Lines in the land: the Neolithic funerary alignment of Noordbarge (province of Drenthe, NL)

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1. Introduction

There is a long tradition in West-European prehistoric archaeology to interpret monuments placed in linear arrangements as reflecting the locations of pathways or roads (Müller, 1904: 53; Modderman, 1955: 61; Bakker, 1976: 77-79; Klok, 1982; Jager, 1985). In particular the linear positioning of monumental barrows could suggest placement along routes and paths (Johansen et al., 2004: 37-39; Bakker, 2008; Løvschal, 2013: 242; Johannsen & Laursen, 2010: 33-41; Uckelmann, 2013: 410), but it has also been suggested that such linear arrangements reflect lineage or dynastic successions (Barrett, 1994: 112-115; Bogucki, 1999: 277-278; 286; Kristiansen & Larsson, 2005: 57; 218; Garwood, 2007: 44; Needham et al., 2010: 31) or territorial boundaries reified through ancestral presence (Woodward & Woodward, 1996: 277; 288; Watson, 2001: 207; 213; Hanks, 2008: 262, cited in Bourgeois, 2013: 7; 16). Unfortunately, traces of the actual paths themselves rarely preserve (but see: French, 2003: 154; Mischka, 2011: 745-746), necessitating precarious interpretation of monument placement by scholars (e.g. Thrane, 1998: 273-274; Johannsen & Laursen, 2010: 41; Bang, 2013; Bourgeois, 2013: 13-21; 189). In this contribution, we discuss whether the linear arrangement of Neolithic graves uncovered at Noordbarge could reflect the location and orientation of a prehistoric pathway.

2. Noordbarge-Hoge Loo: excavation history, main results and physical geographical location

The site to be discussed here is Noordbarge-Hoge Loo, gemeente Emmen, situated in the southeastern part of the province of Drenthe, The Netherlands (Fig. 1A-B). The site is situated on one of several higher ridges of the Hondsrug complex, that consists of Saaleperiod glaciation boulder-clay plateaus delimited by erosion valleys (Fig. 1B; Rappol, 1984; Rappol & Kluiving, 1992: 75-76; Van Smeerdijk et al., 1995: 453). After the Saale period, during the Weichselian coversand was deposited locally (Castel & Rappol, 1992: 119; De Mulder et al., 2003: 206-210) and peat accumulation throughout the Holocene encapsulated the higher situated boulder-clay ridges (Vos & Kiden, 2005: 14). These elevated areas were used for human activities throughout the Holocene, and relics from activities from periods spanning the Mesolithic to the Mediaeval period can be found in the direct vicinity of Noordbarge (Fig. 1C). The part of Noordbarge here discussed is situated on a dry sandy strip south of the Hoge Loo (a small oak forest) on the highest part of the former es (plaggen soil or plaggic anthrosol; Van Doesburg et al., 2007) to the south of Noordbarge (Kooi, 1979: 10, 12; Lanting, 2007/2008: 183)1. This arable was situated on the narrow ridge running from Westenesch to Erica. Before c. 1850 there was a lake called the Bargermeer about 3/4 km east of the excavation site.

¹ A 'loo' is a clearing in a forest, whereas the prefix 'Hoge' stands for high. As Hoge Loo is situated on one of the highest points of the Hondsrug the latter is easily understood.

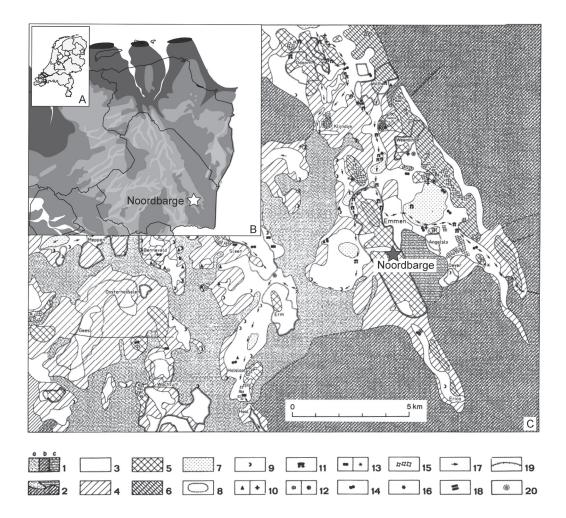


Fig. 1 – Location of the site of Noordbarge (star symbol) in the Netherlands (A), and on a palaeogeographical map (B) for the Netherlands around 3800 BC (after De Mulder et al., 2003: 228, fig. 143) and within the wider distribution of archaeological sites as mapped by Wieringa (1958: 103, fig. 1). Legend: 1 = uninhabitable and impassable areas; 1a = stream valley soils; 1b = raised bog; 1c = former lake; 2 = boundary between 1a and 1c; 3 = dry sandy soils; 4 = moist sandy soils; 5 = loamy moist sandy soils; 6 = very loamy, moist to wet sandy soils; 7 = driftsand; 8 = old arable; 9 = findspot Mesolithic; 10 = findspot/barrow Neolithic; 11 = m egalithic tomb (hunebed); 12 = findspot/barrow Bronze Age; 13 = settlement site/barrow Iron Age; 14 = urnfield Iron Age; 15 = Celtic field Iron Age; 16 = undated barrow; 17 = important track-rut; 18 = cemetery Migration Period; 19 = corduroy road in the bog area; 20 = cult site Iron Age.

