processes involved in the formation of the villages indicated in Van Beek's and Van der Velde's models (manorialisation, building of churches and demographic growth) can also be identified in Warnsveld (table 8.1). However, the way these develop is not necessarily straightforward and is determined significantly by local circumstances.

Warnsveld most likely has its origins in a manorial estate, yet there were several in the marke of which both Leesten and Eme were more significant at that time. It is probable that the particular owner was a main indicator, based on the fact that a church was built on the Warnsveld estate.

The (late) establishment of the church occurred because a parish church already existed in Zutphen, which was recommissioned to an episcopal chapter for the newly established palace complex. The location of the new parish church was also influenced by political strife with a competing monastery in Wichmond. As a result, the new parish centre did correspond with the centre of the administrative organisation in the marke, which was situated in Leesten with the majority of the yeomen.

<sup>7</sup> Van Beek 2009; Van der Velde 2011.

Another factor that inhibited further development of the settlement nucleus was its close proximity to Zutphen. This major centre would have siphoned all the trade and commerce away from the surrounding countryside.

### Conclusion

The models of Van Beek and Van der Velde are correct in describing a (most) general trend in the settlement pattern and the processes

involved, but lack the details that address the complexity and particularities of the development of Warnsveld. This is not just a matter of specific details on the separate developments and processes, but rather on their interrelationship and the influence of local (f) actors.

**Table 8.1 Comparison of the regional settlement model AR 3 and the case study of Warnsveld) on the development of the settlement pattern and the main processes of village formation.**

Archaeological region	Current regional settlement model	Case study
AR3	Van Beek (2009) and Van der Velde (2011)	Case I Warnsveld
Overijssel-Guelders sandy area		
<b>Development of the settlement pattern and village formation (500) 800 - 1600</b>		
Merovingian period	<ul style="list-style-type: none"> <li>• Few settlements;</li> <li>• Dynamic (shifting) settlements;</li> <li>• More diverse settlement location. No longer restricted to higher parts of the landscape;</li> <li>• Settlements consist of one or two farms;</li> <li>• Exclusively subsistence agriculture.</li> </ul>	n/a
Carolingian period	<ul style="list-style-type: none"> <li>• Settlement relocate to somewhat lower parts (e.g. sides of cover sand ridges);</li> <li>• (almost) exclusively single farms (<i>Einzelhöfe</i>);</li> <li>• After relocation fixation of settlement (ninth and tenth century);</li> <li>• Establishment of early churches on manorial land (ninth century);</li> <li>• Formation of large, clustered settlements (<i>oppida</i>) at residence of major lords.</li> </ul>	<ul style="list-style-type: none"> <li>• Single farm in enclosed rounded field (<i>woerd</i>).</li> </ul>
High Middle Ages	<ul style="list-style-type: none"> <li>• Continuity of existing (fixed) farms;</li> <li>• Filling in settled area with additional farms creating a dispersed settlement of multiple farms;</li> <li>• Reclamations of peripheral areas and establishment of new (single) farms (eleventh and twelfth century);</li> <li>• Clustering of settlement around churches;</li> <li>• Large settlements become towns.</li> </ul>	<ul style="list-style-type: none"> <li>• Farm in the <i>woerd</i> is relocated;</li> <li>• From second half of the eleventh century church with some houses cluster around it and presbytery in northern part the <i>woerd</i>;</li> <li>• Next to the <i>woerd</i> and open field is established with several, separate farms on the (north) edge.</li> </ul>
Late Middle Ages	<ul style="list-style-type: none"> <li>• Continuity of some existing farms;</li> <li>• Relocation of other farms to lower parts of the landscape (twelfth and thirteenth century).</li> </ul>	<ul style="list-style-type: none"> <li>• Modest increase of clustered settlement and amenities;</li> <li>• Some single farms are abandoned;</li> <li>• Additional single farms at some distance of the main field complex.</li> </ul>
Early Modern period	n/a	<ul style="list-style-type: none"> <li>• Continuity of small clustered settlement around the church and single farms in the surrounding countryside.</li> </ul>
<b>Main processes of village formation</b>		
	<ul style="list-style-type: none"> <li>• Establishment of manorial estates;</li> <li>• Establishment of churches (in manorial centres) and an ecclesiastical (parish) organisation;</li> <li>• Demographic growth.</li> </ul>	<ul style="list-style-type: none"> <li>• Political developments related to parish church;</li> <li>• Administrative organisation and division of ecclesiastical and secular organisation;</li> <li>• Property relation of particular manorial estates;</li> <li>• Establishment of a church (ca. 1050);</li> <li>• Proximity of a town as an inhibiting factor.</li> </ul>

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### 8.1.2 Utrecht-Guelders riverine area (AR 13)

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The most recent regional settlement model for the Utrecht-Guelders riverine area is provided by Den Uyl.<sup>2</sup> His model is tested against the combined case study of Kerk-Avezaath and Kapel-Avezaath (Ch. 7, Case II). This site too, was studied from an historical-geographical perspective.

#### Development of the village (500) 800 – 1600

In Den Uyl's morphogenetic model the elongated villages like Kerk-Avezaath and Kapel-Avezaath are thought to be the earliest concentrated settlements, together with the round villages, since the Roman period. These settlements are believed to date back to the late Carolingian period (table 8.2). The earliest finds from Kapel-Avezaath date back to the Carolingian period, as suggested by the model. However, evidence for a common, Merovingian predecessor was found between Kerk-Avezaath and Kapel-Avezaath, at present-day Bergakker. Moreover, it is uncertain whether this settlement already had its elongated layout at this early stage. The other elongated village, Kerk-Avezaath certainly did not have this form originally, nor did it originate from the Carolingian period. The concentrated settlement probably formed in the early eleventh century when a manorial estate was created here for Thorn abbey and a parish church to St. Lambert was established, or even at a later stage, when the settlement was contracted around the church. Kerk-Avezaath, probably took its elongated form from the fossilised streambank and the roads across it, linking the two settlement clusters: one around the parish church and the other near De Woerd. The latter may indeed date back to the Carolingian period.

The dispersed farms and small hamlets from the Early and High Middle Ages do not fit the model.

#### Main processes of village formation

Den Uyl regards the geomorphology of the riverine landscape as the main factor for the

village formation. The fossilised streambanks formed naturally elevated platforms which provided a dryer surface and served as protection from flooding.

Indeed the major settlements were located on the levies and both villages took their elongated form from these. Kapel-Avezaath was built on the levee of the Linge and Kerk-Avezaath on the west bank of the Daver.

Although Den Uyl is right about a major parameter for settlement in the area, his model does not provide any insight into the process of village formation.

#### Conclusion

Den Uyl's model presents us with a very static view of settlements. It is primarily based on a classification of nineteenth century settlement patterns and the (implicit) assumption that similar settlement layout reflects a similar origin and development. This assumption was refuted by the archaeological data from Kerk-Avezaath and Kapel-Avezaath. These two villages, which had a similar elongated layout in the nineteenth century, were found to have a different origin and development.

Moreover, the model fails to address the formation process itself. Although Den Uyl rightly identifies the geomorphology of the riverine area as an important determinant for the layout of the villages, this only provides an explanation for a (preferred) settlement location and some physical parameters in which these can develop. It does not offer any reasons for the formation of clustered settlements, nor does it describe the development itself. In addition, because the model is so intertwined with the nineteenth century situation, it offers little to advance with, specifically in regards to the earlier dispersed farms or hamlets.

Den Uyl's model has to be considered in its academic context of its time, along with the availability of data, making it an outdated standard. It does not do justice to both the complexity and diversity of villages and village formation and it can be falsified when confronted with archaeological data.

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<sup>2</sup> Den Uyl 1958, 94-114.

**Table 8.2 Comparison of the regional settlement model AR 13 and the case study of Kerk-Avezaath and Kapel-Avezaath on the development of the settlement pattern and the main processes of village formation.**

Archaeological region	Current regional settlement model	Case study	
AR13	Den Uyl 1958	Case IIa Kerk-Avezaath	Case IIb Kapel-Avezaath
Utrecht-Guelders riverine area			
<b>Development of the settlement pattern and village formation (500) 800 - 1600</b>			
Merovingian period	<ul style="list-style-type: none"> <li>After the Roman period the area was all but abandoned.</li> </ul>	<ul style="list-style-type: none"> <li>Common preceding settlement.</li> </ul>	
Carolingian period	<ul style="list-style-type: none"> <li>Resettlement from the ninth century;</li> <li>Settlements established at the stream banks;</li> <li>The settlements took the form of round villages or elongated villages.</li> </ul>	<ul style="list-style-type: none"> <li>A single(?), (manorial?) farm and field (<i>woerd</i>) was established north of the later village;</li> <li>The Daver stream bank was formed;</li> <li>Small hamlets in the vicinity.</li> </ul>	<ul style="list-style-type: none"> <li>Settlement was relocated and developed along the river bank;</li> <li>Aristocratic residence (and court) was established.</li> </ul>
High Middle Ages	<ul style="list-style-type: none"> <li>New reclamations of the floodplains and peatland lead to linear villages (twelfth and thirteenth century);</li> <li>Continuity of round and elongated villages.</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of a manorial estate and parish church;</li> <li>Settlement consisted of small, dispersed groups of farms.</li> </ul>	<ul style="list-style-type: none"> <li>Various knightly manors were established close to the existing court.</li> </ul>
Late Middle Ages	<ul style="list-style-type: none"> <li>Continuity of villages.</li> </ul>	<ul style="list-style-type: none"> <li>Dispersed farms are abandoned and habitation clustered near the church, along the Daver bank.</li> </ul>	<ul style="list-style-type: none"> <li>Some clustering of settlement around the <i>Hoge Hof</i>, but overall extending along the road and riverbank.</li> </ul>
Early Modern period	<ul style="list-style-type: none"> <li>Continuity of villages.</li> </ul>	<ul style="list-style-type: none"> <li>n/a</li> </ul>	<ul style="list-style-type: none"> <li>n/a</li> </ul>
<b>Main processes of village formation</b>			
	<ul style="list-style-type: none"> <li>Geomorphology and landscape;</li> <li>Demographic growth;</li> <li>Establishment of open field system.</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of manorial estates;</li> <li>Establishment of a church (ca. 1000) and parish organisation;</li> <li>Vertical relationships;</li> <li>Changing property relationships;</li> <li>Proximity of a town as inhibiting factor.</li> </ul>	<ul style="list-style-type: none"> <li>Political development;</li> <li>Presence of local elite;</li> <li>Demographic growth.</li> </ul>

### 8.1.3 Brabant sandy area (AR 4)

Theuws provides us with the most recent model for the Brabant sandy region.<sup>3</sup> This is confronted with the case study of Someren (Ch. 7, Case III). The formation of this village was studied from an anthropological perspective.

#### Development of the village (500) 800 – 1600

In accordance with the model, the earliest post-Roman settlement remains in Someren date to the late fifth century, but are very few in number and represent no more than one or two farms (table 8.3). Starting from the seventh century, the community grew and the settlement was expanded to several farms (or small clusters)<sup>4</sup> that lay loosely grouped across the higher parts of the cover sand ridge. The settlement cluster on the south side (Waterdael II and III) may have grouped around a central open space, possibly a village green.

So far, the observations are fairly consistent with Theuws' model. This changes for the Carolingian period, as the settlement in Someren shows no evidence of a decline. Quite the contrary, the number of farms increased and the southern settlement cluster developed a more concentrated layout.

Rather than a recovery, the settlement saw a further expansion in the eleventh century. With the establishment of new farms to the north and west, the settlement expanded outward from the central cluster which probably remained occupied at the time. Then, the central cluster was abandoned and the new farms became small settlement clusters of their own. The twelfth century saw a major increase in settlement size. The new farms on the eastern cover sand ridge were not so much dispersed, but were primarily established along the main road(s) on the western flank of the ridge (and probably on the arable fields). This resulted in a linear settlement layout.

<sup>3</sup> Theuws 2011. It draws upon his earlier synthesising studies (Theuws 1989; 2008).

<sup>4</sup> Because of the limited accuracy of the dating of the excavated farms, it was impossible to establish the precise layout and composition of the settlement clusters at a given period. This was a major hindrance in testing the model.

Around the same time a moated site was established further north, possibly the manor house of a large estate or the residence of a local noble man. The manor lay at a short distance from the church, which is thought to have been established in the tenth or eleventh century, but not mentioned before 1228.<sup>5</sup>

The moated site might have to do with the emergence of a local elite, as is suggested in Theuws' model; former stewards who usurped the properties from distant ecclesial institutions. Other scenarios are also possible. So far, the evidence is inconclusive. Moreover, the moated site itself did not spark a concentration of settlement or become a focal point around which settlement clustered after relocation of habitation from the arable fields. On the contrary, the moated site was abandoned at the same time as the regular farms were relocated and was part of the same development. The church might have been such a focal point, but no archaeological data is available from its immediate surroundings. If the church was a focal point, most of the houses would likely be relocated around the start of the Late Middle Ages, leaving the church all but isolated in the fields.<sup>6</sup> The linear settlement on the eastern cover sand ridge was also relocated in the first half of the thirteenth century and the entire building line was moved to the dry valley, retaining its previous layout.

#### **Main processes of village formation**

Theuws describes the initial development of the larger settlements in terms of manorial and ecclesiastical organisation (table 8.3). It is certainly possible that the concentrated settlement was part of a manorial estate. The presence of some enclosed (large) farms might support this. If these were manors, however, they did not necessarily lead to clustered settlement, nor to its long-term fixation. When the Carolingian settlement expanded, new small clusters developed and the enclosed farm was one of them. In fact, the moated site, which was likely a manor, did not bring about any concentration of settlement.

The establishment of a church might have resulted in a clustering and fixation of settlement, but this only lasted until the start of the Late Middle Ages and more importantly, did not affect the development of the settlement further to the south.

A development that did touch the entire area was the relocation of settlement around the first half of the thirteenth century. Theuws regards this to be the result of a change in farming practice in which production was adapted to the emerging urban trades and industries within an early market economy. Interestingly, this also appears to have affected the moated manor and the presumed clustered settlement around the church.

#### **Conclusion**

The elegance of Theuws' model(s) comes from his ability to connect the archaeologically observed development in the settlement patterns with the social developments. However, the focus of the model gradually shifts to the description of these social developments from the High Medieval period onwards. This reflects his struggle to unify the diversity that is found within medieval settlements and the lack of archaeological data from the Late and Post Medieval period, and from the village centres. The model was able to be more specific for the Merovingian and Carolingian period because of the scarcity of sites; it was drawn from only a handful.

Although the model is correct in describing the starting date of post-Roman habitation, settlement location and some general trends, it is not adequate in describing the development of the settlement pattern in Someren. This is also the case for the main processes. Manorial and ecclesiastical organisation and the emergence of a market economy undeniably played an important part in the development of Someren, but these elements alone cannot adequately explain the settlement dynamics that are revealed from the archaeological record.

<sup>5</sup> Hiddink 2015, 49.

<sup>6</sup> The nineteenth century cadastral map shows the church in a small hamlet at some distance from the village centre.

**Table 8.3 Comparison of the regional settlement model AR 4 and the case study of Someren on the development of the settlement pattern and the main processes of village formation..**

Archaeological region	Current regional settlement model	Case study
AR4	Theuws 1989, 2006 and 2011	Case III Someren
Brabant sandy area		
<b>Development of the settlement pattern and village formation (500) 800 - 1600</b>		
Migration period	<ul style="list-style-type: none"> <li>• Recovery of woodland on previously cultivated lands;</li> <li>• Very few small settlements in the fifth century which did not last.</li> </ul>	<ul style="list-style-type: none"> <li>• Earliest farmstead dates to the late fifth century;</li> <li>• Settlement on the top cover sand ridge consisting of very few farms.</li> </ul>
Merovingian period	<ul style="list-style-type: none"> <li>• New settlements on the higher cover sand ridges from the late sixth century;</li> <li>• Dispersed settlement of individual farms among newly reclaimed fields;</li> <li>• Occasionally small groups of two or three farms;</li> <li>• Farms were periodically relocated as part of clearing activities;</li> <li>• In the second half of the seventh century larger clustered settlements (48 farms) emerged in the centre of the large cover sand ridges, structured around an open space;</li> <li>• On some of these farms burials occurred;</li> <li>• Previous burial grounds stayed in use until the beginning of the eighth century;</li> <li>• Unclear whether the dispersed farms remained occupied during this period.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in settlement size from the seventh century;</li> <li>• Several farms loosely grouped across cover sand ridge;</li> <li>• Southern settlement grouped around central open space.</li> </ul>
Carolingian period	<ul style="list-style-type: none"> <li>• Size of the larger settlements decreased (725850);</li> <li>• Increase of dispersed settlement, scattered across the arable land, and periodically relocated close to the fields;</li> <li>• Establishment of early churches;</li> <li>• Church yard became burial ground;</li> <li>• Further decline in population (875950);</li> <li>• Dispersed settlement disappeared;</li> <li>• Concentrated settlement contracted.</li> </ul>	<ul style="list-style-type: none"> <li>• Further increase in settlement size;</li> <li>• Southern cluster developed a more concentrated layout;</li> <li>• Disperse settlement continued.</li> </ul>
High Middle Ages	<ul style="list-style-type: none"> <li>• Demographic recovery from the second half of the 10th century;</li> <li>• New dispersed farms appeared, related to new reclamations;</li> <li>• During the eleventh century small settlement clusters developed;</li> <li>• A new local elite emerges with moated residences;</li> <li>• New churches were built and a parish structure developed;</li> <li>• Cities emerged from the late twelfth century onwards;</li> <li>• In the first half of the thirteenth century farms were relocated to the lower parts of the cover sand ridges (to the edge of the arable land);</li> <li>• Villages formed.</li> </ul>	<ul style="list-style-type: none"> <li>• Further increase in settlement size;</li> <li>• Southern settlement cluster expanded outward;</li> <li>• After central cluster was abandoned the new farms became settlement clusters of their own;</li> <li>• Major increase in settlement in the twelfth century;</li> <li>• New farms were established along the main roads and formed an linear settlement;</li> <li>• Other, more dispersed farms developed elsewhere in the area;</li> <li>• A moated site was established (eleventh century);</li> <li>• A church was built (tenth or eleventh century) and possibly became a focal point for a (small?) concentrated settlement.</li> </ul>
Late Middle Ages	<ul style="list-style-type: none"> <li>• Emerging urban trades and industries;</li> <li>• Building of large gothic churches;</li> <li>• The settlement pattern became largely fixed;</li> <li>• The arable land was reorganised in open fields and agricultural production was tuned to the market.</li> </ul>	<ul style="list-style-type: none"> <li>• Settlement on the cover sand ridge was moved out of arable fields and relocated to the dry valley (first half of the thirteenth century);</li> <li>• Linear settlement was formed at the site of the historical village;</li> <li>• The moated site was abandoned;</li> <li>• Settlement at the church was probably abandoned or reduced;</li> <li>• New large (tenure) farms were established.</li> </ul>
Early Modern period	<ul style="list-style-type: none"> <li>• n/a</li> </ul>	<ul style="list-style-type: none"> <li>• Consolidation of new settlement location and further expansion and development;</li> <li>• Continuity of small clustered settlement around the church and single farms in the surrounding countryside.</li> </ul>
<b>Main processes of village formation</b>		
	<ul style="list-style-type: none"> <li>• Establishment of manorial estates;</li> <li>• Establishment of churches (in manorial centres) and an ecclesiastical (parish) organisation;</li> <li>• Presence of local elite;</li> <li>• Demographic growth.</li> </ul>	<ul style="list-style-type: none"> <li>• The establishment of manorial estates;</li> <li>• Demographic growth;</li> <li>• Horizontal relationships and communal organisation;</li> <li>• Socioeconomic relationships.</li> </ul>

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#### 8.1.4 Holland dune area (AR 11)

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The current settlement model for this region is provided by Dijkstra.<sup>7</sup> It is tested against the case study of Limmen (Ch. 7, Case IV).

This formation of this site was studied from an anthropological perspective.

##### **Development of the village (500) 800 – 1600**

The developments observed in Limmen fit the regional model closely. This is no wonder, since Limmen played a prominent role in Dijkstra's synthesis. The added value of testing this model here is to observe the development from the High Middle Ages onward.

During the Carolingian period, at least two concentrated settlements could be found in the Limmen area (table 8.4). One of these (Limmen 3) appears to have been continuously occupied up until today. The second cluster (Limmen 1) has remained stable until the reorganisation of the arable land around 1000. After that, the settlement was gradually moved to the east, towards the other cluster. It is unclear whether this should be regarded as a contraction of settlement towards a single cluster or an independent development related to the farmland.

From the Late Middle Ages onwards new farms were established along both main roads, flanking the arable land on the top of the ridge. From these, new concentrated settlements or hamlets developed.

##### **Main processes of village formation**

Vertical relations seem to have played a major role in the development of concentrated settlement in Limmen, as is reflected in the manorial character of both Carolingian settlement clusters (table 8.4). Here, the

manorial organisation resulted in both the concentration and fixation of occupation.

In addition, a church was built in one of the estates. This settlement appears to have had a concentrated layout already, and it did not trigger a further concentration immediately.

It probably did contribute to the stabilisation and continuation of this settlement cluster after the manorial organisation disintegrated. It is likely that the parish took over as the defining body.

In addition, the influence of the horizontal relations should not be underestimated.

The reorganisation of the farmland was not necessarily imposed from the feudal lord or institution. The fact that archaeological evidence for a manorial centre was no longer present in the new settlement, and the farms started to be relocated, indicates that different factors were in operation.

The inhabitants were organised at a local level, which was illustrated by the presence of a (system of) lay court and *asega* (judicial advisor). The expansion of the settlement name *Limmen*, to encompass the entire settlement area, reflects an increasing communal identity.

##### **Conclusion**

For obvious reasons, the development of Limmen fits closely with Dijkstra's model. Although the vertical relations proved to be a major factor in the development of the village, the anthropological perspective taken in this case study showed that additional factors contributed as well. Most importantly, the horizontal relations within the local community and their administrative organisation helped to shape the village. Direct archaeological evidence for these underlying factors is difficult to establish and is hardly ever conclusive. Yet, the anthropological approach does extend the scope of the settlement model beyond the bias of the written record.

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<sup>7</sup> Dijkstra 2011, 186-190.

**Table 8.4 Comparison of the regional settlement model AR 11 and the case study of Limmen on the development of the settlement pattern and the main processes of village formation.**

Archaeological region	Current regional settlement model	Case study
AR4	Dijkstra 2011	Case IV Limmen
Holland dune area		
<b>Development of the settlement pattern and village formation (500) 800 - 1600</b>		
Merovingian period	<ul style="list-style-type: none"> <li>Settlement territories located at coastal barrier ridges and river banks;</li> <li>Settlement nucleus consisted of hamlet or linear settlement along main road or waterway;</li> <li>Solitary farms or satellite hamlets lay outside the nucleus.</li> </ul>	<ul style="list-style-type: none"> <li>Settlements located on the coastal barrier ridge;</li> <li>Nuclear settlement at the location of the church (<i>Limmen 3</i>);</li> <li>Arable field complex between two main roads.</li> </ul>
Carolingian period	<ul style="list-style-type: none"> <li>Additional reclamations in the Old Dune area and upstream the Meuse;</li> <li>Relocation of settlement as a result of reorganisation of land ownership and the establishing of manorial estates;</li> <li>Establishment of early churches (on manorial land);</li> <li>Establishment of large, communally exploited, arable field complexes (<i>geesten</i>);</li> <li>Relocation of settlement because of driftsand (tenth century);</li> <li>First systematic reclamations of the peatland (first half of the tenth century).</li> </ul>	<ul style="list-style-type: none"> <li>Continuity of settlement at Limmen 3;</li> <li>Second clustered settlement along the <i>Uitgeesterweg</i> (<i>Limmen 1</i>);</li> <li>Limmen 1 was probably a manorial centre;</li> <li>Possible establishment of early church at unknown location (900).</li> </ul>
High Middle Ages	<ul style="list-style-type: none"> <li>Intensification of systematic reclamations of peatland (eleventh century);</li> <li>Due to erosion the settlements in the peatland were withdrawn to the higher grounds (twelfth century);</li> <li>Clustering of settlement along main roads;</li> <li>Specialisation of agricultural production (twelfth and thirteenth century).</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of a church (1108) at Limmen 3;</li> <li>Reorganisation of arable land on the south side of the barrier ridge;</li> <li>Continuation of Limmen 1 (<i>Limmen 2</i>) but without manorial attributes or position;</li> <li>Several settlement clusters (single farms?) along both main roads.</li> </ul>
Late Middle Ages	<ul style="list-style-type: none"> <li>Arable farming all but gave way to animal husbandry on the peatland (fourteenth and fifteenth century).</li> </ul>	<ul style="list-style-type: none"> <li>Nucleated settlement cluster around St. Martin's Church;</li> <li>Open spaced linear settlement along both main roads surrounding arable land;</li> <li>Emergence of moated sites.</li> </ul>
Early Modern period	<ul style="list-style-type: none"> <li>n/a</li> </ul>	<ul style="list-style-type: none"> <li>Continuity of nucleated settlement cluster around St. Martin's Church;</li> <li>Clustering of linear settlement in hamlets.</li> </ul>
<b>Main processes of village formation</b>		
	<ul style="list-style-type: none"> <li>Geographical situation dictated settlement location;</li> <li>In early modern period central facilities could be scattered across multiple settlements;</li> <li>Cooperation in rural exploitation;</li> <li>Establishment of manorial estates;</li> <li>Establishment of churches (in manorial centres) and an ecclesiastical (parish) organisation;</li> <li>Emergence of an early market economy.</li> </ul>	<ul style="list-style-type: none"> <li>Demographic growth;</li> <li>Establishment of a manorial estate;</li> <li>Property relations;</li> <li>Horizontal relations;</li> <li>Establishment of a church;</li> <li>Reorganisation of arable land.</li> </ul>

## 8.2 In search of the common ground

In order to compare the outcome of the case studies, we need to bring the processes to the same level of abstraction (table 8.5).

In general, we found very similar processes driving the formation of villages in each of the cases: the organisation of extensive landed property in manorial estates; the establishment of churches; demographic growth in combination with an emerging market economy nearby and changes in social (dependence)

relations. How these processes developed, however, varied considerably depending on the local situation: the interrelation between these factors and the landscape. In both Warnsveld and Kerk-Avezaath, for example, the establishment of a church was the main factor for the clustering of settlement. In the first example this led to a side village (*flankesdorp*) and in the second example this led to an elongated village (*gestrekt esdorp*). On the other hand, both Kerk-Avezaath and Kapel-Avezaath were elongated villages, but Kerk-Avezaath developed from an ecclesiastical manorial estate while Kapel-Avezaath formed around the

**Table 8.5 Overview of which general social factors played a role in the development of each case study. Dark green (V) represents a significant influence, light green (v) some influence, and yellow (n) little or no influence.**

Case study	Limmen	Someren	Kerk-Avezaath	Kapel-Avezaath	Warnsveld
<b>General social factor</b>					
Vertical social relationships	V	v	V	V	V
Horizontal social relationships	V	v	v	v	v*
Social-defensive relationships	n	n	n*	n*	n*
Social-religious relationships	V	V	V	v	V
Social-juridical relationships	V	V	V	V	v*
Social-economic relationships	v	v	v	v	n
Economic factors	v	v	n	n	n
Urbanisation	v	v	v	v	v

\* Elements were present, but did not contribute directly to the formation of the village.

residence annex court of a secular authority. As such, we can confirm Spek's findings in Drenthe, that similar processes can lead to different appearances and similar appearances can be the result of different processes.

So, on a local level, it was not so much the question of which of these general factors contributed to the formation of villages, but rather, to what extent did these factors contribute in this process and how were they interrelated. In all cases, nearby towns played a role in the development of these villages, for instance, but how these affected their course depended on when these towns were incorporated, their status and their proximity to a specific village. This meant that Warnsveld and the Avezaathen distinctly lacked trade and industry, but in Someren a significant part of the population would have made their living out of this, at least from the Late Middle Ages.<sup>8</sup>

The form of these general factors is (in most cases) not unique for the individual village, but rather takes shape at a regional level. For example, the vertical relations are determined to a large extent by a territorial ruler who often held more than a single village, and large institutions or members of the supra-regional elite held landed estates within a wider area. At the same time, the social-juridical relationships in an area are shaped by an

administrative form that is also found in other settlements. Because of this we expect that in a region, in which these social factors have a similar form, they are articulated in a similar fashion.

The way these relations found expression depended on the landscape, as this provided the physical parameters within which the villages could develop. From this we expect similarities in village formation within (geographical) regions, even though they developed at the local level.

### 8.3 Regional extrapolation

From our inventory we have three types of datasets which we can use to test the representativeness of our case studies for the wider (archaeological) region:

1. Individual archaeological sites (n=8);
2. Multiple archaeological sites (n=8);
3. Archaeological sites within a historical-geographical framework (n=4).

For the first category we selected the sites from our inventory that were qualified as most useful (rated 14 or 15), as these provided information on village formation on their own. For the second category we selected villages with three or more relevant excavations.<sup>9</sup> The final group consisted of villages with both relevant

<sup>8</sup> This is not to say that the people of Warnsveld or the Avezaathen did not trade. Imported pottery shows that they were evidently part of some type of exchange network. Yet, neither the archaeological observations nor the available written records indicate that the trade of goods played a significant role in the settlements themselves.

<sup>9</sup> Initially, we chose to work from municipalities to increase the number of case studies. This proved of limited use, as the (modern) municipalities are often extensive and excavations lay scattered across different villages and hamlets with little meaningful coherence. Therefore, we decided to select sites from here based on (potential) synergy.

**Table 8.6 Number of datasets per archaeological region (excluding the main case study itself). If individually high ranking sites are also part of a multiple-site ensemble, these are grouped with the latter.**

	Case study	Individual sites	Multiple sites	Combined archaeology and historical geography
AR 3	Warnsveld	0	0	2
AR 4	Someren	2	2	2
AR 11	Limmen	1	1	0
AR 13	Kerk-Avezaath and Kapel-Avezaath	1	2	0

archaeological excavations and a comprehensive historical-geographical analysis. Unfortunately, the available data was not evenly distributed between our archaeological regions (table 8.2).

These datasets provide different types of information. The first type we can use to compare layout and composition of a settlement within a given period. These will most likely provide little insight into the spatial development and variety of settlements. For this we can turn to the municipalities with multiple archaeological observations. In order to compare specific social process behind the physical dynamics, the additional historical (geographical) information is essential. We then analysed the selected sites in four stages, following the same parameters we set for our primary case studies:

1. The situation in the nineteenth century;
2. The situation in the (500) 800 – 1600 period;
3. The development of the village;
4. A comparison with the primary case.

First, we describe the geographical location of the settlement and its size, composition and layout in the nineteenth century. Then, based on the available data, information on the composition and layout is described for the main periods within the 500-1600 time span. From there, the development of the settlement is discussed according to both general social factors (Ch. 4) and the specific processes that were identified in the primary case. This was used to compare the cases and learn to what extent the development followed the same course and how much it was driven by similar processes.

### 8.2.1 AR 3 Overijssel-Guelders sand area

According to our inventory, only a few relevant excavations were published in this region recently. Most notable are the high-ranking excavations at Epse and Neede in which archaeological research was effectively combined with historical and historical-geographical analysis. Although multiple excavations were conducted in the municipality of Bronkhorst (n=4), they laid scattered over a large area and do not provide a comprehensive image. Both sites at Steenderen produced an (incomplete) High Medieval farm, but this is insufficient for studying the formation of this village.

#### Combined archaeological and historical geographical research

In this archaeological region, we found two areas in which recent archaeological excavations were effectively combined with historical geographical study: Epse and Neede.

#### Epse

The excavation of Epse – Olthof only covered a single farm and the accompanying water mill. Nevertheless, in conjunction with a comprehensive historical (geographical) study on the history and property of the nunnery, Maria Ter Horst / Ter Hunnepe, it provided an in-depth view of Epse.

Epse was a small hamlet close to Deventer, in the border region between Guelders and the Oversticht. It was situated on a riverbank of the IJssel and consisted of a number of individual farms that lay dispersed in the area, next to the arable land.

Table 8.7 Overview of relevant datasets for the Utrecht-Guelders sand area (AR 3)

Municipality	Village	Site
<b>Individual sites</b>		
Bronkhorst*	Hummelo	Keppelseweg 30 2011
	Steenderen	Steenderdiek 2007
		Toldijkseweg 2010
Zelhem	Vinkenkamp 2004	
<b>Combined arch. &amp; hist. geographical data</b>		
Deventer	Epse	Olthof Zuid 2007
		Dortherbeek 2008
Berkelland	Neede	Bonkertskamp 2011
		Höfteweg 2011
		Plantenstraat and Rutgersdijk 2011

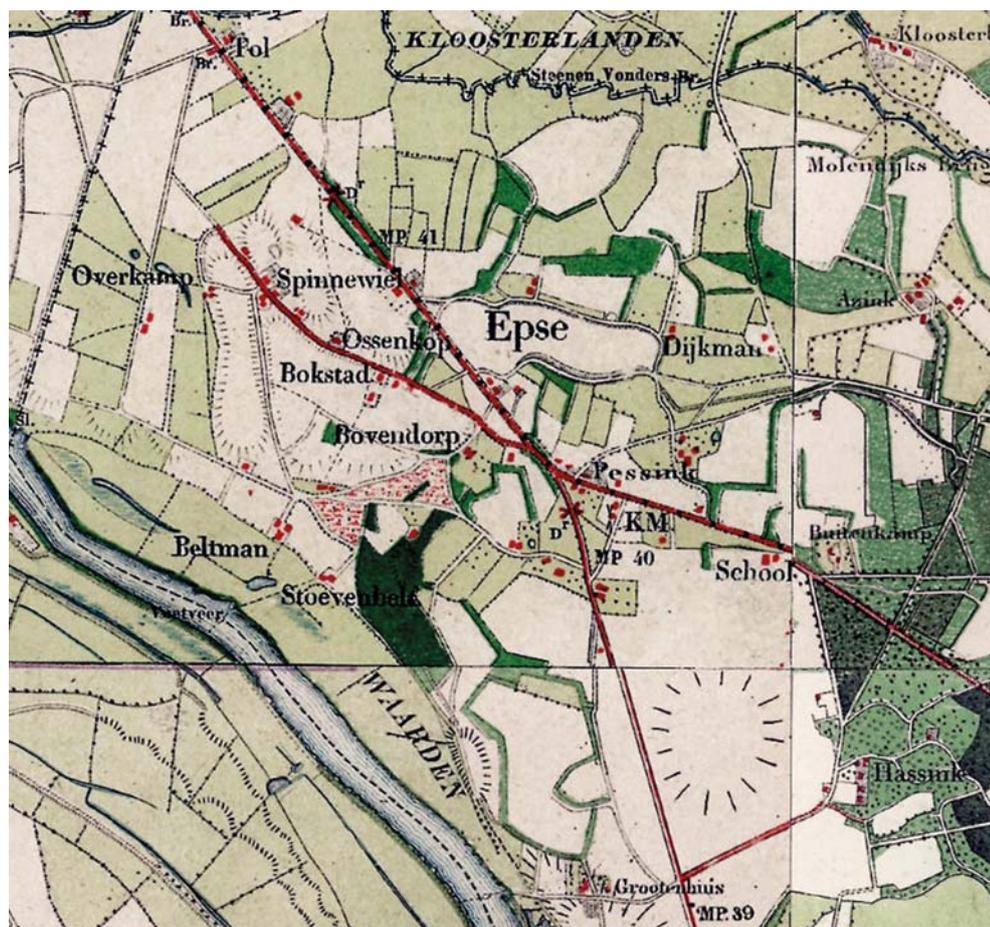


Figure 8.1 Epse around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastre).

These fields were mainly located on smaller dunes and ridges. Originally, each of these field complexes seemed to have accommodated one or two large farms. Due to splitting and expanding, the number of farms on some of these dunes increased.

De Olthof, literally the old farm, was one of these large farms.<sup>10</sup> It consisted of a farmhouse of considerable size, two outhouses, a hay barrack and a well on an enclosed farmyard. It dates back to the tenth or early eleventh century and was rebuilt several times at the same location. After 1400 the farm was moved to the site of the present-day Olthof farm, only 50 m further away. So, we have stable occupation for about 1000 years. At the end of the twelfth century a water mill was built in the adjacent Dorther stream. This was used up until the end of the thirteenth century. It was part of the farm estate.

The origins of the Olthof farm are not entirely clear. It first appears in the records as a property of the nunnery Ter Hunnepe (established in 1266). Based on its fiscal status it is believed to have been part of the core holdings, going back to its predecessor: the nunnery Maria ter Horst (1225-1253).<sup>11</sup> The land for the foundation of this nunnery was given by the freeholders Ludof Brandanus and his wife Lambergis.<sup>12</sup> Vermeulen suggests that the Olthof would be part of this donation. This, however, poses a problem. The author also builds a strong case that the Olthof is identical to the house Oves, which is first recorded in 1257 as part of the monastic property. So it was already named Oves at the time of the first nunnery. After this convent burnt down, a family named Oves or Syderoves claimed rights to the farm and mill. The Oves family belonged to the lower gentry.<sup>13</sup> In this area there were several gentile families that once belonged to the *ministriales* of the territorial ruler, in this case, the Bishop of Utrecht.<sup>14</sup> This could indicate that it was originally the property of the bishop (former regal land), held in fief by the Oves family. This is supported by its age and the fact that the bishop was very explicit in his need for a watermill, when he donated his Somervaart farm and mill to build a new nunnery.<sup>15</sup>

The nunnery was depending on its farms for provisions and income. This was clearly

illustrated by the fact that on the Olthof farm evidence was found for substantial sheep herding, but lacking in wool processing and textile production, while the opposite was found to be the case on the site of the nunnery.

Epse did not have its own church but resided under the St. Nicolas or Bergkerk in Deventer. For a short period during the sixteenth century there was a chapel dedicated to St. Anthony in the area. It would never become a separate village, however. As such, it bears more resemblance with Eme than Warnsveld. In both hamlets institutional landholdings dominated, first as dependent property and later as tenant farms. In Eme, however, these institutions were established as early as the second half of the eleventh century whereas in Epse, Ter Hunnepe would only be involved during the thirteenth century, when most of the major farms were long established by that time.<sup>16</sup>

The differences in the layout of the settlement can be directly related to the geomorphology, as the river dunes that provided soil suitable for tillage were far smaller in Epse than in Eme.

#### Neede

As part of the redevelopment of residential quarter De Berg, excavations were carried out at five sites in the northwestern part of Neede. This uncovered several enclosed farmyards with evidence of artisanal activity.<sup>17</sup> One of the farms was the subject of historical-geographical study.<sup>18</sup>

The village of Neede is located on a cover sand plateau at the bottom (edge) of a Pleistocene push moraine named the 'Needse Berg'. During the Middle Ages the winding river Berkel ran just 0.2 km south of it. The village was situated on the crossing of the route from Deventer to Vreden (Germany) with the main road that connects Diepenheim in the north, over the Needse Berg, with Eibergen and Groenlo in the south. In the nineteenth century Neede was a linear village with houses tightly packed on both sides of this north-south oriented road and a smaller branch to the east in the direction of Haaksbergen. Churches (Catholic and Protestant) were built on the opposing sides of the settlement centre. The arable land was situated on small sand ridges divided by streams and branches of the river Berkel. Next to these small open fields, we find individual farms.

<sup>10</sup> Vermeulen, Mittendorff & Van der Wal 2013.

<sup>11</sup> Vermeulen 2013, 299.

<sup>12</sup> Vermeulen 2013, 311.

<sup>13</sup> Vermeulen 2013, 301.

<sup>14</sup> The nunnery was founded by Richardis' widow of Count Otto I of Guelders (Vermeulen 2013, 311).

<sup>15</sup> Vermeulen 2013, 295-296.

<sup>16</sup> Nevertheless, other institutions already held properties in the area (Vermeulen 2013, 299).

<sup>17</sup> Diependaal 2014, 7-9.

<sup>18</sup> Keunen 2014, 104-107.

The meadows were located in the stream valleys and east of the village an extensive heathland stretched out. On the Needse Berg itself there were also extensive arable fields. These were of minor quality, though.

The excavations uncovered the remains of at least six contemporary farms. In contrast to the nineteenth century layout, these appear to have been part of a grouped and elongated settlement at the foot of the push moraine. The eldest farm was established in the eighth century. During the subsequent period additional farms were built to the west, expanding the settlement. The farms were all quite stable, as they were rebuilt several times on roughly the same location.

The medieval settlement lay in the hamlet of Hoorne. Its oldest farm was identified as Hoikink. It was situated on a cover sand ridge on the spot

where the original river stream of the Berkel neared closest to the foot of the Needse Berg.

Hoikink farm was a manorial property of the old Vreden abbey and part of the *curtis* te Vaarwerk in Eibergen, which functioned as the regional administrative centre for the abbey. Since Hoikink farm predates the abbey (founded 839), it only became their property at a later stage. Based on its legal status, it must have been donated before the thirteenth century.<sup>19</sup> By whom, is unknown, but judging from the fact that the abbey was reserved for women of the higher nobility, its original owner should be sought in the higher circles.

All excavated farms were deserted before the end of the thirteenth century and it is believed that they were relocated. Hoikink was moved to the southwestern edge of the fields. For the other farms, this could not be established.

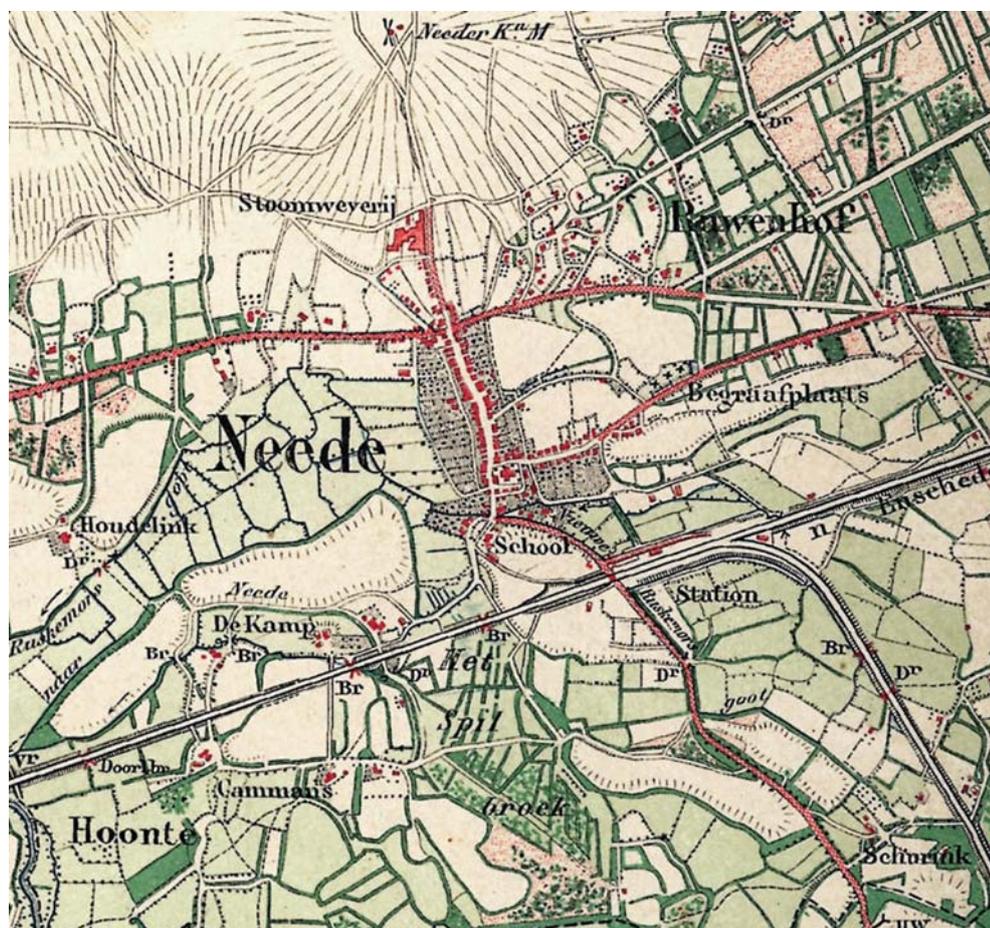


Figure 8.2 Neede around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastre).

<sup>19</sup> Keunen 2014, 106.

**Table 8.8 Overview of settlement characteristics (layout and composition, development and main formation processes) in comparison to our primary case study for archaeological region 3: Overijssel-Guelders cover sand area.**

AR3	Primary case study	Secondary case study: combined archaeology and historical-geography	
Casus	Warnsveld	Epse	Neede
<b>Lay out and composition (nineteenth century)</b>			
Geographical situation*	cover sand ridges and river dunes (614).	cover sand ridges and river dunes (614); stream valley soils (616).	cover sand plains (611) and ridges (614); push moraine (1201).
Form	flankesdorp; clustered settlement east of the open fields with separate farms scattered around.	esgehucht; hamlet with separate farms of different sizes, scattered among the farmland.	linear village with closely spaced houses and in the countryside separate farms next to small field blocks.
Size according to inhabitants 1840**	2090	n/a	2612
Size according to houses 1840**	258	n/a	404
Church and chapel	St. Martin's Church (primary) ca. 1050	St. Anthony chapel (sixteenth century)	Grote Kerk (≈1506)
Amenities	several inns; oil mill; mill	watermill; school	wind mill; school
Trade	blacksmith	n/a	iron working
Commerce (market)	no	n/a	n/a
Distance to nearest medieval town	Zutphen (1190) 2 km	Deventer (1123) 5 km	Borculo (1375) 8 km
<b>Composition and development (500) 800 – 1600</b>			
Origins	Carolingian (manorial) farm (ca. 800)	tenth and early eleventh century	Carolingian (manorial) farm (eighth century)
Development (composition, layout, duration)	a single Carolingian farm next to a rounded arable field develops into a small clustered settlement after a church was built on its premises. The arable land develops into an open field with separate farms. In the course of the Late Middle Ages some amenities were established in the village centre.	n/a	n/a
Merovingian period	n/a	n/a	n/a
Carolingian period	single farm in enclosed rounded arable field.	n/a	single (?) farm; 10th c. multiple farms grouped together.
High Middle Ages	open field surrounded by individual farms; from 11B church with clustered settlement and presbytery in northern part of the enclosed field.	single farm and sheep pen; took part in reclamation of the area.	multiple farms grouped together.
Late Middle Ages	modest increase of clustered settlement; amenities.	single farm, one of several scattered in the area; watermill.	relocation of farms; start of the linear settlement?
Clustering of settlement	around church, shortly after establishment.	n/a	Initially grouped at the foot of the Needse Berg; later clustered linear along a main north-south road.
Founding of a church	second half of the eleventh century by prince-bishop of Utrecht.	n/a	Grote Kerk (≈1506)
Establishing amenities	inns and an oil mill date back to the Late Middle Ages.	watermill (ca. 1194 - 1281)	n/a
<b>Main processes of village formation</b>			
Political development	Bishop established royal palace in Zutphen and created new church in Warnsveld. The new parish centre competed with church in Wichmond (property of Werden abbey).	Situated in the border zone of Oversticht and Guelders, near primary town of the first.	n/a
Administrative organisation	Warnsveld became parish centre, but local administration was held by the board of the Marke Leesten.	Part of the Marke organisation through the nunnery.	n/a
Founding of a church	Church sparked increase of habitation and formed the focus of the clustered settlement.	n/a	unclear whether this triggered a clustering of settlement.

AR3	Primary case study	Secondary case study: combined archaeology and historical-geography	
Casus	Warnsveld	Epse	Neede
Property relations	The church was initially property of the Bishop of Utrecht. It most likely was established on a manorial farm he held and previously belonged to the king.	Property of the Bishop of Utrecht (<1225); property of Ter Hunnepe monastery (>1225).	Hoikink was probably the property of a (supra)regional aristocrat before it was donated to Vreden abbey and became part of the <i>curtis</i> Te Vaarwerk. This took place prior to the thirteenth century.
<b>General social factors and processes</b>			
Vertical social relationships	the parish centre was established by the prince-bishop. Shortly after the church was donated to the chapter of St. Peter; in Warnsveld at least two knightly estates existed, which were dependent on the Duke of Guelders.	property of Ter Hunnepe monastery; fell under jurisdiction of Deventer; fell under Bergkerk parish.	part of the seigneurie Borculo.
Horizontal social relationships	co-residence and neighbourship.	co-residence and neighbourship.	co-residence and neighbourship.
Social-defensive relationships	the Carolingian farm and field were initially enclosed. There was also a moated house and a manorial (tower?) house. Some of the residents were obliged to provide military service for the duke.	several noble ( <i>riddermatige</i> ) families present.	n/a
Social-religious relationships	the church became the parish centre and a focus of religious practice in the region.	Epse congregated in the St. Nicolas Church in Deventer.	from at least the sixteenth century onward the community had its own parish church.
Social-juridical relationships	Warnsveld fell under the jurisdiction of Zutphen.	Epse resorted under the bailiff of Deventer.	became part of the seigneurie Borculo.
Social-economic relationships	common interests were regulated through Marke.	production in service to the nunnery Maria ter Horst / Ter Hunnepe.	production in service of Vreden abbey.
Economic factors	Zutphen formed the economic centre.	Deventer formed the economic centre.	the infrastructure provided access to Deventer and Vreden, besides Borculo.
Urbanisation	n/a	n/a	n/a

\* According to the Archeologische Landschappenkaart (RCE).

\*\* According to CBS ([www.volkstelling.nl](http://www.volkstelling.nl))

It is not clear when Neede got its linear form and if the base was laid with the relocation of the farms. The church on the south end was built in 1506. It stands next to an elongated, rounded block of arable land, very similar to a woerd.

In any case, the dense housing predates the steam powered textile mill that was built here in the late nineteenth century.

The development of Neede bears only limited resemblance to Warnsveld. It does have evidence of habitation dating back to the late Carolingian period (institutional property and a church next to a woerd-like block), but the settlement layout is completely different; the landscape is more fragmented and the apparent demographic growth predates the building of the church. However, it is not clear whether the latter triggered the clustering of houses.

Although the results of the interdisciplinary research in Neede proved fruitful, due to its limitation to this single residential quarter, we lack information on other areas and key elements in the village. This prevents us from making a reconstruction of the entire village at this stage.

## 8.2.2 AR 13 Utrecht-Guelders Riverine area

According to our inventory, only a few relevant excavations were recently published in this region. No single excavation stands out with regard to any particular relevance to the topic, but in the municipality of Cuijk a corpus of four published excavations are available. Unfortunately, apart from the Avezathen, no additional historical-geographical case studies are available. This image is somewhat distorted by the fact that a substantial number of excavations in this region was conducted in large-scale developments that were brought under the municipality of Utrecht. Since we excluded cities in our inventory, these excavations were left out. Because of the lack of data from this region and a particular relevance, we incorporated a selection of the recently published data in this evaluation.<sup>20</sup> These consist of studies in Houten, Vleuten and De Meern.

<sup>20</sup> We did not include many of the pre-2005 studies, as this would lead to inconsistencies with the other regions. A quick scan revealed that despite the high quality of some of these studies, their relevance to the topic was mostly limited.

**Table 8.9 Overview of relevant datasets for the Utrecht-Guelders riverine area (excluding the main case study itself).**

Municipality	Village	Site
<b>Individual sites</b>		
Houten	Houten	Hoogdijk 1999
<b>Multiple sites</b>		
Cuijk	Cuijk	Route 1 Accent / Beijerd en 't Riet 2004
		Groot Heiligenberg 2005
		Heeswijkse Kampen vindplaats 4 2007
		Heeswijkse Kampen vindplaats 7 2007
Utrecht*	Vleuten – De Meern	Utrecht – Groenedijk 1999
		Utrecht – Groenedijk 2000
		Utrecht – Hogeweide 2004
		Utrecht – Az Sportpark Strijland 2005
		Utrecht – Sportvelden Strijlandweg 2007
<b>Combined archaeological and historical-geographical data</b>		
		n/a

\* Additional sites included in the regional extrapolation.

### Individual sites

#### *Houten – Hoogdijk 1999*

Houten is situated on an old stream bank of the Kromme Rijn, once the main branch of the Rijn to the North sea. Around the start of the nineteenth century the settlement was clustered around the High Medieval church at the cross road of two regional main roads. The village centre laid amidst the arable land on the higher part of the stream bank with meadows in the surrounding polders.

The Hoogdijk site is located well outside the historical centre at a distance of ca. 4 km southeast. This settlement has little to do with the development of this village as such, however, its layout and composition -combined with this historical background – does provide valuable insight into the nature of settlements in this region and the underlying processes.

The site at Hoogdijk is a reclamation settlement that consisted of four houses, regularly spaced along a dike and leat.<sup>21</sup> From here a number of parallel ditches were dug in the hinterland at a straight angle from the leat. Each of the tofts were located at the front end of such a strip of land and consisted of a small farmhouse and

one or two outbuildings or granaries and a well (figure 8.4). The settlement dates back to ca. 1125 and was rebuilt at least once. Around 1175 the tofts were superseded by a single, large farm with a different orientation. This was abandoned before the middle of the thirteenth century. With it the settlement at this location came to an end. The arable land was added to the fields of nearby settlements in the parish. The settlement at Hoogdijk was located closely to the early medieval settlement of Westrum (figure 8.5). This was abandoned in the tenth or eleventh century for unknown reasons.<sup>22</sup> Its lands were the property of the lords of Goye, who distributed them among new tenants. This local authority is believed to have initiated the reclamation at Hoogdijk as they did with other areas (e.g. Schalkwijk) during this period. This undertaking is part of a wider reclamation movement of the region which was actively stimulated by the regional governor, the Bishop of Utrecht. It integrates agreeably with the damming up of the Rijn near Wijk bij Duurstede in 1122, which enabled access to the lower lands on both sides of the Houten stream bank.

Not long after the reclamations were completed the settlement was abandoned, possibly because the extra manpower was no longer

<sup>21</sup> Van der Velde 2001, 37–39. The settlement is believed to be complete.

<sup>22</sup> Van der Velde 2001, 6–7.



Figure 8.3 Houten around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastre).

needed or it had become more convenient for the occupants to move on, perhaps clustering in a nearby village. The short lifespan of the settlement and the close relation to the reclamation of the area suggests that the temporary nature of the settlement was deliberate, especially as the arable land remained in use. By the end of the fifteenth century it had become the property (probably a donation) of the Fraternity of Our Lady.

Although the settlement at Hoogdijk shares an elongated form with both the Avezathen, it has little in common in its origin and development. Hoogdijk is a short-lived reclamation settlement, situated on the border of the lower backlands, whereas the Avezathen is located on the top of the river banks along a major road. Because of its nature and size, no amenities were established in the settlement, as it was exclusively agricultural with some complementary hunting and fishing.

In addition, its late establishment in a previously uncultivated area meant that the old Carolingian property relations played no role here (although they probably did in the preceding Westrum). The settlement did not have its own church or chapel, but resided under the parish Houten. Since Hoogdijk was bound specifically to the reclamation of this area, it had little base for long-term development.

What it does share with the Kapel-Avezaath, however, is a direct involvement of a local authority in its development. The way this works out on other hand is quite different, as this authority has no residence at Hoogdijk which could act as a focal point.

### Multiple sites

#### *Cuijk*

Cuijk is a town on the river Meuse. Its form is in part determined by the elongated riverbank and the main road that runs over it and partly by the



Figure 8.4 The development of the linear reclamation settlement at Houten – Hoogdijk (Van der Velde 2001, 38).

roads (from the hinterland) converging here at the river crossing and harbour. The large, open arable fields are situated on the high riverbanks with woodlands, heaths, and moors behind them. The meadows are located in the foreland of the river and filled in meanders. Around the large open fields, smaller hamlets can be found.

Cuijk developed as a Roman fort (*Ceuclum*) at a river crossing and continued to be inhabited uninterruptedly into the Middle Ages.<sup>23</sup> During this period it grew into a regional centre, the heart of the seignury of the Land van Cuijk. The lords of Cuijk had a motte-and-bailey castle in the former *castellum*. Although the castle was destroyed in 1132, in retribution for the

<sup>23</sup> Heirbaut 2005, 10–13.

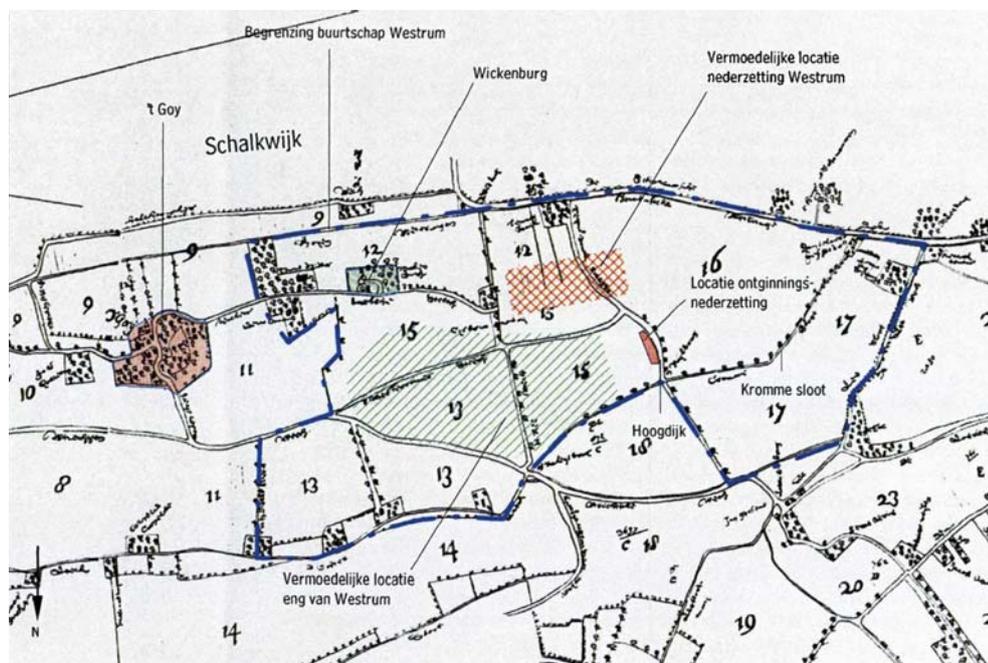


Figure 8.5 Reconstruction of the early medieval hamlet Westrum near the settlement of Hoogdijk (nr 16) (Van der Velde 2001, 101).

