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MEDIEVAL SETTLEMENT RESEARCH IN THE NETHERLANDS IN THE EARLY TWENTY-FIRST CENTURY

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Introduction

In the Netherlands, research into medieval rural settlement has a long history. Dutch archaeology has a tradition of large-scale excavations of (partly) deserted villages. In the present century, a huge amount of archaeological data has become available as a result of the rise of development-led archaeology under the 1992 Valetta Treaty (in the Netherlands usually referred to as Malta-archaeology). In general, the collection of data has only slowly been followed by new syntheses, but under a recent programme '*Oogst van Malta*' ('Harvest of Malta'), the National Heritage Agency (*Rijksdienst voor het Cultureel Erfgoed*) has aimed at producing such syntheses, both regional and thematic (Bazelmans 2009). Apart from presenting the state of the art, these studies should provide the basis for a renewed Research Agenda for Archaeology. Within the series, in 2015 a volume appeared on the archaeological traces of farms from the period 1250–1650, bridging the gap between the early medieval postholes and the early modern stone-built farms (Schabbink 2015). A volume on medieval villages was published in 2018 (Verspay *et al*. 2018), with a spin-off in a series on villages (Renes 2017a) in *Tijdschrift voor Historische Geografie* (Dutch language, but with English summaries). Early in 2021, a volume on urban farming was published (Fischer *et al*. 2021). Also a number of regional syntheses have appeared, for example on the province of Noord-Brabant (Ball and Van Heeringen 2016; Ball and Jansen 2018) and on the Meuse Valley (Ball *et al*. 2018). Regrettably, some of these syntheses lack a landscape perspective. A graphic overview of the state of knowledge by region, theme and period was provided by the first edition of the *Erfgoedbalans* (Beukers *et al*. 2009). The updates, which appear every four years, tend to become glossier and less informative (Erfgoedbalans 2017).

In this review, I will take a landscape approach and give a summary of the main results of recent research into medieval rural settlement in the Netherlands. Both the review and the accompanying bibliography are structured after the main landscape types. Much of the literature on Dutch medieval settlement is in the Dutch language, but I have tried to mention most of the relevant publications in English and German. Many Dutch-language publications contain an English summary.

Methods and sources

The study of medieval settlement is mainly organized within national boundaries, leading to substantial differences in research traditions, research questions and methods. In the Netherlands, a number of traditions can be distinguished.

Firstly, there is the combined study of habitation and field systems. This is in fact a continental tradition, with roots in German settlement geography, which has developed since the early twentieth century. Its starting point is the historic relationship between settlements and fields (in contrast to the study of the post-Enclosure countryside in the UK, in which the two more or less developed separately and research focuses more strongly on the settlements themselves). For reconstructing medieval settlement structures, the historical-geographical analysis can be combined with archaeological research. Both disciplines have their own methods, which are complementary. Historical geography usually starts from recent or nineteenth-century data and works backwards in time. The farther we go back in time, the more important archaeological data become. Also, historical geographers start from a landscape perspective, whereas most archaeologists work from sites towards landscapes. In recent years, the surrounding cultural landscape became more important as a research topic for archaeologists (Theuws *et al*. 2011; Verspay 2016; 2020). There are several examples in which both disciplines are successfully integrated (Spek *et al*. 2010; Van der Velde 2011).

Secondly, the emphasis on historic land use partly explains another tradition. Historic settlement research has traditionally had strong ties with physical geography, concerning the location of settlements as well as historic land use. The main national maps of cultural landscapes (Figure 1) and of archaeological regions[2] both use physical geography as their basis. Particularly in the sandy landscapes of the south-eastern half of the Netherlands, relationships between land use and geomorphology provided a starting point for analyses: arable on the most fertile and well-drained soils, pasture and meadows in wetlands such as stream valleys and fenlands. In these regions, up to 90% of the village territories were used as common pastures, mainly with heathland vegetation, by the middle of the nineteenth century. In these regions, the main research foci were (and still are) the gradual history of reclamation and the dynamics of settlement.

