Monuments on the horizon : the formation of the barrow landscape throughout the 3rd and the 2nd millennium BCE

Bourgeois, Q.P.J.

Chapter 5

The development of the barrow landscape: case studies from the Low Countries

5.1 Introduction

The development of the barrow landscape cannot be reconstructed for every region in the Netherlands. Limiting natural and anthropogenic factors constrain what elements of the barrow landscape can be reconstructed (see Chapter 4). Therefore I have selected four different research areas, where the extent of the barrow landscape can be reconstructed reliably, and equally important, where the research activities and subsequent documentation are high.

The selected research areas provide detailed information on the development of the barrow landscape. The Epe-Niersen case study is an example of a long alignment of barrows extending over several kilometres. Alignments are also found in the Renkum and Ermelo case studies, but at the same time dozens of barrows around them reflect the dispersed nature of the barrow landscape. All three these case studies have some of the oldest barrows known for the Low Countries. The Toterfout region, on the other hand is thought to be a unique Bronze Age barrow landscape, where no older barrows are present.

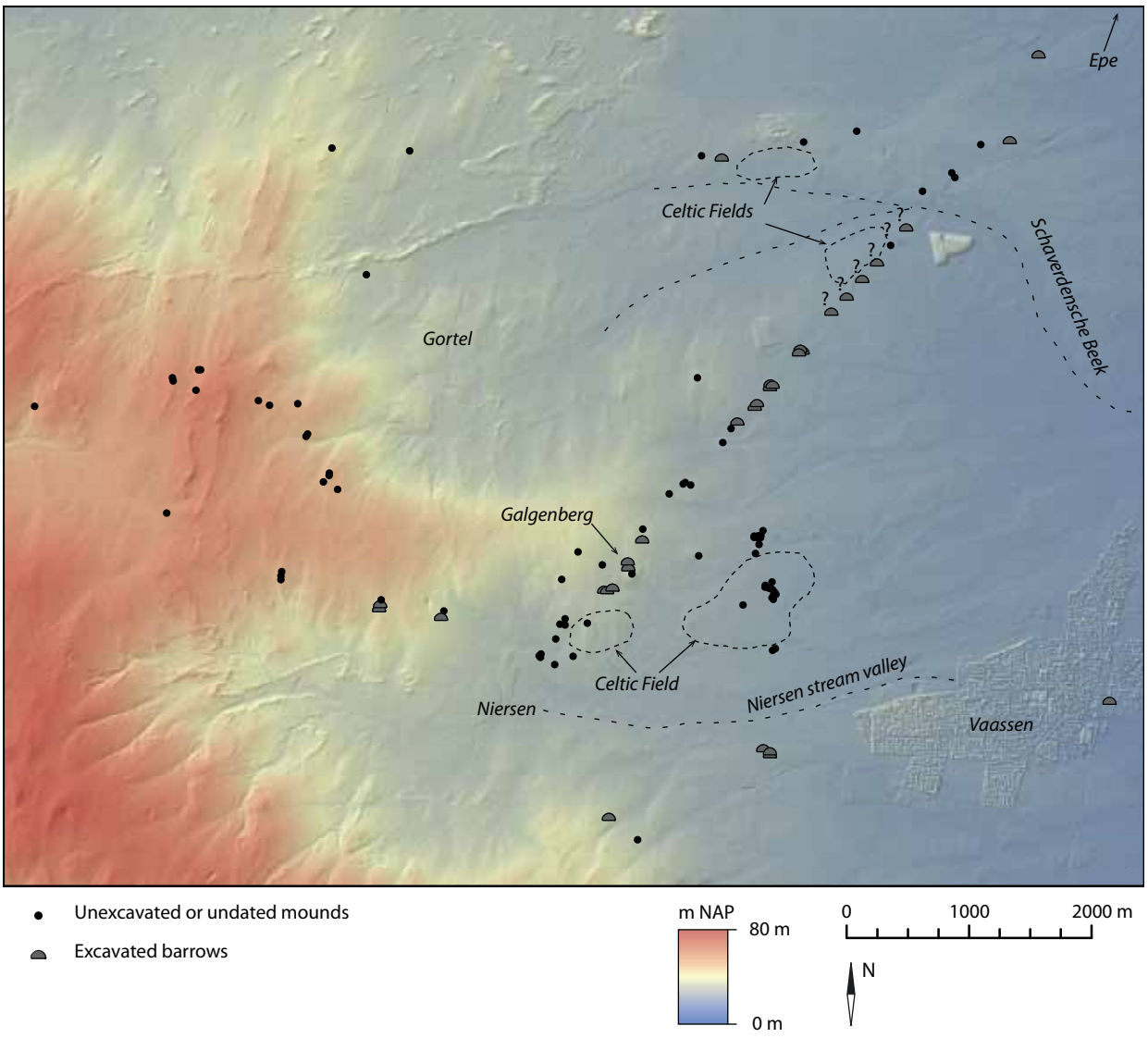
All four case studies were extensively excavated by several researchers. For each case study the map formation processes are summarized with an evaluation of how representative the actual archaeological information is. For the sake of readability the development of each barrow landscape has been kept as concise as possible. Each individual barrow mentioned in the text refers to the catalogue number (see Appendix B) where a summary of the available data is provided and, where possible, its chronological placement has been established. Most of the references to the specific excavation reports have been omitted from the text but can be found in the catalogue. If for some reason I have chosen to diverge from the original interpretation of the excavators I have specified these reasons under the specific record in the catalogue.

5.2 The Epe-Niersen barrow alignment

5.2.1 Introduction

One of the most peculiar formations regularly encountered in barrow landscapes are long alignments of barrows. In the Low Countries these are commonly found on the Veluwe. The best known example runs between the town of Epe and the hamlet of Niersen. In an area of 8 by 8 km, 110 barrows have been recorded, 46 of which are placed in a single 6 km long alignment (Fig. 5.1; Table 5.1).

The terrain on which the barrows are located is part of the Crown Estates. In the Early 20th Century Queen Wilhelmina invited Holwerda (then curator of prehistory at the National Museum of Antiquities) to excavate some of the



mounds on her lands (Bleumink and Neefjes 2010, 107-109). From 1907 to 1911 he excavated 28 barrows in the area, 22 of which were located on the alignment (Holwerda 1908; 1910b; 1911; Holwerda and Evelein 1911).

Further research was carried out by Modderman, who suggested the barrows may have been placed along a single road (Modderman 1955, 61). With a large scale survey carried out by Klok, many more barrows were (re-)identified and he argued the alignment was part of an intricate network of roads covering the Veluwe (Klok 1982). A similar argument was put forward by Bakker, who not only supported the idea of a road, but suggested many more roads running off from the main alignment (Bakker 1976, 77-79). Bakker revised his article in 2008 and included some 26 extra barrows in the road-system (Bakker 2008, 281-286).

Fig. 5.1: All recorded barrows in the Epe-Niersen case study. The map was created with the AHN elevation data (copyright www.ahn.nl).

Table 5.1 (opposite page): Dating range for each excavated barrow within the Epe-Niersen area. Black lines indicate barrow construction. Grey lines indicate secondary graves or mound phases. Dotted lines are uncertain dates.

5.2.2 Geomorphology of the region

The Epe-Niersen barrows are located on the eastern flanks of the ice-pushed ridges of the Veluwe. The ridges themselves are up to 80 - 90 m high and overlook the wide valley of the river IJssel to the west. The ridges are scoured by wide East-West running valleys which were created through solifluction and erosion during the Weichselian glaciations (Eilander, *et al.* 1982, 18; Berendsen 2000b 44).

Sitename	Barrow number	dating range: LN A	LN B	EBA	MBA-A	MBA-B	LBA/EIA
Vaassen Tumulus I	273						
Vaassen Tumulus III	275						
Dobbe Gelle 4	642						?
Enkhout	313						
Hanendorp III	309						
Vaassen - Hafkamper Enk	644						
Hertenkamp 1	620						
Hertenkamp 4	623						
Hertenkamp 5	624						
Hertenkamp 8	627						
Hanendorp II	308						
Galgenberg 4	635						
Galgenberg 5	636						
Emst Heemhoeve	629						
Hertenkamp 2	621						
Hertenkamp 3	622						
Vaassen Tumulus II	274						
Epe Doppelhügel	443						
Woeste Berg 1	630						
Woeste Berg 2	631						
Hanendorp IV	310						
Hanendorp VI	312						
Galgenberg 6	637			?			?
Galgenberg 7	638				?		
Hertenkamp 6	625					?	
Hertenkamp 7	626					?	
Hertenkamp 9	628					?	
Dobbe Gelle 2	640				?		
Dobbe Gelle 3	641				?		
Galgenberg 1	632				?		
Galgenberg 2	633				?		
Galgenberg 3	634				?		
Hanendorp I	307						
Dobbe Gelle 5	643			?			
Dobbe Gelle 1	639			?			
Hanendorp V	311			?			

3000 2800 2600 2400 2200 2000 1800 1600 1400 1200 1000 500

Cal. BC

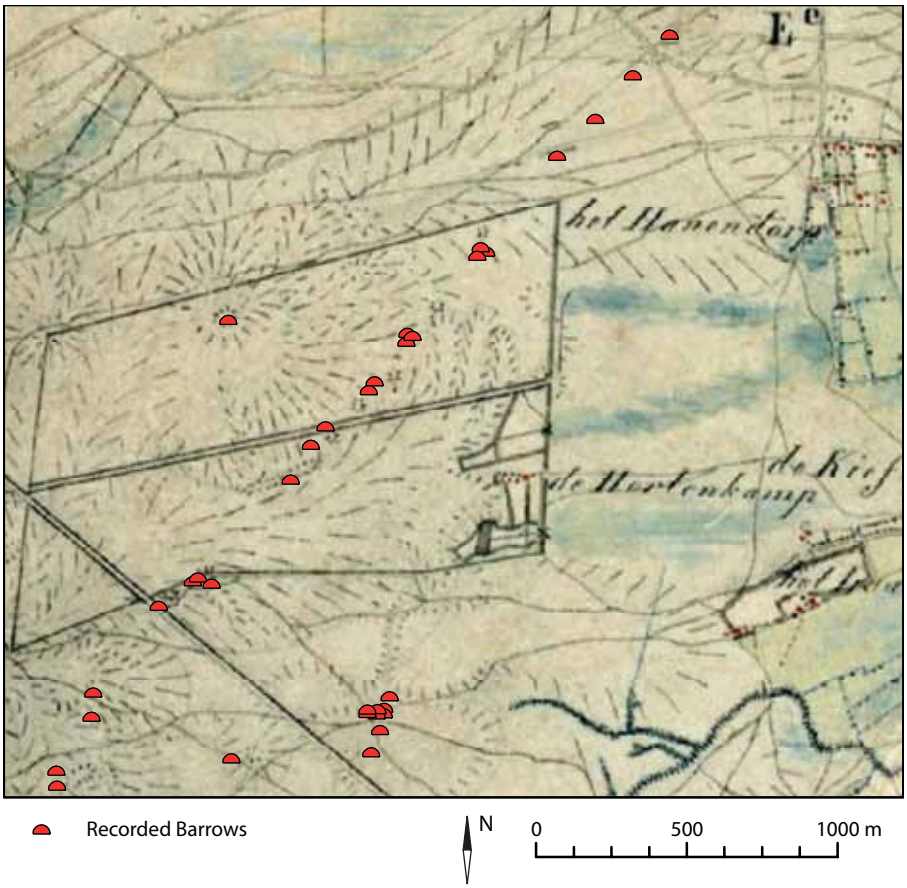


Fig. 5.2: Detail of the Topographic Military Map, drawn in 1847. The blue and green areas to the east of the barrow alignment indicate peat bogs and marshes. These areas have been drained since but are characterised by high groundwater tables even today.

The valleys are nowadays drained due to modern water management and the creation of channels to drain the soils (Eilander, *et al.* 1982, 31). In prehistory however, the lowest areas were filled with peats and alder brooks.[10] In two cases the peats and bogs reached higher up on the ice-pushed ridges (at Wenum and at Niersen), where they filled up the base of the solifluction valleys (Eilander, *et al.* 1982, 20, 43). Part of the peat is still preserved in these areas, and the bogs and marshes are still indicated on maps in the 19th Century (Fig. 5.2).

These peats and bogs encircled a wide, gently sloping plateau at the foot of the ice-pushed ridges. Most of the barrows are located either on this plateau or on the higher slopes of the ridges. The plateau is made up of slightly loamy coversand whereas the ridges consist of coarse sand and pebbles (Eilander, *et al.* 1982, 19).

5.2.3 Research history

Amateur finds

Amateur activity in the region has been relatively limited, in large part because the area was private property until 1959 and even today public presence is only allowed under strict conditions (Bleumink and Neefjes 2010, 10-11). Only barrows outside of the Crown Estate have been investigated by amateur archaeologists (*e.g.* barrows 630 and 631). There are some indications of grave robbing in the 19th Century or earlier (Holwerda 1908, 1) but no documentation of these activities has survived.

10 At least some of the peat still present is thought to date to the preboreal, the beginning of the Holocene (Eilander, *et al.* 1982, 20).

Professional archaeologists

The excavation campaign in the early 20th Century by Holwerda represents some of the first scientific barrow excavations in the Netherlands.[11] By invitation of Queen Wilhelmina he excavated at least 27 barrows over 4 different campaigns (Holwerda 1908; 1910b; 1911, Holwerda and Evelein 1911). Even though his work was groundbreaking at that time, it took place more than 100 years ago and the results now need to be re-interpreted in the light of our present day knowledge on barrows.

Especially the interpretation of several archaeological features by Holwerda must be regarded critically. It is important to note that he rarely recognised different mound phases, but rather interpreted mounds as the collapsed remains of beehive-like wooden constructions (*koepelgraven*) erected in a single phase. His interpretation was heavily influenced by the *tholos*-tombs at Mycenae, to which he often refers in his articles (*cf.* Holwerda 1910b, 28-30).

When re-examining his articles one must bear in mind that this hypothesis was not formed until his third campaign on the Crown estates (Holwerda 1910b, 21-30). His earlier observations are less biased, while in his later articles he interprets everything in the light of his *koepelgraven* hypothesis. We are thus dealing with a research bias in two directions. On the one hand his older articles are hampered by the fact that he was one of the first to scientifically excavate barrows in the Low Countries. He therefore had little foreknowledge of the different types of phenomena he might encounter in them (especially secondary mound phases). On the other hand one gets the impression that his later publications reflect his own interpretations of these barrows rather than the archaeological reality (see for example the difference between description and interpretation in Holwerda 1908 versus Holwerda and Evelein 1911).

These constraints on the excavations conducted by Holwerda have been addressed by re-investigating the excavated material kept at the National Museum of Antiquities in Leiden. Part of these results have already been published elsewhere (Bourgeois*, et al.* 2009).

5.2.4 The representativity of the dataset

Archaeological visibility in the research area

The research area can be divided into two parts (Fig. 5.3): a moderately damaged part in the west of the area and a heavily influenced area to the north and east with low archaeological visibility.

The agricultural fields and the built-up areas to the east of the main barrow concentration have a negative effect on archaeological visibility. Especially the towns of Epe and Vaassen have a significant impact. The entire area around them has been completely modified and incorporated in agricultural activities, without a doubt obscuring much of the archaeological record. Only a few barrows have been recorded from these areas.

Most of the region in the eastern half of the map, however, is depicted as an extensive swamp on historical maps (see Fig. 5.2). As these swamps were probably already present in prehistory (see above), it can be assumed that no barrows were constructed in these marshy areas.

---

11 Earlier excavations are known of, such as Jansen's excavation at the Uddelermeer (Holwerda 1909, 1). Holwerda's excavations however are the first in a long series of scientific excavations conducted by professional archaeologists such as Remouchamps, Bursch, Van Giffen, Modderman and Glasbergen. Even though he has been heavily criticized by later generations (*e.g.* Van Giffen 1930, 144-145), his work was nevertheless groundbreaking and conformed to the scientific standards of that time.

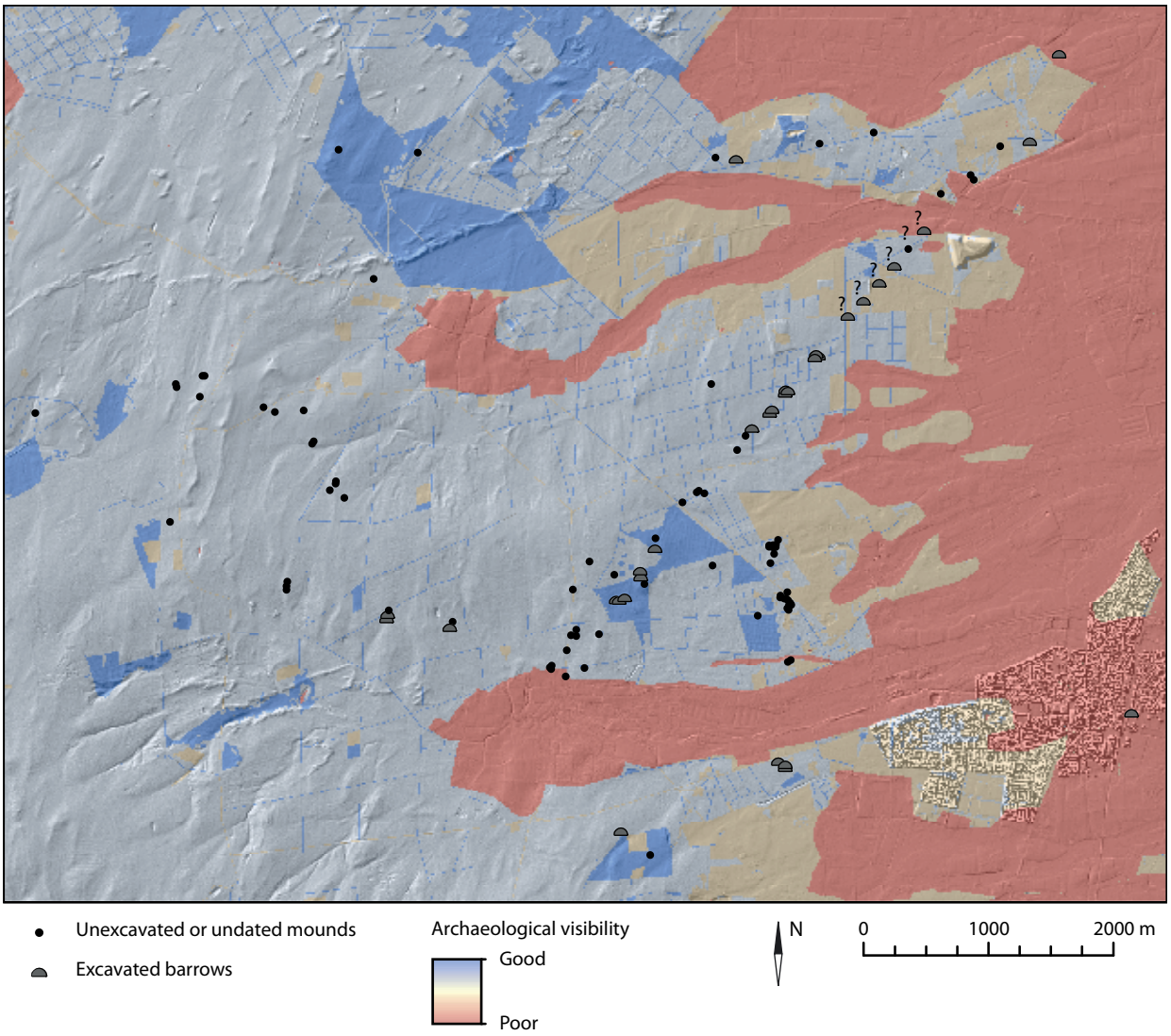


Fig. 5.3: Estimation of the map formation processes affecting the barrow distribution within the Epe-Niersen area. The map was created on the basis of 19th Century Topographic Military Maps and modern land-use.

The archaeological visibility in the western half of the map can be considered as high. A few relatively small areas have been covered by *essen*, most notably around the hamlets of Niersen and Gortel. The remaining area is either covered in heathland or forest, planted in the early 20th Century. Burial monuments have been extensively mapped in this area, and even though settlements and sub-surface features will be obscured by the forest, the barrows are well preserved in this area.

An important question concerning the Epe-Niersen case study is whether or not the alignment is an archaeological reality or a post-depositional construct. Several arguments suggest the former hypothesis.

A first argument is that the area surrounding the alignment is not significantly affected by map formation processes. Indeed many barrows are known on and around the alignment. The southern section of the alignment is especially well preserved. The northern section, by comparison has suffered more considerably.

A second argument is that the alignment itself is already indicated on the Topographical Military Maps of 1847 (Fig. 5.4).[12] Several small elevations, corresponding to burial monuments, are visible on the map. The exact coordinates do

12 Most of these small elevations are only included on the field-drawings and not on the so-called *nettekening* or published maps. Both maps are freely available on www.watwaswaar.nl.

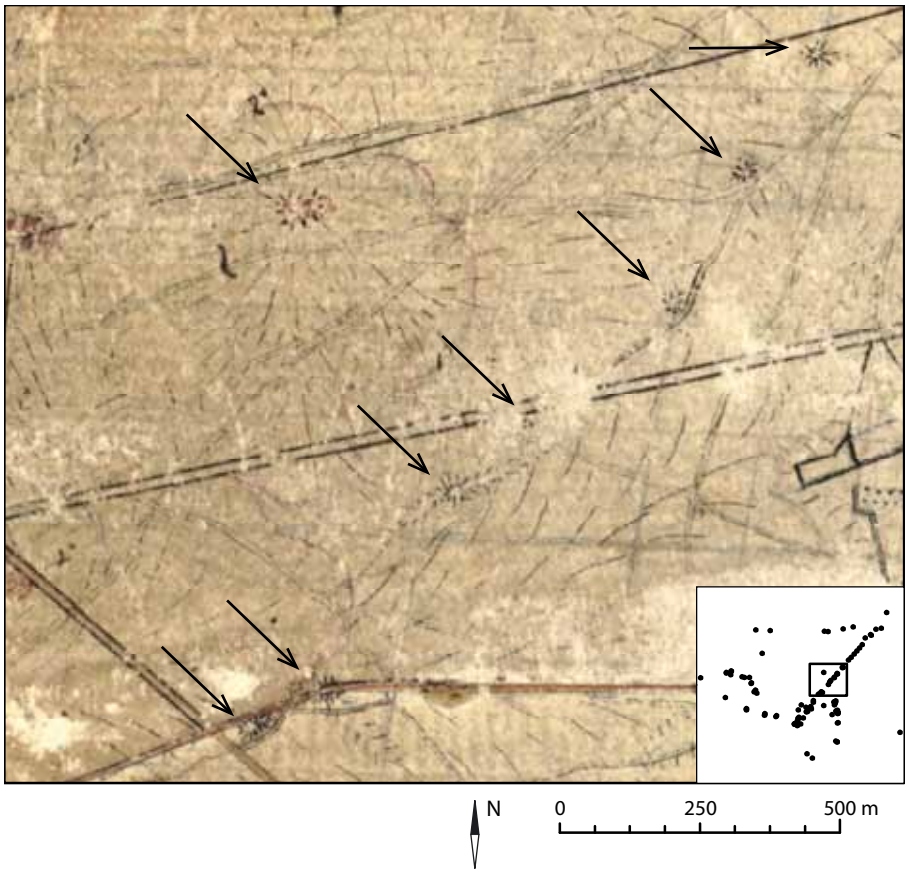


Fig. 5.4: Detail of the field-drawings created for the Topographic Military Maps, the arrows indicate the small elevations depicted on that map. The majority of the depicted elevations correspond to known barrows.

not match up entirely, but this is probably due to problems with georeferencing such old maps and the exactness and recognition of the features by the land-surveyors at the time.

Thirdly, Holwerda himself recognised the fact that he was excavating a barrow alignment. Apparently before the area was turned into a forest and at a time when the barrows were still lying amidst an extensive heath field, it must have been evident that they were lying in one continuous alignment (see below).

A further point to be made regarding the alignment is that the southern and northern extents of the alignment are limited by respectively the hamlet of Niersen and its extensive *essen* complex, and the town of Epe. Especially the town of Epe will have obscured part of the barrows in the area. The barrow alignment ends a few hundred metres before the outskirts of the modern town and the chance find of a battle axe in the centre of Epe might hint at a destroyed barrow (Anonymus 1987, 122). How much further the alignment might have extended is unknown, but it does not continue to the south of Niersen.

An additional problem with the alignment however is that the location of the barrows from Holwerda's last campaign were poorly documented.[13] Five of the barrows excavated by Holwerda have now disappeared and this section of the alignment cannot be reliably reconstructed.

13 In ARCHIS their position seems to have been determined randomly, with several barrows receiving the exact same coordinates, and some barrows 150 m off from the main alignment. It has not been documented why these barrows should be positioned there. Bakker published a different distribution map, without exactly mentioning how he obtained the coordinates (Bakker 1976).

Nevertheless, the position of these barrows on the main alignment is confirmed by the excavators, as they have made mention of the fact that all the barrows they investigated were part of a prehistoric barrow line and that they formed a single alignment with the barrows excavated the previous year:

> *'De reeks Van koepelgraf-heuvels, het vorige jaar in De Hertekamp onder Vaassen onderzocht […], wordt ook naar het Noorden, onder Emst, door een dergelijke praehistorische heuvelrij voortgezet […].'* [The series of 'beehive'-mounds, investigated last year at the Hertekamp near Vaassen […], is continued to the north, below Emst, by a similar prehistoric barrow-row [...]. (Holwerda and Evelein 1911, 18).

So even though we do not know the exact position of each individual barrow from Holwerda's 1911 campaign, from this observation, we can conclude that they are all an integral part of the same alignment.