Van Cuijk's part in a failed coup, the town prospered and a number of subsequent churches were built.

In recent years, numerous archaeological prospections and excavations have been conducted here in the wake of several large-scale developments. Some of these are potentially relevant for our topic.

At De Beijerd and 't Riet, located west of Cuijk's historical centre, settlement remains were found from the Merovingian period up until the Late Middle Ages.<sup>24</sup> Because of the minimal extent of the trenches, the settlement remains are very fragmented and little can be said with any certainty. It is thought that, at least in the High Middle Ages, the excavated part of the site consisted of multiple farmyards. One of the farmyards was rebuilt three times at the same site. Many of the questions regarding layout and composition remain unanswered. There is some evidence for iron production. Rather than a full-time specialisation, this was most likely a sideline activity from the main agricultural livelihood.

At Groot Heiligenberg, located high up the eastern river bank, just north of De Beijerd,

the remains of a farm were found dating between 1150 and 1250.<sup>25</sup> Although the main building was exceptionally well preserved, the farmyard could only be partially excavated. However, it was established that the farmhouse was rebuilt once at the exact same spot.

At the Heeswijkse Kampen, named after an area of enclosed farmland next to the former hamlet of Heeswijk at the north side of Cuijk, two sites (site 4 and 7) were located.<sup>26</sup> Fragments of Late Medieval farmyards were found at both sites, which can be related to the hamlets of Heeswijk and Ewinkel.<sup>27</sup> Material from the High Middle Ages was nearly absent, indicating that the area was (only) incorporated in the main arable land during the Late Middle Ages. The fragmentary remains do not allow for any remarks on the layout and composition of the settlements. However, in the nineteenth century these hamlets were little more than a handful of houses grouped together at the edge of the field complex.

Because of the fragmented nature of the excavations and the primary focus on the Roman history, they provide little insight into the development of the town and its surrounding area during the Middle Ages.

<sup>24</sup> Heirbaut 2005, 157–167.

<sup>25</sup> Heirbaut 2007, 103–106.

<sup>26</sup> Roessingh & Vanneste 2009, 9.

<sup>27</sup> Roessingh & Vanneste 2009, 202–203.

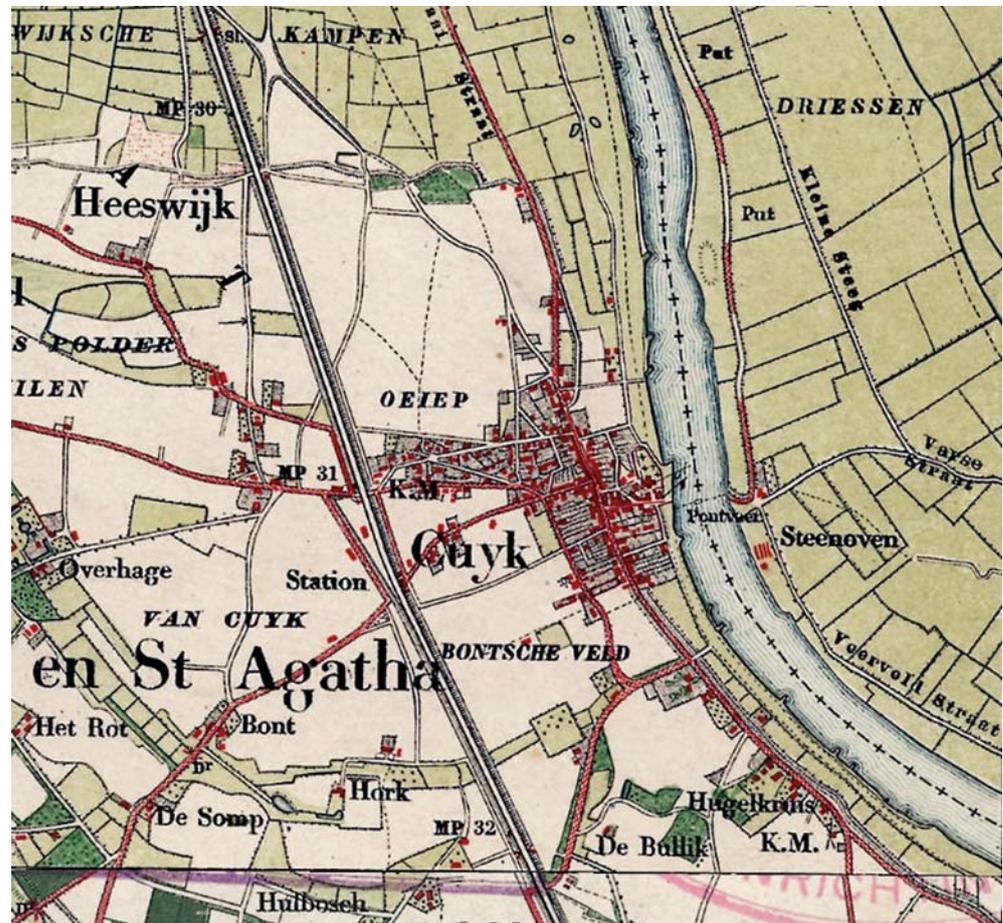


Figure 8.6 Cuijk around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastre).

It can be established that the settlement in the Early Medieval period was not restricted to the Roman fort, but was also located at the riverbank amidst the arable fields. As part of the expanding reclamations, these settlements were largely moved around the beginning of the Late Middle Ages and various small hamlets were built at the (new) border of the arable land and meadows. Because of its favourable location along major routes (e.g. between Nijmegen and Maastricht) and on the Meuse, Cuijk remained a regional centre.

The development of medieval Cuijk has little in common with the Avezathen, as it is guided by pre-existing structures which lack in our primary case study. Its location at a crossroad of main infrastructure on land and water played a key role which continued to be relevant throughout the Middle Ages, as the routes were (to a large extent) determined by the natural landscape. This also forms a significant difference with the

Avezathen, as Cuijk is situated on the southern tip of the Meuse terrace landscape. This also provided the opportunity to establish far larger arable field complexes as could be managed in the riverine area in the central Netherlands. This determined the agricultural nature of the farms in the area. Cuijk would conclusively grow to become a town and surpass the status of a regular village.

#### *Vleuten – De Meern*

Vleuten and De Meern are former villages west of Utrecht that are now incorporated in the expanding city. Vleuten is situated at a former branch of the river Rhine, which has survived as a strong meandering stream that served as a leat for reclamations of the surrounding area. The winding nature of this branch resulted in a landscape with plenty of relief from river banks, beds and back lands. Vleuten lays on one of these riverbanks. This determined the elongated layout of the settlement. Since their reclamation,

much of the back lands have become too wet for agriculture as a result of the setting of the clay. This meant that large areas were turned into meadows and cattle breeding became the main source of income in the countryside. Only from the beginning of the nineteenth century some occupation started to cluster around the church and the crossing roads.

De Meern is situated on the Oude Rijn, a branch of the River Rhine that lost its role as a main waterway after it started silting up. In 1122 it was dammed up at Wijk bij Duurstede and the Lek became the main stream of the Rhine. Its linear layout is related to its origin in the High Medieval reclamations of the peat and clay area west of Utrecht. To counter hydrological problems that arose from the draining of these lands around 1200, a bank was built between the Oude Rijn and the Hollandse IJssel on the fossilised stream bed of the former river Maerne.

The settlement at De Meern was situated at the beginning of this dam and was named after it.

In the area of the former municipality of Vleuten-De Meern, numerous excavations have been conducted as part of the large-scale developments west of Utrecht (Leidsche Rijn). Amongst other things, these uncovered the remains of several medieval settlements.

The earliest settlement was found east of De Meern. It was situated along the Oude Rijn on an older fossilised stream bed.<sup>28</sup> It was established here in the final quarter of the sixth century after this river branch was reactivated. The settlement consisted of multiple houses, closely spaced in a linear layout (figure 8.8). It started with three homesteads, but was soon expanded to at least seven. It probably was mainly self-supporting. In addition, evidence for various artisanal activities were found, including iron and bronze working and



Figure 8.7 Vleuten and De Meern around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastré).

<sup>28</sup> Nokkert, Aarts & Wynia 2009, 11–12 and 359–361.

comb making. Other homesteads appeared to be of an exclusively agricultural nature. The finds also indicate that the inhabitants were fishing and trading within the coastal area and various regions along the river, and had a high level of prosperity. Some of the occupants probably had a respectable standing. The settlement had multiple building phases in which the tofts with original demarcation were mostly adhered to. In the course of the eighth century the settlement gradually declined and was subsequently abandoned.

Less than 1.5 km to the west, a High and a Late medieval settlement was found on opposite sides of the Oude Rijn.<sup>29</sup> Around 1125 a small rural settlement was established on the left bank. It consisted of two farms. Initially the river was active and navigable, but over the course of the century it started to fill up, as it was dammed up just shortly before. The farms were characterised by the many haystacks, granaries and other outbuildings and believed to have produced food and linen (flax) for the rapidly growing population of the nearby city of Utrecht. Judging from the increasing size of the farms and quality of the (metal) artefacts, the occupants were prospering. Interestingly, the site also yielded a quantity of weaponry – nearly four dozen arrowheads, a sword pommel, two lance tips and a spear head – as well as a large quantity of horse gear

including seven bits, twenty spurs and dozens of horse shoes. Was this farm a knightly property? Was its occupant obliged to provide military service to his (over)lord? Other attributes of a knightly residence like a moat are lacking. Was the military equipment part of the occupant’s citizen duties?<sup>30</sup> Both farms were abandoned in the last quarter of the twelfth century.

In the second quarter of the fourteenth century a brick house was built on the opposite side of the Oude Rijn.<sup>31</sup> Shortly after, a complementary moat was dug. Contrary to the knightly manors in the area, the tower house was not accompanied by a farmhouse and it most likely did not take part in any agricultural production. It was carefully dismantled around 1425. Because of its location on the edge of the jurisdiction of the city of Utrecht, and the fact that both correspond with an undertaking of the city of Utrecht to buy land in the *Hoge Weide* area, it is thought that the moated house was the residence of the *weigraaf* – the city officially responsible for the supervision of the tenants and the collection of taxes. It could also be a property of one of the three chapters that held land in this area.

This was certainly the case with the linear settlement that was found less than 1.5 km to

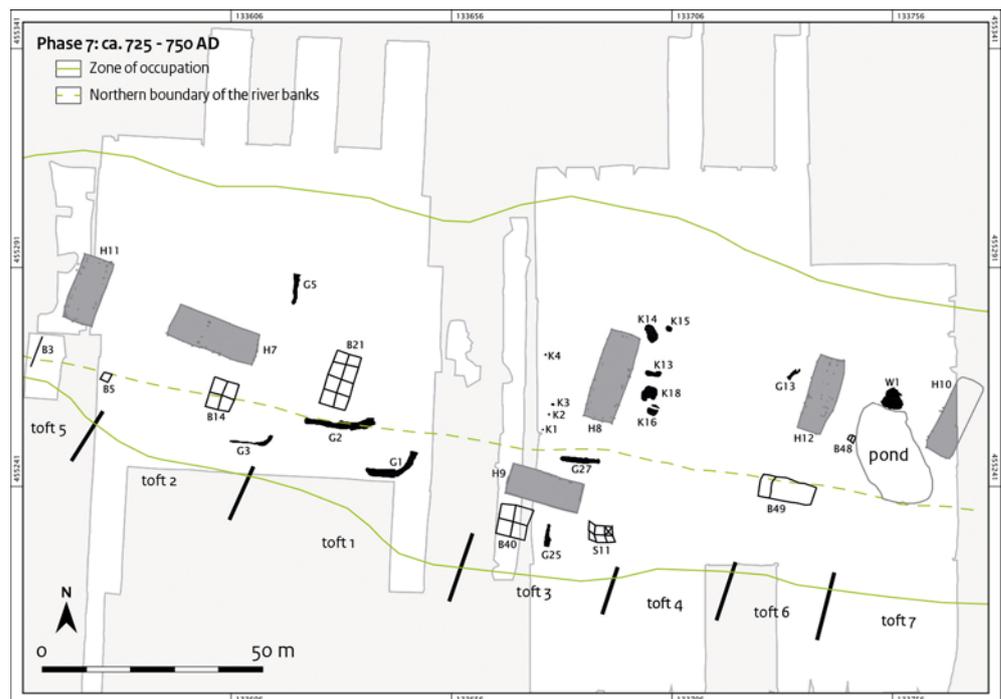


Figure 8.8 Carolingian linear settlement at De Meern (Nokkert et al., 2009 159).

<sup>29</sup> Van der Kamp 2006a; 2006b.  
<sup>30</sup> Dubbe 1980, 73-75. Citizens were obliged to defend the city in times of crisis and depending on their profession and income, they had to provide their own arms and armour. Citizen rights and duties could also apply to people living outside the city wall, the so-called *buitenpoorters*.  
<sup>31</sup> Van der Kamp 2006b, 5-6.

the east, along the *Hogeweide* road.<sup>32</sup> In the eleventh century a ditch was dug that would form the northern boundary of lands owned by three ecclesial chapters from Utrecht. This ditch was accompanied by the foresaid road. Soon after, the first farm was established. In the subsequent period, the settlement was gradually expanded to five farms in the fourteenth century. During this period some of the existing farms were repaired or replaced and some were abandoned again, possibly moved to a neighbouring plot. In the early fourteenth century some of the farms were built with brick. This suggests that these could be monastic granges instead of ordinary (tenant) farms. In the seventeenth century, after the ecclesiastical property was confiscated, three farms remained. One of which had been replaced by a large and luxurious country house.

In the adjacent area, owned by a different chapter, another farm was found.<sup>33</sup> It was established around 1100 and was in use up until 1325. During this period it was rebuilt at least once. The most interesting feature was the presence of a horse mill.

The previous examples have little to do with the development of Vleuten or De Meern into villages and apart (maybe) from the Carolingian settlement, none of these settlements grew into villages themselves. However, they do show some of the processes and factors involved in the development of settlements in a comparatively small area in this region.

As is shown, the origin of the settlement might have been an arising opportunity like the opening up of a waterway, or an upcoming market, or it could have been a direct result from an external initiative, like an urban investment or the exploitation of institutional property. Access to good infrastructure, such as a river or an urban market, played a vital role in the possibilities for further (economic) development through trade and artisanal (house) industry. This creates a diversification in livelihood and an increase in prosperity.

The layout of the settlement is largely determined by the physical geography of the riverine area. Water courses and stream banks are the determining factors which dictated the elongated, if not linear layout of the

settlements. Most of the settlements have multiple occupation phases, and farms were often rebuilt at the same site. Nevertheless, nearly all settlements were abandoned; often within one to two centuries. Sometimes a specific reason can be identified, such as the silting up of the river or the selling of land, but more often the motives are unclear. As the settlements at *Hogeweide* and *Groenedijk* show, the presence of stone houses does not guarantee longevity of the settlement.

So how do these settlements relate to the *Avezathen*? Well, interestingly, hardly at all. The main similarity is the elongated or linear form. This is related to the riverbanks and fossilised stream beds that form the main areas in this riverine landscape that are naturally suitable for settlement. Their shape largely dictates the form and development of the settlements in this area. Apart from this, the overview shows a distinct variety in the origin and development of the settlements. As was expected, several settlements were related to the reclamation of back lands or to their exploitation. A successful reclamation, however, is no guarantee for a long existence of a settlement, as nearly all of them were largely abandoned in the fourteenth century. In our case studies the undertakings were instigated by institutions, local lords or urban entrepreneurs and the revenue of their investment might have played an important role.

It is important to note that none of the available case studies were ever true villages. The only exception perhaps was the Carolingian settlement at *Strijland* which had some amenities and accommodated crafters and tradesmen.

An interesting element that attracted attention was the fact that on many of the settlements a considerable amount of weaponry was found. Although some of it might be related to the authority or knightly status of the occupants, like we suggest for the manor at *Kapel-Avezaath*, arms were also found on tofts attributed to tenant farms. This might have to do with obligations to participate in the defence of the area. This could be the case when the occupants enjoy citizen rights. Excavations in *Vleuten-De Meern* have yielded multiple relevant archaeological studies.

<sup>32</sup> Van der Kamp 2011, 8-9.

<sup>33</sup> Dielemans 2010, 7 and 71-73.

**Table 8.10a Overview of settlement characteristics (layout and composition, development and main formation processes) in comparison to our primary case study for archaeological region 13: Utrecht-Guelders riverine area.**

AR13	Primary case study		Secondary case study: Individual site	Secondary case study: Multiple sites
Casus	Kerk-Avezaath	Kapel-Avezaath	Houten – Hoogdijk	Cuijk
<b>Lay out and composition (nineteenth century)</b>				
Geographical situation*	stream banks (1424) and floodplains (1419).	stream banks (1424).	stream banks (1424) and floodplains (1419).	river foreland (1820) and fossil riverbeds (1818) amidst river terraces (1802) and river dunes (1823).
Form	elongated village along two parallel roads with the church on one side and a woerd on the other side.	elongated village along two parallel roads (one of which was shortened over time) and a road squared to these roads.	linear settlement.	elongated village along the Meuse and a perpendicular road.
Size according to inhabitants 1840**	485	482	n/a	1946
Size according to houses 1840**	72	82	n/a	303
Church and chapel	St. Lambert Church (ca. 1000).	St. Agatha chapel (1332).	no	St. Martinuskerk (ninth century).
Amenities	no	court of law?	no	no details available.
Trade	no	no	no	no details available.
Commerce (market)	no	no	no	no details available.
Distance to nearest medieval town	Tiel (thirteenth century) 5 km.	Tiel (thirteenth century) 5 km	Utrecht (1122) 14 km.	n/a
<b>Composition and development (500) 800 - 1600</b>				
Origins	habitation close by from the Merovingian period; Settlement at the historical village centre attested from Ottonian period.	habitation close by from the Merovingian period; Settlement at the historical village centre attested from the Carolingian period onwards.	this settlement we established around 1125 as part of a reclamation near the former settlement of Westrum.	Cuijk developed as a Roman fort ( <i>Ceudum</i> ) at a river crossing and continued to be inhabited (uninterrupted) into the Middle Ages.
Development (composition, layout, duration)	habitation organised in dispersed, small hamlets clustered in a larger settlement which had its origin in one (or possibly two) manorial estate(s).	after an early shift the settlement was consolidated and grew along the river bank.	the settlement was established as a row of four farms along a bank and leat. It was rebuilt once in this configuration. It was then replaced by one larger, single farm.	habitation developed both in the former fort and on the adjacent river dune amidst the arable land.
Merovingian period	finds indicate a settlement just north of Bergakker which could be the origin of both Kerk-Avezaath and Kapel-Avezaath.		n/a	habitation continued in the former fort. On the adjacent river dune a new settlement was established amidst the arable land.
Carolingian period	a single (?), manorial (?) farm and field ( <i>woerd</i> ) was established on the north side of the later village; The stream bank was formed on which Kerk-Avezaath would be built. Small hamlets in the vicinity.	attested habitation at the site of the historical village; Waldger takes up residence here.	close to Hoogdijk lay the former hamlet of Westrum. It was abandoned in the eleventh century and had little to do with the settlement at Hoogdijk.	continuation and growth of existing settlements. A church was built in the former fort.
High Middle Ages	establishment of a manorial estate and parish church. Settlement overall still dispersed groups of farms.	various knightly manors were established close to the Hoge Hof.	around 1125 the reclamation settlement at Hoogdijk was established. Around 1175 the four farms were replaced by a larger single farm. This was abandoned around 1250.	single (?) farms were built next to the arable fields. The grouped settlement comes to an end. The lords of Cuijk built a castle in the former fort.
Late Middle Ages	dispersed farms were abandoned and habitation clustered near the church, along the <i>Daver</i> bank.	a chapel was established and the settlement extended along the river bank.	after the settlement was abandoned the arable land was added to the fields of nearby settlements in the parish.	reclamations expand the arable land and new farms were established at the edge. These were the predecessors of the later hamlet surrounding the large open fields.

AR13	Primary case study		Secondary case study: Individual site	Secondary case study: Multiple sites
Casus	Kerk-Avezaath	Kapel-Avezaath	Houten – Hoogdijk	Cuijk
Clustering of settlement	excavated dispersed farms were abandoned in the second quarter of the thirteenth century and habitation clusters appeared near the church, along the Daver bank.	some clustering around the Hoge Hof, but overall extending along the road and riverbank.	the houses were built at the beginning of the stripe fields, grouped along the bank.	both in the former fort and on the river dune, amidst the fields, grouped settlement was established. The latter was abandoned at the beginning of the Late Middle Ages and the occupants either spread out over the field complex or clustered in the fort.
Founding of a church	at the beginning of the eleventh century by Anfried on his manorial estate.	in 1332, probably as a private foundation on private land.	n/a	probably in the ninth century.
Establishing amenities	none	the manor at Hoge Hof probably also served as a court of law.	none	no details available.

#### Main processes of village formation

Political development	initially part of the county Teisterbant, the region became property of the Bishops of Utrecht. Under their rule, nearby Tiel would grow to become an international trading place and administrative centre. In the fourteenth century it came under Guelders' rule. At a local level the Avezaathen were governed from the Hoge Hof. In the Late Middle Ages this position was taken over by the Van Soelen family on behalf of the Duke of Guelders.		the reclamation was an initiative of the local lords of Goye who laid claim to part of the wastelands. This led to tensions with the Bishop of Utrecht, who was the territorial lord and actively stimulating reclamation of his lands.	Cuijk lies at the heart of the Land van Cuijk, a seignury of the lords of Cuijk (≤ eleventh century). After 1133 Cuijk loses its position as the main town to Grave.
Administrative organisation	St. Lambert's Church became the parish centre.	the residence of Waltger and successors probably served as an administrative centre and court of law.	n/a	the lords of Cuijk govern the town.
Founding of a church	a church was established together with a manorial estate. It (later) became the focus of the clustered settlement.	a chapel was built as private property at a relatively advanced state of the settlement. The manor to which it belonged was probably a greater focal point than the chapel itself.	n/a	a church was built in an already existing settlement cluster.
Property relations	the church was initially property of the Bishop of Utrecht who donated it with the accompanying large estate to Thorn abbey. A local lord acted as guardian.	property of secular landholders, primarily the territorial rulers and their vassals.	the settlement and lands were property of the Lord of Goye. The monastery Mariënweerd also had substantial landed property in the area. Sometime after the settlement was abandoned the land was obtained by of the Fraternity of Our Lady in Utrecht.	no details available.

#### General social factors and processes

Vertical social relationships	the settlement at Stenen Kamer and Linge' was an allod from the Van Soelen family, where the settlement at 'Huis Malburg' was run by an ecclesiastical institute. Locally, stewards were present to oversee the daily affairs.	the counts (and their successors) had a residence here from which the area was governed and justice was administered. In addition, some of his (knightly) vassals had a manor here.	property of the lords of Goye.	property of the lords of Cuijk.
Horizontal social relationships	co-residence and neighbourship.	co-residence and neighbourship.	co-residence and neighbourship.	co-residence and neighbourship.
Social-defensive relationships	the Thorn estate was under the protection of the local lord (the van Soelen family).	several noble ( <i>riddermatige</i> ) families present.	n/a	the Lord of Cuijk built the motte-and-bailey castle in an existing settlement. It is unclear how this affected the development of the settlement.
Social-religious relationships	after 1000, Kerk-Avezaath and other members of the parish congregated in the St. Lambert Church.	after 1000, Kapel-Avezaath congregated in the St. Lambert Church. From 1332 they had their own chapel.	Hoogdijk was part of the Houten parish.	the presence of the church from an early date seems to have had little effect on the development of the layout of the town.

AR13	Primary case study		Secondary case study: Individual site	Secondary case study: Multiple sites
Casus	Kerk-Avezaath	Kapel-Avezaath	Houten – Hoogdijk	Cuijk
Social-juridical relationships	the lords of Van Soelen acted as guardians of the estate and probably administered lower justice.	the counts residence probably served as a court of law.	Hoogdijk resided under the authority of the lords of Goye.	up until 1133 the lords of Cuijk had their residence in the town and administered law from here. Since Cuijk was no city, its inhabitant probably did not have citizen rights or a different judicial status than the people from the countryside.
Social-economic relationships	initially the estate farms would have produced a levy in kind, but this was substituted by a monetary payment.	n/a	n/a	no details available.
Economic factors	the vicinity of Tiel inhibited the development of crafts and trade, but the inhabitant probably benefited from the proximity of the market and amenities.		reclamation and agricultural exploitation was actively stimulated by the lords of Goye.	Cuijk was a town and regional centre.
Urbanisation	Tiel probably attracted people from the surrounding countryside. But rather than draining it, stimulated growth and prosperity.		n/a	although Cuijk never received borough rights, it did develop into a town and regional centre.

\* According to the Archeologische Landschappenkaart (RCE).

\*\* According to CBS ([www.volkstelling.nl](http://www.volkstelling.nl))

Nevertheless, because of the variety in origin and nature of these settlements and the limited coherence or relations to the actual villages of Vleuten and De Meern, they are presented as separate sites.

**Table 8.10b Overview of settlement characteristics (layout and composition, development and main formation processes) in comparison to our primary case study for archaeological region 13: Utrecht-Guelders riverine area.**

AR13	Secondary case study: Multiple sites			
Casus	Vleuten – De Meern			
	Groenedijk	Hogeweide	Sportpark Strijland	Strijlandseweg
<b>Lay out and composition (nineteenth century)</b>				
Form	a group of two farms along a river branch succeeded by a single tower house on the opposite bank.	a linear settlement consisting of a group of farms spread out at various intervals along a road.	linear settlement on a fossilised riverbed.	single farm at a road, part of a larger linear settlement (Hogeweide).
Size according to inhabitants 1840**	n/a	n/a	n/a	n/a
Size according to houses 1840**	n/a	n/a	n/a	n/a
Church and chapel	n/a	n/a	n/a	n/a
Amenities	none	none	probably a mooring place or berth and crafters involving iron and bronze working and comb making.	A horse mill.

AR13	Secondary case study: Multiple sites			
Casus	Vleuten – De Meern			
	Groenedijk	Hogeweide	Sportpark Strijland	Strijlandseweg
Trade	none	none	finds indicate trade with the coastal areas and various regions along the river.	n/a
Commerce (market)	none	none	the settlement was part of the trade network along the waterway. Evidence for trade was found and concentrated in the western part of the settlement. Additional outhouses were possibly served as provisions for commerce.	n/a
Distance to nearest medieval town	Utrecht (1122) 4 km.	Utrecht (1122) 4 km.	Utrecht (1122) 4 km.	Utrecht (1122) 4 km.
Composition and development (500) 800 - 1600				
Origins	rural settlement was established from scratch. The tower house correlates with Utrechts' investment in landed property.	the demarcation of the northern boundary of lands owned by three ecclesial chapters from Utrecht.	a reactivation of the Oude Rijn provided opportunities for settlement and trade.	built on the estate of a monastic chapter.
Development (composition, layout, duration)	a hamlet of two neighbouring farms consisting of a farmhouse and multiple granaries and outbuildings. the tower house was moated, but apart from some granaries no additional (farm)buildings were found.	the settlement as a whole (partly excavated) consisted of three monastic granges and several tenant farms. It started off as a single farm and was expanded (during the High and Later Middle Ages) to at least five. The number declined around the end of this period.	the settlement consisted of multiple houses, closely spaced in a linear layout. It started with three homesteads, but was soon expanded to at least seven.	the farm was built around 1100 and was part of the linear settlement at the Groenedijk ( <i>Hogeweide</i> ). It was rebuilt at least once and in use until ca. 1325.
Merovingian period	n/a	n/a	settlement was established in the late sixth century.	n/a
Carolingian period	n/a	n/a	settlement flourished in the early Carolingian period, but gradually diminished in the eighth century and was abandoned.	n/a
High Middle Ages	established around 1125. After repeated growth and expansion, both farms were abandoned in the final quarter of the twelfth century.	an (initially) navigable moat and/or ditch was dug to demarcate a large area of land (190 ha.) next to the Oude Rijn obtained by three Utrecht chapters. A single large farm was built in the (late) eleventh century. In the late twelfth century, the settlement consisted of four farms.	in the late twelfth century a single farm was established.	a single farm was built and oriented on the Groenedijk and a former stream. It consisted of a farmhouse, a granary, a horse mill and hay stacks.
Late Middle Ages	around 1325 a moated tower house was built on the opposite bank. This was abandoned around 1425.	in the early fourteenth century the settlement expanded to five farms. Around this time some of them were built from brick. By the end of this period the number of farms declined and probable that only the granges remained.	the farm remained in use until the fourteenth century.	the farm was abandoned around 1325.
Clustering of settlement	both farmsteads were closely spaced from the beginning.	the road was the main focus point of the farms along which they were spaced. No particular clustering occurred.	tofts were closely spaced from the beginning. The abandonment does not coincide with a specific clustering elsewhere.	n/a
Founding of a church	n/a	n/a	n/a	n/a
Establishing amenities	n/a	n/a	the amenities for trade and commerce were present from the beginning of the settlement.	the horse mill was part of the farm.

AR13	Secondary case study: Multiple sites			
Casus	Vleuten – De Meern			
	Groenedijk	Hogeweide	Sportpark Strijland	Strijlandseweg
<b>Main processes of village formation</b>				
Political development	in 1122 the rapidly growing city of Utrecht obtained borough rights from the bishop.	in the early tenth century Utrecht was incorporated with the Holy Roman Empire and after the bishop returned Utrecht becomes an important political, religious and economical centre. The city itself rapidly expands and the ministerialis and tradesmen gain influence and wealth.	no details available.	in the early tenth century Utrecht was incorporated with the Holy Roman Empire and after the bishop returned Utrecht becomes an important political, religious and economical centre. The city itself rapidly expands and the ministerialis and tradesmen gain influence and wealth.
Administrative organisation	the tower house was probably the residence of the <i>weigraaf</i> .	the lands were governed by the ecclesiastical chapters.	the regular layout suggests a certain degree of social organisation of the inhabitants.	the lands were governed by an ecclesiastical chapter.
Founding of a church	n/a	n/a	n/a	n/a
Property relations	three ecclesial chapters held property in the area, but cannot be securely linked to this particular rural settlement. The tower house was located on Utrecht lands.	the lands were property of the three ecclesiastical chapters.	the chapter of St. Mary had an outlying farm in the area in the thirteenth century.	the farm was property of monastic chapters.
<b>General social factors and processes</b>				
Vertical social relationships	the <i>weigraaf</i> was the city's official, responsible for the supervision of the tenants and the collection of taxes.	the lands were property of the three ecclesiastical chapters and the tenant farm were probably overseen from the monastic granges. Finds indicate some social stratification.	finds indicate that some inhabitants probably had some standing, but the houses suggest little social stratification.	the farm was property of monastic chapters and probably governed from one of the granges.
Horizontal social relationships	co-residence and neighbourship.	co-residence and neighbourship.	co-residence and neighbourship.	co-residence and neighbourship.
Social-defensive relationships	the large amount of weaponry suggest that the occupants had a military status and/or duties.	weaponry on several farms suggest that the occupants had a military status	n/a	n/a
		(authority) and/or duties.		
Social-religious relationships	n/a	the chapters owning the real estate were monastic institutions. The occupants might have had religious affiliations to the specific orders.	n/a	the chapters owning the farm were monastic institutions. The occupants might have had religious affiliations to the specific orders.
Social-juridical relationships	the occupants of the farm possibly had a knightly status. The tower house fell under Utrecht jurisdiction.	the chapters fall under canon law.	n/a	the chapters fall under canon law.
Social-economic relationships	the farm produced food and linen for Utrecht?	the farms produced food for the chapters and market in Utrecht.	the presences of crafters and tradesmen suggest internal and external economic ties of the inhabitants.	it is likely that the horse mill was used for the neighbours as well.
Economic factors	the settlement was close to Utrecht, which provided a growing market.	the settlement was close to Utrecht, which provided a growing market.	the Oude Rijn gave access to a trade network along the waterways.	the settlement was close to Utrecht, which provided a growing market.
Urbanisation	n/a	the establishment of this settlement was tied to the rise of the neighbouring city of Utrecht.	n/a	the establishment of this settlement was tied to the rise of the neighbouring city of Utrecht.

\* According to the Archeologische Landschappenkaart (RCE).

\*\* According to CBS (www.volkestelling.nl)

### 8.2.3 AR 4 Brabant sand area

The rich body of excavations that have been conducted here in the past decade produced a substantial number of sites relevant to our topic. In most cases this could be attributed to the scale of research conducted in this area in which large sections of a settlement were uncovered and development could be studied over a longer period of time. However, except for Bergeijk, all of these cases were limited to observations outside the historical village centre. Although these illustrate the settlement dynamics in the wider village area, and are an indispensable element in the formation process, the lack of data from the centres means we only have an

indirect view of this process. This is a problem we encountered in our main case study as well. From the available comparative cases we selected a few that illustrate, on the one hand, the development in layout and composition of settlements outside the later historical village centres and, on the other hand, represent different underlying processes. In our multi-site cases we excluded the municipalities that were recently formed through the merger of smaller ones, as the excavations involved did not present a cohesive case.

#### Individual sites

##### *Eersel-Kerkebogten*

Eersel is situated on an L-shaped cover sand ridge flanked by three streams. The village consist of two

**Table 8.11 Overview of relevant datasets for the Brabant sandy area (excluding recently merged municipalities). High scoring individual sites were omitted if they were also part of multiple site cases.**

Municipality	Village	Site
<b>Individual sites</b>		
Eersel	Eersel	Kerkebogten 2009
Nederweert	Nederweert	Rosveld 2001
<b>Multiple sites</b>		
Tilburg	Berkel-Enschot	Enschotse baan Noord 2009
		Enschotse baan Zuid 2 2009
		Hoge Hoek 2012
		Burgermeester Bechtweg 2011
	Tilburg	HaVeP 2010
Gemert-Bakel	Bakel	Achter de Molen 2002
		Hoekendaal 2007
		Neerakker 'De Hof' 2008
	Milheeze	Woonbos 2008
		Zuidrand 2005
<b>Combined archaeological and historical-geographical data</b>		
Bergeijk	Bergeijk	Centrum 2010
Heeze-Leende	Sterksel	Averbodeweg 2 and 4 2008

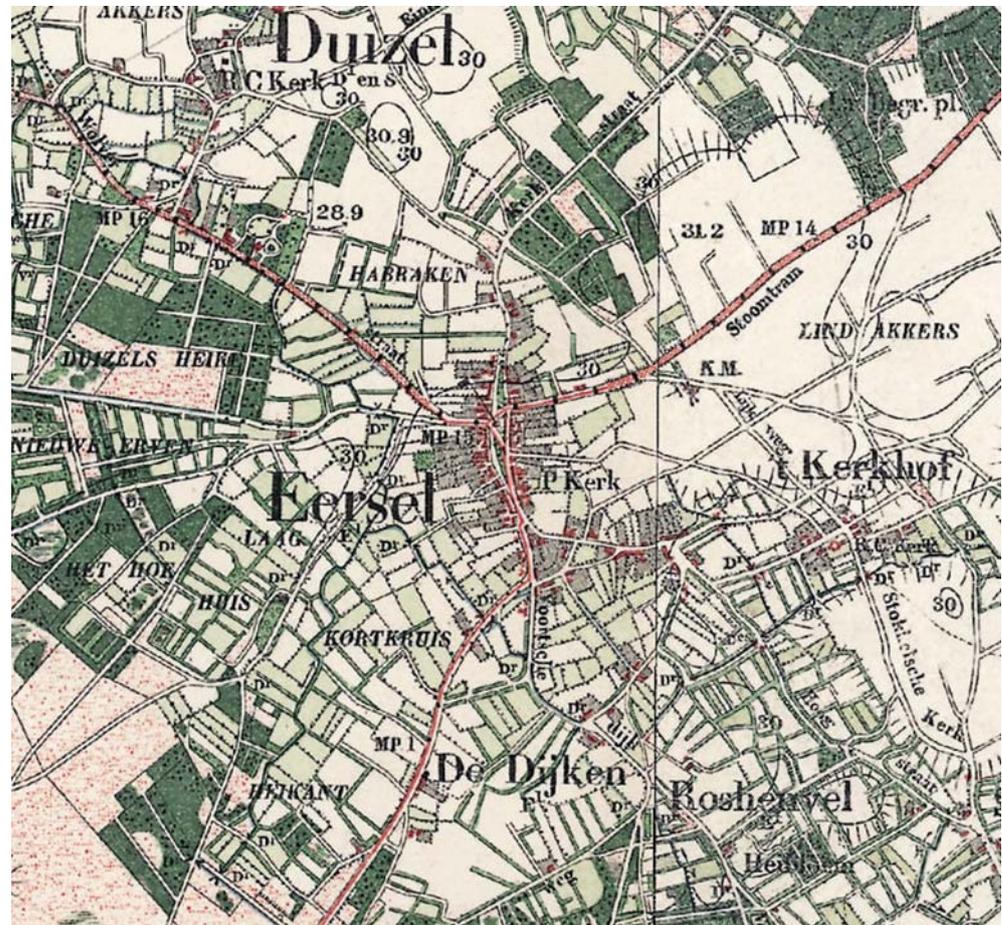


Figure 8.9 Eersel around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastre).

settlement clusters. The first, 't Kerkhof, is situated high up the ridge, among the open arable fields next to the *Kerkeloop*, a small man-made stream. This consisted of a small group of houses clustered around the St. Willibrord church. A second, larger cluster lay 1.0 km to the west on the border of the open fields and the enclosed fields. This settlement had a linear layout with houses on both sides of an elongated market square.

The earliest reference to Eersel dates back to 712 when Aegilbert donates a manorial court and five dependent farms to Willibrord, Bishop of Utrecht and abbot of Echternach.<sup>34</sup> The precise location of these properties is unclear, but the site of the St. Willibrord church is the most likely candidate for the *curtis*, as Echternach held various rights to this church. Also, the tuff stone used in the fourteenth century building is most likely reused material from an older building.

After the region was incorporated in the Duchy of Brabant, Eersel was granted town privileges in 1325.<sup>35</sup> It became a regional centre with a market place and a major court of law preceding that of the surrounding villages. In the fourteenth century the old church was replaced by a large gothic building. In 1464 a chapel was built in the settlement cluster surrounding the market.

In 2005 and 2006 a large scale excavation was conducted at the fields *Stokkelse akkers* and *Kerkebogten*, southeast of the St. Willibrord church.<sup>36</sup> Although stray finds indicate post-Roman activity from the late Merovingian and Carolingian period, it revealed that the area was inhabited during the High Middle Ages. The settlement comprised of two contemporary clusters and a 'solitaire' farm.

<sup>34</sup> Lascaris 2011, 25-26.

<sup>35</sup> Eersel became a 'Vrijheid' settlement with borough rights, but without the right to build a wall or fortifications.

<sup>36</sup> Lascaris 2011, 81-113 and 232-239.

Around the middle of the eleventh century a large, enclosed field (the *Groten* or *Stokkelse Akkers*) was established with a single farm next to a main road. This road probably led from the (settlement around) St. Willibrord church (*Ereslo*) to Bergeijk (*Echa*). About 200m to the northeast, a separate enclosed dwelling place was established. Based on its demarcation and the archaeobotanical remains, it is assumed that the inhabitants had an elevated social status. A bailiff perhaps? Both dwelling places developed into settlement clusters. In their prime, during the first half of the twelfth century, the northern settlement would consist of four (farm)houses while the one next to the enclosed field consisted of seven. In addition, on the opposite side of this field, another single farm was established. The settlement clusters both had a linear layout, with the individual farms lying side by side and facing the road. During the period of its existence it was quite persistent, as the farmyards were rebuilt at the same location. The settlement declined during the second half of the twelfth century, so around 1200 only three farms remained. By the middle of the thirteenth century the last farm was abandoned. During the Late Middle Ages the terrain was reorganised and the rounded fields were replaced by a rational allotment of straight angled plots and parcels.

Based on the physical demarcation of the field, the persistence of the settlement, and a single enclosed farm with traits of elevated status, this settlement could have started off as a manorial estate with a main farm and dependent farms. This difference seems to have disappeared around the middle of the twelfth century. Does this indicate the transformation of the manorial structures? This could be a motive for the abandonment and relocation of the settlement. The inhabitant probably moved to the later hamlets of *Stokkelen* in the south or *Schadewijk* in the north. Or might have clustered around the church. In any case, because of the date it cannot be attributed directly to the politics of the Duke of Brabant.

The development of small settlement clusters with or around a physically distinct dwelling place resembles settlement patterns found in Someren. Also, the moment of relocation and the subsequent restructuring of the arable land corresponds to what was found here. However,

there is no evidence of a church or institutional manorial property dating back to the late Merovingian period in Someren, although this could very well be the result of a lack of archival records.

#### *Nederweert-Rosveld*

Nederweert is situated in the heart of a vast area of arable land on the cover sand plains in the Roer Valley graben. This field complex is dotted with small hamlets. Nederweert had a linear layout with houses along the main roads connecting the larger hamlets and neighbouring 'cover sand isles'.

Up until the fourteenth century Nederweert was part of Weert (then *Overweert*), which is located on the opposite side of the arable field complex. The earliest reference to Weert dates back to 1062. It was part of the county of Horne and would become its capital during the fifteenth century when it obtained borough rights (1414) and the count took up residence there (1455). Nederweerts' neighbour would prosper in that period, mainly through its textile industry.

In 2003 a large-scale excavation was conducted near the hamlet of Rosveld, just west of Nederweert.<sup>37</sup> Stray finds indicated the area had been in use since the Carolingian period. The earliest post-Roman habitation appeared in the late eleventh century, when a single farm was established in the northeast part of the terrain (figure 8.11). The farm lay on an oval plot enclosed by a ditch. In the second half of the twelfth century the occupation increased to at least five farms or farm groups. The earlier farm was rebuilt on its plot and on the west and south side three new farms were established. At least two were also enclosed by a ditch. On two of these locations there might have been two farms, but this is uncertain. Before the middle of the thirteenth century, these farms were abandoned and relocated and new farms were established. The first was built just west of the earliest one, and might have been a direct successor. The second was established on the southeast area of the terrain and was abandoned after one generation. The northern farm was rebuilt again just west of its previous location and lasted into the first quarter of the fourteenth century.

<sup>37</sup> Hiddink 2005, 103–131.



Figure 8.10 Nederweert around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastral).

Contrary to Someren, the excavations at Nederweert – Rosveld revealed a settlement that had a highly dispersed layout with farms (or small farm groups) scattered among the fields. Further, the individual farms were not very rooted and were moved after one or two generations. This recalls the ‘wandering farms’ of the Iron Age. This might have to do with the size of the cover sand island.

Nevertheless, Rosveld adheres to the general trend of the large settlement shift in which the dwelling places were moved out of the arable fields, albeit remarkably late. Although the bulk of the farms had been relocated around the beginning of the thirteenth century, still some farms remained present up until the early fourteenth century, far later than in Someren.

Judging from the historical topographic maps, the settlements were not moved in groups to the edge of the arable field complex, as was the case in Someren. However, they were relocated to relatively lower areas within the cover sand island. This again is probably related to the size of the field complex. Here they presumably clustered and became fixed.

Unlike Someren, the development of Nederweert as a village is closely connected to a city (Weert). It did get its own church and alderman court in the fifteenth century to serve the needs of the people on this side of the cover sand area, but it probably never got any economic privileges as this would compete with the neighbouring city.

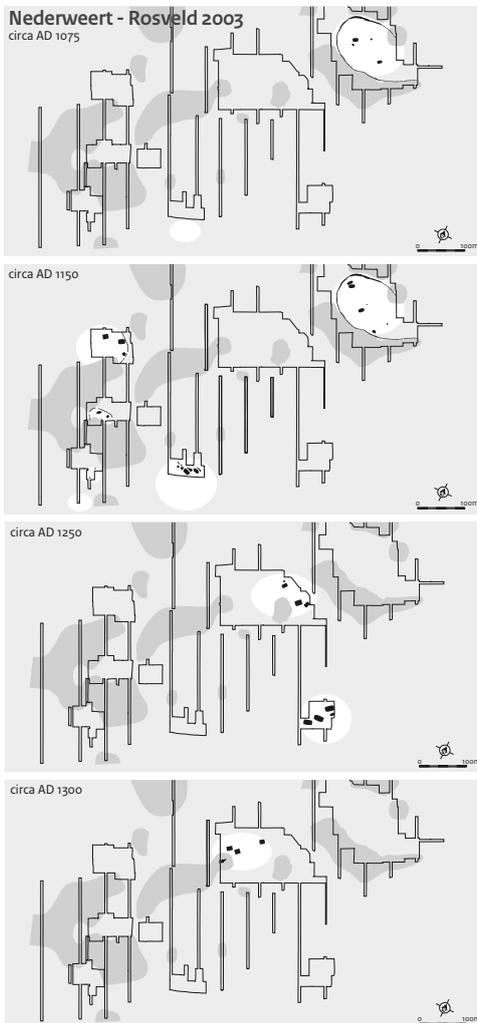


Figure 8.11 The development of the Medieval settlement at Nederweert – Rosveld (Hiddink 2003, 124-125).

## Multiple sites

### Bakel

Bakel is a nucleated village just west of the large peatlands of the Peel. It is located on a small ridge in a cover sand plain. The area is cut by several small rivers that spring from this peatland, one of which is the *Bakelse Aa* that flanks Bakel on the south side. The settlement has a concentric layout with the village in its centre, surrounded by arable fields and heathland on the outside. In the surrounding area larger field complexes can be found on similar ridges, in most cases accompanied by a small hamlet. The village is situated on the crossing of major roads, including an old main road along the border of the Peel. Houses were built around the church and market square and along the road to Helmond.

The earliest reference to Bakel is found in a deed of donation dating back to 714. This deed was drawn up in '*Bagaloso*'. It was referred to as 'villa', which could be a house or a village. In 721 Bakel is mentioned again when Herelaef, son of Badagar, donates his maternal inheritance to the church of Bakel. This church was dedicated to St. Peter and Paul and to St. Lambert. It was built by Herelaef a few years before and was governed by Bishop Willibrord.

Willibrord was an Anglo-Saxon missionary who had close ties to the Frankish statesman and military leader Pippin of Herstal. From Pippin, Willibrord received extensive landed property to support his work and provide him with an income. This policy was followed by the regional nobility, to which Herlaef also belonged. After his death in 739 the missionary left his possessions to Echternach Abbey, which he founded in 698.

The donation by Herlaef consisted of three dependant farmers, a cattle farm and a manorial farm with outhouses, and an enclosed market garden. The property of Echternach was situated on the higher grounds. It was likely part of the oldest landed properties in Bakel, as lands owned by the Duke of Brabant were only found in the stream valley of the *Bakelse Aa*, which were reclaimed much later. The properties, however, did not form a continuous territory. Rather, they lay dispersed across the ridge. This indicates that other stakeholders were present as well.

After the Carolingian period the influence of the central authorities rapidly declined. This vacuum gave rise to a locale elite of (former) *ministeriales*. At the same time (new) regional authorities gained more autonomy. Around 1200, Bakel was incorporated in the county of *Rode* and the landed property was probably divided by the abbey and the count.<sup>38</sup> The ecclesiastical property in *Peelland* stood under the custody of the Count of Guelders. In the early thirteenth century the area was taken over by the Duke of Brabant as part of his expansion politics in which he also obtained custody of the possessions of Echternach. In Bakel, these consisted (in this period) of eight tenant farms and a total of six *mansi* land.

The present-day Willibrord church dates back to the fifteenth century. Unfortunately, no further

<sup>38</sup> Van der Heide 2003, 36-37.

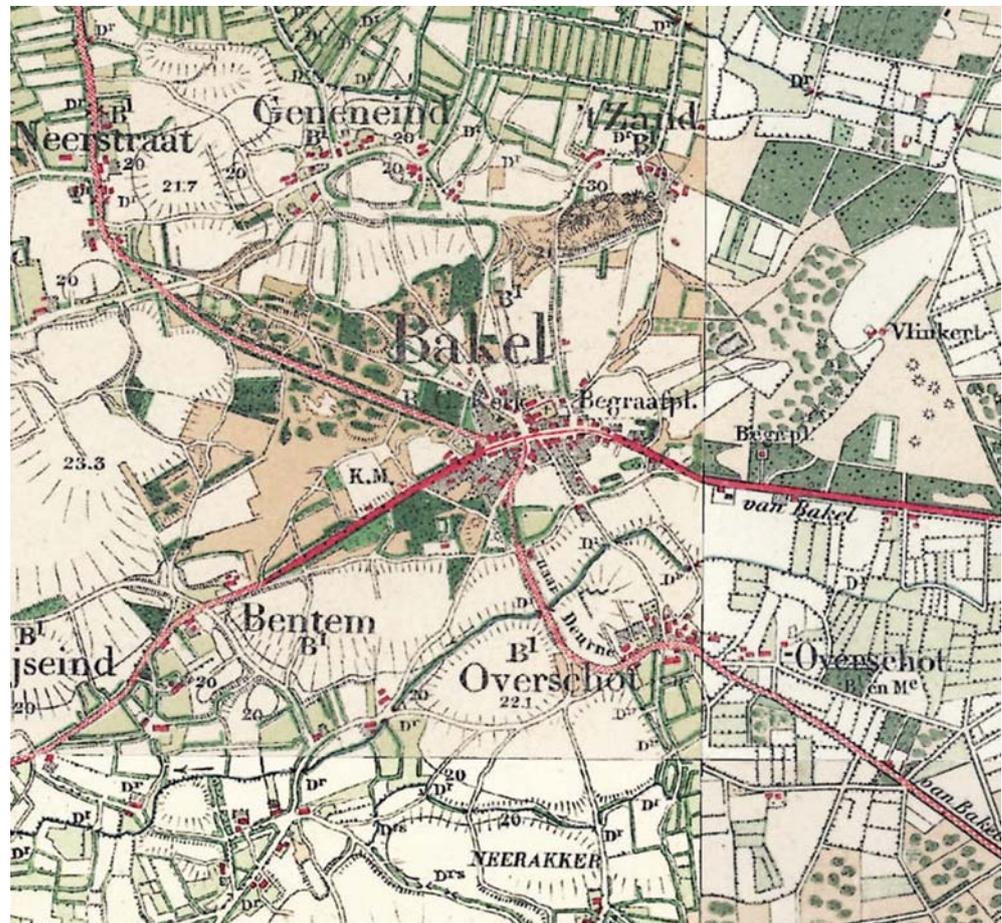


Figure 8.12 Bakel around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastre).

archaeological data is available to further establish the age of the settlement at this location. Excavations on the northwest edge of the historic village centre, at the site of *Achter de molen*, did reveal part of a grouped settlement dating back to the late ninth century.<sup>39</sup> Within the excavated area it consisted of at least two farms situated along a road. This number increased to three during the eleventh century. The settlement was fairly stationary as subsequent farms were being built in the same area. In the final phase of the hamlet the farmhouses were even rebuilt on the same spot. Around the start of the twelfth century the settlement was abandoned, most likely as a result of the relocation of the habitation. In the settlement iron was produced and processed.

A small excavation 100 m to the north revealed a tenth century outhouse.<sup>40</sup> This provides an indication of the size of this settlement and shows it extended in the opposite direction as

the later historical village centre. Various smaller observations provided evidence for high medieval farmsteads in the surrounding area. As the density of features was far lower than at the *Achter de molen* site, these were probably part of short-lived single farms.

Another settlement cluster was found at *De Hof*, 0.7 km south of the village centre.<sup>41</sup> In the nineteenth century it was part of the arable land of the hamlet Overschot. Around the middle of the twelfth century a grouped settlement was established here, consisting of a large, moated house and five smaller farms (figure 8.13). At the moated site a large house was built, accompanied by a large barn and a well. It was accessed through a long avenue flanked by deep ditches and a gate on both sides. The other farms all had regular houses, one or two outhouses and a well. Already, around the middle of the thirteenth century, the farms were all abandoned except for the large dwelling

<sup>39</sup> Arnoldussen 2003, 169-179.

<sup>40</sup> Winter 2008, 25.

<sup>41</sup> Ufkens 2010.

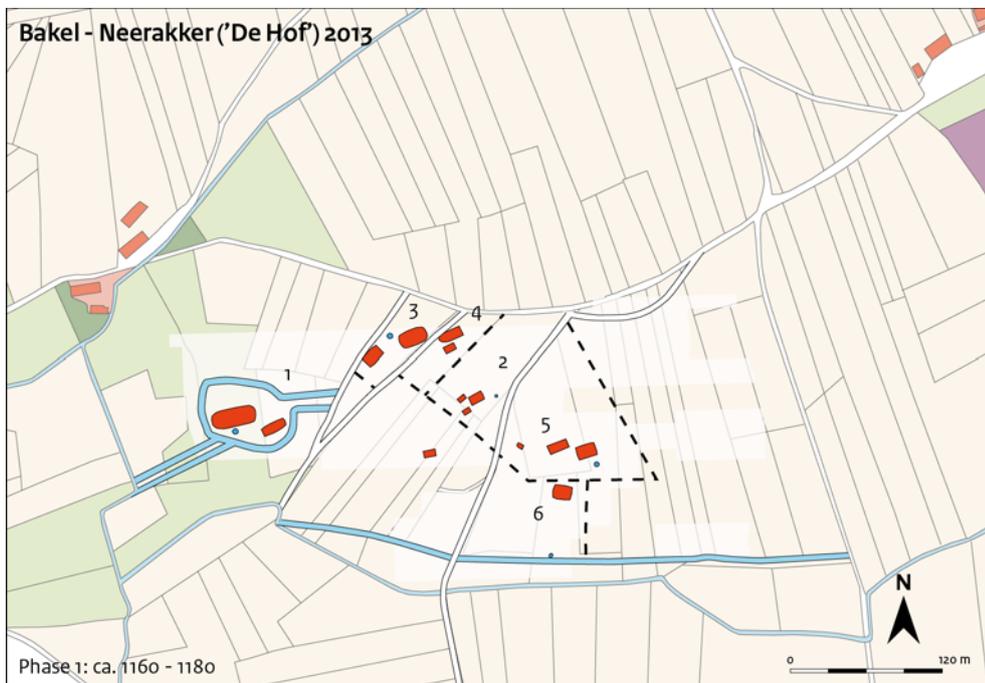


Figure 8.13 Settlement at Bakel – ‘de Hof’ 1150 - 1250 (1300) AD on the cadastral plan (ca. 1830). The excavated area is indicated in white. The building plans (red) were grouped into six tofts, one of which was enclosed by a moat (blue). The settlement was interpreted as a manorial court with five tenant farms (after Ufkes 2010, 333).

place. This remained occupied until the end of the century, although the moat was filled in. Interestingly, only the moated site bore evidence of regular upkeep. During its use it was rebuilt three times after the original construction. Two times in the same layout, including the moat, on (nearly) the same spot. The last time the layout was altered, and the moat was filled in. None of the other farms were rebuilt.

The settlement is interpreted as a manorial estate with a manorial court and five tenant farms. The identification, by the excavators as the manorial court of Echternach, is disputed. The main argument for this is the toponym ‘t Geheuf/’t Gehoft, which also crops up in the abbey’s tax records from the sixteenth and seventeenth century.<sup>42</sup> In these it is referred to as *erfhuis*, which is regarded to be an old asset. Next, the abbey repeatedly sought confirmation of their property in Bakel from the pope around the time the settlement was established. Finally, in one of the charters Echternach’s property in Bakel is described as six farms.

The problem is there are hardly any records for Bakel in this period. The properties of the abbey are one of the oldest in the area. Based on levies, recorded around 1300, these properties can be

located on the higher parts of the landscape, while *De Hof* is situated on the lower parts of the landscape, next to a stream and a field complex called *Neerakker*.<sup>43</sup> These areas are among the later reclamations. Since the core assets can be associated with the church, which was probably built on or next to a manorial court, it would be strange if this court were to be relocated away from it. It is explained as part of the general trends in the settlement pattern in which farms were moved from the higher grounds to cluster in the lower lying areas.<sup>44</sup> However, this would make no sense as the historical village centre is (still) located on the top of the ridge, indicating that it was not part of this trend. The records also show that Echternach was not the only landowner in Bakel, although not all of them are known. Some of the lands owned by the Duke of Brabant may have been former property of the Counts of Rode and as such could date back to the period of this settlement. Although it is very plausible the settlement was a manorial estate, given its date and location it is questionable whether it was actually a property of Echternach. Based on the available evidence, Bakel and Someren have little in common, neither in their origin nor in their nineteenth century form.

<sup>42</sup> Schoneveld 2010, 195-206.

<sup>43</sup> Van der Heide 2003, 36-37.

<sup>44</sup> More correctly it is a development in which the arable land is expanded and settlement are relocated to the (new) edge of the fields.

Bakel was an old, primary parish centre dating back to the Carolingian period. The church has most likely been at the centre of the settlement ever since. In Someren, the presence of a church (<1228) did not fixate the settlement, rather, it was left behind in the fields after the settlement was relocated to the lower cover sand plains around the second quarter of the thirteenth century. Nonetheless, it remained very much in use. Also, in Bakel, the relocation of farms does not seem to have been a major element in the development of the historical village centre. The excavated Carolingian and High Medieval settlement cluster was already close to the (later) centre. In addition, it was already abandoned at the beginning of the twelfth century, far earlier than the general transformation trend.

and Enschoot gradually expanded after WWII and eventually merged. Because of the location of the excavation we will focus on Enschoot. Enschoot is situated on the north flank of a long northeast southwest-oriented cover sand ridge. The ridge is flanked on the south side by the stream valley of the *Nieuwe Leij*. On the north side it gradually changes into a cover sand plain on which heath and woodland (a former game park) was located. The arable land was located on the top and on the flanks of the ridge, divided by the main roads that ran across its length and lesser roads at straight angles to these. Meadows and enclosed fields were located lower on the ridge, next to the settlements and in the stream valley.