In 1845 several small bronze and terracotta figurines from the Roman period were found at the Hoge Loo and thanks to this discovery ample attention has been paid to this location since (see for an historical overview of the research Kooi, 1979: 10, 12, 14 (with further references) and in addition Harsema, 1994: 69-71; 1997: 147-152; Van Zeist, 1981: 173, 178, fig. 2; Lanting, 2007/2008: 183). Several professional excavations have been undertaken and together an area of c. 3.2 hectares has been uncovered. The first trenches through a dyke near the 'Hoge Loo' were dug under the supervision of A. E. van Giffen in 1920 (Van Giffen, 1934). Neither this excavation nor its follow-up in 1935 could confirm Van Giffen's idea that the dyke represented the remnant of ramparts belonging to a fortified native settlement (the long-lost legendary town of Barnar; Van Giffen, 1934, 89) from Roman times. In 1949, excavations were required due to preparations for the new housing estate 'Bargermeer'. The most extensive archaeological investigations however date to the period 1972-1974, when the construction of a road to Zuidbarge, as part of the road system around Emmen, required further excavations (Harsema, 1976). A minor part could be added in 1993, when a fastfood restaurant was built (Harsema, 1994). The ample excavations undertaken at Noordbarge have recovered traces from various periods, comprising

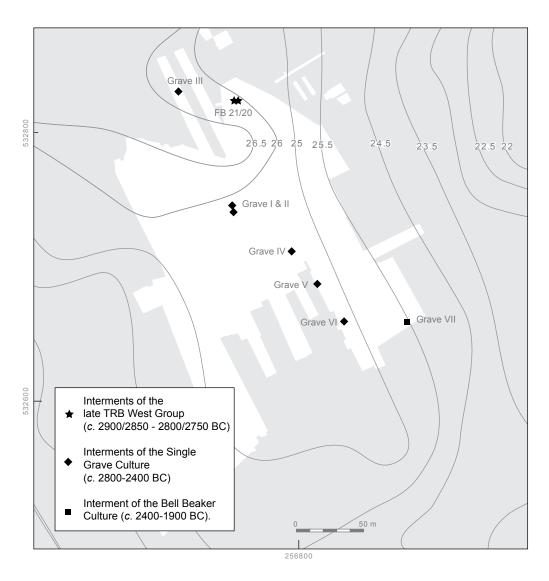


Fig. 2 – Excavated area (white), contours at 0.5 m interval in meters above Dutch Ordnance Datum (NAP; grey outlines) and the locations of the Noordbarge Neolithic graves (black symbols).

Bronze Age to Roman Period settlements as well as cemeteries. The urnfield features have thus far received most attention (Kooi, 1979: 10-26), yet the prehistoric settlement traces have recently been restudied (Arnoldussen & Albers, 2015). Remarkably, a series of Neolithic graves uncovered in the various excavation campaigns (Fig. 2) has received little to no attention (yet see Lanting, 2007/2008: 183; Arnoldussen & Albers, 2015: 151-152). Therefore, the next section will consider these Neolithic burials in more detail.

3. Neolithic burials

Nine or ten Neolithic burials have come to light in the area under consideration. Two or three of them are assignable to the youngest phase or horizon 7 of the TRB West Group; this phase can be dated to *c*. 2900-2850/2800-2750 BC (*cf.* Brindley, 1986: 104-106 & fig. 10; Brindley & Lanting, 2003: 123; Lanting & Van der Plicht, 1999/2000: 32, 67-68). The excavation campaign in 1920 has produced two pits (Fig. 3) each containing an earthenware necked bowl and cremation remains (Van Giffen, 1934: 90, fig. 2; Bakker & Van der Waals, 1973: 46 note 19, 28, fig. 10). Presumably a similar vessel found at Noordbarge-Hoge Loo (1896.VII.7) at the end of the 19th century also stems from a burial.

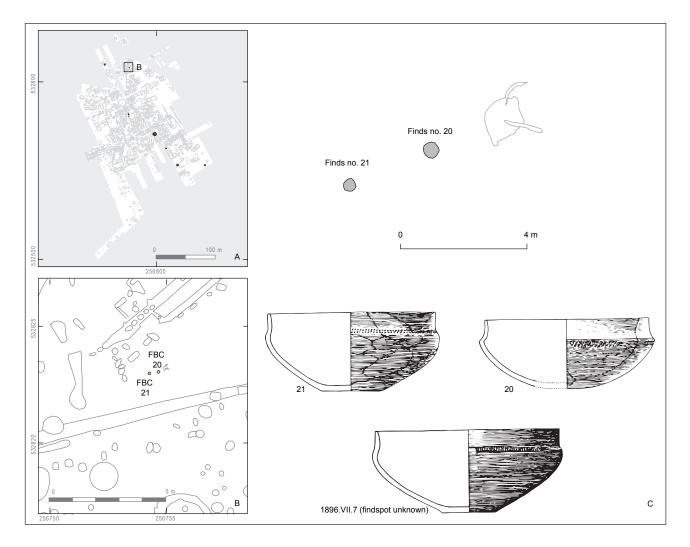


Fig. 3 – General location (A), context (B) and details (C) for the Noordbarge Middle Neolithic Funnel Beaker Period graves (after: Van Giffen, 1934: fig. 2; Bakker & Van der Waals, 1973: 26, fig. 10). Numbers 20, 21 and 1896.VII.7 are to the same scale: the actual height of the latter is 8.4 cm.

The six burials of the Single Grave Culture (c. 2800-2400 BC) all seem to represent 'flat graves', i.e. it looks like they were never covered by a barrow². A brief description of their main features is listed below. For each grave, a (simplified) figure with its context and datable finds has been incorporated.

3.1. Grave I

The top part of grave I was intersected by one of the ring ditches belonging to the urnfield (Kooi, 1979: 10-26; Arnoldussen & Albers, 2015: 154-165). It comprised a partially damaged a beaker of type 1e, albeit not a classical one as not all the impressions are oblique (some are upright³; Fig. 4C). The Noordbarge vessel (find no. 212) was recovered from the southernmost part of the Late Neolithic grave pit lying on its side, with the mouth pointing to the SE. The upper face of the beaker was found at 25.25 m above NAP (Dutch

² The arguments that can be forward for this stance are the absence of an actual burial mound as well as podsolisation of the subsoil. Nowhere a circular iron pan was observed indicating the former presence of a burial mound.

³ The typology of the Single Grave Culture beakers used here is after Van der Waals & Glasbergen (1955).