In general, the barrow alignment can thus be considered a prehistoric reality, still visible in the heath fields in the 19th Century and the early 20th Century. The forests planted around it have not significantly damaged or altered the barrow landscape.

Representativity of the excavated barrows

In total 38 barrows have been excavated out of a total of 110 recorded barrows in the entire area, with 24 of the excavated barrows located on the alignment.

The initial construction phase of almost every barrow can be dated to the Late Neolithic. In the entire Epe-Niersen area not a single primary mound on record was unambiguously dated to the Bronze Age. This is partly due to the excavation methods employed by Holwerda and the inexperience of barrow researchers at that time. There is a distinct possibility that a few of the barrows excavated by Holwerda can be dated to the Middle Bronze Age (MBA) (*e.g.* barrows 632, 633 and 634). Furthermore Holwerda rarely recognised secondary mound phases although in several cases these could be identified through the descriptions he put on paper, and the photographs that were taken during the excavation (*e.g.* barrow 636; Holwerda 1908, PL.IIIa). Any information on the Bronze Age can therefore be considered as limited.

5.2.5 The development of the Epe-Niersen barrow landscape

The earliest barrows (2850-2500 cal BC)

During the Late Neolithic A (LN A) eleven barrows were constructed in the region. Two separate groups can be identified in this phase, on the one hand six barrows creating an alignment (nos. 308, 309, 620, 623, 624, 627) and on the other hand four (maybe five) additional barrows away from the main alignment (nos. 273, 275, 313, 642, 644; Fig. 5.5).

The origins of the main alignment can be traced back to this period. At least six barrows are placed along a single axis. All six were excavated by Holwerda in two separate campaigns (Holwerda 1910b; Holwerda 19,10b, Holwerda and Evelein 1911).

The alignment itself is orientated NE-SW (approximately 41° - 221°)[14] and the minimum total distance is 1,6 km. The four barrows that can be accurately located are placed along a single axis, running exactly through the center of barrows 620, 624 and 627, with barrow 623 just a few metres off-axis.

14 All azimuths have been measured from north over east.

This is the minimum extent of the alignment. It is possible that to the south and north several unexcavated barrows are also part of the earliest alignment. The alignment may extend beyond 1,6 km, especially if we consider that just to the south six unexcavated barrows can be found along the same axis. The same situation may apply to several unexcavated barrows on the other flank of the *Schaverden* stream valley. If the LN A alignment continues amongst these unexcavated barrows, the total distance would extend to approximately 3,4 km.

Dating the alignment is difficult. This is essentially due to the general poor quality of the excavations. Nevertheless the dating evidence in five out of six cases points to the second half of the LN A (ca. 2600 – 2500 cal BC). Three barrows can be associated with All Over Ornamented (AOO) pottery,[15] two with GP daggers. The sixth barrow – with a flint axe in the primary grave – must be dated to the entire LN A.

Some of the barrows on the alignment covered peculiar burials. Barrow 624 covered a grave pit dug at least two meters deep, on the bottom of which the remains of a sitting individual were discovered. The pelvis was the best visible element of the skeleton. Seated burials are rare in the Late Neolithic, the only other grave that I know of for which this practice has been suggested, would be the beehive-grave of Onnen dated to the LN A (Van Giffen 1930, 124-128).[16]

Furthermore, the only grave in which typical AOO-artefacts were found (barrow 308) yielded an AOO-beaker, a smaller beaker, a French dagger, a few flint artefacts and the skull of a cow (Wentink in prep.). It is interesting to note that even though the cow's skull was (partially) preserved and silhouettes of inhumations were uncovered elsewhere in the same mound (Holwerda and Evelein 1911, 19), no trace of a human skeleton could be identified in the primary grave (I will return to the role of cattle in Chapter 8).

There are four (maybe five) more barrows dating to the LN A within the Epe-Niersen region not located on the main alignment. Nevertheless three of these barrows may be part of other, minor alignments. Bakker, for example, includes all three of them in two additional 'roads' running off from the main alignment (Bakker 1976, 77-79; see Klok 1982 for a similar argument).

It is certainly true that barrow 642 is located on an east-west orientated alignment. Four groups of two or three barrows are spaced at equal distances covering a distance of 2 km. The other barrows however have been poorly excavated or not at all, so it remains unknown whether or not this alignment already originated in this period.

---

15 Van Giffen rightfully states that these sherds can only be placed in a secondary position in relation to the barrow, and should not be used to date the barrows directly (Van Giffen 1930, 144-154). But it is intriguing that both barrow 623 and 627 each have half a profile of a single AOO-beaker lodged between the primary mound-period and the subsequent capping. The position and condition of the sherds suggest they were not taken along with the sods of the primary mound. Instead they should be considered as part of the burial ritual (*cf.* Bourgeois and Fontijn 2010, 46-47). Parallels for this practice can be found at the barrow of Vaassen, where the profile of a Veluvian Bell Beaker was found on the surface of the primary mound (barrow 275, Lanting and Van der Waals 1971b, 114), and at one of the Hanendorp barrows excavated by Holwerda (barrow 310), where sherds from half a Veluvian Bell Beaker were found.

16 Both graves exhibit interesting similarities. They were both dug very deep into the sub-soil, at least 2 m deep and were not very large. The grave at Onnen was 1,5 by 1 m and at least 1,5 m deep, while the grave at Hertekamp was at least 2 m deep, and 1,5 by 1 m wide. The grave at Onnen contained two PF beakers, one placed outside the beehive as reconstructed by Van Giffen, and one placed inside (Van Giffen 1930, Abb.85).

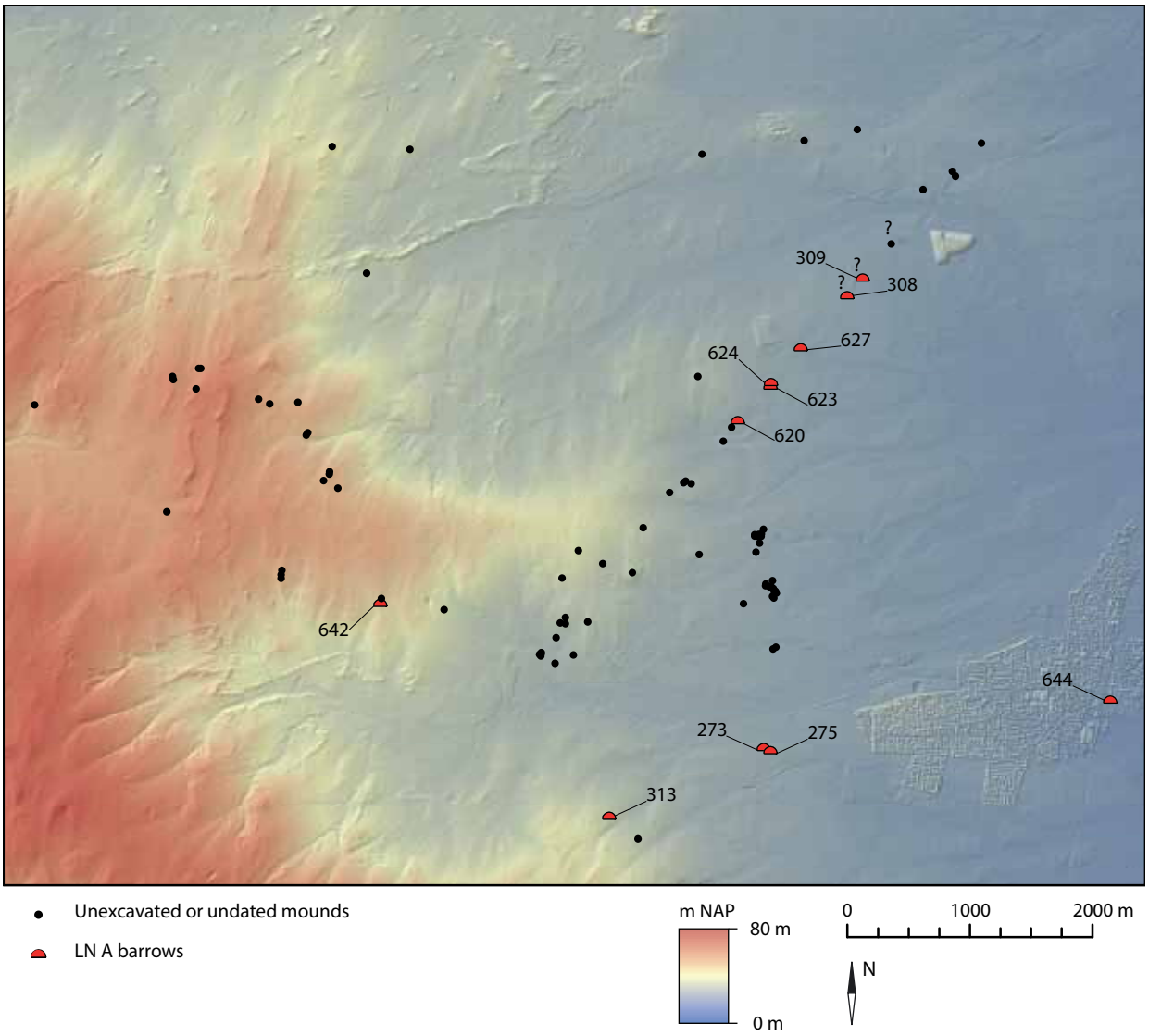


Fig. 5.5: Overview of all LN A barrows in the Epe-Niersen area. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

The same applies to the two Vaassen barrows (273, 275). To the north of these two mounds, across the Niersen stream valley lies another possible alignment of barrows, partly integrated into the Celtic Field of Vaassen. Once again, these other mounds have not been excavated. As for barrows 313 and 644, there is no indication that they were placed along any kind of alignment (see Fig. 5.5).

There is no evidence for reuse of mounds during the LN A. No secondary graves could be dated to this period and no secondary mound phases could be attested.

To summarize, in the LN A, two groups of barrows can be identified. On the one hand an alignment of at least six barrows, most of which can be dated to the second half of the LN A. A second group of barrows encircling the Niersen stream valley, although three of these may be part of other (partial) unexcavated alignments.

Bell Beaker barrows (2500-2000 cal BC)

Nine other barrows in the region can be dated to the Late Neolithic (Fig. 5.6). Four of these date to the Bell Beaker phase (274, 310, 443 and 631), whereas the other five date to either the LN A or B (621, 622, 629, 635 and 636). In some cases directly datable artefacts are lacking and there is a distinct possibility that

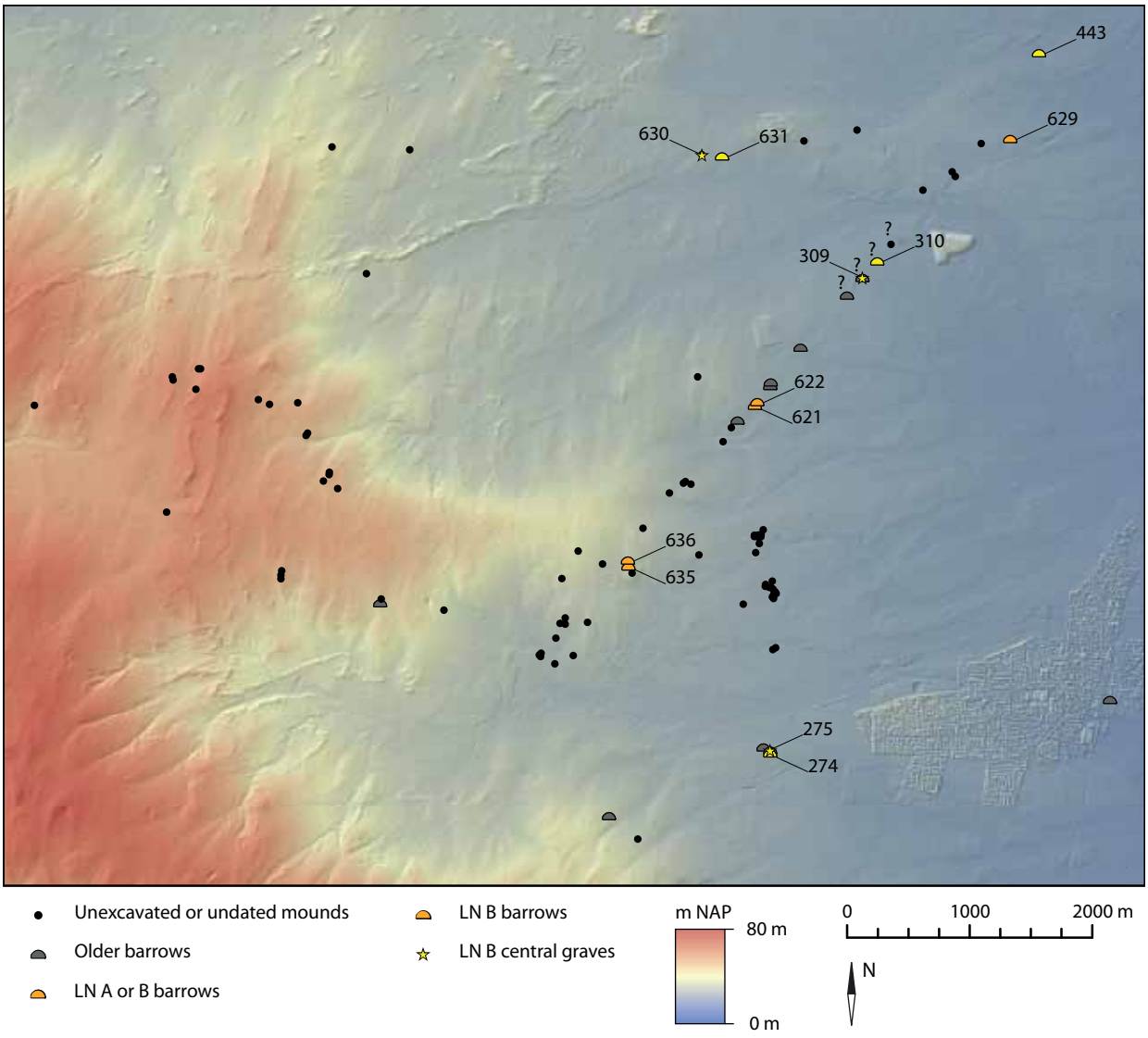


Fig. 5.6: Overview of all LN B in the Epe-Niersen area as well as all barrows that could not be exclusively dated to either the LN A or B. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

some of these mounds should rather be dated to the LN A (especially barrows 621 and 622). Nevertheless I will describe them here, while maintaining a level of uncertainty.

Five of these barrows were constructed on the main alignment and perhaps two more as well. Three barrows were placed in-between the already existing barrows (nos. 621, 622 and 310). Only one of these can be reliably dated to the Late Neolithic B (310). The other two, placed exactly in the middle of two older mounds, could also date to the LN A.

To the south the alignment was significantly extended towards the hill of the *Galgenberg* (gallows mound). Two barrows placed just next to the *Galgenberg* can probably be dated to the Bell Beaker phase (nos. 635 and 636; *cf.* Bourgeois*, et al.* 2009, 99-100).

There are some indications that the alignment continued to the north across the valley of the *Schaverdense beek*. Six barrows are known on this northern section, but only two of these were excavated. One can be dated to the Bell Beaker phase (443) and the other to the Late Neolithic (629).

The total length of the alignment as we can reconstruct it for this phase is approximately 3,5 km up to the Schaverden valley. If the six barrows on the northern side are included, the alignment extends to almost 5,4 km, from the Galgenberg barrows (nos. 635 and 636) to the Epe Emst barrow (no. 443).

To the south of the Galgenberg at least 13 more barrows are located on the alignment. Only three of these were excavated, yet the findings were inconclusive (barrows 632, 633 and 634). It might therefore be possible that the alignment continued to the south for at least another kilometre right up to the edge of the *essen* complex surrounding the Niersen hamlet. As far as we know no barrows have been discovered to the south of the Niersen hamlet.

The central section of the alignment would thus be the oldest part, already constructed around 2600 - 2500 cal BC. Several of the barrows I have described here, may also have been constructed during that period. Nevertheless, the alignment was certainly built upon and extended to both the north and the south in the Bell Beaker phase.

Two barrows were built away from the main alignment (nos. 274 and 631). One of these, which was built close to some of the oldest mounds in the region, covered a grave with a rich set of grave gifts. consisting of a Veluvian Bell Beaker and multiple amber ornaments (Lanting and Van der Waals 1971b).

In contrast with the preceding period, secondary burial in older monuments can now be documented in at least three cases (nos. 275, 309 and 630). In all these cases a grave was dug into an existing mound after which an additional layer of sods was stacked on top of the primary mound. One of these additions (no. 275) was dug into an ancient barrow located close to where a new mound was built during this period (no. 274, see above). The grave goods recovered from both these barrows are very similar to one another (see Chapter 8). Here, a Veluvian Bell Beaker, a copper tanged dagger and multiple amber ornaments were recovered.

The practice of placing (parts of) beakers on the top of old mounds continued and is recorded in at least three cases where fragments of Veluvian Bell Beakers were placed on top of an existing primary mound (nos. 275, 310 and 636). This would suggest that finding the remains of beakers on top of barrows is not incidental. It is also typical that in all such cases, several sherds from a single pot are found, and never small and weathered sherds from multiple pots as would be expected from settlement debris.

Whatever the exact dating of the barrows on the alignment and beyond, it is certain that the older mounds in the area were still recognised as such and that they were reincorporated into the barrow landscape of the LN B. This is not only attested to by their building mounds on the alignment and extending it, but also through as reburial and ritual activities on top of these older mounds.

The Early Bronze Age (2000-1800 cal BC)

Only two barrows in the region were constructed during the Early Bronze Age (EBA), both on the Neolithic alignment (Fig. 5.7). This is comparable with the rest of the Netherlands where barrow construction diminished in terms of frequency (see Chapter 3 and 7). In one barrow a beaker was smashed on what is probably the old surface underneath the mound (barrow 637). This is a recurring practice in the region, and is typical for the EBA in the Low Countries (Bourgeois and Fontijn 2010, 45-46). The other barrow covered a grave that contained a small Barbed Wire Beaker, while in the flank of the barrow a large Pot-Beaker had been placed.

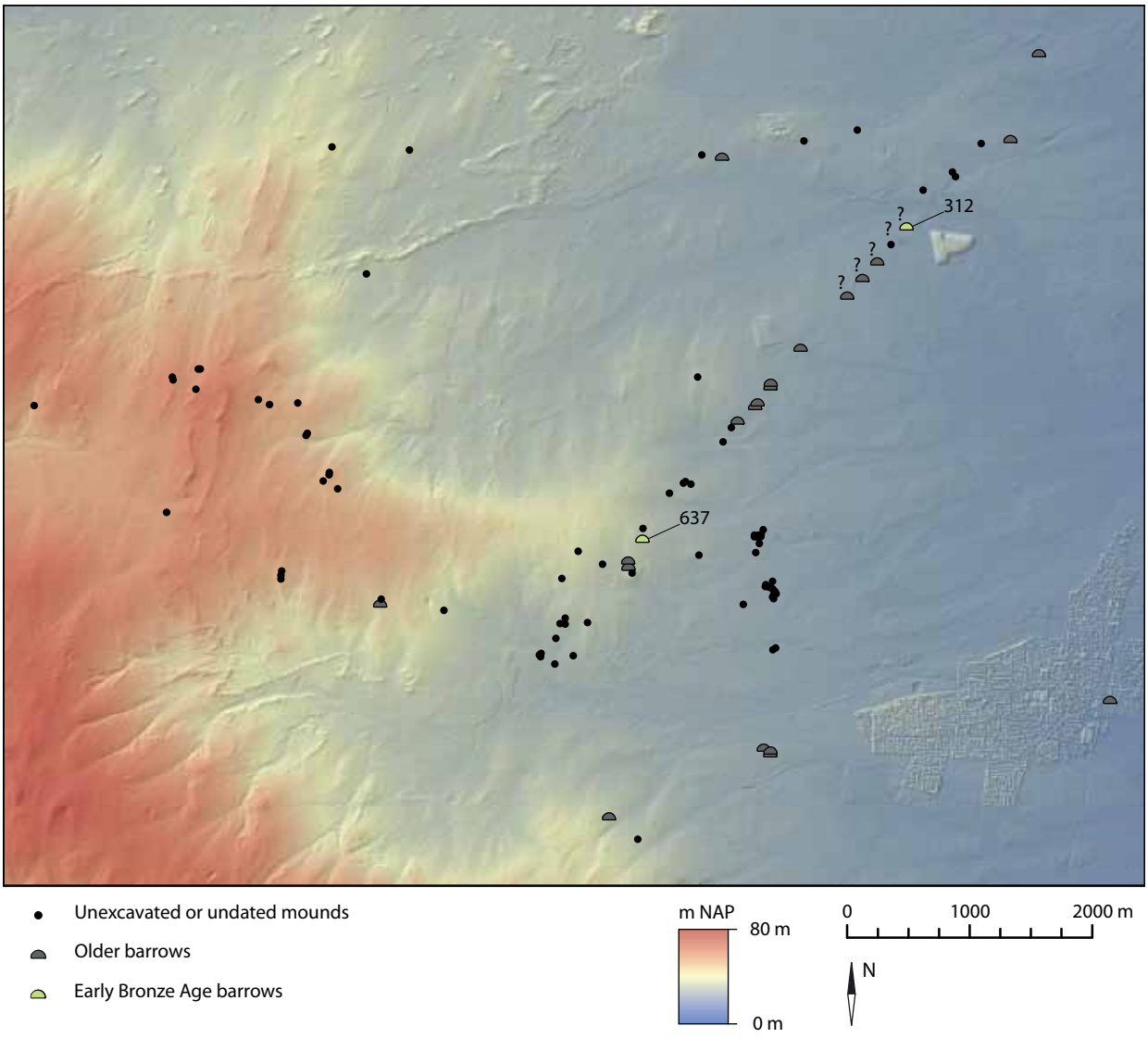


Fig. 5.7: Overview of all EBA barrows in the Epe-Niersen area. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

The alignment, as set out around 2500 cal BC, was still recognised as such 500 years later. Another observation that can be made, is that there are many locations in the region where sherds with Barbed Wire decoration were found even though few barrows were constructed. During the excavation of part of the Vaassen Celtic Field a pit was discovered containing Barbed Wire Beakers. Charcoal recovered from the filling of the pit was radiocarbon dated to 2025 – 1770 cal BC (Brongers 1976). Surface finds elsewhere in the region confirm many activities in this period, yet barrow construction was relatively rare.

Middle Bronze Age barrows (1800-1400 cal BC)

Not a single primary barrow can be unambiguously dated to the MBA (Fig. 5.8). There is a distinct possibility that several barrows may date to this phase (nos. 625, 626, 628, 632, 633, 634 and 638), yet the description by Holwerda is so appalling that their exact attribution remains unclear.

Nevertheless all of these barrows are associated with urned and un-urned cremation burials, as well as scattered pyre-remains. The description by Holwerda does suggest these were similar to two MBA barrows excavated at the Wiesselse

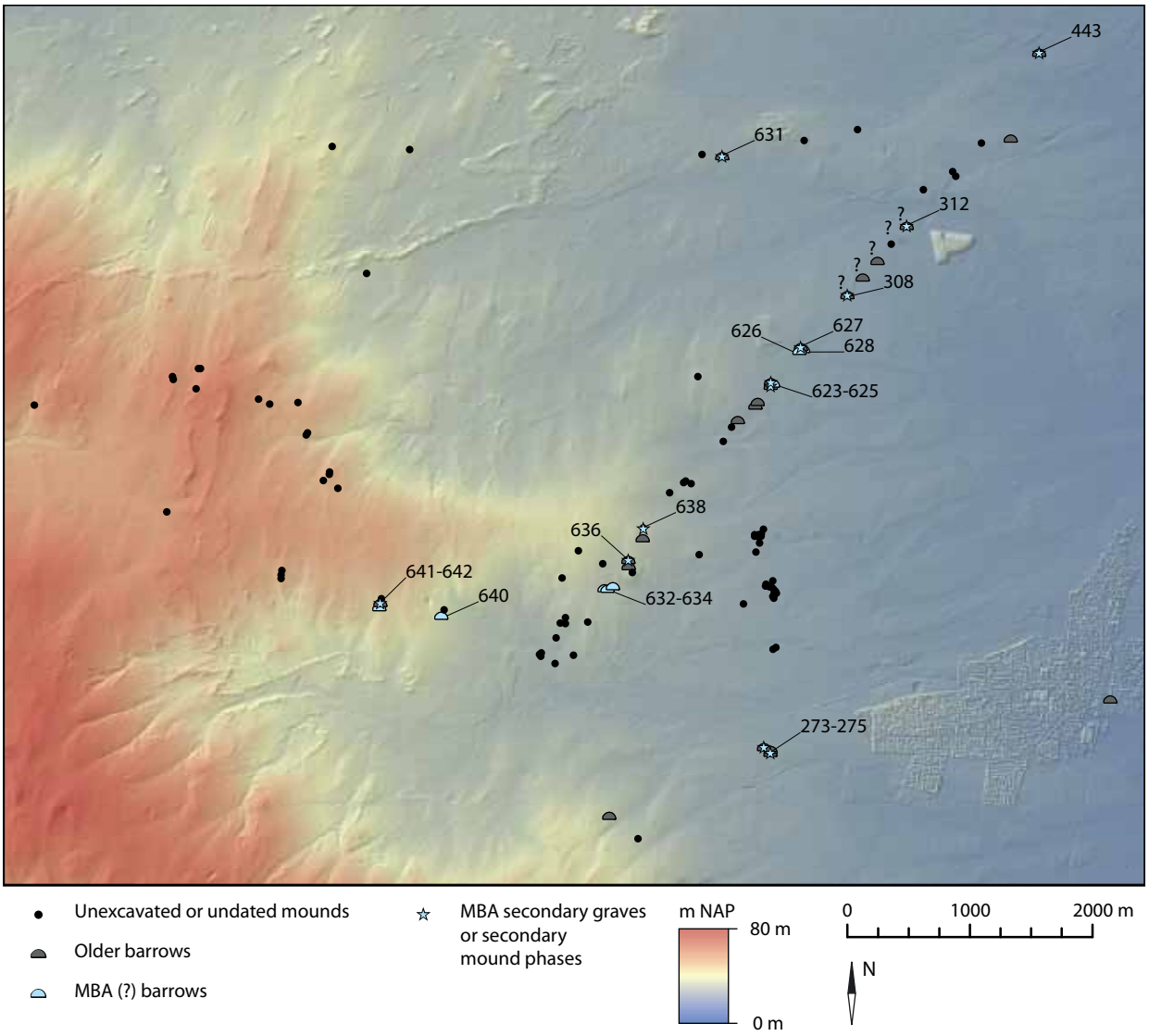


Fig. 5.8: Overview of all possible MBA barrows in the Epe-Niersen area as well as all barrows with secondary graves and mound phases. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

Weg (Fontijn and Louwen in prep.). We should remain cautious however, as cremation burial and the construction of mounds within the region continued throughout the Iron Age as well (*e.g.* Van der Linde and Fontijn 2011).