*Berkel-Enschoot*

Berkel-Enschoot is a polyfocal settlement that was created when the former villages of Berkel

Around 1900, the settlements were mostly located along the lower main roads on both outer flanks of the cover sand ridge.

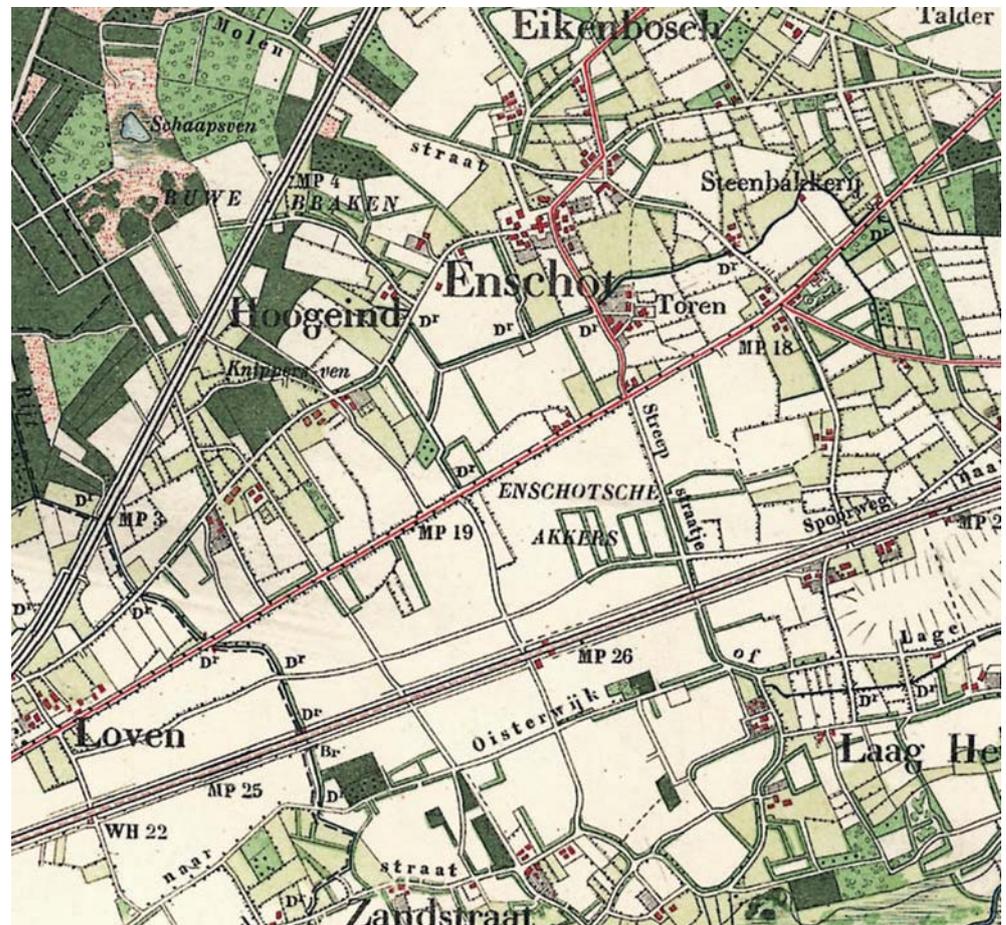


Figure 8.14 Enschoot around 1900. Note the second cluster around 'Toren'. Detail from the Chromotopografische Kaart des Rijks (Cadastre).

These settlements were sometimes grouped in small clusters or stretched out over some distance. In both cases, hamlets formed. One of the larger clusters was Enschoot. Here, houses were grouped around the St. Cecilia church. Interestingly a second cluster was situated at some distance, higher up the ridge, and was grouped around the St. Michael church. This was the site of the (late) medieval village centre. After the Reformation, the church was appropriated by the protestants. The Catholic inhabitants later established a clandestine church outside the village. This became a new focal point of habitation that grew into the new village centre.

Various observations around the St. Michael church produced finds dating back to the Carolingian period. Excavations surrounding the *Enschootse Akkers* show that it was not the only settlement in the area during the Early Middle Ages. At the *Burgemeester Bechtweg*, remains of a Merovingian settlement were found, situated on the top of the ridge.<sup>45</sup> The settlement dated between 600 and 740 and consisted of at least five tofts carefully organised in a row along a road perpendicular to the ridge. Around the start of the Carolingian period, a new settlement was established on the north flank of the ridge.<sup>46</sup> The excavations at *Enschootse Baan Noord* and *Zuid* show that over the course of five centuries this settlement was gradually moved north, or preferably outward in relation to the arable fields (figure 8.15). In the twelfth century the houses became situated in the area in which the habitation is depicted on the nineteenth century maps, but only from the second half of the fourteenth century do these tofts start to align with the specific infrastructure and demarcation. The settlement at *Enschootse Baan* consists of two or three farms, loosely grouped together, but not yet fixed.<sup>47</sup> From the eleventh century onward it gradually increased to at least five or six farms in the twelfth century. The total number is probably higher, as the settlement extends past the excavated area. The excavators suggest that houses were more clustered in the second half of the twelfth century, but this is probably a distortion as a result of the dating margins, as none of it persists in the following phase. Around the beginning of the thirteenth century the number of farms in the area rapidly decreases. Although the site is not completely abandoned, only one or two farms remained.

The habitation is believed to have moved to the historically known village or hamlets. In the mid-fourteenth century one new farm is established, next to the current road. It would remain in use up until the eighteenth century.

Because of the still limited archaeological observations, the temptation to interpret these sites as succeeding settlements – reconstructing a relocation of habitation along the cover sand ridge in the northeast direction – needs to be resisted. It does, however, illustrate a more general trend in the development of the cultural landscape in which the arable land was gradually expanded. And with that, in steps, the settlements were relocated outwardly.

Interestingly, contrary to the habitation at the *Enschootse Akkers*, the settlement at the St. Michael church seems to have been stationary since the Carolingian period. This indicates that fixed and dynamic settlements existed alongside one another and the first was not just the result of the clustering and stabilising of the latter. It also shows that the church was established in the fixed settlement, a feat that will certainly have enhanced its stability. Both the stability of the settlement and the establishment of a church could indicate the origin of a manorial estate.

Although *Enschoot* and *Someren* differ considerably in shape and size, their development bears some resemblance. In both villages the gradual relocation of habitation from the highest parts of the cover sand ridge, amidst the fields, outwardly, toward or following the (expanding) edges stands out in the evolving settlement pattern. Also, the final relocation of farmhouses from among the arable fields seem to have taken part (almost fully) in both village areas around the second quarter of the thirteenth century.

The isolated or separate position of the Medieval church that is found in both villages have a different origin, however. While in *Someren* it was related to the thirteenth century settlement relocation, in *Enschoot* it had to do with the forming of a new cluster around a clandestine church after the old one was involuntarily turned over to the Protestants. So far no Carolingian settlement remains have been found near the medieval church site in *Someren* or in the historical village centre.

<sup>45</sup> Dijkstra 2013, 65-73.

<sup>46</sup> Brouwer & Van Mousch 2015, 41-44.

<sup>47</sup> Brouwer & Van Mousch 2015, 329-338.



Figure 8.15 Spatial development of a settlement at the Enschootse Akkers (Brouwer & Van Mousch 2015, 42).

### Combined archaeological and historical-geographical research

#### Bergeijk

Bergeijk is situated on a cover sand ridge flanked by the stream valley of the *Keersop*. It sits amidst the arable fields, with woods and heathland to the north and enclosed meadows to the south. In the nineteenth century it was a polyfocal settlement with houses grouped around the Roman Catholic church of St. Peter in Chains and around the Protestant church 0.5 km northeast of this. In addition, a linear settlement flanked the field complex on the south side and ran along the main road from Luiksgestel to Valkenswaard.

The village of Bergeijk is relatively well-known through various archaeological, historical and historical-geographical studies and is one of the few villages in Brabant where systematic excavations were conducted in the historical

village centre. Recently, Dijkstra compiled this data in an updated synthesis.<sup>48</sup>

The cover sand ridge with its fields has been inhabited continuously since the Late Prehistoric Period. The historical villages is believed to originate from a Carolingian royal manorial estate of which the court was situated at the church of St. Peter in Chains.

Based on its *patrocinium*, this church was most likely founded around 960 by archbishop Bruno of Cologne (953-965). As part of the Ottonian church politics, in which the emperor transformed the German church into a kind of proprietary church and major royal power base, the archbishop was also made Duke of Lorraine. Theuws and Bijsterveld regard Bruno's initiative as an effort to consolidate the remaining royal properties and reorganise them into manorial estates. This was organised in a manorial court



Figure 8.16 Bergeijk around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastré).

<sup>48</sup> Dijkstra 2015, 105-115. The following paragraph is a summary of his synthesis.

and a number of dependent farms over which it presided. In Bergeijk the new manorial court was most likely established in an existing estate, which probably had a church already. After Bruno's death, power shifted to the Prince-Bishopric of Liège. Bishop Notger (972-1008) kept good relations with emperors Otto II and III especially, and obtained much influence and property. This included the royal estate in Bergeijk. His successor, Bishop Balderic, divided this between the newly formed St. James abbey and the chapter of St. John to serve as a *beneficium*.

In the course of the eleventh century the regional and local elite gained political influence. Often, these were the families whose members used to serve as bailiffs or reeve on the estates of their liege, often ecclesiastical institutions. By appropriating properties and privileges they became increasingly autonomous and presented themselves as nobility. This also happened in Bergeijk, where the 'Van Bergeijk' family rose to become the local authority and usurped ecclesiastical rights and possessions. Around the start of the fourteenth century their position rapidly declined as the Duke of Brabant strengthened his authority over his territories. As in other regions, the Van Bergeijk family were persuaded to donate their rights and possessions to the Tongerlo abbey (in this case), which was in the duke's custody. Archaeological and architectural studies on the church of St. Peter in Chains uncovered the remains of one or more wooden churches that stood here, up until the eleventh century. This was succeeded by a tuff stone aisled church in the twelfth century. In the early fifteenth century the church was expanded and transformed into a three aisled gothic church. The current building is the result of a thorough renovation between 1888 and 1893.

From the beginning, the church was situated on a moated terrain. By analogy to Oerle, these 8-shaped moats accommodated both the church and the manorial court. These moats had hardly any defensive value, but served primarily as the demarcation of a separate jurisdiction. The latest excavations revealed Carolingian settlement remains which confirm that the tenth century church was founded in an existing settlement, possibly the former royal estate (figure 8.17). The combined results indicate at

least three main phases of development. During the first phase (ca. 960-1100) settlement remains were found south of the (wooden) church. Since these were enclosed by the moats, it is thought that they belonged to the manorial court of the bishop. Outside the moat, north of the manorial court, habitation consisting of at least one farm, could also be established.

A second moat was dug around 1100. This time it was expanded to the north to enclose a (part of) settlement on this side of the church. It coincides with the rise of the Van Bergeijk *ministeriales* and the construction of the stone church. It is not clear whether 'the secular' and 'the sacred' were physically separated. The settlement is interpreted as the residence of this family, but its layout and composition are unclear. Remains south of the church suggest that the *curtis*, now owned by the St. James' abbey, remained in use. Around the beginning of the fourteenth century a new moat was dug. It appears to have remained incomplete and was filled in soon after. This might be linked to the renovation and possible relocation of the abbey court in 1326. Over the course of the fourteenth and fifteenth century, the remaining church moat gradually filled up. After the balance of power had shifted and the court was moved it no longer served a purpose, except for the demarcation of the churchyard.

In the Late Middle Ages the focus of habitation shifted to the northeast, to the marketplace at the crossing of the roads from Eersel, Riethoven and Westerhoven. Only in the eighteenth century was the second settlement nucleus formed north of the church.

The development of Bergeijk was markedly different from Someren. It was a primary parish where the church was established in the centre of a (former) royal estate. This was subsequently turned into a manorial court from which the surrounding dependent farms were managed. The site of the moated church and the surrounding area have been occupied since the Carolingian period. A new focal point for the village only formed in the Late Middle Ages. Contrary to Someren, remains of (high medieval) rural settlement have not yet been found among the arable fields. This might be due to the vicinity of the centre, or perhaps the farms that were located on the edge of the arable field complex at an early stage.

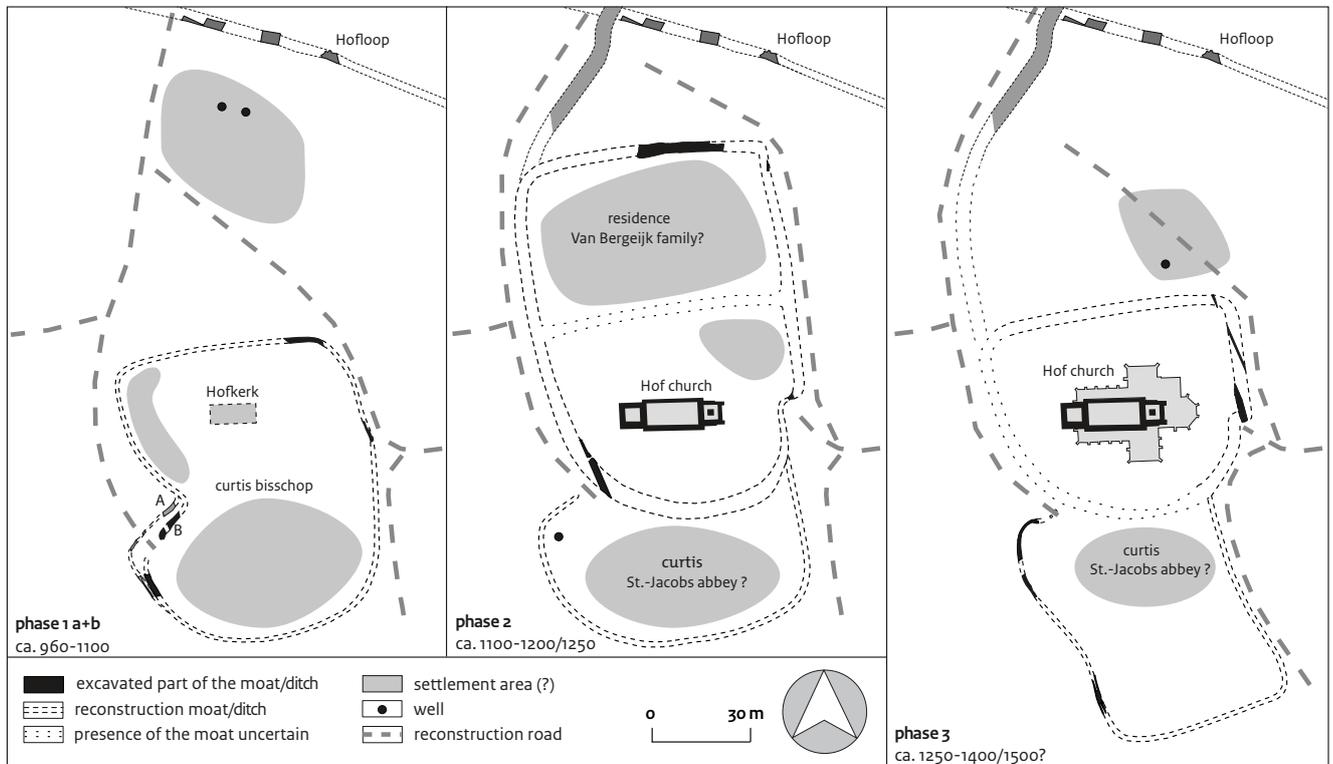


Figure 8.17 Reconstruction of the moated church site in the centre of Bergeijk (Dijkstra 2015, 113).

#### *Sterksel-Averbodeweg*

Sterksel is situated on a cover sand ridge in the bend of the *Sterkselse Aa*. Around 1900 the village had a square layout with houses along a central road with the church on one side and a group of houses at a nearby crossroad. In the surrounding arable land there were some separate farms. The settlement laid in-between the arable land (*Weiakkers*) in the west and woodland in the east. Further west there was the stream and the meadows in its valley. On the north and east side there was heathland.

Sterksel was a manorial estate which belonged to Averbode abbey up until 1794. As a result, the history of this village is well documented and preserved in the abbey's archives.<sup>49</sup> It was a donation from Otto, archdeacon of Liège who bought it in 1197 from Hubertus, lord of Heeze. The ownership of the estate, as well as various privileges, were heavily contested by Hubertus' descendants. This, and the fact that the deed of the sale was false, indicates that the sale was probably not entirely voluntary or never started out as a sale at all. This fits the profile of a widely used tactic by the rising higher nobility that strove to expand their territory. The move might have

been stimulated by the Counts of Loon, who founded the Averbode abbey in 1134. However, in 1220 the abbey turned to the Duke of Brabant for confirmation of their claim to Sterksel. By then he had brought the region firmly under his control. The active support and favouring of religious institutions was a decisive element in his territorial politics. By becoming the guardian of these monasteries he could control their properties. This was far easier than dealing with the (ambitious) local nobility whose authority he would actively challenge and restrict. This was also the case with the lords of Heeze. They were probably descendants of a ministerialis or bailiff of a former manorial estate, who appropriated privileges and properties after the decline of the central authority at the end of the Carolingian period. A Carolingian origin is supported by the toponymy of Sterksel, with *-sel* or *sala* referring to a hall or house. Because Sterksel is referred to as an allod, this could have been a former royal property.

At the end of the twelfth century Sterksel consisted of at least three farms. In 1375 there were four farms and in the second quarter of the fifteenth century there were five.<sup>50</sup> This would

<sup>49</sup> Van Dijk 2011, 48–65.

<sup>50</sup> Van Dijk 2011, 48–65.

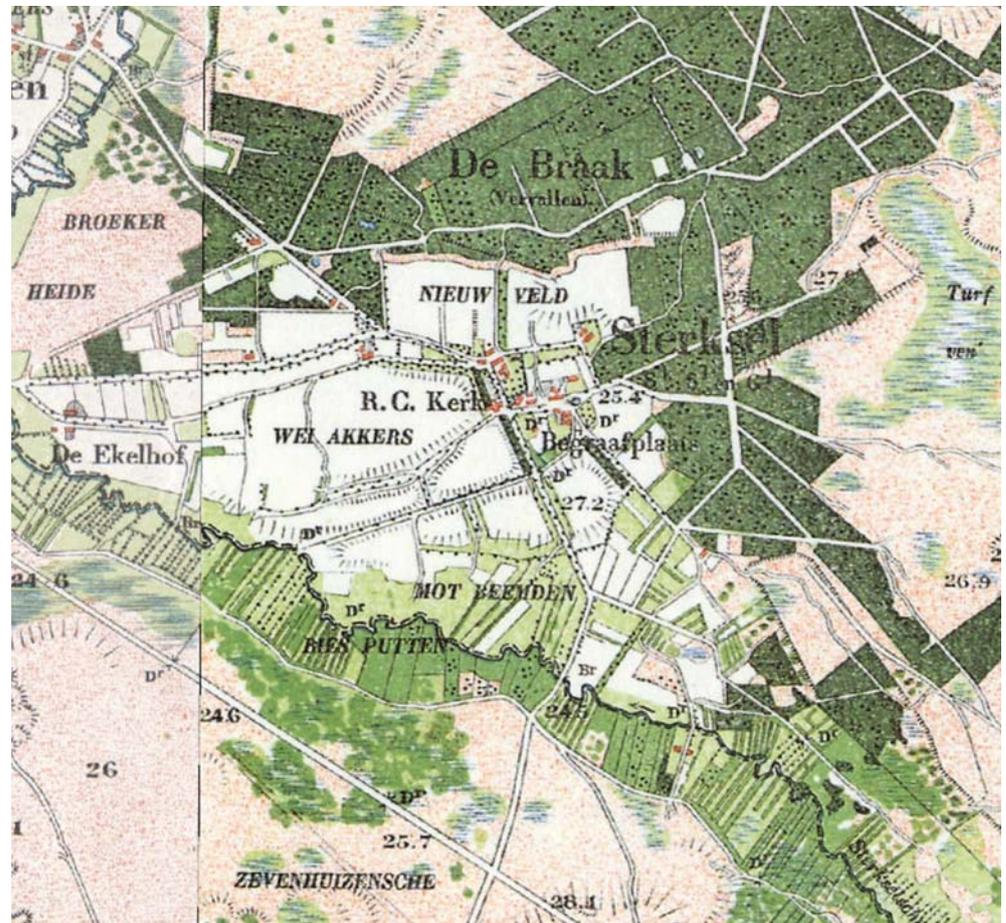


Figure 8.18 Sterksel around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastre).

remain so until the end of the eighteenth century. These farms are all known by name: Ter Braken, Ten Steen, Ten Poel, Hoeve van Sint Juliana/In de Kan, and Ten Brill.

In the seventeenth century Averbode had detailed maps made of their properties, including Sterksel (figure 8.19). It shows a small nucleated settlement within a rectangular moat with a chapel at its centre. Access to the village was closed off with a barrier. This suggests a systematic layout. In 1611, apart from the farms, the village consisted of a chapel, a communal horse stable, and a monastic grange. The chapel was dedicated to St. Catharine and probably dates back to 1211.

Excavations have been conducted in and outside this monastic manorial estate. West of the historical village centre, in the *Weiakkers*, the remains of three farmsteads were found dating between the second half of the eighth century and the early tenth century.<sup>51</sup>



Figure 8.19 Detail from a map of the property of Averbode depicting the village of Sterksel (1653) (Van Dijk 2011, 57).

<sup>51</sup> Van Dijk 2011, 46-47.

**Table 8.12a Overview of settlement characteristics (layout and composition, development and main formation processes) in comparison to our primary case study for archaeological region 4: the Brabant sand area.**

AR4	Primary case study	Secondary case study: combined archaeology and historical-geography	
Casus	Someren	Eersel – Kerkebogten	Nederweert – Rosveld
<b>Lay out and composition (nineteenth century)</b>			
Geographical situation*	cover sand plain (2011) with a dry valley (2015) between ridges (2013).	L-shaped cover sand ridge (2113) flanked on three sides by stream valleys (2116) and slopes (2117).	large cover sand ridge (2013) on cover sand plains (2011).
Form	linear village in-between two large arable field complexes in a dry valley comprising of several main roads with closely spaced houses, several crossroads and several triangular squares.	a linear settlement on both sides of an elongated market square. A former nucleus became a separate hamlet.	linear settlement along a road amidst small hamlets of mainly loosely grouped houses.
Size according to inhabitants in 1840	2802	937	4230
Size according to houses in 1840	514	171	725
Church and chapel	St. Lambert Church (twelfth century)	St. Willibrord Church (<1308; 740?).	St. Lambert Church (1467).
Amenities	three windmills.	n/a	n/a
Trade	unknown.	yes, but no details available.	n/a
Commerce (market)	unknown.	a large elongated market square at the heart of the village.	n/a
Distance to nearest medieval town	Helmond (1232) 12.0 km.	Eindhoven (1232) 15.0 km.	Weert (1414) 5.5 km.
<b>Composition and development (500) 800 - 1600</b>			
Origins	late Merovingian period in which at least three settlements with multiple houses were built on the cover sand ridge, east of the historical village centre. The origin of this centre itself is, as yet, unclear. Written sources mention settlement on this location from 1300 onwards.	Eersel started off as a late Merovingian manorial estate.	unknown.
Development (composition, layout, duration)	on the eastern ridge dispersed small settlement clusters, amidst the fields, clustered and were subsequently relocated (gradually) west, to the edge of the (expanding?) field complex.	a late Merovingian manorial estate was donated to Willibrord, abbot of Echternach abbey, who left it to the abbey. Around this time a church was founded in the estate. In the Late Middle Ages the Duke of Brabant gave the inhabitants town privileges. A new marketplace was established next to the estate and became a new focal point around which the settlement further developed.	the development of the historical village centre is, as yet, unknown. However, settlement in the surrounding area is characterised by multiple, small dwelling places that lay dispersed across the fields. In the High Middle Ages these dwelling places were rather dynamic and were relocated after one or two generations. The dispersed settlement is still the norm in the settlement pattern on the cover sand ridge in the nineteenth century.
Merovingian period	at least three farms or small groups of farms lay dispersed on the cover sand ridge amidst the fields.	archival records dating to 712 mention a manorial estate consisting of a court and five dependent farms. These were donated by Aegilbert to Willibrord, Bishop of Utrecht. He would leave the estate to his Echternach abbey. Around this time a church was established here. This settlement was probably relocated.	no details available.
Carolingian period	farms are clustered along a road, possibly around an enclosed farm or dwelling place. Some separate farms remain dispersed.	no records available. Stray finds suggest that the <i>Grote Akkers</i> area was cultivated.	the area west of Nederweert was probably cultivated.

AR4	Primary case study	Secondary case study: combined archaeology and historical-geography	
Casus	Someren	Eersel – Kerkebogten	Nederweert – Rosveld
High Middle Ages	<p>during the eleventh century there was a steady increase of farms. First the cluster was broken up and smaller groups were established along a road to the north, west and south.</p> <p>in the northern part of the cover sand ridge a moated site was established, possibly a manorial court.</p> <p>the growth continues in the twelfth century and farms were built along a road on the west side of the ridge. A small cluster of houses could also be expected to be found around the church.</p>	<p>around 1050 a large enclosed field (<i>Grote Akker</i>) was marked out southeast of the church. On its east side a single farm was established next to the road from St. Willibrord Church (Ereslo) to Bergeijk (Echa). About 200 m to the north-east a separate, enclosed dwelling place was established as a branch of this road. Both dwelling places developed into settlement clusters. At their height, during the first half of the twelfth century, the northern settlement consisted of four (farm)houses while the one next to the enclosed field consisted of seven. In addition, on the opposite side of this field another, single farm was established. The settlement clusters both had a linear layout, with the individual farms lying side-by-side and facing the road. The settlement declined during the second half of the twelfth century. By the middle of the thirteenth century the last one was abandoned.</p>	<p>in the late eleventh century a single farm was established on an enclosed, oval plot. In the second half of the twelfth century the occupation increased to at least five farms or farm groups. The earlier farm was rebuilt on its plot, and on the west and south side three new farms were established, two of which were enclosed by a ditch. Before the middle of the thirteenth century, these farms were abandoned and relocated and two new farms were established. The first was built just west of the earliest one, and might have been a direct successor. The second was established on the southeast area of the terrain and was abandoned after one generation.</p>
Late Middle Ages	<p>around the second quarter of the thirteenth century all farms on the arable field complex were relocated. As a result, the north side church became isolated amidst the fields. A remnant of the former settlement.</p>	<p>during the Late Middle Ages the <i>Kerkebogten</i> terrain was reorganised and the rounded fields were replaced by a rational allotment of straight-angled plots and parcels.</p> <p>In 1325 Eersel was given town rights. An elongated market place was set up next to the estate and became a focus for a new, linear settlement.</p>	<p>around 1250 the northern farm was rebuilt again, just west of its previous location and lasted into the first quarter of the fourteenth century.</p>
Clustering of settlement	<p>during the Carolingian period the first clustered settlement was formed, possibly around an enclosed dwelling place. From this, new clusters were formed in the High Middle Ages around crossroads and along roads. In the largest settlement, again, an enclosed dwelling place was found.</p> <p>the nineteenth century settlement elongated layout seemed to originate from the gradual relocation of the farms. First clustering along the edge of the field complex and subsequently moving this further west, to the foot of the ridge.</p>	<p>clustering occurred at different periods in different places of the overall settlement as a result of different dynamics. First, around the start of the Carolingian period, houses had probably clustered around the newly established St. Willibrord Church. Next, during the twelfth century both dwelling places at the <i>Grote Akkers</i> grew into settlement clusters as new farms were built close to the first in an organised layout. Thirdly, the grant of town privileges in 1325 and the establishment of the marketplace provided a new focal point and stimulus outside the monastic manorial estate around which the settlement could develop.</p>	<p>the dwelling places west of Nederweert are notable because of their lack of clustering. They consist of one or two farms and lay dispersed among the arable land.</p>
Founding of a church	<p>date of foundation as yet unknown, but the first reference to the church dates from 1228.</p>	<p>date of foundation is unknown, but it is believed it took place shortly after the donation of the estate to Willibrord (712) or after it was transferred to the abbey itself (739).</p>	<p>the St. Lambert Church was consecrated in 1467.</p>
Establishing amenities	<p>three windmills, dates of foundation unknown.</p>	<p>the marketplace was established as part of the grant of town privileges by the duke of Brabant in 1325.</p>	<p>no details available.</p>
<b>Extent to which general social factors and processes influenced the process of village formation</b>			
Vertical social relationships	<p>the extent of manorial landed property is unclear. The enclosed dwelling places that stand out in the settlements could indicate a small manorial court (<i>vroonhof</i>) or bailiffs residence. In that case, these manorial relations played a role in the clustering of settlement.</p> <p>the moated site could be attributed to a local authority.</p> <p>the chapters of St. Lambertus and St. Servatius, as well as local aristocrats, held property is Someren.</p>	<p>these played an important role as (part of) the settlement was initially a manorial estate. First owned by Aegilbert and later by the Echternach abbey. The inhabitants would have been dependent serfs. Later, their status probably changed to that of free tenants. In 1325 (part of) the village were granted town privileges. This required the recognition of the authority of the Duke of Brabant. The free town and manorial estate probably existed side by side.</p>	<p>no details available.</p>

AR4	Primary case study	Secondary case study: combined archaeology and historical-geography	
Casus	Someren	Eersel – Kerkebogten	Nederweert – Rosveld
Horizontal social relationships	<p>at Someren one could suppose that horizontal relationships and peasant agency might have been important during the central medieval period based on the increase of single farms or small groups, in addition to clustered settlement. This could be an indication of an increasing relevance of the autonomous peasant households.</p> <p>the relevance of these relations in the Late Middle Ages could be derived from the participation of</p> <p>the alderman court, and cooperation in the use and maintenance of the commons.</p>	co-residence, communal organisation and family ties might have played a role in the clustering of settlement.	the dispersed settlement could indicate autonomous, freeholding peasants.
Social-defensive relationships	n/a	n/a	n/a
Social-religious relationships	the parish of Someren (mentioned in 1228) might indicate the importance of these relationships, but the extent to which these were experienced by the inhabitants is unknown. Worship of the common saint (St. Lambert) might have strengthened village community ties because the parish overlapped with the village territory.	the church of Eersel formed the heart of its parish and was probably a focal point and stimulus for nucleation in the early settlement.	no details available.
Social-judicial relationships (overlap with horizontal social relationships)	laying down the communal rights in the commons (in 1301 and 1327) might have strengthened horizontal social ties between the inhabitants of Someren. This might have been necessary to settle conflicting claims from people from neighbouring villages. The instalment of an alderman court (in 1301) might have improved the social ties as well.	laying down the communal rights in the commons would have strengthened horizontal social ties between the inhabitants of Eersel.	up until the fourteenth century Nederweert, and the surrounding hamlets, was part of Weert. This common denominator did not lead to a major clustering of settlement.
Social-economic relationships	The triangular square in the High Medieval settlement cluster possibly served as a corral and could indicate relationships of economic cooperation (common grazing). The recurrence of dispersed farmsteads, in pairs, could indicate this too.	Although details about the craftsmen and traders are not available, it can be safely assumed that the new market gave rise to specialisation and increasing social-economic ties both within the village community as with external traders. These ties would have stimulated clustering around the market place and perhaps related trades.	No details available.
Economic factors	<p>one of the reasons why people resettled themselves on the location of the present day village might have been the fragmentation of arable fields.</p> <p>a relocation, because of an adjustment in farming praxis (i.e. more animal husbandry than in the High Middle Ages) might have been another reason. This is likely related to the ever increasing intensification of agriculture.</p>	the elongated marketplace formed a focal point around which the settlement developed after 1325.	No details available.
Urbanisation	the nearest town (Helmond) was 12 km away. The establishing of a market and specialist craftsmen could have played a role in the village formation. In sixteenth century records, linen weavers were mentioned in Someren. These were most likely produced for the local and regional market.	<p>the grant of town privileges certainly stimulated the development of the village and most likely gave rise to trade and crafts. This development was tied to the rise of cities and towns in the wider region.</p> <p>however, at an earlier stage the development of a parish structure, and formalising the common rules and rights, laid the foundations for the formation of the village.</p>	the rise of Weert, as a city and capital of Horne, did not lead to a drain of resources in the surrounding settlement. It would have prevented the development of trade and craft in nearby Nederweert.

\* Combined total of multiple settlements

**Table 8.12b Overview of settlement characteristics (layout and composition, development and main formation processes) in comparison to our primary case study for archaeological region 4: the Brabant sand area.**

AR4	Secondary case study: Multiple sites		Secondary case-study: Combined archaeological and historical-geographical research	
Case	Bakel	Berkel-Enschot	Bergeijk	Sterksel
<b>Lay out and composition (nineteenth century)</b>				
Geographical situation*	cover sand ridge (2013) amidst a cover sand plain (2011) flanked by former boglands (now cover sand plains (1911)).	large cover sand ridge (2013) flanked by a stream valley (2016) in the south and cover sand plains (2011) with dry valleys (2015) in the north.	cover sand ridge (2013) amidst a cover sand plain (2011) flanked by a stream valley (2016) and a dry valley (2115).	cover sand ridge (2013) amidst a cover sand plain (2011) flanked by a stream valley (2016).
Form	nucleated village.	polyfocal settlement with older nucleus on the flank of the ridge and a younger nucleus at the base.	polyfocal settlement with linear habitation along the flank of the arable fields.	moated nucleated village.
Size according to inhabitants 1840**	1706 (including Milheeze)	976	1761	60
Size according to houses 1840**	306 (including Milheeze)	154	345	12
Church and chapel	St. Peter and Paul and St. Lambert Church (<721).	St. Michael Church (<1425).	Church of St. Peter in Chains (ca. 960).	St. Catherine Chapel (ca 1211).
Amenities	no details available.	no details available.	no details available.	lower judicial court; two of the farms doubled as an inn; common stables and a sheep pen.
Trade	no details available.	during the eighth and early ninth century a smith worked here.	no details available.	n/a
Commerce (market)	no details available.	a pair of foldable scales (1150-1200) indicate trade or a tradesman.	a (cattle)market place was established in the Late Middle Ages.	the abbey held the right to the wool trade.
Distance to nearest medieval town	Helmond (1232) 7.5 km.	Oisterwijk (1230) 3.5 km; 's-Hertogenbosch (1184) 16.5 km.	Eindhoven (1232) 17.5 km.	Eindhoven (1232) 14.8 km; Helmond (1232) 18.0 km; Weert (1414) 14.5 km.
<b>Composition and development (500) 800 - 1600</b>				
Origins	a late Merovingian estate which belonged to a local noble family.	the earliest settlement remains at the historical village centre date back to the Carolingian period. However, at some distance, remains of a Merovingian settlement were uncovered. Whether this was a direct predecessor is unknown.	probably a Carolingian royal property or estate.	probably a Carolingian royal property or estate.
Development (composition, layout, duration)	although we know of some of the buildings in early Bakel, the precise development of the village is unclear. It is assumed that the church was established on the donated manorial farm and that the estate was situated in the surrounding area.  a medieval settlement cluster was found 0.5 km east of the present church. This could indicate either multiple settlement clusters or a relocation of the settlement. The available data is inconclusive.	the earliest settlement was located on the top of the cover sand ridge. Over the course of five centuries subsequent settlement clusters were gradually moved outward in relation to the arable fields. The establishment of a church had a stabilising effect. During the High Middle Ages the population increased. The subsequent settlement abandonment could probably be attributed to the (further) clustering in villages and hamlets.	at the court of a royal manorial estate a church was established. The development of its (8-shaped) enclosure seems to reflect the political strife during the High Middle Ages. Little is known about the surrounding settlement.  in the Late Middle Ages a cattle market was established, northeast of the church and manorial court. This became a focal point of further settlement expansion.	habitation started with a single farm. It is unclear whether this ended or was relocated. Around 1150 a clustered settlement was established close by. It consisted of three farms and was enclosed by a moat. In 1211 a chapel was built and in 1382 a stone monastic grange was added. Over the course of the Late Middle Ages, the number of farms increased to six. This composition would remain unchanged up until 1794.
Merovingian period	in 721 a local noble man donated his manorial farm, a cattle farm and three dependent farms in Bakel to Willibrord. A few years before he had a church built here.	at the beginning of the seventh century a linear settlement was established on the top of the cover sand ridge, along a road perpendicular to the ridge. The settlement consisted of at least six farms and had a regular layout. Besides agriculture, some iron production took place.	a settlement and two burial places have been found in the surrounding area. So far these seem to have been unrelated to the late village (settlement).	n/a

AR4	Secondary case study: Multiple sites		Secondary case-study: Combined archaeological and historical-geographical research	
Case	Bakel	Berkel-Enschot	Bergeijk	Sterksel
Carolingian period	<p>in the late ninth century a settlement was established 0.5 km east of the (present) church. Though only partially excavated, it consisted of at least two farms situated along a road. Either this settlement extended further north or another farm (group) was built here.</p>	<p>around the start of the Carolingian period, a new settlement was established on the north flank of the ridge. It consisted of two or three farms that were periodically rebuilt. Over the course of five centuries this settlement was gradually moved downward. Another settlement cluster was found around the St. Michael Church.</p>	<p>a (royal?) manorial estate existed at the location of the later village. The church (ca. 960) was most likely established at its court.</p>	<p>around 750 a single farm was established amidst arable fields. It was probably part of a royal manorial estate. It consisted of a house, outhouse and a well. This farm was rebuilt three times and finally abandoned around 950.</p>
High Middle Ages	<p>the number of farms increased to (at least) three during the eleventh century. The settlement was fairly stationary, as subsequent farms were built in the same area. Around 1100 this settlement cluster was abandoned.</p> <p>around 1150 a grouped settlement was established near the hamlet of <i>Overschot</i> consisting of a large, moated house and five smaller farms.</p> <p>already, around the middle of the thirteenth century, the farms were all abandoned except for the large dwelling place. This remained occupied until the end of the century, although the moat was filled in.</p> <p>this settlement was interpreted as a manorial estate, but its provenance is unclear. An attribution to <i>Echternach</i> is questionable.</p>	<p>during the twelfth century the settlement rapidly increased to at least five or six farms. It now lays in roughly the same zone as it would have in the nineteenth century. The settlement was abandoned in the first half of the thirteenth century.</p>	<p>the moat was expanded to enclose the residence of the Van Bergeijk family, emerging nobility that appropriated the ecclesiastical property and privileges.</p>	<p>around 1150 a (new?) manorial estate was established by the Lord of Heeze. It consisted of three farms grouped together in a square moated area. In 1211 a chapel was added.</p>
Late Middle Ages	<p>the present-day Willibrord church dates back to the fifteenth century. Unfortunately, no further archaeological data is available to further establish the age of the settlement at this location.</p>	<p>in the mid-fourteenth century one new farm was established at the <i>Enschotse akkers</i>. It would remain in use up until the eighteenth century. The settlement around the church prospered.</p>	<p>after the Duke of Brabant restricted the influence of the Van Bergeijk family, their residence was excluded from the moated estate around the church. In addition, the focus of habitation shifted to the northeast, to the marketplace at the crossing of major roads.</p>	<p>the number of farms increased to five (one of which doubled as an inn) and a monastic grange was added. The settlement also received a judicial court.</p>
Clustering of settlement	<p>the late Carolingian and High Medieval settlement cluster had a regular layout from the start, whereas the farms in the High Medieval manorial estate were more loosely grouped. Presently, the available data is insufficient to establish whether the abandonment of these settlements were related to nucleation of habitation in the historical village centre.</p>	<p>already, in the late Merovingian period, we see a clustered and well-structured settlement. The settlement became more loosely grouped during the Carolingian period, although sufficient data from the church area is lacking.</p> <p>during the High Middle Ages the increased settlement clustered in a linear layout along a major road. The decrease in the number of houses from the start of the thirteenth century may be related to nucleation.</p>	<p>the focus of the archaeological research has been on the moated church and manorial court. Although it is presumed to have formed the heart of a somewhat nucleated settlement, this has not yet been established.</p> <p>more (historical) certainty is there for the expansion of the village around the market place from the Late Middle Ages onward. Only in the eighteenth century was a (new?) settlement nucleus formed, north of the church. Interestingly, despite several excavations, no remains have been found (so far) of farm groups amidst the fields.</p>	<p>the settlement was set up as a nucleated village from the start of the new estate (ca. 1150).</p>

AR4	Secondary case study: Multiple sites		Secondary case-study: Combined archaeological and historical-geographical research	
Case	Bakel	Berkel-Enschot	Bergeijk	Sterksel
Founding of a church	a church dedicated to St. Peter and Paul, and St. Lambert Church, was founded by Herelaef shortly before 721. It most likely stood on or near the main farm of his estate.	the oldest part of the current St. Michael Church was built in the early fifteenth century. The foundation date of the original church is unknown.	the church of St. Peter in Chains was founded ca. 960 by Bruno, archbishop of Cologne.	the St. Catherine chapel was presumably founded in 1211, together with the church of Heeze under which it resided.
Establishing amenities	no details available.	no details available.	no details available.	two farms doubled as an inn; in 1365 (perhaps 1318) a lower judicial court was established. Sterksel further had a communal stable (<1611).

#### General social factors and processes

Vertical social relationships	initially, part of the settlement at Bakel was the private property of a local noble family. Following the donation to Willibrord, it became a manorial estate of Echternach abbey. From levies and taxes we learn that other authorities and institutions also held and obtained property in Bakel.  the settlement near Overschot illustrates that these relations not only existed on paper, but could manifest themselves in the physical layout and composition of a settlement.	although they were most likely influential, no details are available.	the church, which became a focal point in the village formation, was established on a manorial court. The rights to the estate and its privileges have been subject of political strife. This would have been felt by the local community. It is unclear to what extent this affected the development of the wider settlement.	these played an important role, as the settlement was initially a royal property, but was later re-established by the Lord of Heeze as a private manorial estate. Its inhabitants were free tenants. Subsequently, the entire settlement became the property of Averbode abbey. The inhabitants were initially villeins, but later became free tenants. The origins of some of the tenants suggest that they were selected through personal relations with the abbot.
Horizontal social relationships	co-residence and communal obligations and organisation would have shaped the social relations of the inhabitants. It is unclear, however, how this affected the development of the settlement.	besides cohabitation, the high medieval settlement was (partially?) enclosed by a ditch. This reflects a certain social cohesion as perceived by the occupants.	co-residence and communal obligations and organisation would have shaped the social relations of the inhabitants. It is unclear, however, how this affected the development of the settlement.	this was also an important factor. Most of the villeins and tenants were related. They lived together in this nucleated settlement for a long time and were required by the abbey to work together on new reclamations.
Social-defensive relationships	n/a	n/a	the moats surrounding the church and court had hardly any defensive value and served primarily as the demarcation of a separate jurisdiction.	the settlement was moated and had barriers and a stone house (1382). After an attack by the Bishop of Liège a new, moated house was built. Although intended for defensive purposes, this did not seem to have been a major priority, as it had wattle-and-daub walls. More important was their function as indicators of Sterksels, independent status as allod.
Social-religious relationships	the church of Bakel formed the heart of its parish and was probably a focal point and stimulus for nucleation in the early settlement.	the church of Enschoot formed a focal point of nucleation. It is unclear whether it had been a motive for nucleation, as its founding date is unknown and cannot be compared to the general relocation of farms in the thirteenth century.	the church of Bergeijk formed the heart of the parish from an early stage. Most likely, it was also a focal point of nucleation.	the small settlement had its own chapel, but depended for some of the sacraments on the church of Heeze. In 1653 the monastic grange was inhabited by several friars.
Social-juridical relationships	judicial relations might have limited this clustering of different properties. This could explain the apparent presence of multiple settlement clusters.	no details available.	although the various layouts of the moat reflect the claims to the manorial court of the various contenders, the status of the villagers is unclear, as well as how it relates to the development of Bergeijk.	the manorial estate was an allod and had its own (lower) judicial court. The independent status was underlined by the moat and barriers surrounding the settlement.  under the lord of Heeze the inhabitants were probably free tenants, but after Sterksel became a monastic estate the inhabitants were villeins, and in the fourteenth century they became free tenants.

AR4	Secondary case study: Multiple sites		Secondary case-study: Combined archaeological and historical-geographical research	
Case	Bakel	Berkel-Enschot	Bergeijk	Sterksel
Social-economic relationships	some form of organisation and regulation of agricultural activities would have existed. It is unclear, however, how this affected the development of the settlement.	some form of organisation and regulation of agricultural activities would have existed. It is unclear, however, how this affected the development of the settlement.	some form of organisation and regulation of agricultural activities would have existed. It is unclear, however, how this affected the development of the settlement.	agreements like the communal herding of the sheep illustrate the social-economic relations between the inhabitants. These relations were expressed in amenities, such as the communal stable and sheep pen.
Economic factors	no details available.	the development of the settlement pattern indicates a correlation with the expansion of arable land. However, this expansion probably continued somewhat after the stabilisation (and fixation?) of the latest settlement zone. This is shown by the (open) arable fields past the settlements.	the central location on the cover sand ridge puts  bergeijk at the heart of the arable land. Later, the new market place at the crossroad of major roads connects the village to the early market economy. It became a new focal point in the settlement.	the livelihood of the inhabitants consisted of arable farming and forestry. Sheep and cattle rearing also played a prominent role. The farmers had a total of 160 sheep, which were communally herded. The abbey held the right to the wool trade. The assumption that Sterksel produced for the urban market is still subject to further discussion.
Urbanisation	the impact of the emerging cities could not be established.	the impact of the emerging cities could not be established.	the new marketplace was established at a time when commerce flourished. The cities were the main protagonists in this boost.	although production for and trade with the surrounding cities might have been an important element, it had little impact on the spatial development of the village.

\* According to the Archeologische Landschappenkaart (RCE).

\*\* According to CBS ([www.volkstelling.nl](http://www.volkstelling.nl))

Although their plans do not overlap, judging from their proximity, these represent three phases of a single farm. Given the early date and the location at the centre of the main field complex, this might have been a reclamation farm.

An excavation in the historical centre of Sterksel uncovered remains of the *Ten Poel* and *In de Kan* farm. Both consisted of a farmhouse, two outhouses and a well. The farms were also bordered by the course of the inner moat of the double moat system that enclosed the late medieval village centre.

the material finds suggest that the estate, in its medieval layout and location, dates back to the middle of the twelfth century. *Ten Poel* was one of the original farms, while *In de Kan* was established around 1300. Both were demolished in 2008.

The development of Sterksel differs greatly from Someren. Its provenance is largely well-known: a manorial estate newly established by the lord of Heeze on a former royal estate in a move to usurp and exploit it as a private property. This was later obtained by Averbode abbey (with or without consent) who held it until the French revolutionaries took over and abolished all the

monasteries. From the start, the (new) settlement had a nucleated layout and a systematic design which guided the limited developments further. The composition of the settlement was very stable and the buildings were fixated from the start. The inhabitants were villeins who were legally bounded to the property. In 1365 (perhaps already in 1318), the exploitation was changed to land tenure and the peasants became free tenants.

#### 8.2.4 AR 11 Holland dune area

In the Holland dune area only a few excavations were published in the past decade that were relevant to the study of village formation. All of these were situated on the southern part of the region. Besides Limmen, the primary case, no major studies were available from Noord-Holland.

Supported by the historical information on the dikes, the individual site of Maasdijk-Honderdland (2006) provides an excellent example of the early development of a still existing settlement in this area. Unfortunately, it did not showcase the formation of a village.

Excavations in Naaldwijk revealed some of its early medieval origins, however, due to the lack of data from the historical village centre it is unclear how it fits in with the village history.

### Individual sites

#### Maasdijk – Honderdland 2006



Figure 8.20 Maasdijk around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastral).

Maasdijk is located on the southern edge of the province, on a polder next to *Het Scheur* – the most northern branch of the Rhine and Meuse delta. It was built along a former sea dike which protected the hinterland against flooding through the Meuse. This bank had a predecessor 0.5 km inland, built in the twelfth century. Initially the inhabitants depended mainly on

fishing, but this livelihood gradually gave way to agriculture and market gardening.<sup>52</sup> The surrounding polders contained both arable land and meadows, while the lands outside the dikes were mainly used as grazing lands.

The site was located in, and named after, the polder Honderdland, which lay between the old and the new dike. During the Roman period the area consisted of a river delta with larger and lesser streams winding through tidal marshes.<sup>53</sup> As a result of stagnating water, the region became wetter and fens formed. Stream banks formed slightly elevated, drier ridges in the marshland. Around 950 one of these was chosen for reclamation and a (single?) farm was established here. The remainder of the ridge was converted into arable land.

The farm consisted of a main house, a granary, a small barn and a well (figure 8.21). At some point a dwelling mound was raised to cope with the high water levels. It is unclear whether this reclamation was a private undertaking or part of the reclamations initiated by the count's administration.

The farm was abandoned in the early eleventh century, probably as a result of the major flooding in 1014. It would take until the twelfth century before the area was reclaimed again. Then, a dike was built: the *Oude Maasdijk*. In 1242 a second one was constructed west of it, closing off the *Honderdland* polder. A new settlement was established along this dike and the settlement has continued up until the present day.

**Table 8.13 Overview of relevant datasets for the Holland dune area (excluding the main case study itself).**

Municipality	Village	Site
<b>Individual sites</b>		
Westland	Maasdijk	Honderdland 2006
<b>Multiple sites</b>		
Westland	Naaldwijk	Zuidweg 2004
		Hollandcollege 2004
		Hoogeland 2008
<b>Combined archaeological and historical-geographical data</b>		
		n/a

<sup>52</sup> nl.wikipedia.org/wiki/Maasdijk\_(Westland)

<sup>53</sup> De Kort & Raczynski Henk 2007, 3-5.

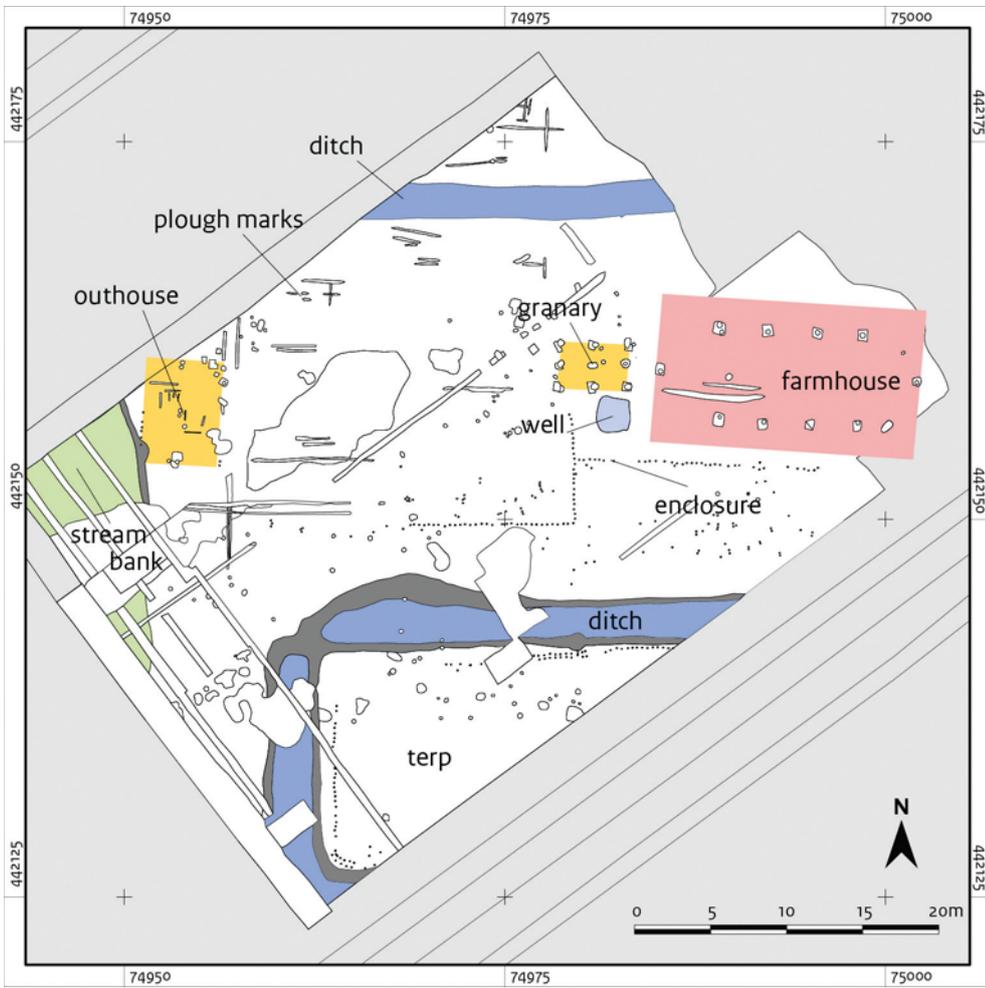


Figure 8.21 Reclamation settlement (ca. 950 – 1014) at Maasdijk – Honderdland (De Kort & Raczynski Henk 2007, 26).

## Multiple sites

### Naaldwijk

Naaldwijk is situated in the polders of Zuid-Holland. Its houses cluster around the St. Adrian church and along the main roads, but only few extend into the polders. Field names such as *De Geest* and *Hoogeland* indicate the former arable fields, yet around 1900 much of the land surrounding the settlement was in use for market gardening.

Because of its somewhat rounded form, Naaldwijk is sometimes suggested to have originated from a circular rampart dating back to the late ninth century.<sup>54</sup> So far no evidence was found to corroborate this. The layout of the settlement is more likely to be directly related to the underlying sandy ridge. It is located at one end of it, making most of the remaining parts usable for arable land.

Although no archaeological data is available from the historic village centre, excavations south of it, along the *Zuidweg* in the *Galgeblok*, revealed the remains of prolonged settlement from the Late Iron Age up until the Modern period.<sup>55</sup> Because of the duration of habitation, the remains were often fragmented. Except for a few house plans, the habitation history is mainly reflected by a high number of wells and ditches. Nevertheless, a long term development and characterisation could be pieced together.<sup>56</sup>

After the area was briefly abandoned in the late Roman period (mid-fourth century) a new

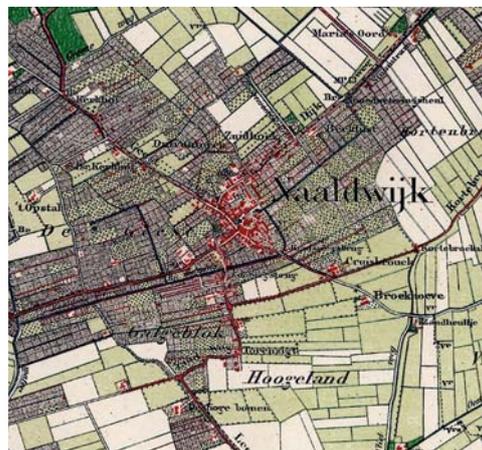


Figure 8.22 Naaldwijk around 1900. Detail from the Chromotopografische Kaart des Rijks (Cadastre).

settlement was established here around the middle of the sixth century. Judging from the wells, it consisted of several contemporary houses. During the Merovingian period the settlement was home to a small farming community that appears to have been mostly self-sufficient. During the Carolingian period the inhabitants became part of an extended exchange network and trade became more important. This changed over the course of the High Middle Ages as the settlement increasingly relied (again) on its own products.

In the thirteenth century the settlement was succeeded by a moated manor or tower house on the eastern part of the site. The moat was filled in during the fourteenth century. During the seventeenth century the historically known farm 'Hooghwerf' was built. It was converted into two houses in the eighteenth century as part of a series of almshouses. These remained in use until the early twentieth century.

Unfortunately, the Hoogeland site provided little additional information on the layout and composition of the settlement during this period. Nor were we able to connect it to the formation of the historic village centre. Judging from the consecration of the St. Adrian church in the twelfth century, habitation on both locations must have existed side by side for some time. However, it is possible that the church quickly became the focal point of the settlement with its further development, as the settlement in Hoogeland was abandoned not long here after. From the sparse evidence, the settlement seems to have little in common with Limmen except for their general geographical location and an origin in the Merovingian period. From there, the development took a different course. Both originally consisted of several smaller clusters that later merged into a larger settlement. In Limmen this would become a number of linear settlements that together surrounded the arable land, while Naaldwijk developed into a nucleated village on the edge of the main fields (the *geestgronden*). Here the church was a focal point around which the housing was clustered, while in Limmen it was situated in the periphery of the settlement. The available data suggests that the nucleation in Naaldwijk correlates with the establishment of the church in the twelfth century. Although

<sup>54</sup> Van der Feist, De Bruin & Blom 2008, 213.

<sup>55</sup> Ploegaert 2005; Van der Feist, De Bruin & Blom 2008; Goossens 2012.

<sup>56</sup> Goossens 2012.