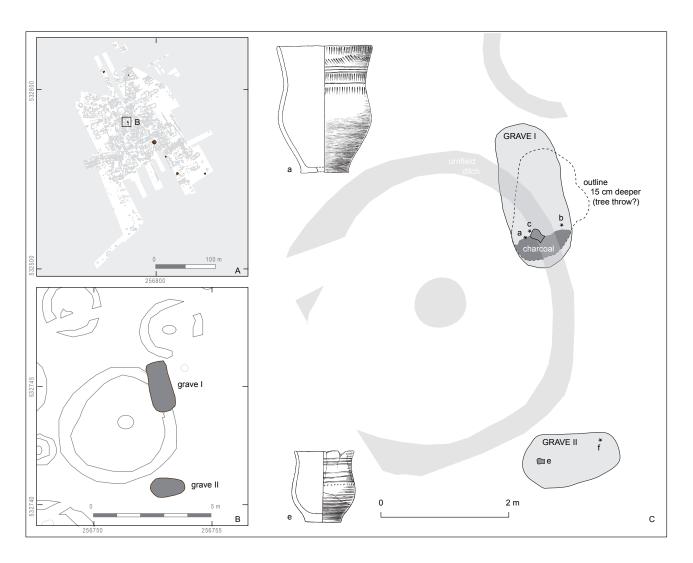


Fig. 4 – General location (A), context (B) and details (C) for the Noordbarge Late Neolithic Single Grave Culture period graves I and II. Vessels a and e are to same scale; their actual height is 16.8 cm and 7.3 cm respectively.

Ordnance Datum). More or less at this level, the grave pit had a sub-rectangular shape and a length and width of c. 2.1 m and c. 0.95 m respectively. Its orientation was NNW to the N-SSE to the S.

In addition to the vessel, three pieces of flint (nos. 212a-c) were unearthed in the southern section of the feature, two of them at a distance of less than 0.1 m of the beaker, the third one c. 0.3 m east of the vessel⁴. They were lying at 25.23 m, 25.22 m and 25.18 m above NAP respectively. Underneath the grave pit, which had originally been dug c. 0.5 m into the ground – the old surface level is estimated to have been situated at c. 25.70 m above NAP – a natural feature could be identified. Perhaps it concerns a filled-in tree throw. At 24.95 m above NAP it measured c. 1.7 m by 1.1 m and was N-S oriented. According to the notes by A. E. Lanting, who participated in the excavation, the latter may have determined the orientation of grave I. The disturbance had a more or less oval ground-plan, with a bulge in the eastern long side. Charcoal came to light in the southernmost section of the underlying feature, where it was surrounded by infiltration fibers.

⁴ Unfortunately, the authors have not yet been able to study these finds and it therefore remains to be seen what they comprise. In the documentation of A. E. Lanting they have not been described in detail.

3.2. Grave II

The top of this feature (Fig. 4B-C) was also disturbed by a reclamation trench that had destroyed part of the pit's western half. At 20 cm depth, two stones were dug up from the western half of the grave pit. The feature was bean-shaped at 24.86-24.89 m above NAP. The eastern half contained two more stones, lying close together (Fig. 4:f). At its bottom level (24.20/24.19 m above NAP) the E-W orientated grave pit had a sub-rectangular ground-plan measuring c. 1.35 m by c. 0.75 m. Just W of the center a beaker of 1b type (find no. 218; Fig. 4:e), c. 7.4 cm in height, was found lying on its side, the mouth pointing eastwards. Also, a rim sherd of a vessel with short-wave moulding (Wellenbandbecher or -topf in German; golfbandbeker or -pot in Dutch)) was recovered from the upper part of the remaining grave pit (find no. 214; Fig. 4:f). Originally, this sherd must have been located about halfway down the feature, as the grave pit appears to have been dug down c. 1.35 m into the soil. In other words, the old surface was situated at c. 25.56 m above NAP.

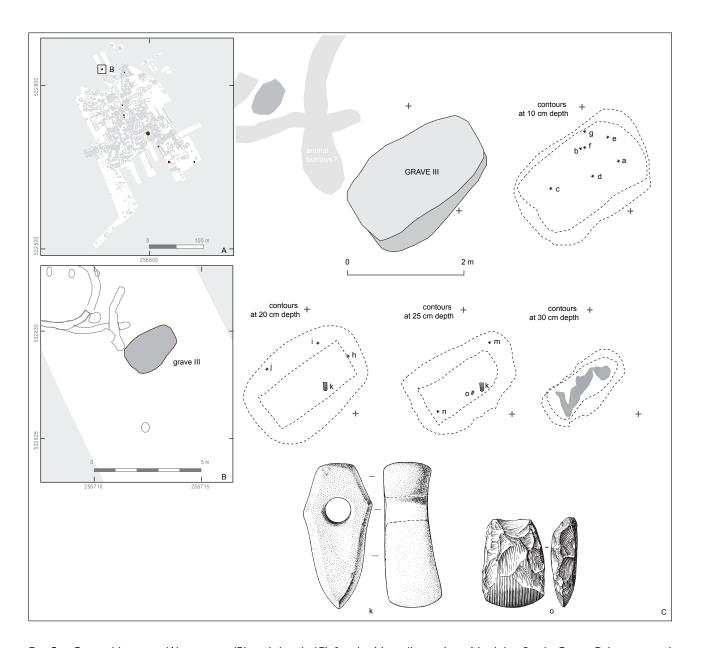


Fig. 5 – General location (A), context (B) and details (C) for the Noordbarge Late Neolithic Single Grave Culture period grave III. Actual length of stone battle-axe (no. k) and flint axe (no. o) 11.7 cm and 4.8 cm respectively.

3.3. Grave III

Of the various Late Neolithic graves from Noordbarge-Hoge Loo, grave III (Fig. 5) was the most extensively recorded. At the higher levels the southwestern corner of grave III was intersected by a recent disturbance. Due to the superimposed old arable, the exact contours of features, including aspects of grave III were difficult to recognise. Nonetheless, the basic traits of this grave were already transpiring at the highest levels: a sub-rectangular ground-plan and a SW to NE orientation. At 25.56/25.52 m above NAP a darker subrectangular core stood out against a lighter rim. Within about the next 10 cm the picture changed dramatically. At 25.44/25.42 m above NAP, a sub-rectangular grave pit was drawn, measuring c. 2.25 m by c. 1.5 m. The dark core appeared at this level as a neat rectangle, which together with the charcoal particles (see below) suggests the presence of a wooden cist or coffin. It was surrounded by an also rectangular stretch of yellowish soil with a width of c. 0.1 m. Probably this discolouration is due to a pedological processes related to the coffin's decomposition. The coffin had been inserted in a pit tapering downwards. The grave pit measured c. 1.7 m by c.0.8 m at 25.35 m above NAP, whereas about 20 cm (at 25.56/25.52 m above NAP) higher these dimensions were c. 2.5 m by c. 1.6 m. As mentioned before, the grave pit was even larger at a higher level, although the exact length and width are unknown. The original depth of the feature is estimated at c. 0.85 m, as the old surface was at c. 26.16 m above NAP.