Thirdly, in the coastal wetlands, the dynamics of coastal erosion and land reclamation had a central position in research. Until the fifteenth century, much land was lost to coastal erosion, leading to large numbers

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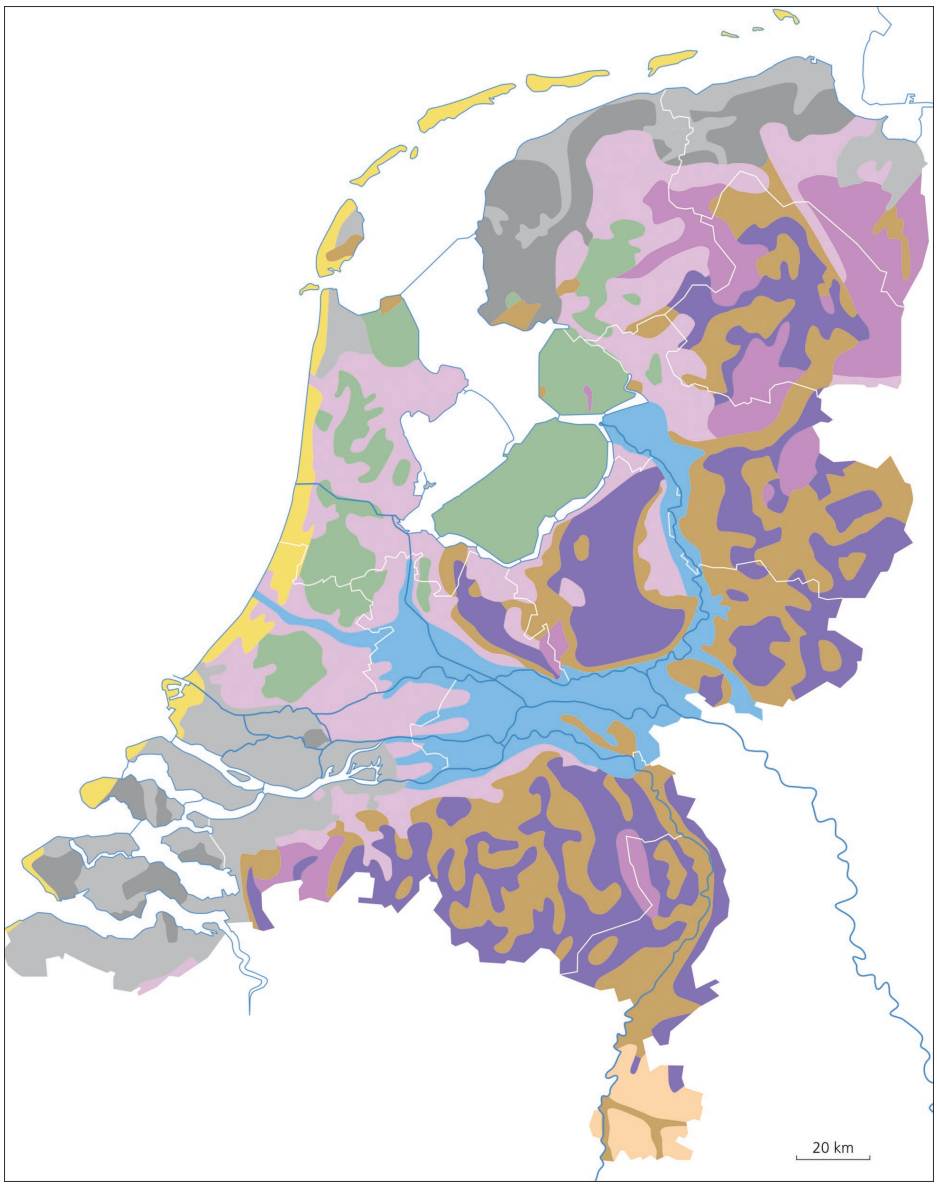
[2] https://rce.webgispublisher.nl/Viewer.aspx?map=Archeologische Landschappenkaart. Last consulted 31/03/2021.



Physical geography	Man-made landscape (situation 19th century)	Field-pattern	
		Pluriform	Uniform
Higher parts of the Netherlands			
Plateaus South-Limburg	Open fields		
Sand, boulder-clay	Enclosures and small open fields <1850		
	Common heathland, forests and wetlands 1850		
Fluvial landscape	Enclosures and small open fields		
Coastal dunes	Enclosures and small open fields		
Coastal lowlands			
(Former) peat-and fenlands	Fenland reclamations (strip-fields)		
	Peat-colonies		
	Drained lakes (all >1500)		
Coastal marshes	Old landscapes		
	Reclaimed land (> Late Middle Ages)		

Figure 1 Landscape types in the Netherlands. The cultural landscapes are defined by their physical-geographical basis. After Barends et al. 2010. Redrawn by Ton Markus (Faculty of Geosciences Utrecht University).