**Table 8.14 Overview of settlements characteristics (layout and composition, development and main formation processes) in comparison to our primary case study for archaeological region 11: Holland dune area.**

AR11	Primary case study	Secondary case study: Individual sites	
Casus	Limmen	Maasdijk	Naaldwijk
<b>Lay out and composition (nineteenth century)</b>			
Geographical situation*	beach ridges and dunes (133) next to a stream (828) with stream ridges (831) and tidal marshes (829).	tidal marshes (2229).	beach ridge (132) in tidal marshes (2229) and stream ridges (2231).
Form	village on a beach ridge, comprising of three main roads with groups of closely spaced houses along the eastern road, closely spaced houses along the middle road, and dispersed houses along the western road.	linear settlement along a bank and leat. It would never grow into a village.	clustered settlement on small beach ridge with a house built around the church and along the main roads. Only few extend into the tidal marshes.
Size according to inhabitants in 1840	575	See Naaldwijk	3365 (including Maasdijk).
Size according to houses in 1840	85	See Naaldwijk	449 (including Maasdijk).
Church and chapel	St Martin's Church (twelfth century – Dutch Reformed Church in 1840).		St. Adrian church (twelfth century)
Amenities	Windmill.	no	no details available.
Trade	no details available.	no	no details available.
Commerce (market)	no details available.	no	no details available.
Distance to nearest medieval town	Alkmaar (1254) 9.0 km.	Delft (1246) 14.5 km.	Delft (1246) 14.5 km.
<b>Composition and development (500) 800 - 1600</b>			
Origins	Merovingian agrarian dwelling place with plural settlements in time?	reclamation farm.	unknown.
Development (composition, layout, duration)	<p>a single Merovingian farm lay at the base of the structured settlement of the Carolingian period. From this, the two rows of settlements developed parallel to north-south oriented roads that run along the edge of the beach ridge. The arable land was likely situated between these roads.</p> <p>the overall settlement pattern persisted into the High Middle Ages, except that the settlement clusters were moved closer to the top of the beach ridge. During the late medieval period the nineteenth century settlement pattern came into being, with most of the settlement clusters located at the borders of the beach ridge and some of them outside the beach ridge (moated sites). The name of the first settlement cluster and parish centre was now transferred to the entire settlement.</p>	<p>the site was established as a single reclamation farm consisting of a house, granary, barn and well. At some point a dwelling mound was constructed next to the initial farm. It is unclear whether this was an addition or a successor. After the site was abandoned after the floods in the early eleventh century, the area was reclaimed again in the twelfth century. This time it was embanked. In 1242 a second dike was built, allowing the reclamation of the <i>Honderdland</i>, and a new settlement was established along the dike. Its occupation continues up until this day.</p>	<p>after the Roman period the Galgeblok area, southwest of the later village centre, was reoccupied around 550 AD. The settlement grew into a hamlet of approximately 2 or 3 houses. These were loosely grouped around the highest part of the terrain, but no evidence for a structured layout was found. The settlement was abandoned in the thirteenth century, not long after the St. Adrian church was consecrated. It is not clear whether this initiated or stimulated a clustering of settlement.</p> <p>on the Hoogeland site a moated tower house was built in the area. This fell out of use in the fourteenth century. In the seventeenth century 'Hooghwerf' farm was established. In the eighteenth century it was converted into houses, as part of a larger group of almshouses.</p>
Merovingian period	Merovingian agrarian settlement with multiple houses?	n/a	the first post-Roman settlement was established around 550 AD. Its exact layout and composition are unknown, but it was of an agricultural nature.
Carolingian period	several agrarian settlements along two north-south oriented roads, at least one with multiple farmsteads.	some pottery was found among the sand that was brought in to raise the area. This indicates Carolingian settlement in the area.	the settlement at Hoogeland continued (and grew?) during this period and took part in extra-regional exchange, possibly through Wilta.
High Middle Ages	several agrarian settlement clusters along two north-south oriented roads, at least one with multiple farmsteads.	around 950, a single reclamation farm was established. It was (most likely) abandoned as a result of the floods of 1014. In the twelfth century new reclamations were undertaken and the first dike was built: the Oude Maasdijk.	judging from the establishment of the church, some habitation would have existed at the site of the later village centre. Its origins and composition are unknown. Suggestions on a circular rampart remain unproven. The Hoogeland settlement was abandoned in the thirteenth century.

AR11	Primary case study	Secondary case study: Individual sites	
Casus	Limmen	Maasdijk	Naaldwijk
Late Middle Ages	several settlement clusters are apparent, but all of them are of unknown composition and layout. Combining the habitation, as known from a map dating to 1680 and late medieval written sources, at least five settlement clusters containing plural settlements (hamlets) could have been present during the late medieval period. The 1680 map also shows dispersed settlement, but as yet it is unknown when these settlements were also present during the Late Middle Ages.	with the construction of a second dike in 1242, the Honderdland polder was reclaimed and a new settlement, consisting of at least several houses, was established along the dike.	no information is available on the village centre, but it probably continued to expand.  at the Hoogeland site a moated (tower) house was built, but was already abandoned in the following century.
Clustering of settlement	the late medieval village probably consisted of five hamlets next to dispersed habitation, and one of the hamlets had a church.	the settlement was established along the dike.	the abandonment of the Hoogeland settlement not long after the establishment of the church could indicate a relocation of habitation, but is unproven so far.
Founding of a church	the current church dates back to the twelfth century. Yet, the earliest reference to a church in Limmen dates to the late ninth or early tenth century.	n/a	the St. Adrian Church was consecrated in the twelfth century.
Establishing amenities	a windmill, date of foundation unknown.	n/a	no details available.
<b>General social factors and processes</b>			
Vertical social relationships	these were of major importance, in the high medieval period exerted by religious institutions. Almost the whole territory of Limmen was covered by manorial property during the central and late medieval period and during the early modern period.	it could not be determined whether the reclamation was a private undertaking or an external initiative.	no evidence was found for social differentiation.
Horizontal social relationships	the identification with one settlement, Limbon, was important and determined the village identity of the Late Middle Ages.	although built as a single farm, it could not be established whether it was isolated or part of a dispersed settlement.	co-residence would have strengthened social cohesion.
Social-defensive relationships	n/a	n/a	although a circular rampart was suggested at the site of the later village centre, the Hoogeland settlement remained unchanged during the turbulent ninth century.
Social-religious relationships	these were important, at least from the thirteenth century onwards, according to written evidence (rise of the parish).	the closest church was probably situated in Maasland (ca. 7 km). It was built in 985 and dedicated to Mary Magdalene. This could have formed a focal point and connected the inhabitants within the parish.	the establishment of the St. Adrian church probably initiated or stimulated the clustering of the settlement and forming of a village centre.
Social-juridical relationships	these were important, at least from the fourteenth century onwards, according to written evidence. They were possibly important earlier too, when the concept of <i>asega</i> might have been prevalent.	whether or not it was a private initiative, the reclamation would have fallen under the authority of the Count of West Frisia.	no details available.
Social-economic relationships		the farm was largely self-sustaining, yet some products were obtained from external sources, probably through trade.	imported products indicate access to a (supra)regional exchange network, though no evidence was found for substantial trading activities in Naaldwijk itself. In the Carolingian period trade was probably conducted through the trading places in the Meuse estuary.

AR11	Primary case study	Secondary case study: Individual sites	
Casus	Limmen	Maasdijk	Naaldwijk
Economic factors	economic factors (common accessibility to water sources, commonly situated between fragmented arable fields and accessibility to wares and services (implying the local production of wares and delivery of services)). The only indication for accessibility to wares might be a trade route from Egmond to Utrecht, mentioned in the fifteenth century.	the availability of suitable land and perhaps access to sea may have been regarded as an asset.	The settlement was close to the Gantel river which flowed into the river Meuse. This access to the main water courses, combined with a sheltered location, might have provided key advantages for settlement.
Urbanisation	this process might have been important in the light of the upcoming towns nearby (Alkmaar and Amsterdam), from the late twelfth and thirteenth century onwards.	n/a	it is unclear whether the growth of nearby towns and cities stimulated the development of Naaldwijk.
<b>Main processes of village formation</b>			
Property relations (vertical relationships)	these were of major importance in the central medieval period, exerted by religious institutions. Almost the whole territory of Limmen was covered by manorial property during the central and late medieval period and during the early modern period.	no details available.	no details available.
Horizontal relationships	the identification of one settlement, <i>Limbon</i> , was important and determined the village identity of the Late Middle Ages.	co-residence, as well as the shared responsibilities for e.g. the upkeep of the dike, would have strengthened social cohesion.	co-residence would have strengthened social cohesion. No evidence was found for social differentiation.

\* According to the Archeologische Landschappenkaart (RCE).

\*\* According to CBS ([www.volkstelling.nl](http://www.volkstelling.nl))

the church in Limmen was established much earlier (ninth century), it does not appear to have made a similar impact on the layout of the settlement.

In Limmen, property relations were identified as one of the key processes in the formation of the village. Due to a lack of data, it could not be established whether this was also the case for Maasdijk and Naaldwijk and if these relations were of a similar nature.

#### 8.4 Conclusion from regional extrapolation

The main factors that contributed to the formation and development of villages, that were identified and tested in our primary case studies, took place on a regional level. In order to assess their general relevance, these studies were compared with referent cases in the archaeological region. These studies provide a qualitative framework and a useful indication of the processes involved and the manner in which

developments occurred. However, a larger quantity is required for reliable generalisation.

First we established that most of the factors identified did apply to all of the cases on a general level. Where data was available it was found that geographical factors, vertical relations and economic processes and so on, were in action. On a local level, however, the precise form of these factors could vary considerably and it was often difficult to establish how these influenced the development of the settlement exactly. For example, strong horizontal relations between inhabitants, e.g. in a marke organisation, was found in both dispersed and clustered settlements. Clustered, manorial estates could be at the centre of a village or never grow past a hamlet. The proximity of a city could both stimulate or inhibit the development of a settlement. The founding of a church was no guarantee for nucleation and stability.

This illustrates an interesting diversity in the development of villages, even within the same (archaeological) region. It supports our earlier

findings, that on a local level it is not so much a question of which of these general factors contributed to the formation of villages, but rather to what extent and how they were interrelated. At the same time the (referent) case studies show that certain factors played a larger role than others and were connected to other developments. For example, nucleation often focussed around a church and the early churches were predominantly established on manorial estates. A church or manorial court would also serve as an administrative and religious centre and thus cluster certain amenities. In some cases like Kapel-Avezaath, Cuijk and Bergeijk this was enhanced by the residence of an aristocrat. However, these strong correlations were not resolute, and other (supra)local developments could bifurcate. In Eersel and Bergijk this is illustrated by the establishment of a market place (by an external authority) which shifted the balance in a village and caused a relocation of habitation.

One of the most comprehensive insights on the topic was provided by the Warnsveld case study.

This showed the interrelation between the various settlements (hamlets, grouped and separate farms) in the village territory and the need to understand the wider context – in this case the marke Leesten – in order to understand the formation of the village itself.

Despite the limited number of relevant case studies, we gained useful insight into the processes behind village formation. The analysis of our case studies showed the complexity of village formation and interrelation of (some) various factors involved. It underlined the general theories on the topic, the grand narratives of manoralisation, institutionalisation and urbanisation, yet showed the importance of local factors at the same time. This was illustrated by the diversity in the development of the villages we studied. Moreover some excellent case studies, such as Groothedde and Fermin's study of Warnsveld, showed the potential of combined archaeological and historical-geographical research to successfully explore village formation in the Middle Ages. This will be the subject of part III of this study.

**Table 8.15 Overview of similarities in main parameters between primary case study and available reference cases.**

	AR3	AR4	AR11	AR13
	Overijssel-Guelders sandy area	Brabant sandy area	Holland dune area	Utrecht-Guelders riverine area
Cases (n) <sup>1</sup>	2 (1)	7 (6)	2 (1)	3 (1)
<b>Layout and composition of the village (nineteenth century)</b>				
Similarities	<ul style="list-style-type: none"> <li>size (inhabitants);</li> <li>church (chapel);</li> <li>amenities;</li> <li>proximity to a city.</li> </ul>	<ul style="list-style-type: none"> <li>general geographical location on a cover sand ridge;</li> <li>church;</li> <li>proximity to a city.</li> </ul>	<ul style="list-style-type: none"> <li>church (Naaldwijk);</li> <li>proximity to a city.</li> </ul>	<ul style="list-style-type: none"> <li>geographical situation (except for Cuijk);</li> <li>linear form;</li> <li>church (Cuijk);</li> <li>proximity to a city.</li> </ul>
Differences	<ul style="list-style-type: none"> <li>geographical location;</li> <li>layout;</li> <li>size (houses);</li> <li>date of nearby city.</li> </ul>	<ul style="list-style-type: none"> <li>specific geographical situation (top, flank or depression);</li> <li>layout (linear, nucleated, polyfocal);</li> <li>size.</li> </ul>	<ul style="list-style-type: none"> <li>geographical situation;</li> <li>layout;</li> <li>size.</li> </ul>	<ul style="list-style-type: none"> <li>size (Cuijk);</li> <li>nature of the settlement: Cuijk was in all but a name town, the other settlements never grew into a village;</li> <li>lack of a church;</li> <li>trade and commerce (Stijldland).</li> </ul>
<b>Composition and development of the village (500) 800 - 1600</b>				
Similarities	<ul style="list-style-type: none"> <li>origins in Carolingian period;</li> <li>initially single farm.</li> </ul>	<ul style="list-style-type: none"> <li>origin in late Merovingian or Carolingian period.</li> </ul>	<ul style="list-style-type: none"> <li>origin in Merovingian period (Naaldwijk);</li> <li>founding date of the church (Naaldwijk);</li> <li>relocation; (clustering?) in the thirteenth century (Naaldwijk).</li> </ul>	<ul style="list-style-type: none"> <li>early medieval origins (except Houten).</li> </ul>

	AR <sub>3</sub>	AR <sub>4</sub>	AR <sub>11</sub>	AR <sub>13</sub>
	Overijssel-Guelders sandy area	Brabant sandy area	Holland dune area	Utrecht-Guelders riverine area
Cases (n) <sup>1</sup>	2 (1)	7 (6)	2 (1)	3 (1)
Differences	<ul style="list-style-type: none"> <li>development: PC clustered settlement around church and farm surrounding the arable fields;</li> <li>RC initially grouped settlement at the base of a push moraine, later linear settlement along a road;</li> <li>date and form of clustering;</li> <li>founding date church.</li> </ul>	<ul style="list-style-type: none"> <li>development;</li> <li>the date and form of clustering;</li> <li>founding date of the church ranging from the late Merovingian period to the Late Middle Ages;</li> <li>amenities: e.g. the presence of a market place or not.</li> </ul>	<ul style="list-style-type: none"> <li>(spatial) development;</li> <li>clustering in hamlets rather than a distinct nucleated settlement centre.</li> </ul>	<ul style="list-style-type: none"> <li>development;</li> <li>clustering (moment and form);</li> <li>founding of the church (moment and initiator).</li> </ul>
<b>Main processes of village formation</b>				
Similarities	<ul style="list-style-type: none"> <li>origins in a manorial estate;</li> <li>the effects of the establishment of a church (?);</li> <li>property relations: property of a bishop or an aristocrat donated to an ecclesiastical institution.</li> </ul>	n/a	n/a	<ul style="list-style-type: none"> <li>property relations: ecclesiastical properties at Kerk-Avezaath and the De Meern sites.</li> </ul>
Differences	<ul style="list-style-type: none"> <li>political development;</li> <li>administrative organisation;</li> <li>property relations: diverse ownership in wider village territory.</li> </ul>	n/a	n/a	<ul style="list-style-type: none"> <li>political development;</li> <li>administrative organisation;</li> <li>founding of a church;</li> <li>property relations: PC secular manorial court and a monastic estate vs aristocratic property and investments of ecclesiastical chapters RC.</li> </ul>
<b>General social factors and processes</b>				
Similarities	<ul style="list-style-type: none"> <li>vertical relations (in general);</li> <li>horizontal relations.</li> </ul>	<ul style="list-style-type: none"> <li>vertical relations (in general);</li> <li>horizontal relations;</li> <li>social-religious relations (church often a focal point);</li> <li>social economic relations.</li> </ul>	<ul style="list-style-type: none"> <li>vertical relations (in general);</li> <li>horizontal relations;</li> <li>social-religious relations (Naaldwijk).</li> </ul>	<ul style="list-style-type: none"> <li>vertical relations (in general);</li> <li>horizontal relations;</li> <li>social-religious relations (Cuijk).</li> </ul>
Differences	<ul style="list-style-type: none"> <li>vertical relations (specific form and effect);</li> <li>social-religious relations during the Middle Ages.</li> </ul>	<ul style="list-style-type: none"> <li>vertical relations (specific form and effect);</li> <li>social-judicial relations;</li> <li>economic factors.</li> </ul>	<ul style="list-style-type: none"> <li>vertical relations (specific form and effect);</li> <li>economic factors: the proximity of navigable water seems to have been of higher importance in Naaldwijk.</li> </ul>	<ul style="list-style-type: none"> <li>vertical relations (specific form and effect);</li> <li>social-defensive relations;</li> <li>social-religious relations (other);</li> <li>social-judicial relations;</li> <li>economic factors: PC production for distant abbey, Tiel inhibited development;</li> <li>RC ties to Utrecht stimulated production.</li> </ul>

<sup>1</sup> In brackets are the cases that were actual villages around 1840.



This research project has studied one of the major gaps in archaeological knowledge as described in the NOaA 2.0; Village Formation in the Middle Ages ca. 800 – 1600. Six main questions were put forward to give direction to this research (Ch. 3). In this chapter we will present the results of our research, taking each of these questions in turn. We will then offer some general conclusions which may be used to inform Phase III: our recommendations for the upcoming update of the National Archaeological Research Agenda (NOaA 2.0). We will start with a short syntheses of our findings.

### 9.1 Village formation in the Netherlands (ca. 800-1600): Integrating the perspective

In Chapter 4 we discussed the conceptual framework for this research. We presented general theories and models explaining processes behind village formation, for instance Curtis' four thematic frameworks. These entail power, coercion and lordship (i); communalism and territorial formalisation (ii); field systems and resource management (iii); and urbanisation and market integration (iv). All of these are thought to be relevant to the Dutch situation, albeit in different ways as was illustrated. Curtis' research has produced important insights. The 'power and coercion' and 'open field' explanations for village formation have been dominant, but are in need of evaluation due to new evidence arising from across Western Europe.<sup>1</sup> The reasons are that concentrated settlements – or what we term villages – emerged before the rise of seigniorial lordships in the tenth century. In some areas village formation was clearly underway in the early eighth century. Secondly, village formation was sometimes rapid, and at other times ponderously slow and interrupted and cumulative. Medieval open fields may also have appeared both before and after villages were laid out, and their significance to the settlement pattern may have changed through time, perhaps becoming more vital and directly tied to habitations in times of population growth and economic hardship. Finally, by looking across the four frameworks which Curtis has identified, it is apparent that similar patterns may appear in the landscape for different reasons.

From Anthropological and Development Studies we have explored the relationship between social processes and rural settlements within agrarian societies to uncover the circumstances in which concentrated settlements arose.

Population density, pressure on land, private property, extensive or intensive farming are presented as variables. According to Netting, we may observe a continuum which on the one hand contains a low population density, a low land pressure, an absence of a notion of private property, an absence of autonomous household farms, extensive farming and concentrated settlement; and on the other hand contains a high population density, high land pressure, presence of private property, presence of autonomous household farms, intensive farming and dispersed settlement. We are urged to look for social and economic aspects of society as the main reasons to live in villages. These social and economic reasons are typified as horizontal and vertical relations.<sup>2</sup> It is stressed by Reynolds that historical texts offer a bias towards vertical relationships (top-down, concurrent with Curtis' first framework of power, coercion and lordship). Dutch archaeological models, such as those presented by Theuws, indeed put a focus on manorial lords and ecclesiastical institutions. Equal attention should then be given to the four types of horizontal relationships visible in the Middle Ages of Western Europe:

1. Social relationships: solidarity, kinship, identification with community and community territory;
2. Social-economic relationships: cooperation in the commons;
3. Social-judicial relationships: common duties (paying taxes like tributes and tithes and common rights and duties with respect to the commons, common alderman court);
4. Social-religious relationships: confession of faith, joining common mass, worship of common saint, identification with a common saint and church territory (parish or not).

On a theoretical level, the models and concepts present the dynamic complexity of processes behind village formation. And it is clear from this overview that no single model will fit all occurrences of village formation. It does however introduce human agency as a determining factor for variety and similarity. And that raises the question whether the projection of explanatory

<sup>1</sup> Curtis 2013, 250.

<sup>2</sup> Reynolds 1997.

models on particular historical situations will ever lead to a satisfactory result. The aim of local and regional research then is to understand, rather than explain. And in order to do so a wide set of parameters must be formulated in an interdisciplinary approach, as is shown in the case studies (Ch. 7) and in the regional analysis (Ch. 8). Main categories for those parameters are: (1) layout and composition of the village (nineteenth century); (2) composition and development of the village (500-800 - 1600); (3) main processes of village formation; and (4) general social factors and processes. The archaeological indicators for village formation (Ch. 5) alone do not cover this spectrum. In that sense, it is understandable that village formation in the Middle Ages poses a gap in the archaeological knowledge described in the NOaA 2.0.

The four case studies (Ch. 6 and 7) illustrate the particular developments as the result of human agency, showing no common formula, but clear references to the processes mentioned above, also producing a considerable time-depth starting in the early medieval period. The answers to the six questions below are primarily based on these case studies and the extrapolation towards the regional analysis (archaeological regions). In these answers, details related to regional patterns will be given. The regional level has been the most difficult to tackle. In Chapter 8 we tried to combine three things, i.e. the case studies, other archaeological sites, and models related to that particular archaeological region. The outcome points towards a diversity in the development of villages, even within the same (archaeological) region. It supports our earlier findings that on a local level it is not so much a question of which of these general factors contributed to the formation of villages, but rather to what extent and how they were interrelated.

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## 9.2 Answering our research questions

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Over the course of the research we have had to adjust its direction on several occasions due to the limitations of the available archaeological data and opportunities to tackle the subject from different angles. The lack of comprehensive data from currently occupied historic village

centres proved to be one serious problem that had to be overcome. As a result of this, our research moved from taking an inductive approach aimed at a comprehensive synthesis, to a deductive approach in which relevant case studies were used to test existing models and to explore their representativeness for the wider region. In our view, this new approach proved to be successful in providing insight into village formation. It has also allowed us to consider how interdisciplinary methodologies can be devised to explore the topic of historic village formation in the future.

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### 9.2.1 What form did the process of settlement stabilisation take in the period ca. 800-1600 and what were the differences in chronology and pace per archaeological region? (Q 2.1)

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Our project found evidence that several villages have remained in one location for a prolonged period of time. These settlements range from fairly large villages or near-towns to dispersed individual farms in the landscape. There is also evidence that some settlements were abandoned and relocated between 800-1600. A settlement pattern may remain stable for different reasons, but the determining factors are most likely to involve the physical geography of the location in relation to changing socio-economic and political frameworks. Settlement stability can either be enforced or circumstantial. Enforced stability comes from rules and regulations that tie people to a specific place, e.g. serfs to a manorial estate, or town rights that apply to a certain location. In the case of circumstantial stability, the specific context of a settlement determines or provides its stability. This could be a geographical feature which restricts settlement to a certain location, like the stream ridges in the riverine areas, or dikes in a peat reclamation. It could also be a favourable location at a major crossroad or watercourse, or the presence of a religious or administrative centre such as a church or manorial court. Previous studies have claimed that developments in building materials in the Late Middle Ages led to longer lasting settlements, which can be difficult to detect archaeologically.<sup>3</sup>

<sup>3</sup> Zimmermann 1998; Verspay 2011; Schabbink 2016.

Even though the building technique of using a base for foundation did sustain the lifespan, our research has shown that changing building styles probably played a minor role in the stabilisation and stability of settlement, as the houses in most villages were mostly built from timber until the nineteenth century. In closer vicinity to towns, brick was used more often from the fifteenth century onwards. However, the presence of brick houses or a church did not prevent some villages from relocation. The fact that the majority of late medieval villages in the Netherlands have survived until the present-day make it likely that the increased complexity of early modern and modern society, along with settlement administration and size, all worked as stabilising effects. It is, quite simply, more difficult to rearrange or relocate a settlement when there are a lot of houses and an existing infrastructure, a complex administrative organisation, and interdependent social-economic relationships.

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### 9.2.2 Which factors (landscape, socio-economic, political, administrative, ecclesiastical) played a role in this process, to what extent and with what interrelationships? (Q 2.2)

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From historical, geographical, archaeological and anthropological theory and models we derived a number of main factors that contributed or could have contributed to the formation and the development of villages. These are presented above and relate to the geographical situation, political development, administrative organisation, religious development (founding of a church), property relations, vertical relations, horizontal relations, social-defensive relations, social-religious relations, social-judicial relations, social-economic relations, economic factors and urbanisation. Except for the socio-defensive relations, we established that most of these factors applied to all of the cases on a general level. However, on a local level the precise form of these factors could vary considerably and it was often difficult to establish how these influenced the development of the settlement exactly. The founding of a church could trigger nucleation in some villages, for example,

while in other settlements dispersed hamlets continued to be the norm. In addition, like Spek, we found that similar processes could lead to different layouts whereas villages with a similar layout could have different origins. Each of the villages had its own distinct formation in which local factors played an important role.

From this we can conclude that the formation of villages is not so much the logical result of a specific factor or decision, but rather the outcome of a context in which a set of conditions were met that made the development of a village possible or expedient. For example, when demographic growth reached the limits of the available arable land, this could give rise to cottagers. The emergence of cities and an early market economy presented a demand and market, where opportunities for (part-time) specialisation and trade occurred. Churches and manorial courts acted as religious and administrative centres and formed a focal point around which inhabitants with a less land-bound livelihood clustered, sometimes stimulated by the establishment of a market place. Changes in the social-judicial positioning of people, in which they were no longer bound to the land, meant that they could now move to a different location, and cohabitation in a clustered settlement could be more favourable for cooperation or to maintain social relations. Others might choose a more autonomous position. Other factors like territorial or economic politics or the geography might dictate and channel these developments, for example stream banks in tidal marshes heavily favour linear settlement, as does a location along major roads.

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### 9.2.3 How old are the historical village centres and how did they develop spatially and functionally? (Q 2.3)

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Answering this question is severely limited by the lack of suitable and comprehensive archaeological data from historical village centres. Although in some cases an origin could be established, a comprehensive spatial and functional reconstruction is presently out of reach. Even in the case studies in which extensive historical geographical data is available, the absence of (sufficient) archaeological information

means that retrospective models cannot be tested and crucial information gaps remain unfilled. A case like Sterksel is an exception. The settlement as a whole had been a manorial estate of Averbode for a long time and its history is well documented in the abbey's archives. In addition, this institutional ownership and organisation provided a high degree of stability to this settlement, both in layout and composition and in administration. Whether or not Sterksel was a village or a hamlet is debatable, however.

Case studies like Warnsveld, the Avezathen, Limmen and Someren do provide some valuable insights in the spatial development of villages and most importantly the diversity of their formation. Warnsveld originates from a Carolingian manorial farm on which a church was established. For a long time, this settlement remained very small and only served as a parish centre for the marke with a tavern along the road as the other peasants of the marke Leesten continued to live in separately grouped and dispersed settlement clusters. This can be attributed to the property relations (dependent farmers on a manorial estate on one field complex and a group of freeholders on another) and the existing social organisation (the marke in the eastern part of the Netherlands). Warnsveld only became a village, as an administrative entity, in the early nineteenth century as part of the administrative reformation in the French period.

The Avezathen show the development of a settlement of two clusters that would later become separate villages. The first most likely developed around a manorial court or residence of an aristocrat and was an administrative and judicial centre for a while. The other developed from a manorial estate led by Thorn abbey. Here its church formed a focal point around which settlement clustered. In both cases the further development of the layout was guided by the geographical situation, as the streambanks provided natural elevations in the floodplains. The large-scale excavations in Someren show both concentrated and dispersed settlements among the arable fields in the Early Middle Ages. These settlements were gradually relocated outward, to the edges of the fields, possibly in an effort to increase the available arable land. In combination with an increasing number of houses, this led to an elongated settlement.

After a final relocation, the settlement was established in a dry valley in-between two cover sand ridges. Both the valley and the infrastructure directed the elongated layout. Although the development of villages as a social, economic, administrative and religious agglomerations to a large extent takes place in the Late Middle Ages, it does not necessarily continue uninterrupted into the nineteenth century. A case like Enschoot, for example, illustrates how the reformation resulted in the formation of a new village centre around a clandestine church at some distance of the old centre, which was all but abandoned.

In order to get an idea of the history of the present-day villages, we looked at the starting period of settlements that continued to the present (NTC), or since the most recent phase is often excluded from the archaeological report, the Modern Period B (NTB) – the period from which (often) our earliest land registers date. Finding a continuous series of houses or farmyards often proved problematic. Nonetheless, most of the present settlements turned out to date back to the High or Late Middle Ages (LMEA and LMEB), although some have a Carolingian or even late Merovingian origin.

In settlements with great stability, for example, due to severe limitations in suitable settlement locations like the dwelling mounds in Friesland and Groningen, on occasion, uninterrupted occupations have been attested from the late prehistory onwards.

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#### 9.2.4 What role did towns play in settlement stability, village formation and village development? (Q 2.4)

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Towns served as administrative, judicial, economic and religious centres in their region. Their influence on the hinterland would vary between different towns depending on their size, political and economic weight, and development over time.

On a general level, the influence of the towns was greatest in the economic sphere. The high medieval rural economy was, on the whole,

broadly organised and mainly focused on self-support and risk mitigation by producing a wide variety of crops and cattle and the dispersion of the owned lands. This changes dramatically in the course of the Late Middle Ages when the inwardly oriented agricultural economy gradually transferred into a proto-capitalistic market economy. This was part of a wider transformation, referred to as the late medieval transition that covered a complex range of interrelated administrative, legal, social, economic, and agricultural developments. This transformation, which included urbanisation, occurred very differently in various regions.

In areas that were colonised at an early stage and land use was highly regulated, large parts were organised in manorial estates. The population showed little social differentiation and settlement remained stable as a result of limited demographic growth. In reaction to the new economic developments, a strategy of agricultural extensification was adopted.

In more recent reclaimed areas, such as in North-Holland, manorial estates were virtually absent and a large number of settlers were free farmers or tenants on the holding of the new ecclesiastical institutions or nobility.

Population in these areas grew rapidly and settlements consisted mainly of smaller farms. The abundance of labour meant that, with respect to the emerging market economy, these farmers opted for more labour-intensive forms of cultivation and stock breeding, either through intensification or specialisation. As a result of these developments, the rural economy became more oriented on the regional markets. This is illustrated, for example, in the shift to dairy farming in the polders of North and South-Holland and the Riverine area.

These emerging markets not only increased the demand for regular foodstuffs, but the development of trade and industry also required products and raw materials like hops, wool, hides and iron that previously played a lesser role in the rural economy. It provided an incentive to increase and specialise agricultural production and gave rise to non-agricultural production. The increasing labour differentiation was reflected in the topography of the villages by the aggregation of habitation in the previous sparsely structured settlements, the building

of cottages and workshops on the village green, and in the enlargement of new developments along the arterial roads.

A town could also influence the development of a village more directly. In some cases, like Leesten and De Meern, patricians, civic or religious institutions owned substantial landed property and agricultural production served the needs of the town. Despite the economic stimulus, a town could also restrict the development of a village by monopolising trade and crafts. This is reflected in a lack of craftsmen or a market place (e.g. in Warnsveld or the Avezathen).

Also, on different social levels, a town could be linked to the surrounding villages. For example, Warnsveld fell directly under the jurisdiction of the bailiff of Zutphen and Nederweert was part of the alderman court of Weert, yet other villages were more autonomous.

Ultimately, the role of the towns in the development of the villages very much depended on their relationship to that particular settlement, which was both dynamic and diverse.

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### 9.2.5 To what extent did villages shift or disappear in the period c. 800-1600 and what processes lay behind this? (Q 2.5)

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It is usually difficult to establish with certainty whether a settlement was truly abandoned or relocated. To do so requires evidence of occupation at a different geographical location in the subsequent building phase. This may even occur after a period of stable occupation.

In order to establish that, we are in fact dealing with the shift of an existing settlement; we must be able to demonstrate that the different archaeological settlements follow immediately upon one another chronologically and that there must be some similarity of size and composition. When a settlement disappears, there is no further habitation at that location in the following period, nor is there a new settlement in the vicinity in that period.

To complicate matters further, the answer to this question depends on how we define village.

When we maintain a narrow definition of a nucleated settlement with a church and amenities, abandonment or relocation could mostly be attributed to natural disasters (flooding, drought, driftsands, war), or because a new church was built by the community outside the (then) settlement centre after the old one was confiscated by Protestant authorities. However, the major relocations concerned settlements in the countryside, outside the (later?) village centres. These relocations and abandonments took place at different moments for different causes, although some trends can be discerned. It is possible that these developments correlated with the formation of villages by contraction and nucleation, but since we are usually only informed on the countryside, this is difficult to establish. It is possible that a village centre emerges as a result of a relocation and clustering of surrounding settlements, but it's also possible that a nucleated settlement already existed along a dispersed settlement. We do not know. Moreover, there are several causes that have nothing to do with villages at all, but are solely related to rural developments (e.g. the expansion of arable land, changes in the agricultural strategies, agrarian innovations, changes in property relations, and so on). Given the focus of this research and the wide range of developments and causes, a comprehensive study on settlement relocation or abandonment is beyond the scope of this research. However, the widely observed relocation and abandonment of rural settlement in Northern Brabant around the end of the High Middle Ages is part of the doctoral research of one of the authors.<sup>4</sup>

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### 9.2.6 To what extent does the picture generated by the archaeological data match that of related disciplines (medieval studies, historical geography)? (Q 2.6)

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On an abstract level, the interpretation of archaeological data is congruent with the current historical and historical-geographical data and models. On the one hand this can be attributed to the abstract levels in which the process of village formation are described and explained (e.g. as a contraction and nucleation of

settlement as a result of demographic growth, rights of inheritance, labour differentiation and the emergence of the market economy). On the other hand, archaeological studies were often found to (uncritically) follow the historical narratives, rather than challenge them. Presumably, this has to do with the desire to present a coherent story and add a piece to the (existing) puzzle. This is illustrated by the fact that historical and historical-geographical data usually only come into play in the final stages of the archaeological study. In the study of Bakel – De Hof 2008, for example, the researchers rather readily attributed the settlement remains to a manorial estate of Echternach abbey. This interpretation appears to be a projection of available data rather than an outcome from critically challenging possibilities. The key thing to realise is that archaeology, anthropology, history, historical geography and the like, each provides different types of information on village formation. Since the data of these disciplines is incommensurable to a large extent, trying to compare data makes little sense. Rather, each of these disciplines can contribute, on their own merits, by studying different aspects of the subject and contribute to the overarching synthesis. Given the multitude of facets, village formation requires an interdisciplinary approach and is essential for a meaningful study of the subject.

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## 9.3 Closing remarks

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As part of the Malta Harvest project, this study set out to address 'Village Formation in the Middle Ages ca. 800 – 1600', one of the topics prioritised by the RCE as a major gap in our current knowledge with a high potential to be bridged with data from recent archaeological excavations. This, of course, is closely connected to the implementation of the Valletta Treaty in the Monuments Act 2007 that set the stage for a system in which archaeological research was to be conducted mainly by specialised contractors.

The aims of this study were threefold:

1. Make an inventory and assessment of recent excavations relevant to this topic;
2. Provide answers to our present questions on this topic;

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<sup>4</sup> Verspay in prep.

3. Generate input for the upcoming update of the National Archaeological Research Agenda (NOaA 2.0).

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### 9.3.1 Limitations of the current data

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Following the criteria we derived from archaeological, historical-geographical and anthropological theory, as well as the given parameters, our survey revealed that a substantial number (190) of relevant excavations had been published in the past decade. Upon closer inspection, however, it turned out that the data was of limited use for an inductive synthesis.

Firstly, only very few excavations have actually been conducted in the historical village centres themselves. The available data proved to be highly biased towards the countryside. As little as 13% of the reviewed excavations were situated in the residential cores as mapped in the early nineteenth century. As a result, we have hardly any archaeological data on the development of the historical villages. In addition, the relationship between these villages and the settlements in the surrounding countryside that we do have information on, remains unclear.

Next, studies of rural habitation on the level of the settlement proved to be rare and often consisted of older research. In part, this can be attributed to the small-scale of most excavations which limits their potential to produce relevant information on settlement topography. However, it also has to do with the focus of the excavations which is often limited to building plans and to a (far) lesser extent on farmsteads and arable land. It hardly ever addresses the composition and development of (part of) the larger settlement. This severely limits the potential of individual sites to contribute to the topic of village formation process. This is aggravated by the fact that the uncovered surface surrounding these plans is often too small to establish whether individual farmyards lay isolated or were part of a larger settlement, single or multi-phased.

Further, the available data was often too fragmented to adequately reconstruct the formation of a village, even when multiple sites were at hand. In addition, both the

archaeological sites and the historical villages come in a wide variety of forms that are not yet understood. This prevents a meaningful generalisation based on sites from village territories.

Most importantly, however, was the complexity of villages as a concept and construction as was found in the compilation of the theoretical framework. Even if we opted for a very plain definition of the villages themselves, the processes involved in their formation and their interrelations remained as complex as they were. Furthermore, political, economic and social factors played an important role in the creation and development of villages, but are not often archaeologically observable (at least not directly). This requires additional support from adjoining disciplines.

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### 9.3.2 Validity of current models

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Because of the limitations of our dataset we decided to adjust our strategy to a deductive approach in which the archaeological data was used to test the current models on settlement development and village formation. As it turned out, the level of synthesis varied considerably between the archaeological regions. While a lot of work had been done in the cover sand areas, we were hard pressed to find anything for the clay areas, the riverine areas and the loess areas. As for other areas, no synthesis has yet been made.

The main difficulty of the models was that most of them describe the trends in the settlement pattern in general terms, like a clustering around churches or on manorial estates. Similarly, the causes or motives for these developments are explained by abstract processes like 'manorialisation' and 'institutionalisation'.

Our research found that the current (recent) regional models on village formation are mostly accurate, yet only cover the outlines of the processes involved (e.g. the creation of manorial estates, the establishment of churches, demographic growth, the emergence of an early market economy, labour differentiation and specialisation). It fails, however, to explain the variety found in the composition, layout and

development of both the archaeological settlements and the historical villages. This means that although the current models are correct, they are not complete and lack the level of detail required to address this diversity.

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### 9.3.3 The persistence of the knowledge gap

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The diversity we found in our case studies can be attributed to the major influence of local factors in the process of village formation. This could be the geographical location and natural opportunities for agriculture, the ownership of land, access to trade networks and the proximity of main infrastructure, as well as territorial and economic politics. All this illustrates the complexity of the topic and the difficulty to address this using regional models.

The importance of local factors means that in order to compile a comprehensive synthesis on village formation, one has to unravel and understand the process on a local level first. Only then is it possible to deduce the general trends and construct a regional model. Although we found some excellent case studies, their number is currently far too small to endeavour such a synthesis. For now, the knowledge gap remains.

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### 9.3.4 A route to bridging the gap

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The good news is that despite the complexity of village formation and the fact that some of the major processes involved are not directly observable archaeologically, it is still very much possible to gain good insight into the process. This can be seen in some of our case studies. The key is interdisciplinary research, specifically the use of historical geography, and a detailed mapping of landownership and land use during the Middle Ages.

Using historical geography, we can bridge the gap between the (supra) regional models and the primary archaeological data. Retrospective analysis of villages and village territories can provide the framework in which the

archaeological data can be integrated to create a meaningful spatio-temporal reconstruction of the settlement. Subsequently, it can provide insight into some of the key processes behind village formation, which are virtually invisible archaeologically.

This is best illustrated by the case study of Warnsveld. Here, the combination of archaeological and historical-geographical data revealed the relation between the Carolingian farm and the *woerd* and its likely origin as a manorial estate. It identified the founder of the church of Warnsveld and the political and administrative context in which it was established. Together with the identification of the various property relations within the *marke*, it allowed us to understand why Warnsveld was chosen to become the new parish centre, rather than a larger settlement. It also explained why Warnsveld remained small as a result of the dispersal of administrative functions and the proximity of Zutphen. Most importantly, the integration of archaeology and historical geography revealed that the formation of Warnsveld could only be understood from the dynamics in the village territory, the *marke* Leesten, as a whole.

One of the main advantages of historical geography is that its scope is more in harmony with the scale of objects we study, as it is able to cover an entire village territory and does so from the beginning of research. Archaeological observations hardly ever cover more than some fragments of a settlement with a focus on buildings. Furthermore, through analysis of written records one can gain insight into processes such as land ownership, common law and so on, that played a key part in village formation, but are virtually invisible in the archaeological record. After assessing and mapping, this information provides the framework in which archaeological observations can contribute – by providing a date range to known elements, adding information on elements that are not known from the written record, and testing the geographical reconstructions in the field.

An historical-geographical and historical overview of a village territory not only enables better interpretation and cohesion of the (often

small-scale) archaeological observations, it also provides a tool for more accurate predictions, more purposeful questions and selection. As such, it would be beneficial for municipal planning and heritage policy, in which it could be integrated.

In addition to the historical geographical framework, more archaeological observations will be necessary in the historical village centres to successfully address the topic of village formation. The peculiarities of research in built-up areas mean that it is quite different from the studies that are conducted in the countryside, which determines the norm in current rural archaeology. In essence, village archaeology resembles urban archaeology. This is reflected, in part, in the scale of observational opportunities which are mostly limited to small plots and keyholes, yet can provide crucial information on the topic. It is important to acknowledge the potential of small-scale interventions in municipal policy and (initially) minimise the extent of the exemption area before archaeological research is required. To minimise the burden on small (private) developments, yet benefit from the observational opportunities, one could use more of the watching briefs, combined with a general design brief (PvE) for this purpose, based on the historical-geographical framework. Village archaeology greatly benefits from a stable focal point of knowledge for a coherent interpretation of (small-scale) observations and assessment of the relevance of archaeological

involvement in various locations. It is no coincidence that the best case studies currently available are connected to municipal archaeological services; possessing the additional advantage of being closely situated to the subject, being able to respond quickly to opportunities and threats that arise, and having the overview to do so efficiently. However, there are no compelling reasons for village archaeology to be restricted to this organisational form.

To conclude, the study of village formation is best served by a local research agenda based on comprehensive historical-geographical study of the area and active coordination from people who know the area well (continuity of knowledge). A case like Warnsveld shows that this really pays off.

In addition, a research project like the Currently Occupied Rural Settlements (CORS) project<sup>5</sup> could address the bias in the archaeological data towards deserted villages that is inherent to our development-led system. This would provide a more representative range of sites, which enables a more comprehensive understanding of rural settlement in general and villages in particular. Its methodology of systematic small-scale excavations within a historical-geographical framework is a relatively quick and easy way to reconstruct the outline of the development of these villages and farms. The outcome could provide valuable input for municipal planning and heritage policy.

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<sup>5</sup> Lewis 2007; 2014; 2016.



# **Part IV**

## **Outcome**



The final objective of this study is to provide input for the National Archaeological Research Agenda (NOaA 2.0) based on the outcome of the assessment and analysis of the available data.

This research agenda is an instrument for archaeologists and policy makers to set priorities, make well-founded selections and provide inspiration, e.g. for design briefs (*programma's van eisen*) regarding archaeological excavations, or for composing or updating the municipal or regional research agenda.<sup>1</sup> It was developed from the notion that archaeological research needs to be question-driven in order to contribute to our (scientific) knowledge about the past.

The NOaA focusses on research themes and questions that apply to the supra-regional or national level. In addition, it specifically aims to guide archaeological research at the level of the individual excavation or observation.<sup>2</sup>

These should provide the building blocks with which the major research topics can be addressed in a synthesis.

In accordance with the design of NOaA 2.0, our recommendations consist of an update of the main theme, a set of research questions on village formation in the Middle Ages, and suggestions on their operationalisation in the field. Following the outcome of our study we then extend our advice to regional and municipal policy, as maintaining an overview and direction at this level proved to be invaluable for bridging the gap between the individual observations and the development of the village. In addition, we include a recommendation for a purposeful study on currently occupied rural settlements to compensate for the imbalance of data that is being acquired, which draws mainly on deserted settlements, and is inherent to our current archaeological system.

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## 10.1 The consequences of the Dutch archaeology system for synthesising studies

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### 10.1.1 Malta and scale

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The Dutch archaeology system is both decentralised and commercialised.<sup>3</sup> The system has to be understood in the wider context of land use planning, broader decentralisation processes of governance, and the introduction of the “polluter-pays-principle” in which the developer is made responsible for the cost of safeguarding archaeological remains of importance. European member states that signed the Valletta treaty have made various choices in regard to their national systems. Each system has its upside and downside.<sup>4</sup> In general, Dutch archaeology excavations follow construction (developer-led archaeology), local authorities decide on the research frame, and commercial units compete for an excavation in a public tender. The downside to this process is the fragmentation of content and lack of scale, breaking with the former Dutch tradition of long-term regional research.<sup>5</sup> Exceptions include archaeological units of municipalities and (less so) universities with long-term investment in the region as their core business. All regional analysis, including that of village formation, will encounter the problem of scale that cannot be met due to the fragmentation and local handling of research agendas. This means that for successful future research, posing the right questions is simply not enough. Some steering is necessary to reach the regional level and that will be difficult to achieve in the current situation. Below (see §10.6) a special recommendation is proposed, relating to the organisation of research, following an example from the UK – the *Currently Occupied Rural Settlements (CORS) project* from the University of Cambridge.

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<sup>1</sup> Groenewoudt *et al.* 2016.

<sup>2</sup> Many of the themes of academic study address complex issues, develop at an abstract level and cover a wider geographical area. Although studies like these are invaluable for synthesis of our findings with new knowledge and provide a direction for new research, these topics are usually too unwieldy to apply in individual excavations directly.

<sup>3</sup> Van Londen *et al.* 2014.

<sup>4</sup> Van der Haas & Schut 2014.

<sup>5</sup> Bloemers 1999, 317-327.

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### 10.1.2 The effectiveness of the system in terms of new scientific insights

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Due to the fact that the archaeological system is organised to fit the land use planning system, its basic management form is through spatial planning and not through knowledge management. The system then works fine for tracing and mapping archaeological sites for the purpose of safeguarding heritage through the planning process, but not so well for gaining new insights in an academic sense overall.<sup>6</sup> There are of course exceptions as mentioned above, and also some as a result of extra funding. Reports like this one play a role in assessing the true “harvest” of commercial archaeology. In Chapter 6 we made an inventory through a query of ARCHIS and assessed the data for our purposes. Of the processed excavation reports from commercial archaeology (n= 725), around thirty-three reports could be used after funnelling for the regional analysis (Ch. 8).<sup>7</sup> However, none of these excavation reports provided enough information to go on answering the research questions. Therefore, the initial plan for an inductive synthesis of archaeological research did not effectively work.<sup>8</sup> However, a qualitative and deductive approach to case studies did work, but only through an integrated interdisciplinary methodology. Within this frame, the archaeological record provided an indispensable and evidential contribution to the study. This contribution can also be enhanced by updating the Research Agenda, learning from this experience.

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### 10.2.3 Levels of inference for future research

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Our conclusion in Chapter 9 leads us to believe that the way forward, in terms of new insights, would be to trace human agency in particular historical situations and assess in what way and to what extent the general and local factors contributed to the formation of villages and how those factors were interrelated.<sup>9</sup>

For this, an integrated research strategy is necessary, including historical geography and

the use of a wider set of parameters for both horizontal and vertical relations. Research like this will be difficult to achieve within a Malta setting, with a single focus on archaeology, and in situations where the excavation trenches offer only a limited and coincidental window into past landscapes.

The level of inference is not so much dependant on questions per se, but rather on the chosen research frame; for instance in regards to the scale (local or regional), perspective (mono-disciplinary or interdisciplinary), extent (single or multiple case studies) and approach (inductive or deductive). Excavations within the commercial setting will probably have the combination of a mono-disciplinary focus at the sub-local level, resulting in a singular case study through an inductive approach. What should be expected from the scientific contributions offered by future individual excavations, guided by the building blocks of the Research Agenda? If the research is restricted to archaeology then the following outcomes can be foreseen:

1. Excavation reports describe the phenomena evidenced in the archaeological record. The level of inference in regards to village formation processes will be limited. A reference will be made towards possible processes, but from the data nothing can be really argued one way or the other. The reason for this is that the window into the old landscape may offer only a very partial view from which it will be difficult to orientate towards a comprehensive overview. Moreover, different processes may lead to similar landscape patterns. This outcome would resemble the majority of reports assessed in the inventory of this study. Future reports would improve if the archaeological parameters for village formation were actively sought after and explicitly reported (see Ch. 5) and not fixated on house plans alone, for instance. The value of the case for new insights will depend on the scale of the excavations, the number of related observations per area, scope and number of phenomena related to the parameters, and the quality of the data for comparison.
2. In the design brief a precondition can be incorporated to relate the archaeological findings of the site to a regional model for village formation. The level of inference will

<sup>6</sup> Van den Dries 2011, 206.

<sup>7</sup> Useful reports that did not show up in our initial survey and are not included in this number.

<sup>8</sup> This outcome does not of course exclude the value of the reports for other purposes.

<sup>9</sup> The sphere of influence of these factors may vary considerably in extent and direction and are not likely to match up. For example the influence of a political figure does not necessarily correlate with a geographical entity, and while institutions had landed property far and wide, on a local level the social dynamics may surpass the property relations. The differences of these various networks also inhibits the formulation of a single model for the development of settlement for a wider region.

then lead one step up from site to region, and will probably result in an analysis comparable to that of Ch. 8. Chances are, the point of reference will predominantly relate to Curtis' first (see Ch. 4 and Ch. 9), i.e. power, coercion and lordship, because of the bias in models through historical texts (see Reynolds in Ch. 4 and Ch. 9). As a result, the focus will lie on the role of manorial estates and the church.

This framing would not be wrong per se, but it only tells part of the story and only touches the surface of complexity. Thematic questions and accompanying archaeological parameters stemming from a broader conceptual basis (Ch. 4) would certainly widen the scope.

Both outcomes have their merits, but it seems sensible to temper expectations towards the explanatory strength of insights on the processes behind village formation. The benefit lies in producing excellent archaeological case studies with potential for further integrated (local and supra-local) analysis as presented in Ch. 7 and Ch. 8, offering an important evidential contribution.

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## 10.2 A revaluation of the main theme: Village formation

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The outcome of our research calls for a revaluation of the topic of village formation, its framing and approach.

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### 10.2.1 Current description of the theme in the NOaA (2.0)

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Presently, the theme of village formation is described as follows:

The Dutch countryside originally contained only scattered dwellings (dispersed settlement). Later, additional concentrated habitation emerged in (nucleated settlement) villages, or the rural population concentrated in villages. In this respect, large regional differences probably exist. Large-scale settlements are well known in the Netherlands since the Roman period (or even since the Late Iron Age, as in neighbouring countries). 'Real' villages, with compact constructed buildings and (limited)

central facilities for the surrounding rural areas (usually including a church), appear until much later in the Late Middle Ages and Early Modern period. Regarding the background and manifestations of village formation, and as to the role of church foundations, many uncertainties still exist.<sup>10</sup>

### How, where and when did permanent villages come into existence?

Nucleated settlements in the Netherlands appear to be a relatively late phenomenon. That certainly applies to real villages: larger, stationary settlements characterised by concentrated buildings with one central function for the surrounding rural areas (church, blacksmith). Apart from the Roman period, the impression is that the creation of permanent settlements primarily related to the establishment of domains in the footsteps of the Frankish annexation, and secondly with the foundation of chapels and churches. The first factor laid out the foundations in the form of a fixed land place with a fixed spatial structure, the second amplified the process by making occupancy clustered around churches. To our knowledge, most settlements have not become fixed to a place prior to the ninth century. But there are undoubtedly exceptions (*terp* villages, dune regions) and (regional) differences. Most settlements do not seem to have evolved into what we now call villages before the fifteenth and sixteenth century. How the process of forming village develops spatially, temporally and functionally under various circumstances, has hardly been investigated.

### Operationalisation

Investment in archaeological research is the core of historical villages. Often these sites are set aside by research as being 'disturbed'. Usually, the reason for this is the presence of debris in the soil, which is normal in towns and villages. Even areas that are indeed (partly) disturbed, can still provide important information to this issue, for instance, on the date and nature of the earliest activity places (wells, deep pits and ditches, datable ex-situ material). A full excavation, especially with regard to this question, is certainly not the only meaningful form of archaeological research. 'Drowned' villages as a time capsule can be very informative (Zeeland coast, mudflats, Zuiderzee area).<sup>11</sup>

<sup>10</sup> <http://noaa.rce.matooset.net/Viewer/#/researchIssue/f55b86f5-2af3-44c0-967b-8a0876df322b>, accessed and translated 5-11-2016

<sup>11</sup> <http://noaa.rce.matooset.net/Viewer/#/researchQuestion/bf9d4838-a910-45b4-a3b8-6a275cb1c071>, accessed and translated 5-11-2016

The current characterisation of villages is problematic, as it focusses on one particular settlement form: the nucleated village, clustered around a church with amenities, while concentrated settlement is found to have had various forms. These include elongated linear settlements and polyfocal settlements consisting of several small clusters. Such is the case, for example, in our Warnsveld case study, where the administrative centre rested in a different cluster than the ecclesiastical centre. In addition, the emphasis on the manorial origin and ecclesiastical trigger perpetuates the bias to vertical relationships, narrowing the view to the textual induced narrative. In order to overcome this bias we need to broaden our scope. This requires both a broadening of our research questions and a more interdisciplinary approach in the analysis and synthesis of the data produced.

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### 10.2.2 New insights and a proposed reformulation of the theme

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An archaeological study on village formation inherently encompasses a dual approach. It needs to address the historic development of concentrated settlement as well as the history of the present-day villages. These might or might not overlap. In order to accommodate for it we use the term “village” quite broadly as a “concentrated settlement”, as the coming together of people residing in close geographical proximity to one another. Following Curtis, “concentrated settlement” takes in all degrees of concentration: from large villages which were rigidly planned and systematically ordered to loose informal clusters of people around a small focal point.

Following Curtis’ theoretical framework(s) (Ch. 4), we propose a reformulation of the theme:

#### **(Historic) village formation**

After the collapse of the political and economic structures connected to the Western Roman Empire, many regions experienced a substantial decline in population. In rural areas habitation was reduced to a small, dispersed settlement with a self-sufficient, agricultural character.

Only later (new) concentrated settlements started to develop. The actual chronology and development of this process varied according to region, and could differ substantially at the local level. In some areas settlement concentration took the form of nucleated villages (people compacted around a main focal point). In other areas houses were laid out in a linear row perhaps along a dike, main street, or waterway, while elsewhere the concentration of habitation seemed to come together from multiple foci. In addition, it has become apparent that similar settlement patterns could be the result of different processes and vice versa. Moreover, local factors and human agency, were found to have played a major role in the development of individual villages.

The scale of these factors, along with the sphere of influence of human agency will determine the patterning of settlement on a (supra) local level. Therefore, the aim of local and regional research is to understand rather than explain through generic models; to understand why as well as how a village came to be in a particular place and time.<sup>12</sup> The main question does not aim to compose a regional model, but rather to describe and understand the socio-historical development of a local village within the wider village territory.

#### **How, when and where did concentrated settlement (including villages) develop? And why did this development play out as it did?**

After the demise of the Western Roman Empire, the settlements in rural areas generally declined and scattered into small dispersed settlements. As early as the eighth century new concentrated settlements started to form (in the *terpen* area concentrated settlement may have even continued uninterruptedly from the Roman period). The chronology and development of this process varied according to region. In general, the processes involved in this development entailed power, coercion and lordship (i), communalism and territorial formalisation (ii), field-systems and resource management (iii) and urbanisation and market-integration (iv). The specific way these general factors developed and interacted at the local level varied considerably under the influence of human agency.

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<sup>12</sup> Although ‘why’ questions are excluded from the design of the NOaA 2.0 (Groenewoudt *et al.* 2015, 8), we feel that such a question is essential to adequately address and direct a synthesising study of village formation, as this process is determined by the specific way general factors developed and interacted at the local level and by the influence of human agency.

### Operationalisation

The importance of local factors and human agency in the formation and development of villages requires that archaeological research be aimed at the local level (and just above that). Moreover, the formation of villages has to be understood as part of the development of the settlement structure within the wider village territory. For example, in order to assess whether an increase of houses in a concentrated settlement reflects a demographic growth, a shift or contraction of settlement, one needs to understand the development of the wider pattern. Together with the (possible) formative processes related to territorial formalisation and field systems (Curtis framework II and III), this calls for an integral study of the development of the rural landscape in order to assess the correlation between land use, agricultural strategies and demarcation, and the settlement patterns.

In addition, to adequately address the process of village formation (as a chrono-spatial development), the research should address both deserted settlements (which remains are, for example, frequently found underneath the present arable fields) and the currently (still) occupied settlements (including the historical village centres). Many examples have shown that the concentration of settlement does not automatically lead to its permanent fixation. The objectives of the archaeological observations should be twofold. Firstly, it needs to establish a basic development of the settlement topography by recording the layout, composition and date(s) of the settlement remains and identifying various elements (i.e. using the indicators described in Chapter 4 and 5).

Next, the processes involved and their interrelations need to be addressed using thematic questions based on Curtis' four main frameworks and the social-economic factors of Netting (Ch. 4). A proposition is included below (§10.4).

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### 10.3 The evaluation of the current questions for synthesis

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As part of the research assignment, a set of synthesising questions were formulated based on NOaA 1.0 (Ch. 3). These questions largely

directed the (initial) outline and direction of this study. Although this direction was adjusted on some occasions, we were able to conclude our analysis with an answer to each of these questions (Ch. 9). Since the outcome was sometimes disappointing, and we now propose an update on the description of the theme and problem (§10.2.2), we feel that an evaluation of these questions is in order to properly assess to what extent these synthesising questions are still relevant and accurate.

#### **What form did the process of settlement stabilisation take in the period ca. 800-1600 and what were the differences in chronology and pace per archaeological region? (Q 2.1)**

This question is based on the assumption that settlement stabilisation is an autonomous development in an evolutionary process and that this process takes place at the level of archaeological regions. Both this and other studies<sup>13</sup> show that stabilisation is a result of a variety of developments, that can occur permanently or temporarily and can pertain to the entire settlement or just a segment. These developments, played out at a local level, can show great differences within the same region.

#### **Which factors (landscape, socio-economic, political, administrative, ecclesiastical) played a role in this process, to what extent and with what interrelationships? (Q 2.2)**

This question implicitly equates village formation with the fixation of settlement. This is an oversimplification, as shown above. Rather, it should focus on the formation of concentrated settlement. In addition, the factors involved are generally known, so the first part of the question is redundant. The second part, nevertheless, is spot on as it seeks to understand the extent of the factors involved and their interrelationship.