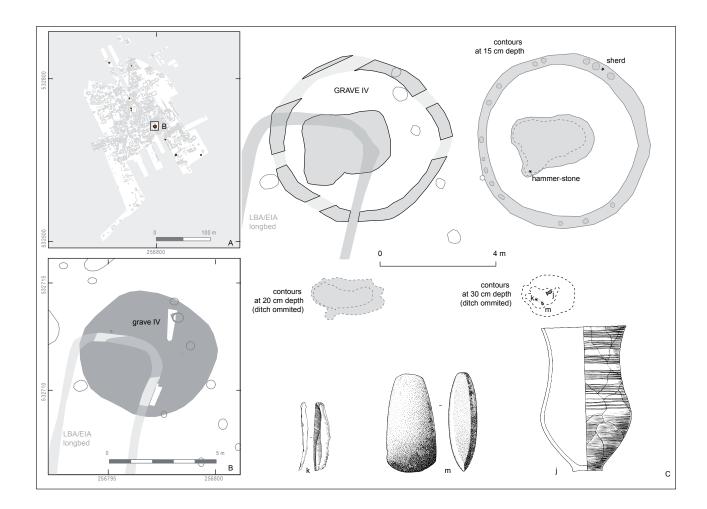


Fig. 6 – General location (A), context (B) and details (C) for the Noordbarge Late Neolithic Single Grave Culture period grave IV. Actual height of the beaker (no. j) is 19.5 cm, the actual length of the flint blade (no. k) and stone axe (no. m) is 7 cm and 10 cm respectively.

Inside the coffin both a corpse silhouette (Fig. 5C) and two grave gifts came to light. One is an atypical example of a type B stone battle axe (Fig. 5:k; find no. 417k), closely related to Hübner's subtype B4 (Hübner, 2005, text volume: 88-89, fig. 49 and fig. 50:g-h). This object was recovered from the western section of the coffin traces, lying on its side (the highest point at 25.42 m above NP), the cutting edge pointing towards to N. In other words, it had been deposited in front of the corpse, to be more precisely near the chest (contra Furholt, 2003: pl. 206). The sidelong position in which it was found suggests that the battle-axe was hafted when interred. Next to it a flint axe (Fig. 5:o), which was made of a broken, larger specimen, was encountered at 25.35 m above NAP. For this axe too, the cutting edge must have been facing the corpse, as it was found pointing to the NE.

At this level a brownish coloured corpse silhouette was recorded within the coffin's outline. Judging from the silhouette dimensions, grave III was the resting-place of someone of c. 1.6-1.8 m in height; in all likelihood a grown-up or an adolescent. This person had been interred in a position with retracted legs on its left side, one shoulder resting on the ground, the head in the ENE to the E facing southwards. No information is available with respect to the position of the arms. A section across the lowermost 10 cm of the grave pit showed that the coffin traces reached down to the bottom of the grave. Charcoal from the lowermost 10 cm of the coffin was subjected to radiocarbon dating (4210 \pm 40 BP)⁵. Puzzling is the function of some stones discovered inside the coffin (Fig. 5:n), the largest one measuring c. 0.12 m \times 0.10 m. In one case it may have supported the coffin, but in the other instances such an interpretation is far from plausible due to the small size of the stones.

In addition to the stone battle-axe and flint axe several other finds were made (find nos. a-j, l-n). They include small flint flakes, pottery sherds and a single fragment of burnt bone. The majority came from the top part of grave III. Together these finds in all probability belong to the West Group of the Funnel Beaker Culture, as the pottery can be attributed on the basis of its traits to this culture and may represent unintentional incorporation at the time of grave construction. As the sherds are all undecorated, it may very well concern the youngest section of West Group of the Funnel Beaker Culture, i.e. horizon 7 according to Brindley's chronology (Brindley, 1986). Local activity around this time is moreover indicated by the presence of the two cremation burials from this horizon (Fig. 4) at c. 55 m to the WNW of grave III. In conclusion, these smaller artefacts from grave III (probably) represent older intrusive material. Whether they reflect settlement refuse or relicts of funerary practices by people of the Funnel Beaker Culture West Group must remain unclear.

5 GrN-6724; 2σ-calibration with OxCal v4.2.4 gives 2905-2836/2816-2668 cal BC; Lanting & Van der Plicht, 1999/2000: 75. This ¹⁴C-date is labelled by Furholt (2003, 14; 226; pl. 206) as D-II*. That means that he seriously considers the possibility that the dated charcoal from grave III at Noordbarge-Hoge Loo originates from activities prior to the burial. In addition, charcoal is regarded a material with a long life-span of its own. Finally, ancient dates are treated with more suspicion than recent ones. One should reckon with more inaccuracies in the early days of 14C-dating, as measurement methodology and equipment were less developed. In sum, the 14C-date for grave III-at Noordbarge-Hoge Loo is appreciated by the afore-mentioned scholar as one of low quality. For the sake of completeness, the table below shows which categories are distinguished by Furholt with respect to the dated context, the nature

Dated context		Nature of dated material		Quality of the ¹⁴ C-laboratory	
Event	Α	Short life-span	I	Ancient ¹⁴ C-laboratory	*
Phase	В	Long life-span	II		
Possibly an association	С			•	
Uncertain	D]			

of dated material and the quality of the 14C-laboratory. It follows that Al refers to the highest quality. In our opinion it is legitimate to label the 14C-date under consideration as A-II* instead of D-II*. The dated charcoal is likely to originate from the coffin in grave IIII (see above).

3.4. Grave IV

This grave was situated within a ring ditch of c. 6.2(6.4)-6 m diameter and 0.3-0.6 m depth (Fig. 6), the tops of which were disturbed by reclamation ditches and an Early Iron Age 'longbed' barrow (Arnoldussen & Albers, 2015: 154-157). The remaining depth of the central grave was 0.47-0.61 m and originally it must have been 0.85-1 m deep. The old surface, which had disappeared, is estimated to have lain at 25.32 m + NAP. To study stratigraphic relations, a section baulk was left standing over both the actual grave and the ring ditch. Darker discolourations within the ditch indicate that the ring-ditch once contained a palisade (cf. Bourgeois, 2013: 120).