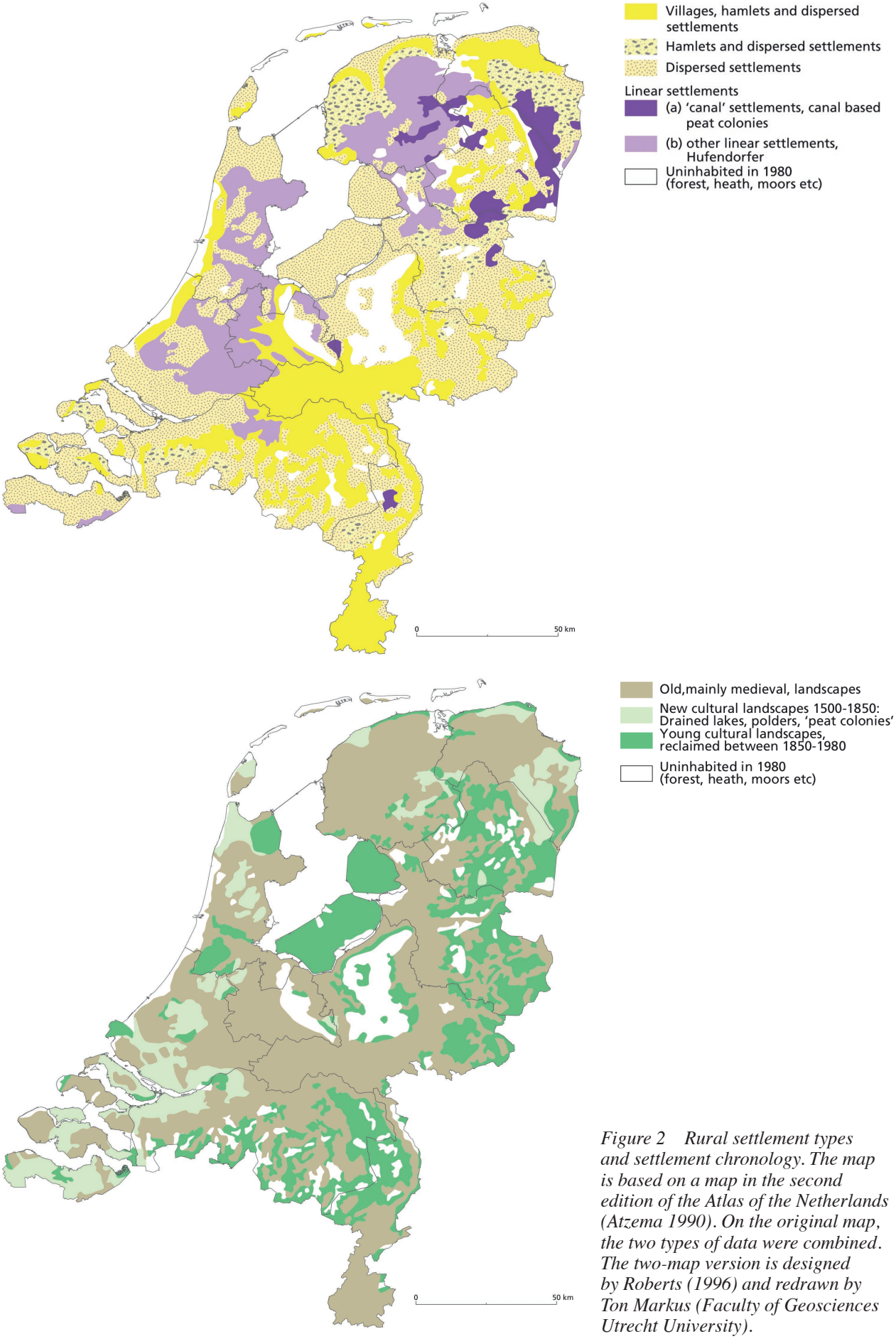


Figure 2 Rural settlement types and settlement chronology. The map is based on a map in the second edition of the Atlas of the Netherlands (Atzema 1990). On the original map, the two types of data were combined. The two-map version is designed by Roberts (1996) and redrawn by Ton Markus (Faculty of Geosciences Utrecht University).

of drowned settlements.[3] Since the fifteenth century, much of the earlier loss has been mitigated by new reclamations in coastal regions as well as in inland lakes. This is shown in the series of palaeogeographical maps of the Netherlands that are available on the website of the National Heritage Agency.[4] They cover the Holocene period, including maps of the situation in 800, 1250 and 1500 AD.

Fourthly, for most of the country, research into prehistory, the Roman period and the Middle Ages are separated. Apart from the traditional specialization of most archaeologists in a single period, for most of the last century it has also been taken for granted that settlement history made a new start after an almost complete desertion during the third century AD (Van Lanen and Groenewoudt 2019, for most of the Netherlands) or the fourth century (Nieuwhof 2016b, for the marshes on the Wadden Sea). Recently, interest in long-term perspectives has been growing (Roymans *et al*. 2009). Also, the (lack of) continuity between the Roman period and the Middle Ages has again come under discussion.