#### **How old are the historical village centres and how did they develop spatially and functionally? (Q 2.3)**

This question continues to be relevant and is adopted in our proposed questions below. Still, very few archaeological observations are available from the historical village centres. Those that are available are often of little use, not so much because of their size, but rather due to the limited correlation with a historical (geographical) framework.

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<sup>13</sup> Curtis 2013, 226; Spek 2004, 978; Leenders 2011, 79.

**What role did towns play in settlement stability, village formation and village development? (Q 2.4)**

Although relevant, this question (in this form) can hardly be addressed through archaeological observations alone, and it would be more appropriate in an interdisciplinary framework. Alternatively, the question could be made more specific in order to address a possible correlation between the emergence of towns and concentrated rural villages.

**To what extent did villages shift or disappear in the period ca. 800-1600 and what processes lay behind this? (Q 2.5)**

This question is relevant, but needs to be specified, as it is not clear in this form whether the answers should be limited to alteration of entire villages (here: nucleated settlements), or that it also should accommodate for developments within the wider settlement area (e.g. the relocation and contraction of smaller clusters), or for developments that only partially affected the settlement nucleus (e.g. the establishment of a new focal point around or along houses that would gradually cluster). It would be better to reframe the question in the wider development of settlement structure within the village territory.

**To what extent does the picture generated by the archaeological data match that of related disciplines (medieval studies, historical geography)? (Q 2.6)**

This question is flawed, as the various disciplines each present us with a specific perspective on the subject of village formation, rather than provide pieces of one single puzzle. None of these perspectives are complete nor dominant, as the relevance of a perspective is dependent on the questions one would like to answer. In its current form this question implicitly perpetuates the bias of the historical texts towards the narrative of power, coercion and lordship. The danger is that in this way, archaeological research can only be seen to contribute mere illustrations of the historical narrative. The various disciplines should be regarded, though, as complementary; as tools to address different aspects of the village formation. Based on the updated description of the theme and problem, a set of new questions is proposed

below (§10.4). These consist of a question on the level of (supra) local synthesis and guiding sub-questions on the level of the archaeological site.

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## 10.4 Proposed research questions and operationalisation for field research

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The research questions for the National Archaeological Research Agenda have to comply to a set of parameters.<sup>14</sup> Most importantly, they should focus on archaeological aspects of the theme and be applicable (and feasible) in regular Malta excavations. The questions should keep a balance between national (or supra-regional) significance and academic ambition on the one hand, and practical application on the other. They address elements that cannot be answered in a single excavation, yet do have real potential to be adequately answered with the data from multiple observations.

This means that despite the complexity of village formation, the questions we propose primarily address the archaeological (and historical geographical) aspects of this topic. They aim to provide the building blocks for a broader (interdisciplinary) synthesis. The questions, therefore, focus on the main characteristics of villages as described in Chapter 5. For each question, guiding sub-questions are included which address specific indicators of elements or processes that are embedded in the main questions.

The subsequent recommendations address how to obtain these indicators and in what way to combine them with other indicators or wider developments.

Because of the particularities of the various regions, it is difficult to formulate meaningful questions about village formation with relevance on a general level. Although some questions have been formulated based on developments in one or more specific regions, an effort was made to make them applicable to a wider area.

The research questions below follow from the main question (§10.2.2) and encompass both the recording of the basis settlement pattern and the thematic questions regarding the various processes involved in village formation.

The latter are tailored to Curtis' frameworks.

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<sup>14</sup> Groenewoudt et al. 2016, 8.

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#### 10.4.1 How does the settlement pattern develop in the region and when and how does concentration of settlement take place?

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This question seeks to gain an understanding of the development of the settlement pattern in village territories as a whole and understand the connection between the concentrated (village) centre to the surrounding settlements (hamlets, neighbourhoods and separate farms). Is the initial concentration mainly a clustering of the existing, dispersed settlement or the product of demographic growth gravitating to one of the settlements? Does the concentration only relate to the formation of a clustered centre or is it part of a wider development that also affects the smaller, peripheral settlements (hamlets)?

##### Sub-questions

- What is the layout, composition, size (number of tofts) and date of the settlement(s) in a village territory?
- Does a concentrated settlement develop out of a dispersed settlement, or do concentrated and dispersed settlement coexist in a territory from early on (as part of the socio-political structure of the wider settlement)?
- When does the formation of clustered settlement(s) start and can it be regarded as the single centre for the village territory?
- What happens at the surrounding settlements when a nucleated centre is formed? Are these abandoned? Do they form smaller clusters? Does their pattern remain unchanged?

##### Operationalisation

Answering these questions requires information on the level of the settlement and settlement territory. For each of the settlements in this area we first need to establish whether it is (part of) a clustered or more sparsely grouped settlement or a separate farm. This requires an adequate overview by extending the excavated area wide enough to establish the border of the toft and the absence of a direct neighbour. In addition, trial trenches can be used to find out if additional tofts are present in the vicinity. Historical maps can provide additional information through remaining building lines and specific topography. It is advised to use

these in parallel with the excavation, to test specific indications in the field. Next, the layout, composition, size and date of the particular settlement needs to be established in order to reconstruct a chronological development. The chronology of the various settlements can then be compared together to reconstruct the wider settlement pattern and its development.

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#### 10.4.2 To what extent were settlements relocated after their initial clustering or concentration and what factors were responsible for this?

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This question seeks to explore whether the concentration process was also responsible for the fixation of the settlement, as it is expected, and on what occasions it was moved again. These motives could be, for example, environmental changes or even calamities or social changes. The relocation of dispersed settlements into clustered settlements is excluded whereas it can be regarded as part of the (initial) concentration process.

##### Sub-questions

- When did the settlement become clustered or nucleated and to what extent did this coincide with the fixation of the tofts?
- Was (part of) the concentrated settlement later abandoned? When did this happen and in what place?
- Is a new settlement established in the area at the same time of the abandonment or shortly afterwards? And are there, apart for chronological succession, other indications to assume relocation?
- What archaeological indications are there for the reason of abandonment? Is there evidence of a calamity?
- Does the abandonment coincide with relevant historical known social, political or economic developments?

##### Operationalisation

The first requirement is the establishment of clustered settlement. These are indicated by multiple, contemporary (farm)houses situated at close distance, either grouped together or clustered in a planned fashion.

Relocation can be difficult to establish, as it requires information from both the old and the new settlement location, as well as evidence for their correlation. However, when the succeeding location is known from maps or better still, the present-day village, a case can be made. From a single site at a preceding settlement, a relocation would show up as an abandonment. The motives for relocations can be directly visible archaeologically, e.g. in case of flooding or burning, or the loss of land as a result of subsidence. More subtle are developments like the establishment of a conventicle or a marketplace outside the (then) village centre, which became a new focal point.

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### 10.4.3 What are the origins of the historical village centres and how did these villages develop spatially and functionally?

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Our understanding of the presently inhabited (historical) villages currently depends mainly on textual sources. Although it provides valuable insights into property relations, social organisation and so on, it is often difficult to confine them to specific locations and reconstruct spatial developments. Moreover, these sources have an inherent bias towards certain aspects (judicial, fiscal or notary) of a community and certain groups herein. And often the written record does not go back to the origin of the villages. The current regional models on settlement development and village formation generally address the topic on an abstract level. This does not do justice to the variety of villages within a region, nor does it address the importance of local factors in the formation process or the later development of historical villages, which was elegantly demonstrated in the comprehensive historical-geographical case studies in Drenthe by Spek. Unfortunately, archaeological data from the historical village centres to complement the textual sources, or to provide information on the older phases and to test the current model is still

very scarce and fragmented, as most excavations are being conducted in the surrounding countryside. This means that the picture of medieval settlements primarily relies on abandoned settlements that were later incorporated into the field complex.

#### Sub-questions

- Where are the oldest part(s) of the village situated?
- What are the oldest archaeological remains found in various parts of the village(area) with continuous succession up until the present?
- What is the layout and composition of the village in the various periods?
- When did the occupation at the parish church start and does it predate the establishment of the church?
- What is the nature of the oldest occupation in the village?
- When were (the) additional amenities established in the village and what did these entail?
- How does (the development of) the village relate to the now disappeared settlements in the area?

#### Operationalisation

The development of an existing village centre is revealed in successive traces of habitation, preferably in an unbroken series up to the present-day occupation. The composition of find material from a site can also provide clues here.<sup>15</sup> Spatial development can be inferred from a time-space picture, based on the nature and presence of features and structures from a particular period in a particular part of the village. Functional development is expressed archaeologically in a settlement's structure and location, and the presence of buildings and remains associated with specific activities. Thus the presence of artisanal production and a (market) square, combined with a favourable infrastructural location, can indicate the important role of trade, while the presence of a monumental church can reveal the religious function. The establishment of a church in an older, centrally situated and above-average house site could indicate a manorial origin.

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<sup>15</sup> Van Beek, Groenewoudt & Keunen, 2014. Applied here to existing farmyards.

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#### 10.4.4 What role does the establishment of a church or chapel play in the concentration of a settlement?

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The establishment of a church is a major, if not determining, event in the formation of a village. But to what extent is it related to the clustering and the increase of settlement? Does concentration take place prior to the building of the church? Is it an independent trend (related to other factors) that accommodates the establishment of a place of worship and is reinforced by it, or does the church act as a trigger of growth and clustering of habitation? Does the same hold true for a chapel? And is this relationship typical for the wider region?

##### Sub-questions

- When was a church or chapel established?
- What was the layout and composition of the settlement in which the church or chapel was established at the time?
- To what extent did the establishment of the church or chapel influence the development of the settlement? Did concentration set in before or after the establishment? And at what pace?
- Is the correlation between the concentration of settlement and the establishment of the church similar throughout the region?

##### Operationalisation

This question requires a comparison of the chronology of the development of settlement patterns and the establishment of the church, and a comparison of this correlation between several villages.

Concentration manifests itself as an increase and clustering of tofts in successive phases in a development from small, dispersed settlements to a larger, more compact settlement. In rare instances this development could be observed (in part) in large scale excavation. However, since it involves relocation of settlement, this development acts out over a larger area. To contribute to this question, from smaller excavations, it is important to get an accurate understanding of the date and correlation between tofts. Are they contemporary or successive? Is a farm part of a hamlet or neighbourhood or is it isolated? To establish the

latter, a sufficient overview is needed, e.g. through trial trenches. Given a sufficient quantity, a development of settlement patterns can be reconstructed from these separate observations.

Apart from the settlement pattern, an accurate date of the establishment of the church is required. This can be obtained through historical, architectural-historical or archaeological means. Often, records of the consecration still exist, or the initiator can be traced through the patronage or relation to other churches. However, one has to take into account the possibility of preceding churches in the area. Opportunities to excavate a church are rare and given the inherently complex nature of these sites, adequate research is unlikely in the current system. However, an indication of the age of a church and accompanying churchyard could be obtained through chronostratigraphic analysis using test pits.

For the later Middle Ages and Early Modern period, the reconstruction of the development of settlement patterns would greatly benefit from an historical-geographical study of the village territory.

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#### 10.4.5 What role does the establishment of trade and crafts (professional specialisation) play in the concentration of a settlement?

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Labour differentiation, and more specifically the emergence of non-agrarian professions, is believed to have contributed substantially to the concentration of rural settlement. Whether this initiated the clustering of houses or was facilitated by it at a later stage is unclear.

This would probably also depend on the type of settlement and its role in the wider community, whether it was an agrarian village or served as a non-agrarian centre (*verzorgingskern*) from the start, like those established around a marketplace.

Specialisation appears to have resulted from a combination of push and pull factors. In the sandy areas of the Netherlands it is related to demographic growth during the High Middle Ages and the emergence of an early market economy. By that time the large-scale reclamations were completed and the

abundance of labour meant that farmers opted for more labour-intensive forms of cultivation and stock breeding, either through agricultural intensification or specialisation.

In the peat and clay areas this process was enhanced by environmental factors, as the oxidation of the peat and the settling of the soil meant that sustaining the land for agriculture required increasing effort. As a result, the farmers shifted towards stock breeding and the production of secondary products over time, and in some cases like Ransdorp and Urk, towards fishing.

In addition, these developments provided both the opportunity and the need for people to engage in trade and craft as a full-time occupation. Since these craftsmen were no longer depending on farmland for their livelihood, they could set up shop and cluster on a central location near the major infrastructure.

#### Sub-questions

- Is there evidence for trade and craft in the settlement? What kind?
- When were full-time trade and crafts established in the settlement?
- Where were the traders and artisans located in the village and to what extent were their houses clustered?
- How does the establishment of traders and craftsmen correlate with the development of the settlement structure?

#### Operationalisation

Artisanal industry can be established from remains (soil features, specific finds, chemical or botanical residues) related to the different processes involved in a specific craft or stages thereof. These remains could include (parts of) installations like ovens, kilns, vats, or artefacts such as tools, raw materials, semi-manufacture, waste products, and the final articles themselves. Craftsmanship as a main occupation, as opposed to a seasonal activity, can be established from an absence of agricultural features on the toft. Trading could be deduced from related artefacts like the presence of non-local products, coins, coin weights, scales, (cloth) seals or infrastructure such as a marketplace or berth.

The remains of trade, crafts and non-agrarian occupation need to be dated and compared to the spatial development of the settlement.

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#### 10.4.6 To what extent do changes in property relations contribute to the (early) formation of concentrated settlements?

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The High Middle Ages saw profound changes in the (manorial) property relations in large parts of the country. Servitude gradually gave way to tenure and there was an increase in privately owned farmland. The latter may have been an indirect factor in the development of clustered settlements.

Free holdings were often related to the new reclamations which intensified during this period. In the sandy areas these focused on the bogs and stream valleys; in the peat and clay areas the large reclamations of the bogs and fenlands increased dramatically. These reclamations were highly stimulated by political and economic motives from the district rulers. Privately owned land provided an incentive for investment of labour and resources, either through intensive exploitation or specialisation. Yet, at the same time it was susceptible to fragmentation, as these properties were often divided in an inheritance. Over the course of several generations the portion became too small to sustain a family (*verkeutering*).

These small farmers would then work as part-time craftsmen or seek employment as labourers on a larger farm. The division of farms could result in a rapid increase of farmsteads and cottages in these villages, as was found by Spek for parts of Drenthe.<sup>16</sup>

In the peat and clay areas free holdings were also an important incentive for undertaking these reclamations, but beyond that it seems to have a less specific impact on the development of the settlements. Here the cooperation between the participants in the clearing and drainage, and the ensuing water management, was the key factor in the formation and development of the village.

#### Sub-questions

- How does the allotment and the spatial demarcation of the rural landscape develop and to what extent can this be attributed to changes in property relations?
- How do the developments in the allotment and the spatial demarcation of the rural

<sup>16</sup> Spek 2004, 978-979.

landscape correlate with the concentration of settlement and village formation?

- When were cottages starting to be built in the settlement and to what extent did these contribute to the concentration? Were these responsible for the initial clustering of settlement or did these condense an existing settlement nucleus?

### Operationalisation

The changes in property relations could be reflected in the way the changes in rural landscape was allotted and marked (although other factors, like water management, would have contributed as well). These elements (ditches, earth banks, boundary stones) need to be mapped and dated. In addition, (the start of) the division of plots and the rate at which this took place needs to be dated, as it could serve as an indicator for *Verkötterung*.

Within the settlement we should look for the presence of cottages or small farms. These could be recognised as small tofts with a modest house and little or no outhouses, yet with clear agricultural traits like a byre or a (sunken) manure heap, or a hay barrack or helm. Evidence for some (seasonal) artisanal activity can be present, but on a small scale. These tofts could be closely spaced around a village green or along a main road.

Once identified, these cottages need to be dated. Their age and development is then compared to that of other occupations in the settlement (regular farms, crafters) to establish their relative chronology with respect to the concentration. Subsequently, their emergence is compared to the development of the allotment and the spatial demarcation of the rural landscape to find out if this development is related to changes in property relations.

### 10.4.7 To what extent does the development of the settlement pattern correlate with developments in agricultural strategies and field systems?

The clustering of people into a concentrated settlement had been associated with the establishment of the open-field system. Much is still unclear about the relationship between the

two developments and who were responsible for this. Was the system instigated by a local manorial lord or was it a response of a rural community to their economic situation?

### Sub-questions

- How and at what pace does the allotment and the spatial demarcation of the rural landscape develop and to what extent can this be attributed to formation of an (open) field system?
- How do the developments in the allotment and the spatial demarcation of the rural landscape correlate with the concentration of settlement and village formation?

### Operationalisation

The formation of a particular field system is related to the social organisation of the community using it. In order to establish whether the concentration of settlement is related to the organisation of the field system, first we need to find out whether both occurred in the village territory in the first place. Or perhaps the opposite is found? Or an amalgam of open and enclosed fields? This can be derived from features pertaining to spatial demarcation of the arable land. Next, a correlation in the chronological development of settlement and fields needs to be established. Finds in tillage layers can be used to establish the location and extent of fields in a given period. Both spatial demarcation and tillage layers, obeying or ignoring these, can provide information on the organisation of these fields and needs to be dated through archaeological means (finds, stratigraphy, spatial correlation and so on).

### 10.4.8 Social and economic factors.

From Anthropological and Development Studies we have explored the relationship between social processes and rural settlements within agrarian societies to uncover the circumstances in which concentrated settlements arose. Netting's study suggested that social and economic aspects of society are the main reasons to live in villages:

1. Social relationships: solidarity, kinship, identification with community and community territory;

<sup>17</sup> Because of the almost inherent fragmented nature of the sites in village centres, they will frequently score low on their Physical Quality, one of the three main values in the Dutch Valuation system (Willems & Brandt 2004). The valuation will therefore rely heavily on the Intrinsic Quality. This, however, requires a good understanding of the research potential of the remains and their value in correlation with other sites, both of which depend on the local and regional context.

<sup>18</sup> Heritage map for Southeast Brabant (<http://atlas.odzob.nl/erfgoed>).

2. Social-economic relationships: cooperation in the commons;
3. Social-juridical relationships: common duties (paying taxes like tributes and tithes and common rights and duties with respect to the commons, common alderman court);
4. Social-religious relationships: confession of faith, joining common mass, worship of common saint, identification with a common saint and church territory (parish or not).

These aspects should be taken into account in the analysis of data on village formation. However, further research is required to establish potential archaeological indicators for these relationships and to devise a strategy to adequately address them.

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### 10.5 Data from historical village centres

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The study of village formation in the Netherlands in the Middle Ages suffers greatly from a lack of archaeological data from the historical villages centres. This was one of the major outcomes of our assessment. This problem is the result of a combination of factors. First, compared to the surrounding area, relatively few developments are realised in historic village centres. These centres are presently occupied and often enjoy a certain degree of legal protection when historical buildings have remained, limiting the opportunities for archaeological observations. Secondly, interventions in a village centre are often of limited size. Dependant upon the requisite set by a municipality on the size and depth of a (planned) disturbance in their zoning plan (*vrijstellingsgrens*), these developments do not frequently require archaeological research. And when excavation is required, often, only a portion of a site can be uncovered. The fragmentation is worsened by disturbances caused by subsequent occupation phases. This makes it difficult to interpret the data adequately or to assess its value.<sup>17</sup>

Archaeology in historical village centres is often complex and data fragmented, yet the case study of Warnsveld illustrates that these snippets of information obtained from small-scale excavations and observations in test

trenches and watching briefs are invaluable in reconstructing the development of a village. To be able to make use of these lesser observations and address the topic of village formation systematically, we recommend to embed it on a local level in municipal policy:

- **Municipal research agenda:** Since the National Archaeological Research Agenda stands at some distance from the decision-making process at the local level, it is important to also incorporate the topic of village formation in the local research agenda and translate it into the predictive map and regulations.
- **Historical geographical framework:** The local research agenda would benefit greatly from a historical-geographical study of the village area as it would act as a framework for interpreting (small-scale) archaeological observations and lead to a better understanding of village formation as part of the wider settlement dynamics. Moreover, it would enable to further concentrate on the predictive maps. A good example of the integration of historical information and policy can be seen in the heritage maps of Southeast Brabant.<sup>18</sup>
- **Continuity of knowledge:** Because local factors play a major role in village formation and the available data is often fragmented, it is important to maintain an overview to adequately interpret and assess the potential of the data of these small scale observations. This enables continuous synthesis of local information and up-to-date information for policy and efficient decision-making.

It is no surprise that the best information on the subject is found in villages which have a municipal archaeologist (from the nearby town), a regional archaeology advisor or a serious local history club.

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### 10.6 Specific research on village formation

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In our current archaeological heritage management system, excavations are all but development driven. As a result, the data on medieval rural settlement primarily stems from

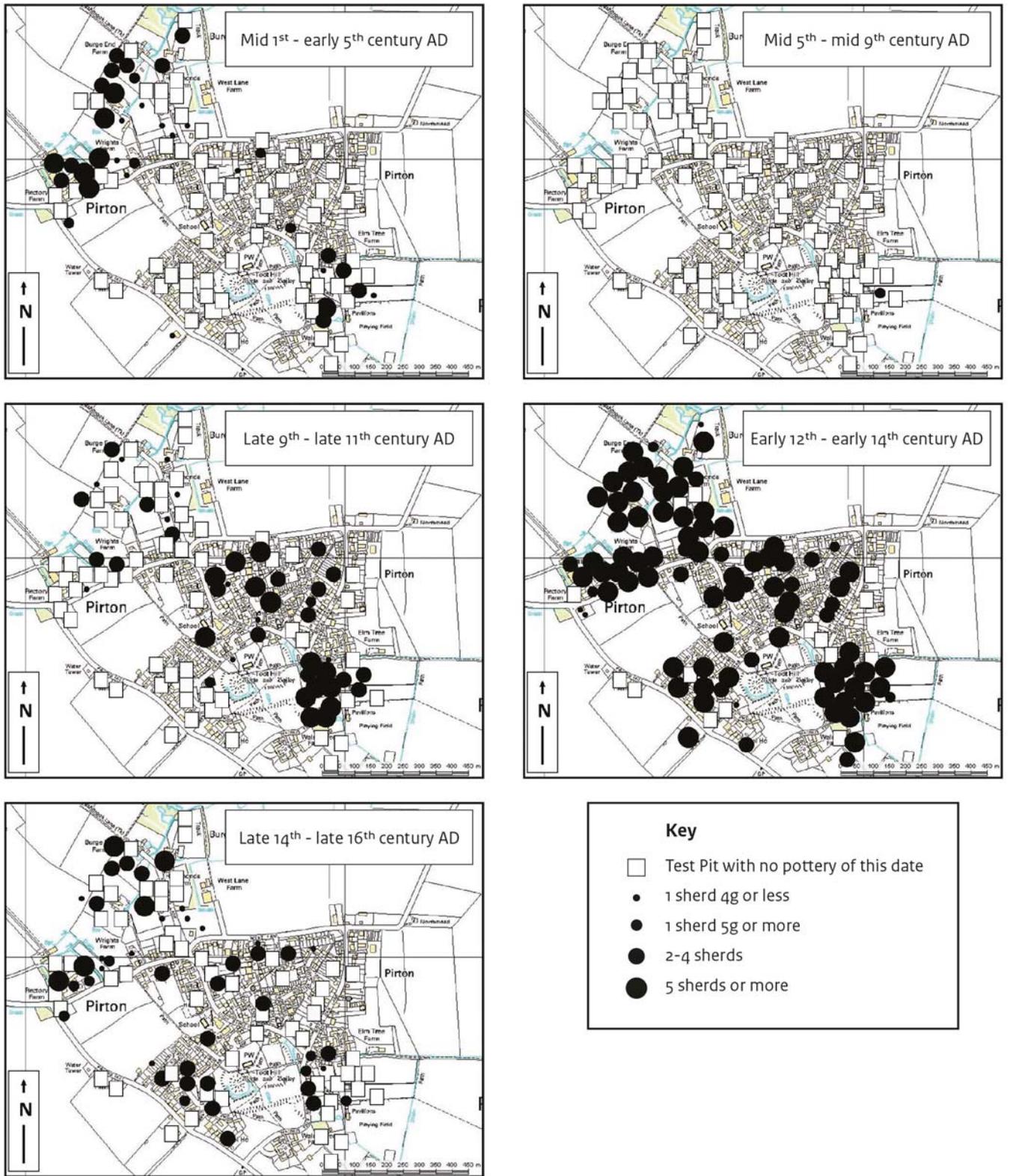


Figure 10.1 Finds from the excavated test pits in Pirton (East Anglia, UK) provide indications for the occupation of the village (area) in different periods and a diachronic development of the settlement (Lewis 2014, 326).

the countryside surrounding the historical villages, as these are the areas in which development is most frequently undertaken. Very few excavations are conducted in the residential cores. Because of this, our understanding of the development of rural settlement is mainly based on deserted settlements. This imbalance is problematic, as the relation with the development of the historical village centres often remains unclear. In order to counter this inherent bias, the research on village formation would greatly benefit from a purposeful study of historical village centres. This would provide a more representative range of sites, which enables a more comprehensive understanding of rural settlement in general and villages in particular. A good example for such research is the Currently Occupied Rural Settlements (CORS) project of the University of Cambridge. Its methodology of systematic small-scale, test pit

excavations within a historical-geographical framework is a relatively quick and easy way to reconstruct the outline of the development of these villages and farms (figure 10.1). The outcome could provide valuable input for municipal planning and heritage policy. In the Netherlands, a similar approach has, so far, only been tried on dispersed settlements (individual farm sites) in the Salland region.<sup>19</sup> Here, a hypothesis was drafted on the age of these farms based on historical geography. This was then tested by excavating test pits in the proximity of the farm. This research was very successful in confirming and refining the current settlement model of the region. As such, it can serve as an excellent example of the potential of combined historical-geographical analysis and purposeful (small-scale) archaeological interventions for advancing our understanding of the development of currently occupied rural settlements, and provide a methodology to do so.

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<sup>19</sup> Van Beek, Groenewoudt & Keunen 2009.

The bibliography is divided into two sections, one that relates to the report (§11.1) and the other that lists all the excavation reports we collected and assessed as part of the first phase of our study (§11.2).

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# Appendices

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# **Appendix 1**

## **Overview of relevant archaeological sites**

No.	Site	Size (ha)*	Settlement	Number of tofts** / contemporary	Church / graveyard	Artisanal activity	Trade / market	Mill	Tollhouse	ROM	VMEA	VMEB	VMEC	VMED	LMEA	LMEB	NTA	NTB	NTC	Intactness	Completeness	Datability	Information value	Assemblage value	Usefulness	
<b>1. Drents zandgebied</b>																										
1	Dalfsen - De Gerner Marke - 2005	4,0	●	10/1	●															3	3	2	3	2	13	
2	Diever - Kalterbroeken - 2005	2,3	●	2/1	●															2	3	2	2	2	12	
3	Dwingeloo - Heuvelenweg 34 - 2009	0,1	●	3/1																2	1	2	1	1	8	
4	Hooghalen - Waterleiding Assen-Beilen - 2013	2,7	●	9/1	●															1	1	2	2	2	8	
5	Midlaren - De Bloemert - 2003	4,8	●	44/7																3	3	3	2	2	14	
6	Norg - Esweg fase 1 - 2012	0,9	●	7/2																3	3	2	2	1	11	
7	Peize - Peizer- en Eeldermden - 2009	0,1	●	1/1																2	3	2	2	1	10	
8	Varsen - Varseneres - 2009	0,1	●	2/1																2	3	1	1	1	8	
9	Winschoten - Engelsestraat - 2010	0,1	●	2/2																1	1	2	1	1	6	
<b>2. Utrechts-Gelders zandgebied</b>																										
10	Barneveld - Harselaar West fase 2 - 2011	0,9	●	4/1																2	3	3	2	2	12	
11	Barneveld - Harselaar West-west - 2009	1,2	●	1/1																3	2	3	2	2	12	
12	Ermelo - Oude Armhemsekarweg - 2010	0,1	●	3/1																1	1	3	1	2	8	
13	Horst - Horst-Noord - 2007	0,4	●	2/1																3	2	2	2	3	12	
14	Oeken - Buurtweg - 2012	0,2	●	3/1																1	1	1	1	1	5	
15	Oene - Oene-West - 2010	0,6	●	3/2																3	3	2	1	1	12	
16	Putten - Husselenveld - 2004	2,7	●	29/4																3	2	1	3	3	12	
17	Twello - Holthuisshof - 2008	0,1	●	2/1																1	1	3	1	1	7	
18	Ugchelen - Hotel de Cantharel - 2008	0,2	●	5/1																1	1	2	1	1	6	
19	Velp - Eisweiden - 2008	0,2	●	4/1																1	1	2	1	1	6	
20	Voorhuizen - Blanckensgoed - 2007	0,8	●	4/1																1	2	2	2	2	9	
21	Wilp - De Kroon - 2012	0,1	●	3/1																1	1	1	2	1	6	
<b>3. Overijssels-Gelders zandgebied</b>																										
22	Angerlo - Kolkwijk - 2011	0,2	●	1/1																3	2	2	1	1	9	
23	Beek - Steegseweg - 2010	1,1	●	7/1	●															2	2	2	1	1	8	
24	Colmschate - Goudwesp - 2004	0,1	●	1/1																2	2	2	2	3	11	
25	Epe - Olthof Zuid - 2007	0,6	●	4/1																3	3	3	3	3	14	
26	Geesteren - Velseweg 2 - 2013	0,1	●	1/1	●															1	1	1	1	1	5	
27	Hummelo - Keppelseweg 30 - 2011	0,3	●	12/2	●															3	2	2	2	1	10	
28	Huurne - vindplaats 5 - 2005	0,6	●	5/1																2	2	2	2	2	11	
29	Laren - Zutphense weg - 2004	0,6	●	3/3																3	2	2	3	3	13	
30	Lemselo - De Hoesstie - 2004	0,1	●	4/2	●															1	1	3	2	1	8	
31	Loil - Kloosterstraat-Kapelstraat - 2002	0,1	●	1/1																1	1	2	1	3	8	
32	Lonneker - Sprakehoek - 2009	0,5	●	1/1																3	3	3	2	1	12	
33	Markelo - Noordachteres - 2003	0,6	●	1/1																2	2	2	2	2	11	
34	Meddo - Beerminkweg 7 - 2014	0,1	●	2/1	●															1	1	1	1	1	5	
35	Neede - Bonkerts Kamp - 2011	1,8	●	6/2																1	1	2	2	2	12	
36	Neede - Höfteweg - 2011	1,8	●	1/1																3	2	2	2	2	12	
37	Neede - Plantenstraat / Rutgersdijk - 2011	1,8	●	9/3	●															3	2	2	3	2	12	

No.	Site	Size* (ha.)	Settlement	Number of tofts** / contemporary	Church / graveyard	Artisanal activity	Trade / market	Mill	Tollhouse	ROM	VMA	VMEB	VMEC	WMD	LMEA	LMEB	NTA	NTB	NTC	Intactness	Completeness	Datability	Information value	Assemblage value	Usefulness
<b>3. Overijssels-Gelders zandgebied</b>																									
38	Oele - Oldemeule - 2010	0,2	●	2 / 1																1	1	1	1	7	
39	Raalte - N332 Rondweg Heeten - 2005	1,1	●	3 / 1																2	1	1	1	6	
40	Ruurlo - 't Rikkelder - 2005	0,1			●															1	1	1	2	6	
41	Steenderen - Steenderdiek - 2007	1,0	●	1 / 1		●														1	3	3	3	9	
42	Steenderen - Toldijkseweg - 2010	0,2	●	2 / 1																1	3	3	3	9	
43	Varsveld - De Borch - 2009	0,2	●	5 / 2																1	1	1	3	8	
44	Warmsveld - Abersonplein - 2009	0,1	●	1 / 1																2	2	2	3	12	
45	Wehl - Koksgoed - 2010	1,8	●	14 / 2																3	3	3	3	13	
46	Wehl - Motketel - 2010	0,8	●	2 / 1																3	3	3	3	13	
47	Wesep - Rondweg - 2008	0,4	●	1 / 1																1	2	1	1	8	
48	Winterswijk - Kottenseweg/Eelinkes - 2007	0,1	●	2 / 1																1	1	1	2	9	
49	Winterswijk - Wooldstraat 33 - 2010	0,1	●	3 / 2																1	1	1	2	9	
50	Zelhem - Vinkenamp - 2004	0,6	●	4 / 1		●														3	3	2	1	10	
<b>4. Brabants zandgebied</b>																									
51	Aarle-Rixtel - Plangebied Zonnetij 'Het Klavier' - 2011	0,3	●	2 / 2		●														3	2	2	2	12	
52	Alphen - Centrumplan - 2011	0,1	●	1 / 1																3	3	3	1	10	
53	Alphen - Molenbaan - 2003	3,3	●	10 / 2																2	1	2	2	8	
54	Bakel - Hoekendaal, deelgebied 1 - 2007	0,1		1 / 1																2	1	2	2	8	
55	Bakel - Neerakker 'De Hof' - 2008	6,0	●	5 / 5		●														3	3	3	3	15	
56	Bakel - Woonbos - 2008	0,1	●	1 / 1																1	2	2	2	8	
57	Beek en Donk - Beekse Akkers - 2006	1,3	●	7 / 2																1	2	3	3	12	
58	Bergeijk - Centrum - 2011	0,1	●	10 / 4																1	2	2	2	9	
59	Berkel-Enschot - Hoge Hoek - 2012	0,2	●	4 / 1		●														2	2	1	2	8	
60	Berkel-Enschot Enschotsebaan-Zuid 2 - 2009	5,9	●	13 / 2																3	3	3	3	15	
61	Best - Dijkstraten - 2010	4,6	●	1 / 1																2	3	2	2	12	
62	Best - Oranjestraat - 2008	0,3	●	1 / 1																3	3	3	2	14	
63	Bladel - Snieterslaan 42-44 - 2006	0,1	●	4 / 2																1	1	3	2	10	
64	Boekel - Sint Agathaplein - 2004	0,1			●															2	1	2	2	10	
65	Driessen - Vroonacker - 2010	0,6	●	5 / 3																3	3	2	2	12	
66	Eersel - Kerkebogten - 2009	7,2	●	12 / 3																3	3	3	3	15	
67	Ekkersrijt - Ter Kenemade - 2011	0,3	●	6 / 2																1	2	2	1	7	
68	Enschot - Enschotsebaan Noord - 2009	0,6	●	2 / 1																2	2	2	2	12	
69	Galder - Bollemeer - 2013	0,5	●	2 / 2																3	2	1	1	9	
70	Galder - Galderseweg 26 - 2011	0,1	●	1 / 1																2	2	1	1	9	
71	Geldrop - Genoehuis - 2004	1,7	●	4 / 2																1	2	2	2	8	
72	Ginneken - Maycretewoningen - 2008	0,1	●	1 / 1																3	2	1	3	12	
73	Grubbenvorst - De Soom - 2009	0,1	●	2 / 1																1	1	2	2	7	
74	Haaren - Wijngaert III West - 2011	1,6	●	3 / 1																2	2	2	1	9	
75	Heesch - Hoogstraat 28-30 - 2012	0,5	●	13 / 2																2	2	2	1	8	

No.	Site	Size (ha)*	Settlement (ha)*	Number of lots** / contemporary	Church / graveyard	Artisanal activity	Trade / market	Mill	Tollhouse	ROM	VMEA	VMEB	VMEC	VMED	LMEA	LMEB	NTA	NTB	NTC	Intactness	Completeness	Datability	Information Value	Assemblage Value	Usefulness
76	Herpen - St Sebastianusstraat - 2011	0,3	●	2 / 1																1	3	1	1	6	
77	Hooge Mierde - De Leeuwerik - 2008	0,1	●	4 / 1																2	2	2	2	10	
78	Horst - Veemarkt - 2009	0,1	●	3 / 1																1	2	2	2	8	
79	Hulsel - Kerkekkers - 2008	0,1	●	4 / 1																2	3	2	3	12	
80	Hunsel - Jacobsstraat - 2010	0,1	●	2 / 1																2	1	2	2	8	
81	Leende - Irisiaan tegenover nr 4 - 2009	0,1	●	1 / 1																1	1	1	1	5	
82	Melderslo - De Locht - 2009	0,1	●	1 / 1																2	3	2	2	11	
83	Merselo - Grootdorp - 2005	0,6	●	3 / 2																2	2	2	2	10	
84	Merselo - Haag 5 - 2013	0,1	●	2 / 1																1	1	1	1	5	
85	Meterik - Meterikse veld - 2006	1,4	●	5 / 2																2	3	3	3	13	
86	Milheeze - Zuidrand - 2005	0,5	●	12 / 2																1	2	2	3	11	
87	Milheeze - Merenveld - 2012	0,2	●	1 / 1																2	1	1	1	6	
88	Nedenweert - Rosveld - 2001	8,3	●	25 / 4																3	3	3	3	15	
89	Nispen - Oostmoer fase 2 - 2007	0,9	●	4 / 1																2	2	2	1	9	
90	Nistelrode - Zwarte Molen - 2004	3,0	●	24 / 6		●														3	1	3	3	12	
91	Nueneu Nueneu-West, Dubbestraat 10 - 2011	0,2	●	1 / 1																3	2	1	1	10	
92	Nuland - Nuland Oost - De Terp - 2013	0,1	●	1 / 1																1	1	1	1	5	
93	Oerle - Centrum - 2012	0,1	●	5 / 2																2	2	2	2	10	
94	Oirschot - Gasthuisstraat - 2009	0,2	●	3 / 1																2	3	2	1	10	
95	Oosterhout - De Markt - 2003	0,1	●	1 / 1																2	1	2	3	11	
96	Oosterhout - Steelhoven - 1999	1,8	●	2 / 1		●														3	2	1	2	11	
97	Oosterhout - Vrachelen 4 - 2010	14,0	●	9 / 5																3	3	3	3	13	
98	Schijf - Zoeksestraat - 2009	0,2	●	1 / 1																2	2	2	1	8	
99	Schijndel - Hoofdstraat-Groeneweg - 2003	0,1	●	n.b.p.																2	2	3	2	12	
100	Sint-Anthonis - Hoefstraat 2 - 2006	0,1	●	2 / 1		●														3	3	2	1	12	
101	Sint-Anthonis - N272/dr. Verbeecklaan - 2007	0,2	●	1 / 1																2	1	2	1	9	
102	Sint-Michielsgestel - Meander Assendelft - 2008	3,5	●	2 / 1																3	2	2	2	11	
103	Sint-Michielsgestel - Theerestraat 105 - 2014	0,2	●	1 / 1																1	2	2	2	7	
104	Someren - Waterdael III - 2007	14,0	●	55 / 6																3	3	2	3	14	
105	Son en Breugel - Ekkersrijt 3301 Post NL - 2012	0,4	●	1 / 1																2	2	2	1	8	
106	Sterksel - Averbodeweg 2 en 4 - 2008	0,7	●	2 / 2																3	3	3	3	15	
107	Sterksel - Weiakkers - 2008	2,2	●	3 / 1																2	2	2	2	11	
108	Tilburg - HaVeP - 2010	3,8	●	12 / 2		●														2	3	2	2	13	
109	Valkenswaard - Dommelseweg 28a en 30 - 2008	0,4	●	2 / 1																2	2	2	2	10	
110	Veghel - Scheifelaar II - 2010	2,4	●	3 / 1																2	2	2	1	8	
111	Veldhoven - Habraken - 2010	1,7	●	3 / 3																2	2	2	2	10	
112	Westerhoven - Sint Servatius - Meidoornstraat - 2013	0,1	●	3 / 1																2	2	2	1	9	
113	Woensel - Oude Torenstraat - 2007	0,1	●	2 / 2																1	2	2	3	9	
114	Zeeland - Voederheil II - 2012	0,5	●	2 / 1																3	2	2	1	9	

4. Brabants zandgebied

No.	Site	Size (ha)*	Settlement	Number of tofts** / contemporary	Church / graveyard	Artisanal activity	Trade / market	Mill	Tollhouse	ROM	VMEA	VMEB	VMEC	VMED	LMEA	LMEB	NTA	NTB	NTC	Intactness	Completeness	Datability	Information value	Assemblage value	Usefulness
<b>5. Limburgs zandgebied</b>																									
115	Groesbeek - Sporenbeek - 2007	0,1	●	4/1																1	1	3	1	1	7
116	Merum - Stradsrandzone - Zuid - 2011	0,7	●	1/1																1	1	1	1	1	5
117	Wijchen - Meester van Coothlaan/ Valendrieseeweg - 2004	0,1	●	n.b.p.		●														1	1	2	1	3	8
118	Woezik - Sportpark - 2007	0,1	●	5/1																1	1	2	1	3	8
<b>6. Limburgs lössgebied</b>																									
119	Arensgehout - Diepestraat - 2008	0,6	●	1/1																2	2	2	2	2	10
120	Eijsden - Breusterhof - 2008	0,2	●	3/3		●														2	2	3	3	3	12
<b>7. Fries-Gronings kleigebied</b>																									
121	Adorp - Wierum - 2004	0,1	●	n.b.p.																1	2	2	3	1	9
122	Beetgummolen - Alddyk - 2010	0,1	●	2/1																3	3	2	1	1	12
123	Brantgum - Ids Wiersmastrijtte - 2007	0,1	●	n.b.p.																1	1	2	2	2	8
124	Easterein - Wynserdyk 53 - 2008	0,1	●	2/1																2	2	2	1	1	9
125	Goutum - Oude Diep - 2009	0,1	●	2/1		●														1	1	2	1	1	6
126	Hallum - Hellema - 2007	0,1	●	7/5																2	2	3	2	2	12
127	Kimswerd - N31 Kimswerderlaan - 2006	0,1	●	7/1		●														2	1	2	2	2	9
128	Lalleweer - Kobeetjedraai - 2009	0,1	●	n.b.p.																1	1	1	2	1	6
129	Maarhuizen - Sijboltsheerd - 2005	0,5	●	2/1																1	1	1	1	1	5
130	Tzummarum - Rotonde - 2005	0,1	●	3/1																1	1	2	1	1	6
<b>8. Noordhollands kleigebied</b>																									
131	Blokker - Westerblokker - 2007	0,1	●	8/2																1	2	3	3	3	12
132	Bovenkarspel - Oude Postkantoor - 2010	0,2	●	2/2																1	1	2	2	1	7
133	Oostwoud - Oostwouderdorpstraat 69 - 2013	0,1	●	4/2																2	2	2	2	1	9
134	Spanbroek - Spanbroekerweg 120 - 2013	0,1	●	3/1																1	1	2	2	1	7
135	Warmenhuizen - Stationsstraat; Terp Hartendorp - 2004	0,1	●	1/1																1	1	3	2	2	9
136	Westerblokker - Westerblokker 74 - 2011	0,1	●	2/1																1	3	3	1	1	11
137	Wognum - Kerkstraat 11 - 2012	0,1	●	4/2																1	1	2	2	1	7
138	Zwaag - Dorpsstraat 66 - 2005	0,1	●	3/1																2	2	2	3	3	12
139	Zwaag - Dorpsstraat 176 - 2013	0,1	●	2/1																1	1	2	1	2	7
140	Zwaag - Dorpsstraat 186 - 2009	0,1	●	1/1																1	1	2	2	3	9
<b>9. Fries veengebied</b>																									
141	Kuinre - Overhavendijk - 2004	0,1	●	7/4																2	2	2	2	2	10
<b>10. Flevolands kleigebied</b>																									
142	Urk - Wijk 6-28 - 2004	0,1	●	1/1																1	1	1	2	2	7

No.	Site	Size (ha) *	Settlement	Number of lots** / contemporary	Church / graveyard	Artisanal activity	Trade / market	Mill	Tollhouse	ROM	VMEA	VMEB	VMEC	VMED	LMEA	LMEB	NTA	NTB	NTC	Infactress	Completeness	Datality	Information Value	Assemblage Value	Usefulness
<b>11. Hollands duingebied</b>																									
143	Katwijk - De Zanderij - Westerbaan - 2008	2,2	●	10/4																1	1	3	2	2	9
144	Limmen - De Krocht - 2003	1,2	●	4/4		●	●													3	3	3	3	3	15
145	Maasdijk - Honderdland - 2006	0,2	●	1/1																3	3	3	3	3	15
146	Naaldwijk - Holland College - 2004	0,4	●	5/2																2	1	2	3	3	9
147	Naaldwijk - Hoogeland - 2008	1,8	●	n.b.p.																1	2	2	3	3	9
148	Voorschoten - HEMA-terrein - 2004	0,2	●	2/1																1	1	2	3	3	8
149	Wateringen - Juliahof - 2006	0,7	●	1/1																1	1	1	3	3	7
150	Wijk aan Zee - Julianaplein - 2005	0,1	●	n.b.p.		●														1	1	2	2	2	7
<b>12. Hollands veengebied</b>																									
151	Amstelveen - Dorpsstraat - 2011	0,1	●	n.b.p.																1	1	2	2	1	7
152	Den Hoorn - Schipluiden - 2003	1,0	●	9/2																1	1	2	2	2	8
153	Giessen-Oudekerk NH-kerk, Oudkerksweg 20 - 2005	0,1	●	n.b.p.		●														2	2	2	2	2	10
154	Heiloo - Stationsplein - 2005	0,1	●	3/1																1	1	2	2	2	7
155	Hoorbaar - Lage Giessen - 2012	0,1	●	2/1																3	2	3	1	1	10
156	Nieuwkoop - Dorpsstraat/Regthuysplein - 2012	0,1	●	6/4																2	2	2	2	1	9
157	Pijnacker - Overgauwsweg 86 - 2005	0,1	●	2/1																1	1	2	1	1	6
158	Schipluiden - Harnaschpolder (AHR 02) - 2003	1,0	●	9/4																1	1	2	2	2	8
159	Zoetermeer - Dorpsstraat 155 - 2012	0,1	●	15/9																1	1	2	3	1	9
<b>13. Utrechts-Gelders rivierengebied</b>																									
160	Aalst - Hamblokestraat 12 - 2008	0,1	●	3/1																2	1	2	2	1	8
161	Andelst - Kerkstraat - 2008	0,1	●	2/1																1	1	2	3	3	8
162	Beesd - Jeugdlaan - 2008	0,2	●	1/1																1	1	2	1	1	6
163	Bergambacht - N210/C. G. Roosweg - 2006	0,5	●	6/6		●														1	1	2	3	3	9
164	Bergharen - Dorpsstraat, visvijvers - 2005	0,5	●	2/1																1	1	1	3	3	7
165	Bergharen - De Weem - 2007	0,1	●	3/1																1	1	2	3	3	8
166	Beuningen - De Asdonck - 2008	0,1	●	2/1																2	1	2	1	1	8
167	Bokhoven - Graaf Engelbertstraat - 2009	0,1	●	2/1																2	2	2	1	1	8
168	Cuijk - Groot Heiligenberg - 2005	0,5	●	1/1																2	1	3	2	2	10
169	Cuijk - Heeswijkse Kampen vindplaats 4 - 2007	0,7	●	1/1																1	1	2	3	3	8
170	Cuijk - Heeswijkse Kampen vindplaats 7 - 2007	2,7	●	1/1																1	1	2	3	3	8
171	Cuijk - Route 1 Accent / De Beijerd en 't Riet - 2004	1,6	●	7/2																2	1	2	2	2	10
172	Duiven - Duiven, Ploen Zuid - 2010	1,2	●	1/1																2	1	3	1	1	9
173	Genderen - Weteringshof - 2012	0,1	●	1/1																2	1	3	1	1	8
174	Harmelen - Haanwijk 13-15 - 2005	0,1	●	1/1																1	1	2	1	1	6
175	Houten - De Stenen Poort (paardenwei) - 2013	0,3	●	1/1																2	1	2	1	1	7
176	Kapel-Avezaath - Muggenborch - 2008	0,3	●	1/1																2	2	3	2	2	12
177	Lent - Dorpsplein - 2004	0,1	●	2/1		●														1	1	1	3	3	7

No.	Site	Size (ha)*	Settlement	Number of tofts** / contemporary	Church / graveyard	Artisanal activity	Trade / market	Mill	Tollhouse	ROM	VMEA	VMEB	VMEC	VMED	VMEA	LMEB	LMEA	LMEB	LMEA	NTA	NTB	NTC	Intactness	Completeness	Datability	Information value	Assemblage value	Usefulness
<b>13. Utrechts-Gelders rivierengebied</b>																												
178	Lent - Lentse Schoolstraat - 2011	0,1	●	2/2	●																		1	2	3	3	10	
179	Lent - Lentseveld, Waalsprong - 2006	0,7	●	2/1																			2	3	2	3	12	
180	Leuth - Kerkplein - 2004	0,3	●	8/4	●																		1	2	2	3	9	
181	Lith - Herenengstraat - 2008	0,1	●	1/1																			2	3	2	3	12	
182	Meteren - De Plantage - 2010	6,4	●	1/1																			2	2	1	1	7	
183	Nieuwegein - Bossenwaard -2013	0,1	●	1/1																			3	3	1	1	10	
184	Rossum - De Groene Linde - 2005	0,1	●	n.b.p.																			1	2	2	2	9	
185	Schoonewoerd - Overheicop - 2010	0,3	●	2/1																			1	2	1	1	6	
186	Slijk-Ewijk - Hoog Essen - 2010	0,3	●	2/1																			1	1	1	3	7	
187	Zederik - Peperstraat - 2009	0,2	●	8/2		●																	2	3	3	1	11	
<b>14. Zeeuws kleigebied</b>																												
188	Oostvoorne - Kerkplein - 2011	0,1	●	n.b.p.																			1	2	1	1	7	
189	Ouddorp - de Smalle Einde - 2008	0,3	●	3/1																			1	2	1	1	6	
190	Serooskerke - Rijksweg N57 - 2007	2,8	●	2/1																			2	2	2	3	10	

# Appendix II

## Villages with (possible) medieval origins

Courtesy of R. van Lanen

This basic overview represents present-day villages in the Netherlands which could have medieval origins based on their geographical location (Van Lanen e.a. *in prep.*). This list is not complete nor verified with historical sources or archaeological observations.