The central grave pit had a sub-rectangular to oval shape at the upper levels recorded. Further down the ground-plan was oblong to oval. Similarly, the orientation changed from top to bottom, varying from ENE to the E-WSW to the W, via ENE-WSW to E-W respectively. With increasing depth the grave pit had ever-decreasing dimensions, ranging from c. 2.8(3) m by 1.8 m at 24.74 m above NAP up to c. 1.8 m by 1.1 m at 24.48 m above NAP. Its lowest point was recorded as 24.31 m above NAP. Both from the vertical section and the horizontal plane it is evident that the central pit had no regular cross-section.

Due to the irregular shape of the central pit, it is unclear whether the grave goods, a beaker of type 1b, a Fels-Rechteckbeil and a flint blade (Fig. 6:j, 6:k, 6:m) were resting on the bottom or lying just above it. The latter case might imply a coffin. But in absence of clear indications we are inclined to think that the aforementioned artefacts had been deposited on the bottom of the grave pit. The beaker (Fig. 6:j; find no. 459I) was uncovered in the eastern section of the grave, lying on its side with its mouth facing WSW. Its upper and lower faces were recorded to have been situated at 24.44 m and 24.35 m above NAP respectively. Twenty centimeter to the E was the flint blade (Fig. 6:k; find no. 459k), NW-SW oriented. It was lying at 24.39 m above NAP. About twelve centimeters to the SW a greenstone axe with a rectangular cross-section was exposed (Fig. 6:m), its cutting edge pointing to the SSW. It is open to discussion whether other finds from burial IV are grave goods. Instead, they may be intrusive older artefacts. Among them is a hammer-stone (find no. 459g) found at 24.70 m above NAP in the SE corner of the grave pit. Charcoal found dispersed across the central grave was dated to $4040 \pm 90 \text{ BP}^6$.

3.5. Grave V

Grave V was discovered after the mechanised removal of the top soil, when sherds of a beaker were hit upon (Fig. 7). Subsequent cleaning revealed that the sherds originated from a beaker placed at c. 24.48-24.52 m above NAP in the filling of a 0.15-0.64 m wide circular ditch with dimensions of 3.5 m (WSW-ENE) by 2.95 m (NNW-SSE). Unfortunately neither the height of this level nor the final height of the ring ditch has been recorded. Therefore, the original depth of this feature is unknown. But judging from the (reconstructed) position of the old surface at c. 24.90 m above NAP it must have been 0.38 m deep at least. Assuming that the second plane drawn was situated 10 cm below the first one, the depth of the ring ditch will have been c. 0.5 m at most. The vessel recovered from the widest eastern section of the ring ditch was a 1d type beaker (find no. 824), the base of which lay in the N, its mouth pointing southwards.

Despite targeted efforts, no central discolouration indicative of an interment could be found. The most plausible explanation is that grave V once was a 'beehive grave' and that the ac-

⁶ GrN-6724: 2σ -calibration with OxCal v4.2.4 gives 2877-2346 cal BC; Lanting & van der Plicht, 1999/2000: 75.

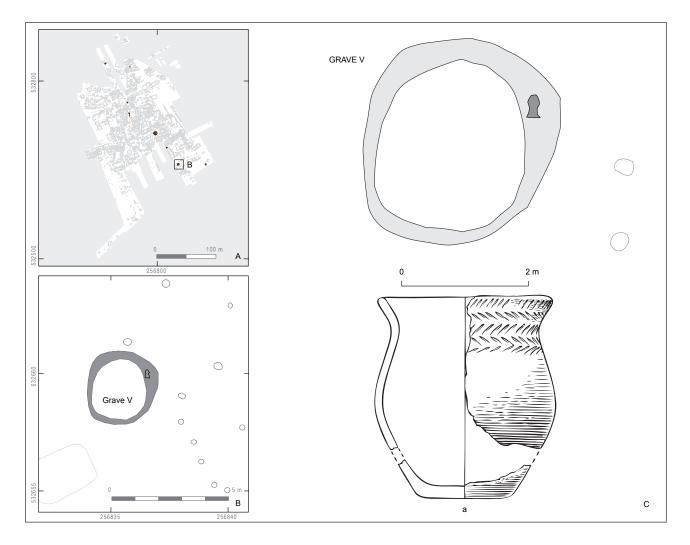


Fig. 7 – General location (A), context (B) and details (C) for the Noordbarge Late Neolithic Single Grave Culture period grave V. Actual height of the vessel (a) is 10.4 cm.

tual grave pit has not been discovered. This type of burial has been defined by Lanting and Van der Waals (1976: 42-43) as follows: "Whether they are of rounded-rectangular, round or oval shape, their chief characteristic is the presence of a trench that limits the grave pit and surpasses it in depth; but above the level of the bottom of the grave pit, it forms part of that pit. In a few cases, this trench appears to be a foundation trench."

3.6. Grave VI

For this grave, whose top part was partially disturbed by a telephone cable, only one level was drawn (Fig. 8-C). At this level, 24.76 m above NAP, the feature was recorded as a circular pit, brownish in colour and measuring c. 1.7 by 1.5 m. Ten cm below probably traces of a cist in the form of a darker c. sub-rectangular discolouration, oriented c. WSW to the W-ENE to the E, were observed. Its length and width were c. 1.35 m and 0.6-0.75 m respectively. These traces did not reach the grave's bottom at 24.41 m above NAP, but ceased 5 cm above it. A vertical section moreover indicated that the grave had smaller dimensions at bottom level; roughly estimated to be 1.45 by 1.3 m. Originally the depth must have been c. 0.75 m, as the old surface is reconstructed at c. 25.16 m above NAP. Slightly east of the center of the grave pit pottery fragments (find no. 894) and directly S of them a fragment of a marginally retouched flint blade (find no. 894A) were encountered at 24.49 m and 24.42 m above NAP (Fig. 8:a-b). The sherds represent two incomplete beakers, both of the undecorated type 1f. Undecorated beakers are rarely 14C-dated,