Lastly, medieval settlement research is an interdisciplinary field that is shared by archaeologists, historical geographers and historians. Since the early twentieth century, the subject has been pioneered by historical geographers. Historians have been important for the study of medieval settlement in written sources, even decades before the spatial turn in historical studies led to a rise in interest in spatial studies. Archaeologists moved into the field with the development of medieval archaeology, the growth of landscape archaeology and the general rise of archaeological studies. Whereas historical geographers often worked with classifications and evolutionary models, archaeologists proved the weakness of many such models but were reluctant to develop new ones (Renes & Kolen 2007). Over time, medieval settlement research has become more interdisciplinary, even when cooperation in projects remains a rarity. Examples of cooperation can be found in the interesting theme of medieval domanial structures as one of the foundation stones of village plans (for example, see De Ridder *et al*. 2014; Spek 2014).

The methods are certainly, to some extent, connected to the sources. The archaeological archive was not in all cases readily available for landscape archaeological methods. In the sandy regions, much of the medieval arable and many settlements were covered by thick layers of 'plaggen' soils (Spek 2004, 2006; Van Doesburg *et al*. 2007) and were only discovered by large-scale excavations from the 1970s onwards (Theuws *et al*. 2011). In the coastal wetlands, the large majority of fenlands have been used as pasture and meadows since the Middle Ages, making field-walking less fruitful than in areas with arable. Finally, the successive periods of coastal erosion and accretion have eroded many traces of lost medieval settlements and covered others with layers of marine sediments.

For the Netherlands, uniform topographical maps on a scale of 1:50000 are available for the middle of the nineteenth century: the Topographical and Military Map (1850–1864).[5] For many parts of the country, detailed maps from the eighteenth or even seventeenth century exist. For the Low Countries, as for much of Continental Europe, the Napoleonic government took the initiative for detailed cadastral maps, most on a scale of 1:2500, for some regions 1:1250 or 1:5000, as the basis for a detailed land administration. These data provide a sound basis for reconstructions of land use, land ownership and tax values in the first half of the nineteenth century. The preparations for the cadastre were continued by successive governments and were finished in 1832. The original data have been preserved and are increasingly being made available in a digital format. More than half of the Netherlands is now vectorised (https://hisgis.nl; last consulted 02/08/2021); for the remaining parts of the country, the raw data (maps and registers) are available on the website of the National Heritage Agency (https://beeldbank.cultureelerfgoed.nl; last consulted 02/08/2021). For historical geographers, the oldest cadastral data also act as a starting point for retrogressive research (see Antonsson 2019), particularly studies aimed at reconstructions of land ownership patterns in the Late Middle Ages (see for example Van Ooststroom 2017; Veen *et al*. 2016; Huiting 2020).

Important new sources have become freely available. One example is lidar data, used by archaeologists and historical geographers on a daily basis. The Dutch version is named *Actueel Hoogtebestand Nederland*, a detailed altimetric survey for which eight points per square metre were measured (https://ahn.arcgisonline.nl/ahnviewer; last consulted 02/08/2021).

In the following part of this paper, we will look at settlement studies for the main landscape regions of the Netherlands.

Regions

The coastal marshes and dunes

Archaeological research into medieval settlement in the Low Countries started in the coastal marshes of the Wadden Sea, in the provinces of Friesland and Groningen and the adjoining German region of East Frisia *(Ostfriesland)*. The settlement pattern on these marshes is characterized by dwelling mounds (in Friesland called '*terpen*', in Groningen '*wierden*') that have been built up since the Iron Age. The earliest local sea defences ('*dikes*') date from the first century BC (Lascaris 2016, 32). From the eleventh century onwards, large-scale building of sea defences made it safe to leave the dwelling mounds, which were partly deserted, and to settle in the surrounding lowlands (Lascaris 2016, 35). From the late nineteenth century, the deserted parts of the dwelling mounds were levelled on a commercial basis to sell the soil – rich in phosphate – as manure for

[3] In many historical atlases, the Roman and medieval coastline of the Netherlands is derived from seventeenth-century maps, on the basis of a story of gradual reclamation. Such reconstructions fail to understand the influence of the earlier loss of land. See for example: https://www.medievalists.net/2019/04/how-the-borders-of-the-low-countries-changed-in-the-middle-ages. Last consulted 26/04/2021.

[4] https://www.cultureelerfgoed.nl/onderwerpen/bronnen-en-kaarten/overzicht/paleografische-kaarten. Last consulted 16/04/2021.

[5] Coloured manuscripts (*c*. 1840) are now available in print: *Grote Historische atlas van Nederland 1:50.000* (Groningen 1990). Later editions of topographical maps are available at www.topotijdreis.nl. Last consulted 02/08/2021.