No.	Village	Municipality	Province
<b>1. Drents zandgebied</b>			
1	Aalden	Coevorden	Drenthe
2	Achterste-Erm	Coevorden	Drenthe
3	Agodorp	Vlagtwedde	Groningen
4	Aldtsjerk	Tytsjerksteradiel	Friesland
5	Altena	Noordenveld	Drenthe
6	Amen	Aa en Hunze	Drenthe
7	Anderen	Aa en Hunze	Drenthe
8	Ane	Hardenberg	Overijssel
9	Ankum	Dalfsen	Overijssel
10	Anloo	Aa en Hunze	Drenthe
11	Annen	Aa en Hunze	Drenthe
12	Arrien	Ommen	Overijssel
13	Augustinusga	Achtkarspelen	Friesland
14	Baars	Steenwijkerland	Overijssel
15	Bakkeveen	Opsterland	Friesland
16	Balinge	Midden-Drenthe	Drenthe
17	Balloo	Aa en Hunze	Drenthe
18	Barlage	Stadskanaal	Groningen
19	Basse	Steenwijkerland	Overijssel
20	Basserveld	Steenwijkerland	Overijssel
21	Beerta	Oldambt	Groningen
22	Beetsterzwaag	Opsterland	Friesland
23	Beinsdorp	Vlagtwedde	Groningen
24	Bellingwolde	Bellingwedde	Groningen
25	Benneveld	Coevorden	Drenthe
26	Bikkershorn	Oldambt	Groningen
27	Blijham	Bellingwedde	Groningen
28	Boerakker	Marum	Groningen
29	Bontebok	Heerenveen	Friesland
30	Boornbergum	Smallingerland	Friesland
31	Borger	Borger-Odoorn	Drenthe
32	Bourtange	Vlagtwedde	Groningen
33	Broeksterwoude	Dantumadiel	Friesland
34	Bronneger	Borger-Odoorn	Drenthe
35	Bronsvveen	Pekela	Groningen
36	Bunne	Tynaarlo	Drenthe
37	Burgum	Tytsjerksteradiel	Friesland

No.	Village	Municipality	Province
38	Collendoorn	Hardenberg	Overijssel
39	Dalen	Coevorden	Drenthe
40	Damwoude	Dantumadiel	Friesland
41	De Groeve	Tynaarlo	Drenthe
42	De Holm	Leek	Groningen
43	De Maten	Vlagtwedde	Groningen
44	De Pol	Noordenveld	Drenthe
45	De Pol	Steenwijkerland	Overijssel
46	De Tike	Smallingerland	Friesland
47	De Wijk	De Wolden	Drenthe
48	De Wilp	Marum	Groningen
49	Deurze	Aa en Hunze	Drenthe
50	Diever	Westerveld	Drenthe
51	Dieverbrug	Westerveld	Drenthe
52	Diffelen	Hardenberg	Overijssel
53	Diphooorn	Coevorden	Drenthe
54	Doezum	Grootegast	Groningen
55	Doldersum	Westerveld	Drenthe
56	Donderen	Tynaarlo	Drenthe
57	Driesum	Dantumadiel	Friesland
58	Drijber	Midden-Drenthe	Drenthe
59	Drogeham	Achtkarspelen	Friesland
60	Drouwen	Borger-Odoorn	Drenthe
61	Dwingeloo	Westerveld	Drenthe
62	Eastermar	Tytsjerksteradiel	Friesland
63	Echten	De Wolden	Drenthe
64	Eelde	Tynaarlo	Drenthe
65	Eelderwolde	Tynaarlo	Drenthe
66	Eemster	Westerveld	Drenthe
67	Een	Noordenveld	Drenthe
68	Ees	Borger-Odoorn	Drenthe
69	Eese	Steenwijkerland	Overijssel
70	Eext	Aa en Hunze	Drenthe
71	Eextahaven	Oldambt	Groningen
72	Eexterzandvoort	Aa en Hunze	Drenthe
73	Ekehaar	Aa en Hunze	Drenthe
74	Ellersinghuizen	Vlagtwedde	Groningen
75	Elp	Midden-Drenthe	Drenthe
76	Erica	Emmen	Drenthe
77	Erm	Coevorden	Drenthe
78	Essen	Haren	Groningen
79	Eursinge	Midden-Drenthe	Drenthe
80	Eursinge	De Wolden	Drenthe

No.	Village	Municipality	Province
81	Exloo	Borger-Odoorn	Drenthe
82	Finsterwolde	Oldambt	Groningen
83	Fluitenbergh	Hoogeveen	Drenthe
84	Folgeren	Smallingerland	Friesland
85	Foxwolde	Noordenveld	Drenthe
86	Froombosch	Slochteren	Groningen
87	Garminge	Midden-Drenthe	Drenthe
88	Gasselte	Aa en Hunze	Drenthe
89	Gasteren	Aa en Hunze	Drenthe
90	Gieten	Aa en Hunze	Drenthe
91	Glimmen	Haren	Groningen
92	Grolloo	Aa en Hunze	Drenthe
93	Grootegast	Grootegast	Groningen
94	Gytsjerk	Tytsjerksteradiel	Friesland
95	Haren	Haren	Groningen
96	Harenermolen	Haren	Groningen
97	Harkema	Achtkarspelen	Friesland
98	Harkstede	Slochteren	Groningen
99	Haulerwijk	Ooststellingwerf	Friesland
100	Hees	De Wolden	Drenthe
101	Heiligerlee	Oldambt	Groningen
102	Hellum	Slochteren	Groningen
103	Hemrik	Opsterland	Friesland
104	Het Peebos	Grootegast	Groningen
105	Hofte	Stadskanaal	Groningen
106	Holte	Stadskanaal	Groningen
107	Holthe	Midden-Drenthe	Drenthe
108	Hurdegaryp	Tytsjerksteradiel	Friesland
109	Ijhorst	Staphorst	Overijssel
110	Jagerswijk	Hoogezand-Sappemeer	Groningen
111	Jipsinghuizen	Vlagtwedde	Groningen
112	Jistrum	Tytsjerksteradiel	Friesland
113	Kallenkote	Steenwijkerland	Overijssel
114	Katlijk	Heerenveen	Friesland
115	Koekange	De Wolden	Drenthe
116	Kollumerzwaag	Kollumerland en Nieuwkruisland	Friesland
117	Kootstertille	Achtkarspelen	Friesland
118	Kornhorn	Grootegast	Groningen
119	Kortehemmen	Smallingerland	Friesland
120	Kortezwaag	Opsterland	Friesland
121	Laaghalen	Midden-Drenthe	Drenthe
122	Lageland	Slochteren	Groningen

No.	Village	Municipality	Province
123	Langelo	Noordenveld	Drenthe
124	Laude	Vlagtwedde	Groningen
125	Leek	Leek	Groningen
126	Leggeloo	Westerveld	Drenthe
127	Lettelbert	Leek	Groningen
128	Leutingewolde	Noordenveld	Drenthe
129	Lhee	Westerveld	Drenthe
130	Lheebroek	Westerveld	Drenthe
131	Lieveren	Noordenveld	Drenthe
132	Lippenhuizen	Opsterland	Friesland
133	Loon	Assen	Drenthe
134	Lucaswolde	Marum	Groningen
135	Lutjegast	Grootegast	Groningen
136	Makkum	Midden-Drenthe	Drenthe
137	Marijenkampen	Steenwijkerland	Overijssel
138	Marum	Marum	Groningen
139	Matsloot	Noordenveld	Drenthe
140	Meeden	Menterwolde	Groningen
141	Meppen	Coevorden	Drenthe
142	Middelbert	Groningen	Groningen
143	Middendorp	Emmen	Drenthe
144	Midlaren	Tynaarlo	Drenthe
145	Midwolda	Oldambt	Groningen
146	Midwolde	Leek	Groningen
147	Mildam	Heerenveen	Friesland
148	Molenend	Tytsjerksteradiel	Friesland
149	Molenhoek	Steenwijkerland	Overijssel
150	Molenstad	Westerveld	Drenthe
151	Morige	Bellingwedde	Groningen
152	Muntendam	Menterwolde	Groningen
153	Napels	Oldambt	Groningen
154	Niebert	Marum	Groningen
155	Niekerk	Grootegast	Groningen
156	Nietap	Noordenveld	Drenthe
157	Nieuwehorne	Heerenveen	Friesland
158	Nieuweschoot	Heerenveen	Friesland
159	Nieuw-Roden	Noordenveld	Drenthe
160	Nijega	Smallingerland	Friesland
161	Nijensleek	Westerveld	Drenthe
162	Nijlande	Aa en Hunze	Drenthe
163	Noardburgum	Tytsjerksteradiel	Friesland
164	Noordbarge	Emmen	Drenthe
165	Noordbroek	Menterwolde	Groningen

No.	Village	Municipality	Province
166	Noordlaren	Haren	Groningen
167	Noord-Sleen	Coevorden	Drenthe
168	Noordwolde	Weststellingwerf	Friesland
169	Nuis	Marum	Groningen
170	Odoorn	Borger-Odoorn	Drenthe
171	Oentsjerk	Tytsjerksteradiel	Friesland
172	Oldekerk	Grootegast	Groningen
173	Oldemarkt	Steenwijkerland	Overijssel
174	Oldendiever	Westerveld	Drenthe
175	Olterterp	Opsterland	Friesland
176	Ommen	Ommen	Overijssel
177	Onna	Steenwijkerland	Overijssel
178	Onnen	Haren	Groningen
179	Onstwedde	Stadskanaal	Groningen
180	Oosterhesselen	Coevorden	Drenthe
181	Oosterwijk	De Wolden	Drenthe
182	Oostwold	Leek	Groningen
183	Opeinde	Smallingerland	Friesland
184	Opende	Grootegast	Groningen
185	Opende-Oost	Grootegast	Groningen
186	Orvelte	Midden-Drenthe	Drenthe
187	Oude Pekela	Pekela	Groningen
188	Pasop	Leek	Groningen
189	Paterswolde	Tynaarlo	Drenthe
190	Peest	Noordenveld	Drenthe
191	Peize	Noordenveld	Drenthe
192	Peizermade	Noordenveld	Drenthe
193	Peizerweg	Groningen	Groningen
194	Peperga	Weststellingwerf	Friesland
195	Pesse	Hoogeveen	Drenthe
196	Pikveld	Coevorden	Drenthe
197	Rhederbrug	Bellingwedde	Groningen
198	Rheeze	Hardenberg	Overijssel
199	Rinsumageest	Dantumadiel	Friesland
200	Roderwolde	Noordenveld	Drenthe
201	Rogat	Meppel	Drenthe
202	Rolde	Aa en Hunze	Drenthe
203	Roodkerk	Dantumadiel	Friesland
204	Roswinkel	Emmen	Drenthe
205	Rottevalle	Smallingerland	Friesland
206	Ruinen	De Wolden	Drenthe
207	Ruischerbrug	Groningen	Groningen
208	Ruiten	Slochteren	Groningen

No.	Village	Municipality	Province
209	Sandebuurt	Noordenveld	Drenthe
210	Sappemeer	Hoogezand-Sappemeer	Groningen
211	Sappemeer-Noord	Hoogezand-Sappemeer	Groningen
212	Scharmer	Slochteren	Groningen
213	Scheemdermeer	Oldambt	Groningen
214	Schelfshorst	Tynaarlo	Drenthe
215	Schildwolde	Slochteren	Groningen
216	Schipborg	Aa en Hunze	Drenthe
217	Schoonebeek	Emmen	Drenthe
218	Schoonoord	Coevorden	Drenthe
219	Sebaldeburen	Grootegast	Groningen
220	Sellingen	Vlagtwedde	Groningen
221	Siddeburen	Slochteren	Groningen
222	Sint Vitusholt	Oldambt	Groningen
223	Sleen	Coevorden	Drenthe
224	Slochteren	Slochteren	Groningen
225	Smeerling	Stadskanaal	Groningen
226	Spijkerboor	Aa en Hunze	Drenthe
227	Stakenborg	Vlagtwedde	Groningen
228	Staphorst	Staphorst	Overijssel
229	Steenbergen	Noordenveld	Drenthe
230	Steendam	Slochteren	Groningen
231	Steenwijkerwold	Steenwijkerland	Overijssel
232	Stegeren	Ommen	Overijssel
233	Sterenborg	Stadskanaal	Groningen
234	Stootshom	Menterwolde	Groningen
235	Sumar	Tytsjerksteradiel	Friesland
236	Surhuisterveen	Achtkarspelen	Friesland
237	Surhuizum	Achtkarspelen	Friesland
238	Tange	Stadskanaal	Groningen
239	Ter Apel	Vlagtwedde	Groningen
240	Ter Idzard	Weststellingwerf	Friesland
241	Ter Maarsch	Stadskanaal	Groningen
242	Ter Wupping	Stadskanaal	Groningen
243	Thij	Steenwijkerland	Overijssel
244	Tjuchem	Slochteren	Groningen
245	Tolbert	Leek	Groningen
246	Triemen	Kollumerland en Nieuwkruisland	Friesland
247	Tuk	Steenwijkerland	Overijssel
248	Tussenloegen	Menterwolde	Groningen
249	Twijzel	Achtkarspelen	Friesland

No.	Village	Municipality	Province
250	Twijzelerheide	Achtkarspelen	Friesland
251	Tynaarlo	Tynaarlo	Drenthe
252	Uffelte	Westerveld	Drenthe
253	Uiterburen	Menterwolde	Groningen
254	Ureterp	Opsterland	Friesland
255	Valthermussel	Borger-Odoorn	Drenthe
256	Varsen	Ommen	Overijssel
257	Veele	Vlagtwedde	Groningen
258	Veenhuizen	Menterwolde	Groningen
259	Veenklooster	Kollumerland en Nieuwkruisland	Friesland
260	Veenwouden	Dantumadiel	Friesland
261	Vlagtwedde	Vlagtwedde	Groningen
262	Vledder	Westerveld	Drenthe
263	Vledderhuizen	Stadskanaal	Groningen
264	Vosseberg	Stadskanaal	Groningen
265	Vries	Tynaarlo	Drenthe
266	Vriescheloo	Bellingwedde	Groningen
267	Wachtum	Coevorden	Drenthe
268	Wagenborgen	Delfzijl	Groningen
269	Wapse	Westerveld	Drenthe
270	Wapserveen	Westerveld	Drenthe
271	Wedde	Bellingwedde	Groningen
272	Wedderheide	Bellingwedde	Groningen
273	Wedderveer	Bellingwedde	Groningen
274	Weerdinge	Emmen	Drenthe
275	Wessinghuizen	Stadskanaal	Groningen
276	Westdorp	Borger-Odoorn	Drenthe
277	Westeind	Menterwolde	Groningen
278	Westeinde	Westerveld	Drenthe
279	Westenesch	Emmen	Drenthe

No.	Village	Municipality	Province
280	Westerbork	Midden-Drenthe	Drenthe
281	Westergeest	Kollumerland en Nieuwkruisland	Friesland
282	Westerlee	Oldambt	Groningen
283	Westervelde	Noordenveld	Drenthe
284	Westlaren	Tynaarlo	Drenthe
285	Wijnjewoude	Opsterland	Friesland
286	Wijster	Midden-Drenthe	Drenthe
287	Winde	Tynaarlo	Drenthe
288	Winschoten	Oldambt	Groningen
289	Wittelte	Westerveld	Drenthe
290	Wolfsbarg	Hoogezand-Sappemeer	Groningen
291	Wollinghuizen	Vlagtwedde	Groningen
292	Wouterswoude	Dantumadiel	Friesland
293	Yde	Tynaarlo	Drenthe
294	Zandberg	Stadskanaal	Groningen
295	Zandstroom	Bellingwedde	Groningen
296	Zeege	Tynaarlo	Drenthe
297	Zeijen	Tynaarlo	Drenthe
298	Zevenhuizen	Leek	Groningen
299	Zuidbarg	Emmen	Drenthe
300	Zuidbroek	Menterwolde	Groningen
301	Zuiderveen	Oldambt	Groningen
302	Zuidlaren	Tynaarlo	Drenthe
303	Zuidvelde	Noordenveld	Drenthe
304	Zuidwolde	De Wolden	Drenthe
305	Zwagerbosch	Kollumerland en Nieuwkruisland	Friesland
306	Zweeloo	Coevorden	Drenthe
307	Zwiggelte	Midden-Drenthe	Drenthe
308	Zwinderen	Coevorden	Drenthe

No.	Village	Municipality	Province
<b>2. Utrechts-Gelderse zandgebied</b>			
309	Achterberg	Rhenen	Utrecht
310	Achternveld	Leusden	Utrecht
311	Amerongen	Utrechtse Heuvelrug	Utrecht
312	Ankeveense Rade	Wijdmeren	N-Holland
313	Appel	Nijkerk	Gelderland
314	Appen	Voorst	Gelderland
315	Asschat	Leusden	Utrecht
316	Austerlitz	Zeist	Utrecht
317	Beekbergen	Apeldoorn	Gelderland
318	Beemte	Apeldoorn	Gelderland
319	Benekom	Ede	Gelderland
320	Blaricum	Blaricum	N-Holland
321	Blauwkapel	De Bilt	Utrecht
322	Boeschoten	Barneveld	Gelderland
323	Bosch en Duin	Zeist	Utrecht
324	Bovenstreek	Oldebroek	Gelderland
325	Brummen	Brummen	Gelderland
326	Bunschoten	Bunschoten	Utrecht
327	Busseloo	Voorst	Gelderland
328	Buurtsdijk	Amersfoort	Utrecht
329	Cortenoever	Brummen	Gelderland
330	De Brand	Amersfoort	Utrecht
331	De Ginkel	Ede	Gelderland
332	De Glind	Barneveld	Gelderland
333	De Heuvels	Kampen	Overijssel
334	De Roskam	Kampen	Overijssel
335	De Steeg	Rheden	Gelderland
336	De Vecht	Voorst	Gelderland
337	De Veenhuizen	Nijkerk	Gelderland
338	De Wijk	Voorst	Gelderland
339	De Zande	Kampen	Overijssel
340	Doesburgerbuurt	Ede	Gelderland
341	Doorn	Utrechtse Heuvelrug	Utrecht
342	Doornspijk	Elburg	Gelderland
343	Doornsteeg	Nijkerk	Gelderland
344	Doorwerth	Renkum	Gelderland
345	Driebergen	Utrechtse Heuvelrug	Utrecht
346	Driedorp	Nijkerk	Gelderland
347	Duinen	Harderwijk	Gelderland
348	Dustervoorde	Voorst	Gelderland
349	Eekt	Oldebroek	Gelderland
350	Eembrugge	Baarn	Utrecht

No.	Village	Municipality	Province
351	Eemdijk	Bunschoten	Utrecht
352	Eemnes	Eemnes	Utrecht
353	Eerbeek	Brummen	Gelderland
354	Elburg	Elburg	Gelderland
355	Ellecom	Rheden	Gelderland
356	Elspeet	Nunspeet	Gelderland
357	Elst	Rhenen	Utrecht
358	Empe	Brummen	Gelderland
359	Emst	Epe	Gelderland
360	Esveld	Barneveld	Gelderland
361	Frankrijk	Harderwijk	Gelderland
362	Garderbroek	Barneveld	Gelderland
363	Garderen	Barneveld	Gelderland
364	Gietelo	Voorst	Gelderland
365	Gortel	Epe	Gelderland
366	Groenekan	De Bilt	Utrecht
367	Hall	Brummen	Gelderland
368	Harselaar	Barneveld	Gelderland
369	Hattem	Hattem	Gelderland
370	Heerde	Heerde	Gelderland
371	Heveadorp	Renkum	Gelderland
372	Hierden	Harderwijk	Gelderland
373	Hoenderloo	Apeldoorn	Gelderland
374	Hoewelaken	Nijkerk	Gelderland
375	Hoge Enk	Elburg	Gelderland
376	Hogeweg	Kampen	Overijssel
377	Holk	Nijkerk	Gelderland
378	Holkerveen	Nijkerk	Gelderland
379	Hollandsche Rading	De Bilt	Utrecht
380	Hoogland	Amersfoort	Utrecht
381	Hooglanderveen	Amersfoort	Utrecht
382	Hoorn	Heerde	Gelderland
383	Horst	Ermelo	Gelderland
384	Hulshorst	Nunspeet	Gelderland
385	Kamperveen	Kampen	Overijssel
386	Klaarwater	Nijkerk	Gelderland
387	Kootwijk	Barneveld	Gelderland
388	Kortenhoef	Wijdmeren	N-Holland
389	Koudhoorn	Putten	Gelderland
390	Laag-Soeren	Rheden	Gelderland
391	Laareind	Rhenen	Utrecht
392	Lage-Vuursche	Baarn	Utrecht
393	Laren	Laren	N-Holland

No.	Village	Municipality	Province
394	Leersum	Utrechtse Heuvelrug	Utrecht
395	Leusden-Zuid	Leusden	Utrecht
396	Leuvenheim	Brummen	Gelderland
397	Lieren	Apeldoorn	Gelderland
398	Loenen	Apeldoorn	Gelderland
399	Lunteren	Ede	Gelderland
400	Maarn	Utrechtse Heuvelrug	Utrecht
401	Maarsbergen	Utrechtse Heuvelrug	Utrecht
402	Maartensdijk	De Bilt	Utrecht
403	Manen	Ede	Gelderland
404	Marle	Olst-Wijhe	Overijssel
405	Meerveld	Apeldoorn	Gelderland
406	Meulunteren	Ede	Gelderland
407	Muiderberg	Muiden	N-Holland
408	Musschendorp	Leusden	Utrecht
409	Nederwoud	Ede	Gelderland
410	Nieuw Loosdrecht	Wijdmeren	N-Holland
411	Nieuw-Milligen	Apeldoorn	Gelderland
412	Nieuwstad	Elburg	Gelderland
413	Nijbroek	Voorst	Gelderland
414	Nijkerkerveen	Nijkerk	Gelderland
415	Noordeinde	Oldebroek	Gelderland
416	Oeken	Brummen	Gelderland
417	Oene	Epe	Gelderland
418	Oldebroek	Oldebroek	Gelderland
419	Oostendorp	Elburg	Gelderland
420	Oosterhuizen	Apeldoorn	Gelderland
421	Otterlo	Ede	Gelderland
422	Ouwendorp	Barneveld	Gelderland
423	Overwoud	Ede	Gelderland
424	Renkum	Renkum	Gelderland
425	Renswoude	Renswoude	Utrecht
426	Rhenen	Rhenen	Utrecht
427	Rhienderen	Brummen	Gelderland
428	Rijsenburg	Utrechtse Heuvelrug	Utrecht
429	Scherpenzeel	Scherpenzeel	Gelderland
430	Schutterhoef	Leusden	Utrecht
431	's-Graveland	Wijdmeren	N-Holland

No.	Village	Municipality	Province
432	Slichtenhorst	Nijkerk	Gelderland
433	Soestdijk	Soest	Utrecht
434	Soesterberg	Soest	Utrecht
435	Spakenburg	Bunschoten	Utrecht
436	Spankeren	Rheden	Gelderland
437	Stoutenburg	Leusden	Utrecht
438	Stoutenburg Noord	Amersfoort	Utrecht
439	Stroe	Barneveld	Gelderland
440	't Harde	Elburg	Gelderland
441	't Woud	Nijkerk	Gelderland
442	Terschuur	Barneveld	Gelderland
443	Terwolde	Voorst	Gelderland
444	Teuge	Voorst	Gelderland
445	Tonsel	Ermelo	Gelderland
446	Twello	Voorst	Gelderland
447	Uddel	Apeldoorn	Gelderland
448	Ugchelen	Apeldoorn	Gelderland
449	Vaassen	Epe	Gelderland
450	Vierhouten	Nunspeet	Gelderland
451	Voorst	Voorst	Gelderland
452	Voorthuizen	Barneveld	Gelderland
453	Wageningen-Hoog	Wageningen	Gelderland
454	Wapenveld	Heerde	Gelderland
455	Welsum	Olst-Wijhe	Overijssel
456	Welsum	Olst-Wijhe	Overijssel
457	Wenum	Apeldoorn	Gelderland
458	Westbroek	De Bilt	Utrecht
459	Wezep	Oldebroek	Gelderland
460	Wiesel	Apeldoorn	Gelderland
461	Wilp	Voorst	Gelderland
462	Wilp-Achterhoek	Voorst	Gelderland
463	Wolfheze	Renkum	Gelderland
464	Woudenberg	Woudenberg	Utrecht
465	Zeldert	Amersfoort	Utrecht
466	Zevenhuizen	Bunschoten	Utrecht
467	Zuideinde	Kampen	Overijssel
468	Zwartebroek	Barneveld	Gelderland
469	Zwartendijk	Kampen	Overijssel

No.	Village	Municipality	Province
<b>3. Overijssels-Gelderse zandgebied</b>			
470	Aadorp	Almelo	Overijssel
471	Aalten	Aalten	Gelderland
472	Achterdrempt	Bronckhorst	Gelderland
473	Albergen	Tubbergen	Overijssel
474	Almen	Lochem	Gelderland
475	Angerlo	Zevenaar	Gelderland
476	Apenhuizen	Deventer	Overijssel
477	Averlo	Deventer	Overijssel
478	Azewijn	Montferland	Gelderland
479	Baak	Bronckhorst	Gelderland
480	Barchem	Lochem	Gelderland
481	Barlo	Aalten	Gelderland
482	Bathmen	Deventer	Overijssel
483	Bavinker	Lochem	Gelderland
484	Beckum	Hengelo	Overijssel
485	Beek	Montferland	Gelderland
486	Beerze	Ommen	Overijssel
487	Beinum	Doesburg	Gelderland
488	Beltrum	Berkelland	Gelderland
489	Bentelo	Hof van Twente	Overijssel
490	Berkum	Zwolle	Overijssel
491	Besthmen	Ommen	Overijssel
492	Beuningen	Losser	Overijssel
493	Beusbergen	Hof van Twente	Overijssel
494	Bevermeer	Zevenaar	Gelderland
495	Bingerden	Zevenaar	Gelderland
496	Boekelo	Enschede	Overijssel
497	Bontebrug	Oude IJsselstreek	Gelderland
498	Borculo	Berkelland	Gelderland
499	Borne	Borne	Overijssel
500	Bornerbroek	Almelo	Overijssel
501	Boskamp	Olst-Wijhe	Overijssel
502	Bredevoort	Aalten	Gelderland
503	Brinkhoek	Zwolle	Overijssel
504	Bronckhorst	Bronckhorst	Gelderland
505	Bronsbergen	Zutphen	Gelderland
506	Buurse	Haaksbergen	Overijssel
507	Colmschate	Deventer	Overijssel
508	De Heurne	Aalten	Gelderland
509	De Schutterij	Oost Gelre	Gelderland
510	De Wopereis	Oost Gelre	Gelderland
511	De Zoeke	Losser	Overijssel

No.	Village	Municipality	Province
512	Delden	Hof van Twente	Overijssel
513	Den Ham	Twenterand	Overijssel
514	Den Nul	Olst-Wijhe	Overijssel
515	Didam	Montferland	Gelderland
516	Diepenheim	Hof van Twente	Overijssel
517	Diepenveen	Deventer	Overijssel
518	Dijkerhoek	Rijssen-Holten	Overijssel
519	Dinxperlo	Aalten	Gelderland
520	Doesburg	Doesburg	Gelderland
521	Dortherhoek	Deventer	Overijssel
522	Drempt	Bronckhorst	Gelderland
523	Duur	Olst-Wijhe	Overijssel
524	Eefde	Lochem	Gelderland
525	Eefsele	Oost Gelre	Gelderland
526	Eelen	Hellendoorn	Overijssel
527	Egede	Hellendoorn	Overijssel
528	Eibergen	Berkelland	Gelderland
529	Eikelfhof	Olst-Wijhe	Overijssel
530	Elshof	Olst-Wijhe	Overijssel
531	Enter	Wierden	Overijssel
532	Epse	Lochem	Gelderland
533	Espelo	Rijssen-Holten	Overijssel
534	Exel-Tol	Lochem	Gelderland
535	Fleringen	Tubbergen	Overijssel
536	Frankhuis	Zwolle	Overijssel
537	Frieswijk	Deventer	Overijssel
538	Gaanderen	Doetinchem	Gelderland
539	Geesteren	Tubbergen	Overijssel
540	Geesteren	Berkelland	Gelderland
541	Gelselaar	Berkelland	Gelderland
542	Gendringen	Oude IJsselstreek	Gelderland
543	Genemuiden	Zwartewaterland	Overijssel
544	Genne-Overwaters	Zwartewaterland	Overijssel
545	Giethmen	Ommen	Overijssel
546	Glane	Losser	Overijssel
547	Glanerbrug	Enschede	Overijssel
548	Goor	Hof van Twente	Overijssel
549	Gorssel	Lochem	Gelderland
550	Grafhorst	Kampen	Overijssel
551	Gramsbergen	Hardenberg	Overijssel
552	Groenlo	Oost Gelre	Gelderland
553	Haarle	Hellendoorn	Overijssel
554	Haarlo	Berkelland	Gelderland

No.	Village	Municipality	Province
555	Halle	Bronckhorst	Gelderland
556	Hankate	Hellendoorn	Overijssel
557	Harbrinkhoek	Tubbergen	Overijssel
558	Harculo	Zwolle	Overijssel
559	Harfsen	Lochem	Gelderland
560	Harreveld	Oost Gelre	Gelderland
561	Hasselt	Zwartewaterland	Overijssel
562	Heelweg	Oude IJsselstreek	Gelderland
563	Heeten	Raalte	Overijssel
564	Heidekant	Doetinchem	Gelderland
565	Heino	Raalte	Overijssel
566	Helhuizen	Rijssen-Holten	Overijssel
567	Hellendoorn	Hellendoorn	Overijssel
568	Hengelo	Bronckhorst	Gelderland
569	Hengevelde	Hof van Twente	Overijssel
570	Hengforden	Olst-Wijhe	Overijssel
571	Herfte	Zwolle	Overijssel
572	Hertme	Borne	Overijssel
573	Herxen	Olst-Wijhe	Overijssel
574	Het Stift	Dinkelland	Overijssel
575	Holten	Rijssen-Holten	Overijssel
576	Hoog Zuthem	Zwolle	Overijssel
577	Hooge-Hexel	Wierden	Overijssel
578	Hoog-Keppel	Bronckhorst	Gelderland
579	Hoonhorst	Dalfsen	Overijssel
580	Hulsen	Hellendoorn	Overijssel
581	Hummelo	Bronckhorst	Gelderland
582	IJsselmuiden	Kampen	Overijssel
583	Ittersum	Zwolle	Overijssel
584	Junne	Ommen	Overijssel
585	Kampereiland	Kampen	Overijssel
586	Kamperzeedijk	Zwartewaterland	Overijssel
587	Kamperzeedijk-West	Zwartewaterland	Overijssel
588	Katerveer	Zwolle	Overijssel
589	Keijenborg	Bronckhorst	Gelderland
590	Kilder	Montferland	Gelderland
591	Kleindorp	Doetinchem	Gelderland
592	Kotten	Winterswijk	Gelderland
593	Kranenburg	Bronckhorst	Gelderland
594	Kwartier	Zevenaar	Gelderland
595	Langenholte	Zwolle	Overijssel
596	Laren	Lochem	Gelderland
597	Lemele	Ommen	Overijssel

No.	Village	Municipality	Province
598	Lengel	Montferland	Gelderland
599	Lettele	Deventer	Overijssel
600	Lichtenvoorde	Oost Gelre	Gelderland
601	Lierderholthuis	Raalte	Overijssel
602	Lievelde	Oost Gelre	Gelderland
603	Linde	Deventer	Overijssel
604	Lintelo	Aalten	Gelderland
605	Lochem	Lochem	Gelderland
606	Loerbeek	Montferland	Gelderland
607	Loil	Montferland	Gelderland
608	Lonneker	Enschede	Overijssel
609	Loo	Deventer	Overijssel
610	Look	Rijssen-Holten	Overijssel
611	Luttenberg	Raalte	Overijssel
612	Magele	Twenterand	Overijssel
613	Markelo	Hof van Twente	Overijssel
614	Marle	Hellendoorn	Overijssel
615	Marle	Olst-Wijhe	Overijssel
616	Mastenbroek	Zwartewaterland	Overijssel
617	Meddo	Winterswijk	Gelderland
618	Meer	Twenterand	Overijssel
619	Meerenbroek	Doetinchem	Gelderland
620	Megchelen	Oude IJsselstreek	Gelderland
621	Middel	Olst-Wijhe	Overijssel
622	Miste	Winterswijk	Gelderland
623	Neede	Berkelland	Gelderland
624	Neerdorp	Rijssen-Holten	Overijssel
625	Netterden	Oude IJsselstreek	Gelderland
626	Nieuwe Wetering	Zwartewaterland	Overijssel
627	Nieuwebrug	Ommen	Overijssel
628	Nieuwstad	Kampen	Overijssel
629	Nieuw-Wehl	Doetinchem	Gelderland
630	Noordijk	Berkelland	Gelderland
631	Noordmeer	Twenterand	Overijssel
632	Olburgen	Bronckhorst	Gelderland
633	Oldeneel	Zwolle	Overijssel
634	Olst	Olst-Wijhe	Overijssel
635	Olst	Olst-Wijhe	Overijssel
636	Oosterholt	Kampen	Overijssel
637	Ootmarsum	Dinkelland	Overijssel
638	Oude Wetering	Zwolle	Overijssel
639	Overdinkel	Losser	Overijssel
640	Overwater	Hellendoorn	Overijssel

No.	Village	Municipality	Province
641	Oxe	Deventer	Overijssel
642	Rande	Deventer	Overijssel
643	Rekken	Berkelland	Gelderland
644	Rha	Bronckhorst	Gelderland
645	Rhaan	Hellendoorn	Overijssel
646	Rietmolen	Berkelland	Gelderland
647	Rolder	Oost Gelre	Gelderland
648	Rossum	Dinkelland	Overijssel
649	Ruurlo	Berkelland	Gelderland
650	Saasveld	Dinkelland	Overijssel
651	Schalkhaar	Deventer	Overijssel
652	Schelle	Zwolle	Overijssel
653	Schuilenburg	Hellendoorn	Overijssel
654	's-Heerenberg	Montferland	Gelderland
655	's-Heerenbroek	Kampen	Overijssel
656	Silvolde	Oude IJsselstreek	Gelderland
657	Sinderen	Oude IJsselstreek	Gelderland
658	Spoolde	Zwolle	Overijssel
659	Steenderen	Bronckhorst	Gelderland
660	't Kip	Berkelland	Gelderland
661	Terborg	Oude IJsselstreek	Gelderland
662	Tilligte	Dinkelland	Overijssel
663	Tjoene	Deventer	Overijssel
664	Toldijk	Bronckhorst	Gelderland
665	Tongeren	Olst-Wijhe	Overijssel
666	Tuute	Oost Gelre	Gelderland
667	Ulft	Oude IJsselstreek	Gelderland
668	Usselo	Enschede	Overijssel
669	Varsselder	Oude IJsselstreek	Gelderland

No.	Village	Municipality	Province
670	Varsseveld	Oude IJsselstreek	Gelderland
671	Vasse	Tubbergen	Overijssel
672	Veecaten	Kampen	Overijssel
673	Veldhunten	Oude IJsselstreek	Gelderland
674	Velswijk	Bronckhorst	Gelderland
675	Vilsteren	Ommen	Overijssel
676	Vorden	Bronckhorst	Gelderland
677	Vragender	Oost Gelre	Gelderland
678	Warken	Zutphen	Gelderland
679	Warnsveld	Zutphen	Gelderland
680	Weerselo	Dinkelland	Overijssel
681	Wehl	Doetinchem	Gelderland
682	Wesepe	Olst-Wijhe	Overijssel
683	Westendorp	Oude IJsselstreek	Gelderland
684	Westenholte	Zwolle	Overijssel
685	Wichmond	Bronckhorst	Gelderland
686	Wijnvoorden	Olst-Wijhe	Overijssel
687	Wijthmen	Zwolle	Overijssel
688	Wilsum	Kampen	Overijssel
689	Windesheim	Zwolle	Overijssel
690	Woold	Winterswijk	Gelderland
691	Zalne	Zwolle	Overijssel
692	Zeddam	Montferland	Gelderland
693	Zelhem	Bronckhorst	Gelderland
694	Zenderen	Borne	Overijssel
695	Zieuwent	Oost Gelre	Gelderland
696	Zuidloo	Deventer	Overijssel
697	Zwiep	Lochem	Gelderland

No.	Village	Municipality	Province
<b>4. Brabants zandgebied</b>			
698	Aalst	Waalre	N-Brabant
699	Aarle-Rixtel	Laarbeek	N-Brabant
700	Acht	Eindhoven	N-Brabant
701	Achterste Hermalen	Schijndel	N-Brabant
702	Alphen	Alphen-Chaam	N-Brabant
703	Altweert	Weert	Limburg
704	Altweeterheide	Weert	Limburg
705	Asten	Asten	N-Brabant
706	Baarle	Baarle-Nassau	N-Brabant
707	Baarle-Nassau	Baarle-Nassau	N-Brabant
708	Baarlo	Peel en Maas	Limburg
709	Baarloseweg	Peel en Maas	Limburg
710	Baexem	Leudal	Limburg
711	Bakel	Gemert-Bakel	N-Brabant
712	Bavel	Breda	N-Brabant
713	Beegden	Maasgouw	Limburg
714	Beek en Donk	Laarbeek	N-Brabant
715	Beers	Cuijk	N-Brabant
716	Bergeijk	Bergeijk	N-Brabant
717	Bergeyk	Bergeijk	N-Brabant
718	Berghem	Oss	N-Brabant
719	Berkel-Enschot	Tilburg	N-Brabant
720	Berlicum	Sint-Michielsgestel	N-Brabant
721	Beugen	Boxmeer	N-Brabant
722	Beugt	Bernheze	N-Brabant
723	Biest	Hilvarenbeek	N-Brabant
724	Biezenmortel	Haaren	N-Brabant
725	Bladel	Bladel	N-Brabant
726	Blerick	Venlo	Limburg
727	Blitterswijk	Venray	Limburg
728	Boeiink	Roosendaal	N-Brabant
729	Boekel	Boekel	N-Brabant
730	Boekend	Venlo	Limburg
731	Boerdonk	Veghel	N-Brabant
732	Borkel	Valkenswaard	N-Brabant
733	Borteldonk	Roosendaal	N-Brabant
734	Boschkant	Sint-Oedenrode	N-Brabant
735	Bosschenhoofd	Halderberge	N-Brabant
736	Brakkenstraat	Etten-Leur	N-Brabant
737	Brembosch	Roosendaal	N-Brabant
738	Breugel	Son en Breugel	N-Brabant
739	Broekhuizen	Horst aan de Maas	Limburg

No.	Village	Municipality	Province
740	Broekhuizenvorst	Horst aan de Maas	Limburg
741	Budel	Cranendonck	N-Brabant
742	Budel-Dorplein	Cranendonck	N-Brabant
743	Budel-Schoot	Cranendonck	N-Brabant
744	Buggenum	Leudal	Limburg
745	Bulkenaar	Roosendaal	N-Brabant
746	Capelle	Waalwijk	N-Brabant
747	Castenray	Venray	Limburg
748	Casteren	Bladel	N-Brabant
749	Chaam	Alphen-Chaam	N-Brabant
750	Cranendonck	Cranendonck	N-Brabant
751	Cromvoirt	Vught	N-Brabant
752	De Hoeven	Heusden	N-Brabant
753	Den Dungen	Sint-Michielsgestel	N-Brabant
754	Den Hout	Oosterhout	N-Brabant
755	Diessen	Hilvarenbeek	N-Brabant
756	Dinther	Bernheze	N-Brabant
757	Dommelen	Valkenswaard	N-Brabant
758	Doornhoek	Veghel	N-Brabant
759	Dorst	Oosterhout	N-Brabant
760	Driehuis	Grave	N-Brabant
761	Duizel	Eersel	N-Brabant
762	Eeneind	"Nuenen, Gerwen en Nederwetten"	N-Brabant
763	Eerde	Veghel	N-Brabant
764	Eersel	Eersel	N-Brabant
765	Effen	Breda	N-Brabant
766	Egchel	Peel en Maas	Limburg
767	Eindt	Peel en Maas	Limburg
768	Ell	Leudal	Limburg
769	Elsendorp	Gemert-Bakel	N-Brabant
770	Elshout	Heusden	N-Brabant
771	Erp	Veghel	N-Brabant
772	Esbeek	Hilvarenbeek	N-Brabant
773	Esch	Haaren	N-Brabant
774	Escharen	Grave	N-Brabant
775	Galder	Alphen-Chaam	N-Brabant
776	Gassel	Grave	N-Brabant
777	Geffen	Maasdonk	N-Brabant
778	Geijsteren	Venray	Limburg
779	Gemonde	Sint-Michielsgestel	N-Brabant
780	Gerwen	"Nuenen, Gerwen en Nederwetten"	N-Brabant
781	Gilze	Gilze en Rijen	N-Brabant

No.	Village	Municipality	Province
782	Goorstraat	Etten-Leur	N-Brabant
783	Grathem	Leudal	Limburg
784	Grave	Grave	N-Brabant
785	Groeningen	Boxmeer	N-Brabant
786	Grubbenvorst	Horst aan de Maas	Limburg
787	Haansberg	Etten-Leur	N-Brabant
788	Haaren	Haaren	N-Brabant
789	Haarsteeg	Heusden	N-Brabant
790	Haelen	Leudal	Limburg
791	Haghorst	Hilvarenbeek	N-Brabant
792	Haiink	Roosendaal	N-Brabant
793	Halder	Sint-Michielsgestel	N-Brabant
794	Haler	Leudal	Limburg
795	Halsteren	Bergen op Zoom	N-Brabant
796	Handel	Gemert-Bakel	N-Brabant
797	Hapert	Bladel	N-Brabant
798	Haps	Cuijk	N-Brabant
799	Hazelaar	Roosendaal	N-Brabant
800	Heel	Maasgouw	Limburg
801	Heerle	Roosendaal	N-Brabant
802	Heeswijk-Dinther	Bernheze	N-Brabant
803	Heeze	Heeze-Leende	N-Brabant
804	Hegelsom	Horst aan de Maas	Limburg
805	Heihoek	Grave	N-Brabant
806	Heinis	's-Hertogenbosch	N-Brabant
807	Helden	Peel en Maas	Limburg
808	Helvoirt	Haaren	N-Brabant
809	Hermalen	Schijndel	N-Brabant
810	Herpen	Oss	N-Brabant
811	Heusden	Asten	N-Brabant
812	Heuve	Bladel	N-Brabant
813	Heythuysen	Leudal	Limburg
814	Hilvarenbeek	Hilvarenbeek	N-Brabant
815	Hoenderbos	Uden	N-Brabant
816	Hoeven	Halderberge	N-Brabant
817	Hoge Donk	Etten-Leur	N-Brabant
818	Holthees	Boxmeer	N-Brabant
819	Hooge Mierde	Reusel-De Mierden	N-Brabant
820	Hooge Zwaluwe	Drimmelen	N-Brabant
821	Hoogebiezen	Veghel	N-Brabant
822	Hoogeloon	Bladel	N-Brabant
823	Hoogerheide	Woensdrecht	N-Brabant
824	Horn	Leudal	Limburg

No.	Village	Municipality	Province
825	Horszak	Oss	N-Brabant
826	Houtakker	Hilvarenbeek	N-Brabant
827	Hout-Blerick	Venlo	Limburg
828	Huijbergen	Woensdrecht	N-Brabant
829	Hulsdonk	Roosendaal	N-Brabant
830	Hulsel	Reusel-De Mierden	N-Brabant
831	Hunsel	Leudal	Limburg
832	Hushoven	Weert	Limburg
833	Ittervoort	Leudal	Limburg
834	Jankenberg	Bergen op Zoom	N-Brabant
835	Keldonk	Veghel	N-Brabant
836	Kelpen	Leudal	Limburg
837	Kemkens	Veghel	N-Brabant
838	Kessel	Peel en Maas	Limburg
839	Kesseleik	Peel en Maas	Limburg
840	Klappenberg	Etten-Leur	N-Brabant
841	Klein-Dongen	Dongen	N-Brabant
842	Klein-Zundert	Zundert	N-Brabant
843	Kooldert	Uden	N-Brabant
844	Kronenberg	Horst aan de Maas	Limburg
845	Kruisstraat	Roosendaal	N-Brabant
846	Kruisstraat	's-Hertogenbosch	N-Brabant
847	Kruisstraat	Halderberge	N-Brabant
848	Kuiksche Heide	Heusden	N-Brabant
849	Lage Donk	Etten-Leur	N-Brabant
850	Lage Mierde	Reusel-De Mierden	N-Brabant
851	Lagebiezen	Veghel	N-Brabant
852	Langenboom	Mill en Sint Hubert	N-Brabant
853	Ledeacker	Sint Anthonis	N-Brabant
854	Leende	Heeze-Leende	N-Brabant
855	Leenderstrijp	Heeze-Leende	N-Brabant
856	Lepelstraat	Bergen op Zoom	N-Brabant
857	Leunen	Venray	Limburg
858	Leveroij	Nederweert	Limburg
859	Liempde	Boxtel	N-Brabant
860	Lierop	Someren	N-Brabant
861	Lieseind	Schijndel	N-Brabant
862	Lieshout	Laarbeek	N-Brabant
863	Liessel	Deurne	N-Brabant
864	Loon op Zand	Loon op Zand	N-Brabant
865	Loons Hoekje	Loon op Zand	N-Brabant
866	Loosbroek	Bernheze	N-Brabant
867	Lottum	Horst aan de Maas	Limburg

No.	Village	Municipality	Province
868	Luyksgestel	Bergeijk	N-Brabant
869	Maarheeze	Cranendonck	N-Brabant
870	Maasbree	Peel en Maas	Limburg
871	Maashees	Boxmeer	N-Brabant
872	Made	Drimmelen	N-Brabant
873	Maliskamp	's-Hertogenbosch	N-Brabant
874	Mariaheide	Veghel	N-Brabant
875	Mariahout	Laarbeek	N-Brabant
876	Meerlo	Horst aan de Maas	Limburg
877	Meijel	Peel en Maas	Limburg
878	Melderslo	Horst aan de Maas	Limburg
879	Meliestraat	Heusden	N-Brabant
880	Merselo	Venray	Limburg
881	Meterik	Horst aan de Maas	Limburg
882	Middelbeers	Oirschot	N-Brabant
883	Middelrode	Sint-Michielsgestel	N-Brabant
884	Mierlo	Geldrop-Mierlo	N-Brabant
885	Mierlo-Hout	Helmond	N-Brabant
886	Milheeze	Gemert-Bakel	N-Brabant
887	Mill	Mill en Sint Hubert	N-Brabant
888	Moergestel	Oisterwijk	N-Brabant
889	Moesel	Weert	Limburg
890	Molengat	Mill en Sint Hubert	N-Brabant
891	Molenschot	Gilze en Rijen	N-Brabant
892	Mortel	Gemert-Bakel	N-Brabant
893	Nederweert	Nederweert	Limburg
894	Nederweert Eind	Nederweert	Limburg
895	Nederwetten	"Nuenen, Gerwen en Nederwetten"	N-Brabant
896	Neer	Leudal	Limburg
897	Neeritter	Leudal	Limburg
898	Netersel	Bladel	N-Brabant
899	Nieuwe Molen	Bergen op Zoom	N-Brabant
900	Nieuwe Molenheide	Schijndel	N-Brabant
901	Nieuw-en Winnerstraat	Nederweert	Limburg
902	Nieuwenberg	Roosendaal	N-Brabant
903	Nieuw-Gassel	Grave	N-Brabant
904	Nieuwkuijk	Heusden	N-Brabant
905	Nijnsel	Sint-Oedenrode	N-Brabant
906	Nispen	Roosendaal	N-Brabant
907	Nistelrode	Bernheze	N-Brabant
908	Noordgeest	Bergen op Zoom	N-Brabant
909	Nuland	Maasdonk	N-Brabant

No.	Village	Municipality	Province
910	Nunhem	Leudal	Limburg
911	Oeffelt	Boxmeer	N-Brabant
912	Oerle	Veldhoven	N-Brabant
913	Oetelaar	Schijndel	N-Brabant
914	Oirlo	Venray	Limburg
915	Oirschot	Oirschot	N-Brabant
916	Olland	Sint-Oedenrode	N-Brabant
917	Ommel	Asten	N-Brabant
918	Onsenoort	Heusden	N-Brabant
919	Oosteind	Oosterhout	N-Brabant
920	Oostelbeers	Oirschot	N-Brabant
921	Oostrum	Venray	Limburg
922	Oploo	Sint Anthonis	N-Brabant
923	Ospel	Nederweert	Limburg
924	Ossendrecht	Woensdrecht	N-Brabant
925	Oud Gastel	Halderberge	N-Brabant
926	Oude Molen	Bergen op Zoom	N-Brabant
927	Overlangel	Oss	N-Brabant
928	Overloon	Boxmeer	N-Brabant
929	Panheel	Maasgouw	Limburg
930	Panningen	Peel en Maas	Limburg
931	Papendijk	Maasdonk	N-Brabant
932	Princenhage	Breda	N-Brabant
933	Prinsenbeek	Breda	N-Brabant
934	Putte	Woensdrecht	N-Brabant
935	Reek	Landerd	N-Brabant
936	Reusel	Reusel-De Mierden	N-Brabant
937	Riel	Goirle	N-Brabant
938	Riethoven	Bergeijk	N-Brabant
939	Rijkevoort	Boxmeer	N-Brabant
940	Rijsbergen	Zundert	N-Brabant
941	Roggel	Leudal	Limburg
942	Rucphen	Rucphen	N-Brabant
943	Sambeek	Boxmeer	N-Brabant
944	Schaft	Valkenswaard	N-Brabant
945	Schajjk	Landerd	N-Brabant
946	Schijf	Rucphen	N-Brabant
947	Sevenum	Horst aan de Maas	Limburg
948	's-Gravenmoer	Dongen	N-Brabant
949	Sint Agatha	Cuijk	N-Brabant
950	Sint Anthonis	Sint Anthonis	N-Brabant
951	Sint Hubert	Mill en Sint Hubert	N-Brabant
952	Sint Willebrord	Rucphen	N-Brabant

No.	Village	Municipality	Province
953	Sint-Michielsgestel	Sint-Michielsgestel	N-Brabant
954	Sint-Oedenrode	Sint-Oedenrode	N-Brabant
955	Slagveld	Etten-Leur	N-Brabant
956	Soerendonk	Cranendonck	N-Brabant
957	Someren	Someren	N-Brabant
958	Sprang	Waalwijk	N-Brabant
959	Sprang-Capelle	Waalwijk	N-Brabant
960	Sprundel	Rucphen	N-Brabant
961	Steensel	Eersel	N-Brabant
962	Sterksel	Heeze-Leende	N-Brabant
963	Stoof	Halderberge	N-Brabant
964	Stramproy	Weert	Limburg
965	Strikberg	Breda	N-Brabant
966	Swartbroek	Weert	Limburg
967	Swolgen	Horst aan de Maas	Limburg
968	Terheijden	Drimmelen	N-Brabant
969	Teteringen	Breda	N-Brabant
970	Thorn	Maasgouw	Limburg
971	Tienray	Horst aan de Maas	Limburg
972	Tolberg	Roosendaal	N-Brabant
973	Tungelroy	Weert	Limburg
974	Ubroek	Venlo	Limburg
975	Udenhout	Tilburg	N-Brabant
976	Ulvenhout	Breda	N-Brabant
977	Vessem	Eersel	N-Brabant
978	Veulen	Venray	Limburg
979	Vianen	Cuijk	N-Brabant
980	Vierlingsbeek	Boxmeer	N-Brabant
981	Vinkel	Maasdonk	N-Brabant
982	Vinkenbroek	Roosendaal	N-Brabant

No.	Village	Municipality	Province
983	Visberg	Steenbergen	N-Brabant
984	Vleut	Best	N-Brabant
985	Vlierden	Deurne	N-Brabant
986	Vlijmen	Heusden	N-Brabant
987	Volkel	Uden	N-Brabant
988	Voordijk	Heusden	N-Brabant
989	Vorstenbosch	Bernheze	N-Brabant
990	Vortum-Mullem	Boxmeer	N-Brabant
991	Vosberg	Peel en Maas	Limburg
992	Vraker	Weert	Limburg
993	Vrijhoeve	Waalwijk	N-Brabant
994	Vrijhoeve-Capelle	Waalwijk	N-Brabant
995	Vroenhout	Roosendaal	N-Brabant
996	Waalre	Waalre	N-Brabant
997	Wagenberg	Drimmelen	N-Brabant
998	Wanroij	Sint Anthonis	N-Brabant
999	Wanssum	Venray	Limburg
1000	Waspik-Zuid	Waalwijk	N-Brabant
1001	Wernhout	Zundert	N-Brabant
1002	Wessem	Maasgouw	Limburg
1003	Westerbeek	Sint Anthonis	N-Brabant
1004	Westerhoven	Bergeijk	N-Brabant
1005	Wijbosch	Schijndel	N-Brabant
1006	Wintelre	Eersel	N-Brabant
1007	Wouw	Roosendaal	N-Brabant
1008	Ysselsteyn	Venray	Limburg
1009	Zandberg	Peel en Maas	Limburg
1010	Zandfort	Woensdrecht	N-Brabant
1011	Zegge	Rucphen	N-Brabant
1012	Zijtaart	Veghel	N-Brabant

No.	Village	Municipality	Province
<b>5. Limburgs zandgebied</b>			
1013	Afferden	Bergen (L.)	Limburg
1014	Aijen	Bergen (L.)	Limburg
1015	Arcen	Venlo	Limburg
1016	Asselt	Roermond	Limburg
1017	Beesel	Beesel	Limburg
1018	Belfeld	Venlo	Limburg
1019	Berg	Stein	Limburg
1020	Berg en Dal	Groesbeek	Gelderland
1021	Bergen	Bergen (L.)	Limburg
1022	Born	Sittard-Geleen	Limburg
1023	Boukoul	Roermond	Limburg
1024	Brachterbeek	Maasgouw	Limburg
1025	Breedeweg	Groesbeek	Gelderland
1026	Buchten	Sittard-Geleen	Limburg
1027	De Horst	Groesbeek	Gelderland
1028	Dieteren	Echt-Susteren	Limburg
1029	Echt	Echt-Susteren	Limburg
1030	Einighausen	Sittard-Geleen	Limburg
1031	Elsteren	Bergen (L.)	Limburg
1032	Gennep	Gennep	Limburg
1033	Grevenbicht	Sittard-Geleen	Limburg
1034	Groesbeek	Groesbeek	Gelderland
1035	Guttecoven	Sittard-Geleen	Limburg
1036	Heijen	Gennep	Limburg
1037	Herkenbosch	Roerdalen	Limburg
1038	Hernen	Wijchen	Gelderland
1039	Herongerberg	Venlo	Limburg
1040	Herten	Roermond	Limburg
1041	Heumen	Heumen	Gelderland
1042	Hingen	Echt-Susteren	Limburg
1043	Holtum	Sittard-Geleen	Limburg
1044	Kluis	Heumen	Gelderland
1045	Laak	Maasgouw	Limburg
1046	Leeuwen	Roermond	Limburg
1047	Limbricht	Sittard-Geleen	Limburg
1048	Linne	Maasgouw	Limburg
1049	Lomm	Venlo	Limburg
1050	Maasbracht	Maasgouw	Limburg
1051	Maasniel	Roermond	Limburg
1052	Malden	Heumen	Gelderland

No.	Village	Municipality	Province
1053	Mariahoop	Echt-Susteren	Limburg
1054	Meeswijk	Stein	Limburg
1055	Melick	Roerdalen	Limburg
1056	Merum	Roermond	Limburg
1057	Milsbeek	Gennep	Limburg
1058	Molenhoek	Mook en Middelaar	Limburg
1059	Montfort	Roerdalen	Limburg
1060	Mook	Mook en Middelaar	Limburg
1061	Nattenhoven	Stein	Limburg
1062	Nieuwstadt	Echt-Susteren	Limburg
1063	Obbicht	Sittard-Geleen	Limburg
1064	OhÚ	Maasgouw	Limburg
1065	Ottersum	Gennep	Limburg
1066	Oud-Roosteren	Echt-Susteren	Limburg
1067	Papenbeek	Bergen (L.)	Limburg
1068	Papenhoven	Sittard-Geleen	Limburg
1069	Peij	Echt-Susteren	Limburg
1070	Plasmolen	Mook en Middelaar	Limburg
1071	Posterholt	Roerdalen	Limburg
1072	Reutje	Roerdalen	Limburg
1073	Reuver	Beesel	Limburg
1074	Riethorst	Mook en Middelaar	Limburg
1075	Roer	Roermond	Limburg
1076	Roosteren	Echt-Susteren	Limburg
1077	Schipperskerk	Sittard-Geleen	Limburg
1078	Siebengewald	Bergen (L.)	Limburg
1079	Sint OdiliÛnberg	Roerdalen	Limburg
1080	Slek	Echt-Susteren	Limburg
1081	Steijl	Venlo	Limburg
1082	Stevensweert	Maasgouw	Limburg
1083	Steyl	Venlo	Limburg
1084	Susteren	Echt-Susteren	Limburg
1085	Swalmen	Roermond	Limburg
1086	Velden	Venlo	Limburg
1087	Ven-Zelderheide	Gennep	Limburg
1088	Vlodrop	Roerdalen	Limburg
1089	Well	Bergen (L.)	Limburg
1090	Wellerlooi	Bergen (L.)	Limburg
1091	Woezik	Wijchen	Gelderland
1092	Woezikrot	Wijchen	Gelderland

No.	Village	Municipality	Province
<b>6. Limburgs lössgebied</b>			
1093	Aalbeek	Nuth	Limburg
1094	Abdissenbosch	Landgraaf	Limburg
1095	Amby	Maastricht	Limburg
1096	Amstenrade	Schinnen	Limburg
1097	Arensgehout	Nuth	Limburg
1098	Bahneheide	Simpelveld	Limburg
1099	Banholt	Eijsden-Margraten	Limburg
1100	Beek	Beek	Limburg
1101	Beersdal	Heerlen	Limburg
1102	Bemelen	Eijsden-Margraten	Limburg
1103	Benzenrade	Heerlen	Limburg
1104	Berg	Valkenburg aan de Geul	Limburg
1105	Beutenaken	Gulpen-Wittem	Limburg
1106	Bingelrade	Onderbanken	Limburg
1107	Bocholtz	Simpelveld	Limburg
1108	Bocholzerheide	Simpelveld	Limburg
1109	Borgharen	Maastricht	Limburg
1110	Bouwberg	Brunssum	Limburg
1111	Broekveld	Kerkrade	Limburg
1112	Brommelen	Nuth	Limburg
1113	Brommelen	Meerssen	Limburg
1114	Bunde	Meerssen	Limburg
1115	Cadier en Keer	Eijsden-Margraten	Limburg
1116	Catsop	Stein	Limburg
1117	Colmont	Voerendaal	Limburg
1118	Craubeek	Voerendaal	Limburg
1119	Daniken	Sittard-Geleen	Limburg
1120	Doenrade	Schinnen	Limburg
1121	Douvergehout	Onderbanken	Limburg
1122	Eckelrade	Eijsden-Margraten	Limburg
1123	Eijsden	Eijsden-Margraten	Limburg
1124	Eikske	Landgraaf	Limburg
1125	Elkenrade	Gulpen-Wittem	Limburg
1126	Elsloo	Stein	Limburg
1127	Emmaberg	Valkenburg aan de Geul	Limburg
1128	Epen	Gulpen-Wittem	Limburg
1129	Etenaken	Gulpen-Wittem	Limburg
1130	Eygelshoven	Kerkrade	Limburg
1131	Eys	Gulpen-Wittem	Limburg
1132	Eyserheide	Gulpen-Wittem	Limburg
1133	Geulle	Meerssen	Limburg
1134	Geverik	Beek	Limburg

No.	Village	Municipality	Province
1135	Grijzegrubben	Nuth	Limburg
1136	Gronsveld	Eijsden-Margraten	Limburg
1137	Groot Genhout	Beek	Limburg
1138	Groot Haasdal	Nuth	Limburg
1139	Groot-Welsden	Eijsden-Margraten	Limburg
1140	Gulpen	Gulpen-Wittem	Limburg
1141	Haanrade	Kerkrade	Limburg
1142	Heer	Maastricht	Limburg
1143	Heerlerbaan	Heerlen	Limburg
1144	Heerlerheide	Heerlen	Limburg
1145	Heijenrath	Gulpen-Wittem	Limburg
1146	Hellebeuk	Voerendaal	Limburg
1147	Hellebroek	Nuth	Limburg
1148	Herkenrade	Eijsden-Margraten	Limburg
1149	Heugem	Maastricht	Limburg
1150	Hobbelrade	Beek	Limburg
1151	Holset	Vaals	Limburg
1152	Hommert	Nuth	Limburg
1153	Honthem	Eijsden-Margraten	Limburg
1154	Houthem	Valkenburg aan de Geul	Limburg
1155	Huls	Simpelveld	Limburg
1156	Hulsberg	Nuth	Limburg
1157	Hussenberg	Meerssen	Limburg
1158	Ijzeren	Valkenburg aan de Geul	Limburg
1159	Ingber	Gulpen-Wittem	Limburg
1160	Itteren	Maastricht	Limburg
1161	Jabeek	Onderbanken	Limburg
1162	Kakert	Landgraaf	Limburg
1163	Kasen	Meerssen	Limburg
1164	Kelmond	Beek	Limburg
1165	Klein Genhout	Beek	Limburg
1166	Klein Haasdal	Nuth	Limburg
1167	Klimmen	Voerendaal	Limburg
1168	Kling	Brunssum	Limburg
1169	Kunrade	Voerendaal	Limburg
1170	Laar	Nuth	Limburg
1171	Lemiers	Vaals	Limburg
1172	Maasband	Stein	Limburg
1173	Margraten	Eijsden-Margraten	Limburg
1174	Mariadorp	Eijsden-Margraten	Limburg
1175	Mechelen	Gulpen-Wittem	Limburg
1176	Meers	Stein	Limburg
1177	Meerssen	Meerssen	Limburg

No.	Village	Municipality	Province
1178	Merkelbeek	Onderbanken	Limburg
1179	Mesch	Eijsden-Margraten	Limburg
1180	Mheer	Eijsden-Margraten	Limburg
1181	Molsberg	Simpelveld	Limburg
1182	Moorveld	Meerssen	Limburg
1183	Munstergeleen	Sittard-Geleen	Limburg
1184	Nagelbeek	Schinnen	Limburg
1185	Neerbeek	Beek	Limburg
1186	Nieuwenhagen	Landgraaf	Limburg
1187	Nieuw-Lotbroek	Heerlen	Limburg
1188	Nijswiller	Gulpen-Wittem	Limburg
1189	Noorbeek	Eijsden-Margraten	Limburg
1190	Nuth	Nuth	Limburg
1191	Oensel	Nuth	Limburg
1192	Oirsbeek	Schinnen	Limburg
1193	Oost-Maarland	Eijsden-Margraten	Limburg
1194	Op de Hoven	Landgraaf	Limburg
1195	Oud-Valkenburg	Valkenburg aan de Geul	Limburg
1196	Palemig	Heerlen	Limburg
1197	Partij	Gulpen-Wittem	Limburg
1198	Pesaken	Gulpen-Wittem	Limburg
1199	Prickart	Simpelveld	Limburg
1200	Puth	Schinnen	Limburg
1201	Raath	Onderbanken	Limburg
1202	Ransdaal	Voerendaal	Limburg
1203	Raren	Vaals	Limburg
1204	Reijmerstok	Gulpen-Wittem	Limburg
1205	Rijckholt	Eijsden-Margraten	Limburg
1206	Rimburg	Landgraaf	Limburg
1207	Rothem	Meerssen	Limburg
1208	Schaesberg	Landgraaf	Limburg
1209	Scheulder	Eijsden-Margraten	Limburg
1210	Schimmert	Nuth	Limburg
1211	Schin op Geul	Valkenburg aan de Geul	Limburg
1212	Schinnen	Schinnen	Limburg
1213	Schinveld	Onderbanken	Limburg
1214	Schoonbron	Valkenburg aan de Geul	Limburg
1215	Sibbe	Valkenburg aan de Geul	Limburg
1216	Simpelveld	Simpelveld	Limburg
1217	Slenaken	Gulpen-Wittem	Limburg
1218	Spaubeek	Beek	Limburg
1219	Spekholzerheide	Kerkrade	Limburg

No.	Village	Municipality	Province
1220	St Antoniusbank	Eijsden-Margraten	Limburg
1221	St Geertruid	Eijsden-Margraten	Limburg
1222	St Gerlach	Valkenburg aan de Geul	Limburg
1223	St Pieter	Maastricht	Limburg
1224	Stokhem	Gulpen-Wittem	Limburg
1225	Strabeek	Valkenburg aan de Geul	Limburg
1226	Strucht	Valkenburg aan de Geul	Limburg
1227	Sweikhuizen	Schinnen	Limburg
1228	Swier	Nuth	Limburg
1229	Ten Esschen	Heerlen	Limburg
1230	Terlinden	Eijsden-Margraten	Limburg
1231	Termaar	Voerendaal	Limburg
1232	Terschuren	Heerlen	Limburg
1233	Thull	Schinnen	Limburg
1234	Treebeek	Brunssum	Limburg
1235	Trintelen	Gulpen-Wittem	Limburg
1236	Ubachsberg	Voerendaal	Limburg
1237	Ulestraten	Meerssen	Limburg
1238	Urmond	Stein	Limburg
1239	Vaals	Vaals	Limburg
1240	Vaesrade	Nuth	Limburg
1241	Valkenburg	Valkenburg aan de Geul	Limburg
1242	Vijlen	Vaals	Limburg
1243	Vilt	Valkenburg aan de Geul	Limburg
1244	Vink	Kerkrade	Limburg
1245	Voerendaal	Voerendaal	Limburg
1246	Vroenhof	Valkenburg aan de Geul	Limburg
1247	Wahlwiller	Gulpen-Wittem	Limburg
1248	Walem	Valkenburg aan de Geul	Limburg
1249	Waubach	Landgraaf	Limburg
1250	Welten	Heerlen	Limburg
1251	Weustenrade	Voerendaal	Limburg
1252	Wijlre	Gulpen-Wittem	Limburg
1253	Wijnandsrade	Nuth	Limburg
1254	Windraak	Sittard-Geleen	Limburg
1255	Winthagen	Voerendaal	Limburg
1256	Withuis	Eijsden-Margraten	Limburg
1257	Wittem	Gulpen-Wittem	Limburg
1258	Wolder	Maastricht	Limburg
1259	Wolfhaag	Vaals	Limburg