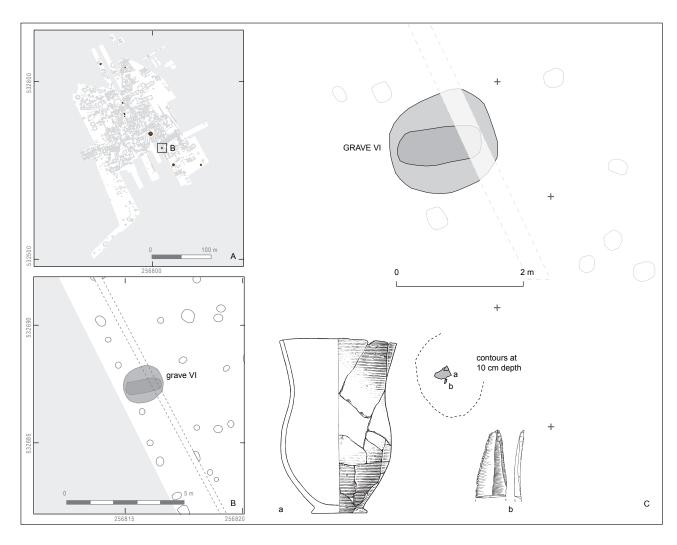


Fig. 8 – General location (A), context (B) and details (C) for the Noordbarge Late Neolithic Single Grave Culture period grave VI. Actual height of the beaker (no. a) is 17.5 cm, actual length of the blade (no. b) is 4.5 cm.

so parallels dated in this way are absent. The protruding foot that the vessel from grave VI displays, occurs in all but the final phase of the Single Grave Culture (Beckerman, 2015: 177-178) and thus also cannot be used for more precise dating. The larger beaker, found compressed with its mouth facing to the ENE, has a height of c. 17.5 cm, an outer rim diameter of c. 11.5-11.8 cm and a base diameter of c. 5-5.8 cm. The smaller vessel (not depicted) is c. 10.5 cm in height. The flint artefact lay with its ventral face upwards and its smaller short end pointing to the S.

3.7. Grave VII

A NW-SE oriented burial of the Bell Beaker Culture (c. 2400-1900 BC) was excavated in 1993 (Lanting, 2007/2008: 183, 185, fig. 54b and 55). Its ground plan was on a deeper level sub-rectangular (higher-up egg-shaped; Fig. 9-C) and measured c. 2.05 x 1.55 m. Its original depth has been reconstructed as c. 0.65-0.75 m. At the lowest (recorded) level vague discolorations were observed, possibly the last remains of a corpse lying with retracted legs positioned on its left side, the head in the S, facing west. In the SE corner of the grave pit stood – in a slanting position – a decorated bell beaker, the only (remaining) grave gift. As the excavation has not produced, despite careful inspection, any indications of a barrow on the spot, the Bell Beaker burial in all likelihood represents a flat grave (Lanting, 2007/2008: 185). Typologically, the beaker has been labelled an 'early epi-maritime' type.

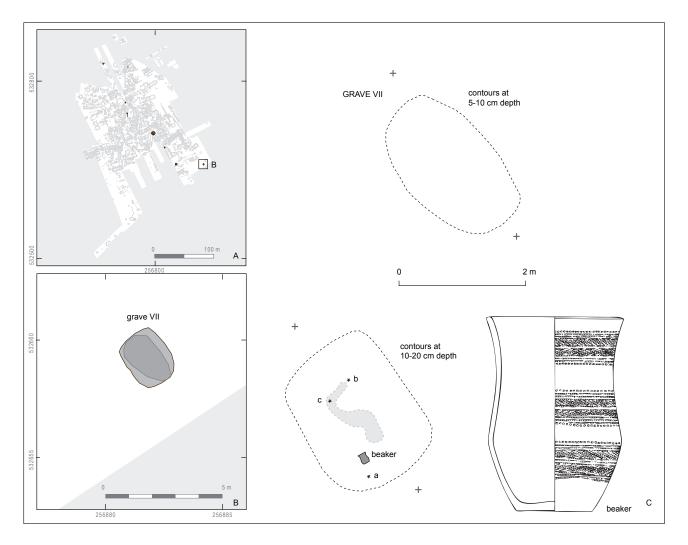


Fig. 9 – General location (A), context (B) and details (C) for the Noordbarge Late Neolithic Bell Beaker Culture period grave VII (after Lanting, 2007/2008: 183, fig. 54B; 185, fig. 55; actual height of the beaker is 22.2 cm).

4. Phasing and layout of the Neolithic cemetery

Establishing a very detailed phasing or chronology for the Noordbarge Neolithic cemetery is impossible, as only two of the burials have been ¹⁴C-dated. Furthermore, several of the grave goods from the Single Grave Period are not confined to a specific phase like the 1d type beaker from grave V (see in this connection Beckerman, 2015: 159; Drenth, 2005: 347; 349; Drenth & Lanting, 1991; Lanting & Van der Plicht, 1999/2000: 35). Nonetheless, the Noordbarge interments may be claimed to represent four stages. The oldest one consists of the two or three Funnel Beaker Period cremation graves, that belong to the youngest part (horizon 7; Brindley, 1986) of the West Group of the Funnel Beaker Culture (c. 2900-2850/2850-2750 BC; infra). Grave III is an interment of the early Single Grave Culture, as indicated by the stone battle-axe and possibly also its ¹⁴C-date. The former is considered typical of phase 2 (c. 2750-2650 BC) in the fourfold subdivision of this culture (Drenth, 2005: 349; Lanting & Van der Plicht 1999/2000, 35; cf. Hübner, 2005, text volume: 727, fig. 496 & 503). The 1e type beaker from grave I is suggestive of a younger phase of the Single Grave Culture, to be more precisely phase 3 (c. 2650-2550 BC) or 4 (c. 2550-2400 BC). Lastly, grave VII is - because of the beaker it contained (Lanting, 2007/2008: 37-38; Beckerman, 2015: 163) - typical of the younger Bell Beaker Culture and must be dated somewhere between c. 2400-1900 BC.