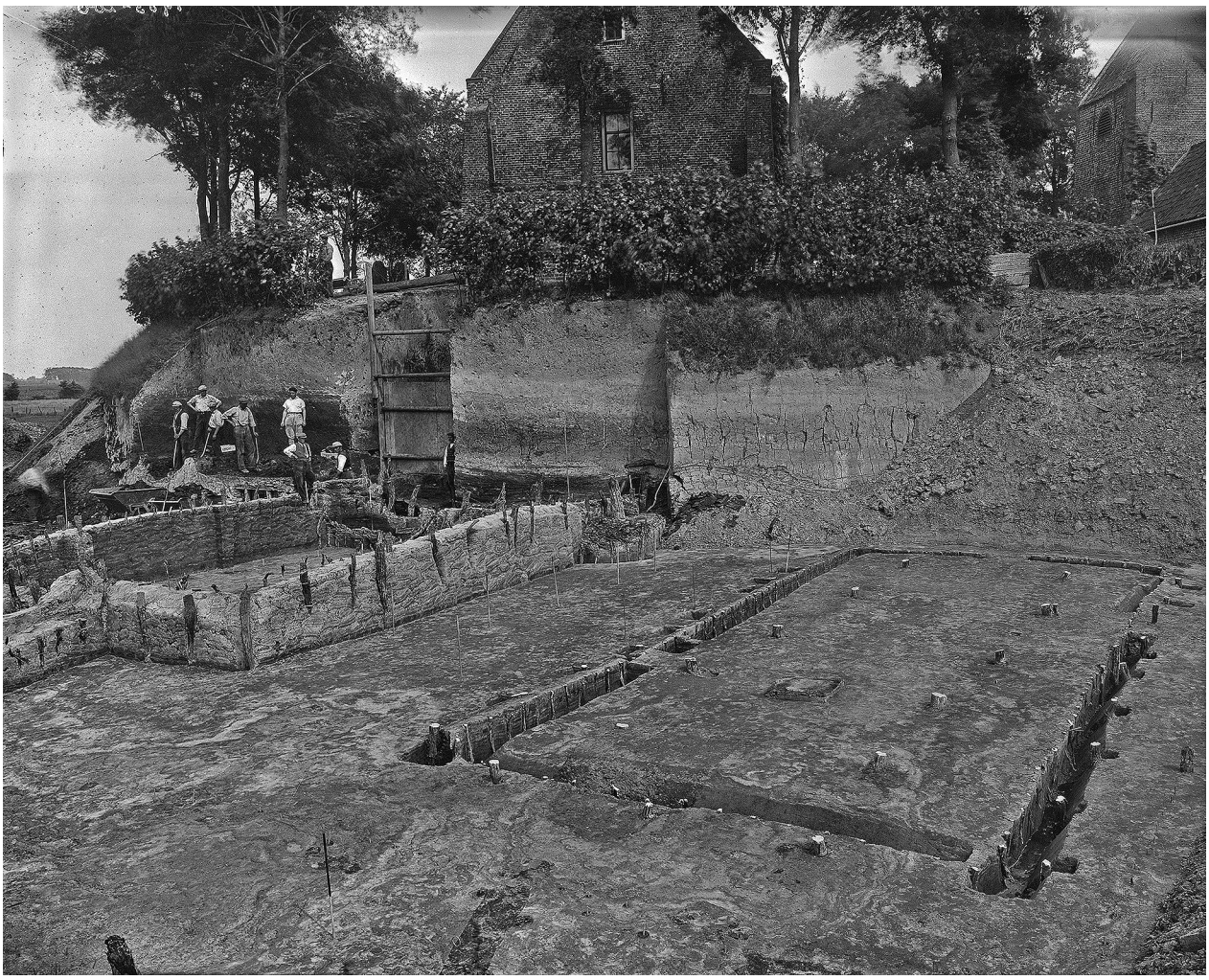


Figure 3 The excavations at Ezinge in 1933. Source: Groningen Institute of Archaeology, nr. 1933–200.

reclaiming the poor heathlands in the sandy regions of the Netherlands.

In later years these excavations were sometimes attended by archaeologists. Between 1923 and 1943, the '*terp*' of Ezinge was excavated by the archaeologist A.E. van Giffen, with results that made this one of the benchmarks in the history of Dutch archaeology (Delvigne and Waterbolk 2010). Publication of the results is still ongoing (Nieuwhof 2020). The tradition of '*terp*' excavations, stimulated by the *Vereniging voor Terpenonderzoek* (VvT, or Society for Terp Research; Knol 2016), goes on to this day. The 98th and 100th Annual Reports of the VvT (Nieuwhof 2016a; Nieuwhof *et al*. 2018b) provide overviews of this research. The 99th Annual Report (Nieuwhof *et al*. 2018a) was a festschrift for the manager of the Northern Netherlands archaeological depot. The rich harvest of these volumes included, for example, a systematic analysis of village plans on the *terpen* (De Langen and Mol 2016), the most recent insights on the depopulation of the fourth century (Nieuwhof 2016b) and a number of analyses of individual villages. Archaeological research in this region has been successfully combined with the work of medieval historians of the Frisian Academy (for example, Mol 2014).