No.	Village	Municipality	Province
<b>7. Fries-Gronings kleigebied</b>			
1260	Aalsum	Dongeradeel	Friesland
1261	Abbeega	Súdwest-Fryslân	Friesland
1262	Achlum	Franekeradeel	Friesland
1263	Achter-Thesinge	Ten Boer	Groningen
1264	Adorp	Winsum	Groningen
1265	Aduard	Zuidhorn	Groningen
1266	Akkrum	Boarnsterhim	Friesland
1267	Aldeboarn	Boarnsterhim	Friesland
1268	Allingawier	Súdwest-Fryslân	Friesland
1269	Anjum	Dongeradeel	Friesland
1270	Appingedam	Appingedam	Groningen
1271	Arum	Súdwest-Fryslân	Friesland
1272	Baaium	Littenseradiel	Friesland
1273	Baard	Littenseradiel	Friesland
1274	Baflo	Winsum	Groningen
1275	Bears	Littenseradiel	Friesland
1276	Bedum	Bedum	Groningen
1277	Berlikum	Menameradiel	Friesland
1278	Bierum	Delfzijl	Groningen
1279	Blauwhuis	Súdwest-Fryslân	Friesland
1280	Blessum	Menameradiel	Friesland
1281	Boazum	Littenseradiel	Friesland
1282	Boksum	Menameradiel	Friesland
1283	Bolsward	Súdwest-Fryslân	Friesland
1284	Borgsweer	Delfzijl	Groningen
1285	Bornwird	Dongeradeel	Friesland
1286	Bovenrijge	Ten Boer	Groningen
1287	Brantgum	Dongeradeel	Friesland
1288	Briltill	Zuidhorn	Groningen
1289	Britsum	Leeuwarderadeel	Friesland
1290	Britswert	Littenseradiel	Friesland
1291	Buitenpost	Achtkarspelen	Friesland
1292	Burdaard	Ferwerderadiel	Friesland
1293	Burgwerd	Súdwest-Fryslân	Friesland
1294	Cornjum	Leeuwarderadeel	Friesland
1295	Cornwerd	Súdwest-Fryslân	Friesland
1296	Dedgum	Súdwest-Fryslân	Friesland
1297	Deinum	Menameradiel	Friesland
1298	Den Andel	Winsum	Groningen
1299	Den Ham	Zuidhorn	Groningen
1300	Den Horn	Zuidhorn	Groningen
1301	Domwier	Boarnsterhim	Friesland

No.	Village	Municipality	Province
1302	Dongjum	Franekeradeel	Friesland
1303	Doodstil	Eemsmond	Groningen
1304	Dorkwerd	Groningen	Groningen
1305	Dronrijp	Menameradiel	Friesland
1306	Eagum	Boarnsterhim	Friesland
1307	Easterein	Littenseradiel	Friesland
1308	Easterlittens	Littenseradiel	Friesland
1309	Ee	Dongeradeel	Friesland
1310	Eenrum	De Marne	Groningen
1311	Eenum	Loppersum	Groningen
1312	Engelum	Menameradiel	Friesland
1313	Englum	Zuidhorn	Groningen
1314	Engwierum	Dongeradeel	Friesland
1315	Enumatil	Leek	Groningen
1316	Eppenhuisen	Eemsmond	Groningen
1317	Exmorra	Súdwest-Fryslân	Friesland
1318	Feerwerd	Winsum	Groningen
1319	Ferwert	Ferwerderadiel	Friesland
1320	Ferwoude	Súdwest-Fryslân	Friesland
1321	Finkum	Leeuwarderadeel	Friesland
1322	Firdgum	Franekeradeel	Friesland
1323	Flansum	Boarnsterhim	Friesland
1324	Folsgare	Súdwest-Fryslân	Friesland
1325	Formerum	Terschelling	Friesland
1326	Foudgum	Dongeradeel	Friesland
1327	Friens	Boarnsterhim	Friesland
1328	Garmerwolde	Ten Boer	Groningen
1329	Garnwerd	Winsum	Groningen
1330	Garrelsweer	Loppersum	Groningen
1331	Garsthuizen	Loppersum	Groningen
1332	Gauw	Súdwest-Fryslân	Friesland
1333	Gerkesklooster	Achtkarspelen	Friesland
1334	Ginum	Ferwerderadiel	Friesland
1335	Goenga	Súdwest-Fryslân	Friesland
1336	Goutum	Leeuwarden	Friesland
1337	Greonterp	Súdwest-Fryslân	Friesland
1338	Grou	Boarnsterhim	Friesland
1339	H·ns	Littenseradiel	Friesland
1340	Hallum	Ferwerderadiel	Friesland
1341	Hantum	Dongeradeel	Friesland
1342	Hantumertburen	Dongeradeel	Friesland
1343	Hantumhuizen	Dongeradeel	Friesland
1344	Harlingen	Harlingen	Friesland

No.	Village	Municipality	Province
1345	Hegebeintum	Ferwerderadiel	Friesland
1346	Hempens	Leeuwarden	Friesland
1347	Herbayum	Franekeradeel	Friesland
1348	Heveskes	Delfzijl	Groningen
1349	Hiaure	Dongeradeel	Friesland
1350	Hichtum	Súdwest-Fryslân	Friesland
1351	Hidaard	Littenseradiel	Friesland
1352	Hieslum	Súdwest-Fryslân	Friesland
1353	Hijum	Leeuwarderadeel	Friesland
1354	Hilaard	Littenseradiel	Friesland
1355	Hinnaard	Littenseradiel	Friesland
1356	Hitzum	Franekeradeel	Friesland
1357	Holwerd	Dongeradeel	Friesland
1358	Holwierde	Delfzijl	Groningen
1359	Hoogkerk	Groningen	Groningen
1360	Hoorn	Terschelling	Friesland
1361	Hornhuizen	De Marne	Groningen
1362	Houwerzijl	De Marne	Groningen
1363	Huizinge	Loppersum	Groningen
1364	Idaerd	Boarnsterhim	Friesland
1365	Idsegahuizum	Súdwest-Fryslân	Friesland
1366	Iens	Littenseradiel	Friesland
1367	IJlst	Súdwest-Fryslân	Friesland
1368	IJsbrechtum	Súdwest-Fryslân	Friesland
1369	Irens	Littenseradiel	Friesland
1370	Jannum	Ferwerderadiel	Friesland
1371	Jellum	Littenseradiel	Friesland
1372	Jirnsum	Boarnsterhim	Friesland
1373	Jislum	Ferwerderadiel	Friesland
1374	Jorwert	Littenseradiel	Friesland
1375	Jouswier	Dongeradeel	Friesland
1376	Kantens	Eemmond	Groningen
1377	Ki+baard	Littenseradiel	Friesland
1378	Kimswerd	Súdwest-Fryslân	Friesland
1379	Kleine Huisjes	De Marne	Groningen
1380	Kloosterburen	De Marne	Groningen
1381	Klooster-Lidlum	Franekeradeel	Friesland
1382	Koudum	Súdwest-Fryslân	Friesland
1383	Krewerd	Delfzijl	Groningen
1384	Kruisweg	De Marne	Groningen
1385	Laaxum	Súdwest-Fryslân	Friesland
1386	Leegkerk	Groningen	Groningen
1387	Leens	De Marne	Groningen

No.	Village	Municipality	Province
1388	Leermens	Loppersum	Groningen
1389	Lekum	Leeuwarden	Friesland
1390	Lellens	Ten Boer	Groningen
1391	Leons	Littenseradiel	Friesland
1392	Lichtaard	Ferwerderadiel	Friesland
1393	Lies	Terschelling	Friesland
1394	Lioessens	Dongeradeel	Friesland
1395	Loiçnga	Súdwest-Fryslân	Friesland
1396	Lollum	Súdwest-Fryslân	Friesland
1397	Longerhouw	Súdwest-Fryslân	Friesland
1398	Loppersum	Loppersum	Groningen
1399	Losdorp	Delfzijl	Groningen
1400	Lytsewierrum	Littenseradiel	Friesland
1401	Makkum	Súdwest-Fryslân	Friesland
1402	Mantgum	Littenseradiel	Friesland
1403	Marrum	Ferwerderadiel	Friesland
1404	Meedhuizen	Delfzijl	Groningen
1405	Menaldum	Menameradiel	Friesland
1406	Mensingeweer	De Marne	Groningen
1407	Metslawier	Dongeradeel	Friesland
1408	Middelstum	Loppersum	Groningen
1409	Midsland	Terschelling	Friesland
1410	Miedum	Leeuwarden	Friesland
1411	Minnertsgea	het Bildt	Friesland
1412	Moddergat	Dongeradeel	Friesland
1413	Molenrij	De Marne	Groningen
1414	Molkwerum	Súdwest-Fryslân	Friesland
1415	Morra	Dongeradeel	Friesland
1416	Nes	Dongeradeel	Friesland
1417	Nes	Boarnsterhim	Friesland
1418	Niawier	Dongeradeel	Friesland
1419	Niehove	Zuidhorn	Groningen
1420	Niekerk	De Marne	Groningen
1421	Nieuw-Beerta	Oldambt	Groningen
1422	Nieuwolda	Oldambt	Groningen
1423	Nieuwolda-Oost	Oldambt	Groningen
1424	Nijhuizum	Súdwest-Fryslân	Friesland
1425	Noorddijk	Groningen	Groningen
1426	Noorderhoogebrug	Groningen	Groningen
1427	Noordwolde	Bedum	Groningen
1428	Obergum	Winsum	Groningen
1429	Offingawier	Súdwest-Fryslân	Friesland
1430	Oldehove	Zuidhorn	Groningen

No.	Village	Municipality	Province
1431	Oldenzijl	Eemmond	Groningen
1432	Onderdendam	Bedum	Groningen
1433	Oosterbierum	Franekeradeel	Friesland
1434	Oosterend	Terschelling	Friesland
1435	Oosternieland	Eemmond	Groningen
1436	Oosternijkerk	Dongeradeel	Friesland
1437	Oosterwijtwerd	Loppersum	Groningen
1438	Oosthem	Súdwest-Fryslân	Friesland
1439	Oostrum	Dongeradeel	Friesland
1440	Oost-Vlieland	Vlieland	Friesland
1441	Oostwold	Oldambt	Groningen
1442	Oude Leije	Leeuwarderadeel	Friesland
1443	Oude Schouw	Boarnsterhim	Friesland
1444	Overschild	Slochteren	Groningen
1445	Paesens	Dongeradeel	Friesland
1446	Parrega	Súdwest-Fryslân	Friesland
1447	Peins	Franekeradeel	Friesland
1448	Piaam	Súdwest-Fryslân	Friesland
1449	Pieterburen	De Marne	Groningen
1450	Pietersbierum	Franekeradeel	Friesland
1451	Pingjum	Súdwest-Fryslân	Friesland
1452	Poppenwier	Boarnsterhim	Friesland
1453	Raard	Dongeradeel	Friesland
1454	Raerd	Boarnsterhim	Friesland
1455	Rasquert	Wînsum	Groningen
1456	Reduzum	Boarnsterhim	Friesland
1457	Reitsum	Ferwerderadiel	Friesland
1458	Ried	Franekeradeel	Friesland
1459	Rien	Littenseradiel	Friesland
1460	Roodehaan	Groningen	Groningen
1461	Rottum	Eemmond	Groningen
1462	Saaksum	Zuidhorn	Groningen
1463	Saaxumhuizen	Wînsum	Groningen
1464	Sauwerd	Wînsum	Groningen
1465	Schalsum	Franekeradeel	Friesland
1466	Scharl	Súdwest-Fryslân	Friesland
1467	Schettens	Súdwest-Fryslân	Friesland
1468	Schiermonnikoog	Schiermonnikoog	Friesland
1469	Schingen	Menameradiel	Friesland
1470	Schraard	Súdwest-Fryslân	Friesland
1471	Selwerd	Groningen	Groningen
1472	Sexbierum	Franekeradeel	Friesland
1473	Sibrandabuorren	Boarnsterhim	Friesland

No.	Village	Municipality	Province
1474	Sijbrandahuis	Dantumadiel	Friesland
1475	Sint Annen	Ten Boer	Groningen
1476	Slaperstil	Groningen	Groningen
1477	Slappeterp	Menameradiel	Friesland
1478	Snakkerburen	Leeuwarden	Friesland
1479	Spannum	Littenseradiel	Friesland
1480	Spijk	Delfzijl	Groningen
1481	Startenhuizen	Loppersum	Groningen
1482	Stavoren	Súdwest-Fryslân	Friesland
1483	Stedum	Loppersum	Groningen
1484	Stiens	Leeuwarderadeel	Friesland
1485	Stitswerd	Eemmond	Groningen
1486	Swichum	Leeuwarden	Friesland
1487	't Kret	Leek	Groningen
1488	't Zandstervoorwerk	Loppersum	Groningen
1489	't Zandt	Loppersum	Groningen
1490	Teerns	Leeuwarden	Friesland
1491	Ten Boer	Ten Boer	Groningen
1492	Ten Post	Ten Boer	Groningen
1493	Termunten	Delfzijl	Groningen
1494	Termunterzijl	Delfzijl	Groningen
1495	Ternaard	Dongeradeel	Friesland
1496	Tersoal	Boarnsterhim	Friesland
1497	Thesinge	Ten Boer	Groningen
1498	Tirns	Súdwest-Fryslân	Friesland
1499	Tjalhuizum	Súdwest-Fryslân	Friesland
1500	Toornwerd	Loppersum	Groningen
1501	Tzum	Franekeradeel	Friesland
1502	Tzummarum	Franekeradeel	Friesland
1503	Uithuizen	Eemmond	Groningen
1504	Uithuizermeeden	Eemmond	Groningen
1505	Uitwierde	Delfzijl	Groningen
1506	Ulrum	De Marne	Groningen
1507	Usquert	Eemmond	Groningen
1508	Vierhuizen	Súdwest-Fryslân	Friesland
1509	Vierhuizen	De Marne	Groningen
1510	Vierverlaten	Groningen	Groningen
1511	Waaksens	Littenseradiel	Friesland
1512	Warffum	Eemmond	Groningen
1513	Warffuizen	De Marne	Groningen
1514	Warns	Súdwest-Fryslân	Friesland
1515	Warstiens	Boarnsterhim	Friesland
1516	Waterhuizen	Hoogezand-Sappemeer	Groningen

No.	Village	Municipality	Province
1517	Wehe-Den Hoorn	De Marne	Groningen
1518	Weiwerd	Delfzijl	Groningen
1519	Wergea	Boarnsterhim	Friesland
1520	Westeremden	Loppersum	Groningen
1521	Westernieland	De Marne	Groningen
1522	Westerwijtwerd	Loppersum	Groningen
1523	Westhem	Súdwest-Fryslân	Friesland
1524	West-Terschelling	Terschelling	Friesland
1525	Wetzens	Dongeradeel	Friesland
1526	Wîlânswert	Ferwerderadiel	Friesland
1527	Wierum	Dongeradeel	Friesland
1528	Wijnaldum	Harlingen	Friesland
1529	Winneweer	Ten Boer	Groningen
1530	Winsum	Littenseradiel	Friesland
1531	Winsum	Winsum	Groningen
1532	Wirdum	Leeuwarden	Friesland
1533	Wirdum	Loppersum	Groningen
1534	Wirdumerdraai	Loppersum	Groningen
1535	Witmarsum	Súdwest-Fryslân	Friesland
1536	Wittewierum	Ten Boer	Groningen
1537	Wiuwert	Littenseradiel	Friesland
1538	Wjelsryp	Littenseradiel	Friesland
1539	Woldendorp	Delfzijl	Groningen
1540	Wolsum	Súdwest-Fryslân	Friesland
1541	Woltersum	Ten Boer	Groningen
1542	Wommels	Littenseradiel	Friesland
1543	Wons	Súdwest-Fryslân	Friesland
1544	Workum	Súdwest-Fryslân	Friesland
1545	Zandeweer	Eemsmond	Groningen
1546	Zeerijp	Loppersum	Groningen
1547	Zijldijk	Loppersum	Groningen
1548	Zuidhorn	Zuidhorn	Groningen
1549	Zuidwolde	Bedum	Groningen
1550	Zuurdijk	De Marne	Groningen
1551	Zweins	Franekeradeel	Friesland

No.	Village	Municipality	Province
<b>8. Noordhollands kleigebied</b>			
1552	Aartswoud	Opmeer	N-Holland
1553	Abbekerk	Medemblik	N-Holland
1554	Abbestede	Zijpe	N-Holland
1555	Andijk	Medemblik	N-Holland
1556	Avenhorn	Koggenland	N-Holland
1557	Baarsdorpermeer	Koggenland	N-Holland
1558	Barsingerhorn	Hollands Kroon	N-Holland
1559	Belt	Hollands Kroon	N-Holland
1560	Benningbroek	Medemblik	N-Holland
1561	Berkhout	Koggenland	N-Holland
1562	Binnenwijzend	Drechterland	N-Holland
1563	Blokdijk	Drechterland	N-Holland
1564	Blokker	Drechterland	N-Holland
1565	Bobeldijk	Koggenland	N-Holland
1566	Boerdijk	Medemblik	N-Holland
1567	Bovenkarspel	Stede Broec	N-Holland
1568	Broek op Langedijk	Langedijk	N-Holland
1569	Callantsoog	Zijpe	N-Holland
1570	De Bangert	Medemblik	N-Holland
1571	De Buurt	Medemblik	N-Holland
1572	De Gest	Hollands Kroon	N-Holland
1573	De Goorn	Koggenland	N-Holland
1574	De Heid	Hollands Kroon	N-Holland
1575	De Hout	Drechterland	N-Holland
1576	De Kampen	Hollands Kroon	N-Holland
1577	De Koog	Texel	N-Holland
1578	De Leijen	Hollands Kroon	N-Holland
1579	De Strook	Hollands Kroon	N-Holland
1580	De Waal	Texel	N-Holland
1581	De Weel	Hollands Kroon	N-Holland
1582	Den Burg	Texel	N-Holland
1583	Den Hoorn	Texel	N-Holland
1584	Den Oever	Hollands Kroon	N-Holland
1585	Dirkshorn	Harenkarspel	N-Holland
1586	Eenigenburg	Harenkarspel	N-Holland
1587	Gouwe	Opmeer	N-Holland
1588	Groote Keeten	Zijpe	N-Holland
1589	Grootebroek	Stede Broec	N-Holland
1590	Harderwijk	Opmeer	N-Holland
1591	Haringhuizen	Hollands Kroon	N-Holland
1592	Hauwert	Medemblik	N-Holland
1593	Hem	Drechterland	N-Holland

No.	Village	Municipality	Province
1594	Hensbroek	Koggenland	N-Holland
1595	Hippolytushoef	Hollands Kroon	N-Holland
1596	Hollebalg	Hollands Kroon	N-Holland
1597	Hoogkarspel	Drechterland	N-Holland
1598	Hoogwoud	Opmeer	N-Holland
1599	Huisduinen	Den Helder	N-Holland
1600	Kalverdijk	Harenkarspel	N-Holland
1601	Kathoek	Koggenland	N-Holland
1602	Kerkbuurt	Medemblik	N-Holland
1603	Kerkbuurt	Harenkarspel	N-Holland
1604	Koedijk	Alkmaar	N-Holland
1605	Kraaienburg	Drechterland	N-Holland
1606	Lambertschaag	Medemblik	N-Holland
1607	Langereis	Opmeer	N-Holland
1608	Leekerweg	Drechterland	N-Holland
1609	Lutjebroek	Stede Broec	N-Holland
1610	Lutjewinkel	Hollands Kroon	N-Holland
1611	Midwoud	Medemblik	N-Holland
1612	Moerbeek	Hollands Kroon	N-Holland
1613	Nibbixwoud	Medemblik	N-Holland
1614	Nieuwe-Niedorp	Hollands Kroon	N-Holland
1615	Noordburenweg	Hollands Kroon	N-Holland
1616	Noorddijk	Koggenland	N-Holland
1617	Noorderbuurt	Hollands Kroon	N-Holland
1618	Noordermeer	Koggenland	N-Holland
1619	Noord-Scharwoude	Langedijk	N-Holland
1620	Obdam	Koggenland	N-Holland
1621	Onderdijk	Medemblik	N-Holland
1622	Ongeren	Texel	N-Holland
1623	Oosterblokker	Drechterland	N-Holland
1624	Oosterdijk	Medemblik	N-Holland
1625	Oosterend	Texel	N-Holland
1626	Oostergouw	Drechterland	N-Holland
1627	Oosterklief	Hollands Kroon	N-Holland
1628	Oosterland	Hollands Kroon	N-Holland
1629	Oosterleek	Drechterland	N-Holland
1630	Oostwoud	Medemblik	N-Holland
1631	Opmeer	Opmeer	N-Holland
1632	Opperdoes	Medemblik	N-Holland
1633	Oterleek	Schermer	N-Holland
1634	Oude-Niedorp	Hollands Kroon	N-Holland
1635	Oudeschild	Texel	N-Holland
1636	Oudijk	Drechterland	N-Holland

No.	Village	Municipality	Province
1637	Oudkarspel	Langedijk	N-Holland
1638	Pannekeet	Heerhugowaard	N-Holland
1639	Petten	Zijpe	N-Holland
1640	Rustenburg	Koggenland	N-Holland
1641	Schellinkhout	Drechterland	N-Holland
1642	Schoorldam	Harenkarspel	N-Holland
1643	Sijbekarspel	Medemblik	N-Holland
1644	Sint Maarten	Harenkarspel	N-Holland
1645	Sint Pancras	Langedijk	N-Holland
1646	Smerp	Hollands Kroon	N-Holland
1647	Spanbroek	Opmeer	N-Holland
1648	Spierdijk	Koggenland	N-Holland
1649	Stroet	Harenkarspel	N-Holland
1650	't Veld	Hollands Kroon	N-Holland
1651	Terdiek	Hollands Kroon	N-Holland
1652	Tersluis	Drechterland	N-Holland
1653	Tin	Hollands Kroon	N-Holland
1654	Tuitjenhorn	Harenkarspel	N-Holland
1655	Twisk	Medemblik	N-Holland
1656	Ursem	Koggenland	N-Holland
1657	Valkkoog	Harenkarspel	N-Holland
1658	Vatrop	Hollands Kroon	N-Holland
1659	Veenhuizen	Heerhugowaard	N-Holland
1660	Veldhuis	Medemblik	N-Holland
1661	Venhuizen	Drechterland	N-Holland
1662	Verlaat	Hollands Kroon	N-Holland
1663	Waarland	Harenkarspel	N-Holland
1664	Wadway	Opmeer	N-Holland
1665	Warmenhuizen	Harenkarspel	N-Holland
1666	Wervershoof	Medemblik	N-Holland
1667	Westerblokker	Hoorn	N-Holland
1668	Westerklief	Hollands Kroon	N-Holland
1669	Westerland	Hollands Kroon	N-Holland
1670	Westerwijzend	Drechterland	N-Holland
1671	Westwoud	Drechterland	N-Holland
1672	Wijdenes	Drechterland	N-Holland
1673	Wijmers	Drechterland	N-Holland
1674	Wijzend	Medemblik	N-Holland
1675	Winkel	Hollands Kroon	N-Holland
1676	Wognum	Medemblik	N-Holland
1677	Zandwerven	Opmeer	N-Holland
1678	Zijdewind	Hollands Kroon	N-Holland
1679	Zittend	Drechterland	N-Holland

No.	Village	Municipality	Province
1680	Zuidermeer	Koggenland	N-Holland
1681	Zuid-Scharwoude	Langedijk	N-Holland
1682	Zuid-Spierdijk	Koggenland	N-Holland
1683	Zwaag	Hoorn	N-Holland
1684	Zwaagdijk	Medemblik	N-Holland
1685	Zwaagdijk-Oost	Medemblik	N-Holland
1686	Zwaagdijk-West	Medemblik	N-Holland

No.	Village	Municipality	Province
<b>9. Friese veengebied</b>			
1687	Akmarijp	Skarsterlân	Friesland
1688	Baarlo	Zwartewaterland	Overijssel
1689	Baarlo	Steenwijkerland	Overijssel
1690	Bakhuizen	Gaasterlân-Sleat	Friesland
1691	Balk	Gaasterlân-Sleat	Friesland
1692	Bantega	Lemsterland	Friesland
1693	Berghuizen	De Wolden	Drenthe
1694	Blijdenstein	De Wolden	Drenthe
1695	Blokszyl	Steenwijkerland	Overijssel
1696	Boornzwaag	Skarsterlân	Friesland
1697	Buitenhuizen	De Wolden	Drenthe
1698	De Bolder	Steenwijkerland	Overijssel
1699	De Knipe	Heerenveen	Friesland
1700	De Kolk	Steenwijkerland	Overijssel
1701	De Valom	Dantumadiel	Friesland
1702	De Wilgen	Smallingerland	Friesland
1703	Delfstrahuizen	Lemsterland	Friesland
1704	Dijken	Skarsterlân	Friesland
1705	Dijkhuizen	De Wolden	Drenthe
1706	Doniaga	Skarsterlân	Friesland
1707	Earnewiĳld	Tytsjerksteradiel	Friesland
1708	Echten	Lemsterland	Friesland
1709	Echtenerbrug	Lemsterland	Friesland
1710	Eesterga	Lemsterland	Friesland

No.	Village	Municipality	Province
1711	Eesveen	Steenwijkerland	Overijssel
1712	Elahuizen	Gaasterlân-Sleat	Friesland
1713	Follega	Lemsterland	Friesland
1714	Gaastmeer	Súdwest-Fryslân	Friesland
1715	Garyp	Tytsjerksteradiel	Friesland
1716	Genne	Zwartewaterland	Overijssel
1717	Gersloot	Heerenveen	Friesland
1718	Giethoorn	Steenwijkerland	Overijssel
1719	Goiċngahuizen	Smallingerland	Friesland
1720	Goingarjip	Skarsterlân	Friesland
1721	Haakswold	De Wolden	Drenthe
1722	Haerst	Zwolle	Overijssel
1723	Harich	Gaasterlân-Sleat	Friesland
1724	Haskerdijken	Skarsterlân	Friesland
1725	Haskerhorne	Skarsterlân	Friesland
1726	Heeg	Súdwest-Fryslân	Friesland
1727	Heetveld	Steenwijkerland	Overijssel
1728	Hemelum	Súdwest-Fryslân	Friesland
1729	Hommerts	Súdwest-Fryslân	Friesland
1730	Idskenhuizen	Skarsterlân	Friesland
1731	Idzega	Súdwest-Fryslân	Friesland
1732	Ijpecolsga	Súdwest-Fryslân	Friesland
1733	Indijk	Súdwest-Fryslân	Friesland
1734	Jutrijp	Súdwest-Fryslân	Friesland
1735	Kadoelen	Steenwijkerland	Overijssel
1736	Kolderwolde	Gaasterlân-Sleat	Friesland
1737	Kraloo	De Wolden	Drenthe
1738	Kuinre	Steenwijkerland	Overijssel
1739	Langelille	Weststellingwerf	Friesland
1740	Langezwaag	Opsterland	Friesland
1741	Langweer	Skarsterlân	Friesland
1742	Legemeer	Skarsterlân	Friesland
1743	Lemmer	Lemsterland	Friesland
1744	Luinjeburd	Heerenveen	Friesland
1745	Luxwoude	Opsterland	Friesland
1746	Mirns	Gaasterlân-Sleat	Friesland
1747	Munnekeburen	Weststellingwerf	Friesland
1748	Nieuwebrug	Skarsterlân	Friesland
1749	Nijehaske	Skarsterlân	Friesland
1750	Nijeholtwolde	Weststellingwerf	Friesland
1751	Nijelamer	Weststellingwerf	Friesland
1752	Nijemirdum	Gaasterlân-Sleat	Friesland
1753	Oldeholtwolde	Weststellingwerf	Friesland

No.	Village	Municipality	Province
1754	Oldelamer	Weststellingwerf	Friesland
1755	Oldenhave	De Wolden	Drenthe
1756	Oldeouwer	Skarsterlân	Friesland
1757	Oldetrijne	Weststellingwerf	Friesland
1758	Oosteinde	De Wolden	Drenthe
1759	Oosterboer	Meppel	Drenthe
1760	Oosterzee Buren	Lemsterland	Friesland
1761	Oppenhuizen	Súdwest-Fryslân	Friesland
1762	Ossenzijl	Steenwijkerland	Overijssel
1763	Oudega	Gaasterlân-Sleat	Friesland
1764	Oudega	Súdwest-Fryslân	Friesland
1765	Oudega	Smallingerland	Friesland
1766	Oudehaske	Skarsterlân	Friesland
1767	Oudemirdum	Gaasterlân-Sleat	Friesland
1768	Oudeschoot	Heerenveen	Friesland
1769	Ouwsterhaule	Skarsterlân	Friesland
1770	Ouwster-Nijega	Skarsterlân	Friesland
1771	Poepershoek	Steenwijkerland	Overijssel
1772	Pollesteeġ	Steenwijkerland	Overijssel
1773	Rijs	Gaasterlân-Sleat	Friesland
1774	Rohel	Skarsterlân	Friesland
1775	Rotstergaast	Skarsterlân	Friesland
1776	Rotsterhaule	Skarsterlân	Friesland
1777	Rottum	Skarsterlân	Friesland
1778	Rouveen	Staphorst	Overijssel
1779	Ruigahuizen	Gaasterlân-Sleat	Friesland
1780	Ruinerwold	De Wolden	Drenthe
1781	Ryptsjerk	Tytsjerksteradiel	Friesland
1782	Scharsterbrug	Skarsterlân	Friesland
1783	Scherpenzeel	Weststellingwerf	Friesland
1784	Sint Jansklooster	Steenwijkerland	Overijssel
1785	Sint Nicolaasga	Skarsterlân	Friesland
1786	Sintjohannesga	Skarsterlân	Friesland
1787	Sloten	Gaasterlân-Sleat	Friesland
1788	Smalle Ee	Smallingerland	Friesland
1789	Smallebrugge	Súdwest-Fryslân	Friesland
1790	Snikzwaag	Skarsterlân	Friesland
1791	Sondel	Gaasterlân-Sleat	Friesland
1792	Spanga	Weststellingwerf	Friesland
1793	Streukel	Zwartewaterland	Overijssel
1794	Suwiċld	Tytsjerksteradiel	Friesland
1795	Terband	Heerenveen	Friesland
1796	Terherne	Boarnsterhim	Friesland

No.	Village	Municipality	Province
1797	Terkaple	Skarsterlân	Friesland
1798	Teroele	Skarsterlân	Friesland
1799	Terwispele	Opsterland	Friesland
1800	Tijnje	Opsterland	Friesland
1801	Tjalleberd	Heerenveen	Friesland
1802	Tjerkgaast	Skarsterlân	Friesland
1803	Tytsjerk	Tytsjerksteradiel	Friesland
1804	Uitwellingerga	Súdwest-Fryslân	Friesland
1805	Vegelinsoord	Skarsterlân	Friesland
1806	Vollenhove	Steenwijkerland	Overijssel
1807	Warten	Boarnsterhim	Friesland
1808	Weerwille	De Wolden	Drenthe
1809	Westeinde	Steenwijkerland	Overijssel
1810	Wijckel	Gaasterlân-Sleat	Friesland
1811	Woudsend	Súdwest-Fryslân	Friesland
1812	Zuideinde	Steenwijkerland	Overijssel
1813	Zwartsluis	Zwartewaterland	Overijssel

No.	Village	Municipality	Province
<b>10. Flevolands kleigebied</b>			
1814	Urk	Urk	Flevoland

No.	Village	Municipality	Province
<b>11. Hollands duingebied</b>			
1815	Aagtdorp	Bergen (NH.)	N-Holland
1816	Aerdenhout	Bloemendaal	N-Holland
1817	Arnoud	Hillegom	Z-Holland
1818	Bakkum	Castricum	N-Holland
1819	Bennebroek	Bloemendaal	N-Holland
1820	Bergen aan Zee	Bergen (NH.)	N-Holland
1821	Bloemendaal	Bloemendaal	N-Holland
1822	Bollendorp	Heiloo	N-Holland
1823	Camperduin	Bergen (NH.)	N-Holland
1824	Castricum aan Zee	Castricum	N-Holland
1825	Catrijp	Bergen (NH.)	N-Holland
1826	De Zilk	Noordwijkerhout	Z-Holland
1827	Driehuis	Velsen	N-Holland
1828	Dusseldorp	Castricum	N-Holland
1829	Duyncroft	Bergen (NH.)	N-Holland
1830	Egmond aan den Hoef	Bergen (NH.)	N-Holland
1831	Egmond aan Zee	Bergen (NH.)	N-Holland
1832	Egmond-Binnen	Bergen (NH.)	N-Holland
1833	Heemskerkerduin	Heemskerk	N-Holland
1834	Heenweg	Westland	Z-Holland
1835	Het Woud	Bergen (NH.)	N-Holland
1836	Hoek van Holland	Rotterdam	Z-Holland
1837	Honselersdijk	Westland	Z-Holland
1838	Kapel	Heiloo	N-Holland
1839	Katwijk a/d Rijn	Katwijk	Z-Holland
1840	Katwijk aan Zee	Katwijk	Z-Holland
1841	Kerkehout	Wassenaar	Z-Holland

No.	Village	Municipality	Province
1842	Limmen	Castricum	N-Holland
1843	Maaldrift	Wassenaar	Z-Holland
1844	Maasdijk	Westland	Z-Holland
1845	Mariendijk	Westland	Z-Holland
1846	Noord-Bakkum	Castricum	N-Holland
1847	Noorddorp	Heemskerk	N-Holland
1848	Noordwijk aan Zee	Noordwijk	Z-Holland
1849	Noordwijk-Binnen	Noordwijk	Z-Holland
1850	Noordwijkerhout	Noordwijkerhout	Z-Holland
1851	Poeldijk	Westland	Z-Holland
1852	Rijksdorp	Wassenaar	Z-Holland
1853	Rijndijk	Leiden	Z-Holland
1854	Rijnsburg	Katwijk	Z-Holland
1855	Rinnegom	Bergen (NH.)	N-Holland
1856	Rolpaal	Westland	Z-Holland
1857	Santpoort-Noord	Velsen	N-Holland
1858	Santpoort-Zuid	Velsen	N-Holland
1859	Sassenheim	Teylingen	Z-Holland
1860	Schoorl	Bergen (NH.)	N-Holland
1861	Ter Heijde	Westland	Z-Holland
1862	Velsen-Noord	Velsen	N-Holland
1863	Velsen-Zuid	Velsen	N-Holland
1864	Vogelenzang	Bloemendaal	N-Holland
1865	Voorhout	Teylingen	Z-Holland
1866	Warmond	Teylingen	Z-Holland
1867	Wijk aan Zee	Beverwijk	N-Holland
1868	Wimmenum	Bergen (NH.)	N-Holland
1869	Zanegest	Bergen (NH.)	N-Holland

No.	Village	Municipality	Province
<b>12. Hollands veengebied</b>			
1870	Abcoude	De Ronde Venen	Utrecht
1871	Achterbroek	Bergambacht	Z-Holland
1872	Akersloot	Castricum	N-Holland
1873	Alblasserdam	Alblasserdam	Z-Holland
1874	Ammerstol	Bergambacht	Z-Holland
1875	Amstelhoek	De Ronde Venen	Utrecht
1876	Ankeveen	Wijdmeren	N-Holland
1877	Assendelft	Zaanstad	N-Holland
1878	Axwijk	Zeevang	N-Holland
1879	Baambrugge	De Ronde Venen	Utrecht
1880	Beets	Zeevang	N-Holland
1881	Beneden Haastrecht	Vlist	Z-Holland
1882	Benedenberg	Bergambacht	Z-Holland
1883	Benedenheul	Vlist	Z-Holland
1884	Benedenkerk	Vlist	Z-Holland
1885	Bent	Rijnwoude	Z-Holland
1886	Bergambacht	Bergambacht	Z-Holland
1887	Bergstoep	Bergambacht	Z-Holland
1888	Berkenwoude	Bergambacht	Z-Holland
1889	Blaker	Westland	Z-Holland
1890	Bleskensgraaf	Graafstroom	Z-Holland
1891	Bodegraven	Bodegraven-Reeuwijk	Z-Holland
1892	Boekel	Castricum	N-Holland
1893	Bonrepas	Vlist	Z-Holland
1894	Boomhoek	Wijdmeren	N-Holland
1895	Boskoop	Boskoop	Z-Holland
1896	Bouwlust	Alphen aan den Rijn	Z-Holland
1897	Boven Haastrecht	Vlist	Z-Holland
1898	Bovenberg	Bergambacht	Z-Holland
1899	Bovenkerk	Vlist	Z-Holland
1900	Brandwijk	Graafstroom	Z-Holland
1901	Breukelen	Stichtse Vecht	Utrecht
1902	Breukeleveen	Wijdmeren	N-Holland
1903	Broek In Waterland	Waterland	N-Holland
1904	Buiten Gedachten	Alphen aan den Rijn	Z-Holland
1905	Burgersdijk	Westland	Z-Holland
1906	Capelle-West	Capelle aan den IJssel	Z-Holland
1907	De Bree	Woerden	Utrecht
1908	De Hoef	De Ronde Venen	Utrecht
1909	De Hoek	Bergambacht	Z-Holland
1910	De Hulk	Koggenland	N-Holland
1911	De Kwakel	Uithoorn	N-Holland

No.	Village	Municipality	Province
1912	De Lier	Westland	Z-Holland
1913	De Rijp	Graft-De Rijp	N-Holland
1914	De Roemer	Rijnwoude	Z-Holland
1915	De Woude	Castricum	N-Holland
1916	Delfgauw	Pijnacker-Nootdorp	Z-Holland
1917	Demmerik	De Ronde Venen	Utrecht
1918	Den Hoorn	Midden-Delfland	Z-Holland
1919	Den IJp	Landsmeer	N-Holland
1920	Diemerbroek	Oudewater	Utrecht
1921	Donkereind	De Ronde Venen	Utrecht
1922	Driebruggen	Bodegraven-Reeuwijk	Z-Holland
1923	Driehuizen	Schermer	N-Holland
1924	Driemond	Amsterdam	N-Holland
1925	Duivendrecht	Ouder-Amstel	N-Holland
1926	Durgerdam	Amsterdam	N-Holland
1927	Dwarsveld	Alphen aan den Rijn	Z-Holland
1928	Gaag	Midden-Delfland	Z-Holland
1929	Giessenburg	Giessenlanden	Z-Holland
1930	Giessen-Oudekerk	Giessenlanden	Z-Holland
1931	Gijbeland	Graafstroom	Z-Holland
1932	Gnephoek	Alphen aan den Rijn	Z-Holland
1933	Gouderak	Ouderkerk	Z-Holland
1934	Goudriaan	Graafstroom	Z-Holland
1935	Graafland	Liesveld	Z-Holland
1936	Graft	Graft-De Rijp	N-Holland
1937	Groenendijk	Rijnwoude	Z-Holland
1938	Groot Dorregeest	Uitgeest	N-Holland
1939	Groot-Ammers	Liesveld	Z-Holland
1940	Grootschermer	Schermer	N-Holland
1941	Grosthuzen	Koggenland	N-Holland
1942	Haarlemmerliede	Haarlemmerliede en Spaarnwoude	N-Holland
1943	Haastrecht	Vlist	Z-Holland
1944	Hazerswoude-Rijndijk	Rijnwoude	Z-Holland
1945	Hekendorp	Oudewater	Utrecht
1946	Het Beijersche	Vlist	Z-Holland
1947	Hinderdam	Wijdmeren	N-Holland
1948	Hobrede	Zeevang	N-Holland
1949	Hofwegen	Graafstroom	Z-Holland
1950	Hogebrug	Bodegraven-Reeuwijk	Z-Holland
1951	Holysloot	Amsterdam	N-Holland
1952	Hoogmade	Kaag en Braassem	Z-Holland
1953	Hoorn	Alphen aan den Rijn	Z-Holland
1954	Hoornaar	Giessenlanden	Z-Holland

No.	Village	Municipality	Province
1955	Ilpendam	Waterland	N-Holland
1956	Jacob's Hoeve	Alphen aan den Rijn	Z-Holland
1957	Jisp	Wormerland	N-Holland
1958	Kadijk	Bergambacht	Z-Holland
1959	Kamerik	Woerden	Utrecht
1960	Kandelaar	Rotterdam	Z-Holland
1961	Kanis	Woerden	Utrecht
1962	Katwoude	Waterland	N-Holland
1963	Kerklaan	Stichtse Vecht	Utrecht
1964	Kinderdijk	Alblasserdam	Z-Holland
1965	Klein Dorregeest	Castricum	N-Holland
1966	Klein Hitland	Zuidplas	Z-Holland
1967	Klein-Delfgauw	Pijnacker-Nootdorp	Z-Holland
1968	Kockengen	Stichtse Vecht	Utrecht
1969	Koog aan de Zaan	Zaanstad	N-Holland
1970	Kooiwijk	Graafstroom	Z-Holland
1971	Koolwijk	Vlist	Z-Holland
1972	Koudekerk a/d Rijn	Rijnwoude	Z-Holland
1973	Kralingse Veer	Rotterdam	Z-Holland
1974	Krimpen a/d Lek	Nederlek	Z-Holland
1975	Kromme Mijdrecht	De Ronde Venen	Utrecht
1976	Krommenie	Zaanstad	N-Holland
1977	Kwadijk	Zeevang	N-Holland
1978	Laag-Blokland	Graafstroom	Z-Holland
1979	Lagebroek	Woerden	Utrecht
1980	Langeweide	Bodegraven-Reeuwijk	Z-Holland
1981	Leimuider	Kaag en Braassem	Z-Holland
1982	Lekkerkerk	Nederlek	Z-Holland
1983	Loenen a/d Vecht	Stichtse Vecht	Utrecht
1984	Loenersloot	Stichtse Vecht	Utrecht
1985	Loete	Rijnwoude	Z-Holland
1986	Maarssenbroek	Stichtse Vecht	Utrecht
1987	Maasland	Midden-Delfland	Z-Holland
1988	Marias Hoeve	Alphen aan den Rijn	Z-Holland
1989	Markenbinnen	Graft-De Rijp	N-Holland
1990	Matena	Papendrecht	Z-Holland
1991	Meije	Bodegraven-Reeuwijk	Z-Holland
1992	Middelie	Zeevang	N-Holland
1993	Middelstede	Alphen aan den Rijn	Z-Holland
1994	Mijnden	Stichtse Vecht	Utrecht
1995	Minkeloos	Giessenlanden	Z-Holland
1996	Molenaarsbuurt	Alphen aan den Rijn	Z-Holland
1997	Molenaarsgraaf	Graafstroom	Z-Holland

No.	Village	Municipality	Province
1998	Monnickendam	Waterland	N-Holland
1999	Moordrecht	Zuidplas	Z-Holland
2000	Muiden	Muiden	N-Holland
2001	Muisbroek	Giessenlanden	Z-Holland
2002	Muyeveld	Wijdmeren	N-Holland
2003	Nederhorst den Berg	Wijdmeren	N-Holland
2004	Nederslingeland	Giessenlanden	Z-Holland
2005	Nieuwe Wetering	Kaag en Braassem	Z-Holland
2006	Nieuwerbrug	Bodegraven-Reeuwijk	Z-Holland
2007	Nieuwersluis	Stichtse Vecht	Utrecht
2008	Nieuwer-Ter-Aa	Stichtse Vecht	Utrecht
2009	Nieuw-Lekkerland	Nieuw-Lekkerland	Z-Holland
2010	Nieuwveen	Nieuwkoop	Z-Holland
2011	Nigtevecht	Stichtse Vecht	Utrecht
2012	Nollen	Alkmaar	N-Holland
2013	Noordeinde	Graft-De Rijp	N-Holland
2014	Noordeinde	Nieuwkoop	Z-Holland
2015	Noorden	Nieuwkoop	Z-Holland
2016	Noordzijde	Bodegraven-Reeuwijk	Z-Holland
2017	Oostbuurt	Westland	Z-Holland
2018	Oost-Graftdijk	Graft-De Rijp	N-Holland
2019	Oosthuizen	Zeevang	N-Holland
2020	Oost-Knollendam	Wormerland	N-Holland
2021	Opperduit	Nederlek	Z-Holland
2022	Ottoland	Graafstroom	Z-Holland
2023	Oud Bodegraven	Bodegraven-Reeuwijk	Z-Holland
2024	Oud-Ade	Kaag en Braassem	Z-Holland
2025	Oud-Alblas	Graafstroom	Z-Holland
2026	Oud-Diemen	Diemen	N-Holland
2027	Oude Meer	Haarlemmermeer	N-Holland
2028	Oude Wetering	Kaag en Braassem	Z-Holland
2029	Oudendijk	Koggenland	N-Holland
2030	Ouderkerk aan den IJssel	Ouderkerk	Z-Holland
2031	Oudeweg	Bodegraven-Reeuwijk	Z-Holland
2032	Oud-Loosdrecht	Wijdmeren	N-Holland
2033	Oud-Maarsseveen	Stichtse Vecht	Utrecht
2034	Oudorp	Alkmaar	N-Holland
2035	Oud-Reeuwijk	Bodegraven-Reeuwijk	Z-Holland
2036	Oud-Zuilen	Stichtse Vecht	Utrecht
2037	Oukoop	Stichtse Vecht	Utrecht
2038	Overmeer	Wijdmeren	N-Holland
2039	Overschie	Rotterdam	Z-Holland
2040	Overslingeland	Giessenlanden	Z-Holland

No.	Village	Municipality	Province
2041	Papekop	Oudewater	Utrecht
2042	Papenveer	Nieuwkoop	Z-Holland
2043	Pinkenveer	Giessenlanden	Z-Holland
2044	Platteweg	Bodegraven-Reeuwijk	Z-Holland
2045	Polsbroek	Lopik	Utrecht
2046	Polsbroekerdam	Lopik	Utrecht
2047	Purmerland	Landsmeer	N-Holland
2048	Ransdorp	Amsterdam	N-Holland
2049	Reeuwijk	Bodegraven-Reeuwijk	Z-Holland
2050	Reeuwijk-Dorp	Bodegraven-Reeuwijk	Z-Holland
2051	Rietveld	Rijnwoude	Z-Holland
2052	Rijpwetering	Kaag en Braassem	Z-Holland
2053	Roelofarendsveen	Kaag en Braassem	Z-Holland
2054	Ruigeweide	Oudewater	Utrecht
2055	Schardam	Zeevang	N-Holland
2056	Scharwoude	Koggenland	N-Holland
2057	Schermerhorn	Schermer	N-Holland
2058	Schiebroek	Rotterdam	Z-Holland
2059	Schipluiden	Midden-Delfland	Z-Holland
2060	Schoonouwen	Vlist	Z-Holland
2061	Schuwacht	Nederlek	Z-Holland
2062	Slootdijk	Stichtse Vecht	Utrecht
2063	Sluipwijk	Bodegraven-Reeuwijk	Z-Holland
2064	Spaarndam	Haarlemmerliede en Spaarnwoude	N-Holland
2065	Stierop	Castricum	N-Holland
2066	Stolwijk	Vlist	Z-Holland
2067	Stolwijkersluis	Vlist	Z-Holland
2068	Streefkerk	Liesveld	Z-Holland
2069	't Woudt	Midden-Delfland	Z-Holland
2070	Tappersheul	Oudewater	Utrecht
2071	Ter Lucht	Midden-Delfland	Z-Holland
2072	Tiendweg-West	Nederlek	Z-Holland
2073	Tienhoven	Stichtse Vecht	Utrecht
2074	Uitdam	Waterland	N-Holland
2075	Uitgeest	Uitgeest	N-Holland

No.	Village	Municipality	Province
2076	Verloren Einde	Zeevang	N-Holland
2077	Vinkeveen	De Ronde Venen	Utrecht
2078	Vlist	Vlist	Z-Holland
2079	Voorweg	Rijnwoude	Z-Holland
2080	Vreeland	Stichtse Vecht	Utrecht
2081	Vrouwenakker	Nieuwkoop	Z-Holland
2082	Vuilendam	Graafstroom	Z-Holland
2083	Waarder	Bodegraven-Reeuwijk	Z-Holland
2084	Warder	Zeevang	N-Holland
2085	Watergang	Waterland	N-Holland
2086	Weijland	Bodegraven-Reeuwijk	Z-Holland
2087	Weijpoort	Bodegraven-Reeuwijk	Z-Holland
2088	Weipoort	Zoeterwoude	Z-Holland
2089	Westeinde	Zoeterwoude	Z-Holland
2090	West-Graftdijk	Graft-De Rijp	N-Holland
2091	West-Knollendam	Zaanstad	N-Holland
2092	Westzaan	Zaanstad	N-Holland
2093	Wijngaarden	Graafstroom	Z-Holland
2094	Wilnis	De Ronde Venen	Utrecht
2095	Wormer	Wormerland	N-Holland
2096	Wormerveer	Zaanstad	N-Holland
2097	Woubrugge	Kaag en Braassem	Z-Holland
2098	Zedde	Waterland	N-Holland
2099	Zegveld	Woerden	Utrecht
2100	Zevenhuizen	Kaag en Braassem	Z-Holland
2101	Zoeterwoude Rijndijk	Zoeterwoude	Z-Holland
2102	Zoeterwoude-Dorp	Zoeterwoude	Z-Holland
2103	Zuidbroek	Bergambacht	Z-Holland
2104	Zuidbuurt	Zoeterwoude	Z-Holland
2105	Zuiderwoude	Waterland	N-Holland
2106	Zuidhoek	Nieuwkoop	Z-Holland
2107	Zuidzijde	Bodegraven-Reeuwijk	Z-Holland
2108	Zunderdorp	Amsterdam	N-Holland
2109	Zwammerdam	Alphen aan den Rijn	Z-Holland

No.	Village	Municipality	Province
<b>13. Utrechts-Gelders rivierengebied</b>			
2110	Aalst	Zaltbommel	Gelderland
2111	Aam	Overbetuwe	Gelderland
2112	Achterdijk	Giessenlanden	Z-Holland
2113	Achthoven	Zederik	Z-Holland
2114	Acquoy	Geldermalsen	Gelderland
2115	Aerdt	Rijnwaarden	Gelderland
2116	Afferden	Drunten	Gelderland
2117	Alendorp	Utrecht	Utrecht
2118	Almkerk	Woudrichem	N-Brabant
2119	Alphen	West Maas en Waal	Gelderland
2120	Altforst	West Maas en Waal	Gelderland
2121	Ameide	Zederik	Z-Holland
2122	Ammerzoden	Maasdriel	Gelderland
2123	Andel	Woudrichem	N-Brabant
2124	Andelst	Overbetuwe	Gelderland
2125	Angeren	Lingewaard	Gelderland
2126	Appeltern	West Maas en Waal	Gelderland
2127	Arkel	Giessenlanden	Z-Holland
2128	Asch	Buren	Gelderland
2129	Asperen	Lingewaal	Gelderland
2130	Babberich	Zevenaar	Gelderland
2131	Bahr	Zevenaar	Gelderland
2132	Balgoij	Wijchen	Gelderland
2133	Batenburg	Wijchen	Gelderland
2134	Beek	Ubbergen	Gelderland
2135	Beesd	Geldermalsen	Gelderland
2136	Bekenes	Woerden	Utrecht
2137	Beneden-Leeuwen	West Maas en Waal	Gelderland
2138	Benschop	Lopik	Utrecht
2139	Bergharen	Wijchen	Gelderland
2140	Beusichem	Buren	Gelderland
2141	Blauwesluis	West Maas en Waal	Gelderland
2142	Bokhoven	's-Hertogenbosch	N-Brabant
2143	Boven-Leeuwen	West Maas en Waal	Gelderland
2144	Brakel	Zaltbommel	Gelderland
2145	Bruchem	Zaltbommel	Gelderland
2146	Bunnik	Bunnik	Utrecht
2147	Buren	Buren	Gelderland
2148	Buurmalsen	Geldermalsen	Gelderland
2149	Cabauw	Lopik	Utrecht
2150	Cothen	Wijk bij Duurstede	Utrecht
2151	Crevecoeur	's-Hertogenbosch	N-Brabant

No.	Village	Municipality	Province
2152	De Eng	Duiven	Gelderland
2153	de Hem	Schoonhoven	Z-Holland
2154	De Kooi	Gorinchem	Z-Holland
2155	De Meern	Utrecht	Utrecht
2156	Deest	Drunten	Gelderland
2157	Deil	Geldermalsen	Gelderland
2158	Delwijnen	Zaltbommel	Gelderland
2159	Demen	Oss	N-Brabant
2160	Den Dool	Giessenlanden	Z-Holland
2161	Den Eng	Buren	Gelderland
2162	Den Heppert	West Maas en Waal	Gelderland
2163	Deursen	Oss	N-Brabant
2164	Dieden	Oss	N-Brabant
2165	Diefdijk	Leerdam	Z-Holland
2166	Dieskant	's-Hertogenbosch	N-Brabant
2167	Dodewaard	Neder-Betuwe	Gelderland
2168	Doornenburg	Lingewaard	Gelderland
2169	Dreumel	West Maas en Waal	Gelderland
2170	Driel	Overbetuwe	Gelderland
2171	Drongelen	Aalburg	N-Brabant
2172	Drunten	Drunten	Gelderland
2173	Echteld	Neder-Betuwe	Gelderland
2174	Eck en Wiel	Buren	Gelderland
2175	Eethen	Aalburg	N-Brabant
2176	Elden	Arnhem	Gelderland
2177	Empel	's-Hertogenbosch	N-Brabant
2178	Engelen	's-Hertogenbosch	N-Brabant
2179	Enspijk	Geldermalsen	Gelderland
2180	Erichem	Buren	Gelderland
2181	Est	Neerijnen	Gelderland
2182	Everdingen	Vianen	Utrecht
2183	Ewijk	Beuningen	Gelderland
2184	Flieren	Lingewaard	Gelderland
2185	Gameren	Zaltbommel	Gelderland
2186	Ganzert	Buren	Gelderland
2187	Geer	Zederik	Z-Holland
2188	Gellicum	Geldermalsen	Gelderland
2189	Genderen	Aalburg	N-Brabant
2190	Gendt	Lingewaard	Gelderland
2191	Giesbeek	Zevenaar	Gelderland
2192	Giessen	Woudrichem	N-Brabant
2193	Graaf	Lopik	Utrecht
2194	Groessen	Duiven	Gelderland

No.	Village	Municipality	Province
2195	Groote Haar	Gorinchem	Z-Holland
2196	Haaften	Neerijnen	Gelderland
2197	Haalderen	Lingewaard	Gelderland
2198	Haanwijk	Woerden	Utrecht
2199	Hagestein	Vianen	Utrecht
2200	Hardinxveld-Giessendam	Hardinxveld-Giessendam	Z-Holland
2201	Haren	Oss	N-Brabant
2202	Harmelen	Woerden	Utrecht
2203	Harmelerwaard	Woerden	Utrecht
2204	Haukus	Ubbergen	Gelderland
2205	Hedel	Maasdriel	Gelderland
2206	Hedikhuizen	Heusden	N-Brabant
2207	Heerewarden	Maasdriel	Gelderland
2208	Heesbeen	Heusden	N-Brabant
2209	Heeswijk	Cuijk	N-Brabant
2210	Heeswijk	Montfoort	Utrecht
2211	Hei- en Boeicop	Zederik	Z-Holland
2212	Hemmen	Overbetuwe	Gelderland
2213	Herveld	Overbetuwe	Gelderland
2214	Herwen	Rijnwaarden	Gelderland
2215	Herwijnen	Lingewaal	Gelderland
2216	Het Wild	Oss	N-Brabant
2217	Heteren	Overbetuwe	Gelderland
2218	Heukelum	Lingewaal	Gelderland
2219	Heusden	Heusden	N-Brabant
2220	Hien	Neder-Betuwe	Gelderland
2221	Hoek	Beuningen	Gelderland
2222	Hoenzadriel	Maasdriel	Gelderland
2223	Hoeve	Beuningen	Gelderland
2224	Holthuizen	Zevenaar	Gelderland
2225	Hoog Kana	Buren	Gelderland
2226	Hoogblokland	Giessenlanden	Z-Holland
2227	Hoogewaard	Zederik	Z-Holland
2228	Horsssen	Druuten	Gelderland
2229	Hucht	Neerijnen	Gelderland
2230	Huisseling	Oss	N-Brabant
2231	Huissen	Lingewaard	Gelderland
2232	Hulhuizen	Lingewaard	Gelderland
2233	Hurwenen	Maasdriel	Gelderland
2234	Ingen	Buren	Gelderland
2235	Jaarsveld	Lopik	Utrecht
2236	Kapel	Lingewaard	Gelderland
2237	Kapel-Avezaath	Tiel	Gelderland