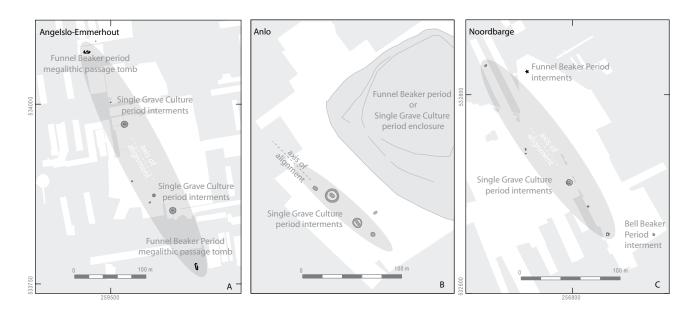


Fig. 10 – Single Grave Culture period alignments of interments at Angelslo-Emmerhout (A, after: Arnoldussen & Scheele, 2012: 157, fig. 3), Anlo (B, after Waterbolk, 1960: 62, fig. 20) and Noordbarge (C). A, B and C are not to the same scale.

Based on the position of the various graves (Fig. 2), the alignment of graves II, I and IV may have been extended in a southwards direction with graves V, VI and VII. Within this prior alignment, graves were presumably inserted later on, as was the case with grave II in the northern part. Moreover, it is noteworthy that both the oldest graves (FB 20/21) and the youngest one (VII) are slightly off-center to the main axis of the Single Grave Culture interments. Could this suggest that adherence to funerary alignments was predominantly important (and rigidly adhered to) during the Single Grave Culture period? This preoccupation with alignment has also been discussed by Bourgeois (2013: 191), who argues that during the Late Neolithic A, that is at the times of the Single Grave Culture, a remarkable concern with linearity is documented for several European communities. It is precisely in this phase that most barrow alignments originate (Bourgeois, 2013: 102; 168; 183), although some of these alignments continued to be expanded during the Bell Beaker Culture (op.cit: 102).

From the Drenthe area itself, several parallels to the Noordbarge alignment can be cited. At Angelslo-Emmerhout (Fig. 10-A), nine graves (amongst which one barrow) were constructed during the Single Grave Culture period (Arnoldussen & Scheele, 2012: 158, fig. 3). All but two of these graves can be interpreted as following an alignment possibly set already by the two Funnel Beaker Period megalithic passage graves (hunebed D46 and D47; op.cit: 157). Noteworthy for the Angelslo-Emmerhout case is that during the Bronze Age, this age-old alignment was revitalized, expanded and infilled with numerous new barrows (Arnoldussen & Scheele, 2012: 168, fig. 7). Its orientation may have been influenced/steered by the NNW-SSE orientation of the local micro-topography (op. cit: 154, fig. 1). Another example was found at Anlo (Fig. 10-B), where a Funnel Beaker period or, less likely, Single Grave Culture period triple enclosure was found, to the southwest of which a funerary alignment of the Single Grave Culture period could be identified (Waterbolk, 1960). Whilst some Funnel Beaker period sherds and pits were recovered at Anlo (op. cit: 83-84), funerary use of the site during the Funnel Beaker Culture period is unproven. According to Waterbolk (1960, 77) '...there cannot have been great difference in age between the different burials' - that contained both All Over-Corded as well as protruding Foot beakers - suggesting that their linear placement may have been an intentional act of referencing and strengthening an older axis of orientation. As was the case in Noordbarge, the orientation of the Single Grave Culture period interments at Anlo aligns with the orientation of the microtopographic landscape, with the graves cresting a small ridge (Waterbolk, 1960: 62, fig. 19).

5. A prehistoric route at Noordbarge?

Interpreting the linear configuration of the Noordbarge Single Grave period interments is complicated. The similarities to the alignments of Anlo and Angelslo-Emmerhout indicate that such alignments are more frequently observed for this period and reflect cultural behavior rather than stochastic linearity. Determining what steered this pattern, however, is more difficult. If graves were deliberately placed to append to and extend prior linear configurations, their locations needed to be disclosed either visually or through oral traditions. For Noordbarge, however, no sound evidence for mound bodies capping the Single Grave Culture interments is known. Some Single Grave Culture period interment are known to have been capped by low (40-70 cm) mounds (Modderman, 1954: 23-24; Bourgeois, 2011: 263, cf. Jager, 1985: 93). If the soil from the ditches around graves IV or V was used to construct a mound body, it could only have resulted in a very slight elevation. It may very well be that such low mound bodies provided sufficient visibility at their time, yet were disturbed by Medieval and subrecent agriculture (cf. Bourgeois, 2011: 262). Alternatively, small or non-earthfast funerary markers may have facilitated the construction of alignments, but no proof of such structures has ever been found. Conversely, as stated in the introduction (supra), most barrow alignments are interpreted as reflecting prehistoric pathways, with barrows being placed at roadsides. More recently, several scholars have stressed that the active engagement and movement along the axis of the funerary alignment in itself had a significance irrespective of whether such movement was bound to a pathway or not (e.g. Løvschal, 2013: 239; Bourgeois 2014: 190-192). In the words of Bourgeois (2013: 192): "The alignments were thus ultimately about movement along an axis. Whether or not this axis was then a road is a moot point. The intention was to create a succession of mortuary symbols when passing from one point to another".

Assuming that Single Grave Culture period funerary alignments were indeed about experiencing the conflation of genealogy, cosmology and ancestral values into local landscapes through linear motion, the uniform orientations of the Drenthe alignments (Fig. 10) merit explanation. If only linearity mattered, lines of interments may have been orientated at every random point of the compass. All three Drenthe alignments are however oriented more or less NW-SE, suggesting that orientation was not arbitrary. The fact that at all three sites the alignment is placed along (instead of, say, perpendicular to) the main gradient of the micro-topographic landscape, complicates rather than resolves matters. Had the alignments run at skewed angles to landscape gradients, one would more easily favour unknown or cosmological (e.g. solstice orientations; Bourgeois, 2013: 188-189) motives over practical ones (e.g. pathways along landscape gradients or following crests). The similarities in orientation of the Drenthe funerary alignments and their underlying micro-topographic landscape, suggests a mutual influence. Could it be that ancient transport and communication routes in the form of pathways along the landscape gradients were fossilized as funerary alignments during the Single Grave Culture period?