The western coast of the Netherlands is characterised by coastal dunes, of which the prehistoric 'Old Dunes' were inhabited during the early Middle Ages. A number of these settlements were later threatened by the development of the (medieval) 'Younger Dunes' and by coastal erosion. The settlements on the 'Old Dunes' attracted new attention in recent years from historical geographers (Baas *et al*. 2014; Zeiler 2020) and from archaeologists (Dijkstra 2011). The traditional model of sandy ridges surrounded by a ring of farms is ever more criticised by archaeologists, but a new model is not yet available. On the seaward side of the dunes a number of fishing villages developed. A recent paper, using a model developed by historical geographer Harold Fox for Devon, shows that these mainly developed during the thirteenth and fourteenth centuries (Renes 2020).

The (former) fenlands

An old theme in Dutch historical geography is the medieval reclamation of the coastal fenlands, which occupy a large zone between the coastal marshes and dunes on the one hand and the higher sandy landscapes on the other. This is a region with a very complex and dynamic settlement history. After some initial settlement during the Roman period, most of the fenlands were

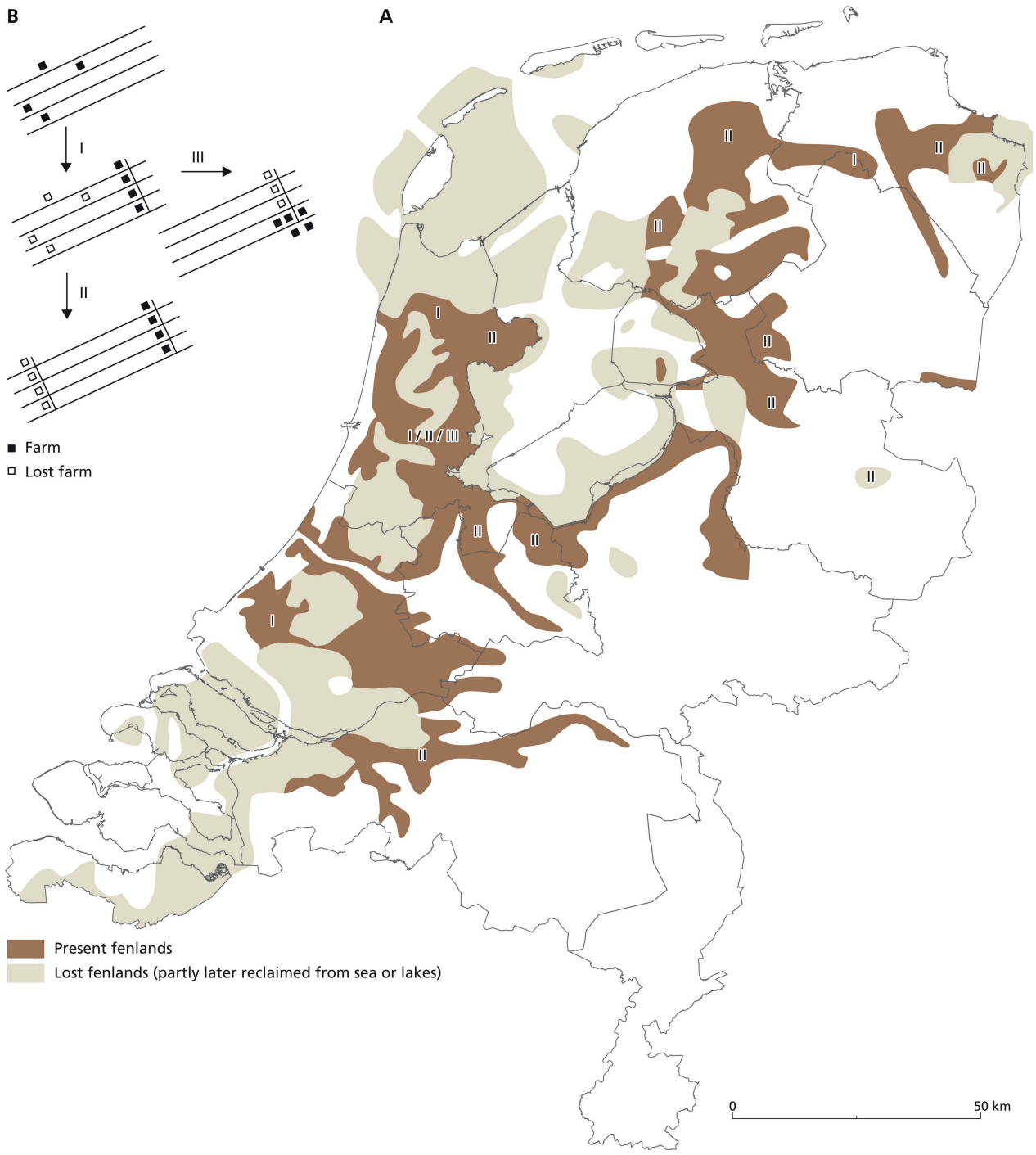


Figure 4 Settlement dynamics in oligotrophic fenlands (after Renes 1994). Redrawn by Ton Markus (Faculty of Geosciences Utrecht University).

deserted. From the tenth century onwards, new reclamations started in the raised peat bogs, followed by an extremely systematic reclamation of the lower fenlands. By the early fourteenth century, almost all of the fenlands had been reclaimed and settled (Borger 1992; De Bont 2008). The general picture of regular row settlements, with each farm owning one strip of land, is still valid, but has local and regional variations. The general availability of maps of the oldest cadastral inventory (1832) has enabled new comparative research, which showed the rather systematic presence of planned village centres (Renes 2017b).

Peat soils shrink after being drained, through a combination of compression and, most importantly, oxidation. This has caused drainage problems and, since the Middle Ages, these landscapes have been characterised by a continuous succession of drainage measures and improved pumping techniques, but also by the movement of villages from degraded lands to new, still higher, fenlands.

Research into this theme is still continuing. Some recent studies have an interdisciplinary approach, combining physical geography with historical and archaeological data. Recent examples are Van Doesburg

(2019) on the Netherlands as a whole, Zomer (2016; Mol and Zomer 2015) and Veldhuis (2013) on the reclamation of fenlands in Groningen, Mol (2011) and Van der Molen (2016) on Friesland, Van Beek (2015; Van Beek *et al*. 2015) on Overijssel, Borger *et al*. (2011, 2013) on Holland, and Koopmanschap (2015) on reclamations and settlement on the fen-edge in the province of Noord-Brabant.