No.	Village	Municipality	Province
2238	Katwijk	Cuijk	N-Brabant
2239	Kedichem	Leerdam	Z-Holland
2240	Kekerdom	Ubbergen	Gelderland
2241	Kerk-Avezaath	Buren	Gelderland
2242	Kerk-Avezaath Tiel	Tiel	Gelderland
2243	Kerkdriel	Maasdriel	Gelderland
2244	Kerkwijk	Zaltbommel	Gelderland
2245	Kessel	Oss	N-Brabant
2246	Kesteren	Neder-Betuwe	Gelderland
2247	Klein Baal	Lingewaard	Gelderland
2248	Klinkenberg	Buren	Gelderland
2249	Kommerdijk	Lingewaard	Gelderland
2250	Kortenhoeven	Zederik	Z-Holland
2251	Kortgerecht	Leerdam	Z-Holland
2252	Koudenhoek	Nijmegen	Gelderland
2253	Lakerveld	Zederik	Z-Holland
2254	Langbroek	Wijk bij Duurstede	Utrecht
2255	Lange Linschoten	Oudewater	Utrecht
2256	Lathum	Zevenaar	Gelderland
2257	Leedjes	Overbetuwe	Gelderland
2258	Leerbroek	Zederik	Z-Holland
2259	Lent	Nijmegen	Gelderland
2260	Leur	Wijchen	Gelderland
2261	Leuth	Ubbergen	Gelderland
2262	Lexmond	Zederik	Z-Holland
2263	Lienden	Buren	Gelderland
2264	Liesveld	Liesveld	Z-Holland
2265	Linden	Cuijk	N-Brabant
2266	Linschoten	Montfoort	Utrecht
2267	Lith	Oss	N-Brabant
2268	Lithoijen	Oss	N-Brabant
2269	Lobith	Rijnwaarden	Gelderland
2270	Loenen	Overbetuwe	Gelderland
2271	Loo	Duiven	Gelderland
2272	Lopik	Lopik	Utrecht
2273	Lopikerkapel	Lopik	Utrecht
2274	Lutterveld	Buren	Gelderland
2275	Maasbommel	West Maas en Waal	Gelderland
2276	Macharen	Oss	N-Brabant
2277	Maren	Oss	N-Brabant
2278	Maren-Kessel	Oss	N-Brabant
2279	Maurik	Buren	Gelderland
2280	Meerkerk	Zederik	Z-Holland

No.	Village	Municipality	Province
2281	Meerten	Buren	Gelderland
2282	Meeuwen	Aalburg	N-Brabant
2283	Megen	Oss	N-Brabant
2284	Merm	Overbetuwe	Gelderland
2285	Meteren	Geldermalsen	Gelderland
2286	Middelkoop	Zederik	Z-Holland
2287	Millingen aan de Rijn	Millingen aan de Rijn	Gelderland
2288	Moleneind	West Maas en Waal	Gelderland
2289	Molenhoek	Druten	Gelderland
2290	Molenhoek	Heumen	Gelderland
2291	Montfoort	Montfoort	Utrecht
2292	Mun	West Maas en Waal	Gelderland
2293	Nederasselt	Heumen	Gelderland
2294	Neder-Hardinxveld	Hardinxveld-Giessendam	Z-Holland
2295	Nederhemert	Zaltbommel	Gelderland
2296	Nederlangbroek	Wijk bij Duurstede	Utrecht
2297	Neer-Andel	Woudrichem	N-Brabant
2298	Neerlangel	Oss	N-Brabant
2299	Nieuwaal	Zaltbommel	Gelderland
2300	Nieuwgraaf	Duiven	Gelderland
2301	Nieuwpoort	Liesveld	Z-Holland
2302	Noordeloos	Giessenlanden	Z-Holland
2303	Odijk	Bunnik	Utrecht
2304	Oijen	Oss	N-Brabant
2305	Ommeren	Buren	Gelderland
2306	Ooij	Ubbergen	Gelderland
2307	Oosterhout	Overbetuwe	Gelderland
2308	Ophemert	Neerijnen	Gelderland
2309	Opheusden	Neder-Betuwe	Gelderland
2310	Opijnen	Neerijnen	Gelderland
2311	Oude Maasdijk	West Maas en Waal	Gelderland
2312	Oudenrijn	Utrecht	Utrecht
2313	Oudewater	Oudewater	Utrecht
2314	Oud-Heusden	Heusden	N-Brabant
2315	Oud-Zevenaar	Zevenaar	Gelderland
2316	Overasselt	Heumen	Gelderland
2317	Overboeicops	Leerdam	Z-Holland
2318	Overheicop	Leerdam	Z-Holland
2319	Pannerden	Rijnwaarden	Gelderland
2320	Pels	Westervoort	Gelderland
2321	Poederrijen	Zaltbommel	Gelderland
2322	Polanen	Woerden	Utrecht
2323	Ravenstein	Oss	N-Brabant

No.	Village	Municipality	Province
2324	Rhenoy	Geldermalsen	Gelderland
2325	Rietveld	Woerden	Utrecht
2326	Rietveld	Giessenlanden	Z-Holland
2327	Rijswijk	Buren	Gelderland
2328	Rijswijk	Woudrichem	N-Brabant
2329	Rossum	Maasdriel	Gelderland
2330	Rumpt	Geldermalsen	Gelderland
2331	Schelluinen	Giessenlanden	Z-Holland
2332	Schoonrewoerd	Leerdam	Z-Holland
2333	Sleewijk	Werkendam	N-Brabant
2334	Slijk Ewijk	Overbetuwe	Gelderland
2335	Slijkwijk	Maasdriel	Gelderland
2336	Sluis	Zederik	Z-Holland
2337	Snelrewaard	Oudewater	Utrecht
2338	Spijk	Lingewaal	Gelderland
2339	Stadsdam	Utrecht	Utrecht
2340	't Goy	Houten	Utrecht
2341	't Zand	Nijmegen	Gelderland
2342	Teeffelen	Oss	N-Brabant
2343	Tricht	Geldermalsen	Gelderland
2344	Tull en 't Waal	Houten	Utrecht
2345	Ubbergen	Ubbergen	Gelderland
2346	Uitweg	Lopik	Utrecht
2347	Valburg	Overbetuwe	Gelderland
2348	Varik	Neerijnen	Gelderland
2349	Veen	Aalburg	N-Brabant
2350	Velddriel	Maasdriel	Gelderland
2351	Veluwe	Maasdriel	Gelderland
2352	Vleuten	Utrecht	Utrecht
2353	Vogelswerf	Lingewaal	Gelderland
2354	Voorne	Maasdriel	Gelderland
2355	Vossenpels	Nijmegen	Gelderland
2356	Vuren	Lingewaal	Gelderland
2357	Waardenburg	Neerijnen	Gelderland
2358	Wadenoijen	Tiel	Gelderland
2359	Wamel	West Maas en Waal	Gelderland
2360	Well	Maasdriel	Gelderland
2361	Wellseind	Maasdriel	Gelderland
2362	Wely	Neder-Betuwe	Gelderland
2363	Werkhoven	Bunnik	Utrecht
2364	Westervoort	Westervoort	Gelderland
2365	Weurt	Beuningen	Gelderland
2366	Weverwijk	Zederik	Z-Holland

No.	Village	Municipality	Province
2367	Wijk en Aalburg	Aalburg	N-Brabant
2368	Willeskop	Oudewater	Utrecht
2369	Willige Langerak	Schoonhoven	Z-Holland
2370	Winssen	Beuningen	Gelderland
2371	Woerd	West Maas en Waal	Gelderland
2372	Woudrichem	Woudrichem	N-Brabant
2373	Zandheuvel	Lingewaard	Gelderland
2374	Zetten	Overbetuwe	Gelderland
2375	Zijderveld	Vianen	Utrecht
2376	Zoelen	Buren	Gelderland
2377	Zoelmond	Buren	Gelderland
2378	Zuilichem	Zaltbommel	Gelderland
2379	Zweekhorst	Zevenaar	Gelderland

No.	Village	Municipality	Province
<b>14. Zeeuws kleigebied</b>			
2380	Aagtekerke	Veere	Zeeland
2381	Aardenburg	Sluis	Zeeland
2382	Absdale	Hulst	Zeeland
2383	Achter Lindt	Zwijndrecht	Z-Holland
2384	Achthuizen	Oostflakkee	Z-Holland
2385	Arnemuiden	Middelburg	Zeeland
2386	Axel	Terneuzen	Zeeland
2387	Baarland	Borsele	Zeeland
2388	Biert	Bernisse	Z-Holland
2389	Biervliet	Terneuzen	Zeeland
2390	Biezelinghe	Kapelle	Zeeland
2391	Biggekerke	Veere	Zeeland
2392	Bolnes	Ridderkerk	Z-Holland
2393	Breezand	Veere	Zeeland
2394	Breskens	Sluis	Zeeland
2395	Brielle	Brielle	Z-Holland
2396	Brigdamme	Middelburg	Zeeland
2397	Brouwershaven	Schouwen-Duiveland	Zeeland
2398	Bruinisse	Schouwen-Duiveland	Zeeland
2399	Buiten de Veste	Veere	Zeeland
2400	Burgh	Schouwen-Duiveland	Zeeland
2401	Cadzand	Sluis	Zeeland
2402	Cadzand-Bad	Sluis	Zeeland
2403	Calfven	Woensdrecht	N-Brabant
2404	Carnisse	Barendrecht	Z-Holland
2405	Cillaarshoek	Strijen	Z-Holland
2406	Clinge	Hulst	Zeeland
2407	De Bergan	Geertruidenberg	N-Brabant
2408	De Heen	Steenbergen	N-Brabant
2409	De Knol	Terneuzen	Zeeland
2410	De Kwakkel	Terneuzen	Zeeland
2411	De Langstraat	Oostflakkee	Z-Holland
2412	Den Bommel	Oostflakkee	Z-Holland
2413	Dirksland	Dirksland	Z-Holland
2414	Dishoek	Veere	Zeeland
2415	Doeveren	Heusden	N-Brabant
2416	Domburg	Veere	Zeeland
2417	Dreischor	Schouwen-Duiveland	Zeeland
2418	Drie Hoefijzers	Hulst	Zeeland
2419	Driewegen	Borsele	Zeeland
2420	Dussen	Werkendam	N-Brabant
2421	Eede	Sluis	Zeeland

No.	Village	Municipality	Province
2422	Eindewege	Goes	Zeeland
2423	Ellemeet	Schouwen-Duiveland	Zeeland
2424	Ellewoutsdijk	Borsele	Zeeland
2425	Gapinge	Veere	Zeeland
2426	Geervliet	Bernisse	Z-Holland
2427	Goedereede	Goedereede	Z-Holland
2428	Grijpskerke	Veere	Zeeland
2429	Groede	Sluis	Zeeland
2430	Haamstede	Schouwen-Duiveland	Zeeland
2431	Hansweert	Reimerswaal	Zeeland
2432	Hasjesstraat	Terneuzen	Zeeland
2433	Havenhoofd	Goedereede	Z-Holland
2434	Heense Molen	Steenbergen	N-Brabant
2435	Heenvliet	Bernisse	Z-Holland
2436	Heerjansdam	Zwijndrecht	Z-Holland
2437	Heinkenszand	Borsele	Zeeland
2438	Hekelingen	Spijkenisse	Z-Holland
2439	Helhoek	Westvoorne	Z-Holland
2440	Hengstdijk	Hulst	Zeeland
2441	Herkingen	Dirksland	Z-Holland
2442	Het Kustlicht	Veere	Zeeland
2443	Hoedekenskerke	Borsele	Zeeland
2444	Hoek	Terneuzen	Zeeland
2445	IJzendijke	Sluis	Zeeland
2446	Joossesweg	Veere	Zeeland
2447	Kampen	Hulst	Zeeland
2448	Kapelle	Kapelle	Zeeland
2449	Kapellebrug	Hulst	Zeeland
2450	Kattendijke	Goes	Zeeland
2451	Keizerrijk	Hulst	Zeeland
2452	Keizersdijk	Strijen	Z-Holland
2453	Kerkwerve	Schouwen-Duiveland	Zeeland
2454	Kijfhoek	Zwijndrecht	Z-Holland
2455	Kleine-Lindt	Zwijndrecht	Z-Holland
2456	Kleverskerke	Middelburg	Zeeland
2457	Kloetinge	Goes	Zeeland
2458	Koevering	Steenbergen	N-Brabant
2459	Koewacht	Terneuzen	Zeeland
2460	Koudekerke	Veere	Zeeland
2461	Kralingen	Dirksland	Z-Holland
2462	Kranendijk	Oostflakkee	Z-Holland
2463	Kruiningen	Reimerswaal	Zeeland
2464	Kruiningergors	Westvoorne	Z-Holland

No.	Village	Municipality	Province
2465	Kruisland	Steenbergen	N-Brabant
2466	Kuitaart	Hulst	Zeeland
2467	Kwadendamme	Borsele	Zeeland
2468	Lamswaarde	Hulst	Zeeland
2469	Luntershoek	Hulst	Zeeland
2470	Mauritsfort	Terneuzen	Zeeland
2471	Meliskerke	Veere	Zeeland
2472	Middelharnis	Middelharnis	Z-Holland
2473	Moerdijk	Moerdijk	N-Brabant
2474	Molenhoek	Hulst	Zeeland
2475	Nieuwemolen	Terneuzen	Zeeland
2476	Nieuwenhoorn	Hellevoetsluis	Z-Holland
2477	Nieuwerkerk	Schouwen-Duiveland	Zeeland
2478	Nieuwe-Tonge	Middelharnis	Z-Holland
2479	Nieuw-Haamstede	Schouwen-Duiveland	Zeeland
2480	Nieuw-Namen	Hulst	Zeeland
2481	Nieuw-Vossemeer	Steenbergen	N-Brabant
2482	Nisse	Borsele	Zeeland
2483	Noordgouwe	Schouwen-Duiveland	Zeeland
2484	Notendaal	Steenbergen	N-Brabant
2485	Ooltgensplaat	Oostflakkee	Z-Holland
2486	Oostburg	Sluis	Zeeland
2487	Oostdijk	Reimerswaal	Zeeland
2488	Oostdijk	Goedereede	Z-Holland
2489	Oostendam	Ridderkerk	Z-Holland
2490	Oosterland	Schouwen-Duiveland	Zeeland
2491	Oostkapelle	Veere	Zeeland
2492	Oost-Souburg	Vlissingen	Zeeland
2493	Oostvoorne	Westvoorne	Z-Holland
2494	Ossenisse	Hulst	Zeeland
2495	Othene	Terneuzen	Zeeland
2496	Ouddorp	Goedereede	Z-Holland
2497	Oude Nieuwland	Goedereede	Z-Holland
2498	Oude Stoof	Hulst	Zeeland
2499	Oudeland	Goedereede	Z-Holland
2500	Oudelande	Borsele	Zeeland
2501	Oudenhoorn	Bernisse	Z-Holland
2502	Oud-Sabbinge	Goes	Zeeland
2503	Oud-Vossemeer	Tholen	Zeeland
2504	Ouwerkerk	Schouwen-Duiveland	Zeeland
2505	Overslag	Terneuzen	Zeeland
2506	Ovezande	Borsele	Zeeland
2507	Patrijzenhoek	Hulst	Zeeland

No.	Village	Municipality	Province
2508	Pauluspolder	Hulst	Zeeland
2509	Pernis	Rotterdam	Z-Holland
2510	Philippine	Terneuzen	Zeeland
2511	Poortugaal	Albrandswaard	Z-Holland
2512	Poortvliet	Tholen	Zeeland
2513	Raamsdonk	Geertruidenberg	N-Brabant
2514	Renesse	Schouwen-Duiveland	Zeeland
2515	Retranchement	Sluis	Zeeland
2516	Rhoon	Albrandswaard	Z-Holland
2517	Rijsoord	Ridderkerk	Z-Holland
2518	Ritthem	Vlissingen	Zeeland
2519	Rockanje	Westvoorne	Z-Holland
2520	Sas van Gent	Terneuzen	Zeeland
2521	Sasput	Sluis	Zeeland
2522	Schapershoek	Hulst	Zeeland
2523	Scharendijke	Schouwen-Duiveland	Zeeland
2524	Scherpenisse	Tholen	Zeeland
2525	Schoondijke	Sluis	Zeeland
2526	Schore	Kapelle	Zeeland
2527	Schuddebeurs	Schouwen-Duiveland	Zeeland
2528	Schuddebeurs	Hulst	Zeeland
2529	Serooskerke	Veere	Zeeland
2530	's-Gravenpolder	Borsele	Zeeland
2531	's-Heer Abtskerke	Borsele	Zeeland
2532	's-Heer Arendskerke	Goes	Zeeland
2533	's-Heer Hendrikskinderen	Goes	Zeeland
2534	Simonshaven	Bernisse	Z-Holland
2535	Sint Anna ter Muiden	Sluis	Zeeland
2536	Sint Annaland	Tholen	Zeeland
2537	Sint Anthoniepolder	Binnenmaas	Z-Holland
2538	Sint Jansteen	Hulst	Zeeland
2539	Sint Kruis	Sluis	Zeeland
2540	Sint Maartensdijk	Tholen	Zeeland
2541	Sirjansland	Schouwen-Duiveland	Zeeland
2542	Slikkerveer	Ridderkerk	Z-Holland
2543	Sluis	Sluis	Zeeland
2544	Smitshoek	Barendrecht	Z-Holland
2545	Sommelsdijk	Middelharnis	Z-Holland
2546	Spinolaberg	Bergen op Zoom	N-Brabant
2547	Statenboom	Hulst	Zeeland

No.	Village	Municipality	Province
2548	Stavenisse	Tholen	Zeeland
2549	Stoppeldijkveer	Hulst	Zeeland
2550	Strooiestad	Hulst	Zeeland
2551	Stuifakker	Westvoorne	Z-Holland
2552	't Jagertie	Hulst	Zeeland
2553	Tasdijk	Hulst	Zeeland
2554	Ter Hole	Hulst	Zeeland
2555	Tholen	Tholen	Zeeland
2556	Tinte	Westvoorne	Z-Holland
2557	Veere	Veere	Zeeland
2558	Vierpolders	Brielle	Z-Holland
2559	Vlotbrug	Hellevoetsluis	Z-Holland
2560	Vogelfort	Hulst	Zeeland
2561	Vogelwaarde	Hulst	Zeeland
2562	Vrouwenpolder	Veere	Zeeland
2563	Waarde	Reimerswaal	Zeeland
2564	Waterlandkerkje	Sluis	Zeeland
2565	Wemeldinge	Kapelle	Zeeland
2566	Westenschouwen	Schouwen-Duiveland	Zeeland
2567	Westkapelle	Veere	Zeeland
2568	Westmaas	Binnenmaas	Z-Holland
2569	West-Souburg	Vlissingen	Zeeland
2570	Wissekerke	Goes	Zeeland
2571	Woensdrecht	Woensdrecht	N-Brabant
2572	Wolphaartsdijk	Goes	Zeeland
2573	Wulpenbek	Terneuzen	Zeeland
2574	Yerseke	Reimerswaal	Zeeland
2575	Zaamslag	Terneuzen	Zeeland
2576	Zanddijk	Veere	Zeeland
2577	Zandplaat	Terneuzen	Zeeland
2578	Zeegat	Hulst	Zeeland
2579	Zoutelande	Veere	Zeeland
2580	Zuiddorpe	Terneuzen	Zeeland
2581	Zuidland	Bernisse	Z-Holland
2582	Zuidzande	Sluis	Zeeland
2583	Zuidzijde	Oostflakkee	Z-Holland
2584	Zuiveringsinst	Dirksland	Z-Holland
2585	Zwaantje	Ridderkerk	Z-Holland
2586	Zwanegat	Binnenmaas	Z-Holland
2587	Zwarte Ruiter	Steenbergen	N-Brabant

# Appendix III

## Overview of abandoned and relocated villages (500-1600 AD)

Courtesy of B. Stulp & E. Poppe

Nr.	Nederzetting	Huidige gemeente	Reden	Periode	Jaar van de gebeurtenis
<b>1. Drents zandgebied</b>					
1	Bellingewolde		verplaatsing	1000 - 1500	-
2	Blijham		verplaatsing	1000 - 1500	-
3	Brongerga 1		verplaatsing	1000 - 1500	-
4	Brongerga 2		verplaatsing	1000 - 1500	-
5	Drachten		verplaatsing	1000 - 1500	-
6	Dungebroek		verplaatsing	1000 - 1500	-
7	Golthoorn		overstroming	1000 - 1500	-
8	Jubbega		verplaatsing	1000 - 1500	-
9	Katlijk		verplaatsing	1000 - 1500	-
10	Kobunderhusum		verplaatsing	1000 - 1500	-
11	Kooten		verplaatsing	1000 - 1500	-
12	Meeden		verplaatsing	1000 - 1500	-
13	Oost-Finsterwolde		overstroming, verplaatsing	1000 - 1500	-
14	Opeinde		verplaatsing	1000 - 1500	-
15	Oud-Beets		verplaatsing	1000 - 1500	-
16	Peelo		verplaatsing	500 - 1000	-
17	Peperga		verplaatsing	1000 - 1500	-
18	Sint Augustinus		verplaatsing	1000 - 1500	-
19	Sonnega		verplaatsing	1000 - 1500	-
20	Staphorst 2		verplaatsing	1000 - 1500	-
21	Suderhusum		verplaatsing	1000 - 1500	-
22	Twijzel		verplaatsing	1000 - 1500	-
23	Uth Rathorp		verplaatsing	1000 - 1500	-
24	Veenhuizen		ontvolking	1500 - 1600	-
25	Vriescheloo		verplaatsing	1500 - 1600	-
26	Weningawalda		verplaatsing	1000 - 1500	-
27	West-Finsterwolde		verplaatsing	1000 - 1500	-
<b>2. Utrechts-Gelderse zandgebied</b>					
28	Harten		oorlog	1500 - 1600	-
29	Hees		overstuiving, ontvolking	1500 - 1600	-
30	Kootwijk		verplaatsing	1000 - 1500	-
31	Lisiduna		overstuiving, ontvolking	1000 - 1500	-
32	Wolfheze		oorlog	1500 - 1600	1585 (Tachtigjarige Oorlog)
<b>3. Overijsels-Gelderse zandgebied</b>					
33	Luchere		overstroming	1000 - 1500	-
34	Vriezenveen 1		verplaatsing	1000 - 1500	-
35	Vriezenveen 2		verplaatsing	1500 - 1600	-
<b>4. Brabants zandgebied</b>					
36	Koeveringe		overstroming	1000 - 1500	-
37	Lieshout		verplaatsing	1000 - 1500	-
38	Oostelbeers		verplaatsing	1500 - 1600	-
39	Stiphout		oorlog, verplaatsing	1500 - 1600	-(Tachtigjarige Oorlog)

5. Limburgs zandgebied					
	geen verdwenen dorpen bekend				
6. Limburgs lössgebied					
40	Haagsittard		ontvolking	1000 - 1500	-
7. Fries-Gronings kleigebied					
41	Astok		overstroming	1000 - 1500	-
42	Bandt		overstroming	1000 - 1500	-
43	Barrewier		ontvolking	1000 - 1500	-
44	Houwingeham		overstroming	1000 - 1500	1498
45	Hovingagast		overstroming	1000 - 1500	-
46	Maddens		overstroming	1500 - 1600	-
47	Mentenwolde		overstroming	1000 - 1500	-
48	Merkhusen		overstroming	1000 - 1500	-
49	Oostwold		verplaatsing	1000 - 1500	-
50	Osendorp		overstroming	1000 - 1500	-
51	Scharnum		overstroming	1000 - 1500	-
52	Scheemda		verplaatsing	1500 - 1600	-
53	Sint Gangolf		verplaatsing	1000 - 1500	-
54	Stryp		oorlog	1500 - 1600	-
55	Sytsingawier		ontvolking	1000 - 1500	-
56	Tirns		overstroming	1000 - 1500	-
57	Torperen		overstroming	1000 - 1500	-
58	Vijfpoort		ontvolking	1500 - 1600	-
59	Zwaag		overstroming	1000 - 1500	-
8. Noordhollands kleigebied					
60	Almersdorp		overstroming	1000 - 1500	1334 (buitenbedijking)
61	Blokhuizen		verplaatsing	1000 - 1500	-
62	Bovenkarspel		verplaatsing	1000 - 1500	-
63	Den Horn		oorlog, verplaatsing	1000 - 1500	1398
64	Den Westen		overstuiving, oorlog	1500 - 1600	-
65	Gawijzend		overstroming	1000 - 1500	1334 (buitenbedijking)
66	Gommerkarspel		verplaatsing	1000 - 1500	-
67	Grootebroek		verplaatsing	1000 - 1500	-
68	Grootkeins		overstroming	1000 - 1500	-
69	Hoogkarspel		verplaatsing	1000 - 1500	-
70	Lagerdoes		overstroming	1000 - 1500	-
71	Leeuwenhorn		overstroming	1000 - 1500	-
72	Linnen		overstroming	1000 - 1500	-
73	Oost		ontvolking	1000 - 1500	-
74	Schulhorn		overstroming	1000 - 1500	-
75	Torp		overstuiving, ontvolking	1500 - 1600	-
76	Vronen		oorlog, ontvolking	1000 - 1500	1297
77	Warmenhuizen		verplaatsing	1000 - 1500	-
78	Zevenhuizen		ontvolking	1000 - 1500	-
79	Zudendorp		overstroming	1000 - 1500	-

9. Friese veengebied					
80	Ackrommaryp		verplaatsing	1000 - 1500	-
81	Ackromrypraswagh		verplaatsing	1000 - 1500	-
82	Bantega		overstroming	1000 - 1500	-
83	De Zwagen		overstroming, verplaatsing	1000 - 1500	-
84	Delfstrahuizen		verplaatsing	1500 - 1600	-
85	Folprandega		verplaatsing	1000 - 1500	-
86	Garijp		verplaatsing	1000 - 1500	-
87	Gersloot		verplaatsing	1000 - 1500	-
88	Katrijp		verplaatsing	1000 - 1500	-
89	Kloesewier		ontvolking	1000 - 1500	-
90	Lemmerbroek		overstroming	1000 - 1500	-
91	Lyedingaberde		verplaatsing	1000 - 1500	-
92	Nijega		verplaatsing	1500 - 1600	-
93	Oosterzee		verplaatsing	1500 - 1600	-
94	Oudega		oorlog	1500 - 1600	1515 - 1516
95	Rijp		verplaatsing	1000 - 1500	-
96	Rouveen 1		verplaatsing	1000 - 1500	-
97	Rouveen 2		verplaatsing	1000 - 1500	-
98	Sigerswolde		verplaatsing	1000 - 1500	-
99	Sileham		overstroming	1000 - 1500	-
100	Smalle Ee		verplaatsing	1000 - 1500	-
101	Staphorst 1		verplaatsing	1000 - 1500	-
102	Tyanlaberde		verplaatsing	1000 - 1500	-
103	Utresuagh		verplaatsing	1000 - 1500	-
104	Westermear		concurrentie, verplaatsing	1500 - 1600	-
105	Wispolia		verplaatsing	1000 - 1500	-
10. Flevolands kleigebied					
106	Ark		overstroming	1000 - 1500	-
107	Biddingheim		overstroming	1000 - 1500	-
108	Emelwarde		overstroming, verplaatsing	1000 - 1500	-
109	Espele		overstroming	1000 - 1500	-
110	Kunresyl		overstroming	1000 - 1500	-
111	Luttelgeest		overstroming	1000 - 1500	-
112	Marenese		overstroming	1000 - 1500	-
113	Nagele		overstroming	1000 - 1500	-
114	Orc		oorlog	1000 - 1500	-
115	Ruthne		overstroming	1000 - 1500	-
116	Sevenhusum		overstroming	1000 - 1500	-
117	Tollebeek		overstroming	1000 - 1500	-
118	Venehusen		overstroming	1000 - 1500	-
11. Hollands duingebied					
119	Berkheide		overstuiving	1500 - 1600	-
12. Hollands veengebied					

120	Assendelft		verplaatsing	1000 - 1500	-
121	Boesingheliede		overstroming	1000 - 1500	-
122	Haarlemmerwoude		overstroming	1000 - 1500	-
123	Lammoer		overstroming	1000 - 1500	-
124	Mi		overstroming, oorlog	1000 - 1500	-
125	Nieuwerkerk 1		overstroming, verplaatsing	1000 - 1500	1467
126	Nieuwerkerk 2		overstroming, verplaatsing	1500 - 1600	-
127	Oeterwaal		concurrentie	1500 - 1600	-
128	Otterspoor		ontvolking	1000 - 1500	-
129	Oud-Raefeldam		verplaatsing	1000 - 1500	-
130	Poppendam		concurrentie	1000 - 1500	-
131	Scirmere 1		overstroming, verplaatsing	1000 - 1500	-
132	Scirmere 2		ontvolking	1000 - 1500	-
133	Sloten		verplaatsing	1000 - 1500	-
134	Swieten		overstroming, oorlog	1000 - 1500	-
135	Vijfhuizen		overstroming, oorlog	1500 - 1600	1591 (Tachtigjarige Oorlog)
136	Wouthuysen		verplaatsing	1000 - 1500	-
<b>12. Utrechts-Gelders rivierengebied</b>					
137	Almkerk		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
138	Dussen-Muilkerk		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
139	Haltna		ontvolking	1000 - 1500	-
140	Honswijk		oorlog, ontvolking	1000 - 1500	-
141	Loerik		ontvolking	1000 - 1500	-
142	Oostrum		oorlog, ontvolking	1000 - 1500	-
143	Paveien		ontvolking	1000 - 1500	-
144	Westrum		ontvolking	1000 - 1500	-
145	Wijk		?	1000 - 1500	-
<b>14. Zeeuws kleigebied</b>					
146	Aendijcke		overstroming, oorlog	1500 - 1600	1584 (Tachtigjarige Oorlog, inundatie)
147	Agger 1		overstroming	1000 - 1500	1288 (Sint Aagthenvloed)
148	Agger 2		overstroming	1500 - 1600	1552 (Sint Pontiaansvloed)
149	Almonde		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
150	Almsvoet		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
151	Barendrecht		overstroming	1000 - 1500	1374
152	Bath		overstroming	1500 - 1600	1552 (Sint Pontiaansvloed)
153	Beostenblij		overstroming, oorlog	1500 - 1600	1586 (Tachtigjarige oorlog, inundatie)
154	Borgvliet		overstroming, oorlog	1500 - 1600	- (Tachtigjarige Oorlog)
155	Boterzande		overstroming	1000 - 1500	1375
156	Brigdamme		ontvolking	1500 - 1600	1562
157	Brijdorpe		overstroming	1000 - 1500	- (buitenbedijking)
158	Broek		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
159	Buttinge		oorlog	1500 - 1600	- (Tachtigjarige Oorlog)
160	Campen		overstroming	1500 - 1600	1530 (Sint Felixvloed)

161	Carnisse		overstroming	1000 - 1500	1374
162	Casuele		overstroming, oorlog	1500 - 1600	1584 (Tachtigjarige Oorlog, inundatie)
163	Claeskinderkerke		overstroming	1500 - 1600	1570 (Allerheiligenvloed)
164	Coudekerke		overstroming	1000 - 1500	1375
165	Coudorpe		overstroming, concurrentie	1500 - 1600	1530 (Sint Felixvloed) - 1532 (Allerheiligenvloed)
166	Coxyde		overstroming, oorlog	1500 - 1600	1583 (Tachtigjarige Oorlog, inundatie)
167	De Piet		overstroming	1000 - 1500	1375
168	Dekenskapelle		overstroming	1000 - 1500	1463
169	Delie		oorlog	1000 - 1500	1295
170	Drimmelen		overstroming, verplaatsing	1000 - 1500	1421 (Sint Elisabethsvloed)
171	Dubbeldam		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
172	Dubbelmonde		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
173	Duivendijke		ontvolking	1500 - 1600	-
174	Dussen-Munsterkerk 1		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
175	Edekinge		overstroming	1500 - 1600	1530 (Sint Felixvloed)
176	Eemskerck		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
177	Elkerzee		oorlog	1500 - 1600	- (Tachtigjarige Oorlog)
178	Ellemeet		verplaatsing	1500 - 1600	-
179	Elmare		overstroming	1000 - 1500	1375
180	Emelisse		overstroming	1500 - 1600	1532 (Allerheiligenvloed)
181	Erkentrudenderkerke		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
182	Gaternesse		overstroming	1500 - 1600	1570 (Allerheiligenvloed)
183	Geersdijck		overstroming	1500 - 1600	1530 (Sint Felixvloed) - 1532 (Allerheiligenvloed)
184	Graauw		overstroming, oorlog	1500 - 1600	1584 - 1585 (Tachtigjarige Oorlog, inundatie)
185	Grote Lindt		overstroming	1000 - 1500	1374
186	Heeraartsweerd		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
187	Hertinghe		overstroming, oorlog	1000 - 1500	1488 (inundatie)
188	Hongersdijk 1		overstroming	1000 - 1500	1334 (Sint Clemensvloed)
189	Hongersdijk 2		overstroming	1500 - 1600	1552 (Sint Pontiaansvloed)
190	Hontenisse		overstroming, verplaatsing	1500 - 1600	1509 (Cosmas- en Damianusvloed)
191	Hoogelande		oorlog	1500 - 1600	1572 (Tachtigjarige Oorlog)
192	Hotenes		oorlog, verplaatsing	1500 - 1600	1573
193	Houweninghen		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
194	Katendrecht		overstroming	1000 - 1500	1374
195	Kats		overstroming	1500 - 1600	1532 (Allerheiligenvloed)
196	Klein-Mariekerke		oorlog	1500 - 1600	- (Tachtigjarige Oorlog)
197	Krabbendijke		overstroming	1500 - 1600	1530 (Sint Felixvloed)
198	Krommenhoeke		oorlog	1500 - 1600	- (Tachtigjarige Oorlog)
199	Leiderkerk		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
200	Meere		overstroming	1500 - 1600	1530 (Sint Felixvloed)
201	Moerkerke		overstroming, oorlog	1000 - 1500	1488 (inundatie)

202	Moggershil		overstroming	1500 - 1600	1570 (Allerheiligenvloed)
203	Monster		overstroming	1500 - 1600	1532 (Allerheiligenvloed)
204	Niervaart		overstroming	1000 - 1500	-
205	Nieuwerkerke		concurrentie	1000 - 1500	-
206	Nieuwerkerke		overstroming, oorlog	1000 - 1500	1488 (inundatie)
207	Nieuwerkerke		oorlog	1500 - 1600	-(Tachtigjarige Oorlog)
208	Nieuwerve		oorlog	1500 - 1600	-
209	Nieuw-Gastel		oorlog	1500 - 1600	-(Tachtigjarige Oorlog)
210	Offliet		overstroming	1000 - 1500	-
211	Oostkerke		overstroming	1000 - 1500	1334 (Sint Clemensvloed)
212	Oostkerke		overstroming	1500 - 1600	1530 (Sint Felixvloed)
213	Oostmanscapelle 2		overstroming, oorlog	1500 - 1600	1583 - 1585 (Tachtigjarige Oorlog, inundatie)
214	Oostmanskerke		overstroming	1000 - 1500	1375
215	Ossendrecht		overstroming, oorlog	1500 - 1600	1570 (Allerheiligenvloed), - (Tachtigjarige Oorlog)
216	Othene 1		overstroming	1000 - 1500	1214
217	Othene 2		overstroming, oorlog	1500 - 1600	1586 (Tachtigjarige oorlog, inundatie)
218	Oudeman 1		overstroming, oorlog	1500 - 1600	-(Tachtigjarige Oorlog, inundatie)
219	Ouderdinge		overstroming	1500 - 1600	1530 (Sint Felixvloed)
220	Pakinghe		overstroming	1000 - 1500	1214
221	Peerboom		overstroming, oorlog	1000 - 1500	1488 (inundatie) - 1493
222	Polre		overstroming	1500 - 1600	1570 (Allerheiligenvloed)
223	Popkensburg		ontvolking	1500 - 1600	1566
224	Poppekerke		oorlog	1500 - 1600	-(Tachtigjarige Oorlog)
225	Poppendamme		oorlog	1500 - 1600	-(Tachtigjarige Oorlog)
226	Rikedale		overstuiving	1500 - 1600	-
227	Ruschevliet		?	1000 - 1500	-
228	Saeftinge 1		overstroming	1000 - 1500	1175
229	Schakerloo		oorlog, concurrentie	1500 - 1600	-(Tachtigjarige Oorlog)
230	Schellag		oorlog	1500 - 1600	-(Tachtigjarige Oorlog)
231	Schoonboom		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
232	Schoondijke		overstroming, oorlog	1500 - 1600	1583 - 1585 (Tachtigjarige Oorlog, inundatie)
233	Ser Boudewijnskerke		oorlog	1500 - 1600	-(Tachtigjarige Oorlog)
234	Sint Catharina		overstroming, oorlog	1500 - 1600	1583 (Tachtigjarige Oorlog, inundatie)
235	Sint Janscapelle		overstroming, oorlog	1000 - 1500	1488 (inundatie)
236	Sint Janskerke		oorlog	1500 - 1600	-(Tachtigjarige Oorlog)
237	Sinte Philipslandt		overstroming	1500 - 1600	1532 (Allerheiligenvloed)
238	Sliedrecht		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
239	Soeke		overstroming	1500 - 1600	1530 (Sint Felixvloed)
240	Soelekerke		overstroming	1500 - 1600	1530 (Sint Felixvloed) - 1532 (Allerheiligenvloed)
241	Stampaert		overstroming, oorlog	1500 - 1600	1584 (Tachtigjarige Oorlog, inundatie)

242	Stavenisse		overstroming	1500 - 1600	1509 (Cosmas- en Damianusvloed)
243	Steenland 1		overstroming	1000 - 1500	1214
244	Steenland 2		overstroming, oorlog	1000 - 1500	1488 (inundatie)
245	Strienemonde		overstroming	1000 - 1500	1288 (Sint Aagthenvloed)
246	Strijen		overstroming, verplaatsing	1000 - 1500	1288 (Sint Aagthenvloed)
247	Te Wijk		overstroming	1500 - 1600	1530 (Sint Felixvloed) - 1532 (Allerheiligenvloed)
248	Ten Hamer		overstroming	1000 - 1500	1375
249	Tiesselingskerke		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
250	Triniteit		overstroming, oorlog	1500 - 1600	1584 - 1585 (Tachtigjarige Oorlog, inundatie)
251	Valkenberg		overstroming	1000 - 1500	-
252	Vlissingen		?	1500 - 1600	-
253	Weede		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
254	Weele		overstroming	1500 - 1600	1530 (Sint Felixvloed)
255	Welle		overstroming	1500 - 1600	1530 (Sint Felixvloed)
256	Westenschouwen		ontvolking	1500 - 1600	-
257	Westkerke		overstroming	1000 - 1500	1375
258	West-Souburg		oorlog	1500 - 1600	- (Tachtigjarige Oorlog)
259	Wevelswaale		overstroming	1000 - 1500	1375 - 1404 (Sint Elisabethsvloed)
260	Wieldrecht		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
261	Willemskerke		overstroming, oorlog	1500 - 1600	1586 (Tachtigjarige oorlog, inundatie)
262	Wissenkerke 1		overstroming, verplaatsing	1000 - 1500	1352
263	Wissenkerke 2		overstroming	1500 - 1600	1530 (Sint Felixvloed)
264	Wolfbrandskerke		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
265	Zaamslag		overstroming, oorlog	1500 - 1600	1584 (Tachtigjarige Oorlog, inundatie)
266	Zanddijk		oorlog	1500 - 1600	- (Tachtigjarige Oorlog)
267	Zonzeel		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
268	Zuid-Welle		ontvolking	1500 - 1600	-
<b>15. Voordelta / Zeeuwse stromen</b>					
269	Avenkerke		overstroming	1000 - 1500	1404 (Sint Elisabethsvloed)
270	Bakendorp		overstroming	1500 - 1600	1530 (Sint Felixvloed)
271	Briele		overstroming	1000 - 1500	1404 (Sint Elisabethsvloed)
272	Brieskerke		overstroming	1500 - 1600	1542 (buitenbedijking)
273	Broecke		overstroming	1500 - 1600	1530 (Sint Felixvloed) - 1532 (Allerheiligenvloed)
274	Clauskinderen		overstroming	1500 - 1600	1511
275	Coudekerk		overstroming	1500 - 1600	1581 (buitenbedijking)
276	Couwerve		overstroming	1500 - 1600	1532 (Allerheiligenvloed)
277	Creke		overstroming	1500 - 1600	1532 (Allerheiligenvloed)
278	Duvenee		overstroming	1500 - 1600	1532 (Allerheiligenvloed)
279	Everswaard		overstroming	1500 - 1600	1530 (Sint Felixvloed)
280	Hamerstede		overstroming, verplaatsing	1000 - 1500	1304 (buitenbedijking)
281	Hildernisse		overstroming	1500 - 1600	1570 (Allerheiligenvloed)

282	Hinkelenoord		overstroming	1500 - 1600	1552 (Sint Pontiaansvloed)
283	Lodijcke		overstroming	1500 - 1600	1532 (Allerheiligenvloed)
284	Nieuw-Everinge		overstroming	1500 - 1600	1530 (Sint Felixvloed)
285	Nieuwkerke		overstroming	1500 - 1600	1530 (Sint Felixvloed)
286	Nieuwlande		overstroming	1500 - 1600	1532 (Allerheiligenvloed)
287	Oostende		overstroming	1500 - 1600	1516
288	Oostende		overstroming	1500 - 1600	1520 - 1521 (buitenbedijking)
289	Oudekerke		overstroming	1000 - 1500	-
290	Oud-Everinge		overstroming	1000 - 1500	-
291	Remboudsdorpe		overstroming	1000 - 1500	1334 (Sint Clemensvloed)
292	Rilland		overstroming	1500 - 1600	1530 (Sint Felixvloed)
293	Saeftinge 3		overstroming, oorlog	1500 - 1600	1584 (Tachtigjarige Oorlog, inundatie)
294	Schoudee		overstroming	1500 - 1600	1530 (Sint Felixvloed) - 1532 (Allerheiligenvloed)
295	Scoeneveld		overstroming	1000 - 1500	1375
296	Simonskerke		overstroming	1500 - 1600	1534 (buitenbedijking)
297	Sint Catherinenkerke		overstroming	1500 - 1600	1530 (Sint Felixvloed) - 1532 (Allerheiligenvloed)
298	Sint Jacobskerke		overstroming	1000 - 1500	-
299	Sint Laureins		overstroming, oorlog	1500 - 1600	1584 (Tachtigjarige Oorlog, inundatie)
300	Steenvliet		overstroming	1500 - 1600	1530 (Sint Felixvloed) - 1532 (Allerheiligenvloed)
301	Stuivezand		overstroming	1000 - 1500	1477 (Cosmas en Damianusvloed)
302	Tolseinde		overstroming	1500 - 1600	1530 (Sint Felixvloed) - 1532 (Allerheiligenvloed)
303	Vianen		oorlog	1500 - 1600	- (Tachtigjarige Oorlog)
304	Vinninge		overstroming	1500 - 1600	1530 (Sint Felixvloed, buitenbedijking)
305	Waterdunen		overstroming	1500 - 1600	1570 (Allerheiligenvloed)
306	Weele		overstroming, oorlog	1500 - 1600	- (Tachtigjarige Oorlog)
307	Westende		overstroming	1000 - 1500	1404 (Sint Elisabethsvloed)
308	Westkerke		overstroming	1000 - 1500	-
309	Westkerke		overstroming	1500 - 1600	1530 (Sint Felixvloed)
310	Wolfertsdorp		overstroming	1500 - 1600	1530 (Sint Felixvloed)
311	Zache		overstroming	1000 - 1500	1288 (Sint Aagthenvloed)
312	Zuidkerke		overstroming	1500 - 1600	1542 (buitenbedijking)
<b>16. Continentaal plat</b>					
313	Callants 1		overstroming, verplaatsing	1500 - 1600	1509 (Cosmas- en Damianusvloed)
314	Callants 2		overstroming, verplaatsing	1500 - 1600	1570 (Allerheiligenvloed)
315	Callinge		overstroming	1000 - 1500	1375
316	Husdunia		overstroming, verplaatsing	1500 - 1600	1509 (Cosmas- en Damianusvloed)
317	Petten aan de Zijpe		overstroming, overstuiving	1000 - 1500	1375
318	Petten aan het Hondsbos		overstroming, verplaatsing	1000 - 1500	1421 (Sint Elisabethsvloed)
319	Petten in Nolmerban		overstroming	1000 - 1500	1452

17. Waddenzee/IJsselmeer-Markermeer					
320	Algotedorp		overstroming	1000 - 1500	-
321	Baldarijp		overstroming	1000 - 1500	-
322	Beda		overstroming	1000 - 1500	-
323	Bellingerwoud		overstroming	1000 - 1500	-
324	Bierum		overstroming	1000 - 1500	-
325	Blyeham		overstroming	1000 - 1500	-
326	Dijkshorne		overstroming	1000 - 1500	1287 (Sint Luciovloed)
327	Donellen		overstroming	1000 - 1500	-
328	Dycsende		overstroming	1000 - 1500	-
329	Enesce		overstroming, verplaatsing	1000 - 1500	-
330	Ewitsweer		overstroming	1000 - 1500	-
331	Fletum		overstroming	1000 - 1500	-
332	Hakkelsum		overstroming	1000 - 1500	-
333	Harkenborg		overstroming	1000 - 1500	-
334	Harmenswolde		overstroming	1000 - 1500	-
335	Haykeweer		overstroming	1000 - 1500	-
336	Jansum		overstroming	1000 - 1500	1287 (Sint Luciovloed)
337	Kapel de Beerte		overstroming	1000 - 1500	-
338	Lagerek		overstroming	1000 - 1500	-
339	Lemsterhorne		oorlog	1000 - 1500	1413
340	Lutgerskerk		overstroming	1000 - 1500	-
341	Megenham		overstroming	1000 - 1500	-
342	Nesse		overstroming	1000 - 1500	-
343	Ockeweer		overstroming	1000 - 1500	-
344	Oostdorp		overstroming	1000 - 1500	1421 (Sint Elisabethsvloed)
345	Oosterreide		overstroming	1000 - 1500	-
346	Osledewald		overstroming	1000 - 1500	-
347	Peterswolde		overstroming	1000 - 1500	-
348	Reiderwolde		overstroming	1000 - 1500	-
349	Saxum		overstroming	1000 - 1500	-
350	Saxumerwolde		overstroming	1000 - 1500	-
351	Stokdorp		overstroming	1000 - 1500	-
352	Suderga		overstroming	1000 - 1500	-
353	Uterbeerte		overstroming	1000 - 1500	-
354	Westerbierum		overstroming	1000 - 1500	1287 (Sint Luciovloed)
355	Westerreide		overstroming	1500 - 1600	-
356	Westerwierum		overstroming	500 - 1000	-
357	Wijndeham		overstroming	1000 - 1500	-
358	Wilgum		overstroming	1000 - 1500	-
359	Winnemeer		overstroming	1000 - 1500	-
360	Zanddorp		overstroming	1000 - 1500	-



# Appendix IV

## Regional models on settlement and village formation

This appendix presents an overview of the conceptual models regarding settlement patterns and village formation we collected from the different archaeological regions.

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### 1. Drents Zandgebied

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**Spek, T.**, 2004: *Het Drentse esdorpenlandschap: een historisch-geografische studie*, Utrecht.

**Spek, T., H. van der Velde, H. Hannink & B. Terlouw** 2010: *Mens en land in het hart van Salland: bewonings- en landschapsgeschiedenis van het kerspel Raalte*, Utrecht.

**Waterbolk, H.T.**, 1982: Mobilität von Dorf, Ackerflur und Gräberfeld in Drenthe seit der Latènezeit: Archäologische Siedlungsforschungen auf der nordniederländischen Geest, *Offa* 39, 97-137.

**Waterbolk, H.T.**, 1991: Das mittelalterliche Siedlungswesen in Drenthe: Versuch einer synthese aus archäologischer Sicht, in H.W. Böhme (ed.) *Die Salier: Siedlungen und Landesbau zur Salierzeit. Teil 1: In den nördlichen Landschaften des Reiches*, 47-108.

**Waterbolk, H.T.**, 1995: Patterns of the peasant landscape, *Proceedings of the Prehistoric Society* 61, 1-36.

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### 2. Utrecht Gelders zandgebied

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**Heidinga, H.A.**, 1987: *Medieval settlement and economy North of the Lower Rhine: archaeology and history of Kootwijk and the Veluwe (the Netherlands)*, Assen (Cingula 9).

**Lubberink, H.B.G., L.J. Keunen & N.W. Willemse** 2015: *Op het kruispunt van vier windstreken: Synthese Oogst voor Malta onderzoek de Gelderse Vallei (Utrechts-Gelders zandgebied)*, Amersfoort (NAR 48).

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### 3. Overijssels-Gelders zandgebied

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**Beek, R. van**, 2009: *Reliëf in Tijd en Ruimte: interdisciplinair onderzoek naar bewoning en landschap van Oost-Nederland tussen vroege prehistorie en middeleeuwen*, Wageningen (dissertation Wageningen University).

**Velde, H.M. van der**, 2011: *Wonen in een grensgebied: een langetermijn-geschiedenis van het Oost-Nederlandse cultuurlandschap (500 v.Chr-1300 na Chr)*. Amsterdam (NAR 40), (dissertation Vrije Universiteit Amsterdam).

**Beek, R. van, B.J. Groenewoudt & L.J. Keunen** 2014: Establishing the dates of farm sites (A.D. 800-present) in Salland (the Netherlands): An interdisciplinary approach, *Journal of Field Archaeology* 39, 51-66.

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### 4. Brabants zandgebied

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**Asseldonk, M. van**, 2013: *De laatmiddeleeuwse transitie en de oorsprong van gemeentes en heerlijke rechten op de wildernis in de Meierij van 's-Hertogenbosch*, 's-Hertogenbosch (Noordbrabants Historisch Jaarboek).

**Bont, C. de**, 1992: Leaving the church behind: a model for predicting early mediaeval settlement locations in the sandy areas of the Dutch province of North Brabant, in: A.A.A. Verhoeve & J.A.J. Vervloet (eds.), *The transformation of the European rural landscape: methodological issues and agrarian change 1770-1914; papers from the 1990 meeting of the Standing European Conference for the Study of the Rural Landscape*, Brussels, 12-22.

**Bont, C. de**, 1993: *'...Al het merkwaardige in bonte afwisseling...': een historische geografie van Midden-Oost-Brabant*, Waalre (Bijdragen tot de Studie van het Brabantse Heem 36).

**Huijbers, A.**, 1993: *Een en al gras: De archeologie van een Middeleeuws cultuurlandschap Aarle-Rixtel, Beek en Donk, Lieshout*, Amsterdam (thesis University of Amsterdam).

**Huijbers, A.**, 2017: De beschrijving en interpretatie van bewoning en begraving in West-Brabant in de Volle en Late Middeleeuwen (900-1500 A.D.), in: E.A.G. Ball & R.M. van Heeringen (red.), *Westelijk Noord-Brabant in het Malta-tijdperk*, Amersfoort (NAR 51).

**Huijbers, A.**, in prep. : *Rurale nederzettingen, erven, huizen en voorwerpen in de Volle Middeleeuwen. Een historisch-antropologisch archeologisch perspectief op materiële en immateriële dimensies en processen van lokale gemeenschappen in het Maas-Demer-Scheldegebied, 900-1250 AD.*

**Leenders, K.A.H.W.**, 2011: Vier generaties dorpen in het Brabantse zand, *Noordbrabants Historisch Jaarboek* 28, 10-29.

**Rees, J.**, 1999: *Landschappen van Maas en Peel: een toegepast historisch-geografisch onderzoek in het streekplangebied Noord- en Midden-Limburg*, Leeuwarden (Maaslandse Monografieën 9).

**Theuvs, F.C.**, 1991: Landed property and manorial organisation in northern Austrasia: some considerations and a case study, in: N. Roymans & F.Theuvs (eds.), *Images of the past, studies on ancient societies in northwestern Europe*, Amsterdam (Studies in prae- en protohistorie 1), 299-407.

**Vangheluwe, D. & Th. Spek** 2008: De laatmiddeleeuwse transitie van landbouw en landschap in de Noord-Brabantse Kempen, *Historisch-Geografisch Tijdschrift* 26, 1-23.

**Verhoeve, A. & J.A.J. Vervloet (eds)** 1992: *The transformation of the European rural landscape: methodological issues and agrarian change 1770-1914: papers from the 1990 meeting of the Standing European Conference for the Study of the Rural Landscape*, Brussels, 12-22.

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## 5. Limburgs zandgebied

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No relevant settlement models available

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## 6. Limburgs lössgebied

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**Hartmann, J.L.H.**, 1986: *De reconstructie van een middeleeuws landschap: nederzettings-geschiedenis en instellingen van de heerlijkheden Eijsden en Breust bij Maastricht (10e eeuw)*, Assen/Maastricht (Maaslandse Monografieën 44).

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## 7. Fries-Gronings kleigebied

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**Langen, G.J. de**, 1992: *Middeleeuws Friesland: de ontwikkeling van het gewest Oostergo in de vroege en volle Middeleeuwen*, Groningen.

**Langen, G.J. de**, 2011: De gang naar een ander landschap: de ontginning van de (klei-op) veengebieden in Fryslân gedurende de late ijzertijd, Romeinse tijd en middeleeuwen (van ca. 200 v. Chr. tot ca. 1200 na Chr.), in: M.J.L.Th. Niekus (ed.), *Gevormd en omgevormd landschap: van Prehistorie tot Middeleeuwen*, Assen, 70-97.

**Langen, G. de & H. Mol** 2016: Terpenbouw en dorpsvorming in het Friese kustgebied tussen Vlie en Eems in de volle middeleeuwen, in: A. Nieuwhof (red.), *Van Wierhuizen tot Achlum: honderd jaar archeologisch onderzoek in terpen en wierden*, Groningen (*Jaarverslagen van de Vereniging voor Terpenonderzoek* 98), 99-128.

**Zomer, J.**, 2016: *Middeleeuwse veenontginningen in het getijdenbekken van de Hunze: een interdisciplinair landschapshistorisch onderzoek naar de paleogeografie, ontginning en waterhuishouding (ca 800 - ca 1500)*, Groningen (dissertation Groningen University).

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## 8. Noord-Hollands kleigebied

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No relevant settlement models available

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## 9. Fries veengebied

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No relevant settlement models available

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## 10. Flevolands kleigebied

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Region not relevant for this topic

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## 11. Hollands duingebied

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**Baas, H., B. van Snippenburg, H. Renes & R. Rentenaar**, 2014: De Geesten van Holland: stand van kennis over de oude akkercomplexen op de strandwallen van Holland. *Historisch-Geografisch Tijdschrift* 32, 131-150.

**Dijkstra, M.F.P.**, 2011: *Rondom de mondingen van Rijn & Maas: landschap en bewoning tussen de 3e en 9e eeuw in Zuid-Holland, in het bijzonder de Oude Rijnstreek*, Leiden (dissertation University of Amsterdam).

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## 12. Hollands veen en kleigebied

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**Bont, C. de**, 2008: *Vergeeten land: ontginning, bewoning en waterbeheer in de westnederlandse veengebieden (800-1350)*, Wageningen (dissertation Wageningen University)

**Cock, J.K de**, 1965: *Bijdrage tot de historische geografie van Kennemerland in de Middeleeuwen op fysisch-geografische grondslag*, Groningen (dissertation Universiteit van Amsterdam).

**Dijkstra, M.F.P.**, 2011: *Rondom de mondingen van Rijn & Maas: landschap en bewoning tussen de 3e en 9e eeuw in Zuid-Holland, in het bijzonder de Oude Rijnstreek*, Leiden (dissertation University of Amsterdam).

**Linden, H. van der**, 1956: *De Cope: bijdrage tot de rechtsgeschiedenis van de openlegging der Hollands-Utrechtse laagvlakte*, Assen.

**Linden, H. van der**, 1982: Het platteland in het Noordwesten met nadruk op de occupatie circa 1000-1300, in: D.P. Blok et al. (eds.), *Algemene Geschiedenis der Nederlanden* 2, Haarlem, 48-82.

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## 13. Utrecht Gelders rivierengebied

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**Uyl, R.G. den**, 1958: Dorpen in het rivierkleigebied, *Bulletin KNOB* 6e serie 11, 97-114.

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## 14. Zeeuws kleigebied

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No relevant settlement models available



# Appendix V

## Historical-geographical case studies

This appendix presents an overview of case studies of villages or village territories that were the subject of a detailed historical geographical analysis that produced (or enabled) a reconstruction of its forming and development.

### 1. Drents Zandgebied

Ansen	(Spek 2004)
Balloo	(Spek 2004)
Gasselte	(Spek 2004, Waterbolk & Harsema 1976)
Valthe	(Spek 2004)

### 2. Utrechts Gelders zandgebied

No relevant historical geographical case studies available

### 3. Overijssels Gelders zandgebied

Neede	(Keunen 2006)
Raalte	(Spek/ Van Exter 2007)
Warnsveld	(o.a. Fermin & Groothedde 2005; Fermin 2015)

### 4. Brabants zandgebied

Bergeijk	Theuws 1989; Vangheluwe & Spek 2008; Knaepen, De Nooijer, Vangheluwe & Biemans 2009
Princenhage	Leenders, div.

### 5. Limburgs zandgebied

No relevant historical geographical case studies available

### 6. Limburgs lössgebied

No relevant historical geographical case studies available

### 7. Fries-Gronings kleigebied

No relevant historical geographical case studies available

### 8. Noord-Hollands kleigebied

Zwaag Schrikkx 2008; 2009; 2013

### 9. Fries veengebied

No relevant historical geographical case studies available

### 10. Flevolands kleigebied

Region not relevant for this topic

### 11. Hollands duingebied\*

No relevant historical geographical case studies available

### 12. Hollands veen en kleigebied\*

No relevant historical geographical case studies available

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### 13. Utrecht Gelders rivierengebied

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Kapel-Avezaath (Vermeulen 2011)

Kerk-Averzaath (Wientjes 2000; 2001)

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### 14. Zeeuws kleigebied

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*No relevant historical geographical case studies available*



This research report is about the formation and development of medieval villages in the Netherlands. The aim of the study was to determine what a decade of development-led archaeological (contract) research has yielded scientifically. Four case studies were analysed, revealing that the processes of village formation were quite similar on an abstract level and correspond with current settlement models. At the same time, however, these cases illustrated a great variety in form and development. Comparison with villages in the wider region showed that none of the villages from the case studies could be held as exemplary. This variety means that local factors and human agency played a key role in the development of our villages. The case studies illustrate the great potential of archaeological observations (even small-scale) when undertaken within a municipal research agenda based on an historical-geographical framework.

This scientific report is aimed at archaeologists and other professionals occupied with Archaeology.

With knowledge and advice the Cultural Heritage Agency of the Netherlands gives the future a past.