The reuse of older mounds on the other hand can be affirmed for almost every barrow in the region. And even though Holwerda had difficulties in recognising and separating these practices, almost all barrows have indications of at least one secondary grave or mound phase.

The barrow Dobbe Gelle 4 (no. 642), excavated by Holwerda provides some insight into the scale of secondary use during this period. In contrast to all his other excavated mounds, he did distinguish three separate construction phases here, and related specific graves to specific mound periods. Two separate categories of urns can be distinguished (Fig. 5.9). On the one hand MBA large coarse urns, associated with the second mound phase, while smaller and finer accompanying pottery was found in the third mound phase. In total at least 16 secondary graves were recorded. Attributing specific graves to specific periods is difficult, yet on the basis of parallels with other mounds in the Central Netherlands (see Chapter 3), the large coarse urns can be dated to the MBA.

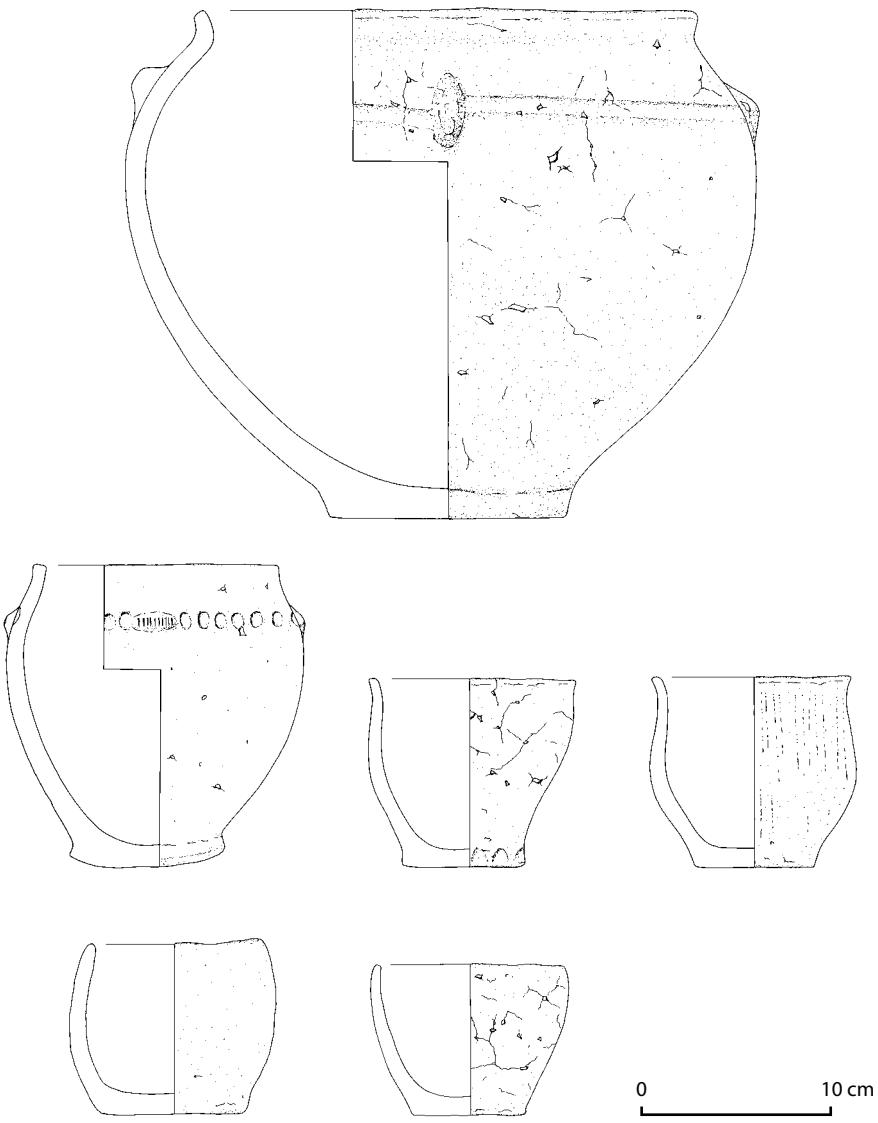


Fig. 5.9: A selection of the pottery found in association with several cremation burials in mound D4 (drawing by A.Louwen).

In several other barrows multiple secondary graves were recorded, and the three Vaassen barrows (nos. 273-275) corroborate this pattern of extensive reuse. In total at least 14 secondary graves were discovered in these three mounds, and one was increased in size by an additional layer of sods (274).

Later barrows (1400-500 cal BC)

Later barrows are difficult to recognise in the region (Fig. 5.10). At least one of the barrows on the alignment dates to the Middle Iron Age (no. 307). It was surrounded by a rectangular ditch and covered a cremation grave containing Iron Age pottery.

In addition to this isolated example, at least three urnfields were discovered in the region. Interestingly the oldest elements in each of these urnfields are Late Neolithic barrows. A fourth urnfield is located in the Vaassen Celtic Field (Brongers 1976).

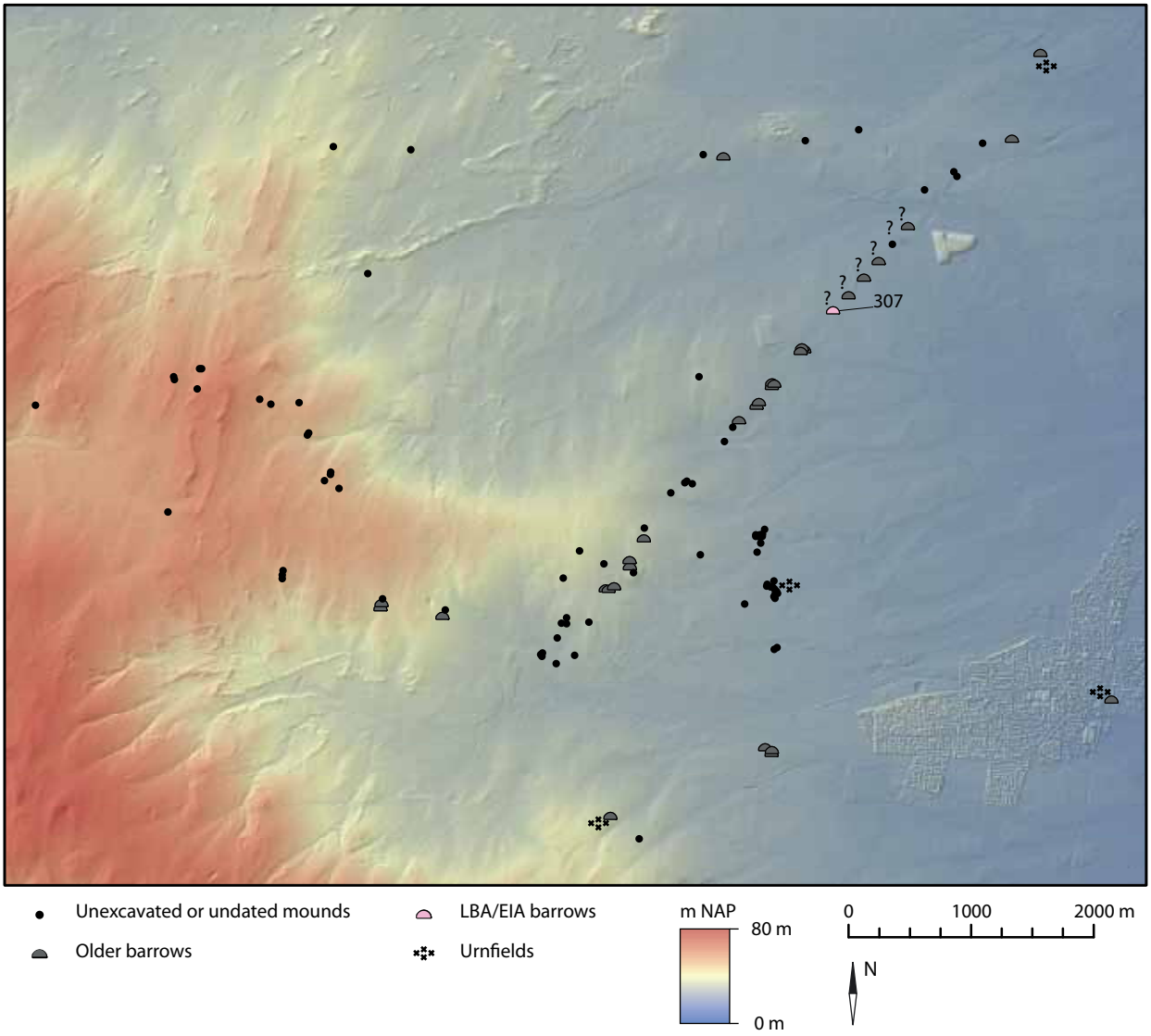


Fig. 5.10: Overview of all LBA and IA barrows and urnfields in the Epe-Niersen area. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

5.2.6 Summary

The most striking feature in the Niersen-Epe case study is the alignment of 46 barrows. The roots of it can be traced back to the LN A, with at least six barrows constructed at around 2600 - 2500 cal BC.

Through time the alignment was respected and emphasised through the construction of new barrows. Especially in the Bell Beaker phase the alignment was extended and barrows were built in-between the older mounds. This practice of emphasising the alignment by constructing new burial mounds continued into the EBA up untill at least 1800 cal BC.

Whether or not MBA barrows were built amongst the Neolithic ones of the alignment is not well attested. Several mounds may have been built in this period, but conclusive evidence is lacking. Nevertheless the reuse of older mounds in the region can certainly be said to have increased in the MBA, with more than half of the barrows having at least one secondary mound phase or grave, dating to this period.

5.3 The Renkum stream valley

5.3.1 Introduction

To the north of the town of Renkum the flanks of a wide stream valley cutting through the ice-pushed ridge are dotted with at least 71 barrows. At first glance, the majority of barrows appear to be concentrated around the stream valley itself, while some are built higher up on the ice-pushed ridges. Almost all barrows in the area were excavated by amateur archaeologists. Subsequent research by professional archaeologists has allowed us to date 28 barrows (Fig. 5.11; Table 5.2).

5.3.2 Geomorphology of the region

The Renkum stream valley was created when glacial melt water broke through the ridge and drained into the Rhine-Meuse valley (Berendsen 2000b, 43). The active stream valley is now much smaller and has only a narrow course at the bottom of the valley.

The flanks of the valley are composed of glacio-fluvial deposits and they gently rise up until the highest points of the ice-pushed ridges (approximately 60 m NAP). They are cross-cut by east-west running dry-valleys which were created by solifluction and gelifluction during the last ice-age (STIBOKA 1973, 38).

To the north of the area, drift-sand created large parabolic sand dunes during the last Glacial (most notably on the Ginkelse heath; STIBOKA 1973, 38), although other sand dunes (more to the north and west) are younger and of human origin (Berendsen 2000b, 50).

The southern part of the research area is delimited by the river Rhine which has eroded part of the ice-pushed ridge.

5.3.3 Research history

Amateur finds

The majority of barrows in the Renkum area have been frequently investigated by several amateur archaeologists. One of the earliest known amateur archaeologists to have excavated in the region was Miss Goekoop-De Jongh (Goekoop-De Jongh 1912). Her colourful description of the excavation of two barrows reveals her rather dilettante approach to archaeology. Nevertheless her account gives us insight into the nature of the terrain prior to the several large afforestation attempts in the region (see below).

The most prolific of the amateur archaeologists was Captain Bellen. In the 1920's and early 30's he excavated at least eleven barrows in the Renkum valley. Discovering no less than eight LN A barrows and two LN B barrows, he is without doubt responsible for most of the knowledge on the barrows in the region.

In 1936 he sold his collection to the National Museum of Antiquities (Butler and Van der Waals 1966, 122). All finds were catalogued in the ledgers of the museum, ordered by find context. Unfortunately it would appear that a mix-up of finds occurred and the collection has caused a great deal of confusion (Butler and Van der Waals 1966, 122). The grave assemblages entered into the museum did not match with the photographs of the find assemblages at the *Biologisch-Archeologisch Instituut* in Groningen. Furthermore they did not match the description Captain Bellen gave in his personal diaries (later donated to the ROB and the *Gelderse Archeologische Stichting*). Unfortunately before this mix-up was noticed, Modderman had already used the incorrect museum inventory in his article on the distribution of Beaker Cultures on the Veluwe (Modderman 1962-1963, 8).

The incorrect association and localization of several of these artifacts has created a lot of confusion, especially since not only the incorrect associations but also the correct associations were entered into the national database of archaeological finds (ARCHIS). Many double records, incomplete records and double placements of identical grave assemblages had to be filtered out before an accurate barrow distribution could be created. Fortunately Lanting and Van der Waals have gone to great lengths in their attempts to identify the correct barrows, and aided by their direct access to Bellen's journals they were able to identify most of the mistakes (the results of which have been published in several small articles; Lanting and Van der Waals 1971a; 1972a; b). Here I followed the conclusions reached by them.

In addition to Bellen, several other amateur archaeologists have been active in the region, several of their finds were included in Modderman's inventory (Modderman 1962-1963). Even though the exact find-spot is not always entirely reliable, most have been included in the present study.

Table 5.2 (opposite page): Dating range for each excavated barrow within the Renkum area. Black lines indicate barrow construction. Grey lines indicate secondary graves or mound phases. Dotted lines are uncertain dates.

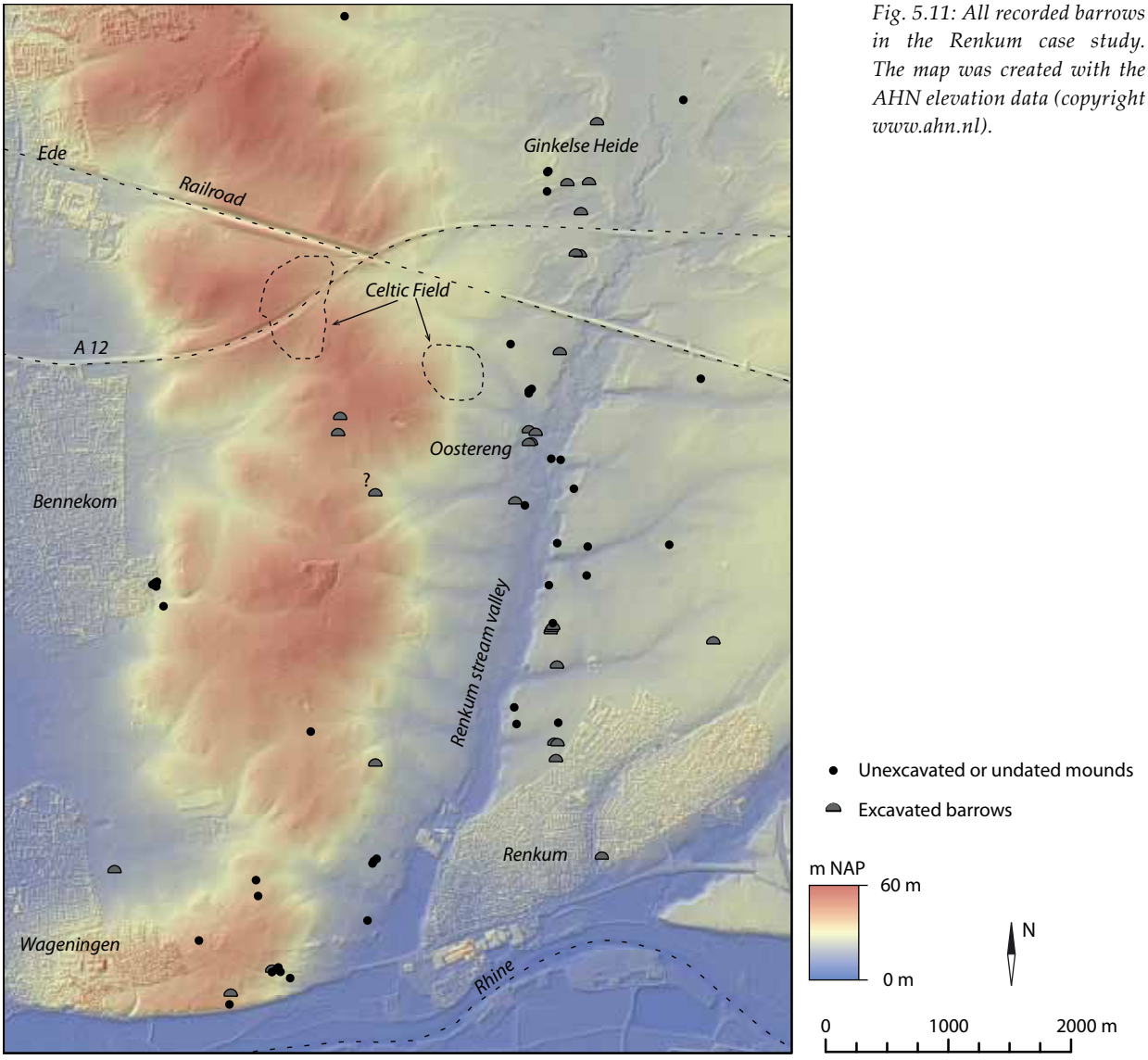


Fig. 5.11: All recorded barrows in the Renkum case study. The map was created with the AHN elevation data (copyright www.ahn.nl).

Sitename	Barrow number	Dating range: LN A	LN B	EBA	MBA-A	MBA-B	LBA/EIA
Ede Hotel Bosbeek Tumulus I	389						
Renkum Molenbeek 'Heuvel A'	4002						
Bennekom Oostereng Heuvel 4	425						
Bennekom Oostereng Heuvel 22	428						
Renkum Molenbeek 'Heuvel R'	4003						
Renkum Molenbeek 'Heuvel Q'	4106						
Renkum Molenbeek 'Heuvel S'	4107						
Renkum 'Fluitenberg'	4109						
Ede Ginkelse Heide (Bellen 1927)	4112						
Ede Ginkelse Heide (ROB barrow 78)	4113		?				
Ede Ginkelse Heide (Bellen 1936)	4114						?
Renkum 'De Keyenberg (West)'	4500						
Renkum 'De Keyenberg (East)'	4501						
Renkum Molenbeek 'Heuvel T'	4503	?					
Wageningen Oranje Nassua's Oord 5	398						
Bennekom Oostereng Heuvel 10	426						
Bennekom Oostereng (gold ornament)	272						
Bennekom Voormalige Buurtheide 1	278						
Bennekom Voormalige Buurtheide 2	279						
Bennekom Kwade Oord	322						
Wageningen Oranje Nassua's Oord 1	397						
Bennekom Oostereng Heuvel 12	427						
Bennekom 'Nol in 't Bosch'	429						
Wageningen Geertjesweg graf 224	445						
Ede Ginkelse Heide 'Girhen'	4010						
Ede Ginkelse Heide 'Amber'	4103						
Renkum (Goekoop-De Jongh 1912)	4517						
Renkum 'Ketsberg' De Lindelaan	4524						
Ede Ginkelse Heide (ROB barrow 79)	4518				?		
Ede Hotel Bosbeek Tumulus II	390			?			

3000 2800 2600 2400 2200 2000 1800 1600 1400 1200 1000 500

Cal. BC

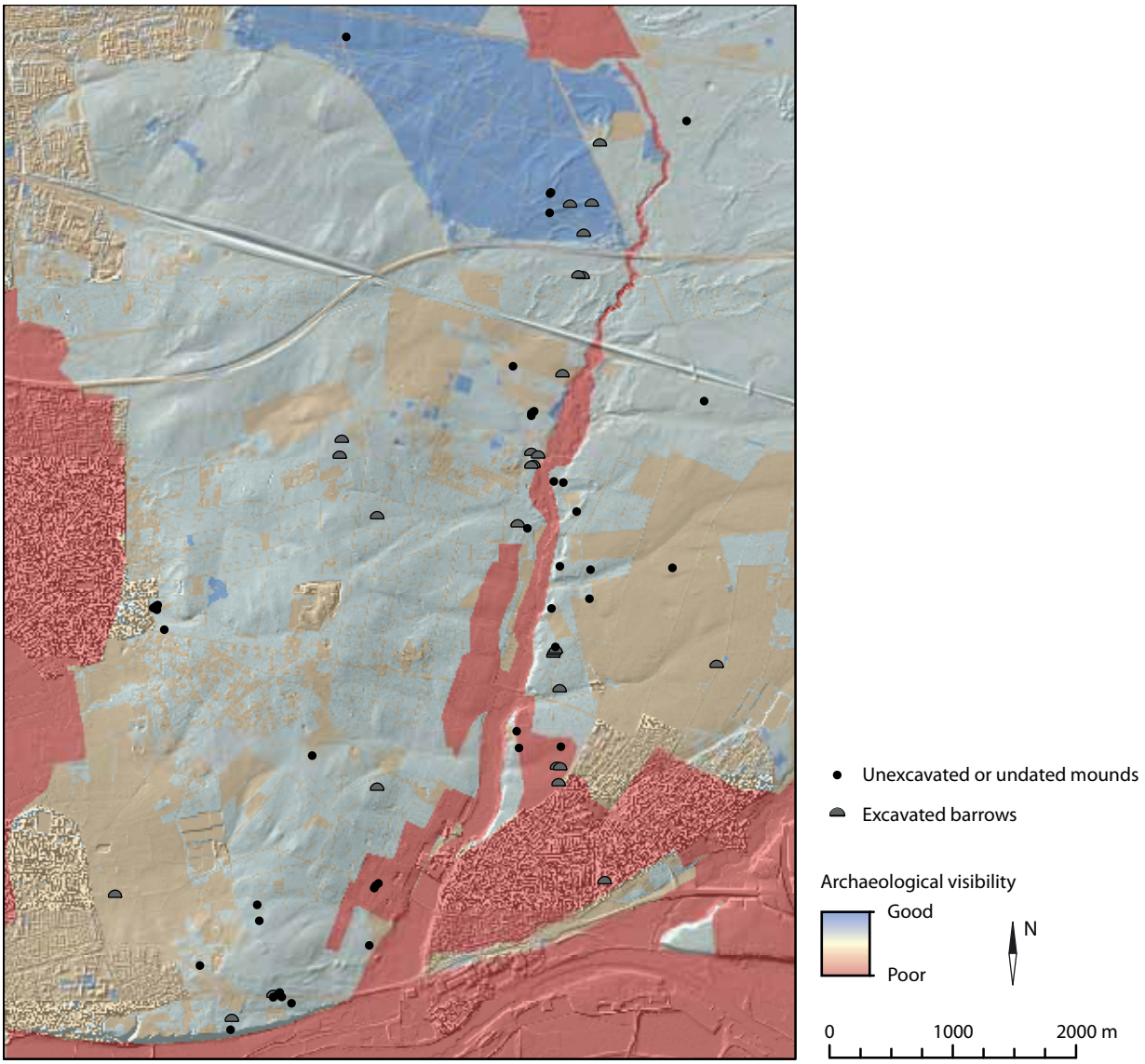


Fig. 5.12: Estimation of the map formation processes affecting the barrow distribution within the Renkum area. The map was created on the basis of 19th Century Topographic Military Maps and modern land-use.

Professional archaeologists

Several generations of archaeologists have investigated the region and their excavations reflect the development of archaeology as a scientific profession. The first excavations in the region were carried out from a purely scientific viewpoint (*e.g.* Holwerda 1910a, 54; Remouchamps 1928, 72-73; Bursch 1933b, 51-58; Van Giffen 1937b; 1954). Gradually the focus shifted to rescue archaeology limited to barrows threatened by town-expansion (*e.g.* Van Giffen 1958) or reclamation efforts (*e.g.* Modderman 1954, 41-44; Van Es 1964). Only limited inspections into already excavated barrows were made from the late 50's and 60's onwards (Lanting and Van der Waals 1971a; 1972a; b), although occasionally some barrows were still (partially) excavated (*e.g.* Casparie and Groenman-Van Waateringe 1980, 28-29).

After these last excavations, professional activities related to barrows in the Renkum area were restricted to inspections only (*e.g.* Deeben 1988). These inspections were mainly aimed at correctly identifying barrows and recording their exact position on the national grid.

5.3.4 Estimates of archaeological visibility

Research area

The archaeological visibility varies greatly within the research area (see Fig. 5.12). Especially the contrast between the eastern and western flank of the stream valley is striking. The arable fields on the east flank and the town of Renkum at the southern end of the valley have destroyed many barrows. That barrows were present in both these areas is evidenced by the excavations of Van Giffen and Miss Goekoop-De Jongh (barrows 4517 and 4524). However, these indicate how much we may be missing here and as such both mounds must be considered to represent many destroyed barrows.