The study by De Bont (2014; 2015), based on his PhD thesis (De Bont 2008), focused on the Amsterdam region, and revived an old discussion between historical geographers, soil scientists and archaeologists on the origins of the town. De Bont's thesis of a man-made origin of the river Amstel is not accepted by the town archaeologists (Jayasena 2019). Their interpretations of historical, cartographical and archaeological data make a natural origin of the river more probable but, as they limited their attention to the seventeenth-century town, the discussion is not finished.

Many fenlands were lost to the sea and to inland lakes, facilitated by the combination of land subsidence (due to the drainage of fenlands for agrarian purposes) and the excavation of peat. On the coast, many of the lost lands silted up again and were later reclaimed. From the sixteenth century onwards, the improvement of drainage (wind)mills made reclamation of inland lakes possible (Danner *et al*. 2005; Van de Ven 2003). These young landscapes were characterised by dispersed settlement, but with planned central villages (Rutte 2007; Van der Weele and Rutte 2021).

The fluviatile region

In many ways comparable to the coastal marshes was the inland region around the main rivers Rhine and Meuse with their branches in the Central Netherlands. Together with the coastal marshes, this was the most densely populated part of the present-day Netherlands during the Roman period and again during the early Middle Ages. In this region, the settlement pattern was influenced by the rivers, which built up the natural levees on which settlements and arable were concentrated, but the dynamics of these same rivers could also threaten settlements. In the course of many decades, physical geographers have built up an extraordinarily detailed picture of the geology and geomorphology of this region (Berendsen and Stouthamer 2001; Jansma *et al*. 2017; Pierik and Van Lanen 2019). This work is a foundation stone for new research on settlement and road-patterns. A recent publication showed the enormous wealth of detailed maps of the rivers and their surroundings (Overmars 2020).

The settlement pattern of this landscape is complex, with villages and hamlets as well as dispersed farms, including many medieval moated sites. Few of the villages have been researched thoroughly and this is certainly one of the regions in which archaeological research in village centres is most dearly missed.

The sandy landscapes

The south-eastern half of the Netherlands consists of Pleistocene landscapes, mainly moraine landscapes and cover sands. From the Middle Ages until into the twentieth century, these landscapes have been characterised by mixed farming, with the arable on larger and smaller open fields or in individual enclosures, the pastures and meadows in the stream valleys, and large areas of common grazing that were mainly covered by heathland.

For medieval settlement research, the concept of habitability is an important variable, based on reconstructions of physical geography during that period (Spek 2004; Leenders 2013; Smeenge 2020; Spiekhout 2020).