For Noordbarge, the orientation of the funerary alignment not only echoes that of its immediate vicinity, but also that of the Hondsrug morphology at the regional scale (Fig. 1-C). It is not far-fetched to assume that the large-scale morphology of this part of the Hondsrug could have steered the development of routes along it – in the same (NW-SE) direction. Tentatively, the routes suggested by Wieringa's (1958: 103, fig. 1) trackruts from Odoorn to Emmen could have branched-off towards a southern route passing

by Noordbarge and heading south to Erica (Fig. 1). Unfortunately, track-ruts cannot be dated precisely and tend to date mostly to the (post-)Mediaeval period. Interaction along this axis in the Funnel Beaker Culture period may nonetheless be postulated, as both areas (Noordbarge and Erica) were used for interment (and therefore, probably also habitation). At Erica - de Hankenberg, two funnel beakers have come to light, that supposedly originated from a flat grave (Van Giffen, 1948: 126; *cf.* Waterbolk, 1958: 7, fig. 2: nos. 10-11). Jager (1985: 185; 188, fig. 1) has claimed that barrow alignments between Eext and Anlo could suggest a 6 km long route across the Hondsrug, suggesting that such connections at the regional scale (*cf.* Kooi, 1979: 163; 180, fig. 167) are not unprecedented.

Moreover, assuming that routes were initially situated at physical-geographically sensible locations along gradients or on top of local elevations, they may have structured landscapes in the long term (cf. Jager, 1985: 192; Bourgeois, 2013: 111; 194; Løvschal, 2013: 243). It may thus be rather unsurprising, that also for later prehistoric periods at Noordbarge, roads are recognizable. For the Middle Bronze Age phase at Noordbarge (Fig. 11; Arnoldussen & Albers, 2015: 153, fig. 3) the orientation of two farmhouses dated tentatively to the final centuries of the Middle Bronze Age-B (i.e. 1300-1000 cal BC) is matched by that of several 'keyhole-shaped' barrows. Possibly, these were once connected by a pathway 30-40 m to the east of the Single Grave Culture period alignment, but following its orientation precisely. Alternatively, the orientation of keyhole-graves and Bronze Age houses may have been derived from the funerary alignment proper (without the need for an additional hypothesized eastern road). The presence of the eastern road, however, is suggested by the orientation of later Late Bronze Age/Early Iron Age 'longbed'-type barrows (Kooi, 1979: 16; 160). In the southwestern part of the

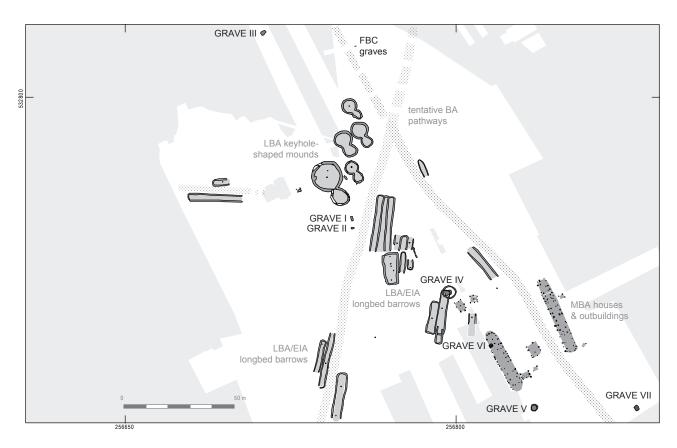


Fig. 11 – Locations of pathways suggested for Bronze Age Noordbarge, as suggested by the orientation of keyhole-shaped monuments, linear longbed-type barrows and the absence of funerary structures in large parts of the reconstructed pathway trajectories (after: Kooi, 1979, 15, fig. 8; 18, fig. 10; Harsema, 1997: 147, fig. 6; Arnoldussen & Albers, 2015: 155, fig. 4). BA = Bronze Age; EIA = Early Iron Age; LBA = Late Bronze Age; MBA = Middle Bronze Age.

Noordbarge excavations, barrows of this type cluster around a zone long left devoid of interment; another tentative road (Fig. 11; Kooi, 1979: 15, fig. 8; Arnoldussen & Albers, 2015, 155, fig. 4).

In conclusion, the conundrum of "Were the Noordbarge Neolithic graves placed next to a road?" versus "Did the micro-topography of the Noordbarge landscape determine the course of a local road which in later times steered the funerary alignment?" cannot be resolved, and may be a moot point altogether. The choice for a specific orientation was deliberate and markedly adhered to during new interment construction, regardless of whether this orientation was primarily derived from infrastructure such as paths or roads or whether it was landscape driven. The topographic position and orientation of the Noordbarge alignment is one that would correspond to connectivity logic, and follows the structure of the wider geogenetic landscape at the kilometer scale. If not itself derived from a pre-existing pathway, the Noordbarge Neolithic funerary alignment may have inspired later ones. The orientation of Bronze Age houses and funerary monuments (a millennium later!) closely parallels that of its ancient forerunner. In the Late Bronze Age, open areas in the Noordbarge urnfield indicate that the road structure diversified, but it still echoes the movements of 17 centuries ago.

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Abstract

The present contribution argues that during excavations at Noordbarge-Hoge Loo in the SE of the province of Drenthe (The Netherlands) a cluster of Single Grave Culture period graves was uncovered whose linear placement suggests the presence and orientation of a prehistoric road. Such funerary alignments are also known from two other sites in Drenthe. Possibly, older Funnel Beaker Culture period interments may have steered the location and orientation of such alignments. The axis of orientation of the Neolithic graves at Noordbarge may have been preserved in the long term, as later Bronze Age houses and keyhole-shaped barrow share its orientation.

Keywords: Neolithic, cemeteries, alignments, prehistoric routes, province of Drenthe, The Netherlands.

Samenvatting

In deze bijdrage wordt betoogd dat het lijnvormige karakter van een groep graven van de Enkelgrafcultuur gevonden te Noordbarge-Hoge Loo (in het zuidwesten van de provincie Drenthe, Nederland) wijst op de locatie en oriëntatie van een prehistorische weg of route. Van twee andere Drentse vindplaatsen zijn eendere grafgroepen bekend. Mogelijk vormden graven van de Trechterbekercultuur de ankerpunten voor de plaats en oriëntatie van zulke grafrijen. Mogelijk bleef deze oriëntatie lang herleidbaar in het landschap, aangezien huizen en sleutelgatvormige grafmonumenten uit de bronstijd te Noordbarge dezelfde oriëntatie kenden.

Trefwoorden: Neolithicum, grafvelden, grafrijen, prehistorische wegen, Drenthe, Nederland.

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