In contrast the western flank is relatively well preserved, with little agricultural activity. Only a small *essen* complex close to the valley bottom will obscure any barrows there. In the north of the study area, the archaeological visibility is quite high as the large *Ginkelse heide* has remained relatively unchanged through the 19th and 20th centuries.

Representativity of the excavated barrows

The Renkum stream valley has one of the highest number of excavated barrows on the Veluwe. Especially the prolific amateur archaeologists in the region have provided us with a wealth of information on many barrows. Out of a total of 71 barrows, no less than 28 have been excavated of which 15 by amateur archaeologists and 14 by professional archaeologists. The representativity can be considered especially high for the Late Neolithic (almost 90% of the excavated barrows). However, as the nature of the amateur archaeologists' excavations does not allow for the recognition of later additions to already existing barrows, little is known on the reuse of the barrows in the Bronze Age and subsequent periods. Observations on the nature and development of the Bronze Age burial landscape in this region are therefore limited.

5.3.5 The development of the Renkum barrow landscape

The earliest barrows (2850-2500 cal BC)

The first phase of barrow construction in this region is characterized by one of the highest concentrations of early Late Neolithic barrows in the Netherlands. In total as many as 13 barrows can be unequivocally dated to this period (Fig. 5.13).[17] A variety of beaker types were recovered from the graves and at least two barrows were associated with what is thought to be early type 1a beakers (barrows 389 and 4106).

All LN A barrows were placed in two alignments separated by the stream valley. The first alignment is located on the eastern flank of the stream valley (nos. 425, 428, 389, 4112, 4113, 4114) and the second alignment on the western flank (4002, 4003, 4106, 4107, 4109, 4500, 4501). That these alignments are not a construct of post-depositional processes and selective preservation of barrows is supported by the earliest observations by (amateur) archaeologists in the region. Miss Goekoop De Jongh remarked in 1912 the barrows were placed:

---

17 At least one more barrow must be added to this total as Miss Goekoop-De Jongh excavated a barrow from which a Protruding Foot Beaker was recovered. Unfortunately this barrow could not be exactly relocated in the research area and has therefore been omitted from the present study. According to Miss Goekoop-De Jongh the barrow was located '*in one of the corners of the heath-field*' (Goekoop-De Jongh 1912, 27).

'[…] in opeenvolgende lijn, doch zonder verdere regelmaat […]', [...] in a consecutive line although without any further regularity [...] (Goekoop-De Jongh 1912, 24).

The first alignment covers a length of at least 1,1 km and encompasses at least nine barrows. Seven of these barrows can be dated to the LN A, while the other two barrows remain unexcavated. The alignment is orientated north-south (at 358-359°).

This first alignment may have extended both to the north and the south. To the south, the outskirts of the modern day town of Renkum lies only 30 m from the last barrow in the alignment. How much further the alignment would have extended into the present day town is unknown. To the north several unexcavated barrows are located on the same alignment, and as with the Epe-Niersen alignment, it is not inconceivable that some of these may also date to the LN A.

The second alignment lies on the western flank of the Renkum stream valley. Over a distance of almost 2 km six barrows lie in a straight line orientated at approximately 10°. Here, the distance in-between the barrows is greater than in the southern alignment, especially in the section to the south of the present day rail road and highway. It should be noted however, that here arable land and

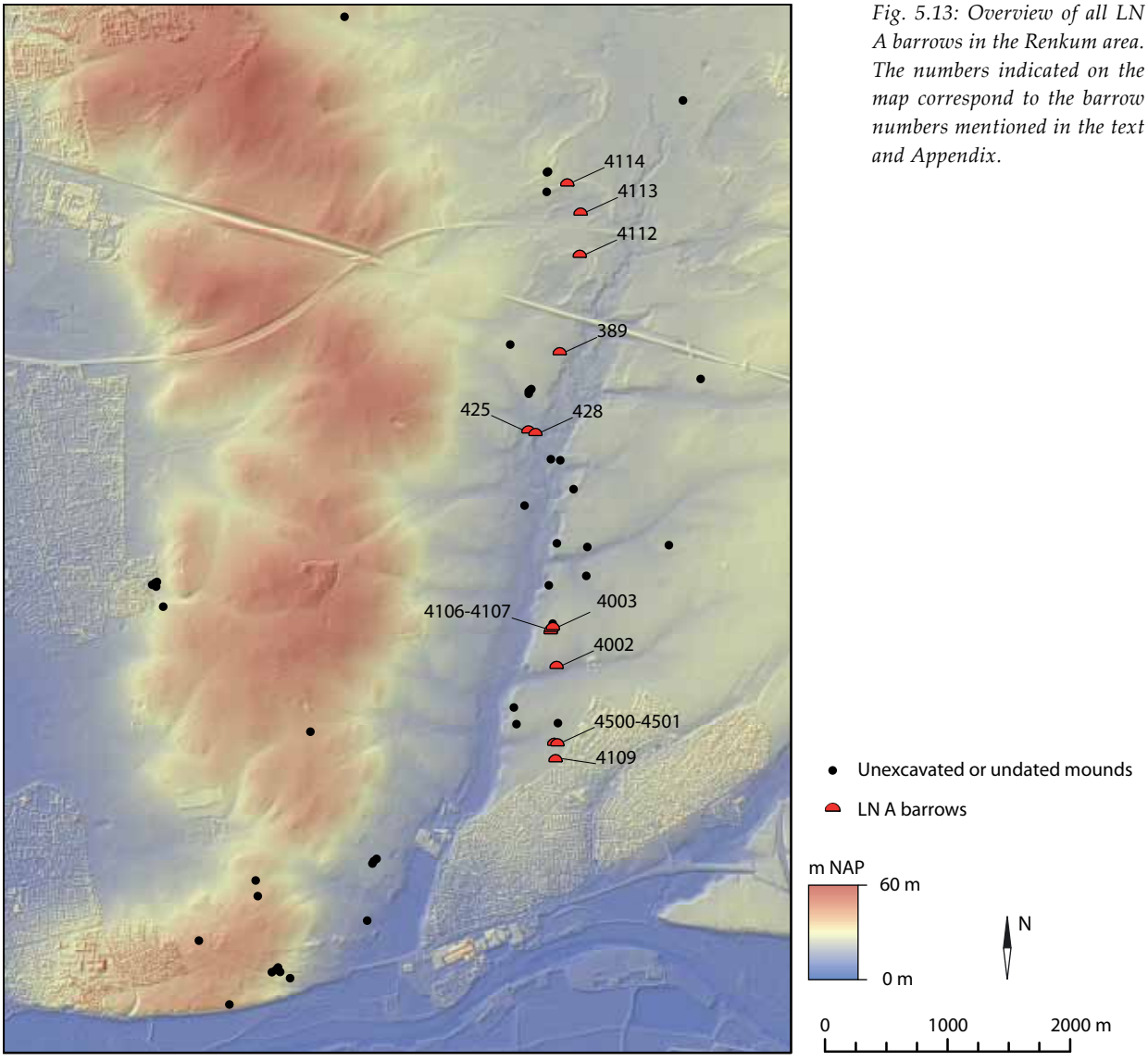


Fig. 5.13: Overview of all LN A barrows in the Renkum area. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

the construction of railroads and highways might have destroyed a number of barrows. At least one barrow (barrow 389) on this alignment had already been completely ploughed out and leveled prior to its excavation (Modderman 1954, 41). Furthermore a group of four unexcavated barrows (barrows 4511 - 4514) situated in-between two LN A barrows (respectively 300 m and 400 m to the south and the north, barrows 425 and 389) may date to the same period.

Only the last barrow in the line is located slightly off axis compared to the main alignment (barrow 4114). This however, might be due to the misplacement of this barrow (see appendix). If we do not take into account the last barrow all barrows once again seem to be located on a single alignment. As with the southern alignment, the barrows are located on the configuration individually or in groups of two.

Both the northern and southern alignment can be reconstructed on the basis of excavated barrows. If we consider the unexcavated barrows in-between both alignments, it is striking that at least four or five barrows are located in-between the northern end of the first alignment and the southern tip of the second alignment. It is plausible that at least part of these barrows can be dated to the same period. Especially the barrows just north of the first alignment (nos. 4504 and 4507)

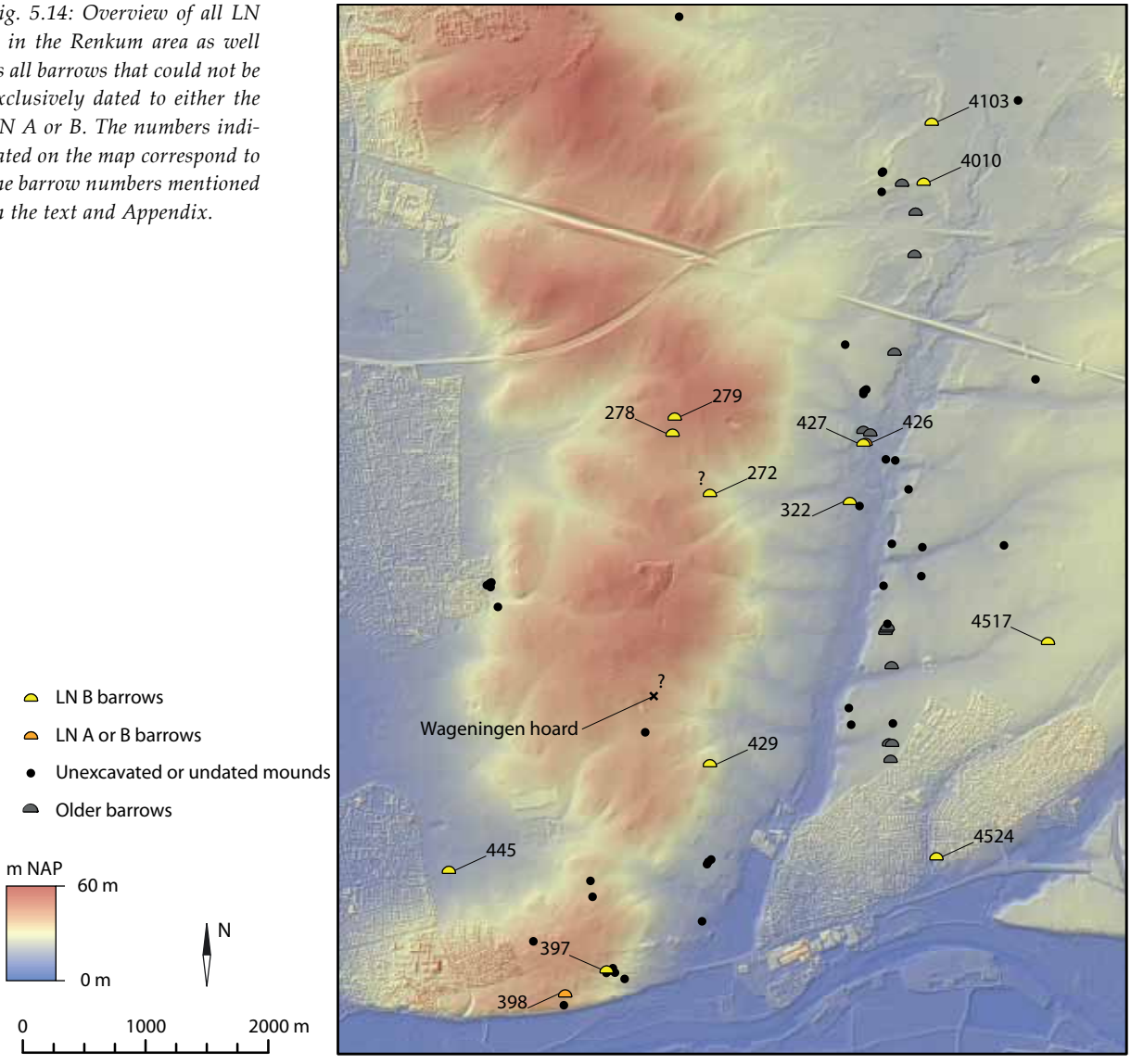


Fig. 5.14: Overview of all LN B in the Renkum area as well as all barrows that could not be exclusively dated to either the LN A or B. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

appear to be spaced according to the same distance as the confirmed LN A barrows. On the basis of the evidence, it is very plausible that the unexcavated barrows in-between them would date to the same period.

So if we accept that the southern alignment might extend to the north, it would in effect link up with the northern alignment and would thus form one continuous alignment stretching over at least 4,5 km. The southern section would then comprise at least 13 or 14 barrows and cover 2,5 km. At its northern tip, the alignment would then cross the stream valley and continue for another 2 km. This reconstruction of one single long alignment is, however, tenuous at best and needs more supporting data.

How quickly the alignment attained its full extent is difficult to estimate, yet two barrows are associated with type 1a-beakers (barrows 4106 and 389). These can probably be dated to the first half of the LN A (Wentink in prep.; but see Furholt 2003). Whether or not the concept and the idea of the alignment was already implied in the earliest phase of the LN A is unknown. All other graves cannot be dated more reliably than to the entire phase. It is therefore impossible to say whether the alignment was built in quick succession or took two or three centuries to form.

That these alignment(s) reflect an archaeological reality is also supported by the fact that not a single LN A barrow was found beyond these alignments, whereas in contrast LN B barrows, as well as being placed close to older barrows (such as in the Oostereng group, barrows 426 and 427), occupy other areas as well (see below). Notably the higher western flank of the stream valley, where no LN A barrows are known, is covered with LN B barrows.

Bell Beaker barrows (2500-2000 cal BC)

The barrows built in this phase can be split into two groups, the ones that are on the alignment, and those that are not (Fig. 5.14). The first group extends the northern alignment to the north and south (nos. 322, 426, 427, 4010, 4103), while the other group is constructed on the higher grounds of the ice-pushed ridges (nos. 272, 278, 279, 397, 445,429, 4517, 4524), most notably on the western flank of the Renkum stream valley.

The first group consists of five barrows, two on the northern side of the alignment and three on the southern side. The first two barrows were excavated by Bellen and both are placed on Pleistocene parabolic sand dunes and yielded rich Bell Beaker graves (barrows 4010 and 4103). Both barrows were placed on the same axis as the LN A alignment. This suggests that the people building these barrows recognized the alignment and wanted to add to it. They also added barrows to the southern end of the alignment. Two barrows (nos. 426 and 427) were built some 100 m from the closest barrow, at the Oostereng barrow group (barrow 428). The last barrow was added some 500 m to the south (barrow 322). These additional barrows would now extend the alignment to a little over 3 km.

The second group of barrows belonging to this phase were built higher up on the plateaus and flanks of the ice-pushed ridge. Especially on the western flank of the stream valley the difference with the preceding LN A is striking. Not a single barrow dating to the first period was uncovered on the higher slopes, and all excavated barrows could be dated to the LN B.

The barrows are distributed, almost evenly, over the ±13 km^2 west flank of the Renkum stream valley. The barrows do not cluster and only two barrows were built relatively close (150 m) to one another (nos. 278 and 279).

The same distribution pattern might be suggested for the eastern flank of the Renkumse stream valley even though only two barrows can be reliably dated on that flank. As mentioned above, the post-depositional processes on that flank were significantly more destructive. Both the barrow excavated by Miss Goekoop-De Jongh, yielding a Veluvian Bell Beaker (no. 4517) and the barrow excavated in Renkum by Van Giffen (no. 4524) demonstrate that here too, the LN B barrows expanded onto higher grounds.

The contrast between the distribution of LN A and B barrows is well illustrated by the fact that the former covered an area of roughly 3 km^2, whereas the latter an area of roughly 25 km^2. This is all the more striking if we take into consideration that more LN A than LN B barrows are known (13 vs. 12).

In addition the LN A barrows were located within a maximum of 500 m from the stream valley, whereas the LN B barrows were built up to 1.5 to 2 km from the stream valley. Apparently a much larger terrain was deemed suitable for burial in this phase than in the previous one.

That this area was not only used for burial is illustrated by the discovery of the famous Wageningen hoard in close proximity to the Bell Beaker barrows (Fontijn 2002, 72-73).[18]

The Early Bronze Age (2000-1800 cal BC)

Little or no burial activities are in evidence for this period. It has been suggested that at least two of the four mound phases capping a Late Neolithic barrow can be dated to the EBA (barrow nr. 322; Van Giffen 1954). Yet these mound phases were dated on the basis of pollen and no artefacts or radiocarbon dates are available to confirm this. Reviewing the publication and the stratigraphy of the finds, it is more likely that the secondary mound phases of this barrow can be dated to the next phase, the MBA A.

Middle Bronze Age barrows (1800-1400 cal BC)

The evidence for primary Bronze Age mounds in the region is limited. Only one barrow may have been constructed in this period (no. 4518, Fig. 5.15). Yet as was the case in the Epe-Niersen area, the evidence suggests most barrows were reused in the Bronze Age.

At Oostereng Bursch excavated a barrow in which a total of four secondary inhumation graves were documented (Bursch 1933b, 52). In addition, all other barrows in the Oostereng group have indications of secondary mound phases. Either through multiple surrounding features or visible in the rudimentary profiles. A completely leveled barrow excavated by Modderman (Modderman 1954, 44) was surrounded by a widely spaced post circle comprised of eight post holes, a typical surrounding feature for the MBA (see Chapter 3). A similar activity phase was visible in the excavation by Van Giffen at Bennekom. Three secondary mound phases were added to a Bell Beaker barrow. In-between the phases at least four tangential graves were added to the mound (Van Giffen 1954).

Here too, it can be concluded that reuse of the older monuments was extensive. The lack of primary mounds on the other hand can rather be attributed to the nature of the research in the region. Especially barrows without any grave goods, as is typical for the MBA, will not have been interesting to the amateur archaeologists.

---

18 Although a direct relation between these two cannot be established and its location could only be determined approximately.

Later barrows (1400-500 cal BC)

At two locations urnfields could be determined (Fig. 5.16). The most extensively researched urnfield is the one excavated by Bursch in 1930 at Bennekom Oostereng (Bursch 1933b), where he partially excavated some 30 small barrows and four Neolithic barrows already discussed above. One of the older monuments (barrow 427) forms the focal point around which the rest of the urnfield developed.

One more urnfield is known in the region, yet details are lacking. Pleyte discusses this urnfield close to the edge of Bennekom where at least one Schräghalsurn was found (Pleyte 1877-1903, 51). Apparently many more urns were recovered at the urnfield, yet little is known of them. Holwerda also excavated here albeit with little results (Holwerda 1910a, 54). Whether or not older barrows were located at the site is also unclear.

Secondary burial in pre-existing barrows is attested only once in the region. A Kerbschnitt urn was discovered in the top of a mound prior to it being levelled (barrow 389; Modderman 1954, 44).

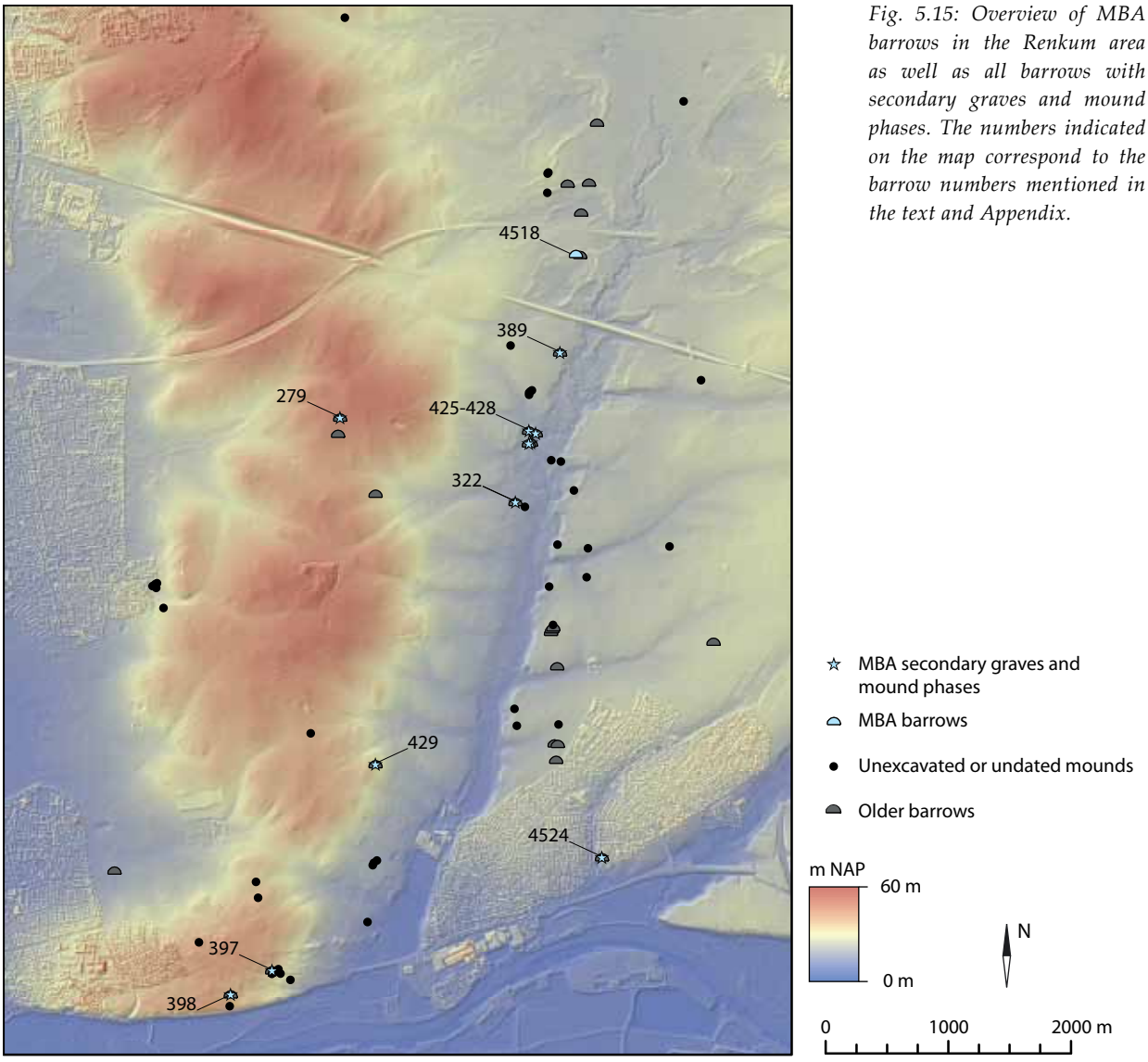


Fig. 5.15: Overview of MBA barrows in the Renkum area as well as all barrows with secondary graves and mound phases. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

5.3.6 Summary

Within the Renkum stream-valley two alignments (or possibly a single long one) can be identified. Almost every barrow on the alignments was constructed in the LN A, from 2900 – 2500 cal BC. The alignment is built relatively close to the stream valley and may at one point cross it.

As with the Epe-Niersen alignment new barrows were added to the alignment during the LN B. Most of the Bell Beaker mounds have, however, been found higher up the flanks of the ice-pushed ridges and much further away from the stream-valley than in the preceding period.

The development of the barrow landscape in the Bronze Age is poorly understood. We know of only one Bronze Age barrow constructed in this region. Reuse of older barrows however was common, and even with the generally poor quality of excavation, multiple secondary graves and mound phases could be identified.

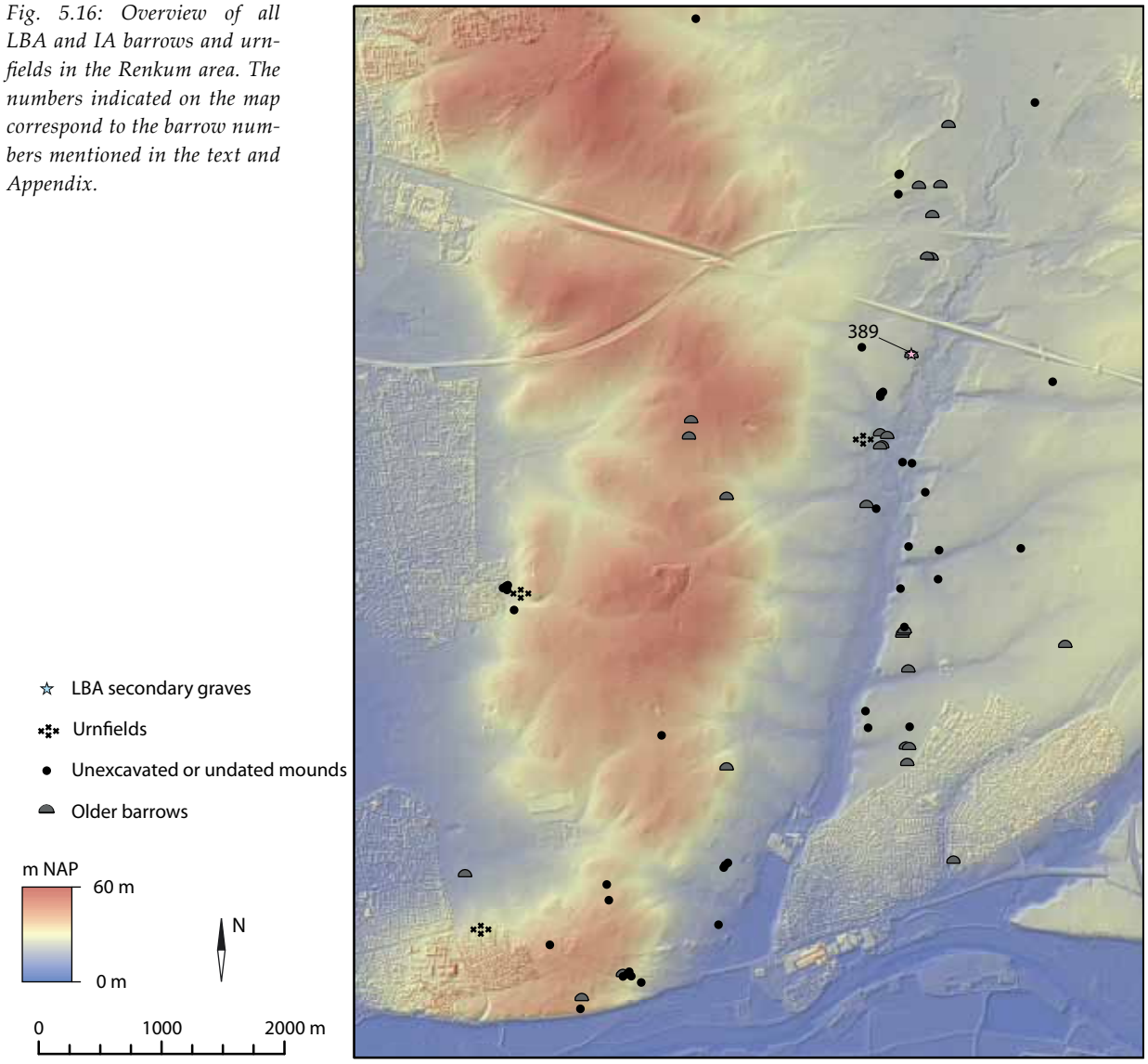


Fig. 5.16: Overview of all LBA and IA barrows and urnfields in the Renkum area. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

5.4 The Ermelo Barrow Landscape

5.4.1 Introduction

On the northern slope of the Garderen ice-pushed ridge we find one of the largest concentrations of still existing barrows in the entire Low Countries. In this research area alone 134 barrows are known, of which several have been discovered recently (Fig. 5.17; Table 5.3).

As the area was subject to the single biggest barrow excavation campaign in the Netherlands we have information on more than a third of these barrows (52 mounds). Modderman's campaign, with 34 barrows excavated in five (!) months (Modderman 1954, 7), accounts for more than two thirds of these, while the other barrows were excavated by Remouchamps and amateur archaeologists.

5.4.2 Geomorphology of the region

The barrows are located on the northern slope of the ice-pushed ridge of Garderen. The eastern flank of the ice-pushed ridge is delimited by the *Leuvenumse* stream valley. It is one of the only streams on the Veluwe to permanently carry water. The valley and the lower lying areas around it were filled with peat and swamps up until the 19th Century and to this day remains a poorly drained area (Berendsen 2000b, 50).

The barrows can be found higher up, from the foot of the ridge up to its highest point. Two very high and long sand dunes divide the terrain into three distinct parts. They run east-west and probably formed after the Allerød-interstadial

Table 5.3 (opposite page): Dating range for each excavated barrow within the Ermelo area. Black lines indicate barrow construction. Grey lines indicate secondary graves or mound phases. Dotted lines are uncertain dates.

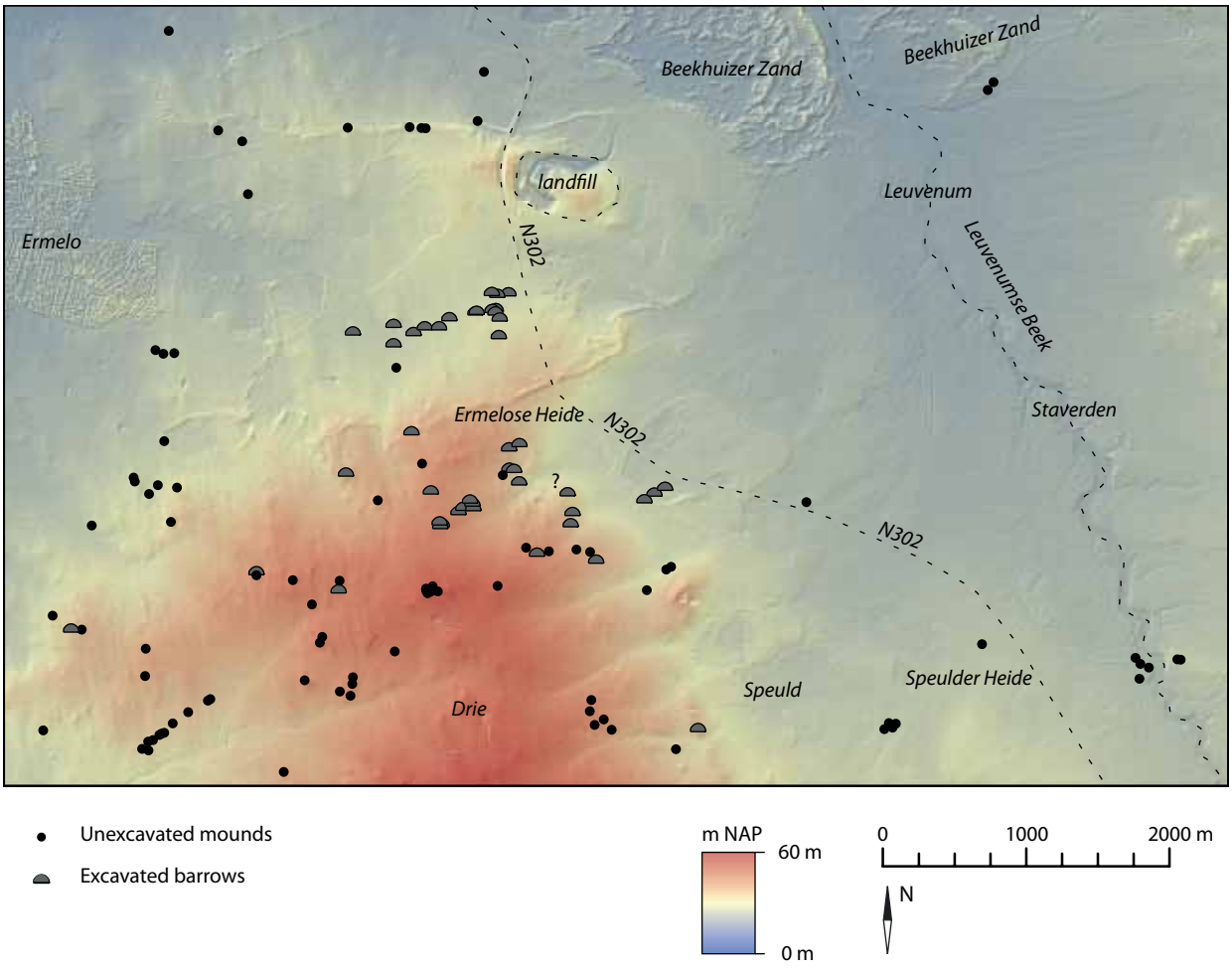


Fig. 5.17: All recorded barrows in the Ermelo case study. The map was created with the AHN elevation data (copyright www.ahn.nl).

Sitename	Barrow number	Dating range: LN A	LN B	EBA	MBA-A	MBA-B	LBA/EIA
Ermelose heide Tumulus VII	330						
Ermelose heide Tumulus XXVIII	352						
Ermelo (ROB barrow 140)	4625						
Ermelo (ROB barrow 142)	4626						
Speulder Bosch Heuvel 2	4634						
Ermelo (ROB barrow 53 or 55)	4651						
Ermelose Heide	4685						
Ermelose heide Tumulus I	324						
Ermelose heide Tumulus II	325						
Ermelose heide Tumulus III	326						
Ermelose heide Tumulus VI	329						
Ermelose heide Tumulus XVI	340						
Ermelose heide heuvel 2	354						
Ermelose heide heuvel 3	355						
Ermelose heide Tumulus XXIV	348						
Speulder Veld heuvel II	363						
Ermelose heide Tumulus XX	344						
Ermelose heide Tumulus XXVII	351						
Ermelose heide heuvel 1	353						
Ermelose heide heuvel 4	356						
Ermelose heide heuvel 5	357						
Ermelose heide heuvel 6	358						
Ermelo Driesche Berg	444						
Ermelose heide Tumulus XIX	343						
Ermelo (ROB barrow 44, 45 or 47)	4654						
Ermelose heide Tumulus IV	327						
Ermelose heide Tumulus V	328						
Ermelose heide Tumulus IX	332						
Ermelose heide Tumulus XIII	336						
Ermelose heide Tumulus XIVa	337						
Ermelose heide Tumulus XIVb	338						
Ermelose heide Tumulus XV	339						
Ermelose heide Tumulus XVIII	342						
Speulder Veld heuvel III	364						
Speulder Veld heuvel V	366						
Ermelose heide Tumulus VIII	331						
Ermelose heide heuvel 1b	360						
Kozakkenberg heuvel 1	4671						
Ermelose heide Tumulus XXV	349						
Speulder Veld heuvel I	362						
Ermelose heide Tumulus X	333						
Ermelose heide Tumulus XXII	346						
Ermelo (ROB barrow 207)	4601						
Harderwijk (ROB barrow 3)	4605						
Ermelose heide Tumulus XI	334			?			
Ermelose heide Tumulus XII	335			?			
Ermelose heide Tumulus XVII	341			?			
Ermelose heide Tumulus XXI	345			?			
Ermelose heide Tumulus XXIII	347			?			
Ermelose heide Tumulus XXVI	350			?			
Ermelose heide heuvel 1a	359			?			
Speulder Veld heuvel IV	365			?			

3000 2800 2600 2400 2200 2000 1800 1600 1400 1200 1000 500

Cal. BC

(Berendsen 2000b, 44). The northern half of the study area is covered in modern sand dunes and little to no information is known for this region. The central area represents a saddle-shaped valley with at its bottom an alignment of barrows. The southern area is scoured by several dry-valleys draining off to the east and west. The barrows in this area are placed on the flanks and at the heads of these dry-valleys.

5.4.3 Research history

Amateur finds

Relatively few amateur finds are known from the region, especially when compared to the case study of Renkum. Only the activities of two amateur archaeologists can be identified in the area. One of these was Mr. Kortlang who investigated at least three barrows in the area (4634, 4651 and possibly 4652). Kortlang's collection was inventoried after World War II, but due to the many years in-between his excavations and the inventory by Modderman and Van der Waals errors may have occurred (Modderman 1962-1963, 8). Similarly several finds made by Mr. Bezaan (barrows 4625, 4626 and 4685) could not be located with 100% accuracy (*ibid.*, 8).

In contrast to the low number of recorded finds, grave robbing in the area can be considered as very high. Almost every barrow excavated by Modderman had been previously dug into. Especially the central parts of the barrows were almost completely destroyed. Apparently grave robbers had started digging in every single barrow on the heath in the years after Remouchamps' excavations (Modderman 1982, 14; see for example barrow 444). Indeed when comparing the number of primary graves discovered by Remouchamps with those discovered by Modderman it is obvious that in just 25 years almost every barrow on the heath was robbed (respectively 6 primary graves out of 9 excavated barrows and 6 primary graves out of 33 excavated barrows; Deeben 1989, 13)!

That these barrows were thoroughly ravaged can be demonstrated by barrow 328, where a pit measuring at least 6 by 7 m was dug into its centre. Reaching to a depth of at least 2 m, the pit destroyed every single possible remnant of central or primary graves. Almost no information is available on what was found in these robbed mounds.

Professional archaeologists

The oldest recorded excavation in the area was conducted by Pleyte in 1877, who excavated two barrows south of the town of Epe (Pleyte 1877-1903, 74). Little to no relevant information could be obtained from this excavation. The excavations by Remouchamps provided a little more detail, even though the overall quality of the documentation was still minimal (Remouchamps 1923). The last excavation campaign in the region was conducted by Modderman in 1952. Modderman excavated a total of 34 barrows in one single campaign, respectively 29 on the *Ermelose heide* in the centre of the research area and 5 on the *Speulder heide* some 3 km to the southeast (Modderman 1954).

5.4.4 Estimates of archaeological visibility

Research area

A clear distinction in the distribution of the barrows can be seen between the south-west and the north-east of the research area (Fig. 5.18). The northeastern part of the map is almost empty while the southwestern half is covered in barrows.

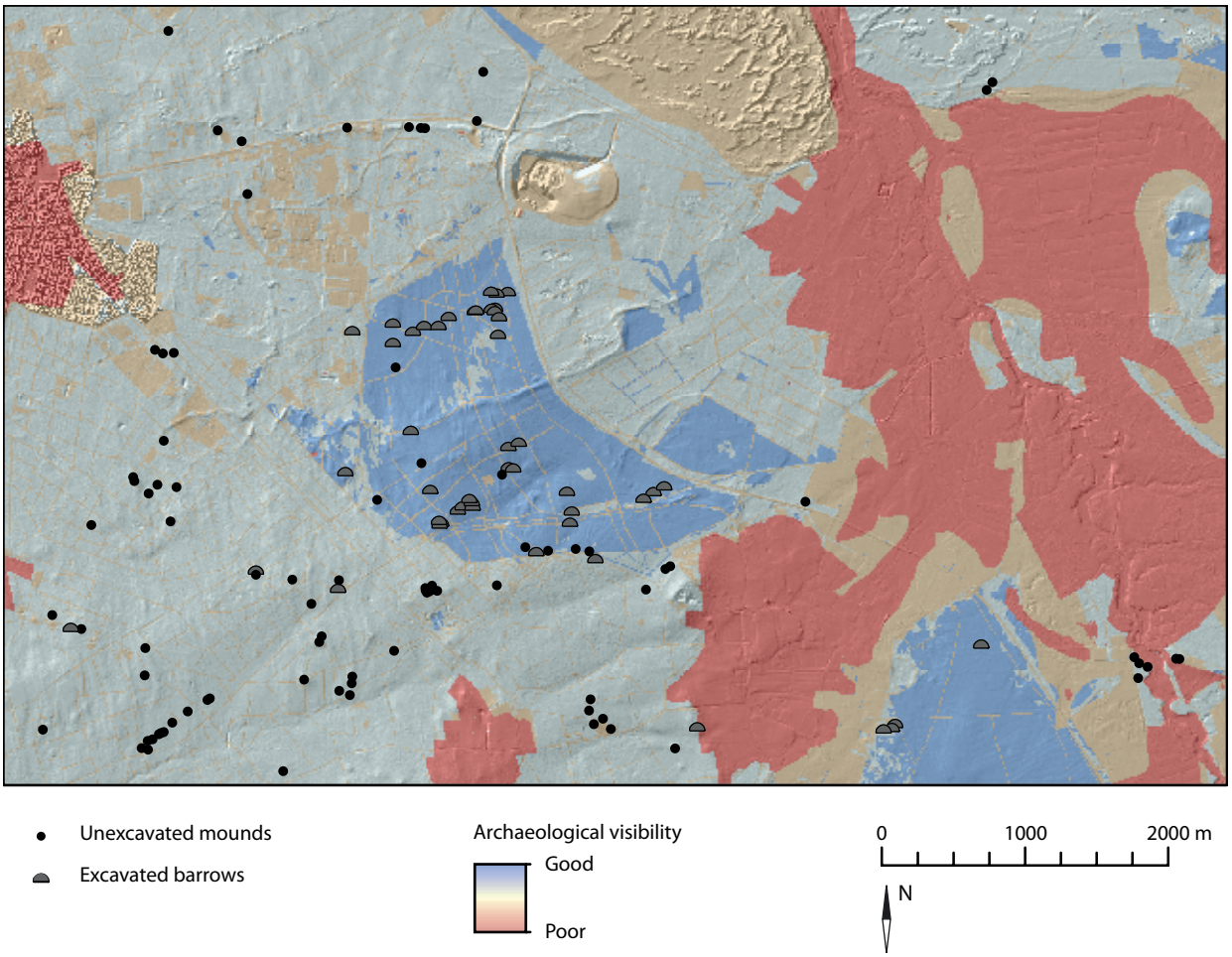


Fig. 5.18: Estimation of the map formation processes affecting the barrow distribution within the Ermelo area. The map was created on the basis of 19th Century Topographic Military Maps and modern land-use.

The border between these two zones is formed by a provincial road (N302). More than 95% of the barrows in the research area can be found to the west of this road. To the east barrows are only found on the other flank of the stream valley.

Several reasons can be put forward for this peculiar distribution. The wind-erosion on the wastelands of the *Beekhuizer zand* will have destroyed any traces of barrows in the northern part of the area. Similarly the *essen* surrounding the hamlets of Leuvenum and Speuld will have obscured any barrows on the west bank of the stream valley, while the large swamps around them, still visible on the maps from 1848 will not have been favoured locations for barrow construction.

Another reason that can be put forward for the biased distribution is that the area to the east of the provincial road has been in private property since the 1920's and has never been extensively researched by amateur and professional archaeologists.

In some cases discovery of 'flatgraves' by amateurs in the area may indicate leveled barrows. The amateur archaeologist Kortlang discovered three PF Beakers to the east of the provincial road (Modderman 1962-1963, 13). These finds have not been included in the present study as the nature of their find context remains unclear.

Representativity of the excavated barrows

More than a third of the barrows in the area have been excavated yielding some level of information on in total 52 barrows. Of 44 barrows the initial construction phase could be identified, while for 8 barrows the extent of the excavation was so limited or the mound so damaged that little information was available.

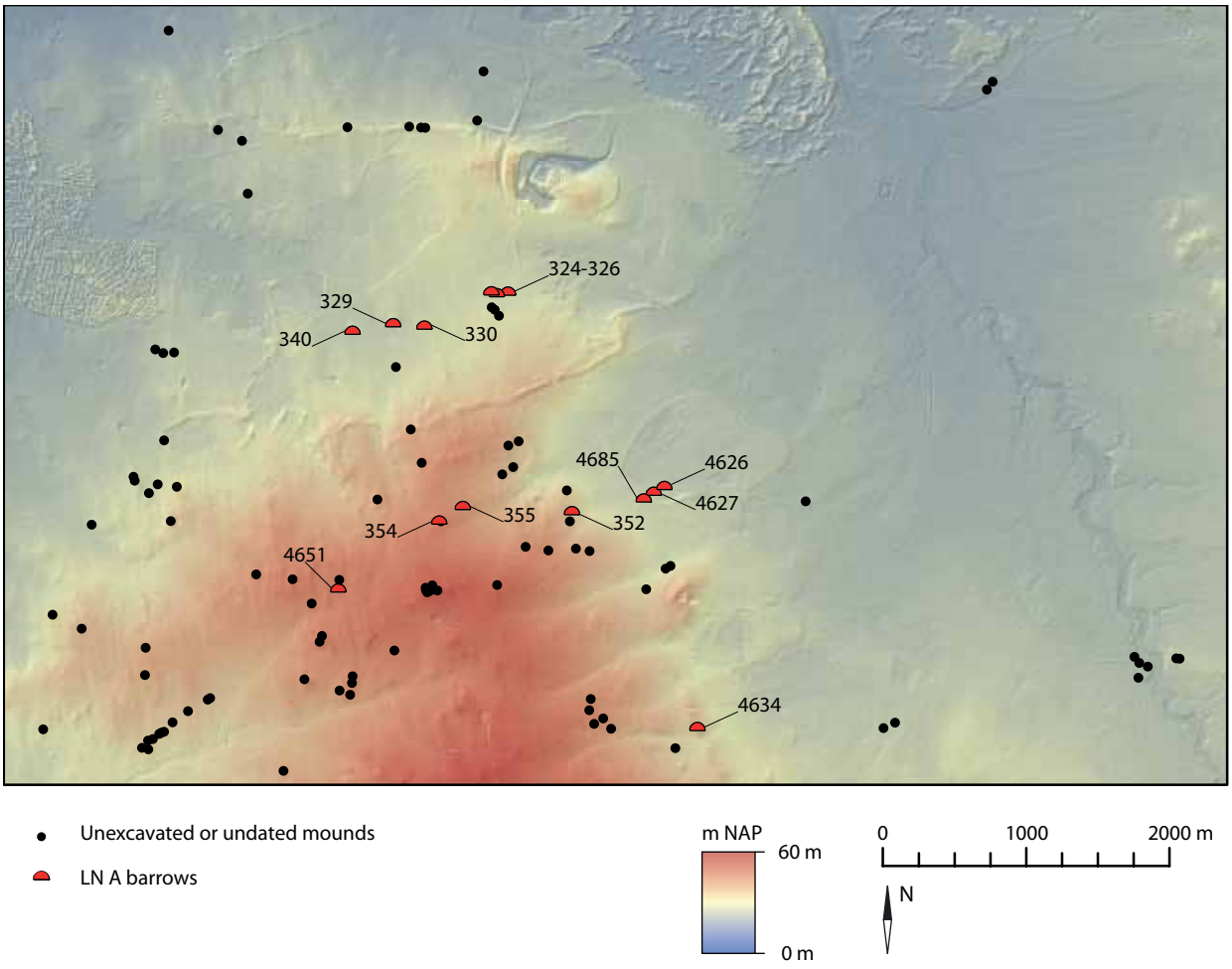


Fig. 5.19: Overview of all LN A barrows in the Ermelo area. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

Furthermore the excavations by Remouchamps and Modderman have tended to focus on the large Ermelo heath, resulting in an archaeological map with a bias towards the centre of the research area.

5.4.5 The development of the Ermelo Barrow Landscape

The earliest barrows (2850-2500 cal BC)

Fifteen barrows can be reliably attributed to the initial phase of barrow construction (Fig. 5.19). Two main concentrations of barrows can be identified. On the one hand an alignment of six barrows to the north (nos. 324, 325, 326, 329, 330, 340) and on the other a second group of nine barrows to the south (348, 349, 352, 354, 355, 4625, 4626, 4634, 4651, 4685).

A first alignment of six barrows covers 1,6 km on a gently sloping plain hemmed in to the north and south by two long Pleistocene sand dunes. The alignment is less regular than those from Vaassen and Renkum, but can be said to be roughly orientated at 75°. As far as we know no other barrows can be identified further away from the alignment. To the west no barrows have been identified on the axis of the alignment, even though barrows are known from that general area. To the east of the alignment the barrow distribution is not well known (see above) and there is a possibility that additional barrows may have been present to the east of the provincial road.

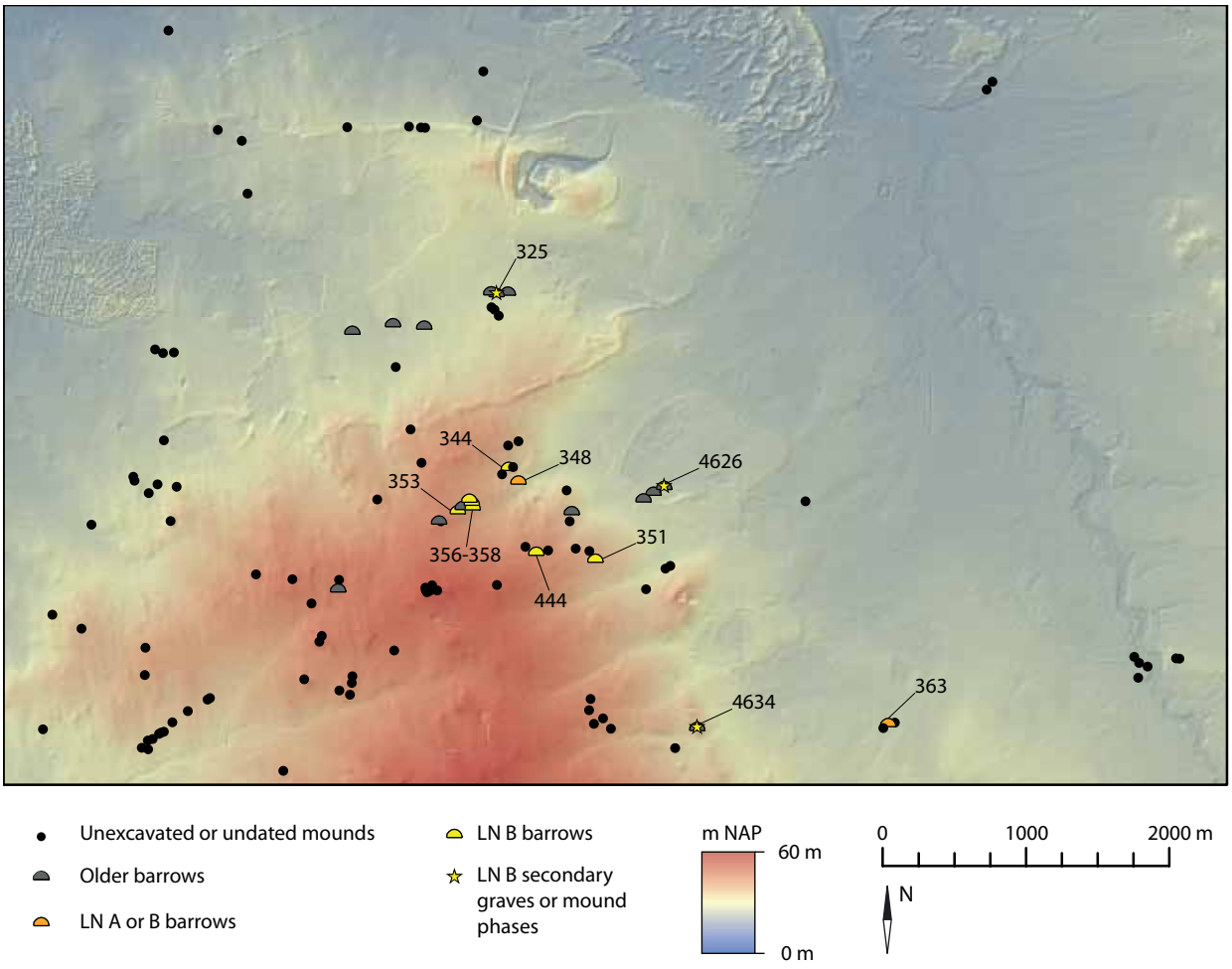


Fig. 5.20: Overview of all LN B in the Ermelo area as well as all barrows that could not be exclusively dated to either the LN A or B. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

All barrows on the alignment are either associated with PF or AOO beakers. Both barrows 325 and 326 cover a grave containing two PF Beakers and a flint blade. Graves with more than one beaker are generally considered to date to the second half of the LN A (Wentink in prep.). Additionally the similarities between the grave goods would suggest they were built within a relative short time of one another (I will discuss these two barrows in more detail in Chapter 8). The three other barrows cannot be dated more precisely than to the LN A.

At first glance several of the barrows of the second group appear to be part of at least two linear arrangements (one of three, 4625, 4626, 4685; the other of four barrows, 354, 355, 4651 and possibly 348), yet conclusive evidence that these date to the LN A is lacking. Only the small alignment of three barrows can be said to conclusively date to this period. Three mounds are placed along a single axis 80 and 85 m from one another over a total distance of 180 m and an orientation at 59°. No other barrows are located in the area and it must be assumed that these three barrows make up a small alignment.

The other alignment is poorly excavated and cannot be reliably dated. The alignment is spaced irregularly and especially the mounds excavated by Remouchamps are difficult to interpret, let alone date. Therefore I will not dwell any further upon this possible alignment.

Bell Beaker barrows (2500-2000 cal BC)

Barrow construction in this period restricts itself to a single group of eight or nine barrows on both flanks of a dry valley (nos. 344, 351, 353, 356, 357, 358, 444 and possibly 348; Fig. 5.20). The new barrows are added to the older southern group as identified above, but they are placed more to the west of the main LN A concentration, higher up the dry valley. There is a possibility that one barrow, may date to the LN A (no. 355).

The barrow group, almost in its entirety excavated by Remouchamps (Remouchamps 1923), is difficult to date. The six barrows on the northern flank of the dry valley (nos. 344, 353, 354, 356, 357, 358 and possibly 355) are not associated with any burial gifts. The graves however all show a similar construction not seen in any of the other barrows in the region. The burial pit is lined with burnt planks and in some cases a wooden construction is found on the bottom of the rectangular pits. Each grave contained traces of inhumation. Especially barrows 356, 357 and 358 cover almost identical burial pits (Fig. 5.21). The three barrows are built close to one another with the foot of each barrow almost touching the next one. All three burial pits are lined with burnt planks on three sides, with an opening towards the east or northeast, possibly forming small burial chambers.[19] In two cases more than one individual had probably been buried in the same grave (barrows 356 and 358).

The three other barrows in the group also cover a similar burial type although Remouchamps' description of these is more difficult to follow. The similarities between these six barrows suggest that they may have been built in quick succession or even as part of one single event. It is however difficult to pinpoint exactly where during this phase these barrows were constructed. Both the associated sherds and the flint arrowhead found in some of the graves can be dated to the LN B (or possibly the beginning of the EBA), as well as the (palisaded) ditches surrounding the barrows.

On the southern flank of the dry valley two other barrows can be added to this phase (nos. 351 and 444). They form part of an alignment of at least six barrows,

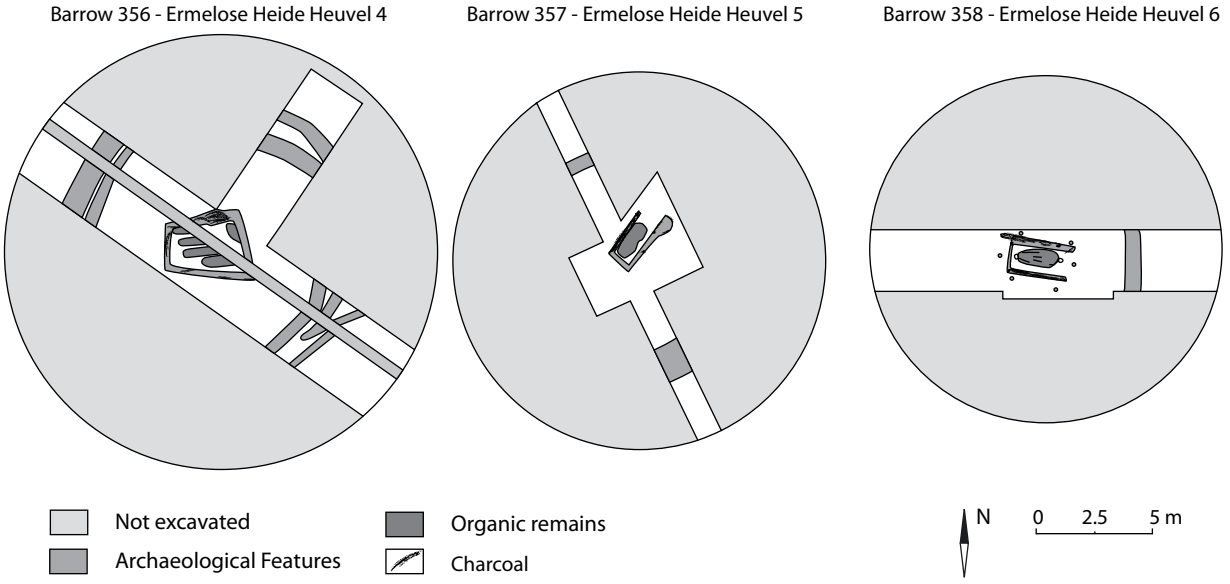


Fig. 5.21: Barrows 356-358 excavated by Remouchamps (redrawn after Remouchamps 1923, Fig. 1; courtesey of the National Museum of Antiquities (RMO)).

19 Several parallels for wooden burial chambers in the LN B can be found. For an overview see Bourgeois, *et al.* 2009.

which is orientated at roughly 98° and covers 500 m. All barrows are evenly spaced with 60 to 80 m in-between them. Only these two barrows were investigated and nothing is known for the other barrows on the alignment. In one of these barrows, the top half of a Veluvian Bell Beaker was placed upside down in the palisaded ditch (no. 351). In the other barrow, a grave was found (containing a Veluvian Bell Beaker, a V-perforated button and two amber beads), but its position in relation to the mound is unknown. It could be either a secondary central or a primary grave.

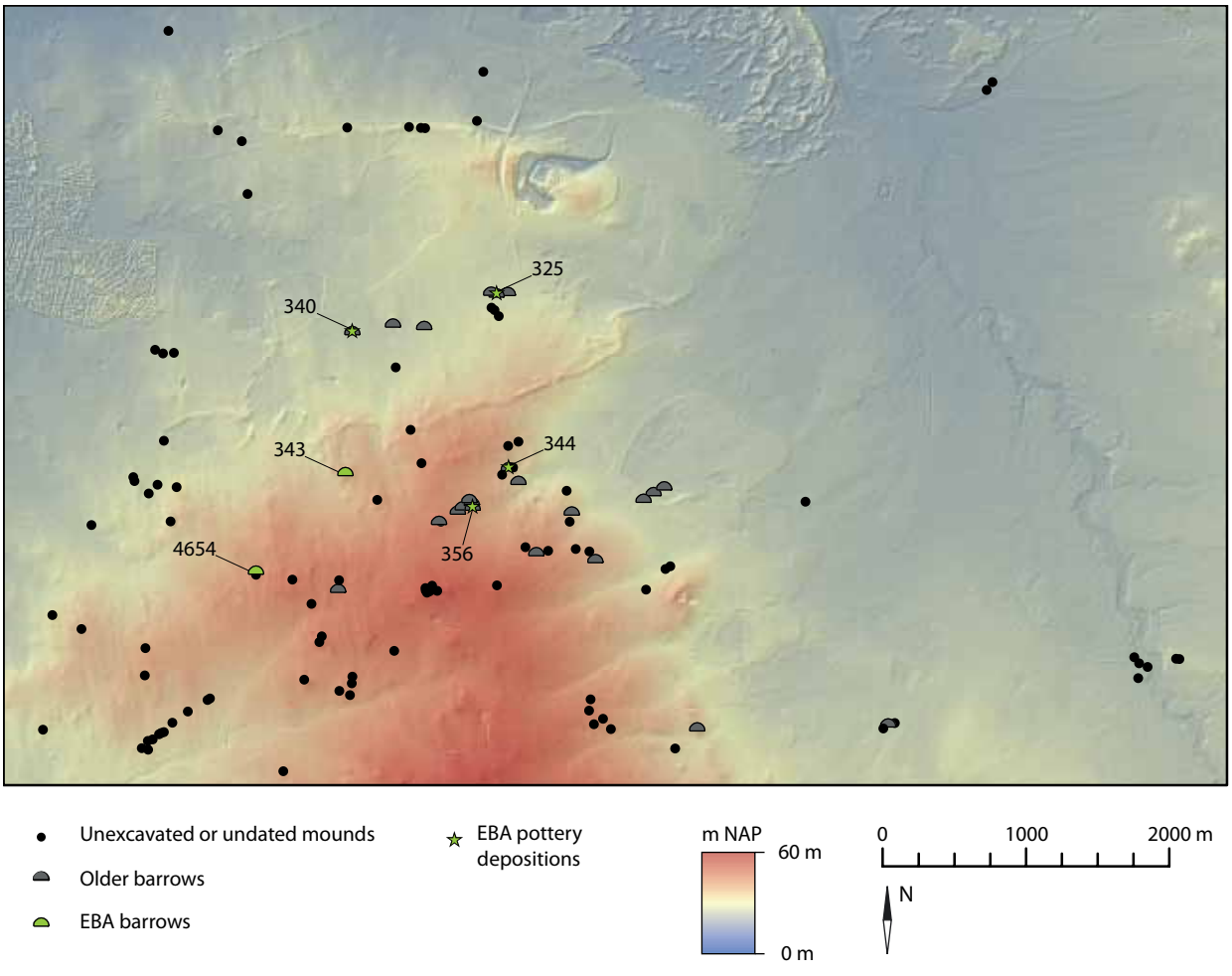
Reuse of older barrows for burial is evidenced in several cases. No new barrows were added to the northern alignment of LN A barrows, but in at least two barrows a central grave was dug into the old mound and each was then aggrandized with an additional mound capping (nos. 325 and 330) in the LN B. One of the mounds of the small alignment in the southern group also had a secondary grave added to it but whether or not an additional mound capping covered the primary mound is unknown (no. 4626).

The Early Bronze Age (2000-1800 cal BC)

EBA activity in the region was, as in other regions, limited (Fig. 5.22). From the evidence only one primary barrow can be attributed to this period (see barrow no. 4654).

Nevertheless sherds of Barbed Wire Beakers occur frequently in the excavated barrows, usually in a secondary position in relation to the mound. From the foot of the secondary mound phase of barrow 325 for example, fragments of a very big pot decorated with a Barbed Wire stamp were recovered (Modderman 1954, 23).

Fig. 5.22: Overview of all EBA barrows in the Ermelo area as well as pottery depositions within mounds. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.



Similarly small fragments of Barbed Wire Beakers were found in several of the barrows described above. It is impossible to tie these sherds and beakers, placed in the flanks of older mounds, to any actual graves.

Middle Bronze Age barrows (1800-1400 cal BC)

In stark contrast with the two other case studies on the Veluwe, many primary barrows of the Ermelo group can be dated to the MBA. In total 16 new barrows were constructed during this phase (Fig. 5.23). Especially the northern alignment of barrows, established in the LN A, which is expanded with an additional eleven barrows (nos. 327, 328 and 331 to 339).

During the MBA, eleven new barrows were constructed on a new alignment, running parallel to the LN A alignment constructed some 1000 years earlier. This new alignment is approximately 750 m long and is located some 100 m to the south of the older alignment. The barrows are all made up of a core of sods with a capping of sand (Modderman 1954, 27). They stand out from the Late Neolithic barrows by the fact that they are almost invariably higher than 80 cm whereas all Late Neolithic barrows are small low barrows that are at the most 50 cm in height. Some of these barrows must originally have attained a maximum height of more than 1,5 to 2 m.[20] In addition these Bronze Age barrows were erected in

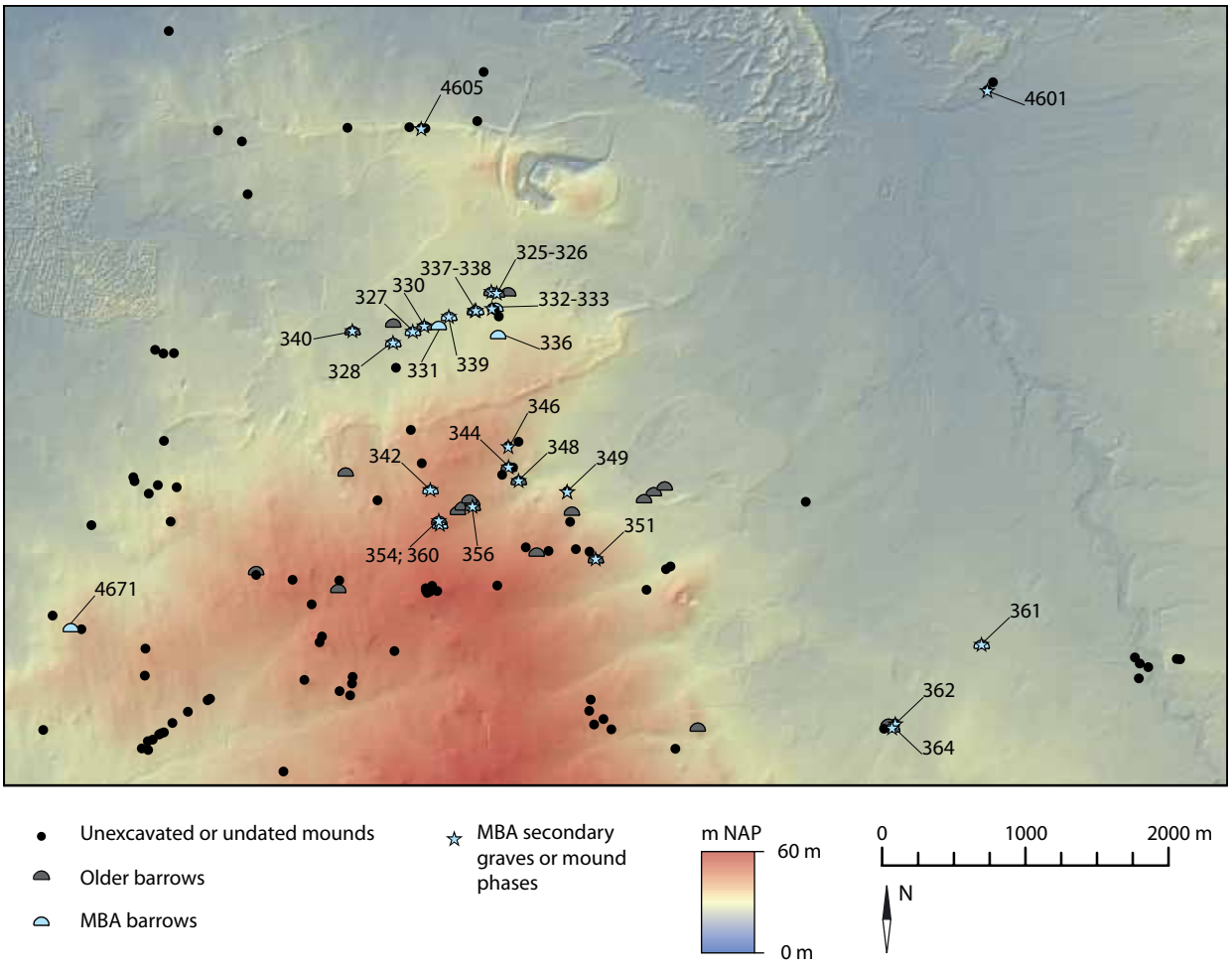


Fig. 5.23: Overview of MBA barrows in the Ermelo area as well as all barrows with secondary graves and mound phases. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

20 Recent disturbances in the top of the barrows and taphonomic processes (*i.e.* tanks) will have significantly lowered the barrows.

two phases, with a distinct core visible in most cases. Since no new soil profile developed on top of these cores, it must be assumed that not much time had passed between these two events (see for example barrow 331). Unfortunately most of the primary graves underneath these barrows have been destroyed. For the few graves that remain, however, we know that some contained cremation remains, while others were filled only with fragments of charcoal.

Four new barrows were constructed within the southern group (342, 350, 359, 360). Little information is available on these barrows, other than that they do not diverge much from the barrows of the northern group. A single barrow was excavated by Pleyte in 1877 (Pleyte 1877-1903, 74; barrow 4671), little more can be said about this barrow, however, beyond that it was probably built during the Bronze Age.

As with the other case studies on the Veluwe reburial within and reuse of older barrows during this period was wide-spread. Only one or two barrows in the entire research area were not enlarged or had no secondary graves placed in them (*cf.* barrow 324; Table 5.4). All other barrows had secondary graves placed in their flanks, which some cases numbered up to twelve. Especially some of the Bronze

Barrows Ermelose Heide	Barrow ID	Secondary graves	Secondary mound phase	Heavily disturbed / partially excavated
Ermelose Heide Tumulus I	324	0	0	.
Ermelose Heide Tumulus II	325	5	> 4	x
Ermelose Heide Tumulus III	326	2	1	.
Ermelose Heide Tumulus IV	327	4	1 (?)	.
Ermelose Heide Tumulus V	328	13	1	.
Ermelose Heide Tumulus VI	329	0	.	x
Ermelose Heide Tumulus VII	330	8	2	.
Ermelose Heide Tumulus VIII	331	3	1 (?)	.
Ermelose Heide Tumulus IX	332	4	1 (?)	.
Ermelose Heide Tumulus X	333	0	1 (?)	.
Ermelose Heide Tumulus XI	334	0	.	x
Ermelose Heide Tumulus XII	335	1	.	x
Ermelose Heide Tumulus XIII	336	0	0	.
Ermelose Heide Tumulus XIVa	337 and 338	5	1	.
Ermelose Heide Tumulus XV	339	4	1	.
Ermelose Heide Tumulus XVI	340	5	> 3	.
Ermelose Heide Tumulus XVII	341	0	.	x
Ermelose Heide Tumulus XVIII	342	1	2	x
Ermelose Heide Tumulus XIX	343	1	.	x
Ermelose Heide Tumulus XX	344	1	2	.
Ermelose Heide Tumulus XXI	345	0	1	x
Ermelose Heide Tumulus XXII	346	1	1	x
Ermelose Heide Tumulus XXIII	347	0	.	x
Ermelose Heide Tumulus XXIV	348	1	2	.
Ermelose Heide Tumulus XXV	349	0	2	.
Ermelose Heide Tumulus XXVI	350	0	.	x
Ermelose Heide Tumulus XXVII	351	0	.	x
Ermelose Heide Tumulus XXVIII	352	0	.	x
Speulder Veld Tumulus I	362	12	1	x
Speulder Veld Tumulus II	363	3	> 1	x
Speulder Veld Tumulus III	364	> 1	> 2	x
Speulder Veld Tumulus V	366	3	1	x

Table 5.4: The number of secondary graves and additional mound phases recorded in the excavations by Modderman. The heavily damaged barrows are those barrows where more than half of the mound was destroyed prior to excavation.

Age barrows from the northern group mentioned above were extensively reused for reburial. Two types of burial seem to have been selected for these secondary graves, on the one hand inhumation graves in burial pits placed tangentially to the center (*e.g.* barrow 328) and on the other cremation graves in small pits (*e.g.* barrow 330).

The reuse of barrows was not limited to secondary graves however, as several barrows were also enlarged with secondary mound phases. The majority of the barrows were heightened only once but interestingly four LN A barrows, already more than a thousand years old, were heightened two or even three times during the bronze age. There are indications that at least some of the mound cappings were added to the barrows in the Late Neolithic (especially barrow 325), but most date to the Bronze Age. The additional mound phases and the secondary burial points to large scale reappropriation of the, by that time, ancient barrows.

The reuse of older barrows appears to have been selective and only specific barrows were eligible for specific secondary activities (I will return to this in Chapter 7). Three Neolithic barrows of the northern group are a case in point (Tumuli I, II and III excavated by Modderman, respectively nos. 324, 325 and 326; see Fig. 7.13). All three barrows were originally small low barrows, constructed at approximately the same time. Only barrows II and III were reused, while barrow I was left alone. Tumulus III was refurbished once and two secondary graves were placed in its flanks. Tumulus II was increased in size at least three times[21] and at least five secondary burials were added to it (note that only half of the mound was excavated). For some reason Tumulus I was left neglected while the other two were not.

Similarly other LN barrows were selected for reburial or secondary mound phases, while others were not.

Later barrows (1400-500 cal BC)

No urnfields or related activities are known from the area. In all other regions reuse of older barrows probably continued in this period, that this would not have been the case for the Ermelo area is unlikely. Direct evidence for this reuse is lacking however.

5.4.6 Summary

At Ermelo once again one (or possibly two) alignment can be identified although these are not as recognizable as the Renkum and Epe-Niersen alignments. Here too the origin of the alignment can be placed in the LN A. During the Bell Beaker phase the alignment was not extended. Secondary graves in existing mounds do occur however, and several new barrows were built away from the alignments.

In contrast with the preceding case studies MBA barrows are well represented. The alignment set out in the Late Neolithic is copied and reproduced some 100 m to the south of the original one. Next to the construction of new barrows reuse was wide-spread and especially the refurbishment of ancient barrows was frequent in the Ermelo region.

21 Modderman claims that this barrow was heightened in at least seven distinct phases (Modderman 1954), but Waterbolk argued for only four distinct mound phases (Waterbolk 1964) which was later followed by Modderman himself (Modderman 1975).

5.5 The Toterfout barrow group

5.5.1 Introduction

The barrows of Toterfout[22] represent one of the most extensively researched barrow landscapes in the Netherlands. The almost exclusively Bronze Age burial landscape was excavated in several major campaigns (Braat 1936; Beex 1952a; Hijszeler 1952; Glasbergen 1954a; b). In total 55 barrows can be found on the higher cover-sand ridges encircling what was once a large lake, the now-drained *Postelse Weijer* (Fig. 5.24; Table 5.5). 47 Of these were excavated and every single one of them can be dated to the Bronze Age. Especially the barrows excavated by Glasbergen have been the subject of several new studies (Theunissen 1993, Theunissen 1995; Bourgeois and Fontijn 2012).

5.5.2 Geomorphology of the region

The area southwest of Eindhoven is characterised by large east-west running cover-sand ridges cross cut with small fens and lakes (Berendsen 2000b, 30). The Toterfout barrows are located on such ridges and they encircled a large lake. The lake now no longer exists due to canalisation and improved drainage but is still depicted on 19th Century maps (Glasbergen 1954a, 17). It was drained by a small stream valley which cuts through the northern cover-sand ridge.

In-between the barrows of Toterfout three smaller fens were present until the 1950's. Similarly, the Huismeer barrows were built on an elevated cover-sand ridge on the eastern bank of a now disappeared small fen. While peat will have been present in the past no trace of it now remains as all fens and the lake have been drained and subsequently turned into pasture and arable land (Glasbergen 1954a, 17).

5.5.3 Research history

Amateur finds

The earliest archaeological activities that we know of in the region were conducted by Panken in the middle of the 19th Century. During several excursions along the heath he recorded and investigated many barrows (Glasbergen 1954a, 4). The barrow group of Toterfout was investigated in 1845 (Meurkens 1993; Glasbergen 1954a, 14). From his descriptions it is clear that digging into barrows was commonplace in the region, and many of the barrows he described have since disappeared (*cf.* Barrows 115 and 107).

Little relevant information could be inferred from the excavations by Panken and his contemporaries. It would seem that only coarse pottery, cremation remains and charcoal were uncovered. It is difficult to date these barrows as the stratigraphic position of the graves is unknown and in general all finds have since disappeared, yet it can be argued that most of them reflect MBA barrows (Glasbergen 1954a, 2).

Professional archaeologists

The first MBA barrows were discovered by Braat during the excavation of an urnfield (Braat 1936). Subsequently Glasbergen excavated in the region from 1948 until 1951 (Glasbergen 1954a, 23) and uncovered 34 MBA barrows and parts of

22 Note that I use the term Toterfout for all the barrows in the research area. These include the barrows at the hamlets of Toterfout, Halve Mijl, Knegsel and Huismeer.

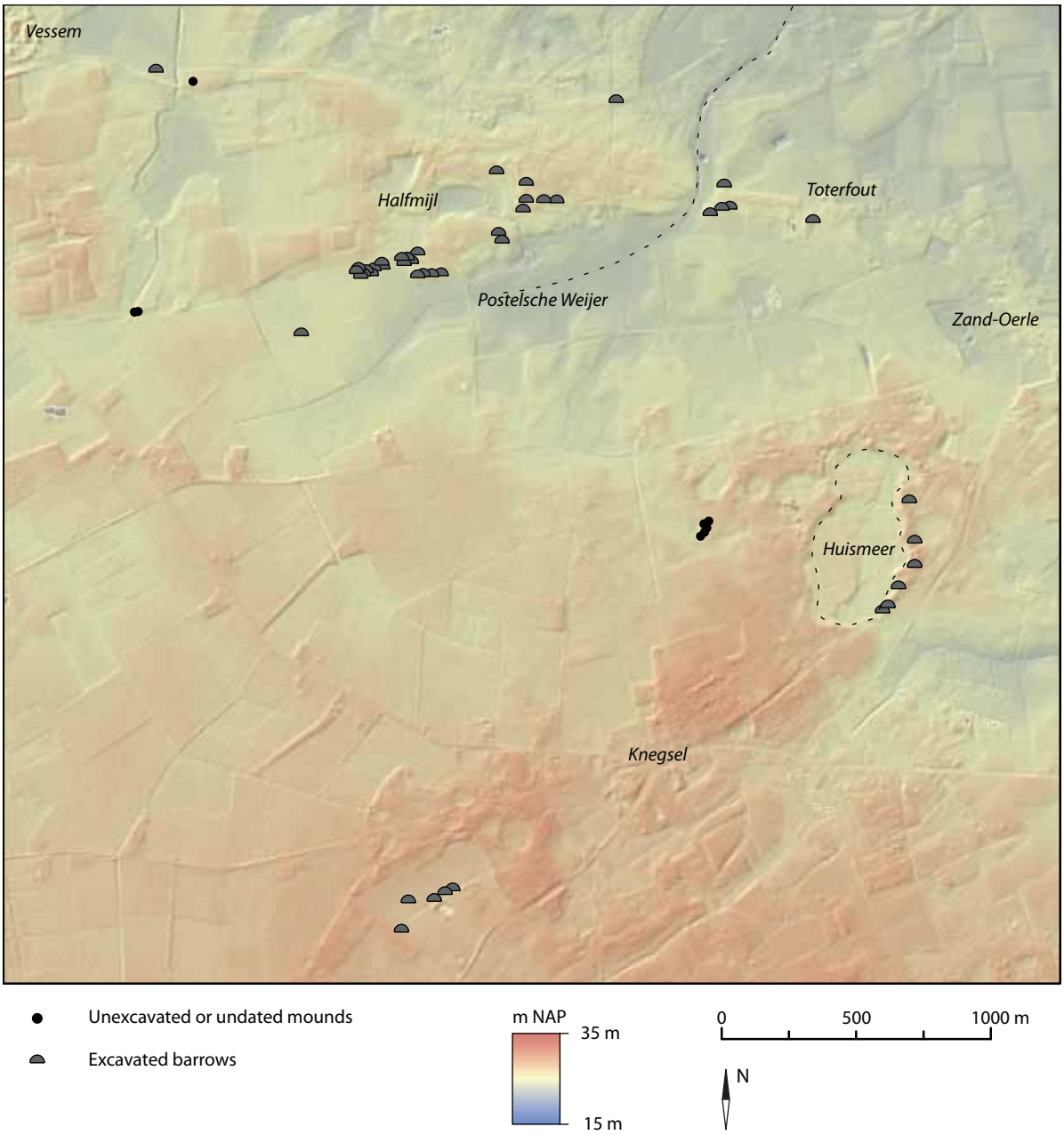


Fig. 5.24: All recorded barrows in the Toterfout case study. The map was created with the AHN elevation data (copyright www.ahn.nl).

an urnfield. A year later, Beex and Hijszeler excavated six or seven barrows situated around a small fen (Beex 1952a; Hijszeler 1952). The last barrow to be excavated in the region was investigated by Beex and Modderman (Beex 1952b; Modderman 1953). Especially the work of Glasbergen is one of the utmost quality and was conducted to the highest scientific standard of those days, perhaps even those of today.

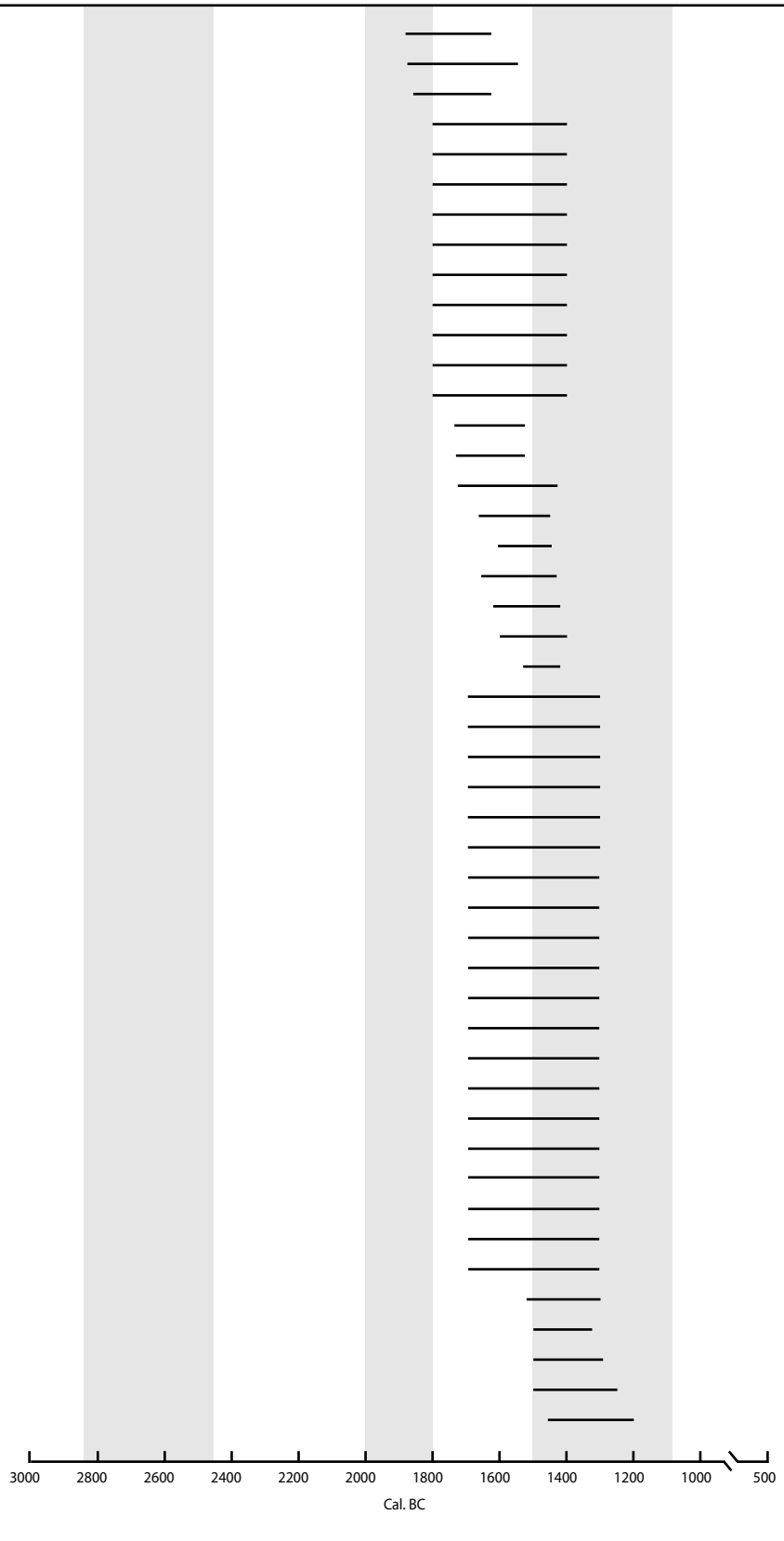
5.5.4 Estimates of archaeological visibility

Research area

Archaeological visibility in the area varies (Fig. 5.25). From the southwestern corner of the research area, for example no barrows are known. Even though indicated as heath-land in the 19th Century, it was quickly converted into arable land during the first half of the 20th Century. There are some indications that barrows were present in the area, even though their exact location and the nature of the finds is largely unknown (Beex 1952a, 16-17).

Table 5.5 (opposite page): Dating range for each excavated barrow within the Toterfout area. Black lines indicate barrow construction. Grey lines indicate secondary graves or mound phases. Dotted lines are uncertain dates.

Sitename	Barrow number
Toterfout Tumulus 14	23
Toterfout Tumulus 4	646
Toterfout Tumulus 1b	10
Toterfout Tumulus 1a	9
Toterfout Tumulus 6	14
Toterfout Tumulus 7	15
Toterfout Tumulus 11	20
Toterfout Tumulus 13	22
Toterfout Tumulus 20	29
Toterfout Tumulus 21	30
Toterfout Tumulus 29	39
Huismeer Heuvel VI	131
Huismeer Heuvel VII	132
Toterfout Tumulus 3	12
Toterfout Tumulus 9	18
Toterfout Tumulus 10	19
Toterfout Tumulus 1	645
Toterfout Tumulus 5	13
Toterfout Tumulus 16	25
Toterfout Tumulus 18	27
Toterfout Tumulus 2	11
Toterfout Tumulus 19	28
Toterfout Tumulus 8A	17
Toterfout Tumulus 22	31
Toterfout Tumulus 22A	32
Toterfout Tumulus 23	33
Toterfout Tumulus 24	34
Toterfout Tumulus 25	35
Toterfout Tumulus 26	36
Toterfout Tumulus 27	37
Toterfout Tumulus 28	38
Toterfout Tumulus 30	40
Huismeer Heuvel I	126
Huismeer Heuvel II	127
Huismeer Heuvel III	128
Huismeer Heuvel IV	129
Huismeer Heuvel V	130
Knegsel Palisadeheuvel B	75
Knegsel Palisadeheuvel C	76
Knegsel Palisadeheuvel D	77
Knegsel Tumulus F	79
Vessem 'De Lillen'	97
Toterfout Tumulus 8	16
Toterfout Tumulus 17	26
Toterfout Tumulus 15	24
Toterfout Tumulus 12	21
Knegsel Tumulus E	78



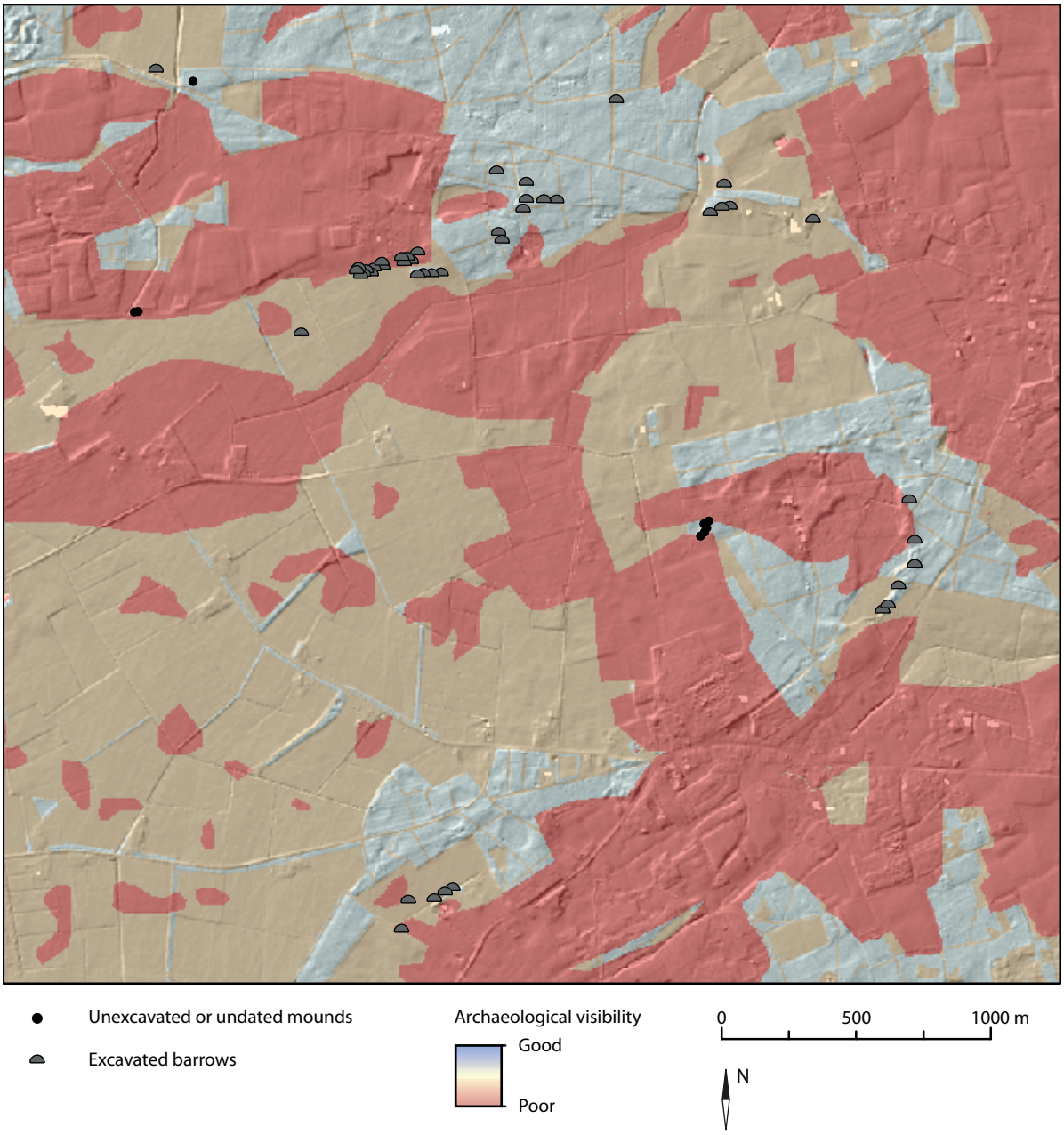


Fig. 5.25: Estimation of the map formation processes affecting the barrow distribution within the Toterfout area. The map was created on the basis of 19th Century Topographic Military Maps and modern land-use.

In the north-western corner of the research area a similar situation exists. We know of a few barrows, but only one was excavated during the reclamation of the heath (Modderman 1953). It is unknown how many other barrows have been destroyed.

The archaeological visibility is highest in the eastern half of the map, and while several barrows will undoubtedly have disappeared in this area, the majority is well documented.

Representativity of the excavated barrows

The representativity of excavated barrows versus unexcavated barrows is extremely high. 85% of all barrows in the area have been excavated (47 out of 55), and in contrast to many other areas in the Netherlands, most were properly documented and subsequently published. This means that we have a wealth of information, not only on the primary grave and its burial gifts, but also on the surrounding features, the build-up of the barrow and secondary mound activities.

The excavated barrows all date to the MBA and it would appear that no barrows were built in the Late Neolithic (however see barrow 22). This indicates that the barrow landscape investigated in this case study is a uniquely Bronze Age burial landscape.

Late Neolithic barrows from the wider region are known (*e.g.* the barrow at Bergeijk Witrijt some 20 km to the southwest; Beex 1957) but for some reason the area of Toterfout was not used for burial. This is all the more puzzling as prehistoric activity preceding the barrows has been attested. On several locations features such as fences and pottery found close or underneath the mounds suggests the existence of a Middle or Late Neolithic settlement (Glasbergen 1954a, 98-99; Beek 1977, 43-54; Verwers 1990, 33).

5.5.5 The development of the Toterfout barrow landscape

Late Neolithic barrows (2850-2000 cal BC)

Not a single excavated barrow can be unequivocally dated to the Late Neolithic.[23] The only barrow which may date to this period is Tumulus 13 (barrow 22). The ditch encircling this barrow may in effect be a palisaded ditch. No traces of the posts themselves were discovered, but the diameter and depth of the ditch differs from the other barrows surrounded by a ringditch. The ditch itself is only 30 to 40 cm wide and at least 50 to 60 cm deep and in profile resembles a posthole.[24] If this were indeed a pallisaded ditch, then this would be the only barrow to date to the Late Neolithic (A or B). Glasbergen left the profile-baulks standing and reconstructed the barrow afterwards (Glasbergen 1954a, 64), so there is a possibility that any grave gifts deposited on the old surface may have been left *in situ* in these baulks.

If we disregard the barrow above not a single barrow can be dated to this period. Furthermore, considering the intensity with which barrows have been excavated, it is very unlikely that one of the eight barrows left unexcavated in the research area would date to the Late Neolithic. This lack of Neolithic burial monuments in the region is at odds with other barrow landscapes in the Low Countries.

The Early Bronze Age (2000–1800 cal BC)

A few barrows may be attributed to the EBA (specifically three of the barrows with the earliest radiocarbon dates, see below), yet their exact dating cannot be correlated to either the EBA or the early part of the MBA A. Their radiocarbon ranges extend from 1900 to 1700 cal BC. As none of these barrows were associated with Barbed Wire pottery, and had typical features also seen in other barrows which were exclusively dated to the period between 1800 and 1600 cal BC, I have grouped them together with the other MBA barrows (see below).

Middle Bronze Age barrows (1800–1400 cal BC)

The development of the Toterfout barrow group can be reconstructed in detail. In particular the abundance of radiocarbon dates has greatly facilitated this reconstruction. In total 40 radiocarbon dates are available from a total of 18 barrows, all excavated by Glasbergen.

---

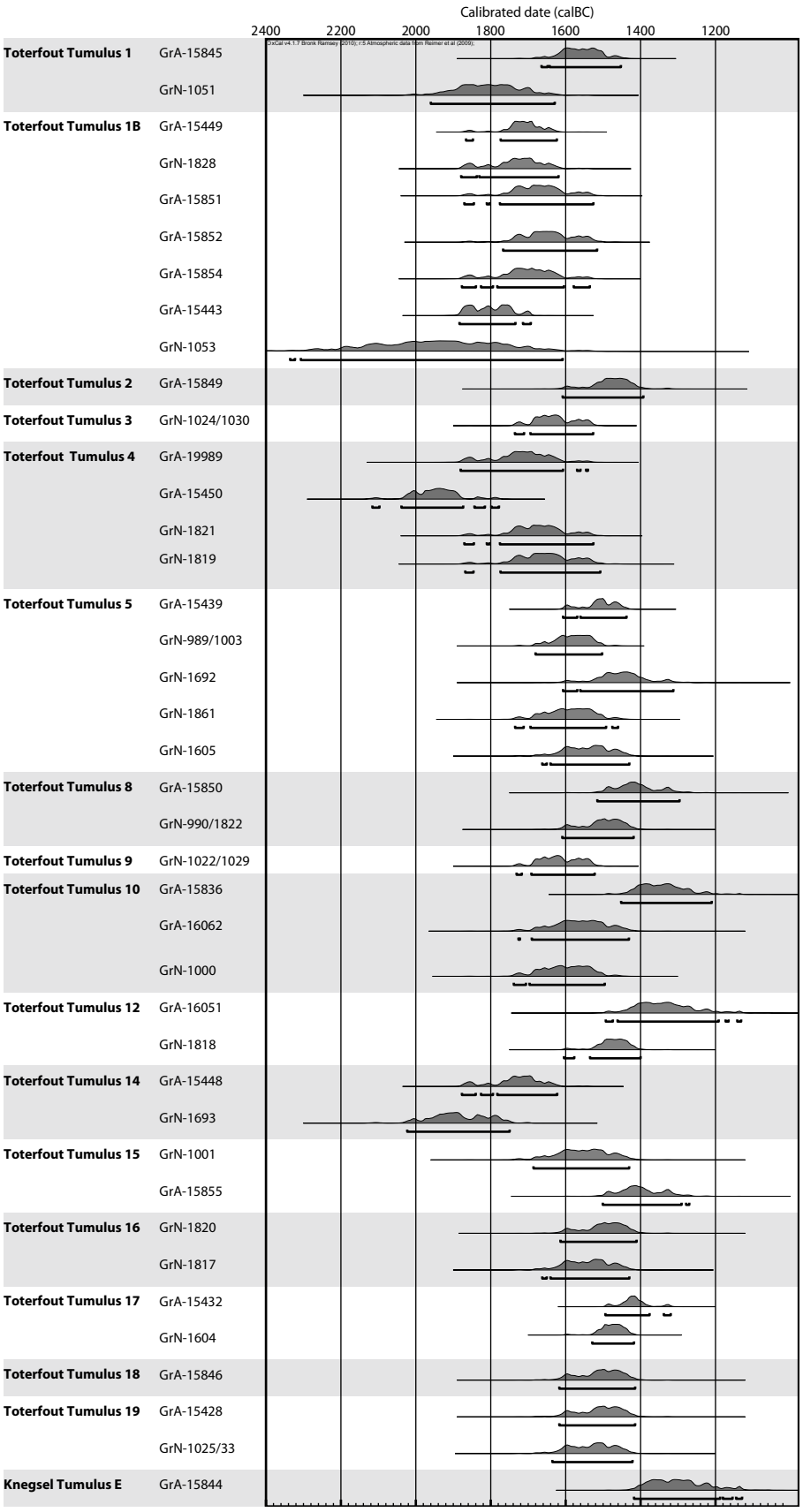
23 According to Glasbergen both Tumulus 4 and Tumulus 2 of his group (barrows 646 and 11) could be dated to the Neolithic. In both cases radiocarbon dating of the primary graves has disproved this (Lanting and Van der Plicht 2003). Both barrows date to the MBA, respectively the early and later phase (see below).

24 All other barrows with ring ditches in the region have a diameter of at least 80 – 100 cm wide, are less deep than they are wide and are V-shaped in section. Only one other barrow has a ditch of an equally small size (barrow 29), but this barrow has only been partially excavated.

Table 5.6: All radiocarbon dates from the Toterfout area and a short description of their context.

Barrow	Radiocarbon Date		Sampled Material	Context
Toterfout Tumulus 1	GrA-15845	3280±40 BP	cremation	primary grave
	GrN-1051	3480±65 BP	charcoal	Tangential grave in the eastern flank of the mound
Toterfout Tumulus 1B	GrA-15449	3410±30 BP	cremation	primary grave, urn 74
	GrN-1828	3420±45 BP	charcoal	primary grave, urn 74
	GrA-15851	3380±50 BP	cremation	secondary grave, urn 60
	GrA-15852	3360±50 BP	cremation	secondary grave, urn 61
	GrA-15854	3400±50 BP	cremation	secondary grave, urn 62
	GrA-15443	3470±30 BP	cremation	secondary grave, urn 66
	GrN-1053	3580±130 BP	charcoal	secondary grave, urn 66
Toterfout Tumulus 2	GrA-15849	3200±50 BP	cremation	one of two patches in the centre of the mound
Toterfout Tumulus 3	GrN-1024/1030	3345±35 BP	charcoal	concentration on the old surface
Toterfout Tumulus 4	GrA-19989	3410±50 BP	cremation	primary grave (re-date of the first sample, GrA-15450)
	GrA-15450	3590±40 BP	cremation	primary grave
	GrN-1821	3380±50 BP	charcoal	primary grave
	GrN-1819	3365±55 BP	charcoal	concentration on the old surface
Toterfout Tumulus 5	GrA-15439	3240±30 BP	cremation	primary grave
	GrN-989/1003	3305±35 BP	charcoal	primary grave
	GrN-1692	3175±60 BP	charcoal	concentration in the mound (SW-quadrant)
	GrN-1861	3310±50 BP	charcoal	concentration in the mound (SE-quadrant)
	GrN-1605	3260±50 BP	charcoal	tangential grave (burnt coffin)
Toterfout Tumulus 8	GrA-15850	3140±50 BP	cremation	primary grave
	GrN-990/1822	3225±45 BP	charcoal	primary grave
Toterfout Tumulus 9	GrN-1022/1029	3335±35 BP	charcoal	primary grave
Toterfout Tumulus 10	GrA-15836	3080±50 BP	cremation	primary grave, according to Lanting and Van der Plicht the date should be 'two standarddeviations older'
	GrA-16062	3280±60 BP	cremation	primary grave, cremated skull fragments to the south side of the primary grave
	GrN-1000	3320±50 BP	charcoal	primary grave (burnt coffin)
Toterfout Tumulus 12	GrA-16051	3080±60 BP	cremation	primary grave
	GrN-1818	3200±40 BP	charcoal	primary grave
Toterfout Tumulus 14	GrA-15448	3420±40 BP	cremation	primary grave
	GrN-1693	3550±50 BP	charcoal	primary grave
Toterfout Tumulus 15	GrN-1001	3270±60 BP	charcoal	pyre remains on the old surface
	GrA-15855	3130±50 BP	cremation	secondary grave in the mid-eastern profile
Toterfout Tumulus 16	GrN-1820	3220±50 BP	charcoal	primary grave
	GrN-1817	3260±50 BP	charcoal	concentration on the old surface
Toterfout Tumulus 17	GrA-15432	3140±30 BP	cremation	primary grave
	GrN-1604	3230±50 BP	charcoal	primary grave
Toterfout Tumulus 18	GrA-15846	3230±50 BP	cremation	primary grave
Toterfout Tumulus 19	GrA-15428	3210±30 BP	cremation	primary grave
	GrN-1025/33	3250±50 BP	charcoal	primary grave
Knegsel Tumulus E	GrA-15844	3040±50 BP	cremation	primary grave, within a large Laren-urn

Fig. 5.26: All calibrated dating ranges for the Toterfout radiocarbon dates.



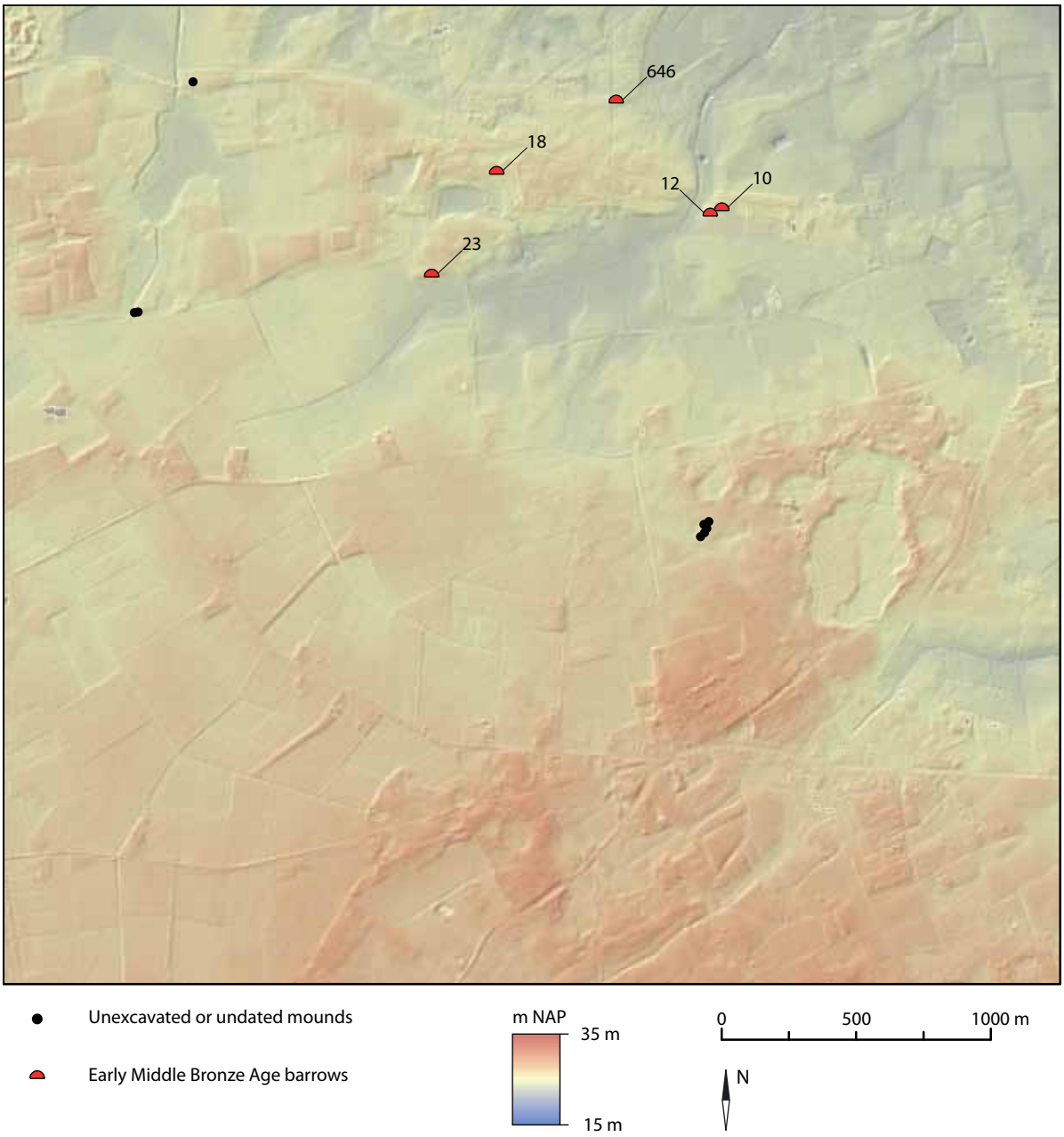


Fig. 5.27: Overview of the early MBA barrows in the Toterfout area. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

The radiocarbon dates suggest barrow construction was continuous for four to five hundred years. The earliest barrows were built at around 1800 cal BC, the latest at around 1300 cal BC. In conjunction with typo-chronological dating ranges for the other barrows a detailed chronology can be created for the entire group (Table 5.6; Fig. 5.26).

This new chronology diverges significantly from Glasbergen's relative chronology of the barrow group. His chronology was largely based upon the palynological evidence by Waterbolk (Glasbergen 1954b, 174-176; Waterbolk 1954). The numerous radiocarbon dates available have completely overthrown this chronology and barrows considered early by them have now been dated as late (*e.g.* barrow 11) and vice versa (*e.g.* barrow 23).

To facilitate the discussion I will first address the earliest barrows built between approximately 1800 and 1600 cal BC, followed by those constructed between 1600 and 1400 cal BC.

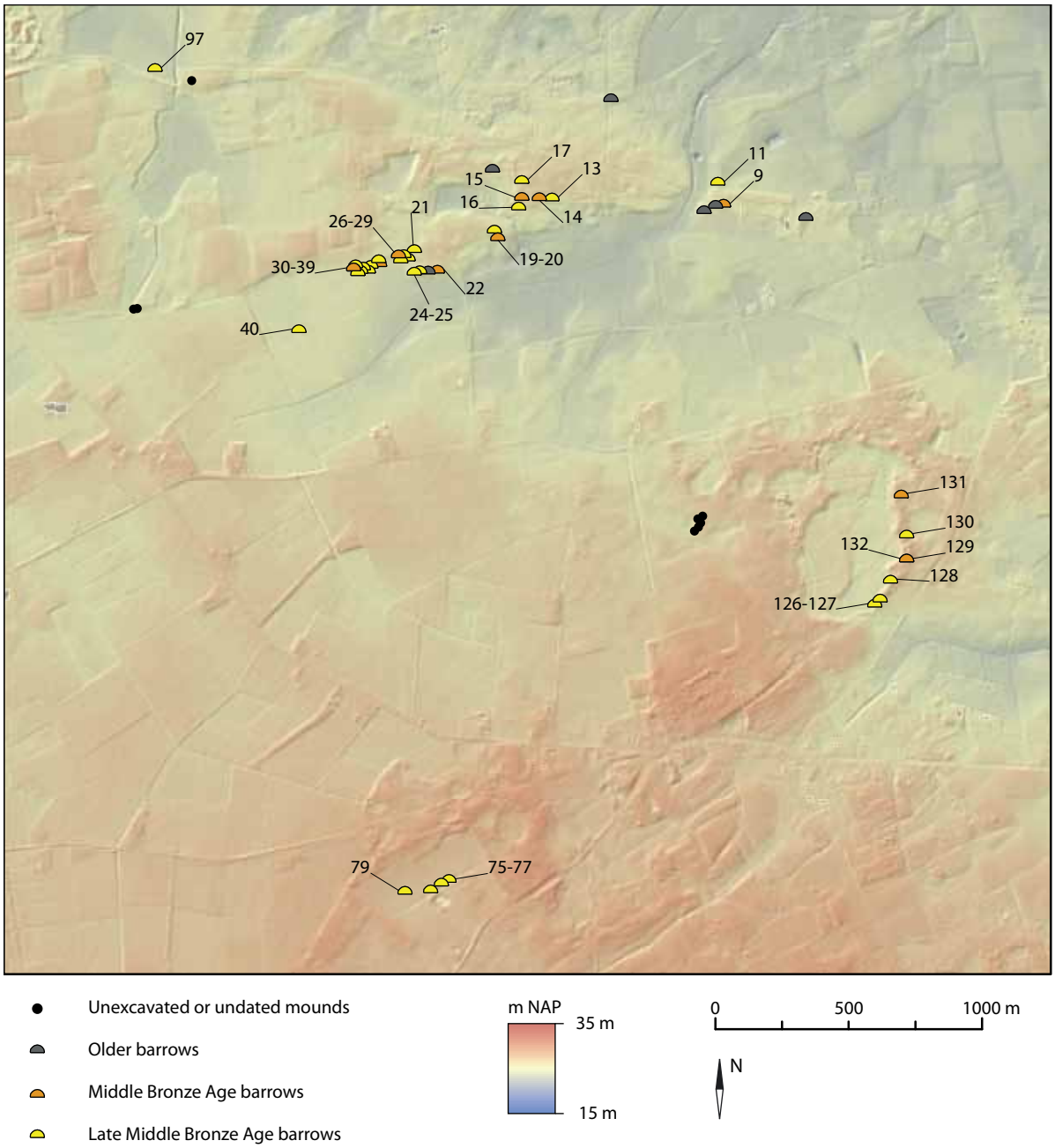


Fig. 5.28: Overview of the late MBA barrows in the Toterfout area. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

The earliest barrows were built exclusively on the northern cover-sand ridge (Fig. 5.27). At least six barrows can be attributed to this period, and perhaps nine other may also date to this phase. The mounds are scattered throughout the ridge and are placed in relative isolation. Groups of two or three barrows may have formed, but not more.

Thirty barrows can be attributed to the second phase, and especially around 1500 cal BC the number of barrows increases considerably (Fig. 5.28). This is in part because a few typical features that surround the barrows in this region, such as the close set post circles, can be dated to the later phase of the MBA (see Chapter 3). Again, nine barrows cannot be attributed any more reliably than to the MBA.

Whereas the barrows in the previous period were spread out over the cover sand ridges, now a few distinct clusters have formed. Nevertheless the generally dispersed nature of the barrow distribution is maintained (*e.g.* barrow 40).

In this phase two distinct types of post circles were erected around the mounds: widely spaced post circles with on average 14 posts placed at equal distance (± 1 – 2 m) set out from a common central point on the one hand; and close set post circles, where dozens and even hundreds of posts are used to create a close set screen of upright timbers on the other. Some of these densely placed post circles contained more than 500 posts encircling a single barrow, effectively obscuring the enclosed barrow from view.

The visual effect of either type of surrounding features will have been entirely different and the visual signal they emit will have been distinctively different to the people at that time as well (see Fig. 6.5; Chapter 6). The post circles themselves will have had an important meaning to the people building the barrows, especially if we consider the special attention given to the closing of openings left in the post circles at Toterfout (Glasbergen 1954b, 153-154; for a further discussion on the role of post circles see Chapter 6).

There is no distinction to be made between the barrows in terms of individuals buried in each group (Theunissen 1993, 32) nor in the way they were buried.

Two scenarios of the development of this barrow group can be suggested. Both developments focus on the surrounding features associated with these barrows, notably the widely spaced post circles and the close set post circles. Even though some barrows with widely spaced post circles also date to the earlier phase, most certainly date to the later phase (*cf.* barrows 13 and 16).

The first scenario is based upon a short chronology. Radiocarbon dates only allow for a temporal resolution of the development of the barrow group over two centuries at best. There is a distinct possibility that the two groups we see associated with either type of post circles actually reflect a very short shift in preference. And the use of the two types of post circles may have changed within the time span of little more than a generation. The widely spaced post circle would then be superseded by the close set post circle over a very short time period. The temporal resolution of radiocarbon dates would not be able to distinguish between both groups and radiocarbon dates would provide the same age.

There are some arguments that can be put forward to support this scenario. Firstly the earliest widely set post circles are older than the oldest close set post circles. At least two barrows surrounded by such post circles were already built in the area around 1800 or 1700 cal BC (nos. 23 and 12). The barrows surrounded by widely set post circles would then be built right up untill around 1500 when they were quickly superseded by close set post circles. This is supported by Tumulus 8 (barrow 16), whose primary mound was originally surrounded by a widely spaced post circle and which was in a later period aggrandized with an additional mound capping and a close set post circle. There are no instances known in the area where a widely spaced post circle overcuts a close set post circle.

The second scenario assumes that the post circles were partly contemporaneous. There is certainly some evidence for this since radiocarbon dates for both types of post circles overlap to a great extent. There is a distinct chance that Tumulus 5 – surrounded by a widely set post circle (barrow 13) – is at least 100 years younger than the oldest closely set post circle Tumulus 19 (barrow 28).

Next to that, the geographic distribution of the barrows into specific groups might also suggest contemporaneity (Fig. 5.29). Widely set post circles are only present in the northeastern part of the research area and closely set post circles are only found to the south and west of them. The distribution might thus hint at a northeastern group of people encircling their barrows with widely set post circles and a southwestern group encircling their barrows with closely set post circles. I will return to this discussion in Chapter 8 and 9.

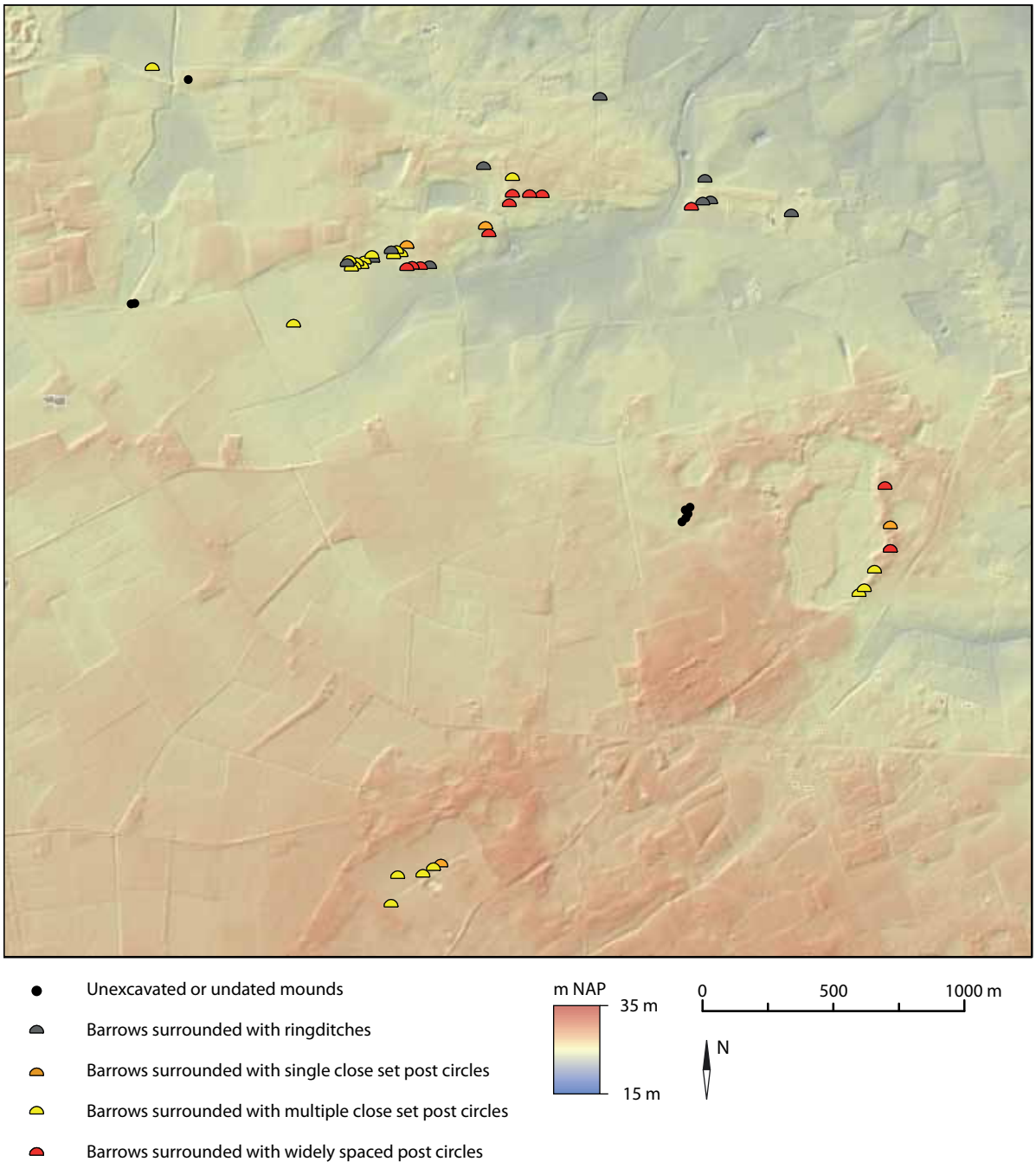


Fig. 5.29: Overview of all surrounding features surrounding each barrow in the Toterfout area.

MBA reuse of primary mounds in the region is attested on multiple occasions (Table 5.7). Almost half of all barrows in the research area have at least one secondary grave or mound phase (22 out of 47). Now naturally traces of reuse are affected by the extent of the damage to the mound body. Therefore, if we only consider the well-excavated and relatively undamaged barrows, two thirds has at least one of both (16 out of 24). At the same time it is very rare for a barrow to have more than a few secondary graves. The maximum number of secondary graves is 8 and the average is only 1,25 per barrow.

Later barrows (1400-500 cal BC)

Following the prolific period of barrow construction, which continued up to 1400 cal BC, relatively few barrows were erected afterwards (Fig. 5.30). There are some indications that barrows were built in the MBA B (*e.g.* barrow 78). At the

Original Publication Name	Barrow ID	N secondary graves	N secondary mound phases	Heavily damaged / partially excavated
Tumulus 1	645	4	0	.
Tumulus 1a	9	0	0	x
Tumulus 1b	10	5	1?	.
Tumulus 2	11	0	0	x
Tumulus 3	12	0	0	.
Tumulus 4	646	0	0	x
Tumulus 5	13	2	1	.
Tumulus 6	14	1?	0	.
Tumulus 7	15	1	0	.
Tumulus 8	16	0	1	.
Tumulus 8A	17	8	1	x
Tumulus 9	18	0	0	x
Tumulus 10	19	0	0	.
Tumulus 11	20	1	1	.
Tumulus 12	21	1?	0	x
Tumulus 13	22	0	0	.
Tumulus 14	23	0	0	.
Tumulus 15	24	1	0	.
Tumulus 16	25	2	1	.
Tumulus 17	26	1?	1	.
Tumulus 18	27	0	0	.
Tumulus 19	28	2?	1	x
Tumulus 20	29	0	0	x
Tumulus 21	30	0	0	.
Tumulus 22	31	0	2	x
Tumulus 22a	32	0	0	x
Tumulus 23	33	0	1?	x
Tumulus 24	34	0	0	x
Tumulus 25	35	0	0	x
Tumulus 26	36	1	1	x
Tumulus 27	37	0	0	x
Tumulus 28	38	0	0	x
Tumulus 29	39	0	0	x
Tumulus 30	40	0	0	.
Heuvel I	126	4?	1	.
Heuvel II	127	3	1?	.
Heuvel III	128	0	0	x
Heuvel IV	129	2?	1	.
Heuvel V	130	?	1	.
Heuvel VI	131	0	0	x
Heuvel VII	132	0	0	x
Vessem De Lillen	97	3	1	x

Table 5.7: The number of secondary graves and additional mound phases recorded in the Toterfout Research area. The heavily damaged barrows are those barrows where more than half of the mound was destroyed prior to excavation.

Huismeer group an older barrow was extended with an oval or rectangular post setting (barrow 126). Although a rare type of burial monument, more barrows of this type are known in the Low Countries (see Chapter 3; Bourgeois and Fontijn 2008; Delaruelle, *et al.* 2008, 35-37). The presence of this barrow (and possibly also barrow 32) demonstrates that the area was not abandoned but that barrow construction decreased in intensity for at least a few centuries until it picked up again around 1000 BC with the advent of urnfields.

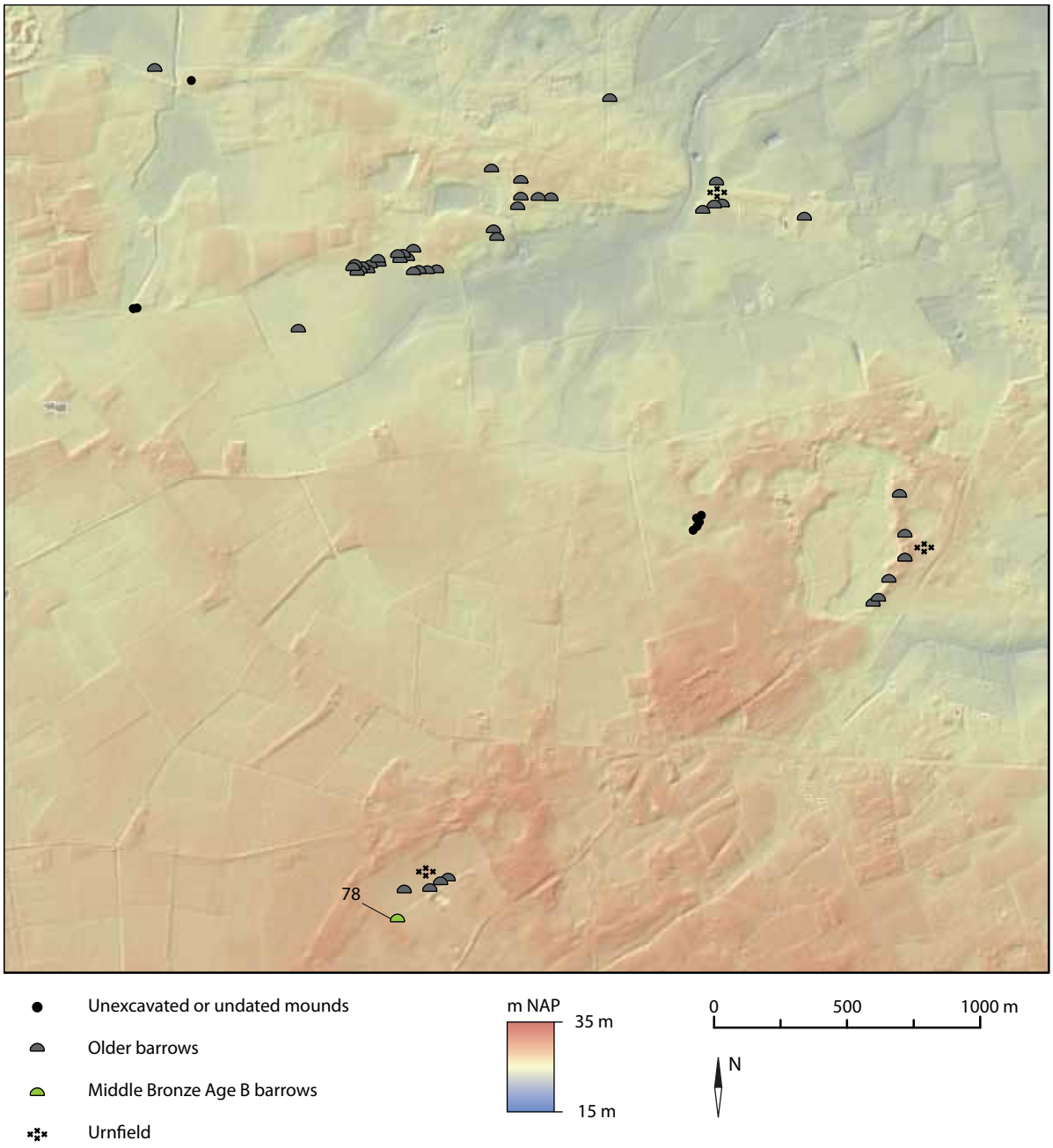


Fig. 5.30: Overview of all LBA and EIA barrows and urnfields in the Toterfout area. The numbers indicated on the map correspond to the barrow numbers mentioned in the text and Appendix.

Several urnfields are known in the region and two were extensively excavated (Braat 1936; Glasbergen 1954a, 95-97). Both urnfields are built close to and in-between the older burial mounds of the MBA. With the urnfield excavated by Braat the older mounds were even completely reworked into the urnfield itself. Ditches cut through the older mounds and *langbedden* were built against or over the older barrows. This reappropriation of the older burial mounds is – as far as we can tell – only limited to these two urnfields (and maybe a third partly excavated at the Huismeer group). There are no clear indications of burial mounds in the Toterfout group that have been reused for secondary burial during this period. Burial in the Late Bronze Age (LBA) or Early Iron Age (EIA) was restricted to certain locations and the extensive barrow groups of the MBA were not reused.

5.5.6 Summary

The Toterfout barrow group is set apart by the lack of Late Neolithic barrows in the area. The entire barrow group can be dated to two phases in the MBA. The first phase, from 1800 to 1600 cal BC, is a good example of an extensively dispersed barrow group (see Chapter 1), with no apparent clustering visible. Several of these older barrows then went on to form focal points for later barrow construction.

The second phase, from 1600 to 1400 cal BC, suggests an exponential increase in barrow construction, with extensive use of complex post-circles. Two distinct sets of barrows, one encircled by close set posts and the other encircled by widely spaced posts occupy respectively the eastern part and the western part of a cover sand ridge.

5.6 Conclusion

The development of each individual barrow group has highlighted several congruencies between them:

1. In three case studies, long alignments of barrows were identified. While all of these alignments are fragmentary in nature, it can nevertheless be concluded that they are not a product of map formation processes, but rather that they were implied from the onset. All of these alignments have their origin in the LN A, and are part of the earliest phase of barrow construction. The alignments share the same characteristics in terms of length and distance in-between the mounds. This suggests that the concept of an alignment was shared amongst communities in the LN A.
2. During the Bell Beaker phase the alignments, already set out in the previous phase, are extended upon and emphasised through the construction of new barrows. This suggests the alignments were recognised and respected as such. Nevertheless many new barrows were also constructed in different areas, which previously had not been incorporated into the barrow landscape. Especially in the Renkum case study, the expansion onto the higher parts of the ice-pushed ridges stands in contrast to the preceding period. It is in this phase that we see the initial development of extensively dispersed barrow groups.
3. Within all research areas, barrow construction decreases in the EBA. At the most two or three mounds can be dated to this phase within each respective case study. Nevertheless, the practice of pottery depositions within mounds indicate that the older monuments remained important elements within the landscape.
4. In all four case studies, barrow construction and reuse of older monuments increases significantly in the MBA. Both the Ermelo and the Toterfout case display an intensive phase of barrow construction, and even though the extent of newly built barrows is poorly understood for the Renkum and Epe-Niersen cases, it can be argued that here too several mounds may date to the Bronze Age as well. As in the LN B, barrows are extensively dispersed. At the same time, almost every single barrow within the barrow landscape is reused and reincorporated. The addition of new mound phases and secondary burial within, by that time ancient, mounds is recorded for almost every fully excavated barrow within all four case studies. This reuse is not restricted to Neolithic mounds but occurs in Bronze Age barrows as well.

5. From approximately 1400 cal BC barrow construction decreases dramatically and new mounds are built only sporadically. It is not until around 1100 cal BC that we see a resurgence in barrow construction. The main difference now however, is that barrow construction is strictly limited to specific places within the landscape. These areas will go on to develop into proper urnfields and are sometimes centred around older mounds.

The reconstruction and the unravelling of each case study has revealed several activity phases where the barrow landscape was added upon and modified to a significant extent. Yet we are now left with understanding why these changes took place in the way they did.

The primary point which then needs to be addressed is the visual nature of the barrow. As I already argued in Chapter 2, each barrow visually alters and modifies the landscape and as such the barrow landscape is essentially a visual landscape. Yet what was the visual role of the barrow and how can we research this? This will be the focus of the next Chapter.