Successful research can be achieved through a combination of historical geography and archaeology. However, this combination has been less prominent in research than might be expected and, in fact, opportunities have not always been taken. In these landscapes, the province of Drenthe has the longest and most extensive history of historical geographical research (Bieleman 1987; Spek 2004). In the eastern provinces of Overijssel and Gelderland, less research has been done, but the integration between historical geography and archaeology has been better (Van Beek and Keunen, 2006; Vervloet et al., 2010; Van de Velde, 2011; Spek *et al*. 2010).

On the other hand, the Kempen region in the province of Noord-Brabant has a long tradition of large-scale excavations, but here cooperation with historical geographers has not been as prolific as it could be. In this region, the sandy ridges – which are the backbone of this landscape – were settled in the Iron Age, almost completely deserted during the late Roman period, and resettled during the early Middle Ages. New settlements often had a manorial origin. During the twelfth and thirteenth centuries, the settlement system changed fundamentally, when the farms were moved from the highest points in the landscape to the edges of stream valleys – a move which was probably connected to an intensified use of the grasslands in the valleys, which in itself must be related to the growing importance of animal husbandry. The old settlement sites, often with the church or the church tower as the last witness to the old situation (De Bont 1992)[6], were gradually covered by the anthropogenic 'plaggen' layers. Since the late 1970s, the many town and village extensions in this densely populated region were the incentive for a series of large-scale archaeological excavations that has continued through to the present day (for recent summaries: Theuws *et al*. 2011; Verhoeven 2018; for a recent interpretation from a historical-geographical viewpoint, see Vangheluwe and Spek 2008).

A major recent project was the excavation of 35 hectares at Someren, leading to a number of reports and a book for the general public (Kortlang 2016; Kortlang and Van Ginkel 2016). The archaeological excavations of the settlement sites were joined by historical-geographical and, increasingly, archaeological research into the history of the open fields. Sifting finds from different layers of the plaggen cover brought new insights into the age of these man-made soils, that proved to be mainly of early modern date. Recently, the stones and wooden poles that have been used to mark ownership boundaries

[6] This process shows remarkable similarities with developments in Norfolk (Wade-Martins 1980), illustrating the necessity of international research.

in the open fields were discovered as relevant objects for archaeological research, showing the (lack of) continuity in these boundaries (Theuws *et al*. 2011). With studies like this one, settlement archaeology developed into landscape archaeology (Theuws *et al*. 2011; Tol *et al*. 2017; for a summary Verspay 2016).

The hills

The most south-easterly extension of the Netherlands is the hilly landscape of South Limburg, which is in fact the northern extension of the Ardennes. This region is dominated by large open fields and larger and smaller villages. Here, the main contributions to medieval settlement research have been the dissertations of two medieval historians (Hartmann 1986; Hackeng 2006). A synthesis has been made by Renes (1988). Since then, the study of medieval settlement has made little progress, although in recent years interest has been growing. What is missing is systematic research in landscape archaeology combined with the use of historical sources.

Lost villages

Unlike in the UK, the study of deserted settlements is not very well developed in the Netherlands, although a few hundred are known. The main recent exception is the systematic study of drowned villages in the IJsselmeer region (the former sea inlet that was known as the Zuyderzee and that was partly reclaimed during the twentieth century; Van Popta 2016; Van Popta and Aalbersberg 2016). Also in the south-west of the delta, in the province of Zeeland, much research has been done – and is still being done – into 'drowned villages' (for example, Wikaart 2009).[7] Here, a few of these villages have been more thoroughly researched (Kuipers 2012).

In general, interest in 'lost villages' is growing, but a scientific overview is still lacking.[8] A recent article gives a systematic review of lost villages in Holland since 1500 (Teters 2019). In most cases, lost settlements are described as isolated phenomena, rather than part of changing settlement systems (Renes 1994). A particular group consists of shrunken villages, including those represented by the lonely churches of the Kempen region, which we encountered above. The most systematic research into shrunken villages has been carried out in the province of Zeeland (De Klerk 1991).

Outlook

The study of medieval rural settlement in the Netherlands has certainly made progress, but there is still much to be done. For the future, archaeological research in existing villages – as is happening in towns – is desirable. Archaeologists will certainly take the lead, but more focused research questions as well as cooperation with historians and historical geographers are necessary.

[7] A list is published on Wikipedia: https://nl.wikipedia.org/wiki/Lijst_van_verdronken_dorpen_in_Zeeland. Last consulted 31/03/2021.

[8] For a national map of deserted villages, see https://www.arcgis.com/home/item.html?id=78c428fc9eb34c198d3a83a0194f1592. Last consulted 31/03/2021